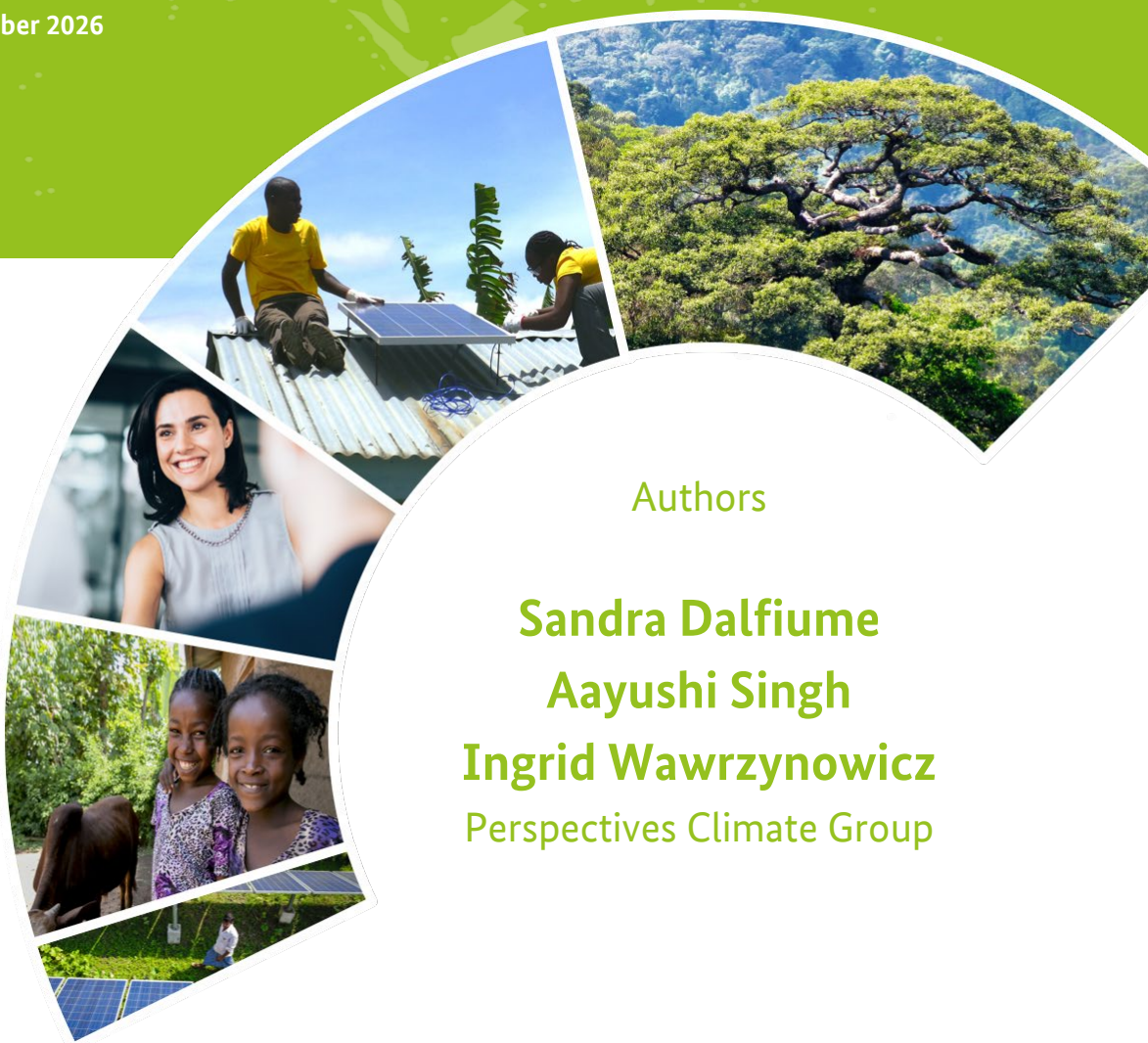


Gap Analysis of the Environmental and Social Safeguard Requirements of Voluntary Carbon Market Crediting Programmes

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Authors

Sandra Dalfiume

Aayushi Singh

Ingrid Wawrzynowicz

Perspectives Climate Group

FOUNDATION
Development
and Climate
Alliance



perspectives
climate group

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List of abbreviations

A6.4	Article 6.4 of the Paris Agreement
ACR	American Carbon Registry
AFOLU	Agriculture, Forestry and Other Land Use
AGQ	Additional Guiding Question
CCBS	Climate, Community and Biodiversity Standards
CDM	Clean Development Mechanism
CCP	Core Carbon Principles
CITES	Convention on International Trade in Endangered Species
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CSI	Carbon Standards International
E&S	Environmental and Social
ELQ	Element Level Question
EPRS	Emergency Preparedness and Response System
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Safeguards
FPIC	Free, Prior and Informed Consent
GBV	Gender-Based Violence
GCC	Global Carbon Council
GHG	Greenhouse Gas
GMO	Genetically Modified Organism
GS4GG	Gold Standard for the Global Goals
HCV	High Conservation Value
HRDD	Human Rights Due Diligence
ICVCM	Integrity Council for the Voluntary Carbon Market
IFC PS	International Finance Corporation Performance Standards
ILO	International Labour Organization
IP	Indigenous peoples
IPs & LCs	Indigenous Peoples and Local Communities
IPM	Integrated Pest Management
IPP	Indigenous Peoples Plan
IUCN	International Union for Conservation of Nature
IVM	Integrated Vector Management
KBA	Key Biodiversity Area
KfW	KfW Development Bank
LC	Local Communities
LMO	Living Modified Organism
LRP	Livelihood Restoration Plan
MoU	Memorandum of Understanding
MR	Monitoring Report
MUR	Management Unit Report
OHS	Occupational Health and Safety
PACM	Paris Agreement Crediting Mechanism
PCG	Perspectives Climate Group
PDD	Project Design Document
PS	Performance Standard
RAP	Resettlement Action Plan
SAEK	Stiftung Allianz für Entwicklung und Klima (Foundation Development and Climate Alliance)
SDG	Sustainable Development Goal
SEAH	Sexual Exploitation, Abuse and Harassment
SEP	Stakeholder Engagement Plan
UNDRIP	United Nations Declaration on the Rights of Indigenous peoples
VCM	Voluntary Carbon Market
VVB	Validation and Verification Body

Summary

This analysis, commissioned by the Foundation Development and Climate Alliance, assesses how 16 carbon crediting programmes in the voluntary carbon market address environmental and social (E&S) safeguards, including how transparently and centrally this information is made available to project developers, benchmarked against the IFC Performance Standards and KfW's sustainability guidelines. It updates and expands a 2024 assessment by Öko-Institut, which covered 14 programmes (Lauer et al. 2024). The analysis applies a more detailed framework of 82 criteria across the eight IFC PS categories, plus two additional themes, additional social criteria and benefit sharing.

For each criterion, the analysis checks two things. Whether the requirement exists in a programme's general standard, and whether it is also carried through into the documents that developers must complete and validators must assess. The Foundation Development and Climate Alliance considers this second check necessary, since a requirement that is absent from the operational documents is more likely to be overlooked by a project developer in practice, regardless of what the general standard states. Assessing both together gives a more comprehensive picture of how binding a safeguard actually is.

Conformity varies substantially across the market. SOCIALCARBON performs strongly across almost every category. Plan Vivo and Gold Standard for the Global Goals (GS4GG) follow closely behind. Equitable Earth, Verified Carbon Standard (VCS) and Global Tree C-Sink perform similarly well, reaching “High” in most areas with low conformity with the IFC PS in one category each. Programmes designed for a specific sector, such as for land-based projects, tend to write more precise requirements within their scope than multi sector standards covering a much wider range of activities.

Some categories stand out across the evaluated programmes as a whole. Risk management and

stakeholder engagement is comparatively well covered and Indigenous peoples protections have improved markedly, with free, prior and informed consent (FPIC) now required by most programmes. Community, Health and Safety, Biodiversity and Cultural heritage are the weaker categories with limited coverage in several standards.

Another observation concerns differences in how safeguards are operationalised across standards. First, programmes take very different approaches to safeguard governance, from consolidating requirements in one document to spreading them across several. Second, some programmes limit the reach of their own requirements by applying them conditionally, restricting their strongest safeguards to specific circumstances, for example only to projects that are seeking an additional certification (like CCP+ labels). Third, most programmes rely on risk triggered requirements, where a safeguard only activates once a developer identifies a risk, rather than unconditional requirements that apply regardless. A small number of programmes, including Plan Vivo, SOCIALCARBON and GS4GG, show that unconditional core protections are achievable in practice, not just in theory. Fourth, standards differ in how explicit they are about what they require, with some setting out concrete requirements throughout their documents and others relying on a general reference to compliance with applicable regulations to cover the full breadth of E&S criteria assessed in this Gap Analysis.

This report provides an overview of how each programme performs against the detailed requirements of the IFC Performance Standards and the two additional categories covered here. It is worth noting that each aggregate score sits on top of up to 82 individual criteria, so a programme with a low overall score can still excel on specific criteria that represent best practice for the rest of the market. A lower aggregate score also often reflects a difference in scope or project focus rather than a simple shortfall, and the detailed findings in

Chapter 3 and the individual assessments in Chapter 4 are where these distinctions become clear.

The credibility of carbon credits depends heavily on the credibility of the E&S safeguards behind them. Buyers can strengthen this by looking beyond a programme's overall rating and checking how the specific project they are considering manages the risks that matter most to them. Project developers are not limited to their programme's minimum requirements, and those aware of the gaps in their own certification can adopt more prescriptive safeguards voluntarily. Because this assessment is limited to each programme's core standard and operational

documents, those interested are also encouraged to check directly with a programme where a requirement is rated "Partial" or "No", as it may still be addressed elsewhere, for example through sector specific guidance or monitoring reports.

Crediting programmes have made genuine progress since earlier versions of this analysis, closing some of the gaps previously identified. This progress now needs to continue, both by extending safeguard coverage into areas that remain thin and by ensuring that commitments made in the general standard are carried through into the specific documents and forms that developers complete for certification.

1. Background

There is an urgent need to accelerate climate action and scale up finance for a transition consistent with global climate and sustainable development goals. Carbon markets are one tool for channelling resources toward mitigation outcomes that would not otherwise occur, and market-based cooperation can enhance the cost-effectiveness of climate action, allowing more mitigation to be achieved with the same resources. Whether this cooperation advances or undermines climate ambition and sustainable development, however, depends on the quality of the credits involved and on how they are used and accounted for. Quality is conventionally assessed in terms of realistic baselines and additionality but depends equally on the environmental and social (E&S) integrity of the underlying activity: the purchase and use of carbon credits can support the Paris Agreement goals and the sustainable development goals (SDGs) only if it channels funding to activities that generate real and additional mitigation outcomes while promoting sustainable development and not causing environmental or social harm. Buyers of carbon credits are increasingly seeking credits that are high-quality in this fuller sense, while also seeking to avoid the reputational risks associated with projects that generate negative E&S impacts on the ground. It is for this reason that independent crediting programmes (e.g., Gold Standard, Verra etc) and compliance market mechanisms (Clean Development Mechanism (CDM), Paris Agreement Crediting Mechanism (PACM)) alike have, in recent years, begun to think in greater detail about the frameworks needed to avoid and minimise E&S risks.

The role of carbon markets in achieving global climate goals remains intensely debated. The Foundation Development and Climate Alliance is of the opinion that carbon markets can contribute

meaningfully to these goals if they are well designed, governed by high integrity rules, promote positive sustainable development impacts (positive co-benefits¹) and reduce the negative environmental and social (E&S) impacts through proper risk assessments and the corresponding application of safeguards. The potential of carbon markets to contribute to climate goals can only be determined if their E&S risks, which remain present, are also properly considered².

Under the CDM, carbon markets were required to promote sustainable development (i.e., promote positive co-benefits such as biodiversity enhancement, local employment, or community well-being) alongside mitigation, but placed limited focus on operationalising the “do no harm” principle through risk assessments and application of E&S safeguards. Rather, these concepts were introduced by independent crediting programmes such as the Climate, Community & Biodiversity Standards (CCBS) in 2005 and the Gold Standard in 2006. Carbon crediting programmes have since developed their own approaches to mitigating negative E&S impacts. With the adoption of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) framework in 2019 and the Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles (CCPs) in 2023, minimum E&S requirements for carbon crediting programmes to follow were introduced. So, while references to E&S impacts and risk management in carbon markets date back more than 20 years, genuine interest in operationalising the “do no harm” principle through robust risk assessments and the application of E&S safeguards is fairly recent.

In contrast to carbon markets, multilateral development institutions have developed and refined E&S safeguard frameworks over several

¹ Contributions to other important development and environmental goals, such as ‘no poverty’ or ‘zero hunger’.

² One such [example](#) is the use of pesticides by the Forestal Apepú and Forestal San Pedro eucalyptus plantation projects in Paraguay, whose Verra-certified credits are used by Apple to support “carbon neutral” claims.

decades primarily for large-scale private-sector investments with direct-lender oversight. The World Bank's Operational Policies and the International Finance Corporation's Performance Standards (IFC PS), first adopted in 2006 and revised in 2012 (IFC 2012), represent the most comprehensive and extensively tested safeguard instruments available for private sector operations

in developing markets. Alongside the World Bank's Environmental and Social Framework (World Bank 2018), these standards have typically been considered as the E&S safeguards benchmark. Figure 1 provides an overview of the evolution of E&S safeguards requirements by carbon crediting programmes as well as multilateral development institutions.

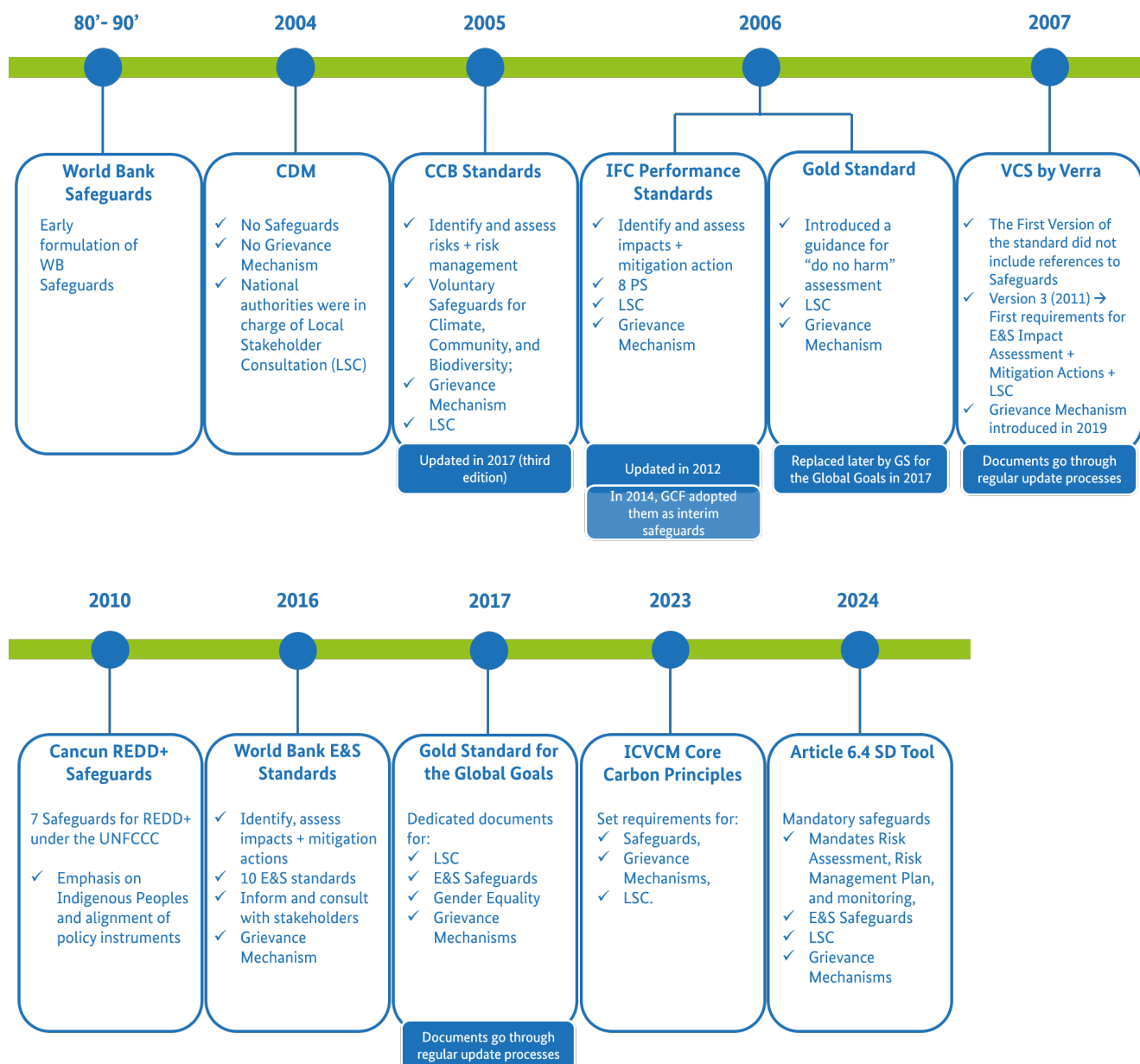


Figure 1: Evolution of E&S safeguard requirements

The Foundation Development and Climate Alliance promotes sustainable development and climate action through voluntary, governmental, and non-governmental engagement, bringing together parties (companies, associations, and

public authorities) that support climate protection projects in the Global South as well as partners such as carbon offset project developers and providers in developing and emerging countries. The partners' projects should meet the highest

quality standards, both in terms of climate effectiveness and environmental and social performance.

Beyond this expanded scope, the assessment also departs from prior work in two important respects. First, it applies a more granular analytical framework, comprising 82 individual criteria spanning all eight IFC PS categories, together with two additional thematic areas not fully captured by the IFC PS framework but critical in the context of carbon projects. This level of detail reflects a deliberate methodological choice: in order to identify how robust an E&S safeguard system is, one needs to reflect all details of the requirements – for example, it is not the same when a framework respects labour rights versus frameworks that specifically regulate collective rights or the minimum working age. Second, most prior analyses of E&S safeguards in carbon markets have focused on coverage gaps, identifying which topics are absent from a carbon crediting programme. This study goes further by assessing operational enforceability: a requirement that appears only in a standard's general policy text, but not in the Project Design Document (PDD) or equivalent E&S assessment template, carries a materially higher risk of non-enforcement, since it is not embedded in the documents developers must complete and VVBs must assess.

The purpose of this analysis is to contribute to a nuanced understanding of how E&S safeguards are applied in carbon markets and how different carbon crediting programmes interpret them, rather than to assess the overall value or

fundamental effectiveness of these programmes. Serious and sustained attention to the design of robust E&S safeguard frameworks is a relatively recent development, and it is unsurprising that shortcomings exist. Progress has nonetheless been real, and several of the programmes assessed demonstrate high ambition in their approach to designing safeguards. It is equally important to recall that carbon crediting programmes set minimum requirements, not a ceiling: a programme framework found to be weak in certain areas does not prevent a developer from going further. In practice, some project developers have established their own internal safeguard frameworks and requirements that go beyond what the certifying programme mandates, applying more prescriptive protections in areas where they have already identified gaps.

Developers who are aware of the limitations identified in assessments such as this one are well positioned to complement programme requirements with their own procedures. In this way, requirements on the ground can be raised, regardless of the programme under which the projects are registered. A complementary resource for exercising this kind of scrutiny is the Foundation Development and Climate Alliance's [catalogue of questions for the selection of climate protection projects](#) (available in German only), which sets out a structured list of due diligence questions that buyers of carbon credits can pose to project developers on additionality, permanence, safeguards, and related criteria. The catalogue can also be used by project developers to identify areas for improvement.

2. Methodology

The following methodological approach was followed to examine the alignment of the E&S requirements of the 16 carbon crediting programmes covered by this study against the IFC PS-based benchmark and criteria framework described below:

In the **first step**, an analysis grid was developed to systematically compare each carbon crediting programme's E&S requirements against the IFC Performance Standards. For each performance standard, a corresponding set of criteria was defined, specifying the concrete elements a programme's rules must address to be considered aligned with that standard. The resulting

benchmark and criteria framework are described in more detail below.

Second step involved identifying and reviewing the relevant core standard and operational documents (e.g. PDD template, assessment form, or equivalent) for each of the 16 carbon crediting programmes to determine whether they addressed the criteria set out in the analysis grid. Each criterion was rated accordingly, using the three-tier scale described below (“Yes”, “Partial”, or “No”), flagging where a programme's requirements meet or fall short of the IFC PS-based benchmark.

Finally, in the **third step**, the individual criterion ratings produced in the previous step were

consolidated and processed to derive the findings presented in this report. Ratings were aggregated at the IFC PS category level to produce a summary conformity rating for each programme, and the results were synthesised into the cross-programme findings in [Section 3](#) as well as the programme-specific assessments in [Section 4](#).

Table 1 below provides an overview of the 16 programmes covered in this update, indicating whether each was assessed in the previous study undertaken in 2024 and whether any updates have been made to the programme documents since that assessment.

Table 1: Status of carbon crediting programmes under consideration

Carbon crediting programme and documents assessed	Assessed in previous (2024) study?	Updates made to the standard documents since previous assessment?
American Carbon Registry (ACR) <i>ACR Standard v8.0, and E&S Template v1.1</i>		
Climate Action Reserve (CAR) <i>CAR Program Manual V9.2, and Environmental & Social Safeguards (ESS) Form</i>		
Climate, Community & Biodiversity Standards (CCBS) <i>CCBS 3.1 (2017) and the CCBS Project Description Template v3.0</i>		
Cercarbono <i>Safeguarding Principles & Procedures (SPP) v3.0, Safeguards Monitoring and Compliance Statement Form v2.0, and PDD Templates.</i>		
CSI Global Artisan C-Sink <i>Programme standard (4000136EN), Principles of the Global C-Sink Standard (4000232EN), Labour Rights document (4000216EN), Consultation and Stakeholder Engagement document (4000108EN), E&S Policy (4000252EN), Compliance Guidelines of CSI and PDD</i>		
CSI Global Tree C-Sink <i>Programme standard v1.9 (4000214EN), Principles of the Global C-Sink Standard (4000232EN), Labour Rights document (4000216EN), Consultation and Stakeholder Engagement document (4000108EN), the Compliance Guidelines of CSI (4000222EN), PDD and mandatory Management Unit Report</i>		
Equitable Earth (EE) <i>EE Standard v1.3.1, Grievance Mechanism Requirements and Procedures v1.0, M001 Methodology for Terrestrial Forest Restoration v1.2, M002 Methodology for Terrestrial Forest Conservation v1.0.2, Risk assessment matrix and PDD</i>		
Global Carbon Council (GCC) <i>Project Standard v6.3, E&S Safeguard Standard v4.1 and E&S Form v1.1</i>		

Carbon crediting programme and documents assessed	Assessed in previous (2024) study?	Updates made to the standard documents since previous assessment?
Gold Standard for the Global Goals (GS4GG) <i>Safeguarding Principles and Requirements (PAR) v2.1, Stakeholder Consultation Requirements v2.1, Gender Equality Requirements & Guidelines v2.0 and PDD template v2.0</i>		
Isometric <i>Isometric Standard v2.1, Biochar Production & Storage Protocol v1.2, Biomass Feedstock Accounting v1.2 and PDD</i>		
Paris Agreement Crediting Mechanism Article 6.4 SD Tool <i>PACM SD tool v1.0 and FORM-AC-015</i>		
Plan Vivo (PV) <i>PV Climate Project Requirements v5.7, E&S Risk Management document v1.0, and PDD template v5.7</i>		
Puro.earth <i>General Rules v4.4, E&S Safeguards Questionnaire v2.2, Stakeholder Engagement Requirements Standard v1.1 and Stakeholder Engagement Report Template v2.1</i>		
SOCIALCARBON (SC) <i>SOCIALCARBON Standard Version 7.0 and Project Description Template 2.0</i>		
ART TREES <i>REDD+ Environmental Excellence Standard (TREES) Version 3.0 & TREES Registration Document (TRD) Template</i>		
Verified Carbon Standard (VCS) <i>VCS Standard v5.0, ESG Risk Assessment Template, Project Description Template v5.0B and Stakeholder Engagement Plan Template</i>		

Benchmark and criteria

The benchmark for this gap analysis is built on the **IFC Performance Standards** (IFC PS 1 to 8). The IFC PS provide a structured, thematic framework covering:

- PS 1 (Assessment and Management of Environmental and Social Risks and Impacts)
- PS 2 (Labour and Working Conditions)
- PS 3 (Resource Efficiency and Pollution Prevention)
- PS 4 (Community Health, Safety, and Security)
- PS 5 (Land Acquisition and Involuntary Resettlement)
- PS 6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources)
- PS 7 (Indigenous Peoples)
- PS 8 (Cultural Heritage).

