

Guidance and questions for further work on a structured consultation and to prepare an information note on recommendations for activities involving removals

1. Introduction and mode of work

1.1. Mandate

1. The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), by its decision 3/CMA.3 “Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement”, requested the Supervisory Body of the mechanism established by Article 6, paragraph 4, of the Paris Agreement (the Supervisory Body) to elaborate and further develop, on the basis of the rules, modalities and procedures of the mechanism (RMPs, contained in the annex to the decision) recommendations on activities involving removals, including appropriate monitoring, reporting, accounting for removals and crediting periods, addressing reversals, avoidance of leakage, and avoidance of other negative environmental and social impacts, in addition to the activities referred to in chapter V of the RMPs (Article 6, paragraph 4, activity cycle).

2. The CMA, by decision 7/CMA.4, paragraph 22, requested the Supervisory Body to consider broader inputs from stakeholders provided in a structured public consultation process while developing the recommendations referred to in the paragraph above.

1.2. Mode of work

3. This document contains refined guidance and questions that will support multiple purposes. First, it is for consideration by stakeholders, seeking their inputs on the general and specific issues related to activities involving removals. Second, it provides instruction and direction to the secretariat for compiling the stakeholder inputs on these elements and in this format, which is foreseen to reflect the outline and substantive scope of the draft recommendations on activities involving removals.

4. Specifically, the secretariat will administer a structured consultation on the elements in this document, including the questions and contents referred to therein. The secretariat, under the guidance of the relevant small group, will produce an information note that elaborates approaches to address the rules, modalities, and procedures (RMP) elements identified in this document and do so on the basis of SB005 discussions, prior recommendations¹ and outlines² produced by the SB, and taking into account public input in all submissions provided through SB005 (to the extent possible, through SB006) that are responsive to these elements.

5. The information note outline and contents will align with the contents herein and those footnoted above, to provide clear, objective, and balanced background information and initial proposals for each of the elements.

¹ Activities involving removals under the Article 6.4 mechanism (A6.4-SB003-A03; November 2022)

² Guidance and questions for further work on removals (A6.4-SB004-A02; March 2023)

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6. Through SB006, small group members will give timely guidance to the secretariat and engage in intersessional work as needed to ensure quality assurance, quality control (QA/QC), and progress, anticipating substantive consideration of draft recommendations during and after SB006. The full SB membership will be informally updated and consulted as needed.

7. *Approach to these contents and to the structured consultation.* Stakeholders providing input to the structured consultation should note the following: (a) In producing this document, the SB has taken account of the interlinkages in these contents and those of other mandated items, which are being developed in parallel. This document focuses on elements that may be particularly relevant to activities involving removals and reversal risks, with the understanding that general requirements³ apply to all mechanism activities, including these, unless otherwise specified. This is consistent with the approach reflected in the SB's prior recommendations and outlines referred to above and does not prejudice the eventual placement of these elements and their relevance to all 6.4 mechanism activities, or to all removals activities, or to a subset of removal activities;

(b) Where submitting technical proposals responding to these elements, wherever possible, stakeholders are encouraged to explain how they could be implemented (*inter alia*, relevant elements, procedures, timeframes, functional inter-relationships), as well as to cite sources of information provided and substantiate views expressed.

³ Including Article 6.4 mechanism activity cycle procedure for projects (A6.4-SB005-AA-A03); Requirements for the development and assessment of mechanism methodologies (A6.4-SB005-AA-A07); Development, revision and clarification of baseline and monitoring methodologies and methodological tools (A6.4-SB005-AA-A05); Development, revision, clarification and update of standardized baseline development (A6.4-SB005-AA-A06); and Developing a sustainable development tool for the mechanism (A6.4-SB004-AA-A06).

2. Elements for structured consultation and further work

Cross-cutting questions:

1. Discuss the role of removals activities and this guidance in supporting the aim of balancing emissions with removals through mid-century.
2. What are the roles and functions of the following entities in implementing the operations referred to in this guidance: Activity proponent(s), Article 6.4 mechanism Supervisory Body (6.4SB), 6.4 mechanism registry administrator, Host Party, stakeholders?

Activity proponent(s):

The activity proponent(s) are those fulfilling the role of the project owner(s) and have the overall control and responsibility for the project. This includes bearing the responsibility for ensuring the project meets the rules, modalities, and procedures set both in terms of project implementation and monitoring as well as project documentation to allow verification of results.

Article 6.4 mechanism Supervisory Body (6.4SB):

The 6.4SB fulfills the role of control body ensuring that implemented activities sufficiently meet and follow the rules, modalities, and procedures set and ensures the removal claims are validated to ensure these are accurate and appropriate. As well as the role of defining, with input of stakeholders, what the rules, modalities and procedures should look like and ensure these are in line with the latest scientific supported standards.

