ARTICLE 6.4 MECHANISM

A6.4-MEP004-A03

Draft Standard

Addressing leakage in mechanism methodologies

Version 01.0

United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. The Supervisory Body of the Article 6.4 mechanism (SBM), at its tenth meeting (SBM 010), approved its workplan for 2024 and requested the Methodological Expert Panel (MEP) to prepare recommendations for a leakage tool.

2. The MEP, at its first meeting (MEP 001), initiated the work on the development of a leakage tool and agreed to recommend development of a standard on leakage.[1]

3. The Supervisory Body, at its eleventh meeting (SBM 011), agreed with the recommendation of the MEP to develop a standard on leakage.[2]

4. The MEP, at its second meeting (MEP 002), considered the draft leakage standard and continued the work on this standard. In particular, the MEP worked on the identification procedure for leakage, the identifications of types of leakages as well as approach for addressing leakages.

5. The MEP, at its third meeting (MEP 003), further elaborated the definition of concepts pertaining to leakage, general principles as well as the procedure to address leakage.

6. The Supervisory Body, at its fourteenth meeting (SBM 014), adopted the "Standard: Application of the requirements of Chapter V.B (Methodologies) for the development and assessment of Article 6.4 mechanism methodologies" (hereinafter referred to as the "methodologies standard") and made specific recommendations to the CMA. At that meeting, the Supervisory Body also requested the MEP to continue its work on leakage on the basis of the adopted methodologies standard.

2. Purpose

7. The "Standard: Addressing leakage in mechanism methodologies" sets forth the requirements on how to address leakage in mechanism methodologies.

3. Key issues and proposed solutions

8. This proposed draft standard provides a framework of requirements relating to identification, avoidance, minimization, calculation and adjusting for leakage in Article 6.4 activities.

9. The draft standard is aligned with the methodologies standard.

10. The draft standard applies to mechanism methodologies for emission reduction activities as well as for activities involving removals.

[1] See table 2 under paragraph 10 of the meeting report of MEP001.

[2] See document A6.4-SB011-A02: Workplan of the Methodological Expert Panel 2024.

11. In elaborating the draft standard, the MEP decided to focus on the requirements for methodologies developed for project-level activities. Paragraph 85 (c)–(e) of the methodology's standard requires consideration of leakage in relation to higher-level activities, such as through standardized baselines; nesting of project-level activities within higher-level crediting programs; and sectoral, subnational, or national crediting programs.

12. In this standard, upstream and downstream emissions associated with material and services used by an Article 6.4 activity are included within the activity boundary as related greenhouse gases and are not considered leakages.

4. Impacts

13. The "Standard: Addressing leakage in mechanism methodologies" will provide clarity on the requirements that mechanism methodologies shall contain with regard to leakage.

5. Subsequent work and timelines

14. A call for public input will be launched immediately after the MEP 004 meeting.

15. The MEP will take into account the inputs received and will continue working on the Standard at its next meeting.

16. The MEP may revise the standard in the future to cover methodologies addressing mitigation actions at other scales (e.g. large-scale crediting programmes), as noted in paragraph 11 above.

6. Recommendations to the Supervisory Body

17. N/A (a call for public inputs will be launched).

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1. Introduction

1.1. Scope

1. This standard sets out requirements for mechanism methodologies to first identify potential sources of leakage and then avoid, minimize or calculate and adjust for remaining leakage of an Article 6.4 activity, to be elaborated within the mechanism methodologies.

1.2. Entry into force

2. The date of entry into force is the date of the publication of the SBM ### meeting report on DD Month YYYY.

2. Definitions

3. The following definitions shall apply:

(a) **Project boundary:** the boundary that encompasses all greenhouse gases under the control (direction and influence) of the Article 6.4 activity participant and related to the Article 6.4 activity (has material or energy flows into, out of, or within the activity)[3];

(b) **Controlled sources and sinks:** sources and sinks whose operation is under the direction and influence of the Article 6.4 activity participant through financial, policy, management or other instruments;

(c) **Leakage:** anthropogenic emissions and removals of greenhouse gases that occur outside the Article 6.4 activity's boundary and that are attributable to the activity. The leakage refers to emissions and removals that are influenced by the activity frequently through changes in market demand or supply for associated products or services;

(d) **Level of service**: the quality, reliability and scale of an output provided by an Article 6.4 activity and/or in the baseline scenario;

(e) **Output**: Each good or service provided by the Article 6.4 activity and/or in the baseline scenario (for example, efficient appliance, electricity, cooking energy, municipal waste management, and so forth), as specified in the mechanism methodology;

(f) **Related sources and sinks**: sources and sinks that have material or energy flows into, out of, or within the Article 6.4 activity boundary.

3. Applicability

4. This standard applies to mechanism methodologies developed for activities that involve emission reductions and/or activities involving removals.