The IFC Performance Standards were originally developed to guide the E&S risk management of large-scale, private-sector investment projects

financed by IFC and other development finance institutions. While they remain a robust and widely used benchmark, this origin means they do not fully anticipate the realities of the carbon crediting market, which is considerably more fragmented and often involves smaller project developers with varying levels of verification capacity. Therefore, to make the IFC PS fit for purpose for carbon markets while retaining their integrity as a benchmark, comprehensive criteria were developed within each performance standard.

This resulted in an 82-criterion framework tailored to carbon markets (listed in full in Annex A). Most fall within the eight IFC PS categories, but two additional thematic areas were introduced to capture aspects of carbon market contexts that the IFC PS do not fully address. The first is additional social criteria, covering human rights due diligence and gender equality, and the second is benefit-sharing, covering the documentation,

communication, and public availability of benefit-sharing arrangements. Several criteria within the IFC PS categories were also expanded or adapted. IFC PS 7, for instance, which in the original IFC framework addresses only Indigenous peoples, was broadened here to encompass Local Communities, a category of equivalent relevance to community-based carbon projects. Further criteria were drawn from carbon crediting programme documents and the PACM Sustainable Development (SD) Tool to ensure that the framework captures dimensions specific to carbon market governance.

As can be observed, the 82 criteria are not evenly distributed across categories. Some categories (such as Biodiversity Conservation) carry more criteria than others (such as benefit-sharing), reflecting the dimensions and complexity of each theme.

Table 2: Distribution of criteria assessed against IFC PS benchmark and KfW sustainability guidelines

Category	Number of criteria
IFC PS 1 – Assessment and Management of E&S Risks and Impacts	12
IFC PS 2 – Labour and Working Conditions	9
IFC PS 3 – Resource Efficiency and Pollution Prevention	7
IFC PS 4 – Community Health, Safety, and Security	6
IFC PS 5 – Land Acquisition and Involuntary Resettlement	8
IFC PS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	17
IFC PS 7 – Indigenous Peoples and Local Communities	8
IFC PS 8 – Cultural Heritage	7
Additional social criteria (human rights due diligence, gender equality)	5
Benefit-sharing	3
Total	82

Scope and limitations

The analysis covers only the mandatory requirements of each programme applicable to all projects and developers. Optional certification tiers, voluntary labels, and additional requirements available only at higher certification levels (such as the Global Carbon Council's (GCC) premium categories or the Climate, Community and Biodiversity Standard's (CCBS) Gold Levels) were excluded, even where those requirements represent substantive improvements.

The analysis focuses on the core standard (programme standard and/or safeguards standard) and its associated operational documents, which are the E&S safeguards templates or forms and the PDD template where such E&S templates are unavailable. Our analysis does not extend to monitoring reports, post-validation verification of implementation, or sector- and activity-specific guidance, procedures, or standards.

This scope choice reflects one of the study's central aims, which is to assess how explicitly and transparently each programme communicates its E&S requirements to project developers, and whether this information is centralised in a single, readily accessible document rather than dispersed and modified across separate sector-specific instruments.

It is important to note that some programmes do not publish PDD templates as standalone documents. Equitable Earth and Isometric use dynamically generated PDDs, where conditional logic distinguishes compulsory information from fields that apply depending on the project context and certification stage. The PDD is then rendered from the inputs provided by project developers rather than maintained as a static template. The analysis of these two programmes was conducted accordingly: for Equitable Earth, using informal information shared directly by the programme with the authors, and for Isometric, by focusing on a specific project type. The details of the approach

are explained in the introductory section of the two standards. A related transparency point concerns how programmes reference their own requirements: Isometric, for example, does not repeat requirements in the PDD that are already listed in its programme documents, addressing in the PDD only those requirements specific to particular activity types.

Furthermore, not all 82 criteria are equally applicable to all standards. A standard designed exclusively for biochar production, for instance, cannot meaningfully be assessed against requirements regarding fisheries management or silvopasture practices. Where a criterion has limited applicability to a specific standard's scope, this is noted in the relevant section, and the criterion has been removed from the overall assessment of the respective standard.

In general, our assessment focuses on transparency by evaluating the existence, operationalisation and explicitness of safeguard requirements stipulated by standards. It does not extend to the integrity of validation, verification or implementation of individual projects.

Scoring and rating

Each programme's conformity is derived through two levels of scoring. In **Level 1**, each of the 82 criteria is first rated individually against the programme's documents. In **Level 2**, these criterion-level ratings are translated into one overall rating per IFC PS and the two additional categories.

Level 1 – Rating individual criteria

Each criterion is assessed against the general standard (core document, programme rules, or equivalent) and the operational documents (PDD template, assessment form, or equivalent) that project developers must complete and VVBs must assess. A **three-tier rating** is followed for each criterion:

Table 3: Rating scale at the criteria-level

Rating	Basis for Rating
Yes	The criterion is addressed in both the general standard and in the operational documents.
Partial	Scenario 1: The criterion is present in the general standard but absent from, or only conditionally reflected in the operational documents.
	Scenario 2: The criterion is present in the documents, but not all of its constituent elements are addressed (for example, where labour rights are mentioned, but the sub-criterion on collective bargaining is not explicitly mentioned).
	Scenario 3: The criterion is addressed only through additional guiding questions that can be bypassed, rather than through a mandatory requirement.
No	The criterion is absent from both the general standard and the operational documents

Level 2 –Assigning category conformity rating

After individual criterion ratings are assigned under Level 1, a majority-vote formula is applied at the IFC PS category level to derive an **overall conformity rating** of “High”, “Partial”, or “Low”. This applies as follows: First, the number of criteria

rated “Yes”, “Partial” and “No” within the category is counted (e.g., a category with 12 criteria might have 5 “Yes”, 4 “Partial” and 3 “No”); second, whichever of the three ratings occurs most often is identified and translated into the category’s overall conformity rating. Table 4 below sets out the resulting conformity ratings:

Table 4: Rating scale at the category-level

Overall conformity rating	Outcome of criteria count per category
High	“Yes” majority
Partial	“Partial” majority
Low	“No” majority
Partial	“Yes” and “Partial” tied
Partial	“Partial” and “No” tied
Partial	“Yes” and “No” tied
Partial	“Yes”, “Partial” and “No” tied

It is important to note that this rule can turn several different combinations of criterion ratings into the same single score, so “High”/ “Partial”/ “Low” can misrepresent actual coverage. Whenever the score is a “close call”, this is highlighted in the respective detailed assessment section. For example, close calls arise not only

where two or three ratings are tied, but also where “Yes” holds a majority yet the combined count of “Partial” and “No” ratings is larger, meaning the resulting “High” label may still understate the extent of partial or missing conformity. Wherever such cases occur, they are highlighted in the respective detailed assessment section.

3. Main Outcomes of the Analysis

This chapter presents the aggregate findings across all 16 programmes, and Chapter 4 sets out the detailed, programme-by-programme assessment against all 82 criteria. Given the number of criteria and categories covered, readers may find it helpful to first consult Annex A, which lists the full set of criteria organised by category, before working through the findings in this chapter and the individual programme sections that follow.

Overall conformity landscape

The 82-criterion analysis reveals substantial variation in safeguard conformity across the 16 programmes assessed. Table 5 sets out how each programme performs across the ten categories covered here, the eight IFC Performance Standards and the two additional thematic areas. These categories vary considerably in scope, from PS 1, which spans a wide range of fundamental risk management requirements, to PS 8 on cultural heritage, which is far more narrowly defined, a difference worth noting when comparing ratings across the table. SOCIALCARBON performs exceptionally well,

Table 5: Conformity of carbon crediting programmes with the IFC PS benchmark and KfW sustainability guidelines

	IFC PS1	IFC PS2	IFC PS3	IFC PS4	IFC PS5	IFC PS6	IFC PS7	IFC PS8	Add. Social Indicators	Benefit Sharing
ACR	Low	Partial	High	Low	High	Partial	High	Low	Partial	High
CAR	Low	Low	High	Low	Low	Low	Low	Low	Partial	High
CCBS	High	Partial	Low	Low	High	Low	High	Low	Low	Low
Cercarbono	Partial	Partial	Partial	Partial	Low	Low	Partial	Low	Partial	Partial
CSI Global Artisan C-Sink	Partial	High	Low	Low	Low	Partial	High	Partial	High	High
CSI Global Tree C-Sink	High	High	Partial	Low	High	High	High	Partial	High	High
EE	High	High	High	Low	High	High	High	Partial	High	High
GCC	High	Low	High	Low	Low	Low	Partial	Low	Partial	Low
GS4GG	High	High	High	High	High	High	High	High	High	Partial
Isometric	Partial	Partial	Partial	Low	Low	Partial	Partial	Low	Partial	Low
PACM Article 6.4 SD Tool	High	Partial	Partial	Partial	Partial	Partial	High	Partial	Partial	Low
PV	High	High	High	High	High	High	High	Partial	High	High
Puro.earth	High	Low	High	Low	Low	Low	Low	Low	Partial	Low
	High	Low	High	Low	Low	Low	Low	Low	Partial	Low
SOCIALCARBON	High	High	High	High	High	High	High	High	High	High
ART TREES	High	Low	Low	Low	Low	High	High	Partial	Low	Low
VCS	High	High	High	Partial	High	Low	High	Partial	High	High

Legend: High conformity Partial conformity Low conformity

demonstrating “High” at the aggregate level across every category assessed. Plan Vivo (PV) and Gold Standard for the Global Goals (GS4GG) follow closely, demonstrating “High” at the aggregate level across most categories, with “Partial” in one category. Equitable Earth (EE), Verified Carbon Standard (VCS) and Global Tree C-Sink form the next tier down, reaching “High” at the aggregate level across most categories but “Low” in one category.

Three overall observations stand out from this analysis. First, the strongest performers that demonstrate the highest overall alignment with IFC PS requirements are driven by dedicated safeguard documents, specific operational checklists embedded in their PDDs, and a number of unconditional requirements. Second, standards designed for a specific sector or project type, such as Plan Vivo and SOCIALCARBON for land-based projects, tend to develop more precise and prescriptive safeguard requirements within their scope than multi-sector standards that must accommodate a much wider range of project types. This may reflect a structural trade-off rather than a quality shortfall, since a standard covering a wide range of project types, from renewable energy to forestry to industrial processes, faces a harder task specifying biodiversity safeguards with the same granularity as one focused solely on nature-based solutions. A dedicated PDD per project type, or activity-specific requirements set out at methodology level could be one approach that could help address this without adding further weight to the core standard. Third, some standards address large parts of the assessed criteria through a general requirement to comply with applicable national or international regulations, rather than through programme specific, detailed E&S requirements. ACR is one such example, considering a large number of the 82 criteria met through the regulatory compliance requirement set out in the ACR Standard. Where this is the case, project developers have less visibility of what is expected of them from the programme’s own documents alone, and would need to identify and interpret the relevant regulations themselves. This

runs counter to the transparency this report seeks to promote, since it leaves compliance dependent on interpretation by project developers rather than on requirements made explicit within the standard’s own documents. In the following, some notable examples are presented where individual standards meet these requirements particularly well, illustrating what strong practice can look like across the different categories assessed.

Notable practices

Risk management and stakeholder engagement is one of the better covered categories overall, though most standards stop at basic risk identification and stakeholder consultation without a formal E&S Management System (ESMS) or emergency preparedness system. Emergency preparedness is one of the rarest requirements in the series, appearing only in GS4GG, SOCIALCARBON and Isometric. SOCIALCARBON is the only standard in the series to explicitly require an ESMS and E&S Management Plan (ESMP), while also requiring an upfront Safeguarding Assessment in the PDD that is to be updated in every Monitoring Report. A few narrower sub-themes further distinguish conformity across the 16 programmes. Dedicated safeguard indicators appear only in CCBS, GS4GG, PV and EE, dedicated financial-sustainability provisions only in CCBS, EE, GS4GG, PV and SOCIALCARBON, and a required mitigation hierarchy only in EE, GS4GG, PV and SOCIALCARBON. Organisational capacity follows the same pattern, required only by EE, GS4GG, SOCIALCARBON and PV, with EE going furthest by tying it to evidenced administrative capacity, proportionate staffing across five functional areas, and a formal project budget. The grievance mechanism is covered reasonably well across the programmes, though PV stands out for requiring an independent arbitrator and VCS for a defined three-stage process set out consistently across its PDD and Stakeholder Engagement Plan templates. PACM’s anti-corruption declaration stands out for a different reason, it is the one requirement in its entire two-tier framework answered directly and

unconditionally at the gateway question level rather than buried behind a bypassable sub-question, showing what the rest of the tool could look like if applied consistently (an explanation about the SD Tool's approach can be found in section 4.11).

Labour rights is one of the more unevenly covered categories across the market. Global Artisan C-Sink and Global Tree C-Sink, the two Carbon Standards International (CSI) programmes in this series, both build labour protections around the same dedicated Labour Rights document, covering employment contracts, wages, working hours, freedom of association, non-discrimination, minimum age with no under-18s in hazardous roles, forced labour and occupational health and safety (OHS) in full. GS4GG goes furthest of all, matching this coverage and also requiring safe worker accommodation and basic services, a provision that many other programmes leave as their one remaining gap in an otherwise strong labour rights score.

Resource efficiency and pollution prevention is also an unevenly covered category. Isometric's biochar PDD goes furthest on pollution specifically, with a dedicated field requiring evidence for the assessment and mitigation of polycyclic aromatic hydrocarbons, heavy metals and other named pollutants, reinforced by mandatory thresholds in the methodology, a level of technical specificity not matched elsewhere in the series. GCC along with strong performers GS4GG, PV and SOCIALCARBON covers water-related impacts well. Raw material efficiency is missing across almost the entire market, covered only by PV. Pesticide management is also covered well by the strong performers as well as Global Tree C-Sink. GS4GG requires a documented chemical pesticides policy, SOCIALCARBON prohibits internationally banned chemicals through Integrated Pest and Vector Management (IPM & IVM), and Global Tree C-Sink prohibits WHO Class Ia and Ib pesticides outright while limiting fertiliser use to a project's first five years.

Plan Vivo, SOCIALCARBON and GS4GG are the only three standards to reach a "High" rating on **community health, safety and security**, a significant omission from other programmes that operate within and among communities. Plan Vivo's practice stands out in particular, requiring a mandatory Memorandum of Understanding with law enforcement agencies wherever monitoring or patrolling is government-supported, combined with an Exclusion List bar on financing military institutions. VCS also covers security arrangements well, requiring background checks, defined rules of engagement and disclosure of armed personnel to stakeholders, aligned with the Voluntary Principles on Security and Human Rights. GS4GG and SOCIALCARBON both cover the vast majority of criteria in this category, including community exposure to hazardous materials and disease, ecosystem-service impacts and impacts on the local economy. Structural safety, community disease exposure and security arrangements are usually what drive the gap in this PS for other programmes.

Land acquisition and involuntary resettlement shows the widest range of approaches in the series, from a categorical prohibition on any kind of resettlement (e.g. ACR, Global Tree C-Sink), or involuntary resettlement (e.g. Plan Vivo, SOCIALCARBON, GS4GG, Global Artisan C-Sink, CCBS) to no distinction at all between involuntary and voluntary resettlement, to allowing involuntary resettlement under certain conditions elsewhere. Global Tree C-Sink is a particularly good example here as it not only excludes both forced and voluntary displacement from certification outright but also requires project areas to prioritise degraded or abandoned land from the outset. GS4GG and SOCIALCARBON show comparatively high conformity across the board, requiring a Resettlement Action Plan or Livelihood Restoration Plan alongside compensation and economic displacement provisions. Government-led collaboration on resettlement, largely absent elsewhere in the series, is only addressed by EE (partially), SOCIALCARBON and ART TREES.

Biodiversity is relatively well covered by land-based standards. GS4GG, SOCIALCARBON and Global Tree C-Sink are the only three standards with a hard quantitative conservation threshold, a mandatory 10 percent biodiversity set-aside for both GS4GG and SOCIALCARBON (for SOCIALCARBON, however, limited to projects located in HCV or critical habitats), and a 15 percent set-aside for Global Tree C-Sink with at least half of that area spatially clustered. Every other standard in the series leaves the extent of biodiversity protection to case-by-case assessment rather than a fixed minimum. EE takes a rigorous approach to defining High Conservation Value (HCV) areas, extending the definition to legally gazetted protected areas as classified by the IUCN, Key Biodiversity Areas, wildlife corridors and IUCN Red List species. CCBS covers biodiversity poorly overall (meeting 7 of 17 criteria), but is one of only two standards, alongside PACM, to require an explicit precautionary approach, and one of just two programmes, alongside GS4GG, to require GMO or LMO regulation. Accidental or involuntary introduction of alien species is only addressed by GS4GG and PACM, while most other standards only focus on limiting or avoiding invasive species. However, as per IFC PS 6, alien species can become invasive and therefore, carry a risk and measures should be taken to avoid their introduction (IFC 2012).

Indigenous Peoples and Local Communities (IPs & LCs) has improved markedly across the market, with FPIC now required in most of the 16 programmes, though how far individual standards go beyond that basic threshold varies widely. CSI Global Artisan C-Sink is a strong example, requiring alignment with UNDRIP and ILO Convention 169, FPIC before any project impacts on Indigenous peoples' lands, and an Indigenous Peoples Plan or Community Development Plan. Global Tree C-Sink goes a step further still, requiring evidence of due diligence, rather than a simple declaration, wherever no Indigenous peoples are identified, with FPIC documented in the Management Unit Report where they are. GS4GG, Equitable Earth and Plan Vivo all demonstrate similarly high

conformity. A dedicated Indigenous Peoples Plan is required by only a handful of the 16 programmes (Artisan C-Sink, Global Tree C-Sink, GS4GG, PV, EE, SOCIALCARBON). **SOCIALCARBON** stands out in particular for addressing provisions for peoples in voluntary isolation (though only implicitly), a protection that remains absent in almost all other standards. The standard requires that, all Indigenous Peoples and Local Communities, irrespective of formal recognition status, shall be provided the same protection, which extends to IPs in voluntary isolation who may lack formal recognition.

Cultural heritage is one of the weakest categories in the series. SOCIALCARBON is the only standard that mandates a chance-find procedure for the accidental discovery of heritage, the single most commonly missing item across the other 15 programmes. SOCIALCARBON also covers other important criteria such as continued community access, intangible heritage, removal and commercial use in one consistent framework. ART TREES, GS4GG, EE, PV and VCS also address immaterial cultural heritage, which is typically not explicitly mentioned by other standards. EE goes further still, requiring any use of traditional knowledge to be acknowledged and compensated through a documented benefit-sharing arrangement, with spiritual practices identified through participatory mapping.

Additional social indicators are a clear strength for GS4GG, Plan Vivo and SOCIALCARBON, all three covering every criterion in this category. Two provisions in particular set them apart from other programmes, mandatory human rights due diligence and alignment with the host country's national gender strategy when assessing gender risks, which are largely missing elsewhere.

PV, SOCIALCARBON, VCS, Equitable Earth and Global Tree C-Sink are the clear benchmarks for **benefit-sharing**, all five covering this category in full. PV requires a minimum of 60 percent of revenues to reach participants, documented in the validated PDD and shared with participants in draft

and final form before being made public. SOCIALCARBON requires a formal Benefit Sharing Agreement with culturally appropriate disclosure and public availability. Elsewhere, several standards regulate benefit-sharing only for Indigenous peoples, leaving local communities and farmers uncovered, and CCBS and GCC only require it when projects need an additional label, leaving projects certified at the base level with no benefit-sharing obligation.

Several standards, including Equitable Earth, Plan Vivo, CSI Global Tree C-Sink and CSI Global Artisan C-Sink, responded constructively to the analysis. They indicated that they may close the identified gaps in upcoming revisions of their requirements.

Operationalisation of safeguard approaches

The 16 programmes take strikingly different approaches to safeguard governance, which makes cross-programme comparison difficult. GS4GG, SOCIALCARBON and Plan Vivo consolidate requirements in one dedicated safeguard document and carry them through consistently into the operational template, good practice that VCS reaches by a different route, mirroring nearly every core requirement from its Standard as a discrete row in a dedicated ESG Risk Assessment Template. CSI Global Artisan C-Sink spreads its requirements across five separate documents that may not be fully mirrored in the operational documents. CAR's Program Manual only lists safeguard categories by name, leaving the substantive detail to a separate ESS Form. GCC uses a pre-defined hazard checklist, so a risk not already listed in the E&S Form risks not being assessed at all, a similar risk also exists with Isometric's approach. CCBS is different again, functioning as an add-on layer (also called an add-on standard) applied alongside a base carbon accounting standard rather than as a standalone crediting programme. PACM's Article 6.4 SD Tool first asks an overarching gateway question to screen for a general risk. A developer who answers No faces no obligation to engage with the more

detailed, subordinate questions attached to that element or risk, even where those questions cover child labour prevention or biodiversity protection. This is why more than half of the SD Tool criteria score only "Partial".

A different pattern applies to another group of programmes, less about an overarching structural choice than about how specific safeguards translate from the core standard into operational practice. ACR, for example, ties most Indigenous peoples, cultural heritage and benefit-sharing requirements to a project's community-based classification, and projects that fall outside it face fewer corresponding requirements. CCBS states several fundamental protections, particularly under labour category such as forced labour and child labour, only through a reference to compliance with national law rather than as explicit requirements. Puro.earth's core document names most relevant risk categories, but the obligations attached to them in its operational document vary in specificity from one requirement to the next, some asking only for a simple compliance declaration, others for the impact, its extent, and mitigation measures.

A third pattern is whether a safeguard applies unconditionally or only once a developer identifies a risk. Most programmes rely predominantly on risk-triggered requirements, where a developer must first identify a risk before the corresponding safeguard activates, reasonable for risks that genuinely need context-specific identification, but a problem for fundamental protections, such as child labour prevention and basic biodiversity protection, that should never depend on self-declaration. Plan Vivo, SOCIALCARBON, GS4GG and Global Tree C-Sink lean furthest the other way, applying their core protections largely unconditionally, through Plan Vivo's Exclusion List, SOCIALCARBON's standalone mandatory obligations, GS4GG's Safeguarding Principles Assessment, and Global Tree C-Sink's prescriptive PDD bans on burning, pesticides, displacement and conservation area requirements. Isometric's Standard is similarly unconditional by design, but

because its PDD does not restate these obligations as discrete fields, they risk being overlooked altogether. VCS and PACM sit at the opposite end, VCS's ESG Risk Assessment Template is fundamentally a risk-screening instrument, so most provisions are risk-triggered except for its outright exclusions on forced eviction and displacement, while PACM's gateway question structure means a developer who answers No faces no obligation to engage with the detailed questions behind it.

Developments since the 2024 assessment

Comparability with the 2024 gap analysis is limited, since the analytical framework, criteria and scoring methodology have all been revised and expanded for this study, so results cannot be directly compared one to one. At a high level, however,

several programmes assessed in both studies show a clear positive trajectory. Plan Vivo and SOCIALCARBON in particular show marked improvement, now reaching “High” across nearly every category assessed, and VCS also scores markedly higher, with improvement concentrated in risk management, resource efficiency, land and resettlement, and Indigenous Peoples and Local Communities. GS4GG, by contrast, remains consistently strong, performing highly again in this round despite the more granular 82 criterion framework applied here. Other programmes show little change, for example CCBS has not introduced any safeguard relevant updates since the previous assessment. CAR's overall conformity has declined, but this most likely reflects the greater granularity of this year's criteria and not necessarily an actual weakening of the standard itself.

4. Detailed Assessment per Carbon Crediting Programme

4.1 American Carbon Registry (ACR)

Overview of the standard and documents assessed

The American Carbon Registry is one of the longest-established voluntary carbon standards, operating since 1996. The assessment is based on [ACR Standard v8.0](#) and the accompanying [E&S Template v1.1](#), which constitutes the primary

operational document for safeguard assessment at project level. The E&S template requires project developers to identify E&S risks across a series of thematic categories and describe the measures in place to address them.

