



## What makes a high-quality carbon credit?

### Phase 1 of the “Carbon Credit Guidance for Buyers” project: Definition of criteria for assessing the quality of carbon credits

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#### **Authors and background**

World Wildlife Fund (WWF-US), Environmental Defense Fund (EDF) and Oeko-Institut are developing a “Carbon Credit Guidance for Buyers” to guide buyers of carbon credits amidst a complex market. The project is implemented in four phases: This paper presents the results from Phase 1 in which criteria are identified for assessing the quality of carbon credits. Phase 2 of the project is to develop and test a methodology for assessing carbon credits against the criteria; Phase 3 is to apply the methodology to different carbon credits; and Phase 4 is to combine the Phase 3 results with additional recommendations to produce the “Carbon Credit Guidance for Buyers”.

This paper presents an updated set of criteria based on the input received during a stakeholder consultation held between November 2019 and January 2020. The paper was jointly prepared by a research team (Lambert Schneider, Sean Healy, Felix Fallasch, Felipe De León, Mandy Rambharos), WWF-US (Brad Schallert, John Holler) and EDF (Kelley Kizzier, Annie Petsonk, Alex Hanafi) and may be updated based on further consultation of these criteria and the experience applying the criteria. For questions about this project, please contact us at [carboncreditbuyersguide@gmail.com](mailto:carboncreditbuyersguide@gmail.com).

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## Definitions

| Term                            | Definition  |
|---------------------------------|---|
| <b>Additionality</b>            | In the context of crediting mechanisms, emission reductions or removals from a mitigation activity are additional if the mitigation activity would not have taken place in the absence of the added incentive created by the carbon credits.  |
| <b>Carbon credit</b>            | An emissions unit that is issued by a carbon crediting program and represents an emission reduction or removal of greenhouse gases. Carbon credits are uniquely serialized, issued, tracked, and cancelled by means of an electronic registry.  |
| <b>Carbon crediting program</b> | An organization that registers mitigation activities and issues carbon credits for the emission reductions or removals achieved by the activities.  |
| <b>Corresponding adjustment</b> | An accounting entry applied in the context of Article 6 of the Paris Agreement in order to account for the international transfer of mitigation outcomes and avoid double counting of emission reductions or removals. A country transferring emission reductions or removals makes an addition to the total emissions covered by its NDC, and the country acquiring and using the emission reductions or removals makes a subtraction. Corresponding adjustments thereby aim to ensure that the transferring country can no longer use the emission reductions or removals to achieve its NDC, whereas the acquiring country may use them. |
| <b>Crediting baseline</b>       | The emissions level against which emission reductions or removals of a mitigation activity are determined.  |
| <b>Double claiming</b>          | A situation in which the same emission reduction or removal is claimed by two different entities towards achieving mitigation targets or goals: once by the country or jurisdiction where the emission reduction or removal occurs, by reporting lower emissions or higher removals when tracking progress and demonstrating achievement of its mitigation target or goal, and once by the entity using the carbon credit.  |
| <b>Double counting</b>          | A situation in which a single greenhouse gas emission reduction or removal is counted more than once towards achieving mitigation targets or goals. Double counting can occur through double issuance, double use, and double claiming.   |
| <b>Double issuance</b>          | A situation in which more than one carbon credit is issued for the same emission reduction or removal. Double issuance leads to double counting if more than one of these carbon credits is counted towards achieving mitigation targets or goals. Some programs and stakeholders also refer to <i>double registration</i> – the registration of the same project under two different carbon crediting programs or twice under the same program. Double registration can lead to double issuance if carbon crediting programs do not implement proper controls to ensure that, if a project is registered with more than one program,       |

