

**A6.4-SB007-A07**

## Draft recommendation

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# Activities involving removals under the Article 6.4 mechanism

Version 02.0



**United Nations**  
Framework Convention on  
Climate Change

<b>TABLE OF CONTENTS</b>	<b>Page</b>
<b>1. PROCEDURAL BACKGROUND .....</b>	<b>3</b>
<b>2. PURPOSE .....</b>	<b>4</b>
<b>3. DEFINITIONS .....</b>	<b>4</b>
<b>4. REQUIREMENTS .....</b>	<b>5</b>
4.1. Monitoring .....	5
4.2. Reporting .....	6
4.3. Accounting for removals .....	7
4.4. Crediting period .....	7
4.5. Addressing reversals .....	7
4.5.1. Reversal risk assessment .....	7
4.5.2. Post reversal actions.....	8
4.5.3. Remediation of reversals .....	9
4.6. Avoidance of leakage.....	11
4.7. Avoidance of other negative environmental and social impacts.....	11

## 1. Procedural background

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”, paragraph 6(c), requested the Supervisory Body of the mechanism established by Article 6, paragraph 4, of the Paris Agreement (Article 6.4 mechanism), to elaborate and further develop, on the basis of the rules, modalities and procedures of the Article 6.4 mechanism, 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 annex (Article 6, paragraph 4, activity cycle), to be considered at its fourth session (November 2022).<sup>1</sup>
2. In response to this request, the Supervisory Body agreed on the recommendations on activities involving removals under the Article 6.4 mechanism contained in the annex to the addendum of its annual report to CMA.4.
3. The CMA, by decision 7/CMA.4, paragraph 19, invited Parties and admitted observer organizations to submit, via the submission portal by 15 March 2023, their views on activities involving removals and requested the Supervisory Body to consider the views of Parties and observers in elaborating and further developing recommendations on activities involving removals, while taking into account the mandate provided to the Supervisory Body contained in paragraph 24(a)(ix) of the rules, modalities and procedures, and considering broader inputs from stakeholders provided in a structured public consultation process.
4. At its fourth meeting (7–10 March 2023), the Supervisory Body requested the secretariat to prepare an updated version of the document “Information note: Activities involving removals under the Article 6.4 mechanism”, taking into account the guidance and questions contained in annex 2 to the SB 004 meeting report<sup>2</sup> and the views of Parties and observers submitted in response to the call for submissions pursuant to decision 7/CMA.4, paragraph 19.
5. At its fifth meeting (31 May 2023 – 03 June 2023), the Supervisory Body considered the information notes “Removal activities under the Article 6.4 mechanism”<sup>3</sup> and “Summary of the views submitted by Parties and observers on activities involving removals”<sup>4</sup> and agreed to launch a call for structured public consultation based on the information note “Guidance and questions for further work on removals”,<sup>5</sup> to be open from 5 to 19 June 2023.

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<sup>1</sup> Document FCCC/PA/CMA/2021/10/Add.1 available at: <https://unfccc.int/documents/460950>.

<sup>2</sup> Annex 2 of the SB 004 meeting report titled “Information note: Guidance and questions for further work on removals (v.01.0) is available at: <https://unfccc.int/sites/default/files/resource/a64-sb004-a02.pdf>.

<sup>3</sup> Annex 9 to the annotations of the SB 005 meeting, available at <https://unfccc.int/sites/default/files/resource/a64-sb005-aa-a09.pdf>.

<sup>4</sup> Annex 10 to the annotations of the SB 005 meeting, available at <https://unfccc.int/sites/default/files/resource/a64-sb005-aa-a10v1.pdf>.

<sup>5</sup> Annex 2 of the SB 005 meeting report, available at: <https://unfccc.int/sites/default/files/resource/a64-sb005-a02.pdf>.

