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Application of the Oeko-Institut/WWF-US/ EDF methodology for assessing the quality of carbon credits

This document presents results from the application of version 3.0 of a methodology, developed by Oeko-Institut, World Wildlife Fund (WWF-US) and Environmental Defense Fund (EDF), for assessing the quality of carbon credits. The methodology is applied by Oeko-Institut with support by Carbon Limits, Greenhouse Gas Management Institute (GHGMI), INFRAS, Stockholm Environment Institute, and individual carbon market experts. This document evaluates one specific criterion or sub-criterion with respect to a specific carbon crediting program, project type, quantification methodology and/or host country, as specified in the below table. Please note that the CCQI website Site terms and Privacy Policy apply with respect to any use of the information provided in this document. Further information on the project and the methodology can be found here: www.carboncreditquality.org

Sub-criterion:	3.2.1 Approaches for accounting and compensating for reversals (Approach 1)
Carbon crediting program:	ACR
Project type:	Establishment of natural forest
Assessment based on carbon crediting program documents valid as of:	15 May 2022
Date of final assessment:	08 November 2022
Score:	2.91

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Assessment

The methodology assesses the robustness of the carbon crediting program´s approach to account and compensate for reversals. Carbon crediting programs employ the following three approaches for accounting and compensating for reversals:

- **Temporary carbon credits (Approach 1a):** credits that expire after a certain period and need to be replaced by other carbon market units, irrespective of whether a reversal occurred;
- **Monitoring and compensation for reversals (Approach 1b):** monitoring of any (potential) reversals and the compensation for the reversal through the cancellation of other carbon market units;
- **Discounting (Approach 1c):** discounting of emission reductions or using lower baselines that result in fewer emission reductions or removals that are credited in order to account for possible future reversals.

Usually, a carbon crediting program only pursues *one* of these three approaches for a given project type and geographical area. The assessment is thus applied to the relevant approach only and the scoring result for the relevant approach constitutes the score for sub-criterion 3.2.1. In situations where a program uses another approach than the above three approaches to account and compensate for reversals, the users of the methodology may use expert judgment to assess the robustness of the relevant approach. ACR applies approach 1b.

Approach 1b

Relevant scoring methodology provisions

Monitoring and compensation for reversals is the predominant approach of carbon crediting programs to address non-permanence. The robustness of this approach depends on several design aspects. The methodology therefore considers several indicators to assess the application of this approach. All of these indicators are assessed at program level and, where the program's requirements differ between project types, quantification methodologies and/or geographical areas, also taking into account the specific provisions of the program related to the relevant project types, quantification methodologies and/or geographical areas.

Indicator 3.2.1.1

Relevant scoring methodology provisions

The methodology assesses the carbon crediting program provisions for the minimum time period for which the occurrence of any reversals must be monitored, reported and compensated for. The longer this period is, the higher is the likelihood that reversals occurring within the time horizon relevant for avoiding dangerous climate change are appropriately addressed. The following table specifies which score is assigned for which minimum duration:

Period for which monitoring, and reporting of reversals is required (from the start of the first crediting period)	Score
100 years or longer	4
>= 60 years	3
>= 30 years	2
Shorter	1

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), available at https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Chapter 5: “ACR AFOLU projects must commit to maintain, monitor, and verify Project Activity for a Minimum Project Term of 40 years. The Minimum Project Term is not equated with the assurance of permanence, because no length of time, short of perpetual, is truly permanent, nor is there a sound scientific basis or accepted international standard around any number of years that equates to an emission reduction/removal being permanent.”

Assessment outcome

The approach is assigned a score of 2.

Justification of assessment

The ACR Standard requires Agriculture, Forestry, and Other Land Use (AFOLU) projects to maintain, monitor, and verify for a minimum of 40 years. This results in a score of 2 when applying the methodology for assessing the quality of carbon credits (30 years or more, but less than 60 years).

Indicator 3.2.1.2

Relevant scoring methodology provisions

The methodology assesses the approaches employed by carbon crediting programs to address the risk of potential reversals in case of discontinuation of monitoring. If monitoring of reversals discontinues prior to the required time horizon, the occurrence of a reversal cannot be excluded. In some instances, activity owners might even cease monitoring because of a reversal. The approaches employed by carbon crediting programs to address the risk of potential reversals in case of discontinuation of monitoring are scored as follows:

Program requirements	Score
All carbon credits previously issued to the project must be compensated for within 1 year after the monitoring or verification report was due	4
All carbon credits previously issued to the project must be compensated for, with a grace period longer than 1 year after the monitoring or verification report was due	3

Only a fraction of carbon credits (e.g., those set aside in a pooled buffer reserve) must be used to compensate for a possible reversal	2
No action is required, or no time limit is indicated for compensation	1

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal (IV. Early Project Termination Due to Reversal): "If a Project Proponent opts to terminate the project at any time prior to the end of the Minimum Project Term by discontinuing project monitoring, verification and reporting activities for the Project (or subset of the project in an aggregated or PDA project) or leaves the carbon program, ACR conservatively considers the cumulative sequestration and/or emissions reductions from avoided conversion of the project to be lost (i.e., all offsets issued to the project). **Project Proponents must compensate for the full amount of all offsets issued cumulatively to the project upon termination**. […] The Project Proponent shall have the responsibility to compensate for project termination following the process in III above" (see Provision 2 below).