| Term                                 | Definition  |
|--------------------------------------|---|
|                                      | carbon credits are cancelled by one program before carbon credits are issued by another program for the same emission reductions or removals.   |
| <b>Double use</b>                    | A situation in which the same carbon credit is counted twice towards achieving mitigation targets or goals (e.g. if two entities claim emission reductions or removals from the cancellation of one carbon credit).   |
| <b>Leakage</b>                       | The net change of greenhouse gas emissions or removals that are attributable to the mitigation activity but occur outside the boundary of that activity. These include, for example, indirect emission changes upstream or downstream of the mitigation activity or rebound effects.  |
| <b>Mitigation activity</b>           | An activity that reduces anthropogenic emissions of a greenhouse gas or maintains or enhances removals by sinks. Mitigation activities can be implemented at different scales and could be projects, programmatic approaches, or policies.  |
| <b>Non-permanence</b>                | Non-permanence refers to a situation where the emission reductions or removals generated by the mitigation activity are later reversed, for example due to a natural disaster or project mismanagement. The mitigation activity thus may only result in a temporary greenhouse gas benefit for the atmosphere.  |
| <b>Results-based climate finance</b> | A financing approach under which a donor disburses funds for the achievement and independent verification of a pre-agreed set of results. Some donors use the delivery and subsequent cancellation of carbon credits as a vehicle to disburse results-based climate finance. In this case, the donor does not use the emission reductions or removals to achieve its own mitigation targets or goals. |

## 1 Background

Achieving the temperature goals of the Paris Agreement requires deep and fast decarbonization of our economies. Although many entities, including countries, sub-national jurisdictions, corporates, other organizations, and individuals are stepping up their climate efforts and pledges, current action is still insufficient to achieve agreed international goals.

High-quality carbon markets could play an important role in raising the ambition of climate action. First, by providing flexibility as to where and when emissions are reduced, they can lower the cost of achieving climate targets. Second, by generating economic value for reducing emissions, they can incentivise innovation that facilitates step-changes in technology and processes, which are essential if the world is to meet the goals of the Paris Agreement. Third, by promoting early action, they can accelerate near-term reductions of greenhouse gas (GHG) emissions. Together, the resulting lower costs, innovation, and early action can facilitate increasing ambition and help close the gap between current climate commitments and the necessary decarbonisation of the global economy. If not implemented robustly, however, carbon markets could lead to more greenhouse gas emissions and increased costs for achieving climate targets. Ensuring high-quality and robust implementation are central for carbon markets to deliver on their objectives and help contribute to achieving the goals of the Paris Agreement.

One carbon market instrument has recently gained revived interest: carbon credits. Carbon credits are issued by carbon crediting programs to the owners of mitigation activities for reducing emissions or enhancing removals of GHGs from the atmosphere. Demand for carbon credits – sometimes also referred to as “offsets” – is likely to increase in the future, as many countries, companies, organizations and individuals respond to the threat of climate change by taking more ambitious action to reduce their own GHG emissions and to offset emissions that they cannot reduce in the near term. Some organizations and individuals are now beginning to offset more than their residual emissions footprint, thereby taking even more ambitious climate action. Many of these entities want to act responsibly and purchase carbon credits of “high quality” but find it difficult to understand the quality of carbon credits.

Indeed, assessing and ensuring the quality of carbon credits is challenging in practice. Evaluating the quality of a carbon credit may require the consideration of many different criteria. Moreover, even for carbon credits that are assessed to be of high quality, the best choice for a potential buyer may depend on the buyer’s individual priorities and the context in which the buyer plans to use the credits.

A key challenge, inherent to the concept of crediting, is that of assessing additionality (i.e. that the mitigation activity would not have taken place in the absence of the added incentive created by the carbon credits) and establishing crediting baselines (i.e. the emissions level against which reductions are quantified). Assessing additionality and determining crediting baselines is inherently uncertain and often controversial, as it requires establishing unobserved scenarios based on assumptions such as future fuel prices and possible policy interventions. Concerns about a lack of environmental integrity of carbon credits have also been raised with regard to risks of leakage, failure to address or adequately compensate for non-permanence, lock-in of carbon intensive technologies, and perverse incentives (e.g. for project owners to generate more GHGs only to destroy them, or for governments or companies to avoid adopting ambitious climate policies for fear such actions might jeopardize carbon credit revenues).