6.4 mechanism registry administrator:

The mechanism registry administrator fulfills the role of ensuring that there is a functioning platform in which removal activities, their underlying documentation and results including buffer pools accounted for are recorded. Furthermore, it should fulfill the function of preventing double counting of results through ensuring the removal activities registered are unique and do not overlap with existing implemented activities.

Host Party:

The host party should fulfill the function of providing guidance on how to develop removal activities within their country to ensure developed activities are in line with the host party's objectives of activity development.

Stakeholders:

The roles and functions of the stakeholders involved in implementing the operations can differ across types of removal activities. Hence, the categories of removal activities would need to be defined prior to defining the roles and functions that stakeholders fulfill in implementing the removal operations.

3. How are these elements understood, in particular, any interrelationships in their functions, timeframes, and implementation?

(a) Monitoring period

This is understood as the period for which data is recorded to allow the assessment of the GHG removals generated by the activities implemented. The monitoring period should reflect a timeframe that is both feasible in execution as well as sufficient to cover the risk of non-permanence of removals.

(b) Crediting period

This is understood as the period for which removals are eligible for issuance. It is understood that the crediting period for removals resulting from nature-based solutions starts on the date of GHG removal activity implementation. It is understood that the crediting period for removals resulting from non-nature-based solutions starts on the date that the removal activities start to generate GHG removals.

The monitoring period and cycles should fall fully within the crediting period to ensure credit issuance can be adjusted in case of reversals occurring.

(c) Timeframe for addressing reversals

This is understood as the timeframe in which the accounting for removals should be adjusted to account for situations that negatively affect the net GHG removal estimated such as removal activity leakage or non-permanence.

The timeframe for addressing reversals should be aligned with the monitoring period and cycles to ensure activity implementation and monitoring remains feasible.

Questions on specific elements

A. Definitions:

Discuss the role and potential elements of definitions for this guidance, including “Removals”.

B. Monitoring and Reporting:

1. What timeframes and related procedures should be specified for these elements referred to in A6.4-SB003-A03?

How to specify the timeframes and related procedures for monitoring and reporting of removals depends on the type of the removal activity and its specific characteristics.

Different removal activities have different timeframes in terms of their activity implementation and time till carbon sequestration. Furthermore, different activities come with different levels and drivers of non-permanence risks as well as different factors that could affect the baseline, against which removals are calculated, over time. These differences affect the appropriate definition of appropriate monitoring and reporting timeframes and related procedures.

To illustrate, in case of an afforestation/reforestation activity the actual activity does not immediately result in removals when performed. However, over time, once the trees start to grow, the carbon is removed from the atmosphere. Tree survival rate, in its turn, affects the non-permanence of the carbon removed and while one can limit this effect as much as possible it cannot be fully eliminated. In addition, after project activities are finalized, naturally and non-naturally occurring reversals can happen due to human caused deforestation, fires and other natural disasters in the area. Therefore, monitoring and reporting timelines would need to cover more than just the period of planting activities to sufficiently address the risk of non-permanence and prevent overestimations of ex post removals.

On the other hand, non-nature based removal activities such as direct air capture remove carbon from the atmosphere simultaneously with the activity being performed. If the carbon is then immediately geologically restored both the implementation timeframe is significantly shorter than that of a nature-based solution but the risk of reversals occurring is also significantly lower. Therefore, the defined timeframe for the monitoring period could be shorter than that of a nature-based solution and still adequately address the risk of non-permanence and prevent overestimations of ex post removals.

Thus, to ensure defined timeframes and related procedures for monitoring and reporting of removals is sufficient to ensure integrity in the ex-post carbon calculations as well as feasible to perform one should consider the distinctive characteristics of removal activities. These characteristics, for example, should include the timeline of implementation, carbon absorption over time, risk of non-permanence and potential need for re-evaluating the baseline over time.

a. For initial monitoring and submission of monitoring reports (paragraph 3.2.14);

(a) For subsequent monitoring and submission of monitoring reports (paragraph 3.2.14);

(b) For monitoring and submission of monitoring reports following an observed event that could potentially lead to a reversal (paragraph 3.2.14);

(c) For monitoring and reporting, including any simplified reporting, conducted after the end of the last crediting period of activities involving removals (paragraphs 3.1.10 and 3.2.13).

2. Discuss any further considerations to be given to the core elements for monitoring and reporting in A6.4-SB003-A03; where possible, identifying the applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or types.

An important consideration to consider regarding the core elements for monitoring and reporting is that the type of removal activity affects the applicable scope. For example, with a nature-based solution such as reforestation monitoring scope, it should include periodical on the ground inventory and Geographic Information System (GIS) analysis to determine ex post removals. For non-nature based solutions, such as biochar for example, the monitoring scope should rather include laboratory results to verify carbon stored in the biochar, prove of soil application as well as an analysis of soil conditions to be able to accurately determine ex post removals.

