

## Guidance on Governance Models for Host Country Engagement in Article 6

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#### **1** Introduction

The purpose of this document is to provide guidance to policy makers in potential host countries engaging in transfers of mitigation outcomes under Article 6 of the Paris Agreement.<sup>1</sup> The guidance also clarifies how some key aspects of the rules for Article 6 will work, the strategic policy decisions that host countries will need to make, and the key institutional arrangements that will be required – including arrangements for the authorization, transfer and tracking of internationally transferred mitigation outcomes (ITMOs) under Article 6.

This guidance is organized into four parts:

- Part I, this part, provides background information, including the scope and structure of this guidance document.
- Part II introduces the key policy and strategic decisions that host countries must make and indicates how they may choose to set up an overall Article 6 engagement strategy.
- Part III presents options for the institutional arrangements in the host country that are needed to execute these policy and strategic decisions. This includes the reporting requirements related to Article 6 activity and the achievement of the host country's nationally determined contribution (NDC) goals.
- Part IV provides a list of additional resources and clarifies terms and definitions.

<sup>&</sup>lt;sup>1</sup> The guidebook reflects the current "Paris rulebook" as of October 2022. This includes the "Article 6.2 guidance", which is the "Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement" (Decision 2/CMA.3); the "Article 6.4 rules", which are the "Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement" (Decision 2.CMA.3) (both at https://unfccc.int/sites/default/files/resource/cma2021\_10a01E.pdf); the modalities, procedures and guidelines (MPGs) for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (Decision 18/CMA.1, https://unfccc.int/sites/default/files/resource/CMA2018\_03a02E.pdf); the information to facilitate clarity, transparency and understanding (ICTU) of NDCs (Decision 4/CMA.1 https://unfccc.int/sites/default/files/resource/cma2018\_03a01E.pdf); and the NDC accounting guidance (also in Decision 4/CMA.1).



#### 2 Scope and focus of this guidance

This section explains the scope and focus of this guidance document.

- Scope of term "mitigation outcomes" and ITMOs. This guidance uses the term "mitigation outcomes" to refer to any emission reductions or emission removals. When and if these outcomes are transferred, they become ITMOs, regardless of the destination of those transfers. In other words, ITMOs are mitigation outcomes transferred for the purpose of NDC compliance through voluntary cooperation under Article 6, or for other international mitigation purposes (e.g., under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), or for other purposes (e.g., in voluntary carbon markets).
- Non-AFOLU sectors. The guidance does not specifically address the AFOLU (agriculture, forestry and other land use) sector, even though Article 6.2 and Article 6.4 will include these activities.
- Greenhouse gas (GHG) metrics. This guidance focuses on transactions of ITMOs accounted for in tons of carbon dioxide equivalent (tCO<sub>2</sub>eq) and excludes transactions accounted for in non-GHG metrics, including policies, measures, and qualitative NDC targets. This is because ITMOs in other metrics, while allowed under the Article 6.2 guidance, may lead to an increase or decrease in aggregate emissions from the cooperative approach (see chapter 5.8 of Schneider et al. 2017). In addition, all existing carbon market mechanisms use tCO<sub>2</sub>eq as their metric, as does the Article 6.4 mechanism. Moreover, all countries intending to buy carbon market units have targets expressed in GHG emissions metrics.
- ITMO registries. Reference to registries for the tracking of transfers in GHG metrics is covered by this guidance, but not non-GHG metric-specific registries.
- Transfers for NDC compliance. This guidance focuses mainly on ITMO transfers for the purpose of NDC compliance, while the implications of transfers for other international mitigation purposes (e.g., CORSIA, voluntary markets, etc.) will be similar in terms of host country NDC compliance.
- New mitigation activities. This report focuses on new mitigation activities under Article 6.2 (i.e., starting in 2021 or later), although projects transitioned from the Clean Development Mechanism (CDM) and potential transactions based on mitigation outcomes generated under Article 6.4 are briefly discussed.
- Article 6.2 and Article 6.4. This guidance focuses on Article 6.2 cooperative approaches, although Article 6.4 issues are noted where relevant (see Annex A for more detail).

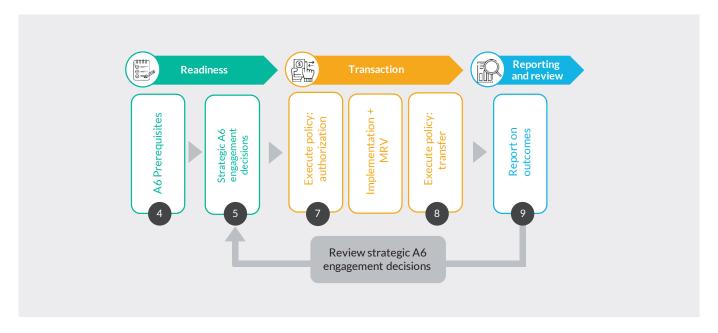
#### 3 Structure of this document in relation to Article 6 governance

The structure and content of this guidance are organized around the key phases and elements of Article 6 engagement from the host country perspective.

Article 6 engagement from the host country point of view can be thought of as including readiness, transactions and reporting/review (Figure 1).

#### PART | Background information

Figure 1. Overview of major phases in Article 6 engagement



Note: Numbers in black circles are section numbers in this guidance document Source: authors

These phases include the following elements:

- Meet A6 prerequisites (section 4): Prerequisites include all the steps a country needs to prepare for ITMO authorization and transfer. For example, this would include the process for communicating and maintaining its NDC, clarifying the scope of the NDC, quantifying the NDC in tCO<sub>2</sub>eq (or providing a methodology to do so), selecting indicators for reporting progress towards the NDC, and other relevant requirements. Establishing institutional arrangements (section 6) is also part of these requirements.
- Make strategic Article 6 engagement decisions (section 5): Readiness should also include an overall Article 6 and NDC compliance strategy that would guide and facilitate later decisions on ITMO authorization and transfer. While this is not required by the rules, it is essential for providing a clear basis for authorization and transfer decisions so that they support NDC achievement and do not create a risk of "overselling" mitigation outcomes.
- Execute policy decisions for specific mitigation activities ITMO authorization (section 7): This would be the execution of the Article 6 and NDC compliance strategy and would potentially be a more administrative process. This could include not only the process for authorizing mitigation outcomes but also a step for mitigation activity approval, even though the Article 6.2 rules do not require mitigation activity approvals. A mitigation activity approval process would provide mitigation activity proponents with an early signal that mitigation outcomes expected to be generated by their mitigation activities can be internationally transferred and used for Article 6 purposes. The government might also implement specific criteria for authorization from the Article 6 and NDC compliance strategy.
- Implementation and monitoring, reporting, and verification (MRV): The mitigation activity proponent would implement the mitigation activity and then monitor the results. The reported mitigation outcomes would then be verified by a third-party auditor. Because this step would be the responsibility of the mitigation activity proponent and auditors, not the government, it is not further discussed in this guidance.
- Execute policy decisions for specific mitigation activities ITMO transfers and tracking (section 8): This would include mainly registry management by the host country. This would execute earlier decisions on who manages the national registry (if the Party uses a national registry instead of or in addition to any international one) and what details are recorded for each ITMO (e.g., authorization, first transfer, transfer, cancellation, use toward NDC).



- Report on outcomes (section 9): This would cover the reporting of all information related to Article 6 engagement and NDC accounting (i.e., transfers, corresponding adjustments, comparing the country's GHG adjusted emissions to the NDC goals, etc.) and how this is communicated in the formal initial, annual and biennial reporting required under Article 6 and Article 13 rules.
- Review strategic Article 6 engagement decisions: Following NDC accounting and reporting on progress, there could
  be a feedback loop to ITMO authorization, where, if the country was not on track to meet its NDC pledges, this could
  affect future authorizations of ITMOs.

Although Figure 1 shows a process mainly from readiness through to reporting and review, in practice these phases may be revisited periodically throughout the NDC cycle. Figure 2 shows the timeline of these major phases of Article 6 engagement by the host country government, without the implementation and MRV phrases that are mainly the activity proponent's responsibility. Even though a country might meet the prerequisites and make strategic decisions early in the cycle, the prerequisites should be fulfilled on an ongoing basis throughout the NDC period, and the strategic decisions may be reviewed periodically on the basis of the outcomes reported in the biennial transparency report (BTR). The execution of policy decisions for specific mitigation activities will also occur continuously, while the reporting on those outcomes (e.g., authorization and transfers) will occur annually.

**Readiness** Reporting and review NDC 2020 Initial report 2024 Initial decision NDC 2025 Review Review / revise 2026 Τ Review / revise 2028 Review Т 2030 NDC. BTR Participation Strategic A6 **Execute policy** Annual requirements engagement decisions specifc projects

Figure 2. Timeline of major phases of Article 6 engagement

Source: authors



#### 4 Article 6 prerequisites

Host countries will need to fulfill certain prerequisites for Article 6 on an ongoing basis. The key requirements are to have the adequate institutional arrangements in place to authorize and track ITMOs and to have demonstrated commitment to the Paris Agreement by ensuring that their submissions to the UNFCCC are up to date and aligned with long-term goals. Prerequisites for engaging in cooperative activity under Article 6.2 include the following:

- Participating in the Paris Agreement and maintaining an NDC (Section 4.1.1)
- Providing the most recent national inventory report (Section 4.1.2)
- Establishing institutional arrangements for authorization and transfer (introduced in Sections 4.1.3 and 4.1.4, with detailed explanation in Section 6)
- Choosing an ITMO metric (Section 4.2.1)
- Describing and quantifying the NDC (Section 4.2.2)
- Defining an accounting approach for single year and multi-year targets (Section 4.2.3)
- Choosing registry infrastructure for tracking ITMOs (Section 4.3.1).

This section explains the prerequisites that host countries will need to fulfill to transact ITMOs. These prerequisites come from several places in the Article 6.2 guidance, including the "participation requirements", the requirements for an "initial report" on Article 6 action, and the requirements for "tracking and reporting" ITMOs (Figure 3).



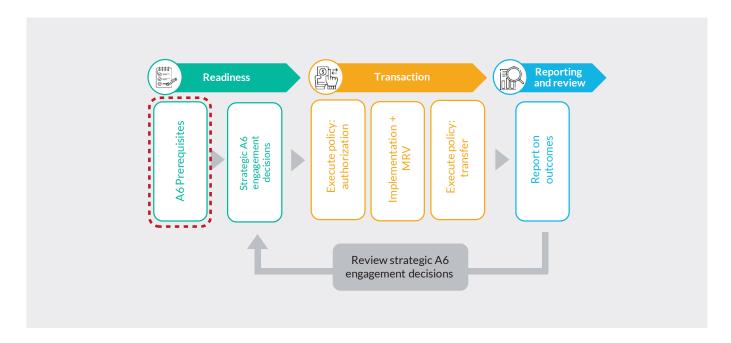


Figure 3. Article 6 prerequisites from different parts of the Article 6.2 guidance



Source: authors

#### Participation requirements for Article 6

The specific participation requirements for Article 6.2 are discussed here, noting that there is some flexibility allowed for least developed countries (LDCs) and small island developing states (SIDS). Parties will also have to make certain decisions that must be communicated later in the process, as they prepare to report on NDC progress. These issues are covered in the reporting requirement section of this guidance (section 9).

#### Participating in the Paris Agreement and maintaining an NDC

To participate in Article 6 of the Paris Agreement, a country needs to be a Party to the Paris Agreement and must have prepared, communicated and maintained an NDC.<sup>2</sup> Parties' NDCs may be found on the United Nations Framework

<sup>&</sup>lt;sup>2</sup> Paragraphs 4a and 4b of the Article 6.2 guidance.

#### Guidance on Article 6 policy and administrative decisions

Convention on Climate Change's (UNFCCC) NDC registry.<sup>3</sup>

Least developed countries and small island developing states

The Article 6.2 guidance recognizes the special circumstances of the LDCs and SIDS pursuant to Article 4.6 and offers flexibility for countries that determine that they require it. <sup>4</sup> This pertains mainly to any NDC-related requirements, but the details of how this flexibility would be requested, the time for which it would be requests, and specifically how this would affect Article 6 reporting is still under discussion.

**Action** 

Host countries should ensure that their current NDC is uploaded to the NDC registry.

#### Providing the most recent national inventory report

The Article 6.2 guidance also requires that a country provides the most recent national GHG inventory report as per the decision on the Article 13 enhanced transparency framework, which requires annual GHG inventories. This inventory report should therefore follow the guidelines of the modalities, procedures and guidelines (MPGs) - in other words, the same inventory reporting requirements as for the BTRs required by the Article 13 enhanced transparency framework.

Action

The host country should publish an annual national GHG inventory report using the new Article 13 guidelines.

#### Having institutional arrangements in place for authorizing the use of ITMOs

Host countries must establish institutional arrangements and processes for authorizing mitigation outcomes for use as ITMOs. Importantly, these decisions would define which body, official or position would have the authority to authorize and transfer ITMOs. These arrangements must be reported to the UNFCCC. While these decisions will be made upfront in the Article 6 readiness phase, the explanations of the different roles, functions and bodies are discussed alongside the presentation of Article 6 processes. Section 6 presents the range of functions and bodies, while sections 7, 8 and 9 explain the options for these bodies to support ITMO authorization, transfers and reporting/ accounting.

Action

The host country must develop a proposal for which institutions - both within and outside government - will take responsibility for specific Article 6 functions. The options and requirements for institutional roles are explained in section 6.

#### Having arrangements in place for tracking ITMOs

Tracking the transfer and use of ITMOs requires registry systems - electronic databases that identify and track the status and ownership of ITMOs. The Article 6.2 guidance says that the UNFCCC will create an international registry for Article 6. Countries should have access to a registry; for this they could choose to use the UNFCCC international registry platform, create their own national registry, or use the registry of an existing independent or international crediting program.<sup>8</sup> The host country should report these arrangements to the UNFCCC. For the decision on registry types, see section 4.3.1.

Action

The host country must develop a proposal for what type of arrangements it will make for registries to track ITMOs. The options and requirements for this are explained in section 4.3.1.

https://unfccc.int/NDCREG

Paragraph 5 reads: "In relation to the least developed countries and small island developing States...their special circumstances shall be recognized where this guidance relates to NDCs, and other aspects of their special circumstances may be recognized in further decisions of the CMA relating to this guidance."

Decision 18/CMA.1.

Paragraph 4c of the Article 6.2 guidance. Paragraphs 29-31 of the Article 6.2 guidance.

Independent crediting program" refers to crediting programs that are not managed by governments, such as the Verified Carbon Standard (VCS), Gold Standard, and Climate Action Reserve (CAR). "International crediting programs" run by governments would include the CDM, Joint Implementation (JI) and even potentially the systems created for Article 6.4.



#### Requirements from Article 6 initial report

This section explains the Article 6 prerequisites that are part of the initial report that host countries must submit once they choose to engage in Article 6 cooperative activities. The initial report should be submitted "no later than authorization of ITMOs ... or where practical ... in conjunction with the next biennial transparency report" (See section 9).