Mitigation activities also differ regarding their social and environmental impacts, and some projects have resulted in social and environmental harm such as human rights violations. Moreover, the rules

and governance arrangements of carbon crediting programs differ widely, including as they relate to eligible mitigation activities, levels of transparency and oversight, effectiveness of third-party auditing, provisions to avoid double counting, and means of addressing the risk of non-permanence. Each of these can raise concerns for carbon credit quality.

Adding to the complexity, the landscape is changing because of the landmark Paris Agreement. With countries communicating nationally determined contributions (NDCs), “double claiming” of emission reductions – i.e., a situation in which the emission reduction underlying a carbon credit is used both by the host country of the mitigation activity and by the buyer of the carbon credit – can pose a threat to environmental integrity. The obligations under the Paris Agreement for countries to increase the ambition and coverage of their climate targets, implement policies to achieve climate goals, and develop long-term strategies, generate further questions about minimum elements necessary for carbon credits to be considered as being of “high quality”.

We anticipate that demand for carbon credits will increase in the coming years. An important source of demand could be airlines that face new obligations under the International Civil Aviation Organization (ICAO). Adopted in 2016, ICAO’s Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) requires airlines to offset any increase of carbon dioxide (CO<sub>2</sub>) emissions from international flights between participating countries above the average of 2019-2020 levels.

Other potential sources of demand include purchases of carbon credits to help achieve NDCs under the Paris Agreement, or domestic or sub-national climate neutrality goals, and for compliance with national, regional, or subnational carbon pricing policies, such as emissions trading systems (ETs) or carbon taxes. For example, as of May 2020, Colombia, the Republic of Korea, South Africa and California allow for the use of carbon credits to comply with their carbon pricing policies.

Further, increasing pressure by employees, customers, shareholders, students and faculties at universities, and companies to take voluntary steps for reducing or compensating for their climate impact will add to this demand. Finally, the use of carbon credits by institutional buyers and individuals as a vehicle to disburse “results-based climate finance”, without claiming a right to use the emission reductions to achieve mitigation targets or goals, may be an additional source of demand for carbon credits.

## 2 Why this project?

Given the growing demand and the risks associated with low-quality carbon credits, practical and trusted guidance is critical to help carbon credit buyers navigate the complicated landscape and enable them to identify high-quality carbon credits. World Wildlife Fund (WWF-US), Environmental Defense Fund (EDF) and Oeko-Institut are therefore developing the “Carbon Credit Guidance for Buyers”. The project is implemented in four phases. This paper presents the results from Phase 1 in which criteria are identified to assess the quality of carbon credits. Phase 2 of the project is to develop and test a methodology to assess carbon credits against the criteria. Phase 3 is to apply the methodology to different carbon credits. Phase 4 is to combine Phase 3 results with additional recommendations to produce the Carbon Credit Guidance for Buyers. This paper presents an updated set of criteria based on the input received during a stakeholder consultation held between November 2019 and January 2020.

### 3 Scope and structure

This paper has a limited scope. First, the paper focuses on carbon credits generated from project-based activities. To date, the vast majority of carbon credits used for offsetting are sourced from project-based activities. This may change, however, as more than 30 countries and subnational jurisdictions are implementing or developing ETSs or large-scale sectoral crediting approaches (e.g. for REDD+), into which some smaller scale, project-based approaches may integrate. These large-scale approaches have the potential to address some of the quality concerns associated with project-scale approaches, such as ensuring additionality or avoiding domestic leakage, but several quality considerations identified in this paper will remain (e.g. the uncertainty or ambition of baselines and/or ETS emissions caps, or addressing international leakage).

While criteria similar to those described in this paper may be applied to analyse the integrity of allowances from emissions trading systems or of credits issued from sectoral or jurisdictional programs, the criteria described in this document have been formulated to evaluate carbon credits from project-based mitigation activities.