Provision 2 Source 1, Section E: Reversal (III. Loss Mitigation for an Intentional Reversal): "Loss mitigation for an intentional reversal: **ACR mitigates the loss from an Intentional Reversal, which is assumed as all affected carbon stocks, by cancelling the associated volume of credits from the Project Proponent's account and/or cancelling or retiring from the Buffer Pool the Estimated Loss Amount (as applicable) at Project Proponent's expense** (including payment of then-applicable offset activation, retirement and cancelation fees) upon notification by the Project Proponent. Cancelation of all non-transacted offsets will occur for a project that has terminated early and retirement will occur equivalent to any volume that has been transferred. The Project Proponent shall, at the Project Proponent's expense, contribute the Estimated Lost Offset Amount to the Buffer Pool Account within thirty (30) days of the Reversal. This Buffer Contribution may be made using ACR offsets of any type or vintage. For any intentional reversal, including intentional early project termination, that occurs for projects listed after January 1, 2022 only ACR offsets from AFOLU project types may be used to compensate the reversal or termination. If the Project Proponent does not make this Buffer Contribution within thirty (30) days, ACR retains the right to freeze the account and use any existing offsets to compensate for the Reversal.

The Verified Offset Amount must be submitted to ACR within six months of Reversal unless additional time is granted by ACR in writing. If the Verified Lost Amount is

greater than the Estimated Lost Amount, Project Proponent shall contribute an additional amount for the difference, which will be retired by ACR."

Assessment outcome

The approach is assigned a score of 4.

Justification of assessment

Discontinuation of monitoring is treated as an intentional reversal and the procedure for loss mitigation for an intentional reversal is applied. Accordingly, all carbon credits previously issued to the project must be compensated for within 30 days.

Indicator 3.2.1.3

Relevant scoring methodology provisions

The methodology assesses whether and how carbon crediting programs address any reversals that might occur after the end of the required time horizon for monitoring reversals. The following table specifies the scoring approach for the carbon crediting programs provisions to address potential reversals after the end of regular monitoring:

Program requirements	Score
The project's credits held in a buffer reserve are retired	4
The project's credits held in a buffer reserve stay in the reserve without retiring them	3
No action required (all credits are issued to the project owners)	1

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, Section F. End-of-Term Buffer Account: "At the end of the Minimum Project Term, if the Project Proponent does not renew for another Crediting Period and agrees to continue monitoring and verification, ACR conservatively assumes that the activities have ceased and will retire the remaining project-related buffer pool contribution. If the project renews for another Crediting Period, ACR will continue to hold the project's buffer contributions in the buffer pool."

Assessment outcome

The approach is assigned a score of 4.

Justification of assessment

As Provision 1 shows, if the project proponent does not renew for another crediting period, ACR will retire the buffer pool contribution at the end of the required time horizon for monitoring reversals.

Indicator 3.2.1.4

Relevant scoring methodology provisions

Non-permanence is only truly ensured if all types of reversals are compensated for. The methodology therefore assesses whether carbon crediting programs require compensation of all or only some types of reversals.

Some carbon crediting programs distinguish two types of reversals:

1. **Unintentional (or unavoidable) reversals** happen if stored carbon is lost due natural disturbances such as storms, wildfire or disease that is not the result of human willful intent or negligence.
2. **Intentional (or avoidable) reversals** denote reversals that are caused by a landowner's or project proponent's willful intent, including harvesting, land conversion or negligence, e.g. through poor management.

Carbon crediting programs that require all types of reversals being compensated for receive a score of 4. Some programs only require that unintentional reversals be compensated for. This approach only partially addresses reversal risks and therefore receives a score of 1.

Program requirements	Score
All types of reversals must be compensated for	4
Only unintentional reversals (e.g. due to natural disturbances) must be compensated for	1

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Notice of Reversal: Project Proponent shall provide written notice to ACR immediately upon becoming aware of any Unintentional or Intentional Reversal or Early Project Termination decision." (ACR Standard Buffer Pool Terms and Conditions, 2f.)

Provision 2 Source 1, Section E: Reversal: "Loss mitigation for an **unintentional reversal**: ACR mitigates the loss from an Unintentional Reversal by retiring from the Buffer Pool the Estimated Loss Amount at Project Proponent's expense (including payment of then-applicable offset retirement fees). If the Lost Offset Amount is less than the Project Proponent's net Buffer Contributions up to that time, then the Buffer Contributions cover the Reversal. If the Lost Offset Amount from the Reversal exceeds the Proponent's Buffer Contributions to date, the Project Proponent shall pay a