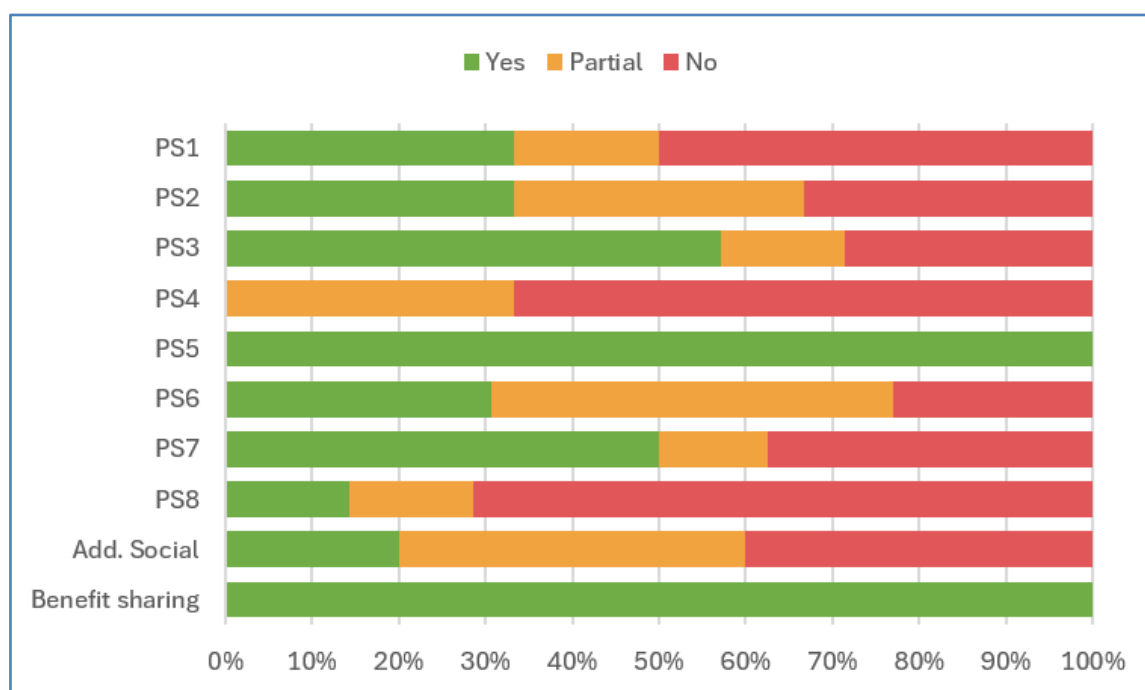


Figure 2: Overall conformity of ACR

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

ACR presents a mixed safeguard picture. Of 78 criteria assessed, 32 received a “Yes” rating, 18 a “Partial”, and 28 a “No”. Conformity is “High” on resource efficiency (PS 3), land acquisition and resettlement (PS 5), Indigenous Peoples and Local Communities (PS 7), and benefit-sharing. Labour rights (PS 2: Partial) is a close call: the category

splits evenly, three criteria each rated “Yes”, “Partial” and “No”, with the tie resolved to a “Partial” rating under the majority-scoring rule. The additional social indicators (Partial) split almost as evenly, two “Partial” and two “No” against a single “Yes”. Conformity is weakest on community health and safety (PS 4: Low) and cultural heritage (PS 8: Low) and mixed on biodiversity (PS 6: Partial).

Four criteria are not applicable to ACR given its methodology portfolio: sustainable management of fisheries, sustainable management of living natural resources in agriculture, animal welfare and husbandry, and the purchase of natural resource commodities from at-risk areas. ACR confirmed it has no active methodologies covering any of these activity types; these four are excluded from the ratings above.

One structural aspect worth highlighting is that a significant number of social safeguard requirements, including most provisions on Indigenous peoples, cultural heritage, and benefit-sharing, apply only to projects classified as “community-based.” However, ACR defines community as including “... groups of people who live within or adjacent to the project area, including Indigenous Peoples and Local Communities, as well as any groups that derive income, livelihood, or cultural values from the area”. That definition is broad enough that these safeguards are assessed as reaching the great majority of projects with an actual community relationship.

A further aspect worth highlighting is that ACR's mitigation hierarchy includes compensation as an option alongside avoidance and mitigation, diverging from the strict IFC PS mitigation hierarchy.

Environmental requirements

ACR's strongest environmental conformity is on resource efficiency and pollution prevention (PS 3: High). The E&S Template explicitly covers noise and vibration, hazardous and non-hazardous waste, water efficiency, chemicals, and pesticides as separate impact categories. However, energy efficiency and raw material efficiency are entirely absent. Biodiversity (PS 6: Partial) is mixed: the E&S Template addresses critical habitats, rare and threatened species, habitat connectivity, soil degradation, native-species requirement but other criteria, such as project area to be set aside for biodiversity conservation and food security, are absent. Avoidance of the accidental introduction of

alien species, and regulation of genetically modified or living modified organisms (GMOs/LMOs) are scored as “Partial” as ACR's regulation of native species could plausibly extend to cover both the risk of introducing alien species and the use of GMOs/LMOs. Because that extension is not made explicit for either criterion, both remain “Partial” rather than “Yes”. Sustainable forest management is also scored as “Partial” as ACR's forestry methodologies require adherence to Best Management Practices and independent certification for commercial harvesting, which speaks to the substance of the criterion, but the requirement does not translate into the E&S Template. This also indicates that more explicit requirements may exist in the underlying protocols, though confirming this falls outside the scope of the current analysis.

Social requirements

Land and resettlement (PS 5) receives a “Yes” rating on all eight criteria, on the basis that ACR's outright prohibition on relocation and resettlement removes the underlying risk rather than through developed resettlement-management provisions. Indigenous peoples' rights (PS 7: High) are addressed on the basis of ACR's broad community-based definition, covering rights recognition, culturally appropriate engagement, and protection against forced eviction, though provisions for Indigenous peoples in isolation, customary land use, and government collaboration remain absent. Benefit-sharing (High) is fully addressed, with documentation, disclosure, and public availability of benefit-sharing arrangements all covered for community-based projects.

Cultural heritage (PS 8: Low) addresses general cultural heritage requirement and partially covers immaterial heritage but chance-find procedures, continued community access, and protections against removal or commercial use remain unaddressed. Labour rights (PS 2: Partial) cover forced labour, occupational health and safety, and third-party/supply-chain workers, minimum age

requirements and freedom of association and non-discrimination via a reference to International Bill of Human Rights, instead of explicit individual requirements, hence the category is scored as “Partial” overall. PS 1 risk management is also among the weaker social categories, despite addressing risk identification, mitigation measures, monitoring and verification, and stakeholder consultation in the E&S Template. The Standard falls short on requiring ESMS, E&S safeguards indicators, emergency preparedness system, and government collaboration mechanism, and anti-corruption is addressed only through ACR's general regulatory-compliance clause rather than a standalone provision. Other criteria such as grievance mechanism and communication with external stakeholders are only partially met. Community health and safety (PS 4) is a near-total gap: only community exposure to disease and impacts to local economy are indirectly addressed, with safe design and construction, exposure to hazardous materials, safety risks, and security

arrangements all unaddressed in the E&S Template. The additional social indicators (human rights and gender: Partial) are addressed on general human-rights alignment but not on due diligence or national gender-strategy alignment. With one “Yes”, two “Partial” and two “No”, ACR narrowly qualifies for a “Partial” rating in this category.

Main recommendations

To achieve higher conformity with IFC PS benchmarks, ACR should, inter alia, introduce dedicated PS 4 community health and safety provisions; develop standalone requirements on labour rights, human rights, gender equality, and anti-corruption, rather than relying on the general regulatory-compliance clause; develop standalone cultural heritage requirements, including a chance-find procedure; and broaden PS 6 biodiversity coverage with an explicit minimum project-area set-aside requirement.

4.2 Climate Action Reserve (CAR)

Overview of the standard and documents assessed

The Climate Action Reserve is one of the longest-established North American carbon offset programmes, operating under its current name since 2008 with roots in the California Climate Action Registry founded in 2001. The assessment is based on the [CAR Program Manual Version 9.2](#) and the accompanying [Environmental and Social](#)

[Safeguards \(ESS\) Form](#) (Nov 2023 version), which forms part of the Project Design Document and constitutes the primary operational document for safeguard assessment at project level. The ESS Form requires project developers to identify E&S risks across a series of thematic categories and describe the measures in place to address them.

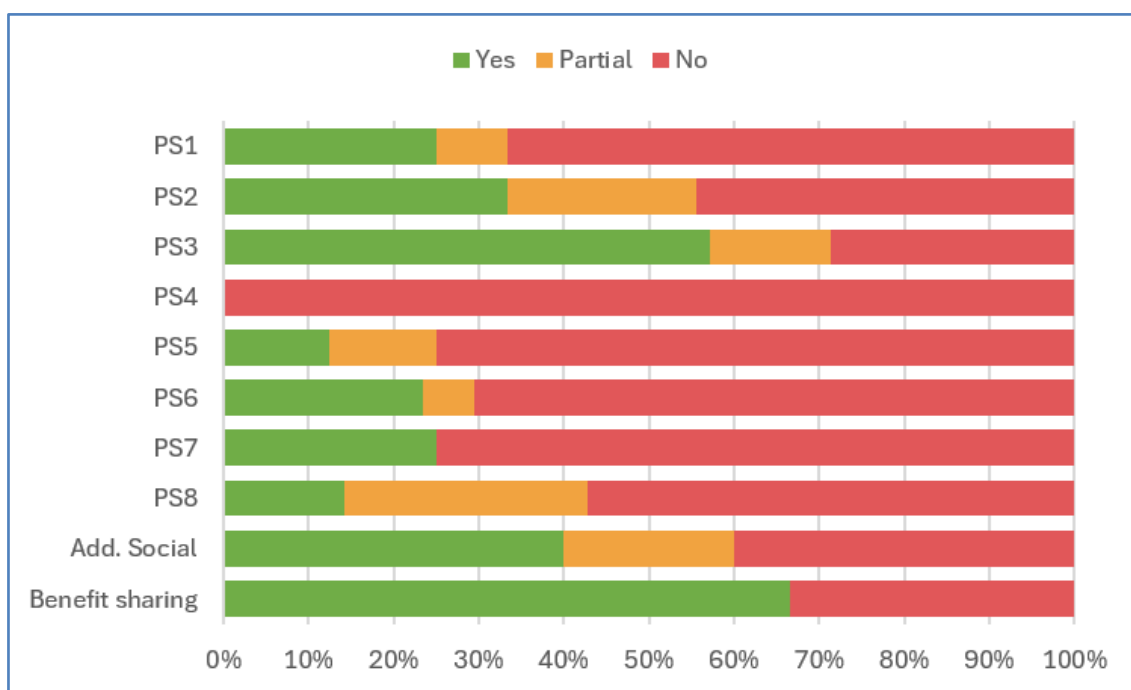


Figure 3: Overall conformity of CAR

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

CAR presents a predominantly weak alignment with IFC PS. Of 82 criteria assessed, 22 received a “Yes” rating, 9 a “Partial”, and 51 a “No”. Conformity is highest on resource efficiency and pollution prevention (PS 3) and benefit sharing. Every other Performance Standard category is rated as “Low”: risk management (PS 1), labour (PS 2), community health and safety (PS 4), land and resettlement (PS 5), biodiversity (PS 6), Indigenous Peoples and Local Communities (PS 7), and cultural heritage (PS 8). The additional social indicators are rated Partial. Overall, the CAR scores worse compared to the prior gap analysis (based on the programme version 9.1), with the exception of PS 3 receiving the same rating.

Two structural limitations run throughout the assessment: First, CAR merely lists safeguard categories in their programme document. Only the ESS Form provides actual details of the safeguard requirements. Second, CAR relies predominantly

on a hybrid approach, with only three unconditional requirements and risk-triggered obligations confined to Indigenous Peoples and Local Communities and cultural heritage. Unlike programmes where risk-triggering is limited to resettlement and displacement, CAR gates its entire IPs & LCs and cultural-heritage block on whether a project declares that it “involves Indigenous peoples and/or Local Communities”, which creates a structural risk, since rights recognition, protection from forced eviction, and cultural-heritage safeguards should not be avoidable by a project self-declaring no IPs & LCs presence.

Environmental requirements

CAR's strongest conformity across the whole assessment is on resource efficiency and pollution prevention (PS 3: High). The ESS Form addresses water efficiency and impacts on water resources, the release of pollutants to air, water and land,

noise and vibration pollution, and pesticide management as distinct requirements, with hazardous and non-hazardous waste and chemicals covered partially; energy efficiency and raw-material efficiency are the only clear absences. Biodiversity (PS 6: Low) is materially weak: of 17 criteria, the requirements cover only 4, including a no-conversion confirmation, provisions for habitats of rare and threatened species, habitat connectivity and soil degradation, but more than half of the criteria are absent, including impacts in legally protected areas, alien species, sustainable management of forests, fisheries and other living resources, native-species plantation rules, animal welfare, sustainable commodity sourcing, GMOs and LMOs, and food security.

Social requirements

PS 1 risk management is nominally the strongest social area but is still rated “Low”: risk and impact identification, monitoring with third-party verification, and responsiveness to stakeholder views are in place, and external communication is partial, but the standard requires no sequenced mitigation hierarchy, no safeguard indicators, no organisational-capacity or emergency-preparedness provisions, no government-collaboration mechanism, no project-level grievance mechanism, and no standalone anti-corruption or financial-sustainability requirement. Labour rights (PS 2: Low) reflect minimum requirements: non-discrimination and equal opportunity, prohibition of forced labour and trafficking, and OHS are addressed, with minimum age and third-party or supply-chain workers partial, but human-resources policies, freedom of association and collective bargaining, safe worker accommodation, and training provisions are absent. Community health and safety (PS 4) is a complete gap: not one of the six PS 4 criteria is addressed in either the Program Manual or the ESS Form, leaving structural safety, community exposure to hazardous materials and disease, ecosystem-service impacts, security arrangements, and local-economy effects all unaddressed. Land and resettlement (PS 5: Low) offers only partial

coverage of avoidance of involuntary resettlement and addresses economic displacement, but lacks FPIC for voluntary relocation, any Resettlement Action Plan or Livelihood Restoration Plan, compensation or restitution requirements, and government-collaboration provisions. Indigenous Peoples and Local Communities (PS 7: Low) recognise IP and LC rights and prohibit forced eviction, but with no Indigenous Peoples Plan, no culturally appropriate engagement requirement, no provisions for peoples in voluntary isolation, no assessment of traditional lands and resources, and no protection of cultural, intellectual or spiritual property. Cultural heritage (PS 8: Low) provides a general commitment to protect cultural heritage but lacks a chance-find procedure, continued community access, and immaterial-heritage and commercial-use provisions, and addresses the removal of heritage and legally protected areas only partially. The additional social criteria (Partial) reference human-rights instruments and require a response to gender-based violence, but formal human-rights due diligence, national gender-framework alignment, and full gender-inequality provisions are absent or partial; benefit-sharing is comparatively strong, requiring documentation in the validated design documents and public availability, though prior sharing of the draft and final plan with participants is not required.

Main recommendations

To align with IFC PS benchmarks, CAR should, inter alia: remove the IPs & LCs self-declaration gate so that rights, forced-eviction and cultural-heritage protections apply universally rather than only where a project declares IPs & LCs involvement; introduce dedicated PS 4 community health and safety provisions, which are currently entirely absent; strengthen PS 5 resettlement provisions, including FPIC for voluntary relocation and mandatory Resettlement Action Plan or Livelihood Restoration Plan and compensation requirements; elevate core labour protections, in particular freedom of association and collective bargaining and human-resources policies, to explicit standalone requirements; establish a

project-level grievance mechanism and standalone anti-corruption and financial-sustainability requirements under PS 1; add operational cultural-heritage provisions including a chance-find

procedure; and broaden PS 6 biodiversity coverage, in particular alien species, sustainable-management, native-species and GMO/LMO provisions.

4.3 Climate, Community & Biodiversity Standards (CCBS)

Overview of the standard and documents assessed

The Climate, Community and Biodiversity Standards were first launched in 2005 as a so called “add-on” certification and is managed by Verra since 2014 (Verra 2014). Unlike the other programmes selected for this assessment, the CCBS do not certify GHG emission reductions or removals but are applied alongside a carbon accounting standard to validate the climate, community and biodiversity outcomes, as well as respective safeguards, of land-based projects. It is important to note, that the CCBS safeguards always operate alongside and build upon the respective safeguards of the carbon crediting

programme under which a respective project is registered. Hence, this assessment only reflects the standalone safeguards of the CCBS and should therefore be read as a partial picture of the safeguards applying to any given project.

The assessment is based on the [CCBS 3.1](#) (2017) and the accompanying [CCBS Project Description Template v3.0](#), which serves as the primary operational document project developers must complete and VVBs must assess. The programme has not been updated since the last gap analysis was conducted (2024). Consistent with the assessment methodology, the programme's optional Gold Levels were excluded.

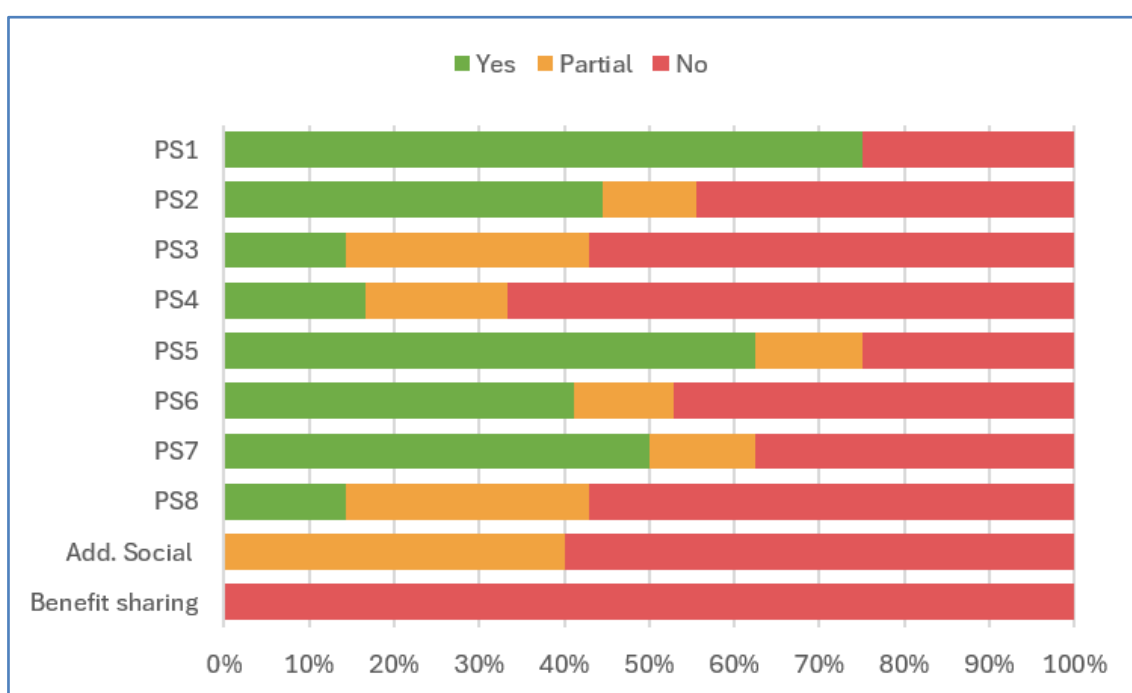


Figure 4: Overall conformity of CCBS

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

CCBS present a mixed safeguard picture, comparatively strong on governance and community-facing provisions but weak on environmental and technical categories. Of 82 criteria assessed, 32 scored “Yes”, 12 “Partial”, and 38 “No”. Some scores, however, rest on narrow margins and can look stronger or weaker than the coverage beneath them. Risk management (PS 1) and land acquisition and resettlement (PS 5) are the only ones that rate as “High”, with a clear majority in higher scores. There are a couple of close calls: Indigenous Peoples and Local Communities (PS 7: High) with four “Yes” to three “No”, with one “Partial”, Labour rights (PS 2: Partial) with four “Yes”, 1 “Partial” and four “No”, and biodiversity (PS 6: Low) with seven “Yes” and two “Partial” and eight “No”. The programme falls short on resource efficiency (PS 3), community health and safety (PS 4), cultural heritage (PS 8), the additional human rights and gender criteria, and benefit-sharing, all rated “Low”.

Two further structural characteristics run throughout the assessment. First, several fundamental protections are not named as standalone requirements but are deferred to compliance with national law. This is most consequential in the labour category, where the prohibition of forced labour, minimum age and child labour provisions, and freedom of association and collective bargaining are absent as explicit requirements. Second, a benefit-sharing mechanism is only required under the optional Gold Level. Within the safeguards it addresses, CCBS apply an either unconditional or hybrid approach, with risk-triggered requirements largely confined to resettlement and displacement. This is appropriate, since requirements are only relevant if displacement actually occurs. Such a risk-triggered approach would, however, undermine other core safeguards that should apply unconditionally, such as the protection of the rights of IPs & LCs and provisions for working conditions.

Environmental requirements

CCBS’ environmental conformity is uneven. Resource efficiency and pollution prevention (PS 3: Low) is a consistently weak category: energy efficiency, raw material efficiency, water efficiency, and noise and vibration are entirely absent, while pollutant releases and hazardous and non-hazardous waste management are addressed only partially, through the biodiversity-oriented provisions on project inputs and waste. Pesticide management is the one PS 3 criterion fully met. Biodiversity (PS 6) is rated “Low” but misses a higher rating by one criterion. It is anchored in a robust HCV assessment, with the precautionary approach, identification and protection of legally protected areas and habitats of rare and threatened species, an unconditional prohibition on introducing invasive species, a preference for native species in plantations, and a guarantee against the use of GMOs and LMOs all met. The “Low” rating reflects the breadth of topics that remain absent rather than weak core protection, such as no provisions on the sustainable management of fisheries, forests or agricultural resources, animal welfare, commodity sourcing from high-risk areas, or standalone soil degradation, while habitat connectivity and food security are addressed only partially.

Social requirements

The social categories are where CCBS are strongest, with risk management (PS 1), land acquisition and involuntary resettlement (PS 5) and Indigenous peoples (PS 7) all rated highly. Risk and impact identification, safeguard indicators, monitoring under mandatory third-party validation, culturally appropriate stakeholder engagement, a formalised grievance mechanism, and standalone corruption and financial-sustainability provisions are all met. The main gaps are the absence of a sequenced mitigation hierarchy, an emergency preparedness system, and a government collaboration mechanism. Community health and safety (PS 4: Low) is a near-complete gap: only impacts on ecosystem services

critical to communities are covered, while structural safety, community exposure to hazardous materials and disease, and security arrangements are all absent. Land and resettlement (PS 5) and Indigenous Peoples and Local Communities (PS 7) are both rated “High”, but PS 7 only by a single-criterion margin. The standard stipulates a prohibition on involuntary resettlement, FPIC and compensation under UNDRIP, recognition of customary rights, and a ban on forced eviction, but leaves Resettlement Action Plan or Livelihood Restoration Plan, a dedicated Indigenous Peoples Plan, and any government collaboration unaddressed. Labour rights (PS 2: Partial) criteria are met with regard to human resources policies, non-discrimination, training and OHS, but the prohibition of forced labour, minimum age and child labour, and freedom of association are left to national law. Cultural heritage (PS 8: Low) secures continued community access to cultural sites but lacks chance-find procedures and provisions on the removal or commercial use of cultural property. The additional social criteria (Low) reference human rights instruments but require no formal due diligence, and gender provisions omit equal pay, broader gender-based violence, and national-

framework alignment; a benefit-sharing mechanism (Low) is only required at Gold Level.

Main recommendations

To align with IFC PS benchmarks, CCBS should, inter alia: elevate the core labour protections, in particular the prohibition of forced labour, minimum age and child labour requirements, and freedom of association and collective bargaining, to explicit standalone requirements rather than relying on national law; introduce dedicated PS 4 community health and safety provisions covering structural safety, hazardous materials exposure, community disease, and security arrangements; strengthen PS 5 by requiring a Resettlement Action Plan or Livelihood Restoration Plan and by addressing economic displacement explicitly; add operational cultural heritage provisions, including a chance-find procedure, that do not depend solely on prior HCV identification; complement the HCV-based biodiversity framework with standalone soil and sustainable-management provisions; and move benefit-sharing mechanism requirements from the optional Gold Level into the mandatory standard.