6. At its sixth meeting the Supervisory Body further requested the secretariat to:
- (a) Update the information note “Compilation of the public inputs on removal activities under the Article 6.4 mechanism”<sup>6</sup> to further incorporate submissions to the structured consultations undertaken in June-July 2023, taking into account the guidance for the information note’s compilation and contents provided at the fifth meeting of the Supervisory Body (A6.4-SB005-A02);
  - (b) Update the information note “Draft elements for the recommendation on activities involving removals”<sup>7</sup>, based on guidance from the Supervisory Body at its sixth meeting, including Part I and Part II of the written consultation, and public consultations to inform the Supervisory Body’s consideration of corresponding draft recommendations below at its seventh meeting, following the guidance for the note’s compilation and contents provided at the fifth and sixth meeting of the Supervisory Body;
  - (c) Prepare draft recommendations for consideration at the seventh meeting of the Supervisory Body, based on outputs from the fourth to the sixth meeting of the Supervisory Body, guidance from the sixth meeting of the Body, including Part I and Part II of the written consultation, recommendations on removals from the third meeting of the Body, and guidance from the informal group on removals on preliminary draft recommendations shared prior to the seventh meeting of the Supervisory Body.

## 2. Purpose

7. The purpose of this document is to advance the work to elaborate and further develop draft recommendations, on the basis of the RMP, on activities involving removals based on the guidance of the Supervisory Body as contained in paragraph 6 (c) above.

## 3. Definitions

8. IPCC AR6 WGIII defines activities involving removals:
- (a) Anthropogenic removals as the withdrawal of greenhouse gases (GHGs) from the atmosphere as a result of deliberate human activities. (IPCC AR6 WGIII Report Glossary);
  - (b) Carbon dioxide removal (CO<sub>2</sub>; CDR) as Anthropogenic activities removing CO<sub>2</sub> from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes existing and potential anthropogenic enhancement of biological, geochemical or chemical CO<sub>2</sub> sinks, but excludes natural CO<sub>2</sub> uptake not directly caused by human activities. (IPCC AR 6 WG III Technical Summary).

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<sup>6</sup> A6.4-SB007-AA-A13 - Information note: Compilation of the public inputs on removal activities under the Article 6.4 mechanism, found at: [7th meeting of the Article 6.4 Supervisory Body \(SB 007\) | UNFCCC](#)

<sup>7</sup> A6.4-SB007-AA-A14 - Information note: Draft elements for the recommendation on activities involving removals, found at: [7th meeting of the Article 6.4 Supervisory Body \(SB 007\) | UNFCCC](#)

9. For the purposes of this guidance,
- (i) **Removals** are the outcomes of processes to remove greenhouse gases from the atmosphere through anthropogenic activities and durably store them; and
  - (ii) Activities involving removals meet the requirements in Section 4. Any examples in this guidance referring to specific activity types or categories are purely illustrative and do not give effect to decisions by the Supervisory Body regarding their use under the Article 6.4 mechanism unless this is explicitly indicated and authorized by the SB in this or related guidance.

## 4. Requirements

10. Activities involving removals under the Article 6.4 mechanism shall meet the requirements contained in sections below and in any further guidance developed and approved by the Supervisory Body for activities involving removals, in addition to the requirements contained in the annex to decision 3/CMA.3 “Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement”, and any further relevant decisions of the CMA, and all relevant Article 6.4 mechanism standards and procedures.

