

# Gap Analysis of Voluntary Carbon Market (VCM) Standards against Safeguards Requirements and Good Practice

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Asesoramiento  
Ambiental  
Estratégico



# Gap Analysis of Voluntary Carbon Market (VCM) Standards against Safeguards Requirements and Good Practice

## Gap Analysis Report

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## Table of Content

|  |           |
|--|-----------|
| <b>Acronyms</b>  | <b>3</b>  |
| <b>1. Executive summary</b>  | <b>2</b>  |
| <b>2. Introduction</b>   | <b>12</b> |
| <b>3. Methodology</b>  | <b>13</b> |
| 3.1. Applicable Standards  | 13        |
| 3.2. Alignment of Applicable Standards with WB ESS                 | 14        |
| 3.3. Refinement of the Gap Analysis Matrix                         | 15        |
| 3.4. Final GA Matrix and Evaluation                                | 16        |
| 3.5. Iterative Approach to the Analysis                            | 18        |
| <b>4. Overview of Standards Analysed</b>                           | <b>18</b> |
| 4.1. “Core” Project-Level Carbon Standards: VCS & GS4GG            | 20        |
| 4.1.1. Gold Standard for the Global Goals (GS4GG)                  | 20        |
| 4.1.2. Verified Carbon Standard (VCS)                              | 20        |
| 4.2. “Niche” Project-Level Carbon Standards                        | 21        |
| 4.2.1. Plan Vivo   | 21        |
| 4.2.2. Social Carbon Standard (SCS)                                | 21        |
| 4.3. “Complementary” Standards                                     | 21        |
| 4.3.1. Climate, Community & Biodiversity Standards (CCBS)          | 22        |
| 4.3.2. Sustainable Development Verified Impact Standard (SD VISta) | 22        |
| <b>5. Results</b>  | <b>22</b> |
| <b>5.1. Assessment and results per standard</b>                    | <b>22</b> |
| 5.1.1. Results for Gold Standard                                   | 22        |
| 5.1.2. Results for VCS   | 25        |
| 5.1.3. Results for Plan Vivo                                       | 28        |
| 5.1.4. Results for Social Carbon                                   | 31        |
| 5.1.5. Results for standard SD VISta                               | 34        |
| 5.1.6. Results for CCBS  | 38        |
| 5.2. Overview of results per topic                                 | 42        |
| <b>6. Conclusion and Recommendations</b>                           | <b>53</b> |
| <b>Annexes</b>   | <b>58</b> |

## List of Tables

|  |    |
|--|----|
| Table 1: Gap Significance  | 17 |
| Table 2. Summary of VCMs analysed  | 19 |
| Table 3. Overview of Results per Topic and how different VCM standards complement each other | 43 |

## List of Figures

|   |    |
|---|----|
| Figure 1. Summary of gap significance for GS4GG         | 23 |
| Figure 2. Summary of gap significance for VCS           | 26 |
| Figure 3. Summary of gap significance for Plan Vivo     | 29 |
| Figure 4. Summary of gap significance for Social Carbon | 32 |
| Figure 5. Summary of gap significance for SD Vista      | 35 |
| Figure 6. Summary of gap significance for CCBS          | 39 |

## Acronyms

|          |   |
|----------|---|
| AAE      | Asesoramiento Ambiental Estratégico   |
| ACRS     | American Carbon Registry Standard   |
| AFOLU    | Agriculture, Forestry and Other Land Use  |
| CCBS     | Climate Community and Biodiversity Standard   |
| CDM      | Clean Development Mechanism   |
| COP      | Conference of the Parties   |
| E&S      | Environmental and Social  |
| ESS      | Environmental and Social Standards  |
| ESMP     | Environmental and Social Management Plan  |
| ESMS     | Environmental and Social Management System  |
| FAO      | Food and Agriculture Organization of the United Nations   |
| FPIC     | Free, Prior and Informed Consent  |
| GA       | Gap Analysis  |
| GBV      | Gender-based Violence   |
| GS4GG    | Gold Standard for Global Goals  |
| IFC      | International Finance Cooperation   |
| NGO      | Non-Governmental Organisation   |
| PV       | Plan Vivo   |
| REDD+    | Reducing Emissions from Deforestation and forest Degradation and fostering conservation, sustainable management of forests, and enhancement of forest carbon stocks |
| SCS      | Social Carbon Standard  |
| SD VISta | Sustainable Development Verified Impact Standard  |
| SEP      | Stakeholder Engagement Plan   |
| VCM      | Voluntary Carbon Market   |
| VCS      | Verified Carbon Standard  |
| WB       | World Bank  |

# 1. Executive summary

## Background and Objective

KfW aims to invest in Voluntary Carbon Market (VCM)-related funds or facilities that contribute to climate change mitigation, biodiversity conservation, and improved community well-being. To ensure alignment with KfW's Environmental and Social (E&S) requirements, this gap analysis was conducted to **assess how various VCM standards align with the provisions stipulated by KfW's E&S requirements**, namely the World Bank Environmental and Social Standards (WB ESS), among others. Where gaps have been identified, the analysis also suggests measures to address them.