> "deductible" of 10% of the Lost Offset Amount, depositing this additional offset amount in the ACR Buffer Pool within thirty (30) days of the retirement, and the Buffer Pool covers the remainder. The deductible contribution may be of ACR offsets of any type and vintage. Following unintentional reversals, the Proponent is not required to replenish the buffer unless the Minimum Buffer Percentage increases based on the risk assessment update. If the Verified Lost Amount is greater than the Estimated Lost Amount, ACR will retire from the Buffer Pool the difference."
>
> "Loss mitigation for an **intentional reversal**: ACR mitigates the loss from an Intentional Reversal, which is assumed as all affected carbon stocks, by cancelling the associated volume of credits from the Project Proponent's account and/or cancelling or retiring from the Buffer Pool the Estimated Loss Amount (as applicable) at Project Proponent's expense (including payment of then-applicable offset activation, retirement and cancelation fees) upon notification by the Project Proponent. Cancelation of all non-transacted offsets will occur for a project that has terminated early and retirement will occur equivalent to any volume that has been transferred. The Project Proponent shall, at the Project Proponent's expense, contribute the Estimated Lost Offset Amount to the Buffer Pool Account within thirty (30) days of the Reversal. This Buffer Contribution may be made using ACR offsets of any type or vintage. For any intentional reversal, including intentional early project termination, that occurs for projects listed after January 1, 2022 only ACR offsets from AFOLU project types may be used to compensate the reversal or termination. If the Project Proponent does not make this Buffer Contribution within thirty (30) days, ACR retains the right to freeze the account and use any existing offsets to compensate for the Reversal.
>
> The Verified Offset Amount must be submitted to ACR within six months of Reversal unless additional time is granted by ACR in writing. If the Verified Lost Amount is greater than the Estimated Lost Amount, Project Proponent shall contribute an additional amount for the difference, which will be retired by ACR."

Assessment outcome

The approach is assigned a score of 4.

Justification of assessment

The ACR requires that both intentional and unintentional reversals must be compensated for (Provisions 1 and 2).

Indicator 3.2.1.5

Relevant scoring methodology provisions

"The methodology assesses the robustness of the approach used by the carbon crediting program for compensating for reversals. The overall effectiveness may depend on how different measures are implemented or combined. This may depend on several factors, including which entities are responsible for compensating, in what sequence they assume responsibility, and what assurances are provided that the responsible entities have incentives and will be able to fully compensate for the

reversals (see methodology for more details). The methodology uses a point system which identifies the following key sub-indicators for the overall robustness."

Sub-indicator 3.2.1.5.1

Relevant scoring methodology provisions

"The project owners are the primary responsible entity for compensating for intentional reversals or for *all* reversals (e.g. they are required to top up units temporarily drawn from a pooled buffer reverse)."

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

2 Communication with ACR, October/November 2022.

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Loss mitigation for an unintentional reversal: ACR mitigates the loss from an Unintentional Reversal **by retiring from the Buffer Pool the Estimated Loss Amount at Project Proponent's expense** (including payment of then-applicable offset retirement fees). If the Lost Offset Amount is less than the Project Proponent's net Buffer Contributions up to that time, then the Buffer Contributions cover the Reversal. If the Lost Offset Amount from the Reversal exceeds the Proponent's Buffer Contributions to date, the Project Proponent shall pay a "deductible" of 10% of the Lost Offset Amount, depositing this additional offset amount in the ACR Buffer Pool within thirty (30) days of the retirement, and the Buffer Pool covers the remainder. The deductible contribution may be of ACR offsets of any type and vintage. Following unintentional reversals, **the Proponent is not required to replenish the buffer unless the Minimum Buffer Percentage increases based on the risk assessment update**. If the Verified Lost Amount is greater than the Estimated Lost Amount, ACR will retire from the Buffer Pool the difference."

Provision 2 Source 1, Section E: Reversal: "Loss mitigation for an intentional reversal: ACR mitigates the loss from an Intentional Reversal, which is assumed as all affected carbon stocks, **by cancelling the associated volume of credits from the Project Proponent's account and/or cancelling or retiring from the Buffer Pool the Estimated Loss Amount (as applicable) at Project Proponent's expense** (including payment of then-applicable offset activation, retirement and cancelation fees) upon notification by the Project Proponent. Cancelation of all non-transacted offsets will occur for a project that has terminated early and retirement will occur equivalent to any volume that has been transferred. **The Project Proponent shall, at the Project Proponent's expense, contribute the Estimated Lost Offset Amount to the Buffer Pool Account within thirty (30) days of the Reversal**. This Buffer Contribution may be made using ACR offsets of any type or vintage. For any intentional reversal, including intentional early project termination, that occurs for

projects listed after January 1, 2022 only ACR offsets from AFOLU project types may be used to compensate the reversal or termination. If the Project Proponent does not make this Buffer Contribution within thirty (30) days, ACR retains the right to freeze the account and use any existing offsets to compensate for the Reversal.

The Verified Offset Amount must be submitted to ACR within six months of Reversal unless additional time is granted by ACR in writing. If the Verified Lost Amount is greater than the Estimated Lost Amount, Project Proponent shall contribute an additional amount for the difference, which will be retired by ACR."

Assessment outcome

Yes (4 Points).