### 4.1. Monitoring

11. Activity participants shall monitor removals through an appropriate application of quantification and estimation based on an appropriate combination of field measurements, remote sensing, measurement through instrumentation, [and/or] modelling as necessary. In this regard, methodologies shall specify the monitoring approach(es) for all parameters needed for the calculation of removals according to the types of removal activities.
12. Methodologies shall ensure that the approaches related to the use of measurements, sampling, data from third parties such as published literature or, satellite data, default values or modelled data, are robust, statistically representative, conservative and appropriately address uncertainty.
13. Methodologies may specify monitoring by a third party, where activity participants are responsible for providing the information/data as requested by the third party and to receive the necessary information required for the monitoring reports from the third party.
14. Calculation of removals shall be stated with the associated uncertainties, and these uncertainties shall be within the limits to be specified in the methodologies applied. If the uncertainty of calculation of removals exceeds the specified limits, the calculated values shall be adjusted in a conservative manner.
15. Calculation of removals may employ conservative default values that appropriately address uncertainty, to allow flexibility in monitoring.
16. Methodologies may include provisions for the use higher tier methods such as use of measured values in lieu of conservative default values in the instance that the default values are determined to underestimate actual removals.
17. Methodologies shall require appropriate quality assurance and quality control measures, such as cross-checking the monitoring results with other sources of data.

18. Methodologies shall require activity participants to review and update the monitoring plan at the start of each crediting period, as well as in any of the following circumstances:
  - (a) When verification reveals a need for revision of monitoring plan;
  - (b) Following any significant reversal event that reveals a new risk factor that is not already included in the monitoring plan;
  - (c) As per existing and applicable national and regional regulations as specified by the host Party.
19. Monitoring shall also be conducted after the end of the last crediting period of the activity for a period of time that is commensurate with the degree and nature of the residual reversal risk, the mitigation measures applied, and any specifications and arrangements for post crediting period monitoring voluntarily provided by the host Party, by following requirements to be developed by the Supervisory Body.

#### **4.2. Reporting**

20. Activity participants shall prepare monitoring reports after monitoring operations and summarize the calculated amount of removals resulting from the monitoring to seek issuance of credits.
21. Monitoring reports shall contain:
  - (a) A description of the monitoring operations and methods used, and the resulting calculated removals along with the associated uncertainties in the calculation;
  - (b) Field data, including remotely sensed data, or if the data set is too voluminous, a summary of the data and an indication of how the complete data set may be accessed;
  - (c) Records and logs of observed events that could potentially lead to the reversal of removals as well as a summary of any reversal notifications that were submitted during the monitoring period;
  - (d) Estimates of any reversals that occurred during each monitoring period;
  - (e) Descriptive information on how any reversals occurred and were addressed, were planned or unplanned, and were or will be addressed, including remedial actions;
  - (f) Information on how the environmental and social impacts were assessed and addressed by applying robust environmental and social safeguards and how the activity is fostering sustainable development through the utilization of the Article 6.4 sustainable development tool.
22. Monitoring reports shall be prepared without a gap between the two successive monitoring periods.
23. The frequency of monitoring report submission shall be commensurate with the degree and nature of the risk of reversals determined through a risk assessment undertaken by the activity participants as per section [Risk Assessment].
24. Methodologies shall specify the maximum duration within which the first monitoring report shall be submitted. Based on the results of the risk assessment, the duration may range from 1-5 years from the start date of the first crediting period. Methodologies shall require

submission of subsequent monitoring reports at least every 2 years for activities with high reversal risk or at least every 5 years for those with low reversal risk, which shall be determined through the risk assessment.

25. Activity participants may choose a shorter period for monitoring in order seek issuance of 6.4ERs. A reversal event may also trigger the preparation of a monitoring report as described in section below.
26. The Supervisory Body will develop guidance on options for remediation where deadlines for monitoring report submission are missed or monitoring is completely stopped.

#### **4.3. Accounting for removals**

27. Removals to be credited shall be those in excess of the baseline while deducting any activity and leakage emissions.
28. Any carbon pools and greenhouse gases may be optionally excluded from accounting if such exclusion results in a more conservative calculation of net removals.
29. If an activity involving removals also results in emission reductions, relevant guidance shall be applied through a relevant methodology or a combination of methodologies applicable to the activity in accordance with the provisions to be developed by the Supervisory Body.

#### **4.4. Crediting period**

At renewal of crediting period, activities involving removals shall apply the latest version of the applicable methodology.