Second, the paper is limited to carbon credits that are issued for emission reductions or removals of GHGs expressed in tonnes of CO<sub>2</sub> equivalent. It does not consider credits issued for other substances, or the possible use of metrics other than CO<sub>2</sub> equivalent. It also does not consider the possible use of different time horizons to determine CO<sub>2</sub> equivalents for short-lived GHGs such as methane, which produce large climate-warming impacts over shorter time periods (e.g. 1-2 decades), and long-lived GHGs such as CO<sub>2</sub> and nitrous oxide (N<sub>2</sub>O), which persist for a longer period of time (e.g. spanning centuries). Third, this paper does not address whether and how carbon crediting programmes should aim to achieve an "overall mitigation in global emissions", as referred to in Article 6.4 of the Paris Agreement. Lastly, the paper does not address how carbon credits should be responsibly used by countries, companies and individuals, such as by prioritizing their own emission reductions over offsetting. However, the use of carbon credits should only be considered as part of an overall mitigation strategy which ensures the necessary long-term decarbonisation. The Carbon Credit Guidance for Buyers will address some of these issues.

The paper is organized as follows: Section 4 first provides an overview of the criteria used for assessing the quality of carbon credits and describes how these are grouped into quality objectives. Section 5 describes the objectives and criteria in greater detail. Finally, Section 6 provides an outlook on further areas of work that the project team will conduct to help stakeholders to ensure high-quality carbon credits. The Annex lists references that contributed to the information in this document.

### 4 Overview of quality objectives and criteria

What makes a "high-quality" carbon credit is not a simple question. Many different criteria could be considered to answer this question and those selected may need to be weighted based on their perceived importance, the context in which the carbon credit is generated and used, and buyer priorities. Some criteria, such as addressing the risk of non-permanence, may also not be relevant for all types of mitigation activities or in all contexts.

The quality criteria in this document are identified based on a literature review, the authors' own research, and consultation with stakeholders. They represent the authors' judgment on what aspects should be considered to deem a carbon credit "high quality".



The quality criteria are grouped as shown in Table 1. We first identify six “quality objectives”. For each of these quality objectives, we then identify quality criteria. This document focuses on the quality objectives and the main quality criteria but also provides examples of further sub-criteria. The methodology in Phase 2 of this project will define the steps and data sources used to arrive at a grade for each criterion and sub-criterion. The different criteria and sub-criteria could then be weighed to arrive at an overall assessment of how a carbon credit achieves the quality objective, noting that the criteria may vary in their (perceived) importance or relevance and different users or stakeholders may weigh them in different ways. Carbon credits that achieve most or all criteria or sub-criteria to a high degree will receive a high-quality grade. Where carbon credits achieve only some criteria or sub-criteria, or partially fulfil them, they will receive respectively lower grades. The criteria and sub-criteria identified in this document may be further refined as part of the development of the methodology in Phase 2 of this project.

**Table 1** Overview of the quality objectives and criteria used to assess the quality of carbon credits

|     | Quality objective   | Criteria  |
|-----|---|---|
| (1) | Robust determination of the GHG emissions impact of the mitigation activity | <ul style="list-style-type: none"> <li>a. Additionality</li> <li>b. Vulnerability</li> <li>c. Robust quantification of emission reductions and removals</li> </ul>  |
| (2) | Avoiding double counting of emission reductions or removals                 | <ul style="list-style-type: none"> <li>a. Avoiding double issuance</li> <li>b. Avoiding double use</li> <li>c. Avoiding double claiming with international mitigation targets</li> <li>d. Avoiding double claiming with domestic mitigation targets or emissions trading systems</li> </ul> |
| (3) | Addressing non-permanence   | <ul style="list-style-type: none"> <li>a. Significance of non-permanence risks</li> <li>b. Robustness of approaches for addressing non-permanence risks</li> </ul>  |
| (4) | Facilitating transition towards net zero emissions                          | <ul style="list-style-type: none"> <li>a. Enhancing adoption of low, zero or negative emissions technologies</li> <li>b. Demonstration of host country commitment to the global temperature goals</li> </ul>  |
| (5) | Strong institutional arrangements and processes of the crediting program    | <ul style="list-style-type: none"> <li>a. Overall program governance</li> <li>b. Robust third-party auditing</li> <li>c. Transparency and stakeholder consultation</li> </ul>   |
| (6) | Enhancing positive and preventing negative environmental and social impacts | <ul style="list-style-type: none"> <li>a. Assessment of environmental and social impacts</li> <li>b. Contribution to improving adaptation and resilience</li> <li>c. Supporting the poorest and most vulnerable and affected by climate change</li> </ul>                                   |