Justification of assessment

The above documentation specifies that the indicator is fulfilled. The ACR uses the Buffer Pool to compensate for unintentional or intentional reversals at the project owner's expense. For intentional reversals, the proponent is required to replenish the buffer pool by the estimated amount of the reversal. For unintentional reversals, the project owner is not required to replenish the buffer pool (Provision 1), except for large unintentional reversals – i.e., those that exceed the project's total buffer contributions – where the project proponent must pay a penalty and the ACR buffer covers the remainder (Source 2).

Sub-indicator 3.2.1.5.2

Relevant scoring methodology provisions

"To facilitate compensation by project owners, the program has the following provisions in place:

a. The project owners are required to sign legal agreements obligating them to monitor, report and compensate for reversals.

OR

b. Following a reversal, the program ceases the issuance of carbon credits to the project until the project owners have fully compensated for the reversals.

OR

c. Both of these provisions are implemented."

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

2 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

3 Communication with ACR, October/November 2022

Relevant carbon crediting program provisions

Provision 1 Source 1, Chapter 5: "Project Proponents of AFOLU projects with risk of reversal shall enter into a legally binding Reversal Risk Mitigation Agreement that allows them to select a reversal risk mitigation mechanism and details the requirements for reporting and compensating reversals. Should reversals occur the requirements and liabilities associated with replacing lost ERTs rest with the Project Proponent, and not necessarily with the individual landowner(s) per the Risk Mitigation Agreement."

Provision 2 Source 2, Section E: Reversal: "Loss mitigation for an unintentional reversal: ACR mitigates the loss from an Unintentional Reversal by retiring from the Buffer Pool the Estimated Loss Amount at Project Proponent's expense (including payment of then-applicable offset retirement fees). If the Lost Offset Amount is less than the Project Proponent's net Buffer Contributions up to that time, then the Buffer Contributions cover the Reversal. If the Lost Offset Amount from the Reversal exceeds the Proponent's Buffer Contributions to date, the Project Proponent shall pay a "deductible" of 10% of the Lost Offset Amount, depositing this additional offset amount in the ACR Buffer Pool within thirty (30) days of the retirement, and the Buffer Pool covers the remainder."

Provision 3 Source 2, Section E: Reversal: "Loss mitigation for an intentional reversal: ACR mitigates the loss from an Intentional Reversal, which is assumed as all affected carbon stocks, by cancelling the associated volume of credits from the Project Proponent's account and/or cancelling or retiring from the Buffer Pool the Estimated Loss Amount (as applicable) at Project Proponent's expense […]. The Project Proponent shall, at the Project Proponent's expense, contribute the Estimated Lost Offset Amount to the Buffer Pool Account within thirty (30) days of the Reversal. […] If the Project Proponent does not make this Buffer Contribution within thirty (30) days, ACR retains the right to freeze the account and use any existing offsets to compensate for the Reversal."

Provision 4 Source 3: "All project owners of AFOLU projects with a risk of reversal execute ACR's legally binding AFOLU Carbon Project Risk Mitigation Agreement, with the ACR Buffer Pool Terms and Conditions incorporated by reference. That agreement includes the following:

"Upon the occurrence of an Event of Default, ACR may, in its sole discretion and without limitation of ACR's right to pursue other available legal or equitable remedies:

> *(i) suspend issuance of new offsets to Project Proponent with respect to the Project….;*
>
> *(iii) suspend the right of Project Proponent to transfer, sell, pledge, retire or otherwise dispose of offsets in the Project account;…"*

Provision 5 Source 3: "In any event, the loss amount must be verified by an independent third party, and it would be conducted prior to or in conjunction with the verification of the project's next reporting period for which they are seeking credit issuance."

Assessment outcome

Condition a. applies (4 Points).

Justification of assessment

The above documentation specifies that condition a is fulfilled. The ACR requires any project proponent to enter into a legally binding Reversal Risk Mitigation Agreement obligating them to monitor, report and compensate for reversals. Following an intentional reversal, project owners are required to compensate for this reversal (Provision 3). If they don't do so, ACR *retains the right* to freeze their account, i.e. cease issuing of credits to the project (Provision 3 and communication with ACR). For unintentional reversals, project proponents are not obliged to compensate for these reversals or to replenish the buffer pool except for large unintentional reversals – i.e., those that exceed the project's total buffer contributions – where the project proponent must pay a penalty and the ACR buffer covers the remainder (Provision 2). Additionally, the Reversal Risk Mitigation Agreement which project owners are required to sign specifies that upon the occurrence of an event of default (which could be a reversal), ACR *may* suspend the issuance of credits to the project (Provision 4). While ACR explained that no more credits would be issued to the project until the loss is accounted and that the account and all credits would no longer be accessible to the project proponent as a consequence of not replenishing the buffer in response to a reversal (Source 3), ACR's provision remain ambiguous as they provide discretion to ACR not to cease the issuance of credits until project owners have fully compensated for the reversals. Therefore, only condition a. is fulfilled.

Sub-indicator 3.2.1.5.3

Relevant scoring methodology provisions

"The carbon crediting program ensures that full compensation for any monitored reversals takes place in the case that the project owners do not fulfil their obligation for compensating for reversals (e.g., due to bankruptcy or non-enforceable legal agreements), by establishing provisions that in such instances compensation takes place through other means, such as the pooled buffer reserve."

