

Structured Public Consultation - Removal activities under the Article 6.4 mechanism

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.

Beyond 2050 we will need net zero emissions to the atmosphere, and probably even negative emissions. The IPCC recognizes that carbon dioxide removals (CDR) will be essential for this because even by 2050 we will not have developed sufficient technology to avoid 100% of emissions worldwide. Removals from both nature-based solutions (NBS) and technical-based solutions (TBS) will be needed.

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?

Non-exhaustive:

- Activity proponents: Understand and follow the guidelines when designing and implementing activities to be traded under the Article 6.4 mechanism
 - A6.4 SB: supervise the A6.4 mechanism
 - A6.4 registry administrator: issue A6.4 units, do pertinent transfers to OMGE (2%) and Adaptation Fund SoP (5%)
 - Host Party: approve activities, and apply Corresponding Adjustments when necessary, although not referred to in these guidelines
 - Stakeholders: provide inputs, contribute to future updates
3. How are these elements understood, in particular, any interrelationships in their functions, timeframes, and implementation?
 - a. Monitoring period: Specific period of time during which the project performance is assessed and reported to calculate the issuance volumes for that specific period. The length of the monitoring period varies per project type. For sequestration-based projects, monitoring periods need to consider the length of the required permanence.
 - b. Crediting period: The period of time for which mitigation outcomes will be verified.
 - c. Timeframe for addressing reversals: Time between the moment a reversal occurs and the moment the agreed action to compensate for reversals (cancel credits from a buffer pool) is required.

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](#)?

Timeframes

Specified in each subsection below. Times should be adapted to the particularities of each type of project; especially based on the risk of reversal.

Procedures for all elements below

- i. How to submit monitoring reports
 - ii. Content of monitoring report and, if applicable, template to be used
 - iii. How to report reversals
 - iv. Monitoring report technical revision process
- b. For initial monitoring and submission of monitoring reports (paragraph 3.2.14);
 - i. The time between the project concept note or registration and the first monitoring period
 - ii. Length of the first monitoring period
 - iii. The time between the first monitoring period and subsequent monitoring periods
 - iv. The time between the end of the first monitoring period and the submission of the monitoring report
 - c. For subsequent monitoring and submission of monitoring reports (paragraph 3.2.14);
 - i. Length of subsequent monitoring periods (usually same as for first monitoring period)
 - ii. The time between subsequent monitoring periods
 - iii. The time between the end of subsequent monitoring periods and the submission of monitoring reports
 - d. For monitoring and submission of monitoring reports following an observed event that could potentially lead to a reversal (paragraph 3.2.14);
 - i. The time between the identification of a potential reversal and the reporting of that reversal
 - e. 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).
 - i. The time between the end of the last crediting period and the moment in which the project no longer needs to report for reversals. In short, the amount of time that the carbon must remain sequestered.
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.

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.

Natural ecosystems are typically modelled on the timescale of 100 years as there is higher uncertainty the further into the future you project, which is not to say that carbon stored in natural systems will only be stored for 100 years.

Relative risks and merits should be considered based on project type while also taking into account uncertainties. There are many unknown unknowns when it comes to TBS solutions and today's reporting is not as stringent as we see in the NBS space. Thus, there is a need to create a set of disclosures and transparency around the specific issues arising from TBS, including assumptions behind life cycle analysis that can contribute to over-crediting risk.

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.

- The length of the crediting period might be adjusted to different project types
- When using historical baselines; the time between historical baselines and the start of the crediting period needs to be defined (the shorter the better, to ensure the baseline is still relevant)

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.

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);
 - Buffer pools are typically only used for NBS projects, which have a more material risk of reversal than TBS.
 - However, with the development of CDR projects with geological storage and their exposure to losses risks, there is room to further investigate a percentage risk buffer based on the ground formation or the project location with a timeline threshold (i.e. less than 200 years. etc.).
 - It is important to note that, if the reversal is extreme, and exceeds the carbon project's contributions to the buffer pool or the project is terminated, the liability of the project should vary. In this instance, buffer pools need to be complemented with other measures (for example, purchasing carbon credits from other projects).