4.4 Cercarbono

Overview of the standard and documents assessed

Cercarbono is a global carbon, circular economy and biodiversity certification programme headquartered in Colombia, and has recently been approved by the ICVCM as a CCP-Eligible programme. The assessment is based on the following documents that must be submitted at the validation stage: Cercarbono [Safeguarding Principles & Procedures](#) (SPP) v3.0, the [Safeguards Monitoring and Compliance Statement](#) Form v2.0, and the [PDD Templates](#). All three documents point to a fourth document, the Safeguards Compliance Monitoring Report, as the evidentiary basis on which the substance of E&S risk assessments is

meant to rest. As of 31 July 2026, however, no template or published version of this report could be located on Cercarbono's website. Because the Safeguards Monitoring and Compliance Form itself functions as a high-level compliance declaration rather than a substantive assessment tool, it is not possible to verify from the publicly available documents the extent to which mitigation activity proponents are actually required to follow the mitigation hierarchy or apply specific safeguards, only that they must declare compliance. As a result, many of the ratings below reflect a documentation gap rather than necessarily an absence of safeguards.

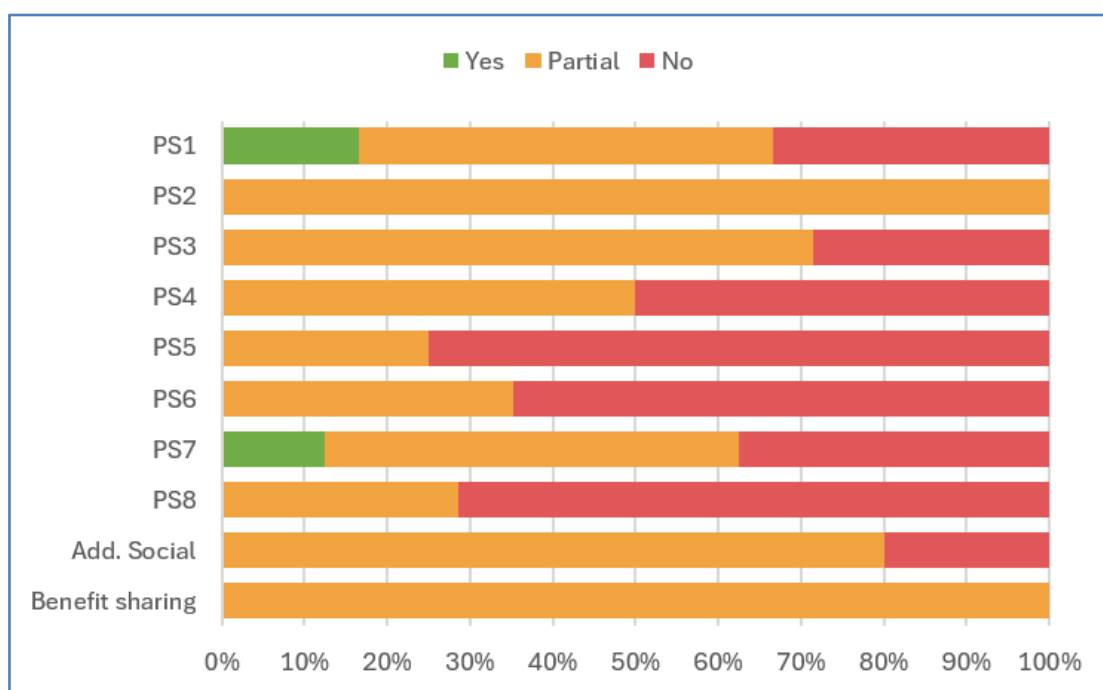


Figure 5: Overall conformity of Cercarbono

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

Cercarbono demonstrates mixed conformity with IFC PS benchmarks. Of the 82 criteria assessed, 3 received a “Yes” rating, 44 a “Partial”, and 35 a “No”. In none of the categories does Cercarbono have a “High” rating. As mentioned before, the unusually high share of 'Partial' ratings reflects the fact that the Safeguards Compliance Report, which the substance of the Safeguards Monitoring and Compliance Form's compliance declaration depends on, is not publicly available.

Environmental requirements

Resource efficiency and pollution prevention (PS 3: Partial) is addressed only as a general risk category in the SPP (Sec. 4.3.1) covering water use, pollutant release, noise and vibration, and pesticide and hazardous-waste management, without specific requirements. Energy efficiency and raw material efficiency are absent entirely. Biodiversity (PS 6: Low) is among the weaker categories: of 17 criteria, 11 are rated ‘No’. Neither the Safeguarding Principles & Procedures nor the Safeguards

Monitoring and Compliance Form sets a minimum biodiversity set-aside, regulates biodiversity offsetting, addresses invasive or alien species, or covers the sustainable management of forests, fisheries or agriculture. Habitat connectivity, rare and threatened species, and soil degradation are rated as ‘Partial’ since the Safeguards Monitoring and Compliance Form requires explicit compliance declaration on the criteria from the project developers, but how this is operationalised in practice is unclear as the Safeguards Compliance Report template was unavailable at the time of the assessment.

Social requirements

On the social side, Land Acquisition and Involuntary Resettlement (PS 5: Low) and Cultural Heritage (PS 8: Low) show the most substantive coverage gaps, rather than documentation gaps. Neither the Safeguarding Principles & Procedures nor the Safeguards Monitoring and Compliance Form distinguishes voluntary from involuntary resettlement, requires a Resettlement Action Plan or Livelihood Restoration Plan or compensation for

either form of resettlement, or requires a chance-find procedure, provision for continued community access to cultural sites, or restrictions on the commercial use of cultural heritage. With regard to Community Health, Safety and Security (PS 4), Cercarbono only partially meets three criteria and does not meet the remaining ones, which results in a narrow “Partial” rating. The Form requires project developers to declare compliance with criteria such as community exposure to hazardous materials, security arrangements, and negative impacts on the local economy; however, criteria such as the design, construction, operation and decommissioning of structural elements, or community exposure to disease, are entirely unaddressed. In the Indigenous Peoples and Local Communities (PS 7: Partial) category, Cercarbono meets the requirement to protect the rights of IPs & LCs in line with applicable international human rights law. However, it still scores 'Partial' overall since criteria such as culturally appropriate engagement with IP, avoiding eviction of IPs & LCs, and respect for IP cultural heritage require a compliance declaration whose adequacy cannot be assessed given the missing Compliance Report. Criteria such as standalone Indigenous Peoples Plan and provisions for peoples in voluntary isolation are entirely missing. PS 1 (Assessment and Management of E&S Risks and Impacts), PS 2

(Labour and Working Conditions), Benefit-sharing and the additional social indicators rate as ‘Partial’ due to the documentation gap. The Safeguards Monitoring and Compliance Form only requires a compliance declaration, with the substantiating detail again expected to sit in the currently unavailable Compliance Report.

Main recommendations

To align with IFC PS benchmarks, Cercarbono should, inter alia, publish the Safeguards Compliance Report template (or an equivalent operational document) referenced in the Safeguarding Principles & Procedures and the Safeguards Monitoring and Compliance Declaration Form, both of which project developers must submit at the validation stage, so that the substance of E&S risk assessments, the mitigation hierarchy and safeguard measures can be verified rather than only declared. Cercarbono should also introduce dedicated PS 5 requirements, strengthen PS 6 with minimum biodiversity conservation measures and regulation of invasive species, further develop standalone PS 8 requirements, including a chance-find procedure, and require human rights due diligence as an explicit obligation.

4.5 CSI Global Artisan C-Sink

Overview of the standard and documents assessed

Global Artisan C-Sink Standard, developed by Carbon Standards International (CSI) certifies biochar production. It covers the production, processing and agricultural application of biochar in low, lower-middle and higher-middle income countries. Biomass feedstock must be sustainably produced and processed through Kon-Tiki type pyrolysis, with the biochar's quality monitored and

documented throughout. The assessment draws on the core standard ([4000136EN](#)), the Principles document ([4000232EN](#)), the Labour Rights document ([4000216EN](#)), the Consultation and Stakeholder Engagement document ([4000108EN](#)), the Social and Environmental Responsibility Policy ([4000252EN](#)), and the Compliance Guidelines ([4000222EN](#)), together with the PDD template.

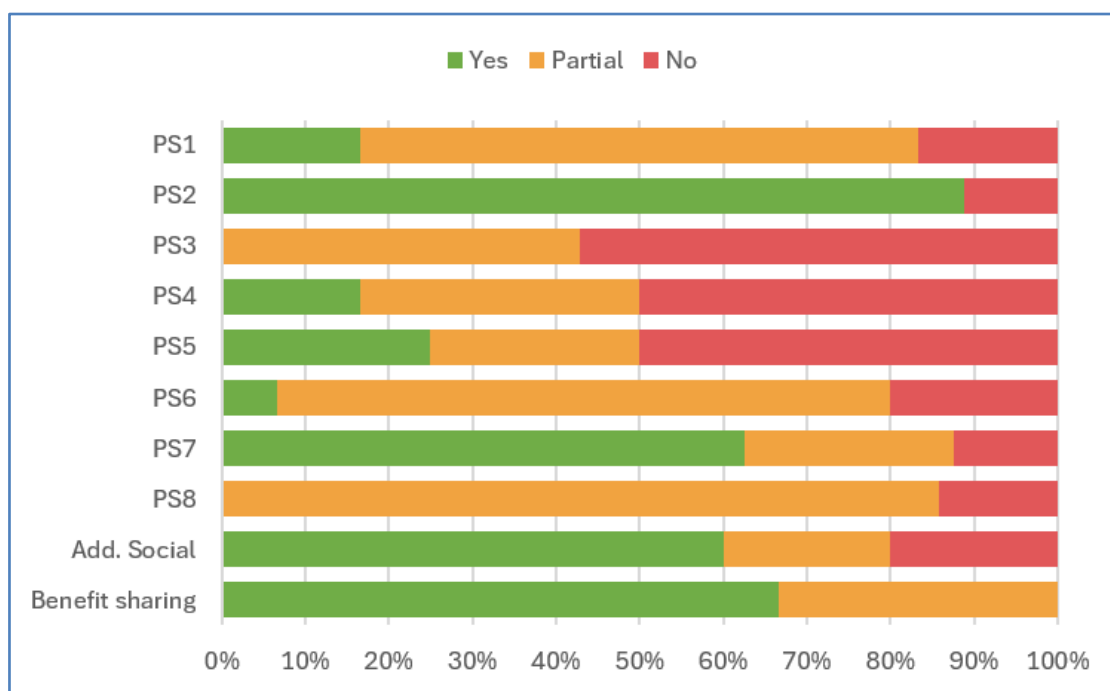


Figure 6: Overall conformity of CSI Global Artisan C-Sink

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

CSI Global Artisan C-Sink demonstrates partial conformity with IFC PS benchmarks. Of 80 criteria assessed, 24 received a “Yes” rating, 36 a “Partial”, and 20 a “No”. Conformity is “High” on labour rights (PS 2), Indigenous Peoples and Local Communities (PS 7), additional social indicators, and benefit sharing, where dedicated documents and explicit requirements represent genuine best practice. Conformity is “Partial” on risk management (PS 1), biodiversity (PS 6), and cultural heritage (PS 8), and “Low” on resource efficiency (PS 3), community health and safety (PS 4), and land and resettlement (PS 5). Two criteria are not applicable to Artisan C-Sink due to its focus on biochar-type projects, namely sustainable fisheries and animal welfare.

A structural feature of this standard that is worth noting is that safeguard requirements are spread across several documents, creating a compliance verification burden, since no single operative

checklist brings all safeguard obligations together. The PDD template is the main document project developers and VVBs work from, but it does not consistently capture all obligations set out in the other documents. This gap directly contributes to the high number of Partial ratings in this assessment.

Environmental requirements

Resource efficiency and pollution prevention (PS 3: Low) is the weakest environmental category, with no energy, water or raw material efficiency requirements. Pollutant release and hazardous waste management are referenced as expectations in the Principles document, but they are not built into the PDD as assessment requirements. Pesticide management is addressed only through the Global Tree C-Sink Standard, and only when the tree plantation pathway is used.

Biodiversity (PS 6: Partial) fares better. The standard takes a precautionary approach, prohibiting the use of forest wood and requiring

sustainably sourced biomass, and it includes a distinctive requirement that developers using invasive plant feedstock must submit a biological restoration plan for CSI approval. Food security is protected at the Principles level, since the overexploitation of ecosystems and the impairment of food security are prohibited and pyrolysis of food or feed products is banned except when expired, though this is not carried through into the PDD as a specific requirement. Most other biodiversity protections apply only through the Global Tree C-Sink Standard for the optional tree pathway, which covers afforestation, agroforestry, silvopastures and the active regeneration of deforested land. GMOs and LMOs and commodity sourcing from areas at risk of habitat conversion are unaddressed.

Social requirements

Labour rights (PS 2: High) is the clearest strength, with a dedicated Labour Rights document covering employment contracts, wages, working hours, freedom of association, non-discrimination, minimum age (no under-18s in hazardous roles), forced labour, OHS and a mandatory training programme for Artisan Biochar Producers. Third-party and supply chain workers are covered through a dedicated document. The only gap is worker accommodation.

Indigenous Peoples and Local Communities (PS 7: High) also performs well, requiring alignment with the UN Declaration on the Rights of Indigenous peoples and ILO Convention 169, with FPIC secured before any project impacts on Indigenous peoples' lands or resources. The PDD requires an Indigenous Peoples Plan or Community Development Plan, culturally appropriate engagement, and an assessment of traditional and customary land use, and forced eviction is not permitted without FPIC. Cultural heritage (PS 8: Partial) is addressed through a PDD requirement to describe measures consistent with UNESCO Cultural Heritage conventions, but only when Indigenous peoples are present, which limits how far the protection reaches. Other aspects, including continued community access to cultural sites, immaterial heritage, the removal of heritage, legally protected areas, and commercial use of heritage, are only partially addressed through the

same conditional reference. The additional social indicators (High) are a strength, with the dedicated Labour Rights document requiring compliance with the International Bill of Human Rights, prohibiting abuse, harassment and intimidation, and mandating equal treatment for all workers, though human rights due diligence is only partially addressed and no national gender strategy reference is required. Benefit sharing (High) arrangements are to be shared with affected communities in a form they understand and made publicly available, though this applies only to Indigenous peoples rather than to local communities more broadly.

Risk management (PS 1: Partial) is mixed, requiring mandatory risk assessment and a 30-day online public consultation, but there is no formal mitigation hierarchy or defined E&S indicators (i.e., bottom-up approach). Anti-corruption is well covered through CSI's Compliance Guidelines. On PS 4, only the local economic impact criterion is met, since the C-Sink Manager is responsible for equitable farmer payments and the training programme builds local skills, but structural safety, community exposure to hazardous materials and disease, and security arrangements are not explicitly addressed. On PS 5, the Principles document prohibits forced resettlement, a strong safeguard in principle, but this is not carried through as an explicit requirement in the PDD, and no document addresses voluntary resettlement, compensation, or a Resettlement/Livelihood Restoration Plan.

Main recommendations

To align with IFC PS benchmarks, the standard should consider consolidating its safeguard requirements into a single checklist embedded in the PDD, operationalising the prohibition on forced resettlement, and introducing provisions for voluntary resettlement, compensation, and a Resettlement/Livelihood Restoration Plan. Tree-pathway biodiversity and pesticide safeguards should extend to core biochar activities, alongside basic community health and safety provisions covering disease exposure, security arrangements, and community exposure to hazardous materials. Resource efficiency requirements on energy, water and raw materials, and mandatory pollutant,

hazardous waste and noise management for biochar production and kiln operation, should also be added. The conditionality that ties cultural heritage and benefit-sharing documentation to Indigenous peoples presence alone should be

removed, so equivalent protections extend to local communities more broadly. A project-level grievance mechanism and a human rights due diligence requirement should be introduced as well.

4.6 CSI Global Tree C-Sink

Overview of the standard and documents assessed

The Global Tree C-Sink Standard, developed by Carbon Standards International (CSI), certifies carbon removals from tree planting, agroforestry, silvopasture, and natural forest restoration. It excludes avoided deforestation, improved forest management, and conservation of existing forest

cover. The assessment draws on the core standard v1.9 ([4000214EN](#)), the Principles of the Global C-Sink Standard ([4000232EN](#)), the Labour Rights document ([4000216EN](#)), the Consultation and Stakeholder Engagement document ([4000108EN](#)), and the Compliance Guidelines of CSI ([4000222EN](#)), together with the [PDD template](#) and the mandatory [Management Unit Report](#) (MUR).

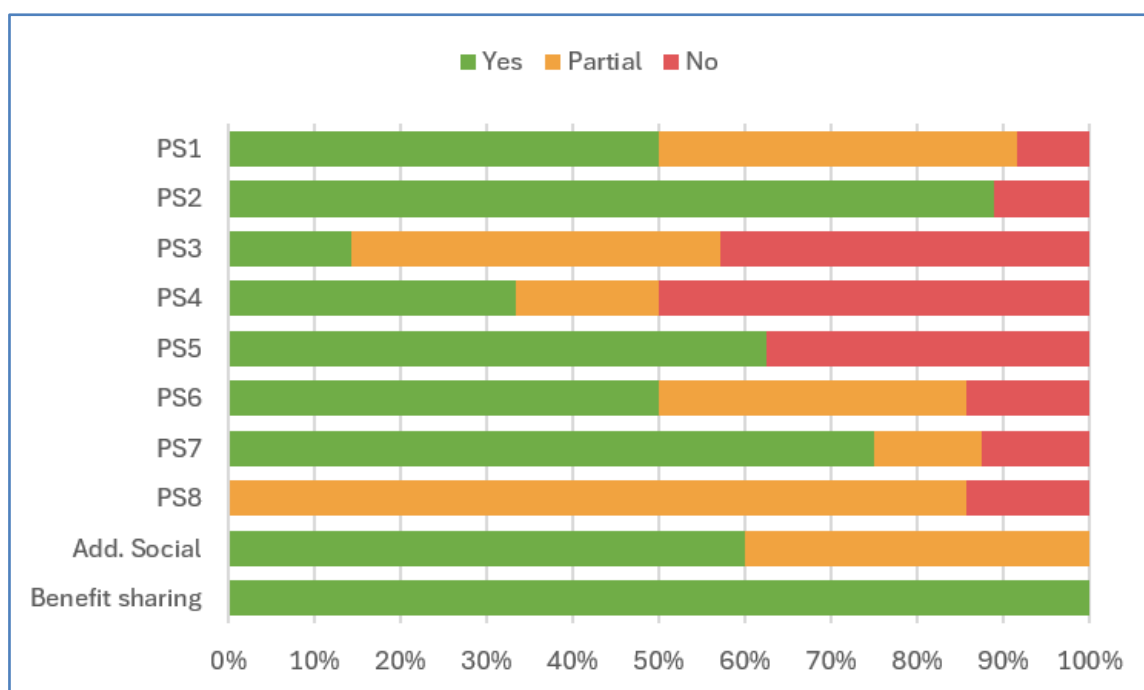


Figure 7: Overall conformity of CSI Global Tree C-Sink

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

Global Tree C-Sink shows a strong overall conformity with IFC PS benchmarks. Of 79 criteria assessed, 41 received a “Yes” rating, 23 a “Partial”, and 15 a “No”. Conformity is “High” on risk

management (PS 1), labour rights (PS 2), land and resettlement (PS 5), biodiversity (PS 6), Indigenous Peoples and Local Communities (PS 7), additional social indicators, and benefit sharing. Conformity is “Partial” on resource efficiency (PS 3) and cultural heritage (PS 8), and “Low” on community health

and safety (PS 4). Three criteria are not applicable due to the standard's focus on forestry activities, namely: Sustainable management of fisheries, animal welfare and the purchase of natural resource commodities.

The standard's defining structural feature is its unconditional safeguards architecture, a set of prescriptive requirements that apply regardless of project type or risk level. Examples include a ban on burning, a ban on dangerous pesticides, a ban on displacement, native species only, and a minimum 15% conservation area. These requirements are embedded directly in the PDD template, which makes them verifiable during validation rather than dependent on a developer's own risk identification. This differs from risk assessment first approaches, where safeguard implementation depends on whether a developer identifies a risk in the first place. An Eligibility Pre-Screening Declaration adds a further layer by screening out exclusion risks up front, and the PDD and MUR then carry these obligations through to project design and ongoing monitoring. One caveat worth flagging is that the Pre-Screening Declaration works as a proponent self-declaration, meaning a yes or no answer without always requiring supporting evidence.

Environmental requirements

In the biodiversity category (PS 6, High), 7 out of 14 criteria are met. All projects must achieve a minimum Biodiversity Ranking Level I, designate at least 15% of the total project or Management Unit area as conservation area (with at least 50% of that area spatially clustered), and demonstrate habitat restoration, species richness enhancement, and ecosystem service improvements. Soil protection is strong. Burning for land preparation is prohibited, at least 75% ground cover must be maintained at all times, and projects cannot be established on Histosols or Gleysols. A gap remains on requirements for GMOs and LMOs. Resource efficiency and pollution prevention (PS 3) is weaker and, with one "Yes", three "Partial" and three "No", narrowly qualifies for a "Partial" rating, though pesticide management stands out as a strength, with WHO Class Ia/b pesticides prohibited. Irrigation is limited to a maximum of five years, and fertiliser use is restricted to the first five years,

giving indirect resource efficiency benefits. Water efficiency, pollutant release, and waste management are only partially addressed, while energy efficiency, raw material efficiency, and noise remain unaddressed.

Social requirements

Risk management and stakeholder engagement (PS 1, High) benefits from a layered approach to E&S risk management, requiring project proponents to screen out exclusion risks before project design begins. Stakeholder engagement is reinforced with substantive project-level detail, such as requiring mandatory 30-day public consultation and a project level grievance mechanism required for all projects. Anti-corruption is well covered through CSI's Compliance Guidelines. Gaps remain on a formal mitigation hierarchy, dedicated E&S indicators (bottom-up), an emergency preparedness system, and government collaboration on stakeholder processes.

Labour rights (PS 2, High) are covered through a dedicated Labour Rights Self-Declaration, addressing contracts, working hours, freedom of association, non-discrimination, minimum age, forced labour, collective bargaining and OHS. Inclusive local employment is explicitly required in the PDD, with special consideration for women, youth, and IPs. Supply chain workers are also acknowledged. Safe worker accommodation is the only gap identified.

Global Tree C-Sink demonstrates exemplary conformity on land rights (PS 5) and Indigenous peoples (PS 7), particularly given the land intensive nature of tree planting projects. On PS 5, both forced and voluntary displacement of existing land uses are excluded from certification, and project areas must prioritise abandoned or degraded land, reducing displacement risk from the outset. FPIC is mandatory for lands under customary or community tenure, with consent documented in the MUR. Because resettlement is prohibited outright, no Resettlement/Livelihood Restoration Plan or compensation provision exists (which is not a negative aspect, given the strong blanket ban on resettlement), and government led resettlement processes are not addressed. On PS 7, the standard makes explicit references to UNDRIP and ILO

Convention 169, requires mandatory FPIC, and requires an Indigenous Peoples Plan. Where no IPs are identified, the PDD requires evidence of due diligence rather than a simple declaration of absence, a stronger practice than most standards reviewed. Provisions for IPs in voluntary isolation are absent.

Additional social indicators (High) and benefit sharing (High) are also strengths. Human rights are addressed through the standard's rights-based approach and the Labour Rights document, though a due diligence process is not required, and gender provisions do not reference national gender strategies. Benefit sharing is a mandatory PDD requirement and is to be made publicly available, though the requirement to communicate it to communities in an understandable form is set out specifically for IPs.

Community health and safety (PS 4, Low) and cultural heritage (PS 8, Partial) are the weaker categories in the standard. On PS 4, the standard addresses ecosystem services and local economic impact, but does not cover community exposure to disease, structural safety of project infrastructure, or security arrangements, and exposure to hazardous materials is only partially addressed. On

PS 8, most protections, including continued community access, immaterial heritage, and removal or commercial use, are only partially addressed, referenced through UNESCO conventions and conditional on the presence of IPs rather than set out as standalone requirements.

Main recommendations

To strengthen conformity with IFC PS benchmarks, community health and safety provisions should be expanded to cover disease exposure, structural safety, and security arrangements. Cultural heritage protections should be strengthened by setting them out as standalone requirements rather than through conditional references tied to IPs, and a mandatory chance find procedure would close the main remaining gap. As with cultural heritage, the requirement to disclose benefit sharing information should not be conditional on the presence of IPs, so these protections extend to all affected communities rather than being triggered only when IPs are identified. A more formal human rights due diligence process would strengthen the additional social indicators, and a formal mitigation hierarchy should be enshrined in the standard to guide how identified risks are addressed.

