

Agenda item 3.4.
Paragraph 12 of the annotated agenda

Tool: Reversal risk assessment

Methodological Expert Panel - 14th meeting
22 to 26 June 2026
Bonn, Germany



Procedural background

- At SBM 010, held on 26 February-1 March 2024, the Supervisory Body requested the MEP to prepare recommendations on products related to addressing reversals, including, but not limited to, a reversal risk assessment tool.
- At SBM 017, held on 4-7 August 2025, the Supervisory Body requested the MEP to expedite the work to develop a reversal risk assessment tool and report back on the progress on this work at its next meeting.



Procedural background

- At SBM 018, held on 6-10 October 2025, the Supervisory Body approved the "Standard: Addressing non-permanence in mechanism methodologies" (A6.4-METH-STAN-007), which includes the following definition in paragraph 3:

Negligible risk of reversal: A risk of reversal that would result in a loss of no more than a maximum percentage to be specified in methodologies on the basis of guidance to be developed in the reversal risk assessment tool of all the A6.4ERs issued with respect to the total emission reductions and/or net removals achieved by the activity during its active crediting period, calculated over a 100-year timeframe starting from no earlier than the end of the last active crediting period;



Procedural background

- At MEP 008, held on 1-5 September 2025, the small group agreed to continue to work on the “Tool: Reversal risk assessment”, including:
 - a) whether upper limits are needed with respect to the overall risk rating or specific risk factors that will be included within the tool, including options and science-based rationales for upper limit(s);
 - b) risk rating that constitutes a negligible risk;
 - c) any further categorization of risk; and
 - d) how remediation measures are taken into account in the risk assessment tool.



Procedural background

- At MEP 011, held on 26-30 January 2026, the small group continued to work on the “Tool: Reversal risk assessment” and tentatively determined that:
 - Reversal risks may be analyzed with respect to total carbon storage in a given greenhouse gas reservoir (“total carbon”), whereas mechanism methodologies may issue A6.4ERs only for a subset of total carbon storage (“credited carbon”);
 - For some activity types and/or methodologies, credited carbon may be equal to total carbon; in other cases (e.g., biochar), credited carbon may be less than total carbon;
 - When working with definitions and equations, it is important to explicitly indicate when a percentage is expressed as a percentage of total carbon or a percentage of credited carbon; and
 - Consistent with the Removals Standard, the buffer pool only insures losses of credited carbon and that $F_{buffer,i,t}$ (per Equation 8 of the Reversals Standard) is a percentage of credited carbon.



Procedural background

- In the intersessional period after MEP 012, the small group tentatively agreed to:
 - Prioritize the first version of the tool for use with clean cooking, clean water, and other activity types that reduce the consumption of fuelwood or charcoal, to align with the Supervisory Body's instruction to prioritize methodologies related to CDM transition activities; and
 - Align the geographic level of analysis of this application with the draft "Methodological tool: Fraction of non-renewable biomass" (A6.4-MEP012-A04) recommended at MEP 012 (and subsequently adopted at SBM 021 as A6.4-AMT-009).
- Consistent with prior discussions, this initial application is expected to include:
 - A procedure to calculate individual reversal risk factors;
 - A procedure to reduce reversal risk factors based on reversal risk mitigation measures; and
 - A procedure to combine individual reversal risk factors together to produce a reversal risk rating for each greenhouse gas reservoir (i.e., $F_{buffer,i,t}$) (expressed as a percentage of credited carbon).



Purpose

- The purpose of this draft methodological tool is to allow activity participants to:
 - a) Calculate the parameter $F_{buffer,i,t}$, which is used in mechanism methodologies to determine the number of A6.4ERs to be forwarded to the Reversal Risk Buffer Pool Account consistent with equation 8 of the Reversals Standard; and
 - b) Determine that the stored greenhouse gases (or precursors of greenhouse gases) for which A6.4ERs have been issued are at a negligible risk of reversal, as defined in their applicable mechanism methodology.
- The first version of the tool would be applicable only to Article 6.4 activities that reduce the consumption of non-renewable biomass (e.g., clean cooking activities).



1. Classification of reversal risk types

- Two main categories of reversal risks are proposed:
 - a) Natural reversal risks
 - i. Wildfire risk
 - ii. Other natural reversal risks (e.g., drought, disease)
 - b) Human-induced reversal risks



2. Default values and geographical granularity

- Default values are provided separately for each risk category, with geographical boundaries aligned with the same boundaries used in the fNRB Tool.
- Default values would be provided at the following geographical levels:
 - Subnational level
 - National level
 - Multi-national / regional level



3. Method for deriving default values

Different approaches were used for natural and human-induced reversal risks:

- For natural reversal risks, use satellite data and scenario-based modelling;
 - Note that the MEP may wish to deliberate the choice of scenario and consider how to address uncertainty within and between scenarios.
- For human-induced reversal risks, two options are being explored:
 - Option 1: Set default values equal to zero, assuming that the MoFuSS modelling used in the fNRB Tool already captures all human-induced reversal risks.
 - Option 2: Use expert judgement based on existing data, including an assessment of whether and to what extent MoFuSS modelling used in the fNRB Tool already captures such risks.



4. Upper limit on reversal risk ratings

Two options are being proposed:

- Option 1: Do not apply any upper limit.
- Option 2: Apply an upper limit to the overall risk rating, set below 100%.



5. Calculation of buffer contribution factor

The buffer contribution factor will be based on some combination of natural and human-induced reversal risk ratings, with two options under consideration:

- Option 1: Natural and human-induced reversal risk ratings are summed together, premised on the assumption that the that the default values used are statistically independent.
- Option 2: A different functional form would be applied to the natural and human-induced reversal risk ratings, with details and rationale to be further specified.



- This draft methodological tool will enable activity participants to:
 - a) Calculate the parameter $F_{buffer,i,t}$ which is used in mechanism methodologies to determine the number of A6.4ERs to be forwarded to the Reversal Risk Buffer Pool Account consistent with equation (8) of the Reversals Standard; and
 - b) Determine that the stored greenhouse gases (or precursors of greenhouse gases) for which A6.4ERs have been issued are at a negligible risk of reversal, as defined in their applicable mechanism methodology.
- This draft methodological tool will allow for the issuance of A6.4ERs to Article 6.4 activities that involve the reduction of non-renewable biomass consumption (e.g., clean cooking activities) that have applied to transition from the Clean Development Mechanism to the Article 6.4 mechanism.



Recommendations to the MEP

- The small group recommends the MEP to consider the proposed solutions reviewed here and launch a call for public input on the draft methodological tool.