## 5 Description of quality objectives and criteria

We use the following objectives and criteria to assess the quality of carbon credits:

**(1) Robust determination of the GHG emissions impact of the mitigation activity**, i.e. whether a project reduces emissions, or maintains or enhances removals, by at least one tonne of CO<sub>2</sub> equivalent for each carbon credit issued. To assess this quality objective, we use the following criteria:

- a. *Additionality*: Emission reductions or removals are additional if the mitigation activity would not have taken place in the absence of the added incentive created by the carbon credits (see definitions). That is, it is the added incentive created by the possibility of selling carbon credits that led to the implementation of the mitigation activity. To gauge the additionality of a carbon credit, it is therefore important to assess the influence of any other financial, economic, legal or technological drivers of the viability of the project. This can be done by applying different sub-criteria, such as assessing whether projects are implemented due to policies or regulations and whether projects must demonstrate that they considered carbon credits at project implementation. An assessment of the economic attractiveness of projects without carbon credits as well as to what degree carbon credits change the economic attractiveness of a project can also help identify whether any potential other economic drivers make the project viable in the absence of carbon credits. Furthermore, an analysis of non-economic barriers that the project might face gives information as to whether carbon credits might help in overcoming these barriers. If a project's emission reductions or removals are covered by an ambitious NDC target, for which there is a credible expectation of compliance, and if the country hosting the project (the "host country") accounts for the transfer of the carbon credit through the application of a "corresponding adjustment", this will provide an additional safeguard towards ensuring additionality. In this case, the host country has incentives to authorize only those projects that are truly additional as it forgoes the claim to the reduction and would otherwise have to take action to reduce its own emissions further to make up for the shortfall. There are also some more fundamental questions about the quality of existing projects certified and begun under earlier systems, in light of a new system. A new system might assess the additionality of a project relative to current conditions instead of those when the project was created. These questions need to be considered on balance with concerns related to equity and the recognition of early action.
- b. *Vulnerability*: Additionality is a prerequisite for the environmental integrity of any carbon credit. In the particular case, where there is little demand in a market relative to supply, as is the situation with credits from the Clean Development Mechanism (CDM) under the Kyoto Protocol, the impact of purchasing a carbon credit from an already implemented project depends on whether or not the project would continue GHG abatement without carbon credit revenues. This criterion is not applied in a functioning market with scarcity. In a market with very little demand and ample legacy supply, on the other hand, we can distinguish between two types of activities:
  - i. *Activities which are vulnerable to the risk of discontinuing GHG abatement*. These are additional mitigation activities that need ongoing revenues from carbon credits to continue GHG abatement.
  - ii. *Activities which are not vulnerable to the risk of discontinuing GHG abatement*. These are additional mitigation activities that needed revenues from carbon credits to be

economically viable at the time of investment but that, once implemented, will continue GHG abatement even without carbon credit revenues.

Non-vulnerable activities continue operations even without revenues from carbon credits, so the emission reduction or removal will continue even in the absence of a buyer. Purchasing a carbon credit from a vulnerable mitigation activity, on the other hand, might prevent the activity from terminating GHG abatement. Some buyers specifically purchase credits from vulnerable projects in order to ensure their continued operation. For example, the World Bank's Pilot Auctioning Facility for Methane and Climate Change Mitigation established dedicated windows to purchase certified emission reductions (CERs) from specific types of vulnerable projects. The resulting price is well above CDM market prices. For assessing vulnerability, similar sub-criteria as those outlined above for additionality can be used but need to be adapted.