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Loss mitigation for an unintentional reversal: ACR mitigates the loss from an Unintentional Reversal by retiring from the Buffer Pool the Estimated Loss Amount at Project Proponent's expense (including payment of then-applicable offset retirement fees). If the Lost Offset Amount is less than the Project Proponent's net Buffer Contributions up to that time, then the Buffer Contributions cover the Reversal. If the Lost Offset Amount from the Reversal exceeds the Proponent's Buffer Contributions to date, the Project Proponent shall pay a "deductible" of 10% of the Lost Offset Amount, depositing this additional offset amount

in the ACR Buffer Pool within thirty (30) days of the retirement, and the Buffer Pool covers the remainder. The deductible contribution may be of ACR offsets of any type and vintage. Following unintentional reversals, the Proponent is not required to replenish the buffer unless the Minimum Buffer Percentage increases based on the risk assessment update. If the Verified Lost Amount is greater than the Estimated Lost Amount, ACR will retire from the Buffer Pool the difference."

Provision 2 Source 1, Section E: Reversal: "Loss mitigation for an intentional reversal: ACR mitigates the loss from an Intentional Reversal, which is assumed as all affected carbon stocks, by cancelling the associated volume of credits from the Project Proponent's account and/or cancelling or retiring from the Buffer Pool the Estimated Loss Amount (as applicable) at Project Proponent's expense (including payment of then-applicable offset activation, retirement and cancelation fees) upon notification by the Project Proponent. Cancelation of all non-transacted offsets will occur for a project that has terminated early and retirement will occur equivalent to any volume that has been transferred. The Project Proponent shall, at the Project Proponent's expense, contribute the Estimated Lost Offset Amount to the Buffer Pool Account within thirty (30) days of the Reversal. This Buffer Contribution may be made using ACR offsets of any type or vintage. For any intentional reversal, including intentional early project termination, that occurs for projects listed after January 1, 2022 only ACR offsets from AFOLU project types may be used to compensate the reversal or termination. If the Project Proponent does not make this Buffer Contribution within thirty (30) days, ACR retains the right to freeze the account and use any existing offsets to compensate for the Reversal.

The Verified Offset Amount must be submitted to ACR within six months of Reversal unless additional time is granted by ACR in writing. If the Verified Lost Amount is greater than the Estimated Lost Amount, Project Proponent shall contribute an additional amount for the difference, which will be retired by ACR."

Assessment outcome

Yes (2 Points).

Justification of assessment

ACR uses the contributions to the Buffer Pool to account for unintentional or intentional reversals. Full compensation for any reversal is therefore ensured independently of whether project owners fulfil their obligation for compensating for reversals.

Sub-indicator 3.2.1.5.4

Relevant scoring methodology provisions

"The program uses a pooled buffer reserve to compensate for reversals."

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Primary AFOLU Risk Mitigation Mechanism - The ACR Buffer Pool: Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

Yes (6 Points).

Justification of assessment

The above documentation specifies that the indicator is fulfilled. The ACR Buffer Pool Reserve is the primary instrument for mitigating risk of reversal.

Sub-indicator 3.2.1.5.5

Relevant scoring methodology provisions

"The average fraction of carbon credits required to be placed into the pooled buffer reserve is X percentage points at the time of assessment. The assessment should include all projects from which carbon credits are held in the buffer reserve."

Information sources considered

1 ACR Public Registry, Issued Credits Report, https://americancarbonregistry.org/how-it-works/registry-reports (accessed on 18 May 2022)

2 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Primary AFOLU Risk Mitigation Mechanism - The ACR Buffer Pool: Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements

of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

2.6 points.

The number of points is calculated by dividing the required percentage points that the carbon crediting program requires to be placed in the pooled buffer reserve by 5. This procedure yields a score of 2.6 (13/5).

Justification of assessment

According to the information available in ACR's public registry (Source 1), the average fraction of carbon credits that projects with a reversal risk have placed into the reserve is 16.8%. The average has been calculated by determining the ratio between the total number of carbon credits deposited in the buffer reserve (at the time of issuance) by the total number of carbon credits that were issued to those projects that contributed to the buffer reserve (including those credits that were placed into the buffer reserve) as of May 2022.

The number of points is calculated by dividing the average percentage points that the carbon crediting program requires to be placed in the pooled buffer reserve by 5. This results in 2.6 points.

Sub-indicator 3.2.1.5.6

Relevant scoring methodology provisions

"The fraction of carbon credits set aside in the pooled buffer reserve is determined through a project-specific risk assessment, following a pre-defined methodology."