#### **Choosing an ITMO unit**

As previously mentioned, Article 6.2 rules also allow transactions to be accounted for in non-GHG metrics, and also cover policies, measures, and qualitative NDC targets. Therefore, host countries need to choose and communicate the metrics to be used for measuring ITMOs. This guidance considers only mitigation outcomes expressed in GHG emissions.

#### Decision

Host countries should specify the metrics in which ITMOs will be authorized and transferred. Those could include units of  $tCO_2$ eq or other non-GHG metrics, which could also include the impacts of include policies, measures or qualitative targets.

#### Describing and quantifying the NDC

This section provides an overview of the requirements in the Article 6.2 guidance to quantify the goals a host country has set in its NDC. Annex B provides more detail on this process. As previously mentioned, double counting  $^{10}$  of mitigation outcomes is avoided by establishing an emissions balance, referred to as a "structured summary",  $^{11}$  in which Parties apply "corresponding adjustments" to their emissions level. Establishing such an emissions balance requires that either countries clearly define which emission sources and GHGs are covered by their NDC and that their NDC is quantified in GHG emission terms (i.e., in tCO2eq), or provide a methodology to do so.  $^{12}$  The Katowice decisions and the Article 6.2 guidance further specify how the scope and target level of NDCs should be clarified.  $^{13}$ 

Some NDCs include only a GHG emissions target that is already clearly defined. In this case, no further action may be required by the country. Some NDCs, however, include non-quantified actions, such as policies and measures and/or targets in other metrics (e.g., renewable energy targets). In some cases, the coverage of GHG emissions targets and the accounting approaches for the land use, land-use change, and forestry (LULUCF) sector may not be entirely clear in an existing NDC. In addition, some countries have expressed their targets as a percentage reduction versus business as usual (BAU), so the quantified level of the BAU scenario and the NDC target would need to be presented. Countries wishing to engage in Article 6 therefore need to check whether their NDC is already clearly quantified in  $tCO_2$ eq and, where is it not, communicate the methodology used to calculate the equivalencies. An overview of the key steps is provided below.

#### Step 1. Clarification of the NDC scope

 Host countries should clarify the coverage of their NDC goals in terms of the gases, emissions sources and sinks, and implementation period. They should also clarify which global warming potentials they used to calculate CO<sub>2</sub> equivalencies – from the 5<sup>th</sup> IPCC Assessment Report, as required by the MPGs – to match the values used for national GHG inventories.

#### Step 2. Defining the relevant indicator(s) for tracking progress towards the NDC

The NDCs communicated by Parties to the Paris Agreement include a wide range of targets and actions, as
determined by each country. As part of reporting progress towards the NDC pledges, countries must select
specific indicators for tracking progress towards the targets or actions.<sup>14</sup> Progress might be measured by the

Paragraph 18c of the Article 6.2 guidance.

Double counting refers, in this case, to more than one country claiming the emission reductions towards their NDC goal.

Paragraph 77d(i) of the MPGs, paragraph 8 of the Article 6.2 guidance and paragraph 9 for the "annual adjusted" indicators.

<sup>&</sup>lt;sup>2</sup> Paragraph 18d of the Article 6.2 guidance.

 $<sup>^3</sup>$  Paragraph 18b of the Article 6.2 guidance which refers to paragraph 64 of the MPGs; paragraphs 1 to 3 of the ICTU guidance.

<sup>&</sup>lt;sup>14</sup> Paragraph 65 and 66 of the MPGs

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emissions covered by the NDC but could also include the percentage reduction in GHG intensity, or qualitative indicators for a policy or measure, or other mitigation-related actions.

#### Step 3. Quantifying the NDC in tCO2eq metrics

- The Article 6.2 guidance requires that countries quantify the NDC in tCO₂eq or provide a methodology to quantify NDC targets expressed in non-GHG metrics. The action needed depends on the type of targets or actions included in the current NDC: absolute GHG emission targets, GHG emission intensity targets, targets in non-GHG metrics or multiple, overlapping targets.
- The quantification and description of the NDC should include relevant quantitative information, including a quantification of the emissions in the reference year (e.g., historical reference year, or BAU emissions projection), a quantification of the reductions level (e.g., the percentage reduction), and relevant information sources and assumptions used. 15

Further details regarding the quantification of NDCs are provided in Annex B.

#### Action

The host country must quantify its NDC in units of tCO<sub>2</sub>e or provide a methodology to quantify NDC targets expressed in non-GHG metrics. More detail on this is provided in Annex B.

#### Defining the accounting approach in relation to single-year and multi-year targets

Many countries set single-year targets in their NDC (e.g., a target for 2030) but will be implementing mitigation activities and transferring ITMOs throughout the NDC period (i.e., 2021–2030). The Article 6.2 guidance provide two options for how countries with single-year targets may apply corresponding adjustments, and countries must communicate which method they will use in their initial report. <sup>16</sup> This approach must then be applied consistently throughout an NDC implementation period.<sup>17</sup>

A country with a single-year target can choose between two options:<sup>18</sup>

- Multi-year accounting, i.e., establishing a multi-year emissions trajectory or budget for the NDC implementation period, as described above for multi-year targets.
- Averaging, i.e., determining the average annual amount of ITMOs first transferred and used over the NDC implementation period and applying the average values to the reported emissions in the target year.

The implications of these two approaches are discussed in Annex C, including the risk that averaging could actually risk increasing global emissions compared to a scenario with no trading.

#### Decision

#### Definition of accounting approach

Countries with multi-year targets must determine a multi-year emissions trajectory or budget for the NDC implementation period that is consistent with the NDC

Countries with single-year targets must choose between the multi-year accounting or averaging approaches

#### Requirements from Article 6 tracking and reporting

The section presents the prerequisites that come from the Article 6.2 guidance section on "recording and tracking".

See also paragraph 1 of the ICTU guidance.

Paragraph 18c of the Article 6.2 guidance.
Paragraphs 8 and 18c of the Article 6.2 guidance.

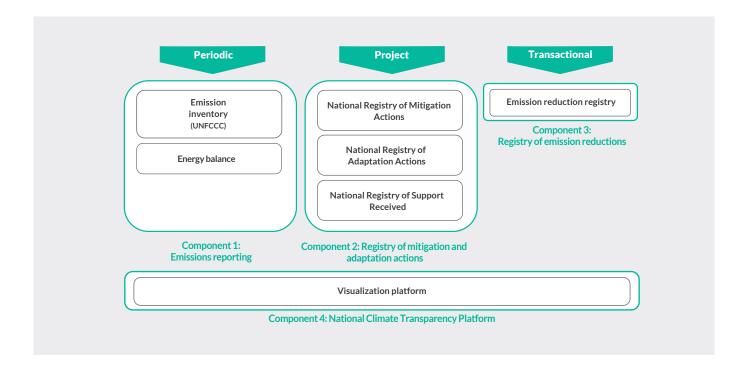
Paragraph 18a of the Article 6.2 guidance.



#### Choosing a registry for tracking transfers

The electronic infrastructure used for tracking will differ from country to country but may include a "project register" (i.e., a database and reporting tool for mitigation projects) and a "transaction registry" (i.e., a record of transactions of mitigation outcomes). This infrastructure may also be integrated with other international reporting infrastructure which, although not required by the Article 6 rules, is relevant to the enhanced transparency framework of the Paris Agreement. These different registers may also need to be linked with existing GHG monitoring and reporting infrastructure such as that used for GHG emission inventory reporting. The overall framework may also include registries for domestic carbon pricing instruments (e.g., an emission trading system) to serve as the country's MRV framework. A generic example of such an MRV framework is presented in Figure 4, for illustrative purposes only.

Figure 4. Illustration of the components of an overall framework for national reporting under the Paris Agreement



For Article 6 activities, countries will need to decide which registry to use: either an existing independent crediting mechanism's registry, the new registry to be provided by the UNFCCC, or their own national registry. Because few potential host countries have their own registries, some market actors - including development banks, registry providers and donor-funded capacity building initiatives – are working to develop tools that can be easily adapted to host country needs. Examples include support from the Partnership for Market Implementation (successor to the Partnership for Market Readiness), 19 UNDP's work on Article 6 infrastructure, 20 the World Bank's Climate Warehouse, <sup>21</sup> and IHS Markit's development of a "carbon meta-registry". <sup>22</sup>

Registry systems for transaction tracking come in many forms, from the most basic spreadsheet residing on an individual computer, to a cloud-based system with multiple users, access levels and security. The needs of each country will vary but, at a minimum, the Article 6 registry must be able to store, track and report on all the required information on authorization and transfer of ITMOs that will be included in the Article 6 annual information and BTR (see section 9). The country must also decide the institutional arrangements for the registry. Delegating the same body to maintain the registry and administer other Article 6 functions (see section 6) would potentially enhance the efficiency and effectiveness of the overall Article 6 system in the host country. The Partnership for Market Readiness's comprehensive guidance on developing emission trading registries<sup>23</sup> also provides further details on technical and functional options for registries.

https://pmiclimate.org/

https://pmiclimate.org/publication/developing-article-6-infrastructure-undp-carbon-cooperation-platform-national https://www.theclimatewarehouse.org/work/climate-warehouse

https://metaregistry.ihsmarkit.com/

<sup>&</sup>lt;sup>13</sup> https://pmiclimate.org/index.php/publication/emissions-trading-registries-guidance-regulation-development-and-administration

Decision	
	Host countries should decide whether to use:
	<ul> <li>The international registry for Article 6 provided by the UNFCCC (when this is available)</li> <li>A national registry for tracking ITMO authorizations and transfers, as well as potentially the underlying mitigation activities used to generate the emissions reductions</li> <li>A third-party registry managed by, for example, an existing independent crediting program or a multilateral development bank</li> </ul>
	<ul> <li>In case a country chooses a national registry, the country must decide:</li> <li>Whether to include a mitigation activity database along with the essential ITMO tracking functions</li> <li>What type of IT architecture and functionality to use for the registry (e.g., whether to use cloud-based systems)</li> <li>Which domestic institutions will oversee the implementation and maintenance of the registry</li> </ul>

#### 5 Strategic Article 6 engagement decisions

Host countries must decide on the criteria they will use for authorizing ITMOs and transitioning CDM projects to Article 6.4, as well as other strategic decisions for host countries approving Article 6 activities. These include the following:

- Incorporating a strategy to comply with and enhance the NDC into the basis for ITMO authorization (5.1)
- Defining additional criteria for ITMO authorization and transfer (5.2)
- Deciding which CDM projects to transition to the Article 6.4 mechanism (5.3)
- Deciding on the timing of authorization (5.4)
- Deciding on which uses of mitigation outcomes may be authorized (5.5)
- Deciding whether and how a host country may be a party in transactions (5.6)
- Defining the approach for contribution to adaptation and overall mitigation of global emissions (5.7)

While the previous section covers the minimum requirements for the host country's participation in Article 6, it does not address a more fundamental question: on what basis should the country decide whether or not to authorize ITMO transfers? To answer this question, the country needs to consider what types of mitigation activities can be used as the basis for ITMO transfers without compromising the country's ability to meet its NDC pledge. For example, the host country may not want to transfer ITMOs based on mitigation activities with very low abatement costs if this would require it to implement more expensive mitigation activities to still meet its NDC pledge. On the other hand, the country may want to start pilot activities for Article 6 as soon as possible, so could explore other options to avoid overselling, even while starting with early transactions. Host countries may choose to take a strategic approach to Article 6 engagement, by developing a strategy that can inform the criteria for authorization and transfers. This would also include decisions on the transition of CDM projects to the Article 6.4 mechanism. This section is organized around strategic engagement decisions, with the most important being the NDC compliance strategy, criteria for authorization and transfer and transition of CDM projects (Figure 5).



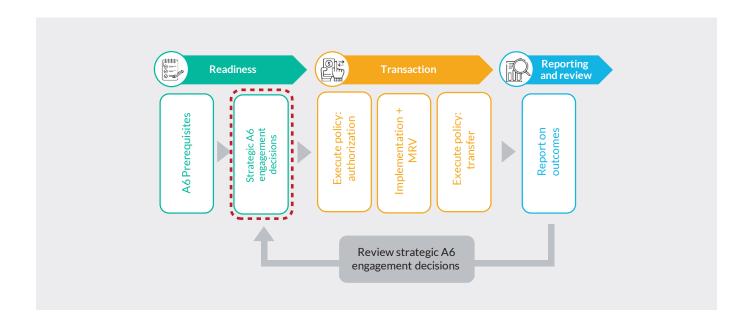
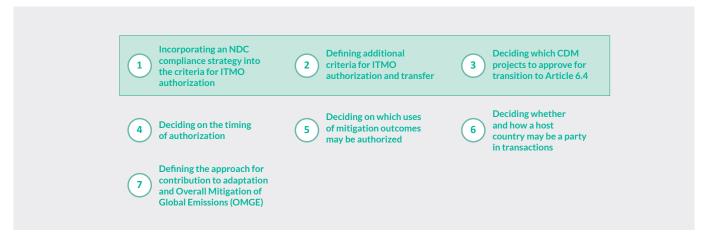


Figure 5. Strategic Article 6 engagement decisions



Source: authors

#### Incorporating NDC compliance strategy into criteria for ITMO authorization

The Paris Agreement introduces fundamental differences for engaging in international market mechanisms compared to the Kyoto Protocol. First, under the Paris Agreement, all countries have mitigation pledges, whereas in the Kyoto Protocol only the industrialized countries had quantified emission reduction commitments. As discussed earlier, the Paris Agreement requires Parties to avoid the double counting of mitigation outcomes. To do this, countries must apply "corresponding adjustments" to their emissions balance or other indicators used to track NDC progress. Avoiding double counting is an essential component of all cooperative approaches.

A major concern of prospective host countries under Article 6 is the risk that participation in cooperative approaches could compromise achieving their NDC, due to "overselling" mitigation outcomes. This is not in the interest of acquiring countries either, both because this risk could undermine global ambition and because the perception of risk might reduce transferring countries' willingness to trade and to commit to corresponding adjustments. In addition, acquiring countries bear a reputational risk if Article 6 voluntary cooperation results in the host country failing to achieve its NDC. More broadly, all Parties to the Paris Agreement share the responsibility to meet the ambitious goals of the Agreement, and none would want to take actions that could jeopardize that collective goal.

#### Guidance on Article 6 policy and administrative decisions

The issue of overselling risk is complex because it involves several different types of risks, which will require different policy responses. One of the most important is selling low-cost mitigation outcomes, which could compromise NDC achievement if remaining mitigation opportunities turn out to be too expensive (i.e., selling "low-hanging fruit").