- c. *Robust quantification of emission reductions and removals*: The methodologies used by crediting programs to quantify emission reductions or removals from credited mitigation activities must not lead to an over-estimation of the emission reductions or removals. This requires assessment of various aspects, including that (i) no ex-ante crediting is permitted; (ii) that selection of emission sources and sinks for the calculation of emission reductions and/or removals is appropriate; (iii) that a credible and conservative crediting baseline is used, taking into account relevant policies in the host country; (iv) that the emissions and/or removals from the mitigation activity are robustly monitored; and (v) that leakage (e.g. due to rebound effects) is appropriately considered in the calculation of emission reductions.

**(2) Avoiding double counting of emission reductions or removals**, i.e. avoiding that the same emission reduction or removal is used more than once to achieve climate targets or goals. The forms of double counting that are relevant depend on the purpose for which a carbon credit is used. For example, double issuance and double use should be avoided in all instances, whereas double claiming with international mitigation targets may not need to be avoided in some specific contexts (see Table 2 below). To assess this quality objective, we use the following criteria:

- a. *Avoiding double issuance*: Double issuance means that more than one carbon credit is issued for the same emission reduction or removal. Addressing double issuance requires that carbon crediting programs have procedures in place to ensure that the same project is not registered twice (either under the same program or under two different programs) or that carbon credits be cancelled by one program before carbon credits are issued by another program for the same emission reduction or removal. Moreover, it is necessary to avoid indirectly overlapping claims of the same emission reduction by two projects (e.g. if one program issues carbon credits to the producer of a biofuel, whereas another program issues carbon credits to the user of the same biofuel).
- b. *Avoiding double use*: Double use means that the same carbon credit is counted twice to achieve a climate target or goal. This could, for example, occur if two entities use an emission reduction or removal from the cancellation of one carbon credit, or if one entity uses a single credit toward more than one goal. Avoiding double use requires that programs have registry systems in place that effectively avoid the possibility that a carbon credit can be duplicated, or cancelled or retired more than once, so that only a single claim is made by an entity in respect of the cancellation of a carbon credit.

- c. *Avoiding double claiming with international mitigation targets:* Double claiming with international mitigation targets occurs if the same emission reduction or removal is claimed by the host country when it reports lower emission levels to demonstrate implementation and achievement of its international mitigation target or goal, and by the country or entity using the carbon credit. Avoiding this form of double counting requires several procedures to be in place to enable robust accounting, through the application of corresponding adjustments, under the Paris Agreement. These include, inter alia, that (i) carbon crediting programs have procedures in place to identify and earmark in which calendar year and in which country the emission reductions occurred; (ii) procedures for host country authorizations are in place; and (iii) procedures for the application, reporting and reconciliation of corresponding adjustments are in place. All of these require sufficient and persistent institutional capacity in both the carbon crediting program and the host country itself.
- d. *Avoiding double claiming with domestic mitigation targets or emissions trading systems:* Double claiming in the context of carbon credits can also occur if credits are issued for emission reductions that are covered by an ETS. This could be addressed by either not crediting emission reductions or removals that overlap with such systems, or by ensuring that a respective amount of ETS allowances is cancelled when carbon credits are issued. Moreover, double claiming could occur when linking ETSs without proper accounting rules and when carbon credits are eligible for use in these ETSs. To avoid such double claiming, accounting practices need to be in place to ensure that an entity cannot use an allowance or credit once it has transferred it. Typically, within an ETS, this is managed through the registry system. In the case of linked ETSs, this is managed through periodic accounting where the result of the trading is reconciled through equivalent positive and negative adjustments by each linked jurisdiction. As this paper focuses on the quality of carbon credits, avoiding double counting in the context of linking of ETSs is not considered in the methodology.