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

2 ACR Tool for Risk Analysis and Buffer Determination (Version 1.0), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/acr-risk-tool-v1-0.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Project Proponents of terrestrial sequestration and avoided conversion projects with a risk of reversal must conduct a reversal risk assessment using an ACR-approved tool that addresses both general and project-specific risk factors. General risk factors include financial failure, technical failure, management failure, rising land opportunity costs, regulatory and social instability,

and natural disturbances. Project-specific risk factors vary by project type. **AFOLU Project Proponents shall conduct their risk assessment using the ACR Tool for Risk Analysis and Buffer Determination**. The output of the tool is an overall risk-rating percentage for the project, translating into a number of offsets that must be deposited in the ACR Buffer Pool Account to mitigate the risk of reversal, the Minimum Buffer Percentage.

The risk assessment, overall risk category, Minimum Buffer Percentage, and calculated Buffer Contribution amount shall be included in the GHG Project Plan and Monitoring Report. ACR evaluates the proposed overall risk category and corresponding buffer contribution, and the VVB evaluates whether the risk assessment has been conducted correctly. Concurrent with each issuance of offsets to the project, the Project Proponent shall contribute offsets to the Buffer Account equal to the sum of the Minimum Buffer Percentage multiplied by each of the annual volumes of offsets being issued."

Provision 2 Source 2: "The ACR Tool for Risk Analysis and Buffer Determination provides quantification guidelines for GHG sequestration reversal risk associated with specific project types in the U.S. and abroad.

All projects that include carbon sequestration have the potential for GHG removals to be reversed (i.e., released back into the atmosphere) and must use this risk analysis tool to assess the risk of reversal due to both general and project-specific risk factors."

Assessment outcome

Yes (2 Points).

Justification of assessment

The above documentation specifies that the indicator is fulfilled.

Sub-indicator 3.2.1.5.7

Relevant scoring methodology provisions

"X registered projects contribute to the pooled buffer reserve. The assessment should include all projects from which carbon credits are held in the buffer reserve at the time of assessment."

Information sources considered

1 ACR Public Registry, Issued Credits Report, https://americancarbonregistry.org/how-it-works/registry-reports (accessed on 18 May 2022)

2 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 2, Section E: Reversal: “Primary AFOLU Risk Mitigation Mechanism - The ACR Buffer Pool: Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool.”

Assessment outcome

2 Points. (The number of registered projects contributing to the pooled buffer reserved divided by 50, with a maximum of 2 Points).

Justification of assessment

According to information in the public registry (Source 1), 270 registered projects contribute to the pooled buffer reserve (18 May 2022). This calculation includes agriculture, forest and other land use (AFOLU) carbon projects, which contribute to the buffer pool and does not only consider forestry projects. This is because credits from any type of AFOLU project may be taken from the buffer pool to compensate for reversals (Provision 1). Applying the scoring methodology yields a score of 2 (270/50 = 5.4; with maximum score of 2).

Sub-indicator 3.2.1.5.8

Relevant scoring methodology provisions

“The registered projects contributing to the pooled buffer reserve are implemented in X different regions. A region is a state or province within a country (e.g., states within the US, provinces within Brazil). The assessment should include all projects from which carbon credits are hold in the buffer reserve at the time of assessment.”

Information sources considered

1 ACR Public Registry, Issued Credits Report, https://americancarbonregistry.org/how-it-works/registry-reports (accessed on 18 May 2022)

2 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Own calculations based on information provided in ACR public registry (Information Source 1). Currently, ACR operates in the United States and in Brazil.

Provision 2 Source 2, Section E: Reversal: “Primary AFOLU Risk Mitigation Mechanism - The ACR Buffer Pool: Project Proponents choosing the ACR Buffer Pool as the risk

mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

1.12 Points (The number of regions divided by 25, with a maximum of 2 Points).

Justification of assessment

According to information in the public registry (Source 1), projects in 28 regions (states within the US, provinces within Brazil) contribute to the pooled buffer reserve (as of May 2022). This calculation includes agriculture, forest and other land use (AFOLU) carbon projects, which contribute to the buffer pool and does not only consider forestry projects. This is because credits from any type of AFOLU project may be taken from the buffer pool to compensate for reversals (Provision 2). Applying the scoring methodology yields a score of 1.12 (28/25).

Sub-indicator 3.2.1.5.9

Relevant scoring methodology provisions

"The three largest projects contributing to the pooled buffer reserve represent X percentage points of the carbon credits held in the pooled buffer reserve."

Information sources considered

1 ACR Public Registry, Issued Credits Report, https://americancarbonregistry.org/how-it-works/registry-reports (accessed on 18 May 2022)

Relevant carbon crediting program provisions

Provision 1 Own calculations based on information provided in ACR public registry (Information Source 1)

Assessment outcome

-2.79 points.

The number of percentage points (27.9) divided by 10. The score of this sub-indicator is negative and must be subtracted from the other scores when determining the final score for indicator 3.2.1.5.

Justification of assessment

According to the information in the public registry (Information Source 1), the three largest projects contributing to the pooled buffer reserve represent 27.9 percentage points of the carbon credits

currently held in the pooled buffer reserve. This includes different types of AFOLU projects, not only forests. Applying the scoring methodology yields a score of -2.79 (-27.9/10).

Sub-indicator 3.2.1.5.10

Relevant scoring methodology provisions

“There are provisions in place to ensure the continued operation of the reserve if the carbon crediting program ceases to exist, including in the case of bankruptcy.”