4.7 Equitable Earth (EE)

Overview of the standard and documents assessed

The Equitable Earth (EE) Standard is a forest carbon crediting programme operated by Equitable Earth (formerly Ecosystem Restoration Standard (ERS)), covering terrestrial forest restoration and conservation projects. The assessment is based on the core documents, namely the [Equitable Earth Standard v1.3.1](#), whose safeguard requirements are distributed across the Livelihoods Pillar (Section 5, in particular 5.2 General Stakeholder Engagement, 5.3 Engagement with Indigenous Peoples and Local Communities, and 5.5 Livelihoods Safeguards & Requirements) and the Ecological Condition Pillar (Section 6, in particular 6.3 Ecological Condition Safeguards & Requirements); the [Grievance Mechanism Requirements and Procedures v1.0](#); and the two

applicable methodologies, [M001 Methodology for Terrestrial Forest Restoration v1.2](#) and [M002 Methodology for Terrestrial Forest Conservation v1.0.2 as well as the risk assessment matrix](#). It further draws on the operational documents, i.e. the Project Design Document (PDD) and the certification Survey for each methodology. Both document types are used for registration and are dynamically generated through the Equitable Earth web application. They were shared (one set per methodology) with the authors, together with access to the EE platform, to enable an assessment workflow aligned with that used for the other programmes. The survey is a first step in EE's certification workflow, which collects all mandatory information depending on project-type and certification stage. This information is then subject to a review, after which the approved

information is used to automatically fill the Feasibility Report or Project Design Document (depending on the certification stage). These documents must therefore not be considered formal or final operational documents and were only shared with the authors to inform this analysis. Since both, the survey and the PDD, are

tailored to the specific methodologies, the assessment of EE not only includes the programme as a core document, but also the two available methodologies. A criterion is only met in the operational documents, if it stated either in the survey or the PDD for both project types/methodologies.

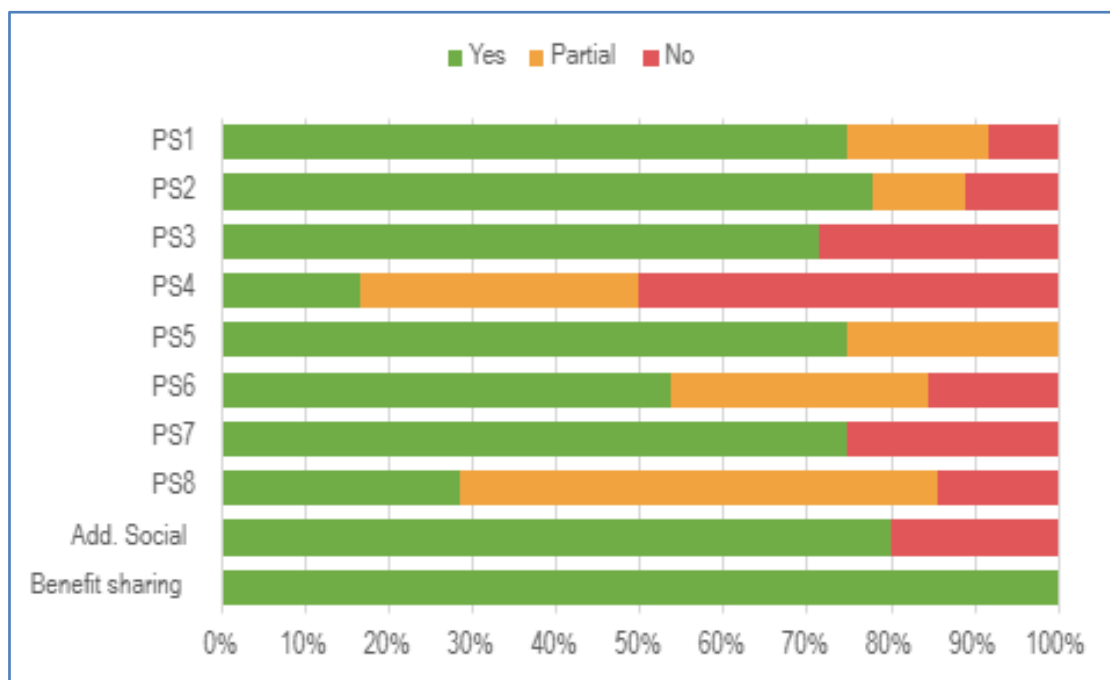


Figure 8: Overall conformity of Equitable Earth

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

EE presents a strong safeguard picture. Of 78 criteria assessed, 50 received a “Yes” rating, 15 a “Partial”, and 13 a “No”. Conformity is “High” across most IFC PS categories: risk management and stakeholder engagement (PS 1: High), labour (PS 2: High), resource efficiency (PS 3: High), land and resettlement (PS 5: High), Indigenous Peoples and Local Communities (PS 7: High), and the additional thematic areas of human rights, gender, and benefit-sharing (High). It is weaker on cultural heritage (PS 8: Partial), and community health and safety (PS 4: Low). Biodiversity (PS 6: High) is a borderline case: the rating rests on a narrow

majority of 7 “Yes” against 4 “Partial” and 2 “No” ratings.

Four criteria are not applicable to EE due to its focus on forest activities, namely: Sustainable management of fisheries and living natural resources in agriculture, as well as animal welfare and the purchase of natural resource commodities.

On the requirement architecture, EE’s requirement to identify and assess risks is unconditional and most substantive safeguards are hybrid. Risk-triggered obligations are largely confined to resettlement and displacement, which activate only where displacement occurs.

Environmental requirements

EE's strongest environmental conformity is on resource efficiency and pollution prevention (PS 3: High). The Standard covers water use, release of pollutants to air, water and land, noise and vibration, hazardous and non-hazardous waste and chemicals, and pesticide management as distinct requirements; energy efficiency and raw-material efficiency are the only clear absences. Biodiversity (PS 6) is rated as "High", though this is a close call under the majority-scoring rule. The Standard meets 7 of the 13 criteria outright and scores "Partial" on 4 and "No" on 2 criteria. The Standard addresses legally protected areas, habitats of rare and threatened species, ecological connectivity, no conversion of natural forests, use of native species, and soil degradation. The avoidance of the potential for accidental or unintended introduction of alien species is only partially addressed. The provisions focus on invasive species and the deliberate introduction of non-native species. Other PS 6 criteria are absent, including requirements that regulate genetically modified organisms/living modified organisms (GMOs/LMOs).

Social requirements

PS 1 risk management shows high conformity, with risk identification provisions, detailed safeguard indicator requirements, monitoring with third-party validation, organisational capacity requirements as well as provisions for stakeholder engagement, external communication, and a project-level grievance mechanism all in place. The mitigation-hierarchy obligation is explicit in the operational documents, but emergency preparedness is limited to fire prevention, a provision for collaboration with government is absent, and corruption is only addressed through the country-specific risk rating in the risk assessment matrix. Labour rights (PS 2: High) are comparatively well developed: HR policies, non-discrimination and equal opportunity, safe accommodation, prohibition of forced labour, promotion of trainings, OHS, and third-party and supply-chain worker protections are all addressed,

while freedom of association and collective bargaining and minimum-age provisions are not referencing international best practice (e.g. the ILO Declaration on Fundamental Principles and Rights at Work) in all operational documents. Community health and safety (PS 4: Low) is thin: there are no dedicated structural-safety, community disease-exposure, or security-arrangement requirements, and community exposure to hazardous materials and ecosystem-service impacts is only partially captured. Impacts on the local economy and employment opportunities are addressed. Land and resettlement (PS 5: High) is comprehensive, covering avoidance of involuntary resettlement, FPIC for voluntary relocation, resettlement and livelihood-restoration planning, compensation, and economic displacement, with only collaboration on government-managed resettlement not explicitly addressed. Indigenous Peoples and Local Communities (PS 7: High) is likewise strong, addressing rights recognition, community development planning, culturally appropriate engagement, assessment of traditional lands, no forced eviction, and cultural and spiritual property; provisions for peoples in voluntary isolation are the main gap. The standard informed the authors that it is currently developing a requirement to address voluntary isolation. Cultural heritage (PS 8: Partial) protects both material and immaterial heritage in general terms but lacks a chance-find procedure and treats continued community access, removal of heritage, protected heritage areas, and commercial use only partially. Human rights and gender (Additional Social: High) and benefit-sharing (High) are notable strengths, with benefit-sharing as a required and publicly disclosed element of project design.

Main recommendations

To further align with IFC PS benchmarks, EE should: add dedicated PS 4 community health and safety requirements covering structural safety, disease exposure, and security arrangements aligned with international good practice; introduce a chance-find procedure and more specific

cultural-heritage protections under PS 8; add more explicit anti-corruption requirements and an overarching emergency preparedness and response system under PS 1; explicitly recognise freedom of association and collective bargaining under PS 2 across all operational documents; and broaden PS 6 biodiversity coverage, in particular introducing explicit requirements to avoid the

accidental introduction of alien species, require sustainable commodity sourcing, and GMO/LMO provisions. Requirements for Indigenous peoples in voluntary isolation (under development, according to EE) and mechanisms for collaboration with government-led resettlement and IPs processes would close the remaining social gaps.

4.8 Global Carbon Council (GCC)

Overview of the standard and documents assessed

The Global Carbon Council (GCC) is a voluntary carbon crediting programme established in 2016 by the Gulf Organisation for Research and Development (GORD) and headquartered in Qatar. It is approved under CORSIA and is CCP-eligible under ICVCM and positions itself as the first international carbon market and sustainable development programme focused on the Global South. The assessment is based on two core

documents, the [Project Standard v6.3](#) and the [Environment and Social Safeguards Standard v4.1](#), together with the accompanying [Environmental and Social Safeguard Form v1.1](#) (hereafter referred to as the E&S Form), the latter being the primary operational document for safeguard assessment at project level. The E&S Form requires project developers to identify E&S risks across a series of pre-coded hazard categories and describe the measures in place to address them, with third-party VVB sign-off recorded directly in the Form.

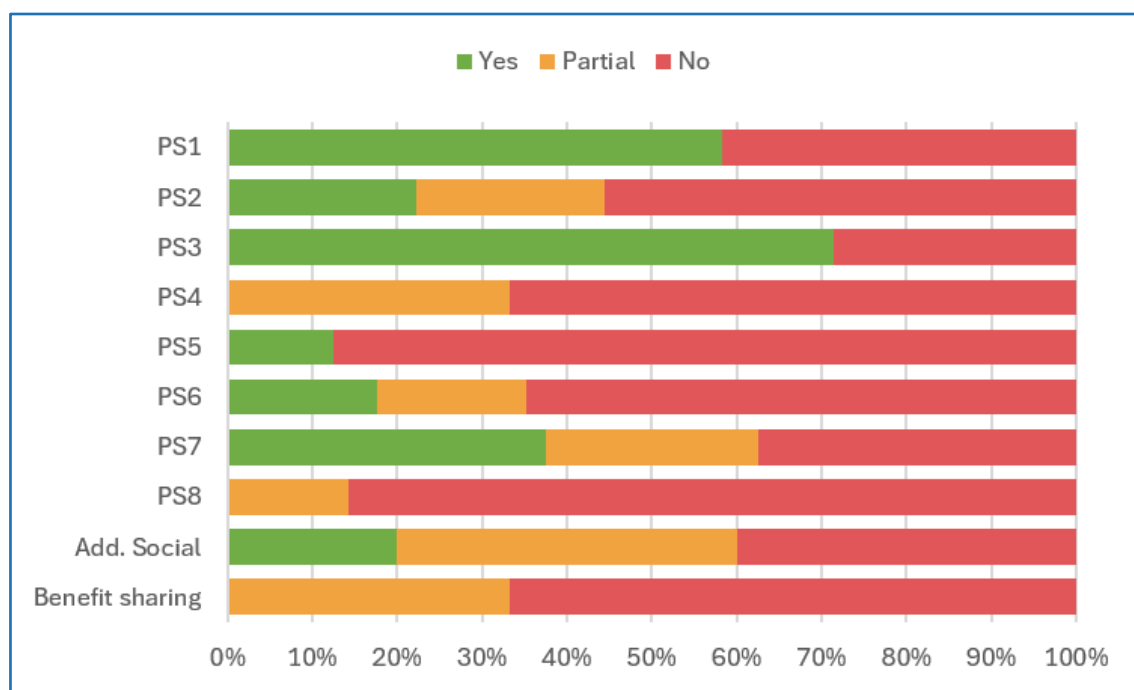


Figure 9: Overall conformity of GCC

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

GCC demonstrates weak partial conformity with IFC PS benchmarks. Of 82 criteria assessed, 22 received a “Yes” rating, 13 a “Partial”, and 47 a “No”. Conformity is highest on risk identification (PS1) and resource efficiency and pollution prevention (PS3), and weakest on labour (PS2), community health and safety (PS4), land and resettlement (PS5), biodiversity (PS6), cultural heritage (PS8) and benefit-sharing, all low performing PSs. Indigenous Peoples and Local Communities (PS7) and the additional social indicators land at “Partial”, though both are close calls.

GCC's E&S evaluation framework follows a bottom-up, hazard-checklist model rather than a top-down, principle-based one. The E&S Form v1.1 is a comprehensive document that lists hazards and requires identification of inherent safeguards and quantitative monitoring indicators for each rated hazard. The problem with this approach is, however, structural. Hazards, or risk indicators, that are not listed in the Form have a risk of not being evaluated at all. Project developers can add rows to cover hazards that are not pre-listed, but doing so is left entirely to their discretion rather than being a requirement. GCC's mitigation hierarchy is also weaker than IFC PS, since it focuses on eliminating, reducing and minimising the hazard, rather than avoiding it altogether, a distinction that matters most for involuntary displacement or Indigenous peoples' land rights. Finally, some of GCC's more meaningful safeguards, including benefit sharing, are not part of the baseline requirements that apply to all project types but are only triggered if a project seeks the optional CCP+ label. This turns some of GCC's most substantive protections into a market differentiation feature for projects seeking a premium label, rather than a universal safeguard.

Environmental requirements

GCC performs strongest on PS3, resource efficiency and pollution prevention. The E&S Form addresses water consumption and discharge, air, land and water pollutants, noise and vibration, the safe management of hazardous and non-hazardous waste and chemicals, and pesticide management as distinct hazard categories. Energy

efficiency and raw material efficiency are, however, absent from the framework.

GCC has a “Low” rating on PS6, biodiversity, despite reasonable coverage. It addresses critical habitats and high conservation value areas, rare, threatened and endangered species, invasive species, and soil degradation and erosion well but does not capture aspects such as habitat connectivity, minimum area for conservation threshold, biodiversity offset regulation, sustainable management of fisheries, forestry and agriculture, animal welfare, native species and regulation of genetically modified or living modified organisms. Furthermore, food security (PS6) and economic displacement of livelihoods (PS5) appear only as a mandatory hazard for AFOLU project types, rather than being universal requirements.

Social requirements

GCC performs strongly on PS1 (risk management and stakeholder engagement), due to the fact that every project must complete the E&S Form regardless of self-assessed risk. Furthermore, the stakeholder engagement standard is substantive and requires transparent disclosure, local language access, continuous engagement, and a grievance mechanism. Corruption, financial sustainability, ESMS organisational capacity, emergency preparedness, and government led stakeholder processes remain unaddressed.

GCC performs poorly on PS2 (labour), PS4 (community health and safety), PS5 (land & resettlement), PS8 (cultural heritage) and benefit sharing. On PS2, GCC does not address key criteria such as human resource policies, freedom of association, collective bargaining, worker accommodation, skills training, and third party or supply chain workers. On PS4, it only partially captures hazardous material exposure and local economy impacts, and leaves structural safety, disease exposure, and security arrangements unaddressed. PS5 is one of GCC's weakest social categories. There is no prohibition on involuntary resettlement, no FPIC requirement for voluntary resettlement, no Resettlement or Livelihood Restoration Plan, and no compensation requirement. On PS8, GCC recognises cultural heritage as a hazard, but does not consider chance

find procedures, continued access provisions, or the treatment of immaterial heritage. On benefit-sharing, as mentioned previously, this criterion is only considered when project developers request a CCP+ label, and is otherwise absent.

GCC has a “Partial” conformity rating on PS7 (Indigenous Peoples and Local Communities). With one “Yes”, two “Partial” and two “No”, it also narrowly qualifies for a “Partial” rating on additional social indicators. It recognises IPs & LCs rights, FPIC, traditional resource use, and cultural property, but does not require an Indigenous Peoples Plan or address peoples in voluntary isolation. On additional social indicators, GCC captures human rights violations and gender discrimination as named hazards but does not require human rights due diligence or reference to national gender strategies.

Main recommendations

To align with IFC PS benchmarks, GCC should prioritise some changes. It should introduce a clear requirement to avoid negative environmental and social impacts rather than merely eliminate, reduce or minimise them. Benefit-sharing should become a baseline requirement for all projects, not a feature only available under the optional CCP+ label, and the AFOLU only and IPs & LCs only conditionality on other social protections should be removed so they apply universally. GCC should also introduce a clear prohibition on involuntary resettlement, a FPIC requirement for voluntary resettlement, a requirement for a Resettlement or Livelihood Restoration Plan, and compensation for voluntary and involuntary displacement alike. Finally, GCC should strengthen its ESMS procedures, such as safeguarding against corruption.

4.9 Gold Standard for the Global Goals (GS4GG)

Overview of the standard and documents assessed

The Gold Standard for the Global Goals is one of the longest-established independent crediting programmes and was an early mover on safeguards, introducing a “do no harm” assessment guidance in 2006. The assessment is based on the

[Safeguarding Principles and Requirements \(PAR\) v2.1](#), the [Stakeholder Consultation Requirements v2.1](#) and the [Gender Equality Requirements & Guidelines v2.0](#) as core documents, and the [PDD template v2.0](#) and the Annex 1: Safeguarding principles assessment questions in the Safeguarding PAR v2.1 (referenced in the PDD template) as operational documents.

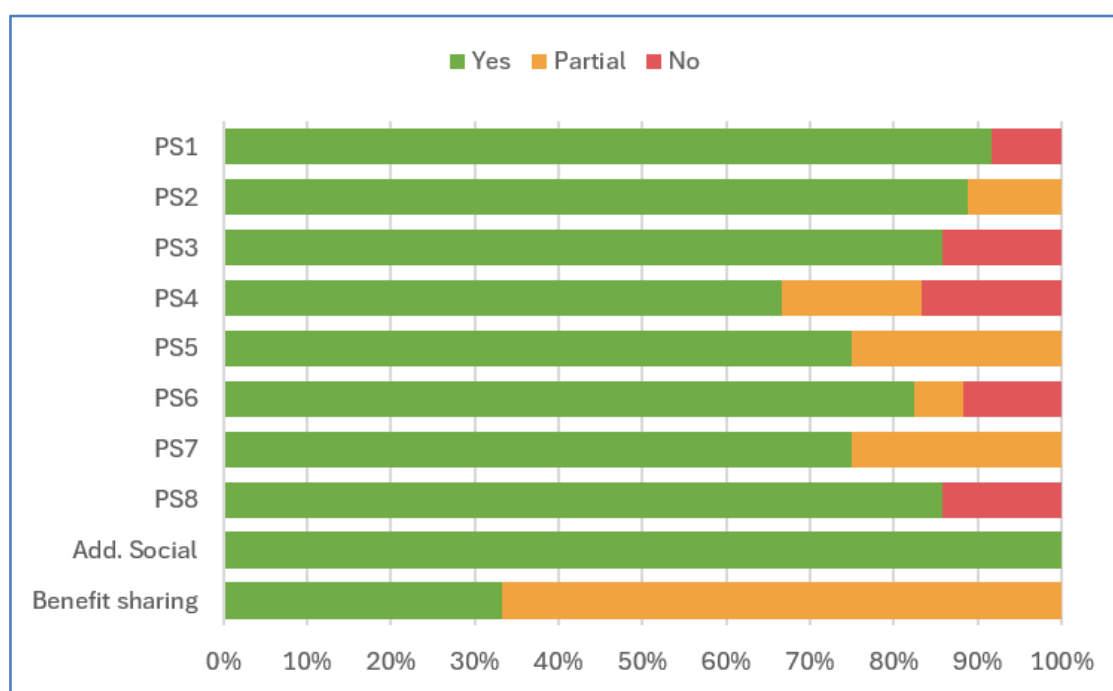


Figure 10: Overall conformity of GS4GG

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

GS4GG shows very high overall conformity on safeguards. Of 82 criteria assessed, 67 received a “Yes” rating, 9 a “Partial”, and 6 a “No”. Conformity is “High” across all categories, except benefit-sharing.

A structural characteristic runs throughout the assessment. Several requirements are well articulated in the core standard (PAR v2.1) but only partially operationalised in the Safeguarding Principles Assessment (Annex 1), so they score “Partial”.

On the requirement architecture, GS4GG's requirement to complete the Safeguarding Principles Assessment across all nine principles is unconditional, and its core labour, human rights and gender provisions are largely unconditional. Most substantive environmental, biodiversity and Indigenous peoples safeguards are hybrid or risk triggered.

Environmental requirements

GS4GG's environmental conformity is strong, and it is one of the few standards in the series with robust resource efficiency and pollution prevention coverage (PS 3: High). PAR v2.1 addresses the sustainable use of energy, water efficiency and impacts on water resources, the release of pollutants to air, water and land, noise and vibration, the safe management of hazardous and non-hazardous waste and materials, and pesticide management through an integrated pest management approach, a documented Chemical Pesticides Policy and a prohibition on banned chemicals. Raw-material efficiency is the only clear absence. Biodiversity (PS 6: High) is comprehensive, with 14 of 17 criteria met, anchored by a mandatory minimum 10% of the managed area to be set-aside for biodiversity conservation, an absolute no-net-loss duty for endangered species, protection of critical habitats and legally protected areas, alien species provisions, sustainable management of forests, fisheries and agricultural resources, native-species

requirements for plantations, comprehensive animal welfare provisions, a documented GMO/LMO policy, soil protection, and an unconditional prohibition on negative impacts on food access and availability. The precautionary approach is only partially operationalised in Annex 1, and provisions on sourcing commodities from areas at risk of habitat conversion are absent.

Social requirements

Risk management (PS 1: High) is very comprehensive, with mandatory risk identification, a mitigation hierarchy, monitoring and reporting under third-party validation, organisational-capacity requirements, mandatory local and global stakeholder consultation, a project-level grievance mechanism, and standalone corruption and financial-sustainability provisions. Further, project developers are required to formally define and structure E&S safeguard indicators, develop an emergency-preparedness plan and provide external communication. The only gap is that no government-collaboration mechanism is required. Labour rights (PS 2: High) are the strongest category, covering comprehensive working agreements, freedom of association and collective bargaining (ILO Conventions 87 and 98), non-discrimination and equal opportunity, safe accommodation and basic services, minimum age and the prohibition of child labour including no persons under 18 in hazardous roles (ILO Convention 138), the prohibition of forced labour and trafficking (ILO Conventions 29 and 105), OHS, and third-party and supply-chain workers, with only local-skills training partial. Community health and safety (PS 4: High) is comparatively well developed, covering community exposure to hazardous materials, disease exposure, ecosystem-service impacts and local-economy impacts, although structural safety is only partial (design and decommissioning phases are not required) and private-security arrangements are absent.

Land and resettlement (PS 5: High) is also strong: A Resettlement or Livelihood Restoration Plan for voluntary displacement (involuntary is prohibited) is required, as are FPIC for voluntary relocation, plans and compensation for voluntary scenarios (partial), and compensation for involuntary displacement. There are also provisions on

economic displacement. However, government collaboration is not explicit, and only a reference to UNDP 5 (Displacement and Resettlement) is provided. Indigenous Peoples and Local Communities (PS 7: High) is strong, with rights recognition under UNDRIP and ILO Convention 169, a required Indigenous Peoples Plan, culturally appropriate engagement, assessment of traditional and customary lands, an unconditional prohibition on forced eviction, and protection of cultural, intellectual and spiritual property; provisions for peoples in voluntary isolation and government collaboration are only partial. Cultural heritage (PS 8: High) protects tangible and intangible heritage, legally protected heritage areas, continued community access to cultural sites, the removal of replicable and non-replicable heritage, and the commercial use of cultural heritage, but lacks a standalone chance-find procedure. The additional social criteria (High) are a clear strength, covering respect for human rights, mandatory human rights due diligence, gender non-discrimination and equal pay, gender-based violence response, and a mandatory requirement to reference the host country's national gender strategy when assessing gender risks. Benefit-sharing (Partial) is addressed through a dedicated Benefit Sharing Arrangement to be published on the Gold Standard Impact Registry via PDD. The remaining gaps are that no formal benefit-sharing plan consistent with applicable national rules is required, and disclosure to affected communities in an understandable form is only partial, being tied to the FPIC process for Indigenous peoples only.