This report builds upon a 2020 gap analysis commissioned by KfW but reflects significant updates in VCM discussions and criticisms. The 2024 assessment expands on key risk areas, including **E&S management systems, workers' rights, human rights (including security personnel and patrolling), land tenure and resettlement, Indigenous Peoples' rights, gender, stakeholder engagement, and grievance mechanisms**.

## Scope and Methodology

The analysis evaluates **six VCM standards** across ten key E&S topics using a **Gap Analysis (GA) Matrix**, expanded from the previous analysis matrix (2020) based on documents mentioned by KfW's Sustainability Guideline (2024) as well as other good practice documents, standards and internationally recognized frameworks.

The standards reviewed include:

1. Core Project-Level Standards: Gold Standard for the Global Goals (GS4GG) and Verified Carbon Standard (VCS)
2. Niche Project-Level Standards: Plan Vivo (PV) and Social Carbon Standard (SCS)
3. Complementary Standards: Climate, Community & Biodiversity Standards (CCBS) and Sustainable Development Verified Impact Standard (SD VISTa)

The assessment involved document analysis, risk categorization, and iterative refinement of the GA Matrix to capture detailed insights on how each standard aligns with KfW's E&S expectations.

## General Conclusions

- Core standards (GS4GG and VCS) lack comprehensive safeguards on human rights, gender, security personnel, land tenure, and Indigenous Peoples' protections.
- Complementary standards (CCBS and SD VISTa) do not fully address these gaps and, in some cases, fail to mention key issues such as gender-based violence (GBV) or security risks.
- Plan Vivo, despite being a niche standard applicable only to community-led projects, has the most structured, clear, and detailed E&S safeguards. Its ESMS, risk screening, stakeholder engagement, and grievance mechanisms exceed other standards and could serve as a model for broader VCM safeguards.

- Social Carbon Standard (SCS) and SD VISTa lack structured risk management procedures and fail to mandate key protections for Indigenous Peoples, land tenure, security risks and gender issues

#### General findings per topic:

- **Topic 1 - Assessment and Management of Environmental and Social Risks and Impacts (equivalent to ESS 1).** This is the most relevant topic as it is the topic which sets the tones and way in which projects should identify, assess, mitigate and manage E&S risk and impacts. Almost all standards rank badly in this category due to the lack of clear ESMS framework and guidelines but Plan Vivo. Plan Vivo avoids most risks related to this topic, and is the only standard that completely covers subject 1 - a complete ESMS. The next “best” combination of standards that does not involve Plan Vivo would be the Gold Standard with either SD Vista or CCBS, though coverage of several subjects may remain suboptimal or would need further analysis, e.g. monitoring and evaluation when combining the Gold Standard with CCBS.
- **Topic 2 “Labour and working conditions” (equivalent to ESS 2)** - Overall, the topic of labour and working conditions is better covered by safeguards requirements than other topics although some gaps remain. The subject where most standards have gaps concerns risks along the supply chain, where the Gold Standard is the only standard without gaps. However, the Gold Standard has gaps in working conditions and worker relationship management, which can only be partially addressed either by SD Vista or Social Carbon. Under the VCS standard, the two most critical gaps cannot be satisfactorily addressed by any other standard.
- **Topic 3 “Resource efficiency and pollution prevention” (equivalent to ESS 3)** - None of the complementary standards (including niche standards) can fill identified gaps in the core standards regarding Environmental Health and Safety (EHS) and relevant sector guidelines, i.e. extra measures are indeed needed here to meet requirements and good practice standards. An example for complementarity under this topic is the combination between the VCS and the CCBS standard, but only regarding the subjects of pollution prevention and water consumption: since there are no gaps in the VCS for those topics, it is of no consequence that CCBS cannot fill any gaps here. However, the combination would still leave the EHS and sector guidelines as well as hazardous materials management unaddressed. The niche standards (PV and SC) cover almost all subjects in detail but EHS and relevant sector guidelines.
- **Topic 4 “Community Health, Safety and Security” (equivalent to ESS 4)** - The Standard that is best prepared to deal with risks under this topic is Plan Vivo, with the exception of the subject on emergency preparedness and response. This subject presents a high or even critical significance gap across all standards. However, Plan Vivo is also the only standard that addresses risks from patrolling and security personnel. This is a subject under the topic of community health, safety and security that experiences increasing attention, and should not go unnoticed in any VCM project. Where core standards are used alone or in combination with any of the standards apart from Plan Vivo, additional measures will be needed to deal with this subject, as well as with community exposure to disease and emergency preparedness and response.
- **Topic 5 “Land Acquisition and Involuntary Resettlement” (equivalent to ESS 5)** - This is a very sensitive topic and the core standards are not very well prepared to deal with risks, with

