



**CCQI**  
Carbon Credit  
Quality Initiative

## Application of the CCQI 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](http://www.carboncreditquality.org)

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Criterion:	<b>6.2 Sustainable development impacts of the project type or project</b>
Project type:	<b>Commercial afforestation</b>
Date of final assessment:	<b>21 February 2024</b>
Score:	<b>LDCs/SIDS: 2.21</b> <b>Other countries: 1.21</b>

# Assessment

## Relevant scoring methodology provisions

The methodology assesses the extent to which a project type or specific project contributes to or hinders the achievement of each of the 17 Sustainable Development Goals (SDGs), with the exception of Goal 13 on climate action which is the primary goal of the climate mitigation projects. To assess the impacts of a project type or individual project on each SDG, the methodology draws on a seven-point ordinal scale for each SDG (see further details in the methodology). The following table illustrates the scale from -3 to +3 points to assess the impact or influence of a project type or individual project on each individual SDG goal:

Impact of the project on the SDG goal	Points
Indivisible: The successful implementation of the project automatically delivers progress on this SDG goal.	+3
Reinforcing: The successful implementation of the project directly makes it easier to make progress on this SDG goal.	+2
Enabling: The successful implementation of the project indirectly creates conditions that enable progress on this SDG goal.	+1
Consistent: There is no significant link between the project and this SDG goal.	±0
Constraining: The successful implementation of the project constrains the options for how to deliver on this SDG goal.	-1
Counteracting: The successful implementation of the project makes it more difficult to make progress on this SDG goal.	-2
Cancelling: The successful implementation of the project automatically leads to a negative impact on this SDG goal.	-3

As an additional step of the evaluation, it is assessed whether the project is implemented in Least Developed Countries or Small Island Developing States, which are recognized to face special circumstances that require additional support. Projects implemented in these countries receive an upgrade of one score point (e.g., from 3 to 4) in the overall evaluation of criterion 6.2. Note that the overall score cannot exceed 5.

## Information sources considered

- 1 Aju, P. C. (2014): The role of forestry in agriculture and food security. Online available at: [http://www.usa-journals.com/wp-content/uploads/2014/05/Aju\\_Vol26.pdf](http://www.usa-journals.com/wp-content/uploads/2014/05/Aju_Vol26.pdf)
- 2 Holden, S., S. Benin, B. Shiferaw, and J. Pender, 2003: Tree planting for poverty reduction in less-favoured areas of the Ethiopian highlands. Online available at: <https://link.springer.com/article/10.1007/s11842-003-006-6>
- 3 Locatelli, B., C. Pavageau, E. Pramova, and M. Di Gregorio, 2015: Integrating climate change mitigation and adaptation in agriculture and forestry: Opportunities and trade-offs. Online available at: <https://wires.onlinelibrary.wiley.com/doi/full/10.1002/wcc.357>
- 4 Krause, T. and Tilker, A. (2022): How the loss of forest fauna undermines the achievement of the SDGs. Online available at: <https://link.springer.com/article/10.1007/s13280-021-01547-5>

- 5 McElwee, P.D., 2009: Reforesting “bare hills” in Vietnam: Social and environmental consequences of the 5 million hectare reforestation program. Online available at: <https://pubmed.ncbi.nlm.nih.gov/19860156/>
- 6 McFarlane, R. A.; Barry, J.; Cissé, G.; Gislason, M.; Gruca, M.; Higgs, K.; Horwitz, P.; Huu Nguyen, G.; O’Sullivan, J.; Sahu, S.; Butler, C. D. (2019): SDG 3: Good Health and Well-Being – Framing Targets to Maximise Co-Benefits for Forests and People. In: Pierce Colfer, C. J.; Winkel, G.; Galloway, G.; Pacheco, P.; Katila, P. and Jong, W. de (ed.): Sustainable Development Goals: Their Impacts on Forests and People. Online available at: <https://www.cambridge.org/core/books/sustainable-development-goals-their-impacts-on-forests-and-people/sdg-3-good-health-and-wellbeing-framing-targets-to-maximise-cobenefits-for-forests-and-people/6D76443EBA7BF9B2A9153424A4D5D8A7>
- 7 Seddon, N.; Chausson, A.; Berry, P.; Girardin, C. A. J.; Smith, A.; Turner, B. (2020): Understanding the value and limits of nature-based solutions to climate change and other global challenges. Online available at: <https://royalsocietypublishing.org/doi/10.1098/rstb.2019.0120>
- 8 Smith, P.; Haberl, H.; Popp, A.; Erb, K.-H. H.; Lauk, C.; Harper, R.; Tubiello, F. N.; De Siqueira Pinto, Alexandre; Jafari, M.; Sohi, S.; Masera, O.; Böttcher, H.; Berndes, G. et al. (2013): How much land-based greenhouse gas mitigation can be achieved without compromising food security and environmental goals? Online available at: <https://onlinelibrary.wiley.com/doi/10.1111/gcb.12160>
- 9 Smith, P., J. Nkem, K. Calvin, D. Campbell, F. Cherubini, G. Grassi, V. Korotkov, A.L. Hoang, S. Lwasa, P. McElwee, E. Nkonya, N. Saigusa, J.-F. Soussana, M.A. Taboada, 2019: Interlinkages Between Desertification, Land Degradation, Food Security and Greenhouse Gas Fluxes: Synergies, Trade-offs and Integrated Response Options. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Online available at: <https://www.cambridge.org/core/books/climate-change-and-land/interlinkages-between-desertification-land-degradation-food-security-and-greenhouse-gas-fluxes-synergies-tradeoffs-and-integrated-response-options/4FDD06040C411E0C3A249E69ABEE6268>
- 10 Sunderland, T. C.; Powell, B.; Ickowitz, A.; Foli, S.; Pinedo-Vasquez, M.; Nasi, R.; Padoch, C. (2013): Food security and nutrition, The role of forests (Discussion Paper). Online available at <https://cgspace.cgiar.org/handle/10568/94291>
- 11 Review of descriptions of different individual carbon credit projects