[3] Further guidance on the determination of the Article 6.4 activity boundary is included in the Appendix 1 to this draft standard.

5. This version of the standard is applicable to mechanism methodologies for activities undertaken at the project level. The standard may be amended in the future to cover methodologies addressing mitigation actions at other scales (e.g., programmes of activities, policies, sectoral approaches).

4. General requirements

6. Mechanism methodologies shall specify the methods for quantifying leakage emissions and removals.

7. Mechanism methodologies shall include all leakage sources in the calculation of emission reductions or net removals, unless their exclusion is conservative. This shall include increases in emissions and decreases in removals and may also include decreases in emissions and increases in removals.

8. The relevant geographical area for consideration of leakage shall not be limited to national boundaries and shall include international leakage where this can occur.

9. Mechanism methodologies shall include provisions to assess whether the implementation of the Article 6.4 activity leads to any changes in the level of services provided as compared to the baseline scenario. When the services provided in the activity scenario change compared to the baseline scenario, this can result in leakage. For example, a solar power plant constructed on agricultural land could lead to a change in the type or level of agricultural production. Such leakage shall be:

    (a) Prevented by designing the mitigation Article 6.4 activity in a way that the same level of service is provided under the mitigation activity as in the baseline scenario (e.g., by providing respective applicability conditions or expanding the Article 6.4 activity boundary); or

    (b) Addressed by quantifying and deducting any leakage resulting from the change in the level of service.

10. If the sum of leakage from all greenhouse gas emissions and removals is a net decrease in greenhouse gas (GHG) emissions or increase in GHG removals, the resulting leakage shall be equal to zero in the of quantification of the emission reductions or net removals.

5. Procedures to address leakage

11. Mechanism methodologies shall contain provisions to identify, avoid, minimise, calculate and adjust for leakage as per the specifications below.

5.1. Identification of leakage

12. The proponent of a mechanism methodology shall identify all potential sources of leakage for the type of mitigation activities covered by the methodology. This shall include, but not be limited to, the following sources of leakage:

    (a) Baseline equipment transfer: This issue is relevant where:

        (i) Equipment used within the activity boundary prior to the implementation of the Article 6.4 activity would continue to be used in the baseline scenario and is being replaced under the Article 6.4 activity scenario;

(ii) The replaced equipment is functional and has a value for third parties and could continue to be used outside of the activity boundary where it may displace less greenhouse gas intensive processes;

(b) Use of competing resources: This issue is relevant where:

(i) The Article 6.4 activity increases, relative to the baseline scenario, the use of resources that have competing uses;

(ii) The availability of the resources is limited within the relevant geographical area;

(iii) The potential diversion of the resource from other uses to the Article 6.4 activity could lead to an increase in greenhouse gas emissions or decrease of removals outside the Article 6.4 activity boundary;

(c) Diversion of existing production processes or services which may lead to changes in the type or level of service: This issue is relevant where:

(i) The type or level of services provided under the Article 6.4 activity changes compared to the baseline scenario; and

(ii) The change could lead to a net increase in emissions and/or a net decrease in removals.

13. Paragraph 12(b) above may not apply to fossil fuels or mineral products.

Box 1. Example 1: Examples of leakages

Note to paragraph 12 b(ii)

1. This may, for example, apply to agricultural by-products used as fuels or feedstocks. For example, the diversion of biomass from application on fields to alternative uses may result in an increased use of synthetic fertilizer.
2. This may, for example, be applicable to activities that involve changes in management or use of land, e.g. by shifting pre-project activities such as grazing outside of the activity boundary.

5.2. Avoidance and minimisation of leakage

14. Mechanism methodologies shall include provisions to avoid or minimize all identified sources of leakage by applying, inter alia, the approach(es) below as appropriate for the given sector or Article 6.4 activity type. Avoiding or minimizing leakage may be done by, for example, limiting the scope of applicability conditions, as follows:

(a) If baseline equipment transfer is identified as a source of leakage, methodologies can include applicability conditions that require the destruction, decommission or disposal of the baseline equipment and the provision of relevant evidence;

(b) If use of competing resources is identified as a source of leakage, methodologies can include applicability conditions to demonstrate abundance of such resource and that such resource would not be used in the baseline scenario. Abundance demonstrations shall be based on requirements provided for in methodologies and shall account for the economic and environmental impacts of diverting resources

from prior use cases, including with respect to the sustainable use of natural or human-managed ecosystems. For example, methodologies can establish applicability conditions to prevent soil depletion by requiring that a minimum amount of biomass must be retained per unit of land;

(c) If changes in the level of services accounted for in the baseline is identified as a source of leakage, methodologies can include applicability conditions requiring the demonstration of equivalence of service;

(d) For example, if a reforestation Article 6.4 activity could result in diversion of pre-project activities such as agriculture, mechanism methodologies can include conditions which limit applicability to activities which do not result in such diversion.