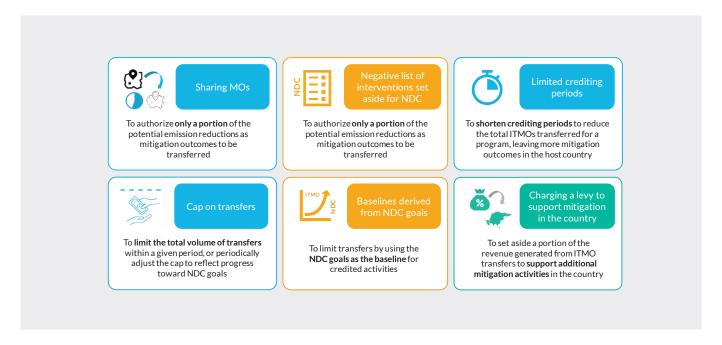
Second, the Paris Agreement requires that cooperative approaches under Article 6 should help countries to enhance their ambition. Unlike with the Kyoto Protocol, international market mechanisms are not primarily aimed at providing flexibility to countries in achieving their mitigation goals; the engagement should rather help ratchet up their ambition over time. Countries thus need to implement strategies that ensure that this goal of Article 6 is achieved.

Research (Spalding-Fecher et al. 2020; New Climate Institute 2018; Howard 2018; Fuessler et al. 2019) presents a number of strategies for managing the overselling risk and facilitating the enhancement of the ambition of NDCs. These are not mutually exclusive and can be grouped in three broad themes:

- Ensuring that activities that the country intends to use for the NDC are not part of the mitigation activities used for Article 6 cooperation
- Not transferring all of the mitigation outcomes that are generated from cooperative mitigation actions
- Implementing pricing strategies that create a pool of funds to invest in additional mitigation if necessary

Some more specific examples that could be incorporated into the basis for ITMO authorization are illustrated in Figure 6 and explained in more detail below:

Figure 6. Options for reducing the risks of overselling



Note: Blue = quantitative restrictions; orange = qualitative restrictions; green = pricing options Source: Adapted from Spalding-Fecher et al. (2020)

• Sharing mitigation outcomes: A host country could choose to share the mitigation outcomes generated by a cooperative activity by authorizing only a portion of the potential mitigation outcomes to be transferred. When an activity proponent requested authorization in this case, they would need to present an analysis of the full emissions reductions that would be achieved by the cooperation mitigation activity. The host country authority would then authorize only some portion of these potential reductions as ITMOs. The remainder of the mitigation outcomes could then be used by the host country to achieve its NDC or to enhance the ambition of its NDC.



- Negative list of interventions set aside for NDC: Where a host country has identified a set of mitigation interventions that are the best strategy for meeting its NDC, these mitigation interventions might be on a "negative list" (i.e., they could not be used as part of Article 6 cooperation). This would be to ensure that the host country did not have to replace these with higher-cost actions if these mitigation interventions were to be used as the basis for transfers under Article 6 and therefore be subject to corresponding adjustments. Countries could also ensure that any activities that have low costs or are accessible within the country are excluded, as these measures may be used by the country to enhance the ambition of its current NDC.
- Limited crediting periods: Long crediting periods (i.e., longer periods during which mitigation outcomes are generated and internationally transferred) could contribute to a higher risk for the host country with regard to meeting its future NDCs, given that the Paris Agreement requires countries to increase ambition and widen the scope of their NDC over time. Having shorter crediting periods can limit the number of years during which a host country would sell its mitigation outcomes from a given cooperative program and would allow it to use them earlier for the achievement of its subsequent – and in the meantime more ambitious – NDC.<sup>24</sup>
- Absolute cap on authorizations: Similar to limiting crediting periods or sharing mitigation outcomes, the country could set an absolute cap (e.g., X mtCO<sub>2</sub>) on the quantity of ITMOs that could be authorized for a given proposed mitigation activity, for the sector, or for the entire country. The amount for a given mitigation activity might be much less than the expected emission reductions that could be achieved. The cap would limit the country's exposure to transfers with greater certainty than sharing mitigation outcomes or limited crediting periods, although it might also reduce investor interest in the activities.
- Baselines derived from NDC goals: Mitigation outcomes will be calculated by comparing the mitigation activity emissions to so-called "baseline emissions". One option to ensure that the mitigation outcomes used as the basis for transfers do not compromise NDC achievement, therefore, is to incorporate NDC targets into the baseline. This is to ensure that only the mitigation activities that go further than the interventions identified for the NDC goal would be eligible for crediting. Traditional baseline-setting approaches (e.g., for the CDM under the Kyoto Protocol) did not consider the impact of new climate change mitigation policies, whereas now the policies that transferring countries are implementing to achieve their own NDC goals should be considered.
- Charging a levy to support mitigation in the country: Where an activity proponent applies to a host country government for authorization of mitigation outcomes for transfer, the government could agree to charge a levy to support additional mitigation activities in the country, or possibly ITMO acquisitions, in the event that the country risked missing its NDC goal. The levy would be charged on transfer of each ITMO - essentially to capture some of the "opportunity cost" of transferring ITMOs and implementing corresponding adjustments. Revenue from this levy would then be directed towards a dedicated fund that could invest in more domestic mitigation. If the government were the activity proponent (e.g., for a policy-based crediting program or a sector-wide crediting program) this would be the same as setting the ITMO price high enough to cover the cost of replacing the mitigation outcomes that were transferred with new domestic mitigation actions. In other words, the pricing would be related to the cost of the "marginal" mitigation action – the next activity beyond the current plan for NDC implementation.

In addition, there could be specific considerations for countries that do not yet have economy-wide NDCs. For those countries, it would be important to only allow ITMO transfers from within the scope of their NDC.<sup>25</sup> To ensure an efficient and timely process for ITMO authorization and transfer, NDC compliance strategies should be expressed in objective criteria that may be used during the process of authorization. In other words, the body that is mandated to authorize ITMOs should have a clear set of requirements to use to evaluate requests for authorization, which ideally do not require extensive or ad-hoc input from various authorities at the time of authorization.

The Article 6.4 mechanism will already have shorter crediting periods than the CDM. The two options are for a five-year crediting period, renewable twice (i.e., total of 15 years) or a fixed ten-year

crediting period. Under both the Article 6.4 rules and Article 6.2 guidance, the host country may propose shorter crediting periods.

This is because these transfers would require corresponding adjustments but would not lead to any emission reductions within the scope of the NDC. The corresponding adjustment would therefore increase the country's "emissions balance" and move it further from its NDC goal

#### Guidance on Article 6 policy and administrative decisions

Decision	Host countries should develop an NDC compliance strategy, elements of which can be reflected in objective criteria for authorization. This could include a number of approaches, such as:
	<ul> <li>□ Sharing mitigation outcomes</li> <li>□ Negative list of interventions set aside for NDC</li> </ul>
	☐ Limited crediting periods
	<ul><li>☐ Absolute cap on authorizations</li><li>☐ Baselines derived from NDC goals</li></ul>
	☐ Charging a levy to support mitigation in the country

#### Defining additional criteria for ITMO authorization and transfer

Host countries may choose to include additional criteria for ITMO authorization and transfer, where this is necessary to ensure that the mitigation activity is in line with the principles for Article 6, national regulatory and legal requirements, and the country's overall climate and development policies and strategies.

Criteria related to general principles for Article 6 might include, at a minimum, that the mitigation activities demonstrate the following:

- Promote sustainable development<sup>26</sup>
- Contribute to the implementation of the host country NDC<sup>27</sup>
- Ensure environmental integrity,<sup>28</sup> such as ensuring additionality, conservative quantification of mitigation outcomes, and non-permanence<sup>29</sup>
- Avoid double counting,<sup>30</sup> in particular double issuance and double use. Note that double claiming is addressed through the application of corresponding adjustments by both countries<sup>31</sup>
- Requirement for independent verification<sup>32</sup>
- Mitigation outcomes generated in respect of or representing mitigation from 2021 onwards<sup>33</sup>
- Result in a contribution to adaption financing<sup>34</sup>
- Contribute to overall mitigation in global emissions<sup>35</sup>
- Ensure respect of human rights<sup>36</sup>
- Criteria related to national priorities could include the following:
- Alignment with relevant national and sectoral policies and strategies
- Preventing negative social and environmental impacts
- Compliance with anti-corruption laws and conventions
- Compliance with other local regulatory requirements relevant to the mitigation activity type (e.g., environmental impact assessment, technical standards)

#### Decision

Host countries should decide whether additional criteria for ITMO authorization and transfer (i.e., beyond those derived by the NDC compliance strategy) are needed.

Paragraph 22a of the Article 6.2 guidance.

Paragraph 22a of the A

Paragraph 22b of the Article 6.2 guidance.
Double counting means that the same emission reductions are counted more than once towards mitigation goals. This includes double issuance (i.e., more than one unit issued for the same emission reductions), double claims (i.e., more than once country or entity claims the mitigation toward its goal) and double use (i.e., using the same unit twice to achieve a mitigation goal) (Schneider and La Hoz Theuer 2019)

Paragraph 21d of the Article 6.2 guidance. Paragraph 1a of the Article 6.2 guidance.

Paragraph 1e of the Article 6.2 guidance

Paragraph 22j of the Article 6.2 guidance. Paragraph 22k of the Article 6.2 guidance. Preamble to Decision 2/CMA.3 on Article 6.2.

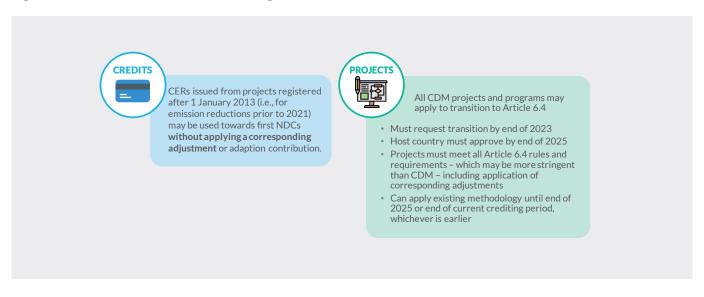


#### **Deciding which CDM projects to transition to Article 6.4**

The Article 6.4 rules include rules for transitioning CDM projects to the Article 6.4 mechanism and for the use of Certified Emission Reductions (CERs) (i.e., for pre-2021 mitigation action) toward a country's first NDC (Figure 7). The most important issue for host countries will be whether to approve the requested transition of CDM projects and programs to the Article 6.4 mechanism. Where pre-2021 CERs are used towards the achievement of first NDCs, this will not require corresponding adjustments by the host country. For CDM projects transitioned to the Article 6.4 mechanism, however, any issued Article 6.4 Emission Reductions (A6.4 ERs) that are transferred as ITMOs will require host country corresponding adjustments. Transfers based on these transitioned activities, therefore, could affect the host country's NDC achievement.

Given that most CDM projects were registered in the early 2010s, they were likely considered as part of the "baseline" or BAU scenario when the country analyzed options for its NDC. This means that the actions from these projects and programs do not reduce the country's GHG inventory below the NDC BAU scenario level. A corresponding adjustment for transfer of these units would therefore move the country farther away from its NDC goals, because there would be no similar decrease in GHG emissions covered by the NDC. Countries should therefore carefully evaluate the risks and benefits of approving projects for transition.

Figure 7. 2021 United Nations Climate Change Conference (COP26) decisions on CDM transition



Source: authors

# Host countries should carefully consider approval of CDM projects for transition to the Article 6.4 mechanism: □ If it is likely that this activity is already included in the BAU scenario for the NDC, then either it should not be approved for transition or only transition without any transfers (i.e., become results-based climate finance) □ If it is not likely that the activity is already included in the BAU scenario for the NDC, then follow the normal process of assessing over-selling risk (see section 5.1)

#### **Deciding on the timing of authorization**

Another consideration in the NDC compliance strategy and Article 6 engagement is whether a host country would authorize mitigation outcomes ex ante (i.e., prior to the monitoring and verification of the mitigation outcomes) or only ex post (i.e., after completion of verification). The ex ante authorization could include certain conditions (e.g., successful verification, continued compliance with domestic laws and standards) and could set a cap on the volume of mitigation outcomes that could be transferred (either in total or per year). Ex ante authorization would provide greater certainty for activity proponents and would therefore support faster and more robust market development. It could, however, make NDC compliance management more difficult if the host country only realizes well after an ex ante authorization that it is not on track to reach its NDC but now has an implicit obligation to apply corresponding adjustments once the mitigation outcomes are verified and internationally transferred.

Only authorizing ex post would increase the risks for activity proponents – and significantly reduce the potential for private sector engagement in Article 6 – since they would have greater uncertainty about the potential revenue from eventual mitigation outcomes. The host country could have an overall policy on this issue (i.e., ex ante authorization in all cases) or might shift its approach over time (e.g., ex ante authorization only permitted in 2023–2025), by mitigation activity type (e.g., ex ante authorization only for activities in specific priority sectors), or even by activity proponent (e.g., ex ante authorization only for private sector activity proponents). The host country could also introduce a mitigation activity approval process, which could occur after validation, where activity proponents would be given assurance that, as long as the mitigation activity met specific conditions in its performance, authorization would be granted once the mitigation outcomes were achieved.

Decision	Host countries decide whether to authorize ITMOs:
	Host countries decide whether to administrativos.
	☐ Only ex ante (subject to specific conditions and limited in volume)
	☐ Either ex ante or ex post, depending on the context and activity
	□ Only ex post

#### Deciding on which uses of mitigation outcomes may be authorized

When authorization is granted, the country also states the use or uses for which the mitigation outcomes are authorized (i.e., towards NDCs, towards "international mitigation purposes" such as CORSIA, or towards "other purposes" as specified by the host Party, such as the voluntary carbon market). The decision on the uses for which ITMOs are authorized may be made on a case-by-case basis for each proposed activity or through a more general policy decision. For example, a country could decide that it would always authorize ITMOs for all international uses. Authorizing ITMOs for multiple possible uses rather than for only one use would provide more flexibility for market participants. Importantly, the Article 6.2 guidance states that "Where a participating Party authorizes the use of mitigation outcomes for other international mitigation purposes, it shall apply a corresponding adjustment, for the first transfer of such mitigation outcomes..." This means that all transfers will require corresponding adjustments and could impact NDC achievement, regardless of the use of the ITMOs. In practical terms, therefore, there is no disadvantage for a host country authorizing for all purposes.

Note that voluntary carbon market buyers could still choose to purchase emission reductions units that are not authorized for transfer under Article 6. Such purchases would not require corresponding adjustments but are the subject of debate in the voluntary market because of the risks of "double claiming" of the emission reductions by both the host country and voluntary carbon market buyer.

<sup>&</sup>lt;sup>37</sup> Paragraphs 1d, 1f and 20a of the Article 6.2 guidance.



