**[Guidelines 4-2] Reversal Risk Analysis and Buffer Operation Criteria**

**Reversal Risk Analysis and Buffer Operation Criteria**

This criterion provides the standards for risk analysis of reversals that may occur during KCS-based GHG sequestration projects in Korea and overseas and the guidelines for managing and operating buffers.

In KCS projects that include GHG sequestration, reversal (re-emission) of sequestered GHG (re-emission) is possible. Therefore, it is necessary to evaluate the degree of risk for the proportion of the GHG sequestered by applying this criterion exposed to reversal risk, buffering the estimated proportion as a kind of insurance against reversal, and continuously monitoring it.

**1. Buffer Amount Calculation and Buffer Operation Criteria**

**A. Buffer amount calculation, verification, and management**

In preparing a monitoring report, the project proponent must calculate the buffer rate and amount by analyzing the project performance risk for the monitoring period with the buffer amount verified by a 3rd party auditor. The buffer amount is calculated by multiplying the buffer rate by the certified reductioncertified reduction from the project. The calculated buffer amount is transferred to the buffer account and managed by KCCI Center for Carbon Reduction Certification.

**B. Obligations after project completion**The reduction project proponent must maintain and manage the sink under relevant laws and regulations to retain the GHG sink even after the project ends. (In the case of Korea, forests must be maintained and managed until the general standard forest cutting age for each species of national forest standard in Attached Table 3 Subparagraph 1 (a) of the Enforcement Regulations of the Creation And Management Of Forest Resources Act) In addition, KCCI Center for Carbon Reduction Certification must inform the project proponent of the amount of buffer and loss of the project, maintenance period of sink, etc. after the project is complete. If the project proponentproponent does not submit the monitoring report and verification report of the 3rd party auditor3rd party auditor to KCCI Center for Carbon Reduction Certification, the entire buffer amount in the buffer account may be transferred to the cancellation account.

**C. Obligation to Notify Reversal**

A project proponent must notify KCCI Center for Carbon Reduction Certification **immediately** upon learning of an unintentional or intentional reversal or decision to terminate the project early. Such notice shall include the amount of the offset affected by the reversal (“Expected Loss Offset”), a description of how the expected loss offset was determined, a description of the nature and cause of the reversal, and all other relevant facts. Project proponents must promptly and completely implement any request from KCCI Center for Carbon Reduction Certification for additional information or analysis related to reversal, including the burden of costs. The Project proponents must report the the actual offset amount lost due to the reversal verified by the 3rd party auditor and the results of reconducting ‘2. Project Implementation Risk Analysis’ in this document, at its own expense, to KCCI Center for Carbon Reduction Certification **within 6 months after the reversal occurs** (“confirmed loss offset amount”).

**D. Loss Mitigation for Unintended Reversals**KCCI Center for Carbon Reduction Certification mitigates losses incurred from unintended reversal by canceling the estimated loss amount from the buffer account at the expense of the project proponent. If the loss offset amount is less than the net buffer of the project proponent up to that time, the buffer will mitigate the reversal. If the loss offset amount due to reversal exceeds the amount buffered by the project proponent, the project proponent must pay a “deductible” equal to 10% of the loss offset amount and buffer this additional offset amount into the buffer account **within 30 days**. In this case, it is possible to **use any type of KCR**. After an unintended reversal, it is not necessary for the project proponent to increase the buffer amount unless the minimum buffer rate percentage increases after reconducting ‘2. Business Implementation Risk Analysis’. If the confirmed loss is greater than the expected loss, KCCI Center for Carbon Reduction Certification discards the difference from the buffer account.

**E. Loss Mitigation for Intended Reversal**

KCCI Center for Carbon Reduction Certification mitigates losses due to intentional reversal by canceling the relevant KCR from the project proponent's account or by canceling or discarding the expected loss amount of the project (if applicable) from the buffer account. The project proponent bears all related expenses, including fees, etc., for its notification. Cancellation of all untraded KCR occurs for projects terminated early and is discarded identically to all transferred reductions. The project proponent must transfer the expected loss offset amount to the buffer account **within 30 days of cancellation** at its own expense. In the event of an intentional termination of a project, **only KCRs of the AFOLU project type may be used to compensate for cancellation or termination**. If the project proponent does not transfer the buffer amount within 30 days, KCCI Center for Carbon Reduction Certification will have the right to freeze the account and use the existing KCR to compensate for the cancellation. Unless KCCI Center for Carbon Reduction Certification grants additional time in writing, confirmed losses must be submitted to KCCI Center for Carbon Reduction Certification within 6 months of cancellation. If the confirmed loss amount is greater than the expected loss amount, the project proponent must additionally transfer the difference amount and the corresponding amount will be discarded from the buffer account.

**F. Early Termination of Project due to Cancellation**

A sequestration project automatically terminates if a reversal, either intentional or unintentional, reduces the project's reduction effect to below the baseline level before the minimum project period ends. In case such reduction occurs due to intentional reversal (forest conversion or excessive logging, etc.), the project proponent must compensate all KCR issued for the project according to the process specified in item ‘E’ above.

**G. Early Termination of Project by Selection**

If a project proponent chooses to end a project before the end of the minimum project period by stopping monitoring, verification, and reporting activities for the project, or withdraws participation in KCS, KCCI Center for Carbon Reduction Certification conservatively considers the accumulated sequestration and emission reductions. The project proponent must compensate for all KCCI Certified ReductionKCCI Certified Reduction (KCR) accumulated and issued for the project at the termination. If the project choose to terminate only some areas (POA project, etc.), the project can continue in the remaining areas if compensation is made for the terminated areas. The project proponent is responsible for compensating for project termination under the process specified in item ‘E’ above. In the case of early termination of a project to re-register with another voluntary reduction program, the project proponent must compensate for all KCCI Certified Reduction (KCR) issued to the project according to the process specified in item “E” above.