5.3. Calculation and adjustment for leakage

15. If leakage cannot be avoided through measures indicated in the preceding section, mechanism methodologies shall include procedures to calculate and adjust for leakage in the quantification of emission reductions or net removals.

16. Where baseline equipment transfer cannot be avoided by measures such as destruction, decommission or disposal of the baseline equipment, mechanism methodologies shall provide approaches to calculate leakage from continued use of the equipment. Such approaches may include the use of conservative default factors, taking into account the emission factor, capacity factor and remaining lifetime of the equipment.

17. Where use of competing resources cannot be avoided through demonstration of abundance and non-use in the baseline as specified above, mechanism methodologies shall include procedures to account for such leakage, for example, by taking into account the expected quantity of resources used under the mitigation Article 6.4 activity and subject to competing uses, likely alternatives for such resources, and the emissions or removals associated with the alternative uses.

18. Where the levels of service in the baseline scenario and the Article 6.4 activity scenario differ (e.g., diversion of production processes or services), methodologies shall specify procedures to assess and account for any resulting leakage from changes in the level of service in the calculation of emission reductions or net removals. This is particularly relevant where the implementation of the 6.4 activity results in a decrease in the level of service.

19. Article 6.4 activities are ineligible to earn A6.4ERs where those activities lead to a decrease in a level of service relative to the baseline scenario, unless a methodology provides a justified rationale for the quantification of all relevant leakage effects and those effects are fully included in the methodology's crediting calculations.

20. Where there are different types of outputs provided in the Article 6.4 activity scenario compared to in the baseline scenario, mechanism methodologies shall specify the approach to quantify and deduct leakage in the calculation of emission reductions or net removals.

21. For example, if a reforestation activity could result in diversion of pre-project activities such as agriculture, mechanism methodologies can include provisions to account for emissions resulting from such diversion, e.g., from indirect land-use change taking into account equivalent production of agricultural commodities.

Appendix 1. [Definition of the project boundary

1. Mechanism methodologies shall identify all the emission sources, sinks or reservoirs that could be altered by activities that are eligible under the methodology.

2. Mechanisms methodologies shall indicate for each source, sink or reservoir whether it pertains to the baseline scenario and/or the Article 6.4 activity scenario. Mechanism methodologies shall compare the activity and baseline sources, sinks and reservoirs to ensure a complete and fair comparison between the two scenarios.

3. Mechanism methodologies shall further indicate whether each source, sink and reservoir is controlled, related to, or affected by the applicable Article 6.4 activities, in line with the definitions, and provide adequate justification. Note that some sources, sinks or reservoirs may be classified in different ways, depending on the configuration of the Article 6.4 activity (for example, in some activities, a source of transport emissions may be controlled whereas in others it may be related); in this case, this should be indicated in the methodology respectively.

4. Mechanism methodologies shall define the activity boundary of the applicable Article 6.4 activities, including which emission sources, sinks or reservoirs and GHGs are included.

5. The activity boundary shall include emission sources, sinks or reservoirs that are identified as *controlled* and *related*. The activity boundary also may include sources, sinks or reservoirs that are identified as *affected*. For example, for activities that provide renewable electricity to the grid and thereby affect generation by power plants in the grid. In this case, the emission reductions from power plants in the grid shall be treated as a baseline emission source within the activity boundary. Affected sources, sinks or reservoirs that are not included in the activity boundary shall be included as leakage.

6. Mechanism methodologies may omit sources, sinks or GHGs from the activity boundary and the leakage quantification, provided that the omission leads to a more conservative quantification of emission reductions or net removals. For example, where it can be demonstrated that upstream emissions associated with the applicable Article 6.4 activities are lower than upstream emissions associated with the baseline scenario, the relevant upstream emissions may be omitted in both the Article 6.4 activity scenario and the baseline scenario. The mechanism methodology may also specify conditions under which certain sources, sinks, reservoirs or GHGs shall be considered or may be omitted. The proponents of the mechanism methodology shall demonstrate and provide appropriate justifications for any such omissions, including that the omission is conservative for the range of Article 6.4 activities that may apply the methodology.

7. Mechanism methodologies shall require activity participants to delineate the geographical boundary of a proposed Article 6.4 activity. Mechanism methodologies may require activity participants to specify the location of the activity in the form of Keyhole Markup Language (KML) files or similar formats as one or more polygon(s) or by specifying the coordinates of the geographic boundary using a known coordinate system. The geographical boundary may cover more than one host Party. Where appropriate, the mechanism methodology may request the location of leakage emission sources and sinks to be described, as well.]

Document information

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01.0	3 February 2025	MEP 004, Annex 3. A call for input on document A6.4-MEP004-A03 will be open from 4 to 24 February 2025. The feedback received during this period will be considered for further development of the draft standard at MEP 005.

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