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Document reference number and title: (Recommendation from the MEP to SBM020)

Draft Methodological tool: Reversal risk assessment

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1	-	Tool 12, 15–17; Cover note 10, 22–24	Apple buys carbon credits at scale and invests directly in nature-based climate projects around the world, including forest restoration through the Restore Fund. We support the Article 6.4 process in producing rules that are scientifically sound, characterize and address risk, and support long-term investment from both the public and private sectors in the economic sectors and strategies identified by host country Parties and in alignment with each Party's directed approaches. Apple recommends that the Supervisory Body revisit, at the next appropriate opportunity, the classification underlying this tool's application to activities reducing non-renewable biomass consumption (e.g. clean cooking). The Reversals Standard (A6.4-STAN-METH-007, version 01.0, paragraph 6(a) and footnote 4) places this activity type within the category of activities "reducing the loss of carbon stocks... in any of the greenhouse gas reservoirs of the biosphere," alongside afforestation, reduced deforestation, and peatland rewetting, while paragraph 7(a) and footnote 10 separately exempt renewable energy generation, energy efficiency, and fuel switching from any reversal-risk treatment. No major crediting programme, including the CDM, Verra, or Gold Standard, has required a reversal buffer for this activity category, on the basis that its environmental claim rests on demonstrated below-baseline biomass consumption (in control of the project participant) during the crediting period rather than on the persistence of a carbon stock thereafter (likely out of control of the project participant). The crediting methodology does not verify or claim continued existence of any specific carbon stock. The Reversals Standard itself recognizes this distinction: paragraphs 13 and 15 permit alternative approaches to reversal-risk provisions unless the activity participants have control over the greenhouse gas reservoir, the reservoir is co-located with the activity, and observed changes in the reservoir can be attributable to the activity. Clean cooking does not reflect the control, co-location, nor attribution conditions that the tool's own cover note outline. Imposing a permanence liability for a stock the activity participant cannot monitor, manage, or protect is	N/A
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			therefore difficult to reconcile with the framework's own design.	
2	3. Normative and informative references	3.4 Determining default values - Cover note 27(b), 28, 36	Apple supports the recommendation that reversal-risk contributions be held as a buffer reserve subject to reconciliation, consistent with actuarial risk management, rather than cancelled immediately as required under 27(b). A permanently cancelled contribution cannot be drawn upon to compensate a subsequent reversal, nor adjusted against realised outcomes. A properly designed buffer mechanism should instead reduce contributions where risk-mitigation measures prove effective, thereby incentivizing durable project design. Given the likelihood of the application of this tool to nature-based projects, it is worth noting that nature-based carbon projects can be designed to mitigate reversal risk and achieve long-term durability, in alignment with the natural potential of forests to persist for well beyond current standard VCM crediting and monitoring periods. Buffer pools are an important mechanism to address reversals as they occur. When properly designed, they can incentivize durable project design by utilizing the best data to assess natural reversal risk, reducing buffer contributions when project mechanisms successfully reduce reversal risk, and ensuring that reversals are addressed through replacement credits.	Amend paragraph 27(b) to read: "Require that A6.4ERs contributed to the reversal risk buffer pool account be held in the Reversal Risk Buffer Pool Account as a reserve, subject to periodic reconciliation against realised reversal experience." The Beyond Alliance notes that this amendment would require the MEP to establish the intended level of confidence in the Reversal Risk Buffer Pool Account for this activity type, consistent with the confidence-level and stress-test procedure the MEP is separately developing in paragraph 17 of the concept note on paragraph 62 of the Removals Standard (A6.4-MEP014-A08).