**H. Buffer Account Operation depending on the Renewal of Project**If the project proponent continues monitoring and verification until the crediting period expires without renewing the project, KCCI Center for Carbon Reduction Certification may conservatively assume that the project has been discontinued and discard the buffer amount in the buffer account related to the remaining project. If the project is renewed before the crediting period expires, KCCI Center for Carbon Reduction Certification continues to hold the buffer amount of the project in the buffer account.

**I. Request for Certified reduction Transfer**

If the project proponent satisfies all of the details specified in item 'C,' it may request KCCI Center for Carbon Reduction Certification to transfer the certified reduction of the buffer account to the holding account after acquiring confirmation of the maintenance and management of the GHG from KCCI Center for Carbon Reduction Certification. In this case, KCCI Center for Carbon Reduction Certification settles the amount of buffer and loss, transfers the loss amount to the cancellation account within the range of the buffer, and transfers the return amount to the holding account.

**2. Business Implementation Risk Analysis**

The resulting value of the project implementation risk analysis means the percentage (%) applied to the total KCCI Certified Reduction (KCR). The KCCI Certified Reduction of the corresponding ratio is buffered in the buffer account to mitigate the risk of unintended reversal.

**[Risk Analysis Category]**

**A. Financial Risks**  
This risk is related to the organization supervising or financing the project not being able to continue to maintain and operate due to financial failure. It may arise from several financial constraints, including the inability to secure a buyer for the KCCI Certified Reduction, the bankruptcy of the supervising organization, or the lack of capital required to continue monitoring and verification.

**B. Project Management Risks**This risk is related to the project management entity's ability to effectively manage the project during the crediting period. This may include other binding contracts such as lack of technical expertise, insufficient management skills, and conservation easements for non-compliance with reporting and monitoring requirements.

**C. Social and Political Risks**  
This risk is related to changes in the social, political, or legal environment that may affect the project. Social risks may include changes in resource demand or public perception and may lead to reversals involving illegal harvesting, poaching, or other destructive activities. Changes in policies and laws may create new requirements or incentives, leading to reversal.

**D. Conservation Easement Deduction**If the project can provide verifiable evidence of a legally binding and enforceable conservation easement to protect carbon stocks during the reduction period, the risk rating may be reduced by 2%.

**E-H. Risks from Natural Disasters (Fire, disease and pests, levee destructions/water level changes, other natural disasters)**

Risks from natural disasters can lead to unintended reversals by project proponents and are applied differently depending on the specific type of project. In determining risk from natural disasters, it is possible to select a lower risk score by submitting base data to support the claim. Valid base data may include written opinions from experts in the field or other scientific reports or papers, and the data must be the latest at the time of verification. Base data must be verifiable and must be submitted to the 3rd party auditor during the verification of the project plan and during the overall subsequent verification. Risk mitigation by fire hazard reduction is not accepted in this risk tool.

If an infectious disease outbreak or pest occurs in the project area, the risk level for the item must be increased at the time of the next verification.

**[Risk Calculation Procedure]**

All project types of the KCS-based GHG sequestration type must calculate the values of risk categories A, B, and C, and the categories requiring additional calculation for each project type (forest, wetland, agriculture/grassland) are as follows.

**Forestry** projects require one value each.

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| D. Conservation easement (if applicable)  E. Fire  F. Diseases/Pests  G. Levee destruction/Water level change  (Limited to forest projects where 60% or more of the project area is forest wetland)  H. Other natural hazard risk scores |

**Wetland** projects require one value each.

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| D. Conservation easement (if applicable)  G. Levee destruction/Water level change  H. Other natural hazard risk scores |

**Agriculture/grassland** projects require one value each.

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| D. Conservation easement (if applicable)  E. Fire  H. Other natural hazard risk scores |

**[Risk Level Determination]**

The total risk score is determined by summing the scores of each applicable risk type. The total buffer amount for the project is determined by applying the total risk score (%) to the entire KCCI Certified Reduction (KCR) issued according to the monitoring.

**□ Total Risk Score (%) = Section 1 (A + B + C) + Section 2 (D + E + F + G + H)**

**□ Total Buffer Amount = Total reductions issued during the monitoring period \* Total risk score (%)**

**Section 1. Management and Governance Risks**Select one value from each risk type applied for each project type.

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| A. Financial Risks   * 4%: Default value * 3%: Applicable public land or conservation area   B. Project Management Risks   * 4%: Default value * 3%: Applicable public land or conservation area   C. Social and Political Risks   * 2%: Default value * 5%: If the project is conducted outside of Korea * 3%: If the project is conducted outside of Korea and demonstrates community involvement |

**Section 2. Natural Disaster Risks**

Select one value from each risk type applied for each project type.

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| D. Conservation Easement Deduction   * -2%: Default value * –3%: If regular on-site monitoring of carbon specific conservation activities exists   E. Fire   * 8%: If located in a fire area of 1.2 million pyeong or more within a 50 km radius of the project area within 12 months from the start date of the project (e.g. Utilize data from the National Fire Data System ([www.nfds.go.kr](https://www.nfds.go.kr/))) * 4%: If the project is in a high fire risk area * 2%: if the abatement project is in a low fire risk area (verifiable evidence must be provided) * 1%: Agriculture and grassland projects   F. Diseases and Pests   * 8%: If there is an infectious disease or infection within the project area or within a 50km radius of the project area * 4%: Default value   G. Levee destructions/Water level changes   * 2%: Default value for all wetland projects (for forest projects where 60% or more of the area is forest wetland)   H. Other Natural Hazards   * 2%: Default value for all sequestration projects |

**[End of Document]**