#### **4.5. Addressing reversals**

Activity participants shall minimize the risk of reversals of removals over multiple nationally determined contribution implementation periods and, where reversals [that lead to release of stored carbon] [of removals] occur, ensure that these are addressed in full, following requirements to be developed by the Supervisory Body.

##### **4.5.1. Reversal risk assessment**

30. The risks of reversals may be planned or unplanned and may include, inter alia:
  - (a) Internal risks such as those related to financials and management;
  - (b) External risks such as those related to asset ownership, rising opportunity costs, regulatory and social instability, country specific political risks and legal risks;
  - (c) Natural risks such as those related to fires, pests, and droughts.
31. Activity participants shall conduct a risk assessment at the activity-level using robust methods to identify and assess the reversal risks, including to quantify and score, e.g., the nature, scale, likelihood, and duration of the risks and of potential reversals. Risk assessments shall be conducted in advance of the project's registration and be included in the PDD and the Monitoring Plan.
32. Activity participants shall also develop and implement plans to mitigate, monitor, and report on the risks and steps taken. Risks that cannot be eliminated shall be addressed as described below in this document.

33. Activity participants shall review and revise the risk assessment every five years from the start of the first crediting period, as well as [in line with any review of the monitoring report.] [any of the following circumstances:]
- (a) [Every 5 years;
  - (b) In the case of a reversal event;
  - (c) At each new monitoring report;
  - (d) After any extreme weather event, such as fire activity, drought, typhoon within the project boundary];
  - (e) When economic and socio-political shocks occur affecting the project region (e.g., price shocks or political instability in a region);
  - (f) [At the start of each crediting period.]

The Supervisory Body will develop a risk assessment tool for the implementation of paragraphs 33-34 and any procedures or requirements that refer to the results of this tool. Methodologies may include additional guidance on the application of the tool.

#### **4.5.2. Post reversal actions**

##### **4.5.2.1. Reversal notification**

34. The activity participant shall notify the Supervisory Body of reversals that occurs within their project boundary. The submission of a reversal notification shall be made as follows:
- (a) First or preliminary notification shall be provided, within [30][60] days of the observed event that could potentially lead to the reversal, including, at a minimum, the date of the event, the location and a short description of the event. It may be provided digitally;
  - (b) Reversal notification as a full monitoring report shall be provided by the earlier of the next deadline for monitoring report submission or within [90][120] [180] [360] days of the observed event, which includes, e.g., estimates of the reversals that occurred and information on how the reversals occurred, were planned or unplanned, and were or will be addressed including through corrective actions referred to in an accompanying updated reversal risk assessment;
  - (c) In case the reversal event is still ongoing, the activity participant should continue to submit follow-up monitoring reports every [90][x] days until the reversal ceases, at which point, a final monitoring report should be submitted;
  - (d) Observation of an event that could potentially lead to a reversal during the verification/certification process shall temporarily suspend the processes until the reversal event is adequately assessed and corrective actions are taken where necessary.

##### **4.5.2.2. Corrective actions**

35. Activity participants shall undertake appropriate corrective measures and demonstrate this in the requisite update to the reversal risk assessment, inter alia:
- (a) Assessing how the reversal occurred and its causes;

- (b) Elaborating plans to prevent further reversals such as improving control measures, storage conditions, handling procedures, further personnel training in various aspects of removal process;
  - (c) Reassessing adherence to local and international regulations;
  - (d) Engaging stakeholders in accordance with the procedures of the Supervisory Body;
36. Activity Participants shall also update the SD tool to reflect the relevant underlying causes and any negative impacts, as well as plans for remediation and prevention of a recurrence.