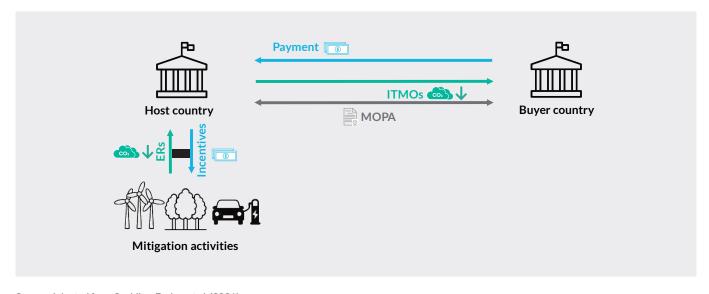
Decision	Host countries should decide what approach they will take to authorizing ITMOs for specific uses. Alternatives include the following:
	<ul> <li>Always authorize ITMOs for all uses (i.e., so that the activity proponents have more flexibility in which markets they access)</li> <li>Establish certain criteria by which uses other than for NDCs will be authorized</li> <li>Specify the use or uses authorized on a case-by-case basis, at the request of the activity proponent or other actors in the transaction</li> </ul>

### Deciding the host country role in transactions and whether to charge fees to private sector entities

The role of government authorities in individual transactions, as well as in receiving financial flows from those transactions, will depend on the nature of those transactions and the entities involved.

• Sovereign-to-sovereign (Figure 8): Where the mitigation outcome purchase agreement (MOPA) is between two governments, then those governments will be the signatories to the MOPA and will be solely responsible for fulfilling all of its terms. The full payments for ITMOs transferred would be received by the host country government as well, although the host country could choose which government authority (i.e., Ministry of Finance or Treasury or Ministry of Environment) would receive the funds, depending on the nature of the mitigation activity.

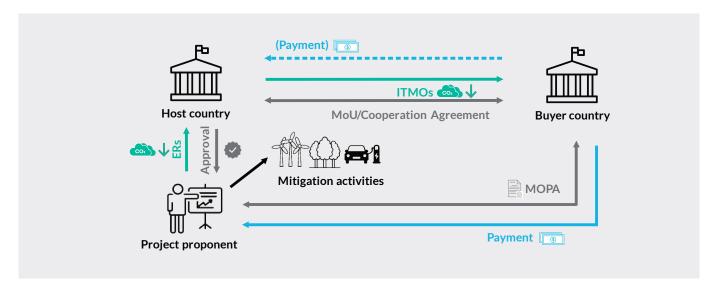
Figure 8. Illustration of sovereign-to-sovereign transaction



 $Source: Adapted from Spalding-Fecher \, et \, al. \, (2021)$ 

• Sovereign buyer with private activity proponent (Figure 9): Where the activity proponent is a private entity in the host country, the government would still need to authorize the mitigation outcomes and possibly execute the ITMO transfers. More importantly, the government may need to fulfill various requirements (e.g., meeting the participation requirements and responsibilities under Article 6; stay on track with overall progress toward its NDC) before the buyer is willing to send payments for the ITMOs, whether or not the host country government was party to the MOPA.

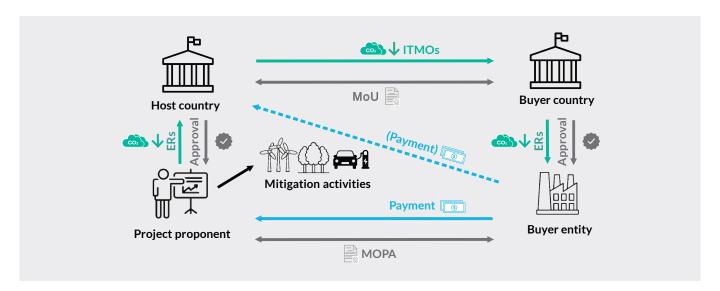
Figure 9. Illustration of sovereign-to-private seller transaction



Source: Adapted from Spalding-Fecher et al. (2021)

• **Private buyer to private activity proponent** (Figure 10): From the host country government's point of view, this would be similar to the previous scenario, and the host country might or might not have a direct contractual relationship with the buyer.

Figure 10. Illustration of private-to-private transaction with government approvals



Source: Adapted from Spalding-Fecher et al. (2021)

For potential transactions where a host country government authority is the mitigation activity participant, the country should decide which authority would be the formal party to the MOPA:

- The Article 6 administrator could serve as the party to the MOPA, or
- The actual authority that will manage the mitigation activity (e.g., Ministry of Energy, specific local authority, provincial government) could serve as the party to the MOPA

For potential transactions involving an activity proponent outside of government, the host country government must decide what financial flows or payments will be made to the government, if any. Options include the following:



- Require payment of a fee (i.e., per emission reduction unit) from the buyers to contribute to the administration cost of Article 6 governance in the host country
- Require payment of a fee that would cover not only administrative costs but also provide funding for future mitigation investments in the event that the host country was not able to meet its NDC (see discussion in section 5.1)
- Not require the payment of any fees by the buyer

#### Decision

Where a host country government authority is the project proponent, it must decide which entity will be part to the MOPA.

Where an activity proponent outside of government implements a project in the host country, the host country government must decide what financial flows or payments will be made to the government, if any.

## Defining the approach for contribution to adaptation and overall mitigation of global emissions

Countries should specify what approach they will take to the contributions for adaptation ("share of proceeds" (SoP)) and "overall mitigation in global emissions" (OMGE), noting that the final text of the Article 6.2 guidance strongly encourages, but does not require, cancelling ITMOs for SoP and OMGE. Both of these concepts are requirements for Article 6.4. Either the host country or the acquiring country could make a contribution to adaptation and/or could cancel ITMOs for the purposes of contributing to OMGE.

Decision	Hest countries should specify their approach to setting saids a "chare of presends" to support
	Host countries should specify their approach to setting aside a "share of proceeds" to support adaptation:
	<ul> <li>No consideration of SoP for adaptation by the host country (but this could still be implemented by the acquiring country)</li> <li>The host country sets aside the same percentage (5%) of ITMOs as required for Article 6.4</li> </ul>
	Host countries should specify their approach to OMGE:
	<ul> <li>□ No consideration of OMGE by the host country (but this could still be implemented by the acquiring country)</li> <li>□ The host country sets aside the same percentage (2%) of ITMOs as required for Article 6.4</li> </ul>



The following sections explain both what governance functions are required for host countries to participate in Article 6 cooperation and what specific actions the host country institutions must take in the process of generating, authorizing, transferring, tracking and accounting for ITMOs. Section 6 introduces the key institutional functions and roles for Article 6 from the host country perspective. Sections 7, 8 and 9 present the key process steps and institutional options for ITMO authorization, transfers and tracking, and reporting and accounting.

#### 6 Key institutional functions and roles in Article 6 engagement

Host countries will need to designate government institutions to perform specific functions related to Article 6. This section presents the range of functions needed, as well as key institutional roles. It includes a discussion of how international and independent crediting programs might be used for some of the functions when feasible. In addition, the section explains the options for how a country could make decisions on both fulfilling the participation requirements for Article 6 and the strategic decisions related to criteria for authorization and other issues.

The host country's framework for Article 6 cooperation should consider what functions are required for the host country and how they could be allocated to new or existing bodies. Building on existing institutions has important benefits in terms of leveraging capacity, minimizing costs, and drawing on existing relationships. In this context, the need for fostering collaboration and coordination between related ministries cannot be overestimated. Countries should consider how to develop suitable overarching coordinating and decision-making bodies on domestic climate

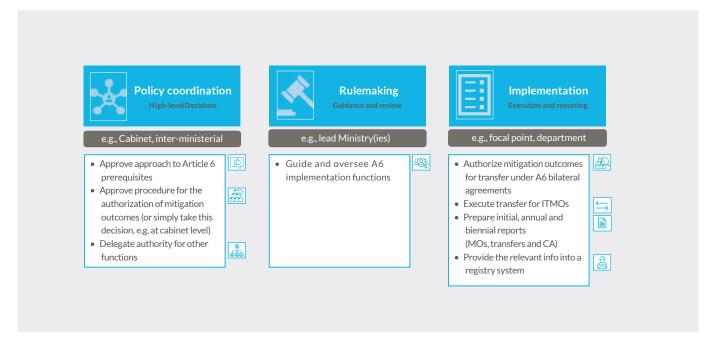


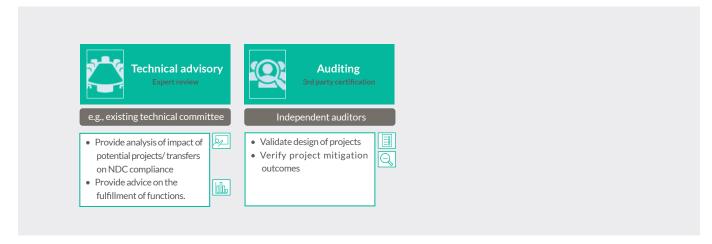
policy (i.e., including NDC updates, reporting under the enhanced transparency framework, etc.) and participation in Article 6 activities. Article 6 institutional arrangements should also consider building on existing national infrastructure established to regulate the country's engagement with the CDM or Joint Implementation (JI), if these exist. To allow existing institutions to execute these functions, however, could require revisions of their mandate, authority, composition and skills of staff.

#### Functions and roles for Article 6.2

This section outlines the main functional areas for host country institutions under Article 6: policy, rulemaking, implementation, technical advisory and auditing. While some of the functions must be covered by government, others may include outside experts or other stakeholders (Figure 11, with government functions in red). This list is based on both the explicit requirements in the rules and the experience of international, independent, and domestic crediting systems. The section covers the functions needed for Article 6.2, while section 6.3 highlights some additional functions required for Article 6.4.

Figure 11. Minimum governance functions for Article 6.2 in host countries





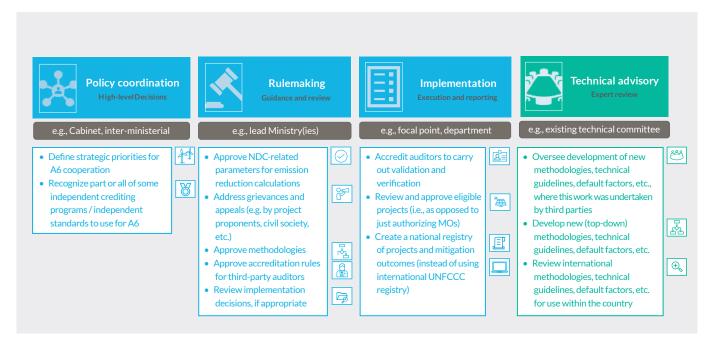
Source: Adapted from World Bank Article 6 Approach Paper on "Country processes and institutional arrangements for Article 6 transactions" 39

<sup>&</sup>lt;sup>39</sup> https://openknowledge.worldbank.org/handle/10986/35392.

#### PART III Guidance on institutional options for core Article 6 processes

Figure 12 shows potential additional functions, depending on the specific conditions and rules of the host country and how much responsibility the host country chooses to take on technical issues.

Figure 12. Additional optional functions for Article 6.2



Note: If a country decides to utilize independent crediting programs' registries for registration and issuance of mitigation outcomes, it is still its responsibility to fulfil reporting requirements of Article 6.2. Therefore, a separate database or a registry at the national level is needed for this purpose; countries that do not have such domestic infrastructure are expected to utilize the international registry that the secretariat of the UNFCCC shall implement.Source: Adapted from World Bank Article 6 Approach Paper on "Country processes and institutional arrangements for Article 6 transactions"

The detailed governance arrangements to carry out these functions will vary across countries, but would generally include the following governmental structures:

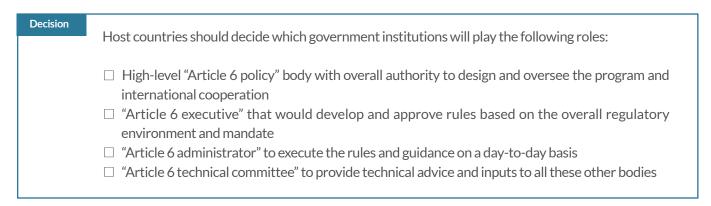
- A high-level "Article 6 policy body" with overall authority to design and revise the program and international cooperation (i.e., the "policy coordination" functions). This would generally require cabinet or ministerial authority and would only occur at the start of Article 6 engagement and periodically (i.e., every few years) as the country's overall performance was reviewed. This might be implemented by a single ministry, a high-level inter-ministerial body, or even the cabinet.
- An "Article 6 executive" that would develop and approve rules based on the overall regulatory environment and mandate (i.e., most of the "rule-making functions" above). This body would include middle- to senior-level members, often with relevant specialist knowledge, and would meet more regularly to address some rule-making functions.
- An "Article 6 administrator" to implement the rules and guidance on a day-to-day basis. This could be a department, government agency or even an outsourced third-party with appropriate oversight.

Government would also be supported by the following actors:

- An "Article 6 technical committee" to provide technical advice and inputs to all these other bodies, which could include both governmental and non-government representatives.
- Independent "auditors" to carry out auditing functions, although some independent crediting programs allow auditing for very small mitigation activities to be conducted by the administrator.



The designations for government bodies above are meant to be flexible and could vary across countries and over time. For example, authorization could be the responsibility of the Article 6 administrator if a higher-level authority delegates this power to it and the criteria for authorization are objective enough not to require further consideration by the Article 6 executive during the authorization process. Alternatively, the Article 6 executive might retain responsibility for authorization, with the Article 6 administrator only recording this action in the national mitigation activity database and compiling the information into Article 6 submissions to the UNFCCC. For initial pilot activities, authorization decisions might be taken at a higher level, even by the cabinet, since the government may not yet have a clear process. Once the country has developed objective authorization criteria, this function might shift to the Article 6 administrator.



## Implications of building on existing international and independent crediting programs

There are significant opportunities to build on the experience of international and independent crediting programs in developing institutional arrangements and the implementation of national Article 6 frameworks. The benefits of this could include faster implementation, reduced costs and greater credibility in new international markets. On the other hand, using elements of international and independent crediting programs may be less flexible and adaptable to the host country's needs and could restrict the institutional options.

The decision on the incorporation of certain elements required for Article 6 implementation from existing international and independent crediting programs depends on the costs (for government and activity proponents), implementation timeframes, and complexity. Countries could take advantage of the experience offered by existing crediting programs such as Gold Standard, Verified Carbon Standard, Climate Action Reserve, and others. Using the approved methodologies and accredited auditors from these programs, for example, could shorten implementation time of cooperative activities. Using auditors already accredited under existing programs would avoid the substantial time and investment required to create a domestic accreditation system. An Article 6.2 cooperative activity could even be registered, verified and have emission reduction credits issued by an independent crediting program (e.g., the Gold Standard or Verified Carbon Standard). Cancelling the credits in the crediting program's registry would be the basis for the transfer of ITMOs, i.e., the "evidence" that emission reductions had occurred. In such a case, the activity proponent could request the independent crediting program to cancel the credits, and provide evidence of this cancellation to the buying entity.

As an alternative, cooperative activities might use simplified and standardized versions of the methodologies from international and independent crediting programs. Even if these took longer to develop, they could save MRV costs for activity proponents and increase access to carbon markets in the host country. Whether these approaches would have the same international credibility as an existing international or independent crediting program is an open question. Carbon Limits has supported the KliK Foundation of Switzerland in developing mitigation activity design documents (MADDs) for cooperative activities in Senegal (for biogas) and Ghana (for rooftop solar PV). In both cases the methodology approach under discussion by the two countries builds on existing methodologies but standardizes and streamlines them based on the specific country context. This will make monitoring and verification simpler without compromising environmental integrity. In both cases, the methodological approaches must be approved by the two governments.

