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

Draft Methodological tool: Reversal risk assessment

Item	Section no. (as indicated in the document)	Paragraph/Table/Figure no. (as indicated in the document)	Comment (including justification for change)	Proposed change (including proposed text)
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1	-	18	Kita recommends quantification of all natural and human-induced risk factors using peer-reviewed studies. This ensures that values used are not subjective while enabling risk modelling that is reproducible and can be built upon over time. Risk metrics should not be qualitative or self-reported where possible. They should be centrally managed and monitored. This removes potential conflicts of interest specifically as they relate to human-induced reversal risk factors. The Reversal Risk Assessment tool should refer to actuarial modelling of risk factors where possible. This allows for comparability across various risk factors while utilizing well-established and tested models. A further potential benefit of using actuarial models is metrics structured and designed to enable comparison across various hazard types. Kita does not believe it is reasonable to assume natural and human-induced reversals are entirely independent of one another. The actuarial modelling approach enables the deduction of loss functions to test this hypothesis in a structured manner. A better approach to view these risk factors correlation is looking for spatial autocorrelation for different perils. This allows a standardized view of the dynamics for every peril, regardless of the source. For example, a region with extreme heat has different severity to fire (different surface fuel). The output of actuarial modelling will be loss models, which are normalized globally and across activity types – allowing for added comparability and supporting portfolio management for a robust buffer. This approach also accounts for correlations present between various hazards – ex. wildfire risk would typically have a higher correlation with drought events. It also accounts for different types of exposure – ex. wildfire risk would be higher in peatlands. Further, actuarial modelling enables the inclusion of regrowth within the modelling of the vulnerability curves for an activity. This is possible across various activity types.	-
2	5. Reversal risk assessment	22	Kita's recommendation is to account for historically reported human-induced reversals, such as deforestation at the per-country/regional level. Quantitative values should be applied with confidence intervals. Following the example of deforestation,	-

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			which may apply to clean cooking activities and other activities subject to this tool in the future, this assumes most human-induced reversal risks are related to deforestation. Global deforested area datasets are available publicly which support metrics such as annual rate of deforestation, or time-series analysis of deforestation rate, and many other proxies. Human-induced reversal risks can be exposed using actuarial risk modelling concepts. For example, countries with high deforestation risk, such as conversion of peatland to palm oil plantation, will have the same level of hazard but different exposure (grassland will be less favorable to conversion to palm plantation than peatland), and different vulnerability (peatland degradation is more irreversible). Where country-level values are missing, there are two alternatives: a) Regional benchmarks; or b) Peer group benchmarks deduced by identifying climatic and political condition similarities across countries. For the latter, Kita anticipates the climatic and political data is available and already published by peer-reviewed, highly credible public sources. Finally, appropriate defaults should be more aligned with recent quantitative measures. Forecasting can be applied for shorter future time horizons. Weightage to forecasting should be applied on the basis of confidence intervals/sensitivities. Any quantification should be regularly reviewed and updated as new info becomes available.	

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3	5. Reversal risk assessment	22	No major carbon crediting mechanism currently provides a streamlined list of recommendations for mitigation measures, whether natural or otherwise. If the PACM seeks to adopt such a framework, it would benefit from providing activities with a list of appropriate mitigation measures (as they relate to the specific risks applied to specific activity types), associated costs, and their impact on the reduction of the risk factor. This would provide a structure to reduce unpredictability. In instances where the metrics and impact are quantifiable, these and their net benefit on the risk reduction should be noted as such with certainty. Where quantification is possible, a higher weight should be applied to such factors in the overall scoring. In instances where the metrics and impact are not presently quantifiable, convert the qualitative impact to a simple scoring. Scoring allows for consistency across activity assessments. Under this approach, a lower weight should be applied to such factors in the overall scoring. Converting the qualitative impact to a simple scoring system enables active monitoring of mitigation measures applied as they correspond to a recommended structured set of mitigation measures. Monitored values can subsequently feed back into the provision of quantitative features in the future. All applied mitigation measures, whether quantifiable or not, should be well documented and verifiable.	-

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4	3. Normative and informative references	47	It is appropriate not to apply an upper limit for reversal risk ratings. Within carbon market dynamics, activities with enough risk will be inherently disincentivized and non-competitive or will have to pay accordingly for permanence management (through a high buffer contribution or alternative mechanism). Thus, it is not necessary to have a maximum reversal risk rating, and by not having one, the Supervisory Body avoids unnecessarily restricting activity eligibility. If the Supervisory Body is concerned allowing very-high-risk activities may negatively impact the Reversal Risk Buffer Pool Account, additional assurance past a maximum risk threshold could be required with, or in lieu of, the buffer, such as through insurance or a monetary permanence reserve. That would protect the Reversal Risk Buffer Pool Account while enabling high risk activities, which may have other benefits that motivate their deployment. This comment applies to future iterations of a Reversal Risk Assessment that extend to other activities.	-
5	Cover note	Entire document for Draft Methodological Tool	Kita supports comments submitted by Conservation International, IETA and The Nature Conservancy.	-