Main recommendations

To align with IFC PS benchmarks, GS4GG should: require a formal benefit-sharing plan consistent with applicable national rules and regulations and require the draft and final plan to be shared with all affected communities, not only Indigenous peoples, in a form and language they understand and add a standalone chance-find procedure under PS 8. Further, alignment would be increased by adding private security arrangement requirements under PS 4.

4.10 Isometric

Overview of the standard and documents assessed

Isometric is a carbon removal crediting programme certifying removals across multiple pathways. Because Isometric does not publish a static PDD but generates it dynamically from protocol-specific inputs, [this assessment focused on a single project type, biochar](#), and is based on the [Isometric Standard v2.1](#) and the [Biochar Production and Storage Protocol v1.2](#) as well as [Biomass Feedstock Accounting v1.2](#) as the core documents, together with a biochar Project Design Document (PDD) as the operational document. The PDD used is not a template, but the most recent filled PDD available in the Isometric

Registry (i.e. Satyapura project PDD, submitted on the 30th of January 2026), excluding the information entered by the project proponent and considering only the requirements and provisions.

It is important to note that Isometric published a new version of Biochar Production and Storage Protocol in May 2026, but since the analysis relied on a PDD matching the methodology to assess, the authors based their assessment on version 1.2 to ensure consistency between the methodology and the PDD under review. In addition, as per the Isometric changelog, there have not been any safeguard updates in the Protocol v1.3 compared to the v1.2.

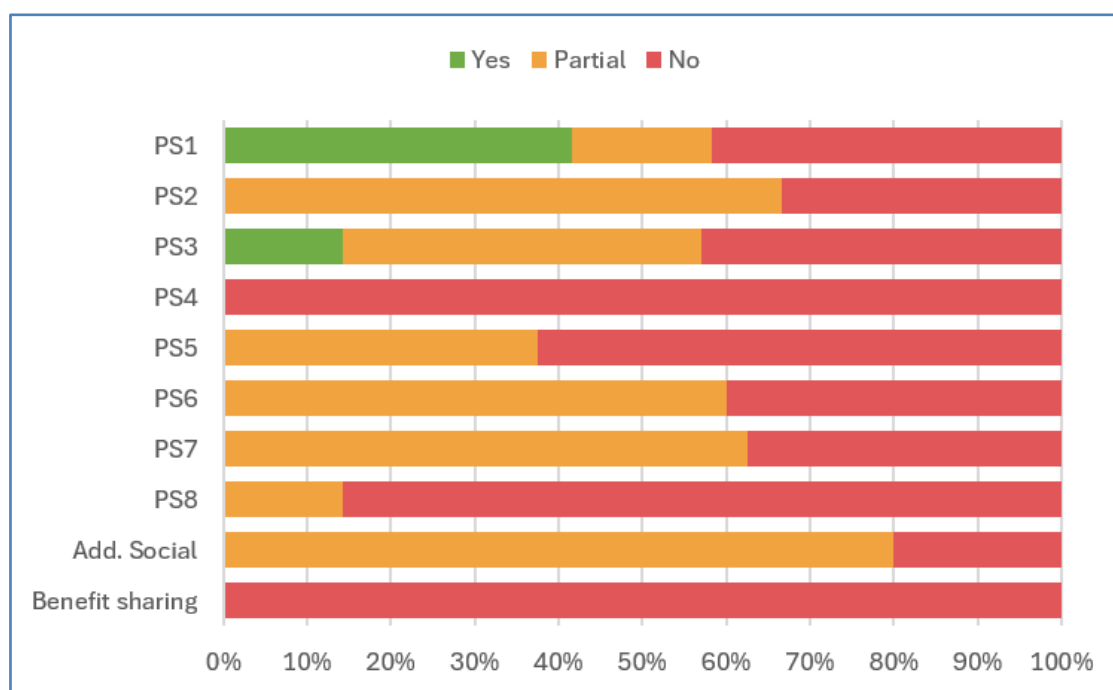


Figure 11: Overall conformity of Isometric

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

Isometric presents a safeguard picture defined less by absent requirements than by weak operationalisation. It is important to note that this

is partially due to the focus on biochar as project type and its reduced relevance regarding certain safeguard categories such as resettlement, IPs & LCs and cultural heritage.

Of 80 criteria assessed, 6 received a “Yes” rating, 33 a “Partial”, and 41 a “No”. No category reaches “High”. Risk management and stakeholder engagement (PS 1), labour rights (PS 2), biodiversity (PS 6), Indigenous Peoples and Local Communities (PS 7), and the additional human rights and gender criteria are each rated Partial, while community health, safety and security (PS 4), land acquisition and resettlement (PS 5), cultural heritage (PS 8), and benefit-sharing are rated “Low”. The PS 3 rating rests on a narrow margin, with one “Yes”, three “Partial” and three “No”, defaulting to Partial under the majority-vote rule. Two criteria are not applicable to our assessment of Isometric due to our focus on their biochar methodology, namely sustainable fisheries and animal welfare.

The unusually high number of Partial ratings is the defining feature of the assessment. It reflects a consistent structural pattern: A large share of the safeguard obligations is listed in the Standard's v2.1 but not operationalised as discrete fields in the biochar PDD. This is likely by design: since the PDD is meant to build on the Isometric Standard and Biochar Protocol, the programme may assume that requirements already set out in those documents do not need to be restated in the operational template. The few “Yes” ratings highlight this, since they arise only where the PDD asks for biochar-specific information (e.g. PS 3), going beyond the requirements common to all project types.

Isometric relies overwhelmingly on unconditional requirements (28 unconditional against 5 hybrid and 5 risk-triggered across the criteria classified), with risk-triggered obligations largely confined to resettlement, economic displacement and a small number of context-specific environmental impacts.

Environmental requirements

Environmental coverage is mixed. Resource efficiency and pollution prevention (PS 3) contains the standard's single clearest strength (likely due to its relevance for biochar projects). With one “Yes”, three “Partial” and three “No”, the category narrowly qualifies for a “Partial” rating. The release of pollutants to air, water and land is fully operationalised through a dedicated PDD

pollution-prevention field (s. C.9) requiring evidence for the assessment and mitigation of polycyclic aromatic hydrocarbons, heavy metals and other pollutants, reinforced by the Biochar Protocol's mandatory pollutant thresholds. Water efficiency, noise and vibration, and hazardous and non-hazardous waste management are addressed in the Standard but only partially, while energy efficiency and raw-material efficiency are absent. Biodiversity (PS 6: Partial) shows genuine core protections, including a no-conversion standard for natural forests and high-conservation-value habitats, protection of habitats of rare and threatened species, habitat connectivity, and soil degradation, all framed as unconditional, but none carried into the PDD as discrete requirements. Six of the PS 6 criteria are absent, including for example impacts in legally protected areas, native-species plantation rules, GMOs and LMOs, and food security.

Social requirements

Risk management (PS 1: Partial) is the most developed social category, with unconditional risk identification and assessment, monitoring under mandatory third-party verification, a project-level grievance mechanism with defined timelines, a mandatory Stakeholder Input Process, and an emergency preparedness and response provision operationalised in PDD field C.8, all met. The gaps are the absence of safeguard indicators, institutional and financial-resourcing requirements, a government-collaboration mechanism, and any anti-corruption or financial-sustainability provision. Labour rights (PS 2: Partial) illustrate the operationalisation gap most sharply: safe working conditions, non-discrimination and equal pay, the prohibition of forced and child labour, OHS, and third-party worker protections are all stated unconditionally in Standard s. 3.10.2 but none is explicit in the PDD, so each scores Partial, while freedom of association and collective bargaining, safe worker accommodation, and training provisions are absent from the core and operational documents. Community health, safety and security (PS 4) is a complete gap, with none of the six criteria addressed in either the core documents or the PDD. Land acquisition and resettlement (PS 5: Low) requires the avoidance of physical and economic displacement and

conditions any displacement of IPs & LCs on FPIC, but provides no Resettlement or Livelihood Restoration Plan, no compensation requirement, and no government-collaboration provision. Indigenous Peoples and Local Communities (PS 7: Partial) is comparatively strong in the Standard, recognising IP & LCs rights consistent with UNDRIP and ILO Convention 169, requiring culturally appropriate engagement, assessing customary rights, prohibiting forced eviction without FPIC, and protecting cultural and spiritual property, though all are partial for lack of PDD operationalisation. Dedicated Indigenous Peoples Plans, provisions for peoples in voluntary isolation, and government collaboration are absent. Cultural heritage (PS 8: Low) secures a general commitment to UNESCO-aligned protection but lacks chance-find procedures, continued community access, and provisions on the removal or commercial use of cultural property. The additional social criteria (Partial) address human rights, human rights due diligence, gender equality and gender-based violence, each unconditionally but again only in the Standard, while alignment with a national gender policy framework is absent. Benefit-sharing (Low) is a substantive gap: farmers, landowners and communities that contribute to biochar projects

are subject to no requirement to document, communicate or publicly disclose benefit-sharing arrangements.

Main recommendations

To align with IFC PS benchmarks, Isometric should above all carry its existing Standard-level obligations into the biochar PDD template to increase transparency regarding actual implementation of the requirements listed in their core documents. Beyond operationalisation, Isometric should introduce dedicated PS 4 community health, safety and security provisions; strengthen PS 5 with Resettlement Action Plan, Livelihood Restoration Plan and compensation requirements; add standalone cultural heritage provisions, including a chance-find procedure; broaden PS 6 biodiversity coverage, in particular provisions on legally protected areas, the accidental or unintended introduction of alien species, sustainable management, native species and GMOs/LMOs; introduce safeguard-indicator, anti-corruption and financial-sustainability requirements under PS 1; and establish mandatory benefit-sharing documentation, communication and public-disclosure obligations.

4.11 Paris Agreement Crediting Mechanism (PACM): Article 6.4 SD Tool

Overview of the standard and documents assessed

The Article 6.4 Sustainable Development Tool was developed under the Paris Agreement Crediting Mechanism (PACM) administered by the UNFCCC Supervisory Body. The assessment focused on the [SD Tool's](#) safeguard component, evaluating the extent to which both the core text (binding requirements for activity developers) and the

[FORM-AC-015](#) assessment form adequately address E&S criteria. The form operates in two tiers: Element Level Questions (ELQs) are the primary gateway and act as entry questions. If a developer answers “No” to one of these questions, the entire element is closed with no further obligations. Additional Guiding Questions (AGQs) are sub-questions that open only if the ELQ is answered “Yes” or “Potentially”.

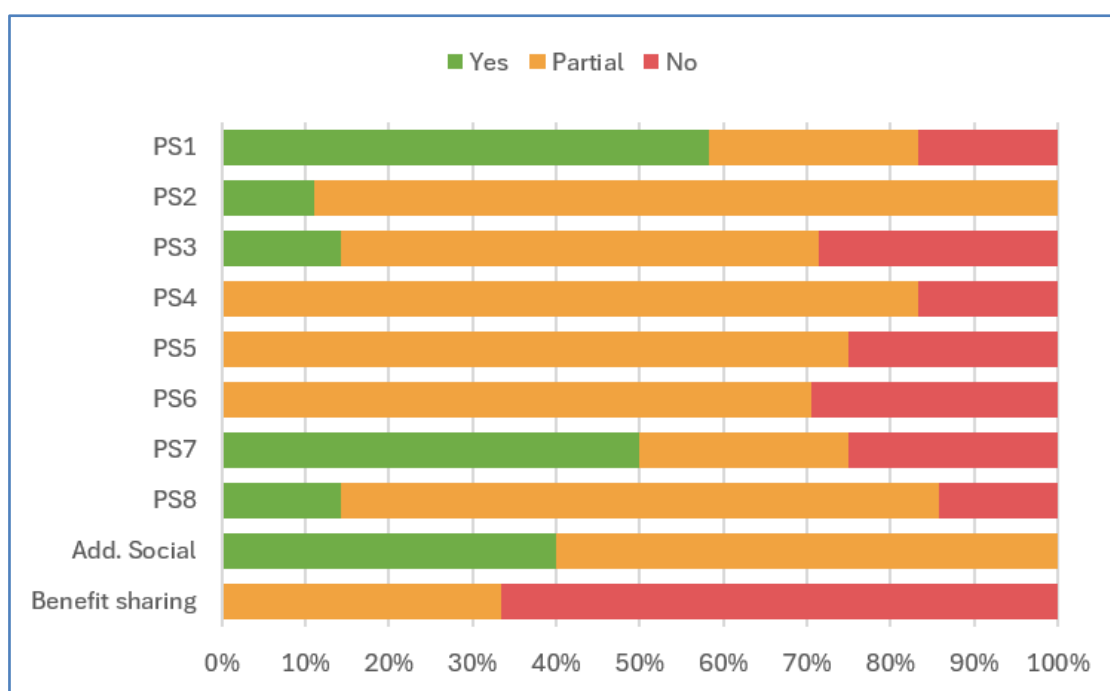


Figure 12: Overall conformity of PACM

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

The Article 6.4 SD Tool demonstrates partial conformity with IFC PS benchmarks. Of 82 criteria assessed, 16 scored “Yes”, 49 “Partial”, and 17 “No”. The central structural weakness is the ELQ and AGQ architecture: approximately 60% of criteria score “Partial” because they appear only at AGQ level, making them conditional on the developer first identifying a relevant risk at the gateway question stage. A developer who answers “No” to any ELQ faces no obligation to engage with the associated substantive criteria, including requirements as fundamental as child labour prevention, non-discrimination, invasive species prevention, and biodiversity protection. Only PS 1 (Assessment and Management of E&S Risks and Impacts) and PS 7 (IP LCs) score “High”, benefit-sharing is the only category that scores “Low”, and all other categories score “Partial”. It should be noted that the PACM SD tool does not currently extend to LULUCF activities, but future iterations

of the standard are expected to expand into those activity-types and may score better as a result.

Environmental requirements

The environmental provisions face the same structural problem as the social ones. The core standard articulates substantive obligations, but FORM-AC-015 treats them almost exclusively as risk-identification exercises at AGQ level rather than as standing requirements. Only pollutant avoidance and soil protection rise to ELQ-level treatment. Most other environmental criteria, including biodiversity, critical habitats, invasive species, and water management, are operationalised only at AGQ level.

Biodiversity provisions in the core standard are strong: the standard prohibits activities negatively impacting endangered species, requires habitat management, and mandates a precautionary approach to natural resource conservation.

However, all of these appear only as AGQs, triggered only if the ELQ identifies a biodiversity risk. A developer concluding that no biodiversity risk is present need not engage with any of these protections. Soil protection is a positive exception: the core standard explicitly requires measures to be in place “prior to commencement”, and operationalises this at ELQ level. This is the model that other categories should follow.

Social requirements

Social provisions exhibit wide variation. PS 1 performs better than most categories. The anti-corruption declaration is a particular positive example: the ELQ directly requires a formal declaration that the activity will not involve illegal activities including bribery, fraud, and money laundering. This unconditional, declaration-based approach does not depend on risk identification and should be applied to other fundamental protections.

Labour rights (PS 2) present a significant enforcement gap: all relevant labour measures are present in the core text (Elements E5.1 to E5.7), but only freedom of association scores Yes at the ELQ level. Non-discrimination, OHS, forced labour prohibition, child labour, and third-party workers all appear exclusively as AGQs. For activities where developers answer “No” to this element’s ELQ, no labour obligation is activated at all. External communication procedures are entirely absent from the operational forms, even though the core standard requires a continuous engagement mechanism.

4.12 Plan Vivo (PV)

Overview of the standard and documents assessed

Plan Vivo is one of the longest-standing certification frameworks, operating since 1997, focused on smallholder, community-based and

Cultural heritage and IP provisions perform relatively better: several PS 7 protections, including the prohibition on forced eviction, customary land rights assessment, and cultural and spiritual property, are captured at ELQ level. For PS 8, however, cultural heritage criteria are predominantly covered at AGQ level, meaning developers who answer “No” to that element’s ELQ face no heritage protection obligation.

Main recommendations

To align with IFC PS benchmarks, the Article 6.4 SD Tool should, inter alia, elevate substantive Additional Guiding Questions to Element Level Question status, making them mandatory rather than conditional, especially for critical social protections such as the prohibition of child labour and forced labour, non-discrimination, freedom of association, human rights due diligence, protection against gender-based violence, and benefit-sharing with Indigenous peoples. The same applies to invasive species prevention and biodiversity protection, which are fundamental enough to apply to all activities. The Guiding Questions should also be reframed to move away from risk identification and towards requiring evidence that measures are already in place, following the model set by the anti-corruption declaration and the soil protection requirement. It should also address the 17 criteria currently absent from both the standard and the forms altogether, including external communication procedures, government collaboration on resettlement and Indigenous peoples issues, pesticide management, GMO regulation, financial sustainability, and public availability of benefit-sharing outcomes.

land-use carbon projects. The assessment is based on the [Plan Vivo Climate Project Requirements v.5.7](#) and the dedicated [Environmental and Social Risk Management document v1.0](#) as the core standard documents, together with the operational [PDD template v5.7](#).

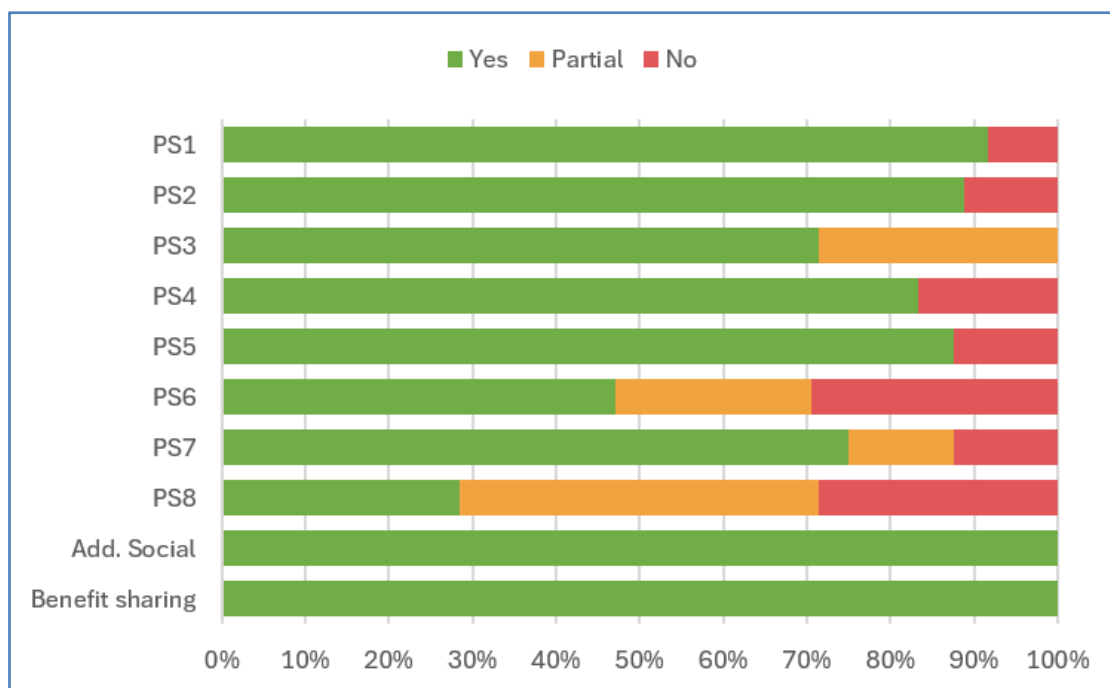


Figure 13: Overall conformity of Plan Vivo

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

Together with SOCIALCARBON and GS4GG, Plan Vivo is among the standards with the highest safeguard conformity in this analysis. Of 82 criteria assessed, 60 received a “Yes” rating, 10 a “Partial”, and 12 a “No”. Conformity is “High” across almost every category: risk management and stakeholder engagement (PS 1: High), labour (PS 2: High), resource efficiency and pollution prevention (PS 3: High), community health, safety and security (PS 4: High), land acquisition and resettlement (PS 5: High), biodiversity (PS 6: High), Indigenous Peoples and Local Communities (PS 7: High), and both additional thematic areas of human rights and gender and benefit-sharing (High). Only cultural heritage (PS 8: Partial) falls short of a “High” rating, but is a close call. Its “High” ratings on PS 4 and, in particular, its best-practice benefit-sharing are notable, as both are consistently weak categories across the wider series. The result shows a significant improvement over the previous gap

analysis, which was based on an earlier version of the standard and only rated PS 3 and 4 as “High”, with PS 5 even as “Low”.

The defining structural feature of the assessment is Plan Vivo's reliance on unconditional and hybrid requirements rather than risk-triggered ones. The Exclusion List (Annex of PDD) functions as the backbone of the framework, converting a number of fundamental protections into outright prohibitions, and the E&S Assessment is itself mandatory for all projects irrespective of the risk level identified. Risk-triggered obligations are largely confined to context-specific impacts (e.g. Indigenous Peoples Plans).

Environmental requirements

Plan Vivo is one of the few standards in the series with robust resource efficiency and pollution prevention coverage (PS 3: High). The sustainable use of energy, raw-material efficiency and water efficiency are all captured as environmental risk

factors that must be screened and, where a risk is identified, mitigated through the ESMP, while the safe management of hazardous and non-hazardous waste and chemicals and the management of pesticides are explicitly named in both the screening and the Exclusion List. The release of pollutants to air, water and land and noise and vibration are addressed in the core risk factors but score “Partial”, as they are not named explicitly in the operational screening. Biodiversity (PS 6: High) is met on 9 of 17 criteria and is anchored by strong unconditional core protections: an Exclusion List prohibition on the destruction of critical habitat (whose definition captures high conservation value and legally protected areas and the habitats of threatened species), a no-conversion rule for Natural Ecosystems, a default native-species requirement with justification for any non-native species, sustainable management of forests, fisheries (with destructive and drift-net fishing excluded and CITES compliance mandatory) and agricultural resources through Land Management Plans, and a food-security safeguard. The precautionary approach, habitat connectivity, the accidental or unintended introduction of alien species, and soil degradation are addressed only partially, mostly because they are only explicit in the core and not the operational documents. Sourcing commodities from areas at risk of habitat conversion, animal welfare, GMO/LMO regulation, and a minimum biodiversity set-aside threshold are the absent criteria.

Social requirements

Risk management (PS 1: High) is comprehensive, requiring a mandatory E&S screening and assessment for every project, an ESMP that follows the avoid-minimise-mitigate hierarchy, defined livelihood and ecosystem safeguard indicators integrated into the monitoring plan, annual monitoring and reporting under third-party validation and verification, organisational-capacity and inter-disciplinary expertise requirements, stakeholder consultation with attention to women and marginalised groups, an accessible grievance

mechanism with an independent arbitrator, and standalone anti-corruption (independent annual audit, transparent financial procedures, elite-capture controls) and financial-sustainability provisions. An emergency preparedness and response system is the only gap. Labour rights (PS 2: High) cover employment and non-discrimination policies with equal pay, freedom of association and collective bargaining through alignment with the ILO Declaration, an explicit minimum age and forced-labour and trafficking prohibitions embedded in the Exclusion List, training, OHS, and third-party and supply-chain workers, with safe worker accommodation the sole gap. Community health, safety and security (PS 4: High) is comparatively well developed, covering community exposure to hazardous materials, ecosystem-service impacts, disease transmission, security arrangements (a mandatory Memorandum of Understanding with law-enforcement agencies where monitoring and patrolling is government-supported, plus an Exclusion List bar on firearms procurement and on financing military institutions involved in conservation or security), and local-economy impacts; only structural safety is absent. Land and resettlement (PS 5: High) is anchored by an unconditional Exclusion List prohibition on involuntary physical displacement, forced eviction and economic displacement, with FPIC required for any voluntary land-use change and Livelihood Restoration. Collaboration on government-managed resettlement is the only gap. Indigenous Peoples and Local Communities (PS 7: High) recognise IP and LC rights under UNDRIP and ILO Convention 169, require FPIC and culturally appropriate engagement, assess customary lands and tenure, prohibit forced eviction and encroachment on IP lands without documented consent, and protect cultural and spiritual property, with a dedicated Indigenous Peoples Plan required where relevant; provisions for peoples in voluntary isolation are absent and government collaboration on IP matters is only “Partial” (only a mandatory Memorandum of Understanding with law-enforcement agencies where monitoring and patrolling is government-

supported). Cultural heritage (PS 8: Partial) is the sole category below “High”: it secures protection of cultural heritage in line with international standards through the Exclusion List and covers intangible heritage, but it lacks a chance-find procedure and provisions on the removal of replicable and non-replicable heritage, and treats continued community access, legally protected heritage areas and commercial use only partially. The additional social criteria (High) cover respect for human rights and human rights due diligence, gender non-discrimination and equal pay, and a response to gender-based violence and SEAH, with alignment to a national gender strategy addressed only through general legal-compliance provisions. Benefit-sharing (High) is best practice alongside SOCIALCARBON, requiring a Benefit Sharing Mechanism that allocates a minimum of 60% of revenues to participants, documentation in the validated PDD, sharing of the draft and final arrangements with participants in an understandable form, and public availability subject to applicable legal restrictions.