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, C. Buffer Pool Account: “In the event that ACR is no longer operational or able to manage the Buffer Pool Account, the account will be managed by ACR’s parent organization, Winrock International (“Winrock”) or a comparable, qualified organization of Winrock’s election.”

Assessment outcome

Yes (4 Points).

Justification of assessment

According to the above documentation the indicator is fulfilled. If the ACR buffer ceased to exist, Winrock International or a comparable qualified organization would take over the management of the buffer account.

Sub-indicator 3.2.1.5.11

Relevant scoring methodology provisions

“The program funds part of its pooled buffer reserve with carbon credits from projects that do not have a material non-permanence risk as defined in Table 27 of the methodology and the fraction of these carbon credits makes up:

a. 50% or less of the pooled buffer reserve;

OR

b. More than 50% of the pooled buffer reserve.”

Information sources considered

1 The American Carbon Registry Standard Buffer Pool Terms and Conditions (February 2021), https://americancarbonregistry.org/carbon-accounting/guidance-tools-templates/published-acr-buffer-pool-terms-and-conditions_February-2021.pdf

2 Communication with ACR, October/November 2022

Relevant carbon crediting program provisions

Provision 1 Source 1, C. Buffer Pool Account: “ACR will establish an American Carbon Registry Buffer Pool Account (the “Buffer Pool”), over which it has sole operational and management control, to hold the Buffer Contribution from the Project (as defined below). ACR shall have the right to hold buffer contributions from all agriculture, forest and other land use (AFOLU) carbon projects registered with ACR in one or more co-mingled accounts.”

Provision 2 Source 1, D.III: “The Buffer Contribution shall consist of offsets generated by the Project, offsets of any other type or vintage held in an ACR registry account by the Project Proponent, or any combination thereof.”

Provision 3 Source 2: “The current split in the buffer pool between credits from projects with a risk of reversal and those without a risk of reversal is about 22% and 78% respectively. This of course is likely to continually change over time depending on the market and the projects who are contributing to the buffer pool. ACR’s Buffer Pool Terms and Conditions state: for any intentional reversal, including intentional early project termination, that occurs for projects listed after January 1, 2022 only ACR offsets from AFOLU project types may be used to compensate the reversal or termination. Furthermore projects listed after January 1, 2022 may only use credits with vintages up to 5 years prior to the date of deposit.”

Assessment outcome

Condition b. applies (4 Points)

Justification of assessment

Only AFOLU projects that have a material non-permanence risk are obliged to contribute credits to the buffer pool (Provision 1). Yet, the contribution can consist of credits originating from AFOLU projects or other project types without a non-permanence risk (Provision 2). As of 8 November 2022, 78% of credits in the buffer pool originate from projects without a material non-permanence risk (however, this may change in the future) (provision 3). Therefore, condition b is fulfilled.

Sub-indicator 3.2.1.5.12

Relevant scoring methodology provisions

“The program uses a non-pooled buffer reserve to compensate for reversals.”

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Primary AFOLU Risk Mitigation Mechanism: The ACR Buffer Pool - Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

No (0 Points).

Justification of assessment

Not applicable as the program does not use a non-pooled buffer reserve but only a pooled buffer reserve for project types in the land use sector that imply reversal risks.

Sub-indicator 3.2.1.5.13

Relevant scoring methodology provisions

"The fraction of issued carbon credits that must be placed into the non-pooled buffer reserve is X percentage points."

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Primary AFOLU Risk Mitigation Mechanism: The ACR Buffer Pool - Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to

replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

No (0 Points).

Justification of assessment

Not applicable as the program does not use a non-pooled buffer reserve but only a pooled buffer reserve for project types in the land use sector that imply reversal risks.

Sub-indicator 3.2.1.5.14

Relevant scoring methodology provisions

"There are provisions in place to ensure the continued operation of the non-pooled buffer reserve if the carbon crediting program ceases to exist, including in the case of bankruptcy."

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: "Primary AFOLU Risk Mitigation Mechanism: The ACR Buffer Pool - Project Proponents choosing the ACR Buffer Pool as the risk mitigation mechanism agree to the latest published version of the ACR Buffer Pool Terms and Conditions, which detail the operation of the Buffer Pool and requirements of the Project Proponent. Generally, the project contributes to the Buffer Pool account the number of offsets as determined by the project-specific risk assessment in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the Buffer Pool."

Assessment outcome

No (0 Points).

Justification of assessment

Not applicable as the program does not use a non-pooled buffer reserve but only a pooled buffer reserve for project types in the land use sector that imply reversal risks.

Sub-indicator 3.2.1.5.15

Relevant scoring methodology provisions

“In addition to requirements for compensation by project owners and the use of a pooled buffer reserve, the program requires project owners to insure the risks associated with their obligation to compensate for reversals.”

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: “Alternate Risk Mitigation Mechanisms - In lieu of making a Buffer Pool Contribution or Reserve Account Contribution, Project Proponents **may** propose an insurance product for ACR approval as a risk mitigation mechanism. Insurance may be a financial product based on an actuarial analysis of project risk that considers circumstances such as the region, threats, and mitigating factors. This is similar to the assessment done for property insurance.