### **4.5.3. Addressing reversal risk and reversals**

#### **4.5.3.1. Buffer pool and its operation**

37. The Article 6.4 Supervisory Body shall establish a Reversal Risk Buffer Pool for use by activity participants to manage the risk of and compensate for reversals of removals.
38. {Description of the buffer} [The Buffer Pool is a system of rules, procedures, and registry functions that, in combination, aggregate all A6.4ERs from relevant Article 6.4 mechanism activities into a single risk pool.]
39. {Risk rating and 6.4 Registry Role} [The 6.4 mechanism registry shall perform the electronic operations and transparency functions of the Buffer. Buffer 6.4ER contributions represent the quantified (percent-based) risk of reversal as calculated by the activity participant through the risk assessment tool. Upon issuance, an amount of ERs proportionate to that risk rating are forwarded to the Buffer Pool account. Buffer ERs shall only be accessed by the 6.4 mechanism registry administration, subject to further SB decisions].
40. {Cancellation by Registry Administrator upon notification} [Following a notification by [to define], the registry administrator shall effect a cancellation of Buffer Pool ERs equal to the notified amount of reversals. Where possible reversals should be compensated with removals from the same project type, vintages and location.]
41. {Stress-testing} Stress-testing at least every 3 years shall be done to assess the pool's resilience for a range of plausible reversal risk scenarios affecting the activities linked to the pool. In addition to regular stress-testing, the composition of the buffer pool, including the share of credits by vintage, region and country, activity type, crediting methodology, and specific activity, should be published annually.
42. In some circumstances, alternative or additional remediation measures, such as direct replacement and cancellation of ERs, may also or instead be applied to compensate for reversals, in accordance with any further guidance developed by the Supervisory Body.
43. The Supervisory Body will also develop further procedures for the Buffer's operation pertaining to the following, inter alia:
- (a) Treatment of planned vs. unplanned reversals;
  - (b) Treatment of uncanceled / unused ERs;
  - (c) Buffer composition and security;

- (d) Measures to address Buffer Insufficiency and/or activities with negligible reversal risk.

#### **4.5.3.1.1. Planned vs unplanned reversals**

- 44. Where there is a planned reversal, the activity participant shall address the situation *inter alia* by compensating with replacement of credits from outside the buffer pool. [Where there is a planned reversal, the mechanism registry account of the activity proponent may be frozen such that all issuances/ transfers/ retirements of any credits from the proponent, including those from other projects and previously issued removals, are halted until all reversals are fully addressed, a follow-up investigation is conducted to determine the reason and nature of the planned reversal, and appropriate disciplinary/corrective measures taken.]
- 45. Where there is an unplanned reversal, the activity participant shall address the situation by using credits from the buffer pool [Only like-for-like types of credits (same or higher inherent-permanence category) shall be used] and replenishing the buffer pool equivalent to any reversals in excess of the share of removal credits it initially contributed.

#### **4.5.3.1.2. Treatment of uncanceled/unused buffers**

- 46. Option 1: Uncanceled removals should not be automatically cancelled.
  - (a) Based on the performance of the activity and a risk assessment completed at the end of the crediting period, the amount of credits that need to be maintained in the buffer pool should be reassessed, with some portion of credits returned to the activity proponent depending on the reversal risk at that point in the project lifetime; or
  - (b) They should be entirely returned to the activity proponent to incentivize good performance; or
  - (c) They should be kept in a buffer pool to continue to ensure that protect against reversal events beyond the project crediting lifetime.

Option 2: They should be automatically cancelled. ["Incentivising Performance" needs to be met with legal liability for default].

Option 3: Removals are neither cancelled nor returned to the proponent under normal circumstances. If most projects do not suffer from reversal, the buffer pool grows over time (contributing to overall mitigation in global emissions). [The credits contributed into the buffer pool should not be returned to the contributors just as the insurance premium collected is not refunded by insurance companies. Coverage of risk is a service that is already delivered to the contributors. The rate of contribution in the future may be reduced for the entities with good track record of avoiding reversals, just as insurance premium does.]