1	-	Paragraphs: 32-38	Thank you for the opportunity to comment on the Draft Methodological Tool of the Reversal Risk Assessment – Annex 07 of the Article 6.4 Mechanism (MEP014). I write to provide support of this draft tool and the approach presented for addressing natural reversal risks, including the data produced in the Appendices. This approach has robust grounding in the peer-reviewed literature, reflects the best available science, and accounts for variation in natural risks spatially and with climate change. This approach should be accepted and should not be substantially altered, as no existing alternate approaches are scientifically robust or likely to guarantee the permanence of climate mitigation outcomes of A6.4ERs. While this draft is directly focused on reversal risk and buffer pool contributions for activities that reduce the consumption of non-renewable biomass such as clean cooking activities, the methodological tool is developed to also address forestry carbon crediting protocols, including Improved Forest Management (IFM), Reducing Emissions from Deforestation and Forest Degradation (REDD) and Afforestation/Reforestation (A/R) protocols. As this tool is based on the best available science, it should be applied to other nature-based activities in the land use sector. This approach should be directly adapted at higher spatial resolution such as the underlying 8 km grid for forestry applications under Article 6.4. Further, this draft has a sufficient mechanism to incorporate additional advances in reversal risk science periodically—every 2 to 3 years. I agree with this commitment by the MEP to using the best available, peer-reviewed science so that the tool remains scientifically robust with high integrity. I urge the MEP to be aware of the impacts of conflicts of interest from scientists from organizations that have financial and non-financial conflicts of interests in promoting carbon credits and credits for other markets, such as biodiversity crediting markets. The suggestions that follow in subsequent comments are to ensure that reversal risk assessments are based on the best available, high integrity science on permanence and durability.	-
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2	Concept note	Paragraphs 23-24.	The separation of wildfire risk from other natural risks is well justified. Because of the significance of wildfire-related reversal risks and the ability to distinguish wildfire-related forest carbon losses from other natural drivers of forest carbon loss (e.g. drought and insect outbreaks), the MEP made a well justified decision to subdivide natural risks into wildfire and all other natural reversal risks.	No changes.
3	Concept note	Section 3.4, Paragraph 25	I agree with the proposed approach of using default values based on Wu et al 2026 for reversal risk factors and reversal risk reduction factors.	-
4	Concept note	Paragraphs: 39-41 and Main Text, Section 5.1.2. Paragraph 22 to answer Question 2 and Question 3.	Human-induced reversal risk factors (due to, for example, regulatory uncertainty and social instability, political, governance and legal risks, acts of terrorism crime, and war) have not yet been defined in this draft, and may not be predicted on historical conditions. Human-induced reversal risks depend on future economic, political, and social factors, which are much harder to model from historical trends alone. As such, modelling these future risks may be very challenging. A plausible approach for quantifying human-induced reversal risks to have an empirical or analytical basis for determining these parameters would be to leverage evidence from voluntary and compliance forest carbon markets around project failure due to human-induced drivers of deforestation and forest degradation. Such evidence could help inform human-induced reversals risks, and may also inform whether failure rates differ by region or project type.	-

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5	Concept note	Paragraphs 42-44 and Main Text, Section 5.1 Paragraphs 16- 18 in reference to Question 1	Fbuffer,i,t is used in mechanism methodologies to determine the number of A6.4ERs to be forwarded to the reversal risk buffer pool account. This calculation requires a procedure for combining the reversal risk ratings for natural reversal risks and human-induced reversal risks. While we currently lack a detailed quantitative analysis globally as to the relationship between natural and human-induced reversal risks, to a first order they are likely largely statistically independent and thus should be summed, as proposed in this draft by the MEP. The most likely case for non-independence would be where strong governance and economic infrastructure is cited as rationale to reduce natural risks like wildfire. However, evidence strongly suggests that this is highly unlikely to mitigate or reduce high wildfire risk in carbon projects, even in very wealthy, high-adaptive-capacity places like California (e.g. CARB's buffer pool per Badgley et al. 2022 Frontiers in Forests and Global Change; Wu et al. 2026 Nature). Regarding reversal risk reduction factors, risk rating reductions should only be allowed when there's robust and quantitative scientific evidence that a given activity works in a given region. Currently, voluntary carbon registries such as Verra allow 50-75% risk reductions based on a wide array of activities and regions, which is not scientifically supported in many cases (Anderegg et al. 2025, Global Change Biology; Levine et al 2026, Environmental Research Letters). As such, project-specific data may not be demonstrably superior and may not demonstrate a more accurate characterization of reversal risk. Further, natural reversal risk mitigation factors should be set to zero as jurisdiction-wide natural reversal risk mitigation measures don't make sense at the jurisdictional level (for cookstoves).	-