- b. Insurance / guarantees for replacement of ERs where reversals occur (commercial, sovereign, other);
 - This approach would be similar to the letter of credit process (when a bank guarantees the risk of default of a company or of another bank).
 - This will need new actors on the market to be involved: insurers and banks.
 - While insurers are already active in carbon markets, banks would need to get up to speed. However, the size of the market and the potential gains are likely to attract the banking sector.
 - This approach would require heavy, and as a result pricy, monitoring processes to justify and use the insurance or the guarantees for the replacement of ERs when reversals occur.
 - 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.
 - The buffer pool approach already exists for NBS so it's the most common and easiest to put in place for CDR; only deep-in analysis of the ground in combination with permanence timeline sequestration is required.
 - The insurance and guarantee approach would need more time to be fully effective as a good assessment of this market by the insurers and the banks is required. However, given the financial opportunity they present, it is expected that they scale fast.
 3. What risks of non-permanence need to be minimized, and how can these risks identified, assessed, and minimized?
 - Some reversals are avoidable (e.g. land being converted for other uses, or being over-harvested), while others are beyond human control (e.g. natural disasters and changing climates). Avoidable reversals should be minimised.
 - The most pressuring reversal risks should be identified based on how likely they are to materialise and the severity of the consequences.
 4. In respect of risk assessment, how should the following elements be considered in the implementation of the approaches in (1) and any other relevant elements in this guidance?
 - a. Level of non-permanence risk assessment, e.g., activity- or mechanism-level

Activity-level, because reversal risks are very dependent on the project type, the location and other activity-specific features.
 - b. Timing for risk assessment(s)

Timing for risk assessment should be conducted during the registration of the project and re-confirmed/reviewed by a third party in each verification report published after each monitoring report released by the project proponent.
 - c. Entity(ies) responsible for risk assessment(s), e.g., activity proponent, 6.4SB, actuary

Risk assessment should be conducted by the project proponent and reviewed by a third-party entity with a confirmed knowledge of the subject.

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

- The level of buffer pools should be determined based on the risk of reversal for a specific project and the measures in place to overcome this risk.
- The overall risk of reversals should be based on both natural and anthropogenic risks.
- Different parameters should be used per project type. Some examples:
 - NBS CDR projects: risk of droughts and wildfires
 - TBS CDR projects: the geological formation, the depth of the CO₂ injection and how the CO₂ is injected (liquid, gas or solid).

b. Composition of buffer pool, including in relation to ER vintages and contributing activity types or categories

As for NBS CDR projects, the buffer pool needs to be evaluated at each vintage and the relevant ERs stored on an account for potential reversal risk later.

c. Intentional and unintentional reversals

Only unintentional reversals should be eligible for the release of ERs from the buffer pool. Intentional reversals should be cancelled from the total number of ERs issued by the project (over-crediting risk). Anthropogenic reversals that happen repeatedly, should be penalised severely and even conclude in the termination of the project.

d. Treatment of uncancelled 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

Ideally, reversals should be compensated with ERs from the same project type. If not possible (please see section f), the ERs used to compensate should align as much as possible with the project ERs. Project type, vintages and location are the most relevant aspects to align.

f. Replenishment in case buffer cancellations exceed contributions; slide language on re-raising baseline level of storage before new crediting

In case 100% of the buffer pool gets cancelled, an alternative way of compensating for the reversals should be defined. For example, the purchase and use of credits from a similar project.

In this situation, the buffer pool needs to be reassessed for the next crediting period. The objective is to avoid the buffer pool to be fully used up again.

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 types.

- Define activity shifting leakage discounts for all activities under the 6.4 mechanism.
- For jurisdictional approaches, market leakage should be considered. Market leakage refers to an increase in GHG emissions resulting from the change in supply and demand equilibrium outside the program's jurisdiction (for example a country). This type of leakage is extremely challenging to track and account for.

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.

- When applicable, mandate consultations with local stakeholders
- Establish safeguards, and adapt them to the project type. Some project types have an especially high risk of resulting in negative impacts.
- Consider existing international frameworks, such as the Cancun Safeguards for REDD+
- Establish requirements that go beyond safeguards, such as monitoring and reporting of co-benefits and benefit-sharing plans