Table 1 shows the functions for which host countries could potentially use elements of independent crediting programs – or even elements of the Article 6.4 mechanism (e.g., an approved methodology or accredited auditor) – for almost all of an Article 6.2 cooperative activity except for authorization and executing transfers.

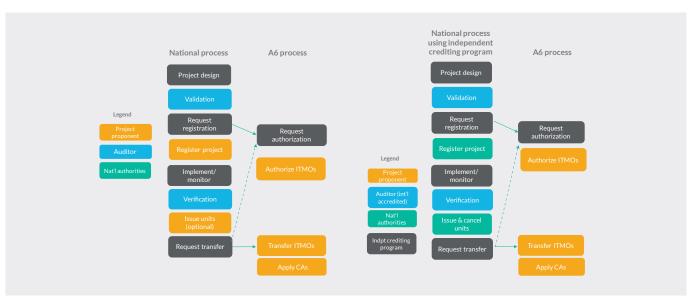
Table 1. Functions under Article 6.2 where independent crediting mechanisms and A6.4 may be used

Functions (by main category)			Article 6.2		
		Host Country	Independ't	6.4 SB	
Rule-making	Approve methodologies	Allowed	Allowed	Allowed	
	Develop accreditation standard for auditors	Allowed	Allowed	Allowed	
	Approve country-specific parameters for ER calculations	Allowed	Allowed	Allowed	
Tech- nical	Develop methodologies	Allowed	Allowed	Allowed	
	Accredit auditors	Allowed	Allowed	Allowed	
	Register mitigation activities	Allowed	Allowed	Allowed	
tion	Issue emission reduction units	Allowed	Allowed	Allowed	
Implementation	Maintain a registry of mitigation outcomes	Allowed	Allowed	Allowed	
	Approve projects	(6.2 does no	(6.2 does not require project approval)		
	Authorize mitigation outcomes	Required	Not allowed	Not allowed	
	Execute transfer of mitigation outcomes	Required	Not allowed	Not allowed	

Source: authors

The Article 6 activity cycle might also look different depending on whether and how the host country uses elements of independent crediting programs to support Article 6 engagement. These differences are illustrated in Figure 13. If a host country chooses to authorize and transfer mitigation outcomes from a more customized, domestically developed system, it will be important to work with potential buyer countries and/or international agencies to ensure that the methodological standards, procedures and auditing systems will be accepted by potential buyers.

Figure 13. Potential Article 6.2 activity cycle from the host country perspective, using independent versus domestic crediting standards



Notes: ITMOs=internationally transferred mitigation outcomes indpt = independent; the criteria for authorization would be the same regardless of when it happened in the activity cycle

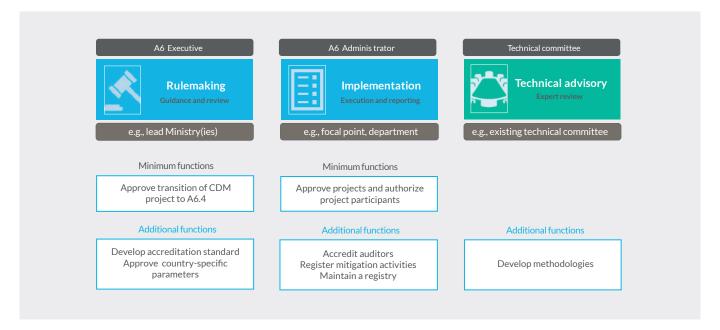
Source: Adapted from World Bank Article 6 Approach paper on "Country processes and institutional arrangements for Article 6 transactions"



#### **Functions and roles for Article 6.4**

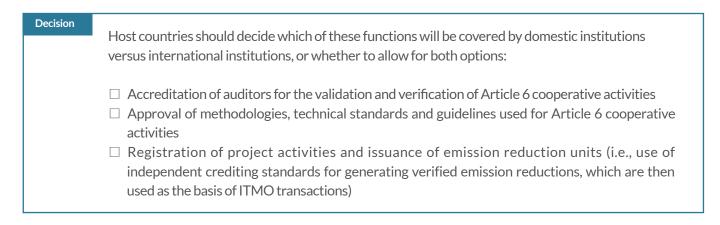
To be transferred internationally, Article 6.4 emission reductions must go through the Article 6.2 framework. Therefore, all the functions of Article 6.2 are still required for international transfers of Article 6.4 emission reductions. In addition, however, there are some specific functions for Article 6.4 that go beyond the 6.2 requirements. Figure 14 shows these functions, the most important being that Article 6.4 requires approval for mitigation activities, authorization of activity proponents, and the approval for the transition of any CDM projects.

Figure 14. Minimum and additional functions for implementing Article 6.4 as well as Article 6.2



Source: authors

Article 6.4 also provides for an independent grievance mechanism, <sup>40</sup> which the CDM did not have. All stakeholders – not just activity proponents and governments – have the right to appeal decisions of the Supervisory Body or submit a request to the independent grievance process.



#### Process for deciding on Article 6 prerequisites and strategic decisions

Each host country may have its own approach to the policy and strategic decisions described in the previous two sections. What is common across all countries is the need to engage stakeholders in the process of decision-making, so that the resulting outcomes serve the national interest. Those stakeholders include not only the lead ministry or department on climate change, but also other government authorities involved in climate policy development and implementation, national technical experts (i.e., from public sector, private sector, research and civil society), and

<sup>&</sup>lt;sup>40</sup> Paragraph 62 of the Article 6.4 rules.

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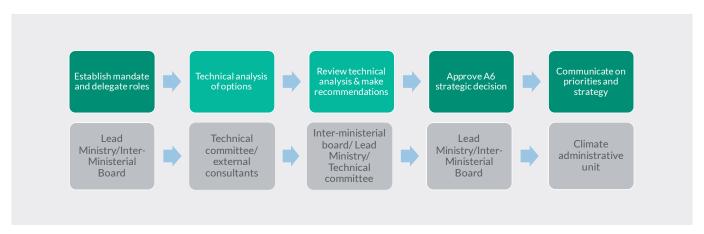
#### III Guidance on institutional options for core Article 6 processes

other relevant actors. This section describes a process that countries could use in setting up their Article 6 strategy and meeting the prerequisites (Figure 15). The steps could cover the following:

- Establishing the overall mandate for the work to be done to decide on how to meet the prerequisites and make strategic Article 6 engagement decisions. This would include deciding on which institutions (i.e., government bodies, external advisory bodies, etc.) would be responsible for each of the subsequent steps in this setting-up process.
- Technical analysis of the options for meeting the prerequisites (e.g., how to present the NDC in tCO<sub>2</sub>eq, how to account for single-year targets) and making strategic Article 6 engagement decisions.
- Review of the technical analysis to make policy recommendations on Article 6 readiness. This step combines the technical analysis with the policy and political considerations in the host country.
- Final approval of how the host country will meet the minimum requirements for Article 6 participation and make strategic Article 6 engagement decisions.
- Communication of prerequisites that have been met and the approved Article 6 strategy to the public, so that potential activity proponents know what is and is not acceptable for Article 6 participation in the host country.

Depending on how the host country currently develops climate policy and relevant sectoral policies, and what regulations or legislation on climate policy are in place, the specific institutions in each step of this process could differ. Figure 15 presents several options. Which body initiates the process and which body must approve the Article 6 strategy and prerequisites may depend on the climate policy legislation, or at least current practice in other UNFCCC-related processes. Whether the technical analysis on Article 6 options is done by a government technical committee or external consultants will depend on the capacity within government. The external consultants could be international or national consultants and could also include quasi-governmental organizations (e.g., research institutions mandated or supervised by government ministries). The "climate administrative unit" in the last step refers to the government department, directorate or unit that currently manages the day-to-day work of climate policy (e.g., national communications).

Figure 15. Key steps and roles in meeting prerequisites and developing Article 6 strategy



Note: The dark green boxes show actions by government staff while green boxes show actions by government along with other experts or stakeholders. Source: authors

In terms of the specific decisions on institutional arrangements for authorization, transfer and tracking – which is one part of the decisions on prerequisites – a critical issue is how to build on existing bodies where possible, as well as how to codify institutional arrangements in a national legal framework. Figure 16 illustrates the steps for this.



Figure 16. Process of establishing institutional arrangements during setting up of Article 6 framework in a host country



Source: authors

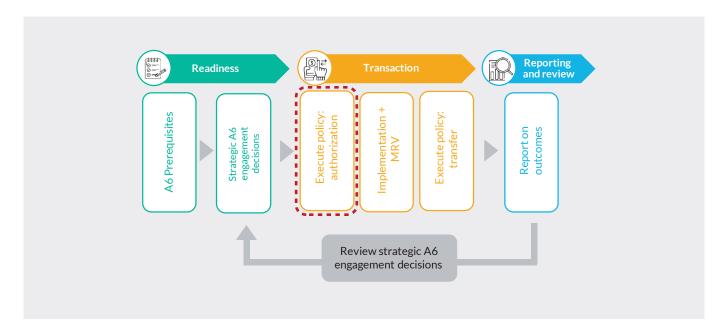
#### Decision

Host countries should decide which government and non-government institutions will be responsible for key elements of setting up the Article 6 strategy and meeting prerequisites, as illustrated above.

## **T** Execute policy decisions for specific mitigation activities: ITMO authorization

Host countries must agree and communicate their process for authorizing ITMOs. This section focuses on the key steps for ITMO authorization and the institutional options for which bodies will implement these steps. It also explains how the authorization process relates to the traditional project cycle for mitigation activities.

The host country government must have a process to approve activity proponents and/or mitigation activities and to authorize mitigation outcomes that may be transferred to another country. Note that the term "authorization" in the Article 6.2 guidance only applies to mitigation outcomes, and not mitigation activities or activity proponents. The term "approval" is used here to refer to national approval for mitigation activities, which is required under Article 6.4 but optional under 6.2.<sup>41</sup> In addition, the authorization of mitigation outcomes is separate from the execution of transfers and would likely occur well in advance of the latter.



<sup>&</sup>lt;sup>41</sup> Article 6.4 rules also refer to authorizing project participants for project activities as well.

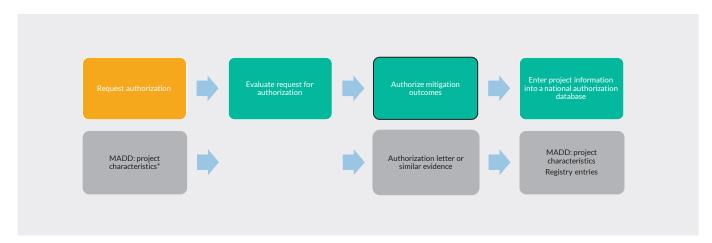
#### **Key steps for authorization**

The steps for the authorization process are shown in Figure 17 and include the following:

- Request authorization by the activity proponent. Even if the activity proponent is a public sector entity (e.g., national utility or ministry implementing a large-scale mitigation activity), it would still need to request authorization from the relevant authority within government that is mandated to provide this.
- Evaluate request for authorization against existing national rules, as agreed through the Article 6 readiness process. The more transparent and objective the rules are, the more efficient and effective the ITMO authorization process will be (see sections 5.1 and 5.2). Examples of rules or criteria could include allowing or not allowing mitigation outcomes from activities in specific sectors, specific technologies or mitigation activity types, or requiring approval by other relevant authorities (e.g., an environmental impact assessment from the relevant agency) prior to requesting authorization.
- Authorize the mitigation outcomes that could be generated by the proposed mitigation activities. The Article 6.2 guidance does not specify how this authorization should be expressed or documented, but one option would be to provide a "letter of assurance and authorization" to the activity proponent from government. Some aspects of this letter may be defined by the Article 6 rules, while others may relate to the contractual needs of the parties involved in an Article 6 transaction or the country's specific approach. When the mitigation activity relies on an independent crediting program for mitigation activity validation and registration, some of the inputs to the authorization process (e.g., evaluation of the potential GHG impacts, or even the sustainable development impacts, of the activity) might be provided by the program to assist the host country in its assessment. Nevertheless, authorization is always the prerogative of governments.
- Enter details of the authorized mitigation outcomes (i.e., including the mitigation activity details and activity proponents) into a national authorization database, as well as any restrictions or conditions imposed by the letter of authorization. This database would be used both for UNFCCC reporting as well as for later execution of transfers.

The flow of information through the authorization process is also illustrated below (Figure 17). The activity proponent would provide a detailed description of all relevant characteristics of the mitigation activity in a MADD.

Figure 17. Key steps and information flows in ITMO authorization



Note: Green boxes: A6 government staff; Orange: activity proponent; Boxes outlined in black are required by Article 6.2 guidance.

<sup>\*</sup> If the authorization is ex post, then request for authorization would also include monitoring and verification reports. Source: authors



The ITMO authorization process would happen in parallel to the more traditional "project cycle" for mitigation activities that will be used to generate carbon credits. While Article 6.2 does not require such a project/activity cycle, many early Article 6 activities use such a process. The difference is that, unlike under the CDM, the details and requirements of this cycle will be defined largely by the participants in the transaction and the rules of their respective countries, provided that these follow the more general UNFCCC guidance. An example of this is shown in Figure 18. As mentioned above, ITMO authorization may occur at different points in the traditional activity cycle and might be requested ex ante or ex post. However, authorizations are more likely to be issued ex ante (i.e., after mitigation activity validation), because most activity proponents would not be willing to invest in the activity and carry out MRV without reasonable certainty that the resulting mitigation outcomes could be transferred. The more detailed steps for authorization shown in Figure 17 would likely be the same, regardless of the timing of the request.

Authorization process

Communicate criteria for authorization

Request authorization

Design Project

Validate

Request approval

Request approval

Approve/ register

Project cycle

Authorize mitigation outcomes

Authorize mitigation outcomes

Finter details into authorization authorization outcomes

Finter details into authorization outcomes

Finter details into authorization outcomes

Finter details into authorization outcomes

For authorization outcomes

Project cycle

Figure 18. Relationship between ITMO authorization and traditional project cycle

Note: Green boxes are for government authorities, Orange ones for activity proponents, blue ones for auditors Source: authors

#### Institutional options for authorization

The institutional options (Figure 19) mainly differ in terms of whether the authorization process is essentially an administrative process, based on clear rules established in the readiness phase, or whether each authorization request requires evaluation by a technical committee or inter-ministerial body in government. The choice of options will depend on how transparent and objective the authorization criteria are, as well as on whether the government entity charged with administering the Article 6 process in the host country has the legal mandate to authorize mitigation outcomes.