## Assessment

The criterion is here assessed at the level of the project type, noting that the actual impacts may differ substantially between individual projects. The assessment thus aims to provide a picture of the typical impacts of the relevant project type. The project type is characterized as follows:

“Establishment of a planted forest on non-forest land areas that are ecologically appropriate for forests, excluding naturally non-forested biomes, semi-natural grasslands, as well as the boreal region due to albedo-effects. Since the forest may be used for commercial purposes such as timber harvesting, the tree species composition may differ from the natural forest type in the area. This project type neither includes the establishment of agroforestry and marine coastal ecosystems, such as mangroves, nor the management of the project area through community forestry. The project type

removes greenhouse gases by increasing forest carbon stocks and possibly carbon stored in harvested wood products.”

The assessment results are summarized in the below table.

SDG	Points	Justification
Goal 1: No Poverty	0	Projects can create a limited number of jobs for planting trees, though not necessarily for local or poor population (targets 1.1 and 1.2). Other jobs of the local (poor) population might even be displaced depending on the use of the non-forested area in the baseline (e.g. livestock farming on grassland, cropland). Further, the project type does not include community forestry or alike. There is thus no significant interaction with SDG 1.
Goal 2: Zero Hunger	0	The project type does not include approaches such as agroforestry. Depending on the baseline, agricultural activities like livestock farming might be displaced/suspended from/in the project area thus negatively impacting local food production (targets 2.1 and 2.3). Benefits of natural forests (such as shelter for critical vertebrate pollinators and diverse genetic material which could be utilized for breeding more resilient crops) are limited as the tree species composition might differ from the natural forest type of the area and follows commercial considerations. However, forests reduce soil erosion and can act as a buffer for nitrate leakage from surrounding agriculture (target 2.4). The impact on SDG 2 is thus contextual and depends on the specific situation in the baseline. To account for this uncertainty, a point score of zero is given which does not mean that there is no interaction in this case.
Goal 3: Good Health and Well-being	1	Forests and wildlife can have major well-being benefits across different cultural contexts. The project type, however, establishes a new commercially-harvested forest on non-forest land areas and will likely not allow local communities to access forest products or enjoy the cultural/recreational value of such an ecosystem. There is thus no (significant) impact on well-being (target 3.4). Afforestation can however enhance human well-being by microclimatic regulation for protecting people from heat stresses. This effect might however be small as access to forest is likely not allowed and also contextual depending on the proximity of the forest to human settlements. Additional tree cover can remove pollutants from air and soil (under specific conditions through phytoremediation). However, a vast number of trees would be needed to be effective on reducing deaths and illnesses (target 3.9).
Goal 4: Quality Education	0	No interaction.
Goal 5: Gender Equality	0	No interaction.
Goal 6: Clean Water and Sanitation	-1	The use of fertilizer can impact the water quality and can lead to an increase in nutrient levels in freshwater ecosystems (target 6.3). Forests need great quantities of water compared to most crops and other types of vegetation, which negatively impacts water availability depending on the local conditions. Especially in arid or semi-arid regions, forest plantations can exacerbate water scarcity as fast-growing tree species might be water-intensive (target 6.4).
Goal 7: Affordable and Clean Energy	0	Commercially harvested wood might be as biomass for renewable (bio-) energy production. Commercially harvested wood can have many different end uses and does not necessarily increase the share of renewable energy. Additionally, the prolonged use of woody

SDG	Points	Justification
		biomass (e.g. as furniture) should be prioritized compared to an energetic use from a climate perspective.
Goal 8: Decent Work and Economic Growth	1	Projects can create a limited number of jobs for planting trees, however not necessarily for the local or poor population. Other jobs might be displaced, depending on the use of the non-forested area in baseline (e.g., livestock farming on grassland, cropland) (target 8.5).
Goal 9: Industry, Innovation and Infrastructure	0	No interaction.
Goal 10: Reduced Inequality	0	No interaction.
Goal 11: Sustainable Cities and Communities	0	No interaction.
Goal 12: Responsible Consumption and Production	0	No interaction.
Goal 14: Life Below Water	0	No interaction.
Goal 15: Life on Land	1	The project type directly increases afforestation (target 15.2). Afforested areas have higher water retention and thus likely decrease flood and erosion risks (target 15.3). If afforestation takes place on degraded lands, the project type directly contributes to stopping and reversing land degradation (target 15.3). Afforestation helps to conserve and restore biodiversity (target 15.5), depending on the biodiversity in the baseline scenario. There is however also a negative impact on biodiversity by the likely introduction of fast-growing non-native species - potentially in a monoculture plantation; the likely use of fertilizer negatively impacts the forest ecosystem as well. There is a change in the species composition if the area was grassland in the baseline (trade-off reduction in open/grassland species versus new forest-related species).
Goal 16: Peace and Justice Strong Institutions	0	No interaction.
Goal 17: Partnerships to achieve the Goal	0	No interaction.
Total points achieved: 2		

The project type receives 2 points in the SDG impact evaluation. Furthermore, none of the goals is assessed with a score of -3. Using the scoring approach of the methodology, this results in a score of 1.21. If the underlying project is implemented in a Least Developed Country or Small Island Developing State, the score is upgrade by one scoring point, resulting in an overall score of 2.21.