#### **4.5.3.2. Insurance and its operation**

- 47. Insurance mechanisms may be designed to ensure that any reversals are compensated for with replacement carbon removals i.e. the cost of providing equivalent amount of removal to address reversal when it occurred, rather than financial compensation which is the cost of the original removals in the past.

#### 4.6. Avoidance of leakage

48. Activity participants shall minimize the risk of leakage and adjust for any remaining leakage in calculations of net removals in accordance with the requirements specified in the [methodology requirements], including by applying the tool to be developed by the Supervisory Body for this purpose. Methodologies and related tools may include additional requirements applicable to specific types of removal activities.

#### 4.7. Avoidance of other negative environmental and social impacts

49. Activity participants shall apply robust social and environmental safeguards to minimize and, where possible, avoid negative environmental and social impacts of the activity:

- (a) in accordance with requirements contained in “Article 6.4 mechanism activity standard” <sup>[X]</sup>, including the application of the Article 6.4 mechanism sustainable development tool, guidance on local and global stakeholder consultation and where applicable Appeals and Grievance Procedure; and
- (b) any other applicable provisions developed by the Supervisory Body to avoid negative environmental and social impacts of an activity involving removals.

50. In addition to above requirements, the Supervisory Body will develop further requirements in respect of specific removal activity categories or types taking into account national and international best practices in environmental and social safeguards, which activity participants shall also apply and social impacts.

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#### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	14 September 2023	Published as an annex to the meeting report of SB 007. This version is a work-in-progress and will be used to make further improvements based on guidance provided by the Supervisory Body at SB 007.
01.0	1 September 2023	Published as a late annex to the annotated agenda of SB 007.

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#### Related documents:

28 August 2023	<a href="#">A6.4-SB007-AA-A13</a> - Information note: Compilation of the public inputs on removal activities under the Article 6.4 mechanism (version 02.0)
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18 July 2023	<a href="#">Questions for structured call for inputs on recommendations for activities involving removals</a> (version 01.0) This document was published in call for input 2023 - structured public consultation: Further input - Removal activities under the Article 6.4 mechanism web page
4 July 2023	<a href="#">A6.4-SB006-AA-A09</a> - Information note: Compilation of public inputs received on removals (version 01.0)
3 June 2023	<a href="#">A6.4-SB005-A02</a> – Information note: Guidance and questions for further work on removals (version 02.0)
17 May 2023	<a href="#">A6.4-SB005-AA-A09</a> – Information note: Removal activities under the Article 6.4 mechanism (version 04.0)
17 May 2023	<a href="#">A6.4-SB005-AA-A10</a> – Information note: Summary of the views submitted by Parties and observers on activities involving removals (version 01.0)
10 March 2023	<a href="#">A6.4-SB004-A02</a> - Information note: Guidance and questions for further work on removals (v.01.0)
28 February 2023	<a href="#">A6.4-SB004-AA-A04</a> - <i>Information note</i> : Removal activities under the Article 6.4 mechanism (version 3.0)
07 November 2022	<a href="#">A6.4-SB003-A03</a> - <i>Recommendation</i> : Activities involving removals under the Article 6.4 mechanism (version 1.0)
25 October 2022	<a href="#">A6.4-SB003-AA-A03</a> - <i>Draft recommendation</i> : Removal activities under the Article 6.4 mechanism (version 2.0) <a href="#">A6.4-SB003-AA-A04</a> - <i>Information note</i> : Removal activities under the Article 6.4 mechanism (version 2.0)
15 September 2022	<a href="#">A6.4-SB002-AA-A05</a> - <i>Draft recommendation</i> : Requirements for the development and assessment of mechanism methodologies pertaining to activities involving removals (version 1.0) <a href="#">A6.4-SB002-AA-A06</a> - <i>Information note</i> : Removal activities under the Article 6.4 mechanism (version 1.0)
08 July 2022	<a href="#">A6.4-SB001-AA-A05</a> - <i>Concept note</i> : Removal activities under the Article 6.4 Mechanism (version 1.0)