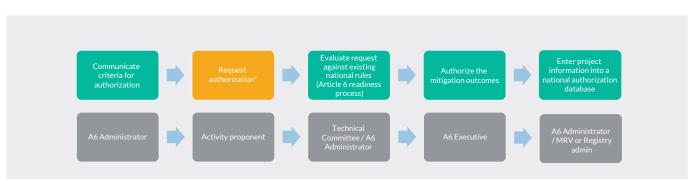


Figure 19. Institutional options for ITMO authorization

Notes: Green boxes are for A6 government staff; Orange ones for activity proponents

<sup>\*</sup>Includes submission and monitoring plan and verification report if authorization request is ex post Source: authors

#### PART III Guidance on institutional options for core Article 6 processes

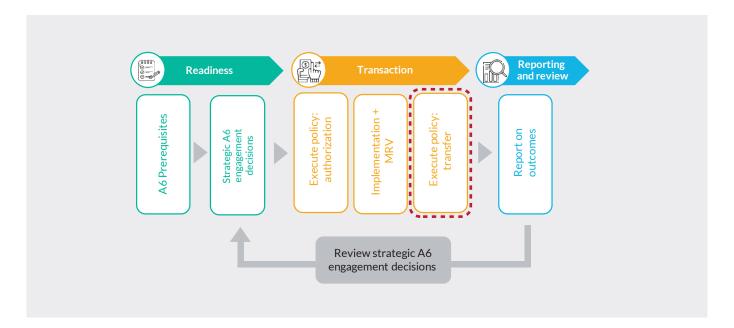
Decision	Host countries should decide which institutions will:
	riost countries should decide which institutions will.
	<ul> <li>Evaluate the request for authorization: Article 6 administrator or Article 6 technical committee</li> <li>Authorize mitigation outcomes: Article 6 administrator or Article 6 executive</li> <li>Enter details into authorization database: Article 6 administrator or MRV/Registry framework administrator</li> </ul>

## 8 Execute policy decisions for specific mitigation activities: transfers and tracking

Host countries must have a process for transferring ITMOs after the impacts of the mitigation activity have been verified. This section focuses on the key steps for ITMO transfers and tracking and the institutional options for which bodies will implement these steps. As in section 7, it also highlights the links to the more traditional project cycle, which may include issuance of emission reduction units.

#### Key steps for transfers and tracking

The steps for ITMO transfers, as well as information flows, are shown in Figure 20 and could include the following:

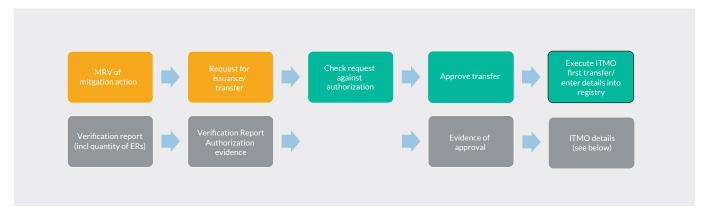


- Monitor, report and verify the mitigation impact of the activity. This could include the use of a third-party auditor for verification, although this is not explicitly required by the rules (i.e., the rules only require that ITMOs are "real, verified and additional").
- Request international transfer of mitigation outcomes by the activity proponent, based on the performance of the mitigation activity and the terms of the authorization (e.g., any limitations on transfers). In the case of ex post authorization, the request for authorization would be submitted simultaneously with the request for transfer. If the host country has a domestic system that requires issuance of carbon credits or other units as the basis for Article 6 transactions, then the activity proponent would also need to request issuance of units in that system.



- Check the request for transfer against the terms of the authorization, as well as any other national rules on ITMO transfers.
- Approve the transfer (if required by national rules).<sup>42</sup>
- Execute the first transfer of ITMOs by recording all the details of the transfer in the national registry and entering relevant data into the international registry, where appropriate.

Figure 20. Key steps and information flows in ITMO tracking and transfers



Note: Green Boxes outlined in black are required by Article  $6.2\,\mathrm{guidance}$  Source: authors

The ITMO details are specified in the A6.2 guidance as including the following information, which should be available for the later preparations of Article 6 reporting for the UNFCCC (see section 9.1):<sup>43</sup>

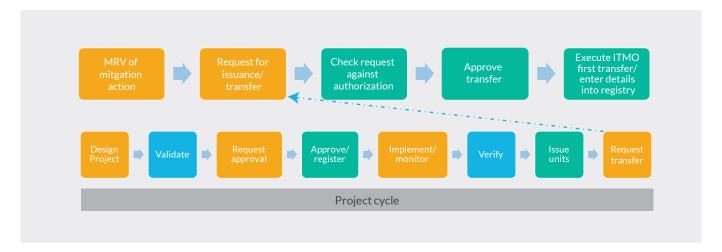
- Whether the ITMOs are authorized for use towards other international mitigation purposes (as opposed to authorization for use for NDCs)
- Whether the ITMOs will be voluntarily cancelled
- For each ITMO transfer, information specifying the cooperative approach (i.e., the specific cooperative activity that is the basis of a transaction), the first transferring participating Party (i.e., the host country), the using participating Party and year in which the mitigation occurred, sector and activity type

As with the authorization and approval process, the ITMO transfer process is related to the traditional project cycle for crediting mitigation activities in that transfer could only occur after MRV and – where required by the host country – issuance (Figure 21).

The exact terminology used to describe this step may differ by country. Switzerland's Article 6 bilateral agreements, for example, specify that the host country shall issue a "notification of positive examination" if the requirements for transfer are met. These bilateral agreements can be accessed at https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/staatsvertraege-umsetzung-klimauebereinkommen-von-paris-artikel6.html.

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Figure 21. Relationship between ITMO transfer and traditional project cycle

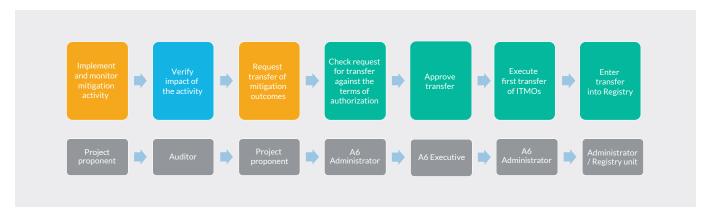


Note: Green boxes are for government authorities, Orange ones for activity proponents, blue ones for auditors. Source: authors

#### Institutional options for transfers and tracking

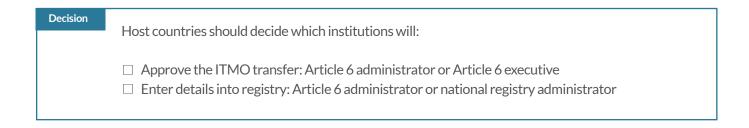
The governance for this process may not have many variations, as it is mainly an administrative process (Figure 22). The important options are, instead, what infrastructure is used for tracking, as noted in section 4.1.4. One policy question here might be whether a higher-level authority has to approve each transfer (i.e., even if there is already an authorization granted, including any conditions that must be met prior to the transfer).

Figure 22. Institutional options in ITMO tracking and transfers



Notes: MRV = monitoring, reporting and verification

Green boxes are for government authorities, Orange ones for activity proponents, blue ones for auditors Source: authors

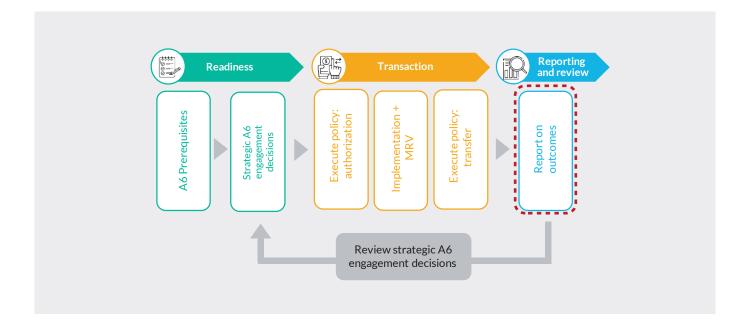




# 9 Report on outcomes: Article 6 reporting and NDC accounting

The rules for the Article 13 enhanced transparency framework of the Paris Agreement and the rules for Article 6.2 outline important reporting requirements for host countries engaging in Article 6 cooperative activities. This includes reporting not only on ITMO authorizations and transfers but also on corresponding adjustments and emissions balances. This section explains these reporting requirements, the process by which host countries will report, and the institutional options for selecting a body to implement these steps.

This phase not only includes the formal reporting required by the Article 6.2 guidance and Article 13 rules but also a feedback loop for the host country to ITMO authorization. This means that, if the country were not on track to meet its NDC pledges, it might change how and whether it authorizes mitigation outcomes in the future.



## **Reporting requirements**

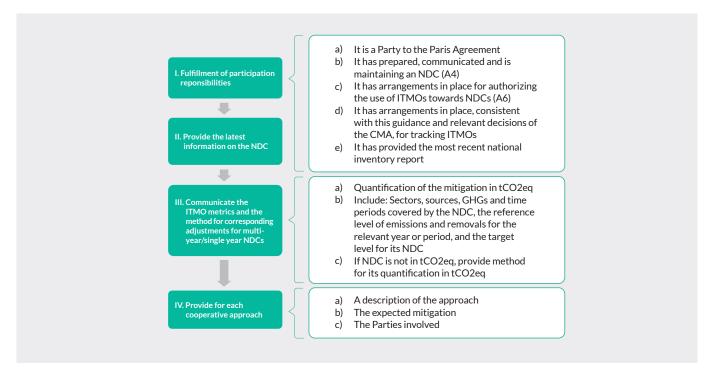
This section presents the reporting requirements from the different texts. Note that the Paris Agreement reporting requirements will include elements other than just Article 6-related information, but the focus in this report is on information specifically related to ITMOs.

### **Initial report**

Countries must first provide an "initial report" on Article 6, "no later than authorization of ITMOs from a cooperative approach or where practical, in conjunction with the next biennial transparency report due"<sup>44</sup>. This report should include much of the information and policy decisions from the earlier Article 6 readiness phase (see sections 4 and 5) (Figure 23). Much of this information will be submitted to a centralized accounting and reporting platform that the UNFCCC will develop and maintain.

<sup>&</sup>lt;sup>44</sup> Paragraph 18 of the Article 6.2 guidance

Figure 23. Content of initial report

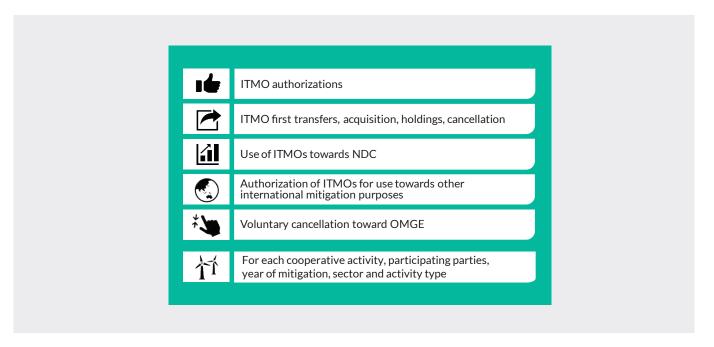


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### **Annual information**

The required content of the "annual information" (in electronic format), which must be submitted to the "Article 6 database" (quotes from the Article 6.2 guidelines), is shown in Figure 24. While annual information does not specifically mention corresponding adjustments, the guidance does say that corresponding adjustments must be applied annually and that the Article 6 database will include all corresponding adjustments, so it seems likely that the countries will report this information annually in practice. Countries could also choose to report emissions balances (i.e., NDCcovered emissions inventories correspondingly adjusted for any ITMO transfers) as well, but this is more likely to be part of the biennial regular information, given that the inventory may not be available each year.

Figure 24. Annual information to be submitted to the "Article 6 database"



Source: authors



### Biennial "Regular information"

The required content of "regular information", which will form part of the BTRs, includes both general information on Article 6 cooperation and specific information on each cooperative approach (Figure 25). While this information will be reported every two years (given the time required to collect data for the national GHG inventory), the BTR will likely report information for two and three years prior to the submission date (e.g., a BTR submitted in 2024 will cover 2021–22 emissions data and the relevant emissions balance). This means that corresponding adjustments – which are only presented in the BTR – may not be applied until two or three years after transfers are executed.

Figure 25. Biennial information required on Article 6

#### I. General information

- Fulfillment of the participation responsibilities
- Updates to the information initial report and any previous BTRs
- Information on authorization of first transfer and use of ITMOs towards NDCs and other international mitigation purposes
- Application of corresponding adjustments to covered GHG inventory (or other metric) to show adjusted "emissions balance"
- Information on ITMOs acquired that will not be further transferred, cancelled or otherwise used

#### II. For each cooperative approach

- Contribution to mitigation of CHGs and Implementation of NDC
- Ensuring environmental integrity
- Alignment with methodologies and metrics
   Management of mitigation as banefits.
- Measurement of mitigation co-benefits resulting from adaptation actions and/or economic diversification plans
- · Application of any transfer limits
- Consistency with host country SDGs
- Contribution to adaption financing, if relevant
- Contribution to overall mitigation in global emissions, if relevant

#### III. Structured summary

- The annual level of anthropogenic emissions by sources and removals by sinks cpvered by the NDC
- An emissions balance reflecting the GHGs covered by its NDC adjusted on the basis of corresponding adjustments
- Any other information consistent with decisions adopted by the CMA on reporting under Article 6
- Information on how each cooperative approach promotes sustainable development; and ensures environmental integrity and transparency.

SDG: Sustainable Development Goals

CMA: Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

Source: authors

### Action

Host countries must prepare the initial, annual and regular information reports to submit to the UNFCCC

## **Key steps for reporting**

Figure 26 shows the steps for preparing the required reporting on annual information on Article 6. The information flow through this process is what is described in Section 9.1.2.

Figure 26. Key steps for reporting Article 6 annual information

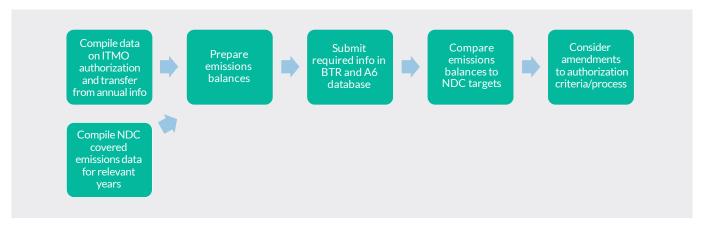


Source: authors

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Figure 27 shows the steps for preparing the Article 6 inputs for the BTRs submitted to the UNFCCC Secretariat. The information flow through this process is what is described above in Section 9.1.3.

Figure 27. Key steps for reporting Article 6 "Regular information" in BTRs



Source: authors

Note that there could also be a separate process for the initial report, because it could be submitted before the host country has completed any authorizations or transfers.