**Table 2**                      **Applicability of double counting criteria**

| Offset Purpose   | Form of double counting to be avoided |            |   |   |
|--|---------------------------------------|------------|---|---|
|  | Double issuance                       | Double use | Double claiming with domestic mitigation targets or emissions trading systems | Double claiming with international mitigation targets (e.g. NDCs) |
| International transfer and use towards NDCs (or other relevant international mitigation targets)   | Yes                                   | Yes        | Yes   | Yes   |
| Use by airlines under CORSIA   | Yes                                   | Yes        | Yes   | Yes   |
| Use of domestic credits for domestic compliance schemes (e.g. in ETS)  | Yes                                   | Yes        | Yes   | No  |
| Voluntary purchase of carbon credits used towards “carbon neutrality” and similar claims   | Yes                                   | Yes        | Yes   | To be determined*   |
| Voluntary purchase of carbon credits as a contribution to climate action in the host country without any claim to the underlying emission reductions or removals | Yes                                   | Yes        | No  | No  |

\* Stakeholders currently hold varying views as to whether a corresponding adjustment by the host country is required in this case in order to promote high credit quality. The designations in this table may be updated in future phases of the Carbon Credit Guidance for Buyers project.

**(3) Addressing non-permanence**, i.e. avoiding or compensating for a situation where the emission reductions or removals generated by the project activity are later reversed, for example due to a natural disaster or project mismanagement. To assess this quality objective, we use the following criteria:

- a. *Significance of non-permanence risks*: The risk of non-permanence differs among projects. Reversal risks depend on several factors, including how project owners manage these risks and address the underlying drivers for reversals. Requirements for conducting risk assessments can help manage reversal risks. For some project types, such as landfill methane destruction, the emission reductions cannot be reversed at all.
- b. *Robustness of the approaches for addressing non-permanence risks*: Carbon crediting programs pursue varying approaches to reduce non-permanence risks and to compensate for any non-permanence. The thoroughness of the approaches is crucial to whether reversal risks are appropriately addressed. Key factors include establishment of liability for reversals, the duration for which the occurrence of reversals is monitored and accounted, whether and how any reversals are compensated, and whether the compensation mechanisms are robust enough to also address disastrous events.

**(4) Facilitating transition towards net zero emissions**, i.e. ensuring that the implementation of the project facilitates, rather than delays or impedes, a transition towards achieving global net zero greenhouse gas emissions. The Paris Agreement's goal to keep the increase in global average temperature to well below 2 degrees Celsius, and strive to limit warming to 1.5 degrees, translates into peaking global emissions as soon as possible and making rapid reductions thereafter. This must lead to net zero emissions by no later than mid-century. This net zero GHG emissions goal is attainable but only through deliberate action across all sectors in all countries. The credibility of carbon credits will be determined by several factors, including whether the activities facilitate, rather than delay or impede, a transition towards achieving global net zero greenhouse gas emissions. To assess this quality objective, we use the following criteria:

- a. *Enhancing adoption of low, zero or negative emissions technologies*: This criterion assesses the degree to which the project employs a technology or practice that is consistent with a zero/low carbon economy, avoids carbon lock-in, fosters innovation, and/or leads to transformational change. This criterion simply assesses whether the project itself uses a technology type or practice that will be transformational and is consistent with the net zero goal. The rationale for including this criterion is to discourage technology types or practices that promote the lock-in of emissions or result in increased emissions. This criterion also assesses the extent to which the project supports or enables innovation and/or the application of best-available technologies or processes that underpin them, demonstrating progression from common practice.
- b. *Demonstration of host commitment to the global temperature goals*: The Paris Agreement and its rules are central to effective climate action. Therefore, this criterion should incentivize project hosts to participate in the Paris Agreement and adhere to its rules. The demonstration of commitment to the global temperature goals could include whether a host that is a Party to the Paris Agreement maintains and updates its Nationally Determined Contribution (NDC) and/or has communicated or intends to communicate a Low Emissions Development Strategy (LEDS). Where a host is not a Party to the Paris Agreement and/or where a LEDS is not communicated, other government, sub-national or domestic plans, policies or regulations should demonstrate a similar commitment to the global temperature goals. The ambition to move towards net zero emissions should also be explicit in all cases. Ambition provides a safeguard for ensuring carbon credit quality (e.g. additionality) since a host with an ambitious target, goal or effort, which accounts for transferred credits, may need to compensate for carbon credits that do not "track back" to real emission reductions or removals. Robust accounting, including corresponding adjustments, is therefore another key component. A host with a clear long-term decarbonisation strategy, plan, regulation or LEDS is more likely to approve only those projects – and to consider crediting periods – consistent with an increase in ambition over time. The assessment of whether a project meaningfully contributes towards net zero emissions depends on how the host demonstrates its commitment to the global temperature goal.