the Gold Standard ranking somewhat better than the VCS. Again, Plan Vivo is best equipped to deal with risks, especially on the subjects of compensation and benefits, physical and economic displacement, followed by Social Carbon. Where Plan Vivo is used as a standalone standard, certain subjects will need extra measures to ensure full coverage, especially regarding the eligibility of affected persons. Overall, apart from Plan Vivo, any combination between core and other standards would still require a significant number of additional gap closing measures before it can be assumed that subjects are adequately covered.

- **Topic 6 “Biodiversity Conservation and Sustainable Management of Living Natural Resources” (equivalent to ESS 6)** - Overall, the topic is better covered than others, however, certain gaps also remain. Within the core standards, VCS has critical significance gaps under the subjects of critical habitat and legally protected and internationally recognised areas. Both Social Carbon and CCBS can fully cover these gaps though, so a combination between VCS and one of these two would be helpful. In the case of the Gold Standard, there are also two high significance gaps, but the first on the subject of identifying and managing risks and impacts on biodiversity cannot be completely filled by any of the other standards. A comparison among the standards apart from VCS and the Gold Standard shows that Plan Vivo, Social Carbon and CCBS are better placed to deal with risks under the topic than SD Vista.
- **Topic 7 “Indigenous Peoples” (equivalent to ESS 7)** - Both core standards show several high or even critical significance gaps under this topic. Interestingly, these gaps are almost complementary between these two standards regarding the coverage of subjects under the topic of Indigenous Peoples. The combination between the Gold Standard and Plan Vivo would fill almost all the gaps. However, there is one subject that is not covered by any of the standards, and that regards the consideration of Indigenous Peoples in broader development planning. The only standard that covers the subject of remote groups with limited external contact or in voluntary isolation is CCBS, however, all the remaining subjects are insufficiently addressed. SD Vista does not fully meet requirements on any of the subjects that were assessed. All in all, this is a delicate topic which is not ideally addressed by any of the standards, although Plan Vivo could easily properly cover it by adding specific mitigation measures to certain topics.
- **Topic 8 “Cultural Heritage” (equivalent to ESS 8)** - The topic is among the most poorly covered in general. Among the core standards, the Gold Standard is a lot better equipped to address risks under the topic than the VCS, however, the subjects of confidentiality and community access show high and critical significance gaps for both core standards. These two subjects - confidentiality and community access - actually show a high significance gap across all standards, except Plan Vivo that addresses the issue of community access. Chance find procedures is another subject only barely covered by one standard, Gold Standard. Complementary standards cannot fill the gaps in the core standards, although Plan Vivo ranks slightly better on some subjects than other standards. The only standard that adequately covers the subject of use of cultural heritage is Social Carbon.
- **Topic 9 “Gender”** - Taking the attention that the topic receives, it is surprising to see that a gender-sensitive approach to risk and impact identification, assessment and management is inadequately covered by the majority of standards and only partly by Plan Vivo and CCBS. From the two core standards, the Gold Standard is again better equipped to deal with risks that might occur under this topic, although it falls equally short on the subject of gender sensitive approach and properly identifying and managing gender risks. Apart from the core standards, Plan Vivo once again shows the best coverage of subjects, but some extra

measure would be needed in a combination between one of the core standards and Plan Vivo, or with Plan Vivo as a stand alone standard, to ensure full coverage. The next most suitable combination would be between the Gold Standard and CCBS, since CCBS can partly fill the high significance gap on the subject of gender sensitive approach and there is no gap in the Gold Standard on the second subject which focuses on gender based violence. It should be noted that other gender-relevant subjects - such as GRM - were integrated into other topics and are thus not repeated here.