4.13 Puro.earth

Overview of the standard and documents assessed

Puro.earth is an ICVCM approved crediting programme dedicated to engineered and durable carbon removal. It covers methodologies such as biochar, enhanced rock weathering, carbonated materials, geologically stored carbon, biomass burial and direct air capture and ocean storage. The assessment is based on the [General Rules v4.4](#) and the accompanying [Environmental and Social Safeguards Questionnaire v2.2](#), together with the

Main recommendations

Plan Vivo already aligns very closely with IFC PS benchmarks. To close the remaining gaps, Plan Vivo should: strengthen cultural heritage (PS 8) as a priority, introducing a standalone chance-find procedure, explicit provisions on the removal of replicable and non-replicable heritage, and clearer continued-community-access and commercial-use requirements. Further, the standard should add an emergency preparedness and response system under PS 1; introduce a standalone safe worker-accommodation requirement under PS 2; add explicit structural-safety provisions under PS 4; broaden PS 6 to address the accidental or unintended introduction of alien species, animal welfare, commodity sourcing from areas at risk of habitat conversion, and GMO/LMO regulation. In addition, the precautionary approach, habitat connectivity and soil provisions should be explicitly required in the operational documents; as well as government-collaboration mechanisms for government-managed resettlement (PS 5) and IP-related matters, together with specific provisions for Indigenous peoples in voluntary isolation (PS 7).

[Stakeholder Engagement Requirements Standard v1.1](#) and the [Stakeholder Engagement Report v2.1](#) template. The E&S Questionnaire is the primary operational document for safeguard assessment at project level, requiring project developers to declare their compliance with each E&S requirement, identify and assess the associated impacts, and describe the mitigation measures put in place.

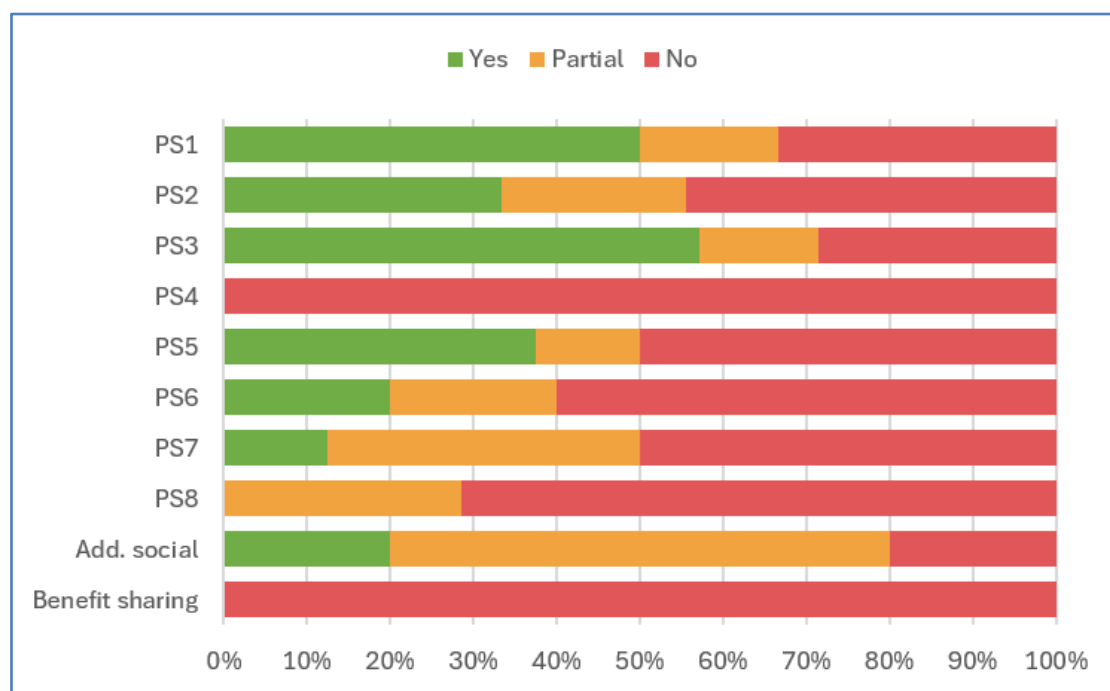


Figure 14: Overall conformity of Puro.earth

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

Puro.earth presents a predominantly weak safeguard picture. Of the 80 criteria assessed, 21 received a “Yes” rating, 17 a “Partial”, and 42 a “No”. Conformity is highest on risk management and stakeholder engagement (PS1) and resource efficiency and pollution prevention (PS3). Every other IFC PS category scores “Low”, including labour (PS2), community health and safety (PS4), land and resettlement (PS5), biodiversity (PS6), Indigenous Peoples and Local Communities (PS7), cultural heritage (PS8), and benefit sharing. The additional social indicators score “Partial”. Two criteria are not applicable to the standard since it does not include livestock- or fisheries-relevant activities, namely sustainable fisheries and animal welfare.

Puro.earth's General Rules name most of the relevant risk categories, but the obligations attached to them are often too generic to apply consistently (some requirements ask for a simple

compliance declaration, others ask for the impact, its extent, and mitigation measures). Requirements such as protecting community health or conserving biodiversity work more like topic headings than defined obligations. The E&S Questionnaire gives project developers space to respond, but without any guidance on what constitutes an adequate response. This pattern is clearest in PS4, where Section 4A of the Questionnaire treats community health as a single, undifferentiated category. As a result, all six PS4 sub criteria (structural safety, hazardous material exposure, ecosystem service risks, disease pathways, security arrangements, and economic impact) score “No”, since there is no mechanism to check whether the specific sub risks were actually considered by the project developer.

Benefit sharing is absent from every document reviewed, and the mitigation hierarchy is not named or sequenced, so avoidance is not required to be demonstrated before mitigation is pursued. This is a meaningful gap given the land, water, and

community impacts that Puro.earth certified activities can carry.

Environmental requirements

Puro.earth performs well on PS3, resource efficiency and pollution prevention. The E&S Questionnaire's structured sub items, covering noise, vibration, water, air, water and soil pollutants, waste, hazardous materials, and pesticides, require project developers to engage individually with each impact type and describe mitigation measures, though no minimum standards or thresholds define what adequate mitigation looks like.

PS6, biodiversity, is among the weaker categories in the assessment, with 9 of 15 criteria scoring "No". On the positive side, the prohibition on converting high conservation value or critical habitats, and the requirement to minimise soil degradation, both have dedicated sections in the E&S Questionnaire. For the remaining PS6 criteria, however, there is a gap between the General Rules and the Questionnaire. The General Rules require protection of rare and threatened species habitats and maintenance of habitat connectivity, but neither appears as its own category in the E&S Questionnaire, so these issues may go unaddressed unless a project developer raises them voluntarily in the general biodiversity section. Sustainable management of forests, native species requirements, and regulation of genetically modified organisms are also absent.

Social requirements

PS1, risk management and stakeholder engagement, is Puro.earth's strongest category. A minimum 14-day consultation period, a documented Stakeholder Engagement Report, an ongoing feedback mechanism through the crediting period, and a project level grievance mechanism together create a strong accountability structure. ESMS organisational capacity, emergency preparedness, and government collaboration remain unaddressed.

Puro.earth performs poorly on PS2 (labour), PS4 (community health and safety), PS5 (land and resettlement), PS7 (Indigenous Peoples and Local Communities), PS8 (cultural heritage), and benefit sharing. On PS2, forced labour is prohibited and OHS is covered, but freedom of association, collective bargaining, HR policies, and skills training are absent. PS4 scores "Low" across the board, since the Questionnaire does not break community health down into specific risk categories, hence the risk of sub criteria remaining unaddressed by project developers is high. PS5 is comparatively well developed in substance, with a sequential avoidance then minimisation obligation for forced displacement and named economic displacement provisions, but how the compensation is managed is unclear, and voluntary resettlement is not addressed at all. On PS7, no Indigenous Peoples Plan is required and there is poor coverage of requirements on engaging with Indigenous peoples. On PS8, only the preservation of cultural and religious sites is addressed, with chance find procedures and continued community access to cultural sites absent. On benefit sharing, no mechanism exists to document, disclose, or make any arrangement public.

Puro.earth has a "Partial" rating on the additional social indicators. Human rights compliance and gender equality are operationalised in the Questionnaire, but human rights due diligence and reference to the host country's national gender strategy are not explicitly required. Anti-corruption policies exist but govern Puro.earth's relationship with its suppliers rather than functioning as a project level obligation.

Main recommendations

To align with IFC PS benchmarks, Puro.earth should make several changes. It should disaggregate community health, safety and security into distinct sub-categories in the E&S Questionnaire, so that each risk area can be assessed on its own terms. It should introduce a mandatory benefit sharing requirement covering documentation, disclosure to affected

communities, and public availability. The mitigation hierarchy should be named and sequenced so that avoidance is demonstrated before mitigation is pursued. Puro.earth should also close the gap between the General Rules and the E&S Questionnaire on biodiversity-related

criteria, so these requirements are also reflected in the operational document. Finally, Puro.earth needs to strengthen its provisions on voluntary and involuntary resettlement, and on engagement with IPs & LCs.

4.14 SOCIALCARBON (SC)

Overview of the standard and documents assessed

SOCIALCARBON is a standard originally developed to certify the socio-environmental performance of carbon projects and has since evolved into a full crediting programme with a consolidated safeguard framework. The

assessment is based on the [SOCIALCARBON Standard Version 7.0](#) (2025), together with the operational document: the [Project Description Template 2.0](#) (including multiple dedicated Appendices: Safeguard Assessment, Stakeholder Engagement Plan and Environmental and Social Management Plan).

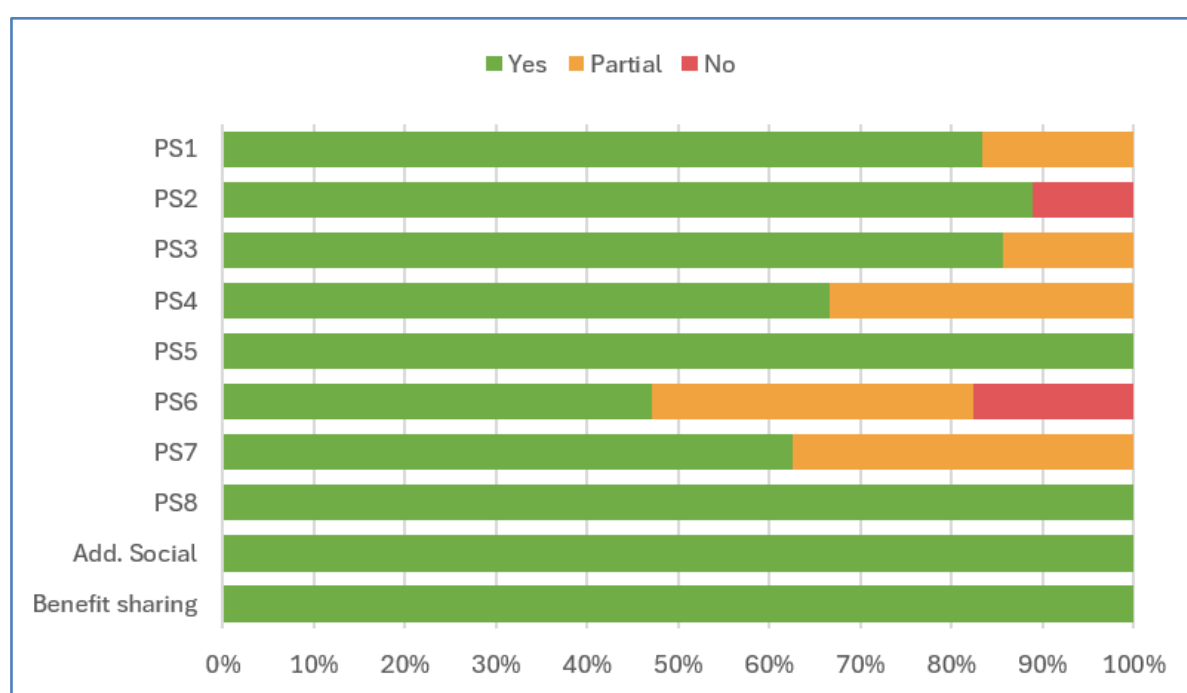


Figure 15: Overall conformity of SOCIALCARBON

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social - Additional social criteria (human rights due diligence, gender equality)

Overall assessment

SOCIALCARBON shows the **highest overall conformity of all standards assessed**. Of 82 criteria assessed, 64 received a “Yes” rating, 14 a “Partial”,

and only 4 a “No”. Every IFC PS category, together with both additional thematic areas, is rated “High”. This assessment reflects a significant improvement over the previous gap analysis, which was based on an earlier version of the standard and

only rated one PS, namely PS 6, as “High”. Its “High” ratings on PS 4 and PS 8 are particularly notable, as both are consistently weak categories across most programmes assessed in this analysis, and SOCIALCARBON is the only standard assessed to require an ESMS and a mandatory chance-find procedure.

The defining structural feature of the assessment is the depth of operationalisation. Safeguard requirements are not only consolidated in a dedicated section of the core standard but are also carried through into the PDD template.

On the requirement architecture, SOCIALCARBON is predominantly unconditional. Risk-triggered obligations are largely confined to land acquisition and resettlement, which activate only where displacement occurs. Hybrid and risk-triggered provisions are also applied for some activity-specific environmental provisions such as setting aside a minimum of 10% of the project area for biodiversity, which is triggered only when the project is located in HCV/critical habitats.

Environmental requirements

SOCIALCARBON is one of the few standards in the series with robust resource efficiency and pollution prevention coverage (PS 3: High). The standard addresses the sustainable use of energy, water efficiency and impacts on water resources including basin stress and environmental flows, the release of pollutants to air, water and land with a footnote extending “pollution” to noise, vibration, odour and radiation, the safe management of hazardous and non-hazardous waste, chemicals and hazardous materials including a prohibition on internationally banned chemicals, and pesticide management through IPM and IVM approaches with defined selection criteria. Raw-material efficiency is the only clear gap, addressed partially by only making reference to IFC PS 3, instead of including an explicit provision.

Biodiversity (PS 6: High) is met on 8 of 17 criteria (borderline) and is anchored by strong core protections: a prohibition on projects negatively

impacting High Conservation Value areas and critical habitats, coverage of legally protected areas, a prohibition on any reduction or negative impact on Endangered, Vulnerable or Critically Endangered species, a minimum 10% of the project area to be set aside for biodiversity protection in HCV and critical-habitat projects, sustainable management of forests, a native-species requirement for restoration and plantations, soil protection measures required prior to commencement, and an unconditional prohibition on negative impacts on food access and availability. The precautionary approach, habitat connectivity, the accidental or unintended introduction of alien species, sustainable management of fisheries and agriculture, and animal welfare are addressed only partially. For example, the precautionary principle is applied to critical habitats and HCV areas rather than as a general requirement, while the invasive-species prohibition covers the deliberate introduction of invasive alien species but not accidental or unintended introductions. Further, sustainable fisheries, agriculture and animal husbandry are subsumed under a general provision requiring sustainable, culturally sensitive management of living natural resources by small-scale landholders and local communities, without being explicitly stipulated. Sustainable commodity sourcing from areas at risk of habitat conversion and GMO/LMO regulation are the two absent criteria.

Social requirements

Risk management (PS 1: High) requires an upfront Safeguarding Assessment, ESMS, an Environmental and Social Management Plan (ESMP) following a mitigation hierarchy, monitoring under third-party verification, organisational-capacity and emergency-preparedness provisions, a project-level grievance mechanism, and standalone anti-corruption and financial-sustainability requirements. Only a formal requirement of E&S safeguard indicators (whether developed by project proponents or stipulated by the standard itself) and a government-collaboration mechanism are missing.

Labour rights (PS 2: High) are comprehensive, covering working conditions, freedom of association and collective bargaining, non-discrimination and equal pay, minimum age and child labour, forced labour, training, OHS, and third-party and supply-chain workers, with safe worker accommodation the sole gap. Community health, safety and security (PS 4: High) is comparatively well developed, a notable outcome given the near-universal weakness of this category across the standards assessed. Community exposure to hazardous materials, impacts on ecosystem services that increase community vulnerability, security arrangements assessed against the Universal Declaration of Human Rights and applicable frameworks, and negative impacts on the local economy are all met. Structural safety is only “Partial”, as there is no explicit requirement to follow international best practice for the design, construction, operation and decommissioning of structural elements, and community disease exposure is only partially addressed, as increased health risks are mentioned in general terms without specific reference to diseases.

Land and resettlement (PS 5: High) prohibits involuntary resettlement outright and requires consent for any displacement, backed by RAP/LRP, compensation and economic-displacement provisions. Indigenous Peoples and Local Communities (PS 7: High) recognise IP and LC rights under UNDRIP and ILO 169, require culturally appropriate engagement, respect customary land use, prohibit forced eviction, and protect cultural and spiritual property under FPIC, with a dedicated Indigenous Peoples Plan, provisions for peoples in voluntary isolation, and government collaboration only “Partial”. Cultural heritage (PS 8: High) is the standout, being the only standard in the series to mandate a chance-find procedure for all projects, alongside continued community access, intangible heritage, protection against removal, legally protected heritage areas, and regulation of commercial use.

The additional social criteria (High) are all met, covering respect for internationally proclaimed human rights, human rights due diligence with particular attention to security personnel, gender non-discrimination and equal pay, a mandatory gender-based violence risk assessment and Gender-Based Violence (GBV) Action Plan with survivor-centred protocols, and mandatory alignment with the host country's national gender policy framework. Benefit-sharing (High) is best practice alongside Plan Vivo, requiring a formal Benefit Sharing Agreement, documentation in the validated PDD, sharing with affected IPs & LCs in a culturally appropriate form and language, and public availability subject to legal restrictions.

Main recommendations

SOCIALCARBON already aligns very closely with IFC PS benchmarks. The recommendations are therefore refinements rather than structural corrections. To close the remaining gaps, SOCIALCARBON should: introduce a requirement for dedicated E&S safeguard indicators under PS 1; add a government-collaboration mechanism for government-led stakeholder engagement and for IP-related matters; introduce a standalone safe worker-accommodation requirement under PS 2; broaden PS 6 to address explicitly the accidental or unintended introduction of alien species, the sustainable management of fisheries and agriculture, animal welfare, commodity sourcing from areas at risk of habitat conversion, and GMO/LMO regulation; strengthen PS 4 with explicit structural-safety provisions covering design, construction, operation and decommissioning, and specific community disease-exposure requirements. Further, the standard should add specific protocols for Indigenous peoples in voluntary isolation and a dedicated Indigenous Peoples Plan under PS 7 as well as reference the UNESCO cultural heritage conventions explicitly under PS 8.

4.15 ART TREES

Overview of the standard and documents assessed

The REDD+ Environmental Excellence Standard (TREES) is a jurisdictional REDD+ crediting standard developed and administered by the Architecture for REDD+ Transactions (ART), a programme of Winrock International. It is designed to credit national or subnational government Participants for verified reductions in emissions from deforestation and forest degradation and for enhancements of forest carbon removals, at the jurisdictional scale rather than the individual project scale. The assessment is based on the core document, namely the [REDD+ Environmental Excellence Standard \(TREES\), Version 3.0](#) (June 2026), whose safeguard requirements are structured around the seven Cancún Safeguards (A–G) established under UNFCCC decision 1/CP.16. The assessment further draws on the operational document, i.e. the [TREES Registration Document \(TRD\) Template](#) (August 2026).

An important scope caveat applies: IFC PS is a private-sector benchmark whereas TREES

operates at the level of national or subnational governments. Hence, a number of IFC PS provisions (labour conditions, project-level ESMS, resettlement action plans, worker accommodation, plantation species selection, and so on) are governed by the respective country's own regulatory framework in addition to the requirements set by the TREES standard. This approach is criticised by Indigenous peoples' organisations and rights-based NGOs (including CIFOR-ICRAF (2023); Forest Peoples Programme, Rainforest Foundation US (2025); and Carbon Market Watch (2024)), who argue that reliance on national law is insufficient where domestic frameworks are weak or unevenly enforced, as illustrated by the Amerindian Peoples Association's 2023 complaint against Guyana's TREES certification. Accordingly, these actors have called for TREES to introduce stronger requirements for Validation and Verification Bodies instead of relying on Participant self-reporting against national law.

Where such scope-driven absences are relevant, they are flagged in the narrative below.

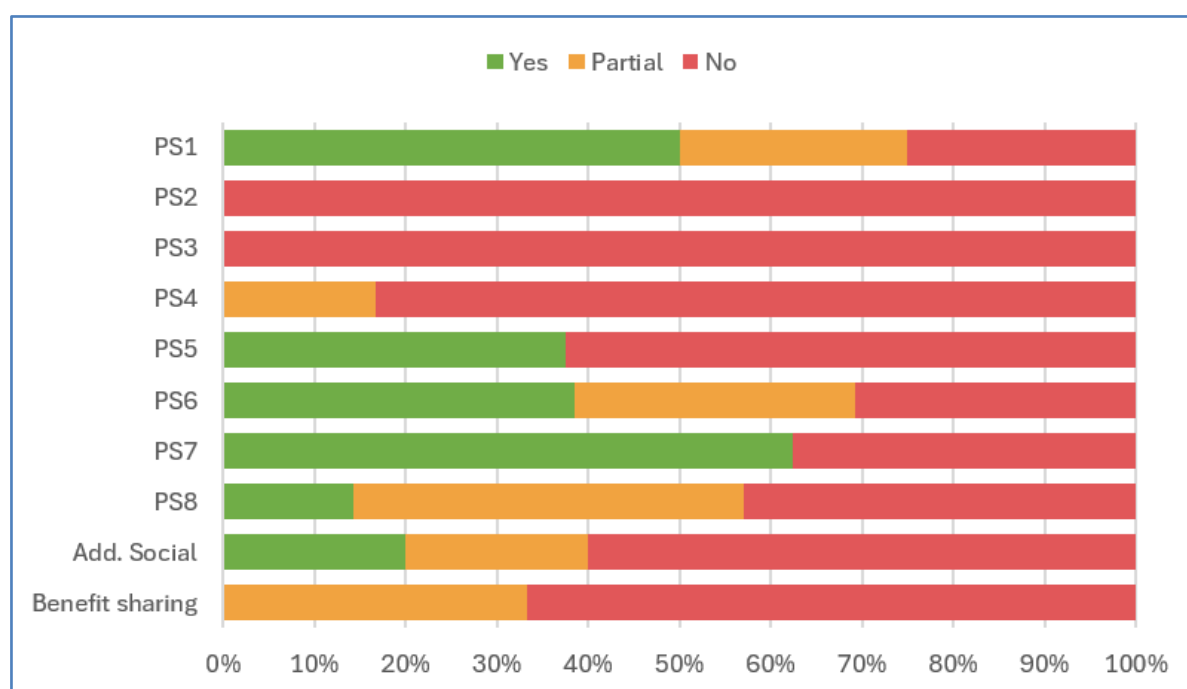


Figure 16: Overall conformity of ART TREES

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

TREES presents a mixed safeguard picture that is highly uneven across IFC PS categories. Of 78 criteria assessed, 21 received a “Yes” rating, 13 a “Partial”, and 44 a “No”. Conformity is “High” on E&S risk management (PS 1), biodiversity (PS 6) and Indigenous Peoples and Local Communities (PS 7). Cultural Heritage (PS 8) is scored “Partial”. All other IFC PS categories score “Low” under the majority rule: labour (PS 2), resource efficiency (PS 3), community health and safety (PS 4), Land Acquisition and Involuntary Resettlement (PS 5), the additional thematic areas on human rights and gender (Additional Social), and benefit-sharing. The “Low” ratings on PS 2, PS 3 and PS 4 largely reflect the difference in scope, as these topics are left to the national and subnational legal frameworks. Four criteria are not applicable to TREES due to its focus on REDD activities, namely: Sustainable management of fisheries and living natural resources in agriculture, as well as animal welfare and the purchase of natural resource commodities. Hence, the assessment only covers 78 criteria.