**(5) Strength of the institutional arrangements and processes of the crediting program**, i.e. how the carbon crediting program is structured and governed to provide confidence that carbon credits are of "high quality". To assess this quality objective, we use the following criteria:

- a. *Overall program governance*: Good program governance is an important safeguard for the quality of credits. This includes whether the carbon crediting program has transparent rules and procedures in place that regulate how the program is governed to effectively support its

mission, and whether there were past cases of non-compliance with program standards and procedures, fraudulent conduct or conviction of key personnel.

- b. *Robust third-party auditing:* Accredited third-party auditors must confirm that a project fulfils all requirements of the crediting program. Auditing is typically conducted for the initial approval of a project, often referred to as “validation”, and the monitoring of emission reductions, often referred to as “verification”. Following successful auditing, the project documentation and the auditing reports are submitted to the carbon crediting program for final approval, where programs may apply their own auditor oversight and project quality control measures. A weak auditing system could undermine the thoroughness of scrutiny of third-party auditors and therefore potentially undermine the quality of the carbon credit.
- c. *Transparency and stakeholder consultation:* Transparency and engaging stakeholders is essential for good governance. It improves the quality of decision making and can thereby result in carbon credits of higher quality. Crediting programs should facilitate access to relevant information, including ensuring that sufficiently detailed information on all projects is publicly available. Further, procedures should be in place that ensure transparent and consistent decision-making against criteria that are clearly formulated and do not leave room for interpretation. Program requirements should be transparent and be subject to expert review and/or public stakeholder consultation. Crediting programs should also enable stakeholder consultation on projects. For such stakeholder consultations to be effective, it is important that relevant stakeholders have the possibility to comment by means that are appropriate to their context (e.g. literacy), that key information on the credited activity is made available, including project design documents, monitoring and verification reports, issuance requests and host party approvals, and that the comments from stakeholders are duly considered. For example, this could be done through free, prior, and informed consent when traditional (e.g. indigenous) people are affected.

**(6) Enhancing positive and preventing negative environmental and social impacts**, i.e. the degree to which the project avoids adverse environmental or social impacts on local stakeholders and communities, such as violations of human rights, and generates benefits beyond reducing GHG emissions, such as reducing air pollution. To assess this quality objective, we use the following criteria:

- a. *Assessment of environmental and social impacts:* Project impacts are rarely limited to GHG emission reductions and their overall social and environmental impact is often very important to buyers, because they want to limit potential liability and/or because they want to maximize the overall economic value-for-money of their investments.
- b. *Contribution to improving adaptation and resilience:* The best available science currently tells us that, barring large-scale removal of GHGs from the atmosphere (“negative emissions”), we have already locked in over 1°C of heating, with further heating to be expected unless drastic and immediate measures are taken to reduce GHG emissions. Given the scale and intensity of impacts already being experienced, it is imperative to ensure that all communities, but particularly those in developing countries, adapt and increase their resilience. Some buyers may prioritize projects or activities that directly or indirectly contribute to improving adaptation and resilience.
- c. *Supporting the poorest and most vulnerable and affected by climate change:* Some buyers may prioritize projects or activities that support communities with low income or that are



particularly vulnerable and affected by climate change. This criterion is used to assess the degree to which the project supports such communities.

## 6 Next steps

The Carbon Credit Guidance for Buyers project team will next turn to developing the methodology to assess carbon credits against the criteria identified in this document. The methodology development will include examples of how the methodology can be applied in practice. After the methodology is developed, it will be applied to a broad range of carbon credits from different project types, carbon crediting programs and host countries. The results of this exercise, together with feedback from stakeholder consultations and additional recommendations on how to use carbon credits, will inform the final Carbon Credit Guidance for Buyers. In the meantime, the criteria in this document can be considered high-level guidance for current and potential carbon credit buyers in advance of the guide's release.



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