3	3. Normative and informative references	3.4.2 Natural reversal risks - Cover note 32–36; 38; Tool 20 and Footnote 16	The MEP's effort to ground the quantitative defaults for the tool in a peer-reviewed method are in line with a science-based approach to the design and implementation of mitigation-enabling policies and mechanisms. These default values will significantly impact the viability of implementation of underlying activities to which they are applied. The peer-reviewed study on which the method rests — Wu, C., et al. (2026a), "Forest carbon protocols underestimate climate-driven carbon loss risks," <i>Nature</i> 654, 107–113 — assesses reversal risk only for the contiguous United States. It is calibrated on United States Forest Inventory and Analysis data and applied to the California compliance program, and it establishes no reversal-risk defaults for tropical or other non-United States forests. The tool nonetheless derives jurisdiction-level global defaults by extending that method to global coverage (Appendix 2). The tool's selection of the climate scenario used to calculate these defaults similarly draws on Wu, C. et al. (2026b), "A global analysis of climate-driven reversal risks in forests," <i>bioRxiv</i>, a preprint that has not undergone peer review that would ideally underpin international policy mechanisms governing land-use and finance decisions at the global scale. These tropical jurisdictions dominate the clean-cooking pipeline, yet they lie outside the method's validated domain. Converting values of this kind directly into fixed, immediately cancelled buffer contributions is therefore difficult to reconcile with the requirement in Decision 20/CMA.7 and the Reversals Standard that mechanism methodologies rest on the best available science. Best available science is strongest when a method is applied within the domain for which it has been validated. Extending that same rigor to the tropical jurisdictions as has been represented in an industrialized country-focused study covered here is an opportunity to strengthen the tool's scientific foundation and establish its credibility in international application.	Insert the following new paragraph after cover-note paragraph 38: "The default values derived from this method for jurisdictions outside the United States should be treated as provisional and indicative pending validation appropriate to those regions, including corroboration through additional independently peer-reviewed methods or models. Pending such validation, natural reversal risk factors for jurisdictions outside the validated domain should either be flagged as under review rather than assigned a binding value, or subject to a conservative discount reflecting the additional uncertainty, rather than being applied at full value to an immediately cancelled buffer contribution." Additionally, the cover note should state explicitly the geographic domain over which the underlying data and method have been validated, together with the principal sources of uncertainty, so that users and the Supervisory Body can assess the weight the defaults can bear. The cover note should also revise footnote 16 to qualify its claim that the approach "reflects the best available estimate of natural reversal risks" by adding: "for the contiguous United States; further validation is needed before this characterization can be extended to other geographies, including the tropical jurisdictions addressed here."
4	Appendix 2. Methods used for deriving...	Appendix 2, Paragraphs 36–39 (Section 3.3, Future Updates)	Apple recommends that Appendix 2 state explicitly, within its own text, the geographic domain over which its data and methods have been validated, along with the principal sources of uncertainty. As Appendix 2 is the	Insert the following new paragraph after Appendix 2, paragraph 36: "The default values derived using this method for forests outside the contiguous United States, and in particular for tropical jurisdictions, are provisional and

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			operative technical document future methodology drafters are likely to consult directly, this limitation should be disclosed there rather than left to the cover note alone.	indicative pending validation appropriate to those regions. Pending such validation, these values should either be flagged as under review rather than assigned a binding value, or subject to a conservative discount reflecting the additional uncertainty. Users of this appendix should treat the values accordingly until such validation, including corroboration through additional independently peer-reviewed methods or models, is available."
5	5. Reversal risk assessment	Tool 21 and Footnote 17; Cover note 37	Apple supports the recommendation that the tool permit verified natural-risk mitigation measures to reduce the natural reversal risk rating, rather than deeming all such reduction factors to be zero. Paragraph 21 and cover-note paragraph 37 set natural-risk mitigation to zero on the stated ground that no jurisdiction-wide mitigation programmes could be identified. The absence of jurisdiction-wide programmes does not establish that project-level mitigation is ineffective or unverifiable: prescribed burning, fuel-load and fire-break management, community fire management, and forest-governance measures are established practices with measurable effect. Land-use change and sustainable land use practices are often implemented at below-jurisdiction scale, and to discount the singular and combined impacts of risk reduction measures at the level of activity implementation in a tool that ideally would be used to incentivize these activities creates a significant missed opportunity to learn from what is working on the ground and to ensure that governments can fully and responsibly incentivize climate action in these sectors. A blanket zero assumption understates achievable risk reduction and is inconsistent with the "best available science" standard.	Amend paragraph 21 to read: "Reversal risk reduction factors for natural reversal risks ($M_{\text{natural},i}$) shall be applied to adjust the reversal risk rating for natural reversal risks where an activity demonstrates a natural reversal risk mitigation measure verified through independent third-party audit against a recognized standard and supported by ongoing monitoring, consistent with the treatment of reversal risk reduction factors for human-induced reversal risks in equation (3). In the absence of such a verified mitigation measure, the reversal risk reduction factor for natural reversal risks shall be deemed to be zero." Amend equation (2) accordingly to read: $\text{Rating}_{\text{natural},i} = (R_{\text{wildfire},i} + R_{\text{other},i}) \times (1 - M_{\text{natural},i})$.