- Topic 10 “Transparency and Stakeholder Engagement” (equivalent to ESS 10)** - In general, there is better coverage of the topic across standards as compared to other topics. Plan Vivo overall ranks best in terms of coverage, followed by the VCS. The subjects that remain inadequately covered include benefit sharing (apart from in Plan Vivo) and conflict analysis, while the subject that is generally fairly well covered is grievance redress, with only low significance gaps across the standards. While there is no standard that could be used without any additional gap filling measures, extra measures would likely be limited in using the VCS, Plan Vivo or SD Vista. In fact, the combination of VCS and SD Vista would only require a revision of gaps on grievance redress and conflict analysis, while all other subjects would be well covered.

### Most Relevant Gaps per Standard and Recommended Gap Closing Measures

While above the main results were presented by topic, here we present the most relevant gaps found in each of the VCM standards and recommended gap closing measures. These gaps represent areas where the standards have at least one critical gap or have multiple high risks, meaning they do not address most or all of the requirements of each topic. For a full overview of all gaps and closing measures please refer to the main body of the report and Annex 2 (GA Matrix)

| Gold Standard for Global Goals                 |  |  |
|--|--|--|
| E&S Topic                                      | Gap  | Gap closing measures   |
| Assessment and Management of Risks and Impacts | Safeguarding Principles partially address risk identification and mitigation but lack the structured approach of an ESMS framework, which includes elements like: organizational capacity, and a broader methodology for risk identification and management. | - Establish and maintain an ESMS framework with core components, and expand Safeguarding Principles Assessment   |
| Community Health, Safety and Security          | It does not require provisions to prepare for and respond to emergency events<br>No mention of the evaluation of patrols and security personnel, training for proper conduct, or safeguards against abuses.  | - For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.<br>- Request human rights risk assessment to understand risks from patrolling & security personnel for local communities |
| Indigenous Peoples                             | FPIC lacks specificity on application, good-faith negotiation, and documentation requirements.   | - Establish clear steps for obtaining FPIC, including transparent, documented, and verifiable processes for good-faith negotiations.   |

|                                       |   |   |
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| Cultural Heritage                     | It does not address issues regarding community access to cultural heritage, and confidentiality of sensitive information. | - Require projects to maintain community access to cultural sites whenever possible or provide alternatives while ensuring safety and security.   |
| Transparency & Stakeholder Engagement | No explicit guidance on differentiated approaches in equitable benefit sharing.   | - Require projects to strengthen technical and administrative capacities to ensure that benefit-sharing mechanisms are implemented fairly, transparently, and in alignment with local socio-political contexts. |

| Verified Carbon Standard   |  |  |
|--|--|--|
| E&S Topic  | Gap  | Gap closing measures   |
| Assessment and Management of Risks and Impacts                                   | VCS lacks a systematic framework for identifying, assessing, and managing E&S risks. Monitoring focuses on GHG emissions, with no structured process for tracking E&S risks.   | <ul style="list-style-type: none"> <li>- Establish and maintain an ESMS framework with core components</li> <li>- Expand Safeguarding Principles Assessment</li> </ul>   |
| Community Health, Safety and Security  | Lack of specific requirements for emergency preparedness, security personnel and patrolling oversight.   | <ul style="list-style-type: none"> <li>- For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.</li> <li>- Request human rights risk assessment to understand risks from patrolling &amp; security personnel for local communities</li> </ul> |
| Land Acquisition and Involuntary Resettlement                                    | There are no requirements to assess or protect subsidiary tenure rights, such as informal land use or resource collection, robust resettlement planning, or explicit recognition of customary land rights unless legally recognized. | <ul style="list-style-type: none"> <li>- Require projects to develop RAPs and livelihood restoration plans (LRP), where necessary.</li> <li>- Ensure that land acquisition processes involve meaningful consultation with affected stakeholders.</li> </ul>  |
| Biodiversity Conservation and Sustainable Management of Living Natural Resources | It does not address critical habitats and legally protected areas  | Integrate a definition for Critical habitats, and require projects to identify and avoid adverse impacts on critical habitats. Require explicit demonstration of legal compliance for projects within protected areas  |
| Indigenous Peoples   | It does not address remote groups in voluntary isolation and intellectual property rights.   | Establish requirements to avoid undesired contact with isolated groups. Ensure activities respect and protect Indigenous knowledge and intellectual property rights.   |
| Cultural heritage  | There are gaps related to some cultural heritage specific issues, such as use of cultural heritage, confidentiality, and removal of replicable and non-replicable cultural heritage.   | Require projects to identify, protect, and manage cultural heritage by implementing chance find procedures, ensuring access to cultural sites, and negotiating fair benefit-sharing agreements   |
| Gender   | There is no structured approach to address   | - Require all projects to conduct a GBV risk   |