Thus, core elements to consider when identifying the applicable monitoring and reporting scope should be based on the type of removal activity. Core elements to consider to be able to determine an appropriate monitoring and reporting scope include:

- How actual carbon removal occurs (e.g. tree growth for reforestation);
- The conditions for making the removal permanent (e.g. prove of soil application for biochar);
- Factors affecting removal permanence (e.g. soil conditions such as temperature for biochar or tree survival rate for reforestation activities);
- Factors affecting net carbon removals of the activity (e.g. taking into account any emissions that might result from the removal activity itself being performed).

Considering these elements, and how they can be most effectively and efficiently measured, should guide in the identification of the applicable scope for monitoring and reporting.

C. Accounting for removals:

1. Discuss any further considerations to be given to the core elements for accounting for removals in A6.4-SB003-A03; where possible, identifying their applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or types.

The core elements to consider when accounting for carbon removals include the conditions for the removal (e.g. how and when does a removal occur) as well as how its permanence can be ensured, potential leakage risks to consider and the need for re-evaluation of the baseline over time. These elements are all affected by the type of removal activity.

As an example, with nature-based solutions, such as reforestation, carbon is removed through tree growth. While environmental conditions affect the resulting tree growth, it would not directly need to be considered for the ex post carbon accounting as one would only account for the actual carbon captured not the potential under optimal circumstances. Thus, ex post, using techniques such as GIS together with on the ground inventory monitoring, only the actual occurred biomass growth would be accounted for. For non-nature based solutions, such as biochar however, soil conditions such as its temperature directly affect the amount of carbon that can be permanently stored in the soil. Thus, these factors should be considered in the carbon accounting.

To further illustrate differences in carbon accounting elements due to different types of activities; with nature-based solutions the potential leakage is a prominent risk factor for which a clear framework should exist on how to account for this, and to which extent, since there could exist demonstrably anthropogenic emissions that are attributed to the removal activities and occur outside the project boundary. If it is considered a removal activity such as reforestation in an area that is being used for agricultural purposes, that could result in forest

conversion to agricultural land outside the removal activity area. For non-nature-based solutions such as biochar produced from waste biomass, however, leakage can often be considered as negligible.

Therefore, core elements to consider in the carbon accounting framework differ across removal activity categories due to, for example, the specifics of the conditions of carbon removal and its permanence as well as leakage risks.

2. For activities involving removals that also result in emissions reductions, what are the relevant considerations, elements, and interactions between this guidance and the requirements for the development and assessment of mechanism methodologies, including.

D. Crediting period:

Discuss any further considerations to be given to the core elements for crediting periods in A6.4-SB003-A03; where possible, identifying the applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or types.

E. Addressing Reversals:

In order to minimize the risk of non-permanence of removals over multiple NDC implementation periods, and, where reversals occur, ensure that these are addressed in full. A6.4-SB005-A02 Information note: Guidance and questions for further work on removals Version 02.0
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1. Discuss the applicability and implementation aspects of these approaches, including as stand-alone measures or in combination, and any interactions with other elements of this guidance:
 - a. Non-permanence risk buffer (pooled or activity-specific);
 - b. Insurance / guarantees for replacement of ERs where reversals occur (commercial, sovereign, other);
 - c. Other measures for addressing reversals in full.
2. Discuss the appropriate timeframe(s) for applying the approaches, including any interactions with other elements of this guidance and the applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or types.
3. What risks of non-permanence need to be minimized, and how can these risks identified, assessed, and minimized?
4. In respect of risk assessment, how should the following elements be considered in the implementation of the approaches in (a) and any other relevant elements in this guidance?
 - a. Level of non-permanence risk assessment, e.g., activity- or mechanism-level
 - b. Timing for risk assessment(s)
 - c. Entity(ies) responsible for risk assessment(s), e.g., activity proponent, 6.4SB, actuary
5. How should the following elements be considered in the implementation of the approaches in (1) above and any other relevant elements in this guidance?
 - a. Methods for determining the level of buffer pool contributions
 - b. Composition of buffer pool, including in relation to ER vintages and contributing activity types or categories
 - c. Intentional and unintentional reversals
 - d. Treatment of uncanceled buffer ERs, including after the end of the last crediting period of the contributing activity
 - e. Specifications for ERs that cancelled for compensate for reversals, including in relation to ER vintages and contributing activity types or categories
 - f. Replenishment in case buffer cancellations exceed contributions; slide language on re-raising baseline level of storage before new crediting
6. In the event of a reversal, what interactions and implementation aspects should be considered in respect of other elements of the activity cycle?

F. Avoidance of Leakage:

Discuss any further considerations to be given to the core elements for leakage avoidance in A6.4-SB003-A03; where possible, identifying the applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or

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G. Avoidance of other negative environmental, social impacts

Discuss considerations to be given to core elements for avoidance of other negative environmental, social impacts; where possible, identifying the applicable scope, i.e., relevance to all 6.4 mechanism activities, to removals activities, or to specific removal activity categories or types