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6	5. Reversal risk assessment	Tool 17, Equation (1), Tool 18–Question 01; Cover note 42–44	In response to Question 01, Apple recommends that the additive combination of natural and human-induced reversal risk ratings not be finalized without addressing correlated risk. Equation (1) sums the two ratings, an approach appropriate only where the terms are statistically independent. In practice, the drivers of natural and human-induced risk frequently co-occur: climate stress, weak governance, and rising land-use pressure can arise together and reinforce one another. Treating the two as independent, particularly in the absence of any upper bound, risks producing a disproportionate combined rating. As the cover note itself acknowledges in paragraph 43, an additive approach is appropriate only where independence holds, and the tool should not embed an assumption that may not be accurate.	Add a footnote to Equation (1) in tool paragraph 17: "This additive form is provisional pending resolution of Question 01. Where such independence has not been demonstrated, the combination method shall not systematically understate correlated risk." Replace cover-note paragraph 43 in full: "The additive form set out in paragraph 17 is included as a provisional placeholder, pending resolution of the question in paragraph 44(a). This approach is valid only if the terms are statistically independent, which depends on the ultimate approach selected for determining default values for human-induced reversal risks and reversal risk reduction factors (see section 3.4.3 of this cover note). Where statistical independence between natural and human-induced reversal risk ratings has not been demonstrated for the selected default values, the combination method shall not systematically understate correlated risk, and shall be reassessed as part of the tool's periodic review once further evidence becomes available."

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7	3. Normative and informative references	3.4.3 Human-induced reversal risks - Cover note 39–41; Tool 22, Question 02, Question 03	Responding to Questions 02 and 03, Apple's core concern is that the tool would set a fixed default value for human-induced reversal risk, along with a related reduction factor, without a clear published basis to support it. The MEP acknowledges in paragraph 39 that it was unable to find a solid evidentiary foundation for translating human-induced risk drivers into jurisdiction-level defaults. Finalizing a number under these circumstances risks producing results that appear arbitrary and could undermine confidence in the tool. If the MEP determines that an interim default is still necessary while better evidence is developed, Apple recommends that it be clearly labeled as provisional, with its methodology and assumptions made transparent. This value should also be paired with a mechanism to reduce a project's risk rating when it can demonstrate genuine, verifiable steps to lower human-induced risk. Measures such as secure land tenure, active community engagement, and sound financing structures are already used in practice, are broadly in line with Paris Agreement principles, and can be independently verified. The tool should be designed to recognize this kind of progress rather than apply a single, undifferentiated risk factor across very different project contexts.	Add a new paragraph after cover-note paragraph 41: "Pending an established evidentiary basis, any interim default values for human-induced reversal risk factors and reversal risk reduction factors shall be designated as provisional, accompanied by the analytical derivation on which they rest, and paired with recognition of verified project-level mitigation measures (e.g., secure tenure arrangements; community engagement; enterprise and financing structures) through a reduction factor exceeding zero."
8	3. Normative and informative references	3.6 Maximum Reversal Risk Ratings - Cover note 45–47; Tool 18; Appendix 1, Tables 1–3	In response to the request for feedback in paragraph 47, Apple supports the view that the tool should address the disproportionate outcomes arising from high natural-risk defaults combined with the absence of an upper limit, by correcting the underlying inputs rather than applying an arbitrary cap. We recommend that the tool be designed to recognize verified mitigation (see Comment 5), place the natural-risk defaults on a firmer evidentiary footing (see Comment 3), and, over the longer term, revisit the underlying classification (see Comment 1).	Revise cover-note paragraph 46 to read: "The MEP proposes not to recommend or apply an upper limit for reversal risk ratings for activities that reduce non-renewable biomass consumption (see paragraph 18), provided that natural-risk reversal factor defaults reflect a validated evidentiary basis and that verified natural-risk mitigation measures are recognized in the calculation of the rating." Should the Supervisory Body determine that an upper limit is nonetheless required notwithstanding these corrections, it should be established on a stated scientific basis.