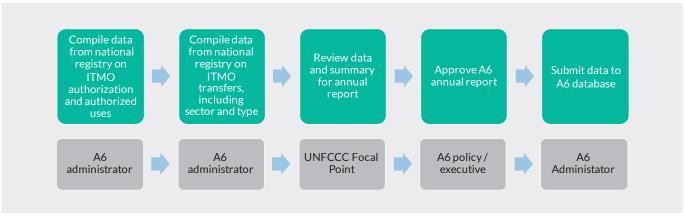
### Review of strategic Article 6 engagement decisions

Preparing the regular information for the BTR provides an opportunity for the host country to assess its progress toward its NDC goals. If the country sees that it is not on track to reach those goals, then this could affect the criteria and decision-making process for future ITMO authorizations and transfers. For this reason, it is advisable to have a feedback loop from reporting to the Article 6 readiness and ITMO authorization processes.

## **Institutional options for reporting**

The institutional arrangements here are straightforward, since this is a reporting process, and most countries already have such a process for their national communications and biennial update reports (Figure 28, Figure 29). The choice of which body considers amendments to the authorization criteria/process will depend on the original strategic Article 6 engagement decisions that were approved (Figure 15 in Section 6.4). Because these processes are related to NDC reporting, the UNFCCC focal point<sup>45</sup> may also play an important role. Depending on which institution the host country chooses for the Article 6 executive or the Article 6 administrator this may or may not be the same as the UNFCCC focal point.

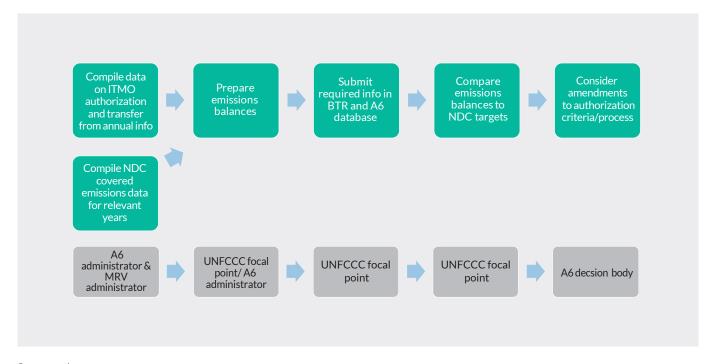
Figure 28. Institutional options for reporting Article 6 annual information



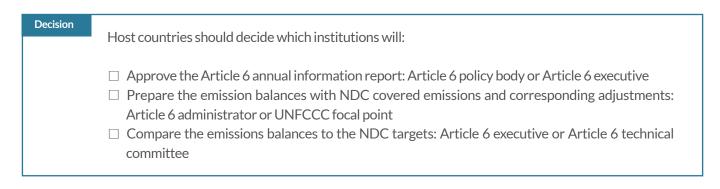
<sup>45</sup> https://unfccc.int/process/parties-non-party-stakeholders/parties/national-focal-point



Figure 29. Institutional options for reporting Article 6 "Regular information" in BTRs



Source: authors





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# **11** Additional resources

## **List of acronyms**

BAU Business as usual

BTR Biennial transparency report
CDM Clean Development Mechanism
CER Certified emissions reduction

CMA Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

COP Conference of the Parties (i.e., to the UNFCCC)

CORSIA Carbon Offsetting and Reduction Scheme for International Aviation

GHG Greenhouse gas

GWP Global warming potential

ITMO Internationally transferred mitigation outcome

JI Joint Implementation

LULUCF Land use, land-use change, and forestry
MADD Mitigation activity design document
MOPA Mitigation outcome purchase agreement
MPGs Modalities, procedures and guidelines
MRV Monitoring, reporting, and verification
NDC Nationally determined contribution
OMGE Overall mitigation in global emissions

SoP Share of proceeds

tCO2eq Tons of carbon dioxide equivalent

UNFCCC United Nations Framework Convention on Climate Change

# Glossary

Term	Meaning
Acquiring country	The country that receives the transferring mitigation outcomes and uses them for purposes of NDC compliance; the "corresponding adjustment" in this country would be to adjust their reporting emissions by subtracting the amount of the transfer.
Administrator	A public authority appointed by law to oversee and enforce a domestic crediting program and/or a country's engagement with Article 6 cooperative mechanisms (i.e., as opposed to the Administrator of any independent crediting program such as the Gold Standard or VCS).
Auditor	An independent and accredited third-party organization that conducts validations or verifications, respectively.
Carbon credit	Credits stem from a crediting program. They are calculated as the difference of emissions between a baseline scenario (that is, that which would have occurred in the absence of the scheme itself) and the actual prevailing (or "project") scenario. Credits generally accrue to the entity responsible for the action.
Corresponding adjustment	The requirement under Article 6 that both countries involved in any transferred mitigation outcomes adjusted their reported emissions (or other metric) for purposes of NDC compliance; the acquiring country subtracts the amount of the transfer to adjust their reported emissions, while the host country adds the amount of the transfer to adjust their reported emissions.
Crediting program	A system that recognizes that a certain action (project, policy) has delivered emission reductions compared to a scenario without the emission reduction incentives.
Host country	The country that hosts the activity that generates the emissions reduction that are transferred (also called "transferring" or "seller" country); the "corresponding adjustment" in this country would be to adjust their reported emissions (or other NDC metric) by adding back the amount of the transfer.
Independent crediting program	Refers to crediting programs that are not managed by governments, such as the Verified Carbon Standard (VCS), Gold Standard, and Climate Action Reserve (CAR).
International crediting program	International crediting mechanisms are those governed by international climate treaties and are usually administered by international institutions, such as the UNFCCC. The Kyoto Protocol provided for two international crediting programs: the CDM, and Joint Implementation. Under the Paris Agreement, a new crediting mechanism has been established through Article 6.4.
Internationally transferred mitigation outcomes (ITMOs)	Under the Paris Agreement, mitigation outcomes that are voluntarily transferred from one country to another for purposes of NDC compliance, CORSIA or for "other uses" (e.g., the voluntary carbon market).



Mitigation activity design document (MADD)	The formal documentation of an Article 6 mitigation activity, which is likely to include technical issues such as baselines, additionality, quantification of emission reductions, and an MRV plan. The scope and requirements of the MADD will be determined by the two countries involved in the potential transfer, as well as any non-state actors involved in the MOPA.
Mitigation outcomes	An umbrella term for what can be transferred between countries under Article 6.2 or 6.4 of the Paris Agreement. This covers ITMOs and A6.4 ERs (see definitions). While mitigation outcomes will often be in units of tCO <sub>2</sub> , Article 6.2 transfers may also occur using other metrics (e.g., MWh renewable electricity). This also includes both emission reductions and removals.
Mitigation outcome purchase agreement (MOPA)	A legal contract for the purchase and transfer of mitigation outcomes authorized under the rules of Article 6.2 of the Paris Agreement.
Activity proponent	An organization that engages in a project to reduce emissions in order to sell carbon credits.
Registry	A database that records serialized carbon units and any other information specific to the carbon unit, as required by policy.
Registry administrator	A public or private body responsible for the day-to-day operations of the registry.
Validation	Systematic, independent, and documented process for the ex ante evaluation of the contents of the project design document/mitigation activity design document.
Verification	Systematic, independent, and documented process for the ex post evaluation of emission reductions according to the monitoring plan.



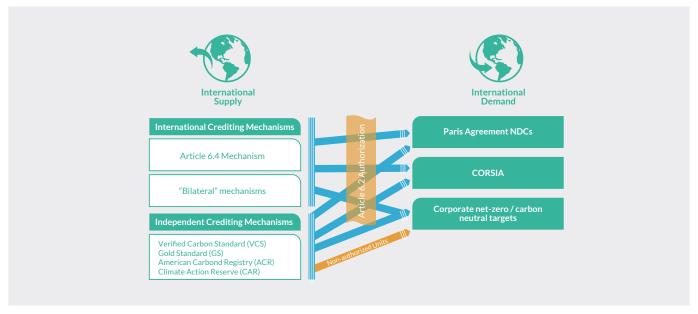
# Annex A Comparison of Articles 6.2 and 6.4

While most of the guidance focuses on the Article 6.2 rules, it also refers in some places to the Article 6.4 rules. As background to understanding the relationship between the two, this section presents conceptual and practical differences between Article 6.2 as a framework for accounting versus Article 6.4 as a crediting mechanism (Figure 30).

Article 6.2 is an accounting framework for countries that cooperate on mitigation actions and wish to transfer the outcomes of this action from one country to another. Article 6.2 does not provide detailed rules for how to generate mitigation outcomes (e.g., mitigation activity cycle, methodologies, etc.) but focuses on how government authorities recognize, transfer, report and account for these outcomes when they are transferred. This means that Article 6.2 would facilitate a variety of bilateral or plurilateral arrangements between Parties, which might refer to other international or independent crediting standards (i.e., including the Article 6.4 crediting mechanism) for generating mitigation outcomes or could even refer to linking emissions trading schemes or other carbon pricing mechanisms.

Article 6.4, in contrast, is an international crediting mechanism governed by the Parties to the Paris Agreement – much as the CDM was an international crediting mechanism governed by the Parties to the Kyoto Protocol. The mechanism therefore has a centralized governance arrangement under the Article 6.4 Supervisory Board (A6.4SB), which will be responsible for approving methodologies, activity requirements and eligibility criteria.

Figure 30. Relationship between supply and demand in international carbon markets, with Article 6.2 as a framework for approving transfers and Article 6.4 as an international crediting mechanism



Note: "Non-authorized units" are credits issued without the host county authorizing the underlying units for use as ITMOs. Non-authorized units could still be used for other purposes, such as results-based finance or as part of a domestic compliance scheme.



# Annex B Quantifying the NDC

As previously mentioned, for ITMOs in tCO<sub>2</sub>eq metrics, double counting<sup>46</sup> is avoided by establishing an emissions balance, referred to as a "structured summary". Parties determine the emissions covered by their NDC and apply "corresponding adjustments" to this emissions level. Corresponding adjustments work in a similar way to money transfers between bank accounts: for any ITMO that is transferred for the first time to another country, the host country needs to make an addition to its reported emissions. For any ITMO that a country acquires and uses to achieve its NDC, the acquiring country makes a subtraction from its reported emissions. This ensures that the acquiring country can use the mitigation outcomes generated in the host country to achieve its NDC, while the host country can no longer use them for its NDC. The adjusted emissions level is then compared with the NDC target level of each country to determine whether the country has achieved its NDC.<sup>48</sup>

Establishing such an emissions balance requires that either countries clearly define which emission sources and GHGs are covered by their NDC and that their NDC is quantified in GHG emission terms, i.e., in tCO<sub>2</sub>eq, or that a methodology needs to be provided to do so. <sup>49</sup> The Katowice decisions and the Article 6.2 guidance further specify how the scope and target level of NDCs should be clarified.<sup>50</sup>

Some NDCs include only a GHG emissions target that is already clearly defined. In this case, no further action may be required by the country. Some NDCs, however, include non-quantified actions such as policies and measures and/or targets in other metrics (e.g., renewable energy targets). In some cases, the coverage of GHG emissions targets and the accounting approaches for the LULUCF sector may not be entirely clear in an existing NDC. In this case, countries must clarify and quantify their NDC in tCO<sub>2</sub>eq.

In addition, some countries have expressed their targets as a percentage reduction versus BAU, so the quantified level of the BAU scenario and the NDC target would need to be presented. Countries wishing to engage in Article 6 therefore need to check whether their NDC is already clearly quantified in tCO<sub>2</sub>eq and, where is it not, follow the procedure below to provide that clarity.

### Step 1. Clarification of the coverage of the NDC

When defining the coverage of the NDC as quantified in tCO<sub>2</sub>eq, it is important that coverage of emission sources and greenhouse gases is clarified. In doing so, countries may need to pay particular attention to the following issues:

- Greenhouse gases: Countries should clarify which GHGs are covered. The coverage may include all or some of the GHGs that are addressed under the UNFCCC (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>) but should not include gases that are also ozone-depleting substances that are controlled under the Montreal Protocol (e.g., CFCs, HCFCs). Similarly, there are no metrics available to consider other substances affecting global warming, such as from particulate matter or sulfur. These should, therefore, not be covered in quantifying the NDC in tCO₂eq.
- Emission sources and sinks: Countries should clarify which emissions sources and sinks are covered. To facilitate the quantification of emissions consistently with IPCC Guidelines for national GHG inventories, the coverage should preferably be determined with regard to the IPCC sectors covered (i.e., energy; industrial processes and product use; agriculture, forestry and other land use; waste; other) or, at a more detailed level, with regard to the specific IPCC categories of emissions covered (e.g., electricity generation, road transportation, nitric acid production).51 In the case that the NDC covers land-use and forestry, countries should also clarify which carbon "pools" are covered (i.e., aboveground biomass, belowground biomass, dead wood, litter, and soil organic matter) and which accounting approaches are used (e.g., with regard to harvested wood products or age classifications of forests).
- Global warming potentials (GWPs): Countries should clarify which values for GWPs they use in quantifying

Double counting refers, in this case, to more than one country claiming the emission reductions towards their NDC goal. Paragraph 77d(i) of the MPGs, paragraph 8 of the Article 6.2 guidance and paragraph 9 for the "annual adjusted" indicators. Paragraph 77d(i) of the MPGs, paragraph 8 of the Article 6.2 guidance and Paragraph 23h of the Article 6.2 guidance and paragraph 70 of the MPGs.

Paragraph 18d of the Article 6.2 guidance.
Paragraph 18b of the Article 6.2 guidance which refers to paragraph 64 of the MPGs; paragraphs 1 to 3 of the ICTU guidance.
See for the categorization of emission sources Volume 1, chapter 8 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/1\_Volume1/V1\_8\_Ch8\_Reporting\_Guidance.pdf.

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their NDC. The MPGs require that countries use the 100-year values from the 5<sup>th</sup> IPCC assessment report in reporting their national GHG inventory under the Paris Agreement, or in the future any new values if adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).<sup>52</sup> Further decisions adopted in Katowice specify that countries should also use these values in accounting for their NDCs.<sup>53</sup> This latter requirement is only mandatory for second and subsequent NDCs, and not yet for countries' first NDCs. A consistent choice of GWP values between the transferring and the acquiring countries is key to facilitate robust accounting for international transfers. This guidance therefore recommends that all countries engaging in Article 6 use the values from the 5<sup>th</sup> IPCC assessment report, as adopted by the CMA for national GHG inventories. This also facilitates consistency between national GHG inventories and accounting for ITMOs.

 NDC implementation period: Countries should clarify their NDC implementation period, i.e., the time period to which the NDC applies. In the case of multi-year targets, this corresponds to the relevant target period (e.g., 2021 to 2030). For single-year targets, this is intended to cover the period between target years (e.g., for a country with single-year targets for 2025 and 2030, the relevant NDC implementation periods could be 2021 to 2025 and 2026 to 2030; for a country with a single-year target for 2030 only, the relevant period could be 2021 to 2030). In any case, NDC implementation periods should be continuous. Countries are currently negotiating on common time frames for the period after 2030. Once agreed, the relevant periods adopted by the CMA should be used.

Article 4.4 of the Paris Agreement requires developed countries to adopt economy-wide emissions targets and encourages developing countries to move towards economy-wide emission targets. In cases where the current coverage of NDCs is not yet clear, countries may, therefore, consider clarifying the scope using a broad, rather than a narrow, coverage.