The Project Proponent may provide insurance, bonds, letters of credit, or other financial assurances to ACR in amounts, and in form and substance, satisfactory to ACR in its sole and absolute discretion. Such financial products must assure provision of sufficient funds to ACR, in the event a project suffers an unintentional or intentional reversal of sequestered carbon, to purchase and retire a number of ERTs sufficient to offset such reversal. There may be no hidden costs, exclusions, or unanticipated liabilities. ACR must approve the proposed alternative after it conducts due diligence, which will be at the Project Proponent’s or insurance provider’s expense.”

Assessment outcome

No (0 Points).

Justification of assessment

The ACR accepts under certain circumstances insurance products. However, such products may be used in lieu of making a buffer pool contribution. They are not used in addition to buffer pool contributions and their use is not mandatory. The indicator is therefore not fulfilled..

Sub-indicator 3.2.1.5.16

Relevant scoring methodology provisions

“The program establishes clear conditions for what type of insurance is considered sufficient, including provisions that only high-quality credits may be used for compensation.”

Information sources considered

1 The American Carbon Registry Standard (Version 7.0), https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard

Relevant carbon crediting program provisions

Provision 1 Source 1, Section E: Reversal: “Alternate Risk Mitigation Mechanisms - In lieu of making a Buffer Pool Contribution or Reserve Account Contribution, Project Proponents may propose an insurance product for ACR approval as a risk mitigation mechanism. Insurance may be a financial product based on an actuarial analysis of project risk that considers circumstances such as the region, threats, and mitigating factors. This is similar to the assessment done for property insurance.

The Project Proponent may provide insurance, bonds, letters of credit, or other financial assurances to ACR in amounts, and in form and substance, satisfactory to ACR in its sole and absolute discretion. Such financial products must assure provision of sufficient funds to ACR, in the event a project suffers an unintentional or intentional reversal of sequestered carbon, to purchase and retire a number of ERTs sufficient to offset such reversal. There may be no hidden costs, exclusions, or unanticipated liabilities. ACR must approve the proposed alternative after it conducts due diligence, which will be at the Project Proponent’s or insurance provider’s expense.”

Assessment outcome

Yes (1 Point).

Justification of assessment

The above documentation specifies that the indicator is fulfilled. The ACR requires that any insurance products be based on an actuarial analysis (considering circumstances such as the region, threats, and mitigating factors), pointing to a similar quality as in the case of property insurance.

Scoring results

According to the above assessment, the carbon crediting program receives 29.93 points. Applying the scoring approach in the methodology, this results in a score of 3.17 for the indicator.

Indicator 3.2.1.6

Relevant scoring methodology provisions

Some carbon crediting programs allow or require that a new baseline be established in the event of a reversal. However, if the baseline is adjusted upwards, by adding the reversals to the baseline, then the reversal would no longer be accounted for, i.e. the cumulative emission reductions that may be claimed could be equal to the situation when the reversal had never occurred. Such provisions could thus undermine the effectiveness of fully accounting for reversals. The methodology assesses

carbon crediting programs depending on the extent to which they allow or require adjusting baseline emission upwards in the case of reversals. The program requirements in the case of reversals are scored as follows:

Program provisions in the case of reversals	Score
The program provisions do not allow or require adjusting the baseline upwards (i.e. towards higher emissions in the case of reversals)	4
The program provisions allow or require adjusting the baseline upwards (i.e. towards higher emissions in the case of reversals), but only to a much smaller extent than the actual reversals	3
The program provisions potentially allow or require adjusting the baseline upwards (i.e. towards higher emissions in the case of reversals) to the same extent as the reversals that occurred	1

Information sources considered

1 The American Carbon Registry Standard. Requirements and specifications for the quantification, monitoring, reporting, verification, and registration of project-based GHG emissions reductions and removals. Version 7.0, December 2020, available at https://americancarbonregistry.org/carbon-accounting/standards-methodologies/american-carbon-registry-standard/acr-standard-v7-0_final_dec2020.pdf

Relevant carbon crediting program provisions

Provision 1 Source 1, section 5.A: “If no reversals occur, the project’s risk category and Minimum Buffer Percentage may remain unchanged for 5 years. The risk analysis must be re-evaluated at least every 5 years, or coincident with site visit verification. An exception is in the event of a reversal, in which case the risk category and Minimum Buffer Contribution shall be immediately re-assessed and re-verified.”

Assessment outcome

The approach is assigned a score of 4.

Justification of assessment

The above documentation specifies that the carbon crediting program provisions are consistent with the methodology requirements to receive a score of 4.

Scoring results

According to the above assessment, the carbon crediting program achieves a score of 2 for indicator 3.2.1.1, a score of 4 for indicator 3.2.1.2, a score of 4 for indicator 3.2.1.3, a score of 4 for indicator 3.2.1.4, a score of 3.17 for indicator 3.2.1.5, and a score of 4 for indicator 3.2.1.6. Applying the scoring approach in the methodology, this results in a score of 2.91 for the approach.