TREES's most substantive safeguards are unconditional, a smaller set is hybrid and there is only one risk-triggered obligation for the commercial use of traditional knowledge.

Environmental requirements

TREES's environmental conformity is mixed. Resource efficiency and pollution prevention (PS 3: Low) is entirely absent from the standard, reflecting the scope difference of a jurisdictional compared to a project-level standard. Biodiversity (PS 6: High) is met on 5 of 13 criteria (borderline). TREES addresses, inter alia, non-conversion of natural forests, sustainable management of forests and the use of native species. Further, TREES

requires the protection and avoidance of adverse impacts on natural forest, ecosystems and biodiversity. Likely because of this overarching requirement, the standard does not impose explicit provisions on the precautionary principle, soil degradation and HCV/critical habitats terminology. In addition, though TREES excludes invasive alien species and requires justification for the use of non-native species in natural forest restoration and no adverse impacts, it does not address alien species as a broad category and only prohibits invasive alien species.

Social requirements

PS 1 risk management is the strongest social category, with safeguard risk identification, a fixed set of structural, process and outcome indicators for each Cancún Safeguard theme, third-party validation and verification of safeguard conformance, stakeholder participation, right of access to information and jurisdictional dispute resolution, and an explicit anti-corruption requirement. Emergency preparedness at the project level is absent by scope, and a project-level ESMS is also not required, likely because Participants operate through their national institutional framework.

Similarly, Labour rights (PS 2: Low) are not covered: TREES does not regulate HR policies, freedom of association, collective bargaining, non-discrimination at work, worker accommodation, minimum age, forced labour, OHS, or supply-chain worker protections. Community health and safety (PS 4: Low) is likewise almost entirely absent. Only ecosystem-service impacts are partially captured. Land acquisition and resettlement (PS 5: Low) is met with 3 out of 8 criteria: avoidance of involuntary resettlement, voluntary resettlement, and government-led collaboration are all addressed via Safeguard B Theme 2.3 (which

conditions any relocation on FPIC of affected IPs & LCs) and the government-participant structure of the standard, but RAPs and LRPs are not prescribed at project level. Indigenous Peoples and Local Communities (PS 7: High) is a genuine strength: Safeguard C explicitly incorporates UNDRIP and requires respect, protection and fulfilment of IPs & LCs rights, protection of traditional knowledge and cultural expressions, culturally appropriate participation, land tenure recognition, and FPIC-conditioned relocation. Peoples in voluntary isolation, IP-specific plans, and IP-focused benefit-sharing plans are the main gaps. With one “Yes”, three “Partial” and three “No”, cultural heritage (PS 8) narrowly qualifies for a “Partial” rating. TREES protects intangible cultural heritage of IPs & LCs aligned with UNESCO's 2003 Convention on Intangible Cultural Heritage, but tangible/physical cultural heritage, chance-find procedures, protected heritage areas, and continued community access to cultural heritage are not explicitly addressed. Human rights (Additional Social: Low on the raw count but with PS-level and human rights protections anchored in Safeguards B and C) is substantively met on rights recognition but weak on gender-specific provisions, equal-opportunity, gender-based violence and alignment with a national gender strategy. Benefit-sharing (Low) is addressed but does not translate into a required, validated, publicly disclosed benefit-sharing plan.

4.16 Verified Carbon Standard (VCS)

Overview of the standard and documents assessed

The Verified Carbon Standard, operated by Verra, is the most widely used programme in the voluntary carbon market. The assessment is based on the core documents, namely the [VCS Standard v5.0](#), whose safeguard requirements are

Main recommendations

To align more closely with IFC PS benchmarks while respecting the jurisdictional design of the standard, TREES should, inter alia, introduce explicit tangible-cultural-heritage requirements, including a chance-find procedure and protection of legally designated heritage areas; introduce a dedicated gender lens, including equal-opportunity and gender-based-violence protections, aligned with a national gender strategy where one exists; require a formal, validated, publicly disclosed benefit-sharing plan (or country-level equivalent) shared with affected IPs & LCs in a culturally and linguistically appropriate form. In addition, Safeguard E should be broadened to cover alien species introduction, and specific provisions for peoples in voluntary isolation should be introduced under Safeguard C. TREES should also require Participants to publish an explicit statement on how the mitigation hierarchy has been applied in the REDD+ Implementation Plan.

It is important to note that requirements sitting outside TREES's current design scope (e.g. labour, project-level ESMS, RAPs, project-level EPRS, resource efficiency) are not addressed by the standard by design, relying on the respective national or subnational regulatory framework. Whether this deferral produces adequate protection in practice depends on the strength and enforcement of that framework in the specific jurisdiction.

consolidated in Section 3.17 (stakeholder engagement, FPIC and benefit-sharing) and Section 3.18 (environmental, social and governance safeguards), the Grievance Redress Policy V1.2, and the operational documents, i.e. [ESG Risk Assessment Template](#), the [Project Description Template](#) v5.0B and the [Stakeholder Engagement Plan Template](#).

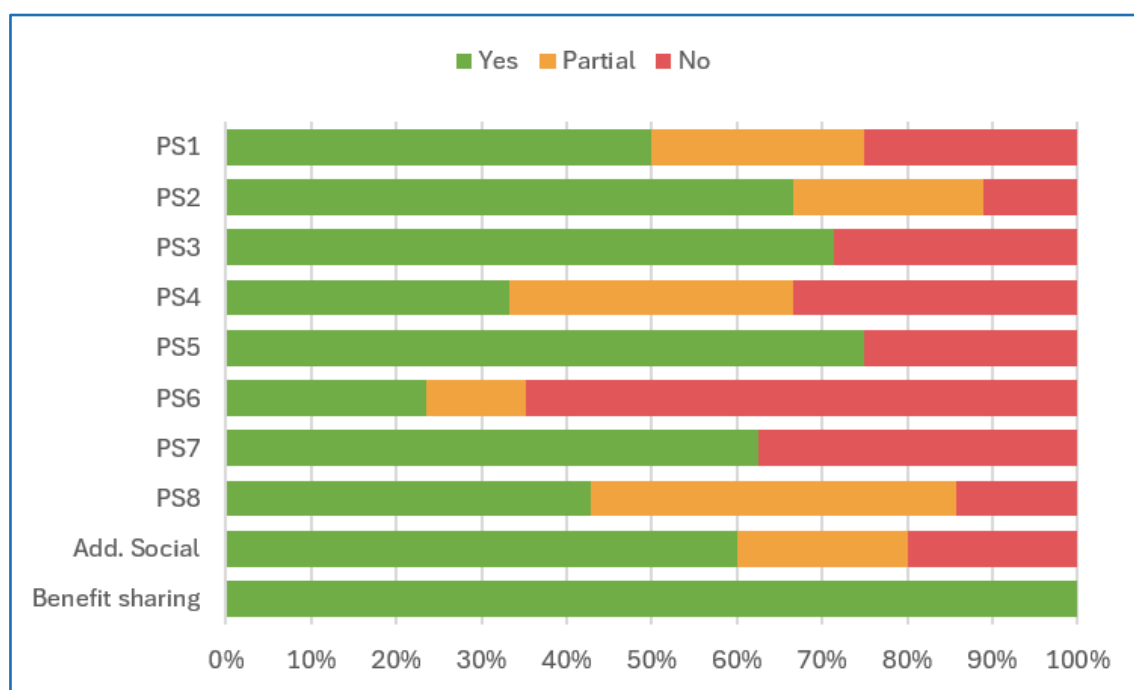


Figure 17: Overall conformity of VCS

Legend: PS1 – Assessment and Management of E&S Risks and Impacts; PS2 – Labour and Working Conditions; PS3 – Resource Efficiency and Pollution Prevention; PS4 – Community Health, Safety, and Security; PS5 – Land Acquisition and Involuntary Resettlement; PS6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources; PS7 – Indigenous Peoples and Local Communities; PS8 – Cultural Heritage; Add. Social – Additional social criteria (human rights due diligence, gender equality)

Overall assessment

VCS demonstrates medium to high overall alignment with IFC PS benchmarks. Of 82 criteria, 43 received a “Yes” score, 13 a “Partial”, and 26 a “No”. Conformity is “High” on risk management (PS 1), labour (PS 2), resource efficiency and pollution prevention (PS 3), land acquisition and resettlement (PS 5), Indigenous Peoples and Local Communities (PS 7), the additional social criteria (human rights and gender), and benefit-sharing. Community health and safety (PS 4) (borderline) and cultural heritage (PS 8) are “Partial”. Biodiversity (PS 6) is the only category rated “Low”.

The defining feature of VCS v5.0 is that its safeguards are heavily operationalised: nearly every core requirement is mirrored as a discrete risk row in the ESG Risk Assessment Template. Overall, the programme scores significantly higher compared to the prior gap analysis, showing improvement especially in PS 1, 3, 5 and 7.

The main structural caveat is that the template is a risk-screening instrument, so many provisions are risk-triggered rather than unconditional. The notable exceptions are the outright exclusions on forced eviction and physical or economic displacement. In addition, it is important to note that VCS neither requires project proponents to develop indicators nor consistently (across all safeguards) stipulates these itself, which leaves project proponents leeway in how to measure and monitor respective safeguards.

Environmental requirements

Resource efficiency and pollution prevention (PS 3: High) are strongly aligned with IFC requirements, covering pollutant releases to air, water and soil, noise and vibration, hazardous and non-hazardous waste, hazardous materials, and pesticides, as well as water consumption and stress, each operationalised as a dedicated risk row in the ESG risk assessment template. Energy and raw-material

efficiency are the only gaps. Biodiversity (PS 6: Low) is the clear weak point, with 11 of 17 criteria absent. VCS protects habitats of rare and threatened species, areas needed for habitat connectivity, soil erosion and food security, but it lacks explicitness regarding some criteria, such as critical-habitat or High Conservation Value (HCV) requirements (areas with rare and endangered species are covered but critical ecological function areas are not), protected-area provisions, sustainable-management requirements for forests, fisheries and agriculture. Other requirements are not addressed at all, e.g. rules on native species and animal welfare.

Social requirements

Risk management (PS 1: High) is comprehensive, with, inter alia, risk identification, a multi-stage grievance mechanism, and dedicated anti-corruption and anti-money-laundering provisions; the gaps are the absence of a general requirement for safeguard indicators (e.g. to be developed by project proponents or provided by the programme across all safeguards), a requirement for sustainable financial resources and a requirement to collaborate with government agencies in cases of government-led stakeholder engagement. Other criteria, such as demonstration of financial capacity, an emergency response plan and the incorporation of stakeholder views are only “Partial”. Labour rights (PS 2: High) prohibit forced labour and trafficking, and cover OHS, third-party and supply-chain workers, non-discrimination and training, with freedom of association and minimum-age provisions “Partial” and worker accommodation requirements absent. Community health and safety (PS 4: Partial) is a borderline case. It covers community exposure to hazardous materials and includes security-personnel provisions aligned with the Voluntary Principles on Security and Human Rights, while structural safety and local-economy impacts are absent and ecosystem-service and disease exposure are only partially addressed. Land and resettlement (PS 5: High) covers prohibition of forced eviction and physical or economic displacement backed by

compensation preconditions, though a Resettlement Action Plan or Livelihood Restoration Plan for voluntary scenarios and government-collaboration provisions are absent. Indigenous Peoples and Local Communities (PS 7: High) are protected through UNDRIP- and ILO 169-aligned rights recognition, FPIC, culturally appropriate engagement, tenure and resource-rights assessment, and protection of cultural and spiritual property, with no dedicated Indigenous Peoples Plan, no provisions for peoples in voluntary isolation, and no government collaboration requirement. With three “Yes”, three “Partial” and one “No”, cultural heritage (PS 8) is rated “Partial”, just short of “High”. The requirements follow UNESCO conventions and secure continued community access and immaterial heritage but lacks a chance-find procedure and only partially addresses removal, legally protected areas and commercial use. The additional social criteria (High) cover human rights, gender equality and equal pay, and gender-based violence response, with formal human rights due diligence only “Partial” and the consideration of a country’s national gender strategy or equivalent national commitment to aid in assessing gender risks absent. Benefit-sharing (High) arrangements must be documented in the Project Description, shared with participants through culturally appropriate methods, and published on the Verra registry.

Main recommendations

To close the remaining gaps, VCS should introduce a requirement for project proponents to develop E&S safeguards indicators, operationalised in the templates. VCS should also substantially strengthen biodiversity (PS 6) by broadening the critical-habitat or HCV requirements to include critical ecological function areas. Protected-area provisions should not only be relevant where rare or threatened species or connectivity value is identified but should apply whenever a project is located in or adjacent to a legally protected or internationally recognised area, with the area’s

designation and legal management regime acting as the trigger.

Further, sustainable management of forests should be explicitly required. VCS also should add dedicated PS 4 provisions on structural safety and

community disease beyond the pollution pathway; require a formal human rights due diligence process; add a chance-find procedure under cultural heritage; and convert the risk-triggered screens for fundamental protections into unconditional requirements.

5. Conclusion

This analysis examines how carbon crediting programmes translate their E&S safeguards principles into requirements that project developers are actually required to meet, and how transparently and explicitly that information is made available to them in one place. A major focus of this assessment was operational enforceability, and this distinguishes it from previous editions of the gap analysis.

As observed by the authors of the 2024 gap analysis, carbon crediting programmes still differ widely in how they approach safeguards, with some falling short of meeting the benchmark set by the IFC Performance Standards more than others. Several programmes, including SOCIALCARBON, Plan Vivo and GS4GG, show that comprehensive and unconditional safeguards are achievable in carbon markets. At the same time, a gap recurs across many other programmes assessed. A requirement stated clearly in the general standard is not always carried through into the operational (e.g. PDD) template a developer must complete. Isometric illustrates this pattern most clearly, but it appears in various forms across the crediting programmes assessed. Where this gap exists, the requirement most often exists in the standard document but does not translate into practice at the project level, where it would actually need to be operationalised. Standards also vary in how explicit they are about what they require. Some set out concrete, criterion-specific requirements throughout their documents, while others rely on a general reference to compliance with applicable national or international regulations, treated as sufficient to cover the full breadth of E&S criteria assessed in this study. This

reliance on overarching regulatory compliance, rather than explicit programme specific requirements, is itself a form of the gap described above, since a project developer working only from the programme's own documents may not otherwise see the full extent of what is expected of them.

Another observation relates to the conditions under which safeguards apply. Several programmes apply their strongest safeguards only in specific circumstances. For example, they apply only to projects that are seeking an additional certification (like CCP+ labels), or only once a developer has identified a particular risk. Risk-triggered requirements have a legitimate role for risks that genuinely need context-specific judgement. But for a small set of fundamental protections, such as prohibitions on child labour, forced eviction or banned pesticides, this places the burden of risk identification on the same party that bears the cost of responding to it. This creates a conflict of interest that unconditional requirements avoid entirely.

The findings of this study should not be read as a strict ranking of one programme over another, but as a guide to where a standard performs well and where gaps remain. This analysis assesses 82 criteria spread across ten E&S safeguard categories, so an overall “Partial” or “Low” rating in a given category does not rule out strong conformity on individual criteria within it. Such examples occur throughout the analysis and are captured in Chapter 3 and in the individual programme assessments in Chapter 4. Because this analysis is limited in scope to the core standard and its

associated operational documents, as set out in the methodology, some requirements may still be addressed by a programme elsewhere, for example in sector- or project-type-specific guidance, procedures, or monitoring reports, which fall outside the boundaries of this assessment. Where a standard is rated “Partial” or “No” against a given criterion, we therefore recommend that those interested engage directly with the programme to check whether it addresses the requirement through such other means, and assess whether that approach is comparable to the best practice followed by high performing standards highlighted in this report.

Robust E&S safeguard design in carbon markets remains a comparatively recent undertaking. Real progress has been made as part of a broader set of efforts across the international carbon market to improve credit quality, including the ICVCM's Core Carbon Principles. Some gaps remain, however, as identified in this report. Crediting programmes must continue to strengthen their regulations, widening coverage where this study identifies gaps and ensuring that principles outlined in the general standard are carried through into the documents developers actually complete. Until programmes close these gaps, developers can check how their chosen programme performs and apply more prescriptive safeguards voluntarily wherever it falls short. The report can also serve as a useful tool for buyers, who can apply its findings at project level to understand where risks may lie in a specific project and what further due diligence is needed. For a fuller picture, buyers should also consider a project's monitoring and verification reports, which reveal how safeguards are applied on the ground and what impacts, positive or negative, have followed.

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Annex A: Analysis Grid

Does the carbon crediting programme's E&S safeguard requirements require mitigation activity proponents to:

Table 6: Gap Analysis assessment grid

IFC PS	Criteria
IFC PS 1 Assessment and Management of Environmental and Social Risks and Impacts	identify E&S risks or impacts and provide assessment/ evidence on how they conclude an outcome?
	include E&S risks mitigation measures/safeguards following a mitigation hierarchy? (Mitigation hierarchy: Avoid, mitigate, minimise)
	define E&S safeguards indicators?
	monitor & report E&S safeguards implementation and third-party validation/verification?
	have the necessary organization structure, personnel, competency, human and financial resources to implement ESMS? Or requirements to engage thematic experts when needed?
	maintain an emergency preparedness and response system to respond to accidental and emergency situations?
	take into account and responds to local stakeholders' views?
	collaborate with the government agencies in cases of government-led stakeholder engagement procedures?
	have procedures for external communication, including reporting to affected communities on an ongoing basis?
	have a grievance mechanism at the project level?
	address corruption?
	consider lack of financial resources during implementation or after project certification?
IFC PS 2 Labour and Working Conditions	have human resources policies and procedures in place /regulate working conditions?
	consider freedom of association and collective bargaining agreements?

	consider no discrimination, equal opportunity at work, vulnerable groups (women, people with disabilities, migrant workers and children)
	consider safe accommodation services for employees?
	consider minimum age requirements according to best international practices/requirements?
	prohibit the use of forced labor or trafficked persons?
	promote training for building local skills and knowledge?
	have occupational health and safety procedures in place?
	consider workers engaged by third parties and/or supply chain workers?
IFC PS 3 Resource Efficiency and Pollution Prevention	consider the sustainable use of energy? (e.g. improving energy efficiency)
	consider improving efficiency in use of raw material?
	consider water efficiency and avoid/minimise negative impacts on water resources and water-related ecosystems (e.g., surface and groundwater) due to water consumption?
	consider the release of pollutants (air, water, land)?
	consider noise and vibration pollution?
	consider safe management of hazardous and non-hazardous waste, chemicals, and hazardous materials?
	consider management of pesticides?
IFC PS 4 Community Health, Safety, and Security	design, construct, operate, and decommission the structural elements or components of the project in accordance with best international practice?
	consider community exposure to hazardous materials (transport, storage, use, and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel, and other chemicals))?

	consider negative impacts in ecosystem services that may result in increased vulnerability and community safety-related risks and impacts?
	consider community exposure to disease (e.g., water-borne, water-based, vector-borne diseases (e.g., temporary breeding habitats))?
	have in place security arrangements that follow international best practice?
	consider negative impacts to the local economy/labour opportunities for local communities?
IFC PS 5 Land Acquisition and Involuntary Resettlement	to avoid involuntary resettlement?
	consider voluntary resettlement only with FPIC or equivalent?
	elaborate a resettlement Action Plan or Livelihood Restoration Plan in cases of involuntary resettlement in accordance with best international practice,
	elaborate a resettlement Action Plan or Livelihood Restoration Plan in cases of voluntary resettlement in accordance with best international practice?
	provide compensation for displaced persons? Or at least restoration of livelihoods to living standards to pre-project levels when involuntary physical displacement cannot be avoided?
	provide compensation for displaced persons? Or at least restoration of livelihoods to living standards to pre-project levels when voluntary physical displacement cannot be avoided?
	have provisions that specifically address economic displacement?
	collaborate with the government agencies under government-managed resettlement processes?
	consider the precautionary approach to natural resource conservation?

IFC PS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources	consider provisions that address the implementation of activities that potentially impact critical habitats and/or high conservation value areas?
	consider impacts on projects implemented in legally protected areas?
	consider habitats of rare, threatened, vulnerable and endangered species?
	consider areas needed for habitat connectivity/ecological corridors?
	require a minimum 10% of the Project area to be identified and managed for conservation/enhancement of the biological diversity?
	regulate biodiversity offsetting, prohibiting or restricting it for critical habitats and requiring conditions (mitigation hierarchy, restoration ratios, monitoring) for other habitat types?
	avoid the potential for accidental or unintended introductions of alien species, including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species? Or the expansion of them?
	consider the sustainable management of fisheries?
	consider the sustainable management of living natural resources in agriculture?
	consider the sustainable management of forests?
	plantations that utilise native species?
	consider animal welfare/sustainable animal husbandry (e.g., access to water and food, humane treatment, less stress during animal movement, inadequate use of veterinary medicines, measures to control spread of diseases)?
	purchasing natural resource commodities from areas where there is a risk of significant conversion or significant degradation of natural or critical habitats?
	consider soil degradation and/or soil erosion?
IFC PS 7 Indigenous Peoples & Local Communities (IPs & LCs)	regulate genetically modified organisms/living modified organisms (GMOs/LMOs)?
	ensure food security (i.e., access and availability of food for people affected and/or nutritional quality of food available)?
	protect of the rights of IPs & LCs in line with applicable international human rights law, and the United Nations Declaration on the Rights of Indigenous peoples and ILO Convention 169 on Indigenous and Tribal Peoples?
	have an Indigenous Peoples Plan; Community Development Plan (when applicable)?
	require culturally appropriate measures, when engaging with IP?
	have provisions regarding Indigenous peoples in isolation?
	assess impacts on lands and natural resources subject to traditional ownership or under customary use or occupation? And/ or respect traditional ownership?

	not force eviction or any physical or economic displacement of IPs & LCs, unless agreed upon with IPs & LCs during the FPIC process?
	respect the cultural, intellectual, religious and/or spiritual property of Indigenous peoples? The activity participants are not to access or utilize it without FPIC.
	collaborate with the government agencies where government is responsible for managing Indigenous Peoples and Local Communities issues.
IFC PS 8 Cultural Heritage	protect cultural heritage by following internationally recognized practices (e.g., UNESCO Cultural Heritage conventions)?
	conduct a chance find procedures? Or an alternative procedure to determine whether the proposed location of an activity is in areas where cultural heritage is expected to be found during implementation or operations.
	have in place provisions for continued community access to cultural sites?
	respect immaterial cultural heritage?
	prohibit the removal of replicable cultural heritage and/or non-replicable cultural heritage?
	have specific measures regarding legally protected cultural heritage areas?
	regulate the use of cultural heritage for commercial purposes?
Additional social indicators: Human rights	respect human rights, abides/does not violate international human rights, instruments ratified by the host country?
	carry out human rights due diligence?
Additional social indicators: Gender equality	reinforce pre-existing inequalities and/or creating new ones and/or provides equal opportunities, and equal pay for equal work?
	protect against and appropriately responds to violence, sexual harassment, slavery, against women and girls? (e.g., due to the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.)
	consider country's national gender strategy or equivalent national commitment to aid in assessing gender risks?
	validate design documents information on benefit-sharing arrangements?

Benefit sharing	share the draft and final benefit-sharing plan with the affected IPs & LCs in a form, manner, and language understandable to them?
	make benefit-sharing arrangements publicly available, subject to applicable legal restrictions?



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Contributors and Reviewers

Sina Brod, Dimitrios Karatassios, Johannes Schlüter, Michael Albrecht, Vera Bünte, Silvia Nebl
Foundation Development and Climate Alliance

Published by

Foundation Development and Climate Alliance
Chausseestraße 22
10115 Berlin
www.allianz-entwicklung-klima.de

Contact

Sina Brod
Head of Research & Consultancy
sina.brod@allianz-entwicklung-klima.de
Phone +49 30 3465573-00

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Thomas Okfen/GIZ, myclimate,
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