### Step 2. Defining the relevant indicator(s) for tracking progress towards the NDC

The NDCs communicated by Parties to the Paris Agreement include a wide range of targets and actions, as determined by each country. As part of reporting progress towards the NDC pledges, countries must select specific indicators for tracking progress towards the targets or actions.<sup>54</sup> Progress might be measured by the emissions covered by the NDC but could also include the percentage reduction in GHG intensity, or qualitative indicators for a policy or measure, or other mitigation-related actions.

For NDCs quantified in tCO<sub>2</sub>eq, as required for ITMOs expressed in tCO<sub>2</sub>eq terms (see section 4.3 above), the most suitable indicator is that part of the national GHG inventory that corresponds to the scope of the NDC as quantified in tCO<sub>2</sub>eq.

### Step 3. Quantifying the NDC in tCO2eq metrics

The Article 6.2 guidance requires that countries quantify the NDC in tCO₂eq or provide a methodology to do so. The action needed depends on the type of targets or actions included in the current NDC:

- Countries with only absolute GHG emissions targets: Quantifying the NDC in tCO₂eq is straightforward for countries that have only communicated an NDC pledge in terms of absolute tCO2eq, e.g., a reduction in relation to a historical reference year or a BAU emissions projection. In this case, the absolute level in tCO<sub>2</sub>eq can be quantified using the reference level and the percentage reductions. In the case of reductions compared to BAU emissions, countries should likewise clarify whether and the conditions under which the BAU emission projections is updated and the methodology of updating the BAU emissions projection.<sup>55</sup>
- Countries with GHG emissions intensity targets: Countries with intensity targets, such as the tCO<sub>2</sub>eq per GDP, should provide the methodology according to which the absolute target level is determined ex post, based on the GHG emissions data and the intensity denominator (e.g., GDP).
- Countries with actions or targets in non-GHG metrics: Quantifying the NDC in tCO<sub>2</sub>eq is most challenging for countries that have included in their NDC non-quantified actions or targets in non-GHG terms. In this case,

Paragraph 37 of the MPGs.

Paragraph 1(a) of Annex II to decision 4/CMA.1. Paragraph 65 and 66 of the MPGs.

Paragraph 1 of the ICTU guidance, paragraphs 64, 74 and 75 of the MPGs



countries would need to assess what emission sources are affected by these targets (and include these in the scope of the NDC as quantified in tCO<sub>2</sub>eq in Step 1 above) and what emissions level these actions and targets imply. For example, a country with a renewable electricity generation target could define the scope of its NDC in terms of the IPCC category "1A1a(i) Electricity generation" and may include either only CO<sub>2</sub> or also CH<sub>4</sub> and N<sub>2</sub>O within the scope. As renewable electricity generation also reduces emissions from the production of fossil fuels, the country could also consider including relevant other IPCC categories, such as "1A1b Petroleum refining", "1A1c Manufacture of solid fuels", and "1B Fugitive emissions from fuels". In some instances, this quantification can pose considerable challenges, as some targets (e.g., use of a biofuel) may impact GHG emission sources in many sectors.

• Countries with multiple, overlapping targets: Some countries include multiple overlapping targets, such as a CO<sub>2</sub>eq target which is complemented by targets in non-GHG metrics for specific sectors. In these instances, a key issue is that all mitigation information in the NDC (i.e., all targets) is considered when quantifying the NDC in tCO<sub>2</sub>eq. This may require updating the tCO<sub>2</sub>eq target in terms of its level or scope, taking into account the emissions impact of the non-GHG targets.

The quantification and description of the NDC, as required in paragraph 18b and 18d of the Article 6.2 guidance, should include relevant quantitative information, including a quantification of the emissions in the reference year (e.g., historical reference year, or BAU emissions projection), a quantification of the reductions level (e.g., the percentage reduction), and relevant information sources and assumptions used.<sup>56</sup>

# Annex C Accounting approaches for single and multi-year **NDC** targets<sup>57</sup>

As described earlier, the Article 6.2 guidance requires countries to choose an accounting approach in relation to single-year and multi-year targets and to document their choice in their initial Article 6 report. 58 The country must then use this approach consistently throughout an NDC implementation period.<sup>59</sup>

A country with a multi-year target must calculate a multi-year emissions trajectory or budget, which may be more detailed in its specification than the original NDC target. In implementing this requirement, several aspects may require particular attention:

- Period considered: The emissions trajectory or budget must be defined for the NDC implementation period (e.g., 2021 to 2025). However, in order to determine the trajectory or budget for this period, countries may wish to consider the emissions pathway envisaged to achieve the NDC for a longer period, e.g., starting with the year that is used as the historical reference year for establishing the NDC target (e.g., 2005 if the NDC establishes a 20% reduction below 2005 levels) or starting with the year when the NDC was communicated (e.g., 2015).
- Coverage of the NDC: The emissions trajectory or budget should only include those sectors, categories of emission sources, GHGs, and carbon pools from the LULUCF sector that are included in the NDC.
- Methodological consistency: The emissions trajectory or budget should be established using the same metrics (e.g., GWP values) and methodological approaches (e.g., relevant Tiers of the IPCC Guidelines for national GHG inventories) or other assumptions, methods and approaches as used for tracking progress towards the implementation and achievement of the NDC.
- Consistency with the NDC: The level of the emissions trajectory or budget should be "consistent with the NDC. This means that all mitigation actions communicated in the NDC should be considered in determining the trajectory or budget. For example, if a country has pledged several measures in its NDC (e.g., targets for several renewable energy

See also paragraph 1 of the ICTU guidance. This section is drawn largely from research led by Lambert Schneider. Paragraph 18c of the Article 6.2 guidance. Paragraphs 8 and 18c of the Article 6.2 guidance.

Paragraph 8b of the Article 6.2 guidance

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technologies and energy efficiency measures), the aggregated impact of these measures should be considered when determining the trajectory or budget.

• Robustness of the trajectory: The trajectory should be chosen in a robust way that reflects the likely and realistic emissions development over the time needed to achieve the NDC. It is good practice to assume linear trajectories and to avoid the consideration of one-off measures taken in the target year.

A country with a single-year target can choose between two options:<sup>61</sup>

- Multi-year accounting, i.e., establishing a multi-year emissions trajectory or budget for the NDC implementation period, as described above for multi-year targets.
- Averaging, i.e., determining the average annual amount of ITMOs first transferred and used over the NDC implementation period and applying the average values to the reported emissions in the target year.

Multi-year accounting has the effect of extending a single-year target over the full NDC implementation period by determining the emissions level that is consistent with achieving the NDC for each year. Multi-year accounting does not change the NDC itself but supports the accounting for ITMOs. The country would account for its emissions for all years of the NDC implementation period against this trajectory and not only for the single-target year, even though the country's formal NDC target remains that single-year goal. This means that, in each year of the NDC implementation period, countries need to make additions to or subtractions from their annual level of emissions covered by the NDC if they transfer or use ITMOs to/from other countries. To assess the implementation and achievement of the NDC, the adjusted emissions balance is compared with the trajectory. This comparison could be implemented in two ways: either individually for each year of the NDC implementation period, or cumulatively for the entire NDC implementation period. When establishing multi-year trajectories or budgets, the same considerations apply as described above for a multi-year target.

Multi-year accounting is more robust in terms of accounting. It considers emissions and ITMOs over the entire NDC implementation period. Multi-year accounting also provides greater certainty for countries that they can achieve their targets, because emission fluctuations in one specific year play a smaller role. The main disadvantage is that it requires the country to establish a multi-year trajectory or budget. However, in most cases countries will already have annual emission trajectories from their national communication and biennial update reports. They may also have related trajectories for economic growth or other key inputs for emission reduction activities in other national and sectoral strategy and policy documents. This information could be adapted for a multi-year trajectory for the NDC target. At a minimum, countries could establish a multi-year trajectory through linear interpolation from current (e.g., 2020) emissions to their single year goal, since quantifying this goal is also part of the Article 6 prerequisites (section 4).

Averaging provides a different means to reflect transfers and acquisitions over the NDC implementation period. Its main advantage is that it is simple to implement and does not require determining a multi-year trajectory or budget. However, averaging creates considerable uncertainty for countries about how many ITMOs they can transfer while still achieving their NDC. This is because the number of ITMOs that a country can transfer without missing the NDC goal would still be determined by the country's emissions in the single target year. Unexpected increases in emissions in the target year, such as from unforeseen economic or weather events, could result in the country being able to transfer fewer ITMOs than anticipated for the entire NDC implementation period. Conversely, lower than expected emissions in the target year mean that higher levels of transfers are possible for the entire NDC implementation period. Information on the emissions level in the target year becomes available, however, only after the end of the NDC implementation period. Averaging, therefore, leaves considerable uncertainty for countries regarding the mitigation outcomes they may safely transfer.

A further important disadvantage is that averaging can lead to higher or lower total emissions from the countries involved in a cooperative approach, even if the mitigation outcomes are additional, real and measurable. As a simplified example, consider a host country, as shown in Figure 31, with a goal to invest in emission reduction activities to

<sup>&</sup>lt;sup>61</sup> Paragraph 18a of the Article 6.2 guidance.



keep emissions at  $100 \, \text{MtCO}_2\text{eq}$  per year even while BAU emissions would grow otherwise. The country implements a cooperative Article 6 activity starting in  $2021 \, \text{that}$  delivers increasing emission reductions for transfer as it is rolled out, rising from  $1 \, \text{MtCO}_2\text{eq}$  in  $2022 \, \text{to} \, 9 \, \text{MtCO}_2\text{eq}$  in  $2030 \, \text{ln}$  other words, in  $2030 \, \text{the}$  actual emissions of the host country are  $91 \, \text{MtCO}_2\text{eq}$  as a result of the mitigation action. Using an averaging approach, the corresponding adjustment in  $2030 \, \text{would}$  be the total ITMOs over the NDC period ( $2021 \, \text{to} \, 2030$ ) divided by  $10 \, \text{or} \, 4.5 \, \text{MtCO}_2\text{eq}$ . With this amount added back to the  $2030 \, \text{GHG}$  inventory, the country would over-achieve its NDC goal of  $100 \, \text{MtCO}_2\text{eq}$ . With this amount additional mitigation action, potentially leading to an overall increase in global emissions (i.e., if those ITMOs were used by acquiring countries for NDC compliance). Of course, this could also go the other way: if the cooperative action decreased over time, then the  $2030 \, \text{corresponding}$  adjustment could lead the country to under-achieve its NDC. By contrast, under multi-year accounting the total aggregated emissions from the countries involved do not change due to accounting, as compared to the situation in which the countries would not have engaged in ITMOs.

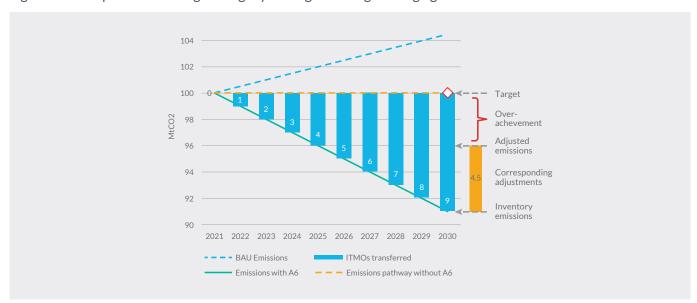


Figure 31. Example of accounting for single-year targets through averaging ITMOs

Using the multi-year trajectory, on the other hand, would mean that the ITMOs transfers and corresponding adjustments in each year exactly matched the changes in the emissions in the host country (Figure 32). Adjustment emissions through the period would therefore meet the host country's target as well (or, more precisely, least Article 6 transfers throughout the period would not change the degree to which the country met their NDC goal).

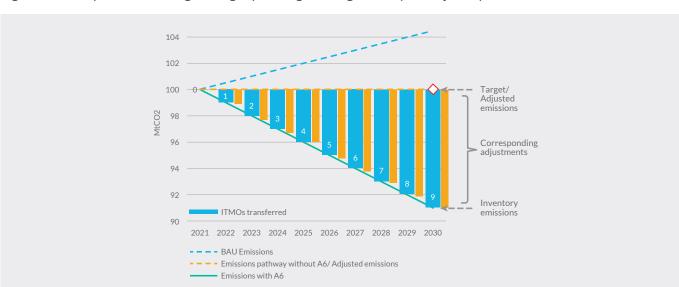


Figure 32. Example of accounting for single-year targets using a multi-year trajectory

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For these reasons, this guidance therefore recommends countries with single-year targets to choose multi-year accounting and to establish the trajectory or budget using a linear emissions pathway over time.

# **Annex D** Registry alternatives for tracking ITMOs

Parties will need to decide which registry to use: either an or their own national registry. One important challenge in relying on the UNFCCC registry is that its development is likely to take time. Operating any form of crediting program, including one that will provide units that can serve as the basis for international transfers of mitigation outcomes, requires the establishment of basic administrative systems, including information systems needed to track implementation and verification of mitigation activities; providing for public transparency; and creating, transferring, and retiring units (i.e., in this case, mitigation outcomes). The information technology infrastructure needed to perform these functions is commonly referred to as a "registry." The report Emissions Trading Registries: Guidance on Regulation, Development, and Administration (PMR and FCPF 2016), published by the Partnership for Market Readiness (PMR) covers the design options and requirements of registry systems in detail. Even though this document concerns registries for emissions trading systems, the design options and considerations (i.e., information technology architecture options, user functions, transaction and reporting capabilities) are essentially the same as for engaging with Article 6. The difference is in the specific information that must be stored and linked to each record or field.

Registry systems serve three, interrelated, purposes:

- To promote transparency, by providing publicly accessible information on mitigation activities involved in the crediting program and/or international transfers
- To facilitate the issuance, transfer, and use of uniquely identifiable "credits" that are clearly linked to, and convey a claim to mitigation outcomes achieved by, registered mitigation activities, where required
- To help prevent double counting of mitigation outcomes

These three functions are essential for creating a transmission and can be used in domestic or international carbon markets more generally. To achieve these goals, registries generally have two main components:

A "credit-tracking" system, used to issue, transfer, and cancel credits

A "mitigation activity database" system, used to record and make publicly available information on individual mitigation activities that underlie the domestic crediting program or international transfers of mitigation outcomes

These two components may be maintained and administered separately, but together are commonly referred to as the "registry." If regulators have already established (or will establish) an emission trading registry – e.g., for a domestic cap-and-trade program – this may also serve as a credit-tracking system for a domestic crediting program and could potentially be modified to also serve ITMO tracking as well. However, administrators should make sure that the registry has all the necessary functionality to meet international transfer and reporting requirements, including those needed to avoid double counting of mitigation outcomes. In addition, to support international transfers, the registry system would need to include any and all information about the mitigation outcomes that must be reported under the Article 6 rules.

<sup>&</sup>lt;sup>62</sup> This section is adapted from the PMR guide to domestic carbon crediting programs (PMR 2021).



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