|  |   |   |
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|  | GBV or ensure responsive grievance mechanisms for gender-related issues | assessment, and mandate the development of a GBV Action Plan. |
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| Plan Vivo                             |   |  |
|---------------------------------------|---|--|
| E&S Topic                             | Gap   | Gap closing measures   |
| Community Health, Safety and Security | There are no requirements regarding emergency preparedness and response.  | - For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.  |
| Indigenous Peoples                    | Remote groups with limited external contact or in voluntary isolation, intellectual property rights, and broader development planning are not mentioned/covered.  | - Ensure project activities respect and protect Indigenous knowledge and intellectual property rights. And implement a binding requirement to avoid undesired contact with isolated groups.    |
| Cultural heritage                     | There are gaps related to some cultural heritage specific issues, such as use of cultural heritage, confidentiality, and removal of replicable and non-replicable cultural heritage, although these are not critical. | Require projects to identify, protect, and manage cultural heritage by implementing chance find procedures, ensuring access to cultural sites, and negotiating fair benefit-sharing agreements |

| Social Carbon Standard                         |   |  |
|--|---|--|
| E&S Topic                                      | Gap   | Gap closing measures   |
| Assessment and Management of Risks and Impacts | It lacks a comprehensive approach to ESMS and does not require an overarching E&S Policy, structured risk identification tools, or a comprehensive ESMP     | - Establish and maintain an ESMS framework with core components. Expand Safeguarding Assessment & Requirements<br>- Require project developers to include an ESMP with mitigation measures, roles, timelines, and monitoring procedures.     |
| Community Health, Safety and Security          | It does not have requirements regarding community exposure to disease, climate hazards, security personnel and patrolling, or emergency preparedness.       | - For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.<br>- Request human rights risk assessment to understand risks from patrolling & security personnel for local communities |
| Land Acquisition and Involuntary Resettlement  | It lacks a broader approach to managing land use risks, and requiring mitigation frameworks like Resettlement Action Plans or Livelihood Restoration Plans. | - Require projects to develop RAPs and livelihood restoration plans (LRP), where necessary. Ensure that land acquisition processes involve meaningful consultation with affected stakeholders.   |
| Cultural heritage                              | There are gaps related to some cultural heritage specific issues, such as use of cultural heritage, confidentiality, and removal                            | Require projects to identify, protect, and manage cultural heritage by implementing chance find procedures, ensuring access to   |

|                                       |  |   |
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|                                       | of replicable and non-replicable cultural heritage.  | cultural sites, and negotiating fair benefit-sharing agreements   |
| Indigenous peoples                    | It does not explicitly require identifying all potentially affected indigenous communities or detailing the expected impacts (direct and indirect) on these communities beyond FPIC. | - Develop a framework ensuring Indigenous groups, regardless of terminology, are afforded the same protections in terms of land rights, cultural preservation, and participation in project development.    |
| Stakeholder Engagement & Transparency | It lacks requirements for engagement planning. No specific transparency measures and limited public reporting mechanisms. It does not address conflict assessments.                  | -Require projects to create a formal SEP. Develop a structured mechanism for public disclosure.<br>- Require a conflict analysis that evaluates risks of exacerbating conflict                              |
| Gender                                | There is no structured approach to address GBV or ensure responsive grievance mechanisms for gender-related issues   | - Require all projects to conduct a gender-based violence (GBV) risk assessment, including an evaluation of available safe and ethical survivor services, and mandate the development of a GBV Action Plan. |

| Sustainable Development Verified Impact Standard |   |  |
|--|---|--|
| E&S Topic  | Gap   | Gap closing measures   |
| Assessment and Management of Risks and Impacts   | SD VISTa does not provide a structured process for categorizing and evaluating environmental and social risks, nor does it require the development of an ESMP detailing mitigation actions.                 | Establish and maintain an ESMS framework with core components E&S policy, risk assessment, management programs, and monitoring mechanisms.   |
| Labour and working conditions                    | There is no mention of, community, voluntary, or migrant workers  | Introduce explicit guidance on voluntary labor agreements. Ensure that migrant workers receive equal working conditions,   |
| Resource Efficiency and Pollution Prevention     | No mention of resource efficiency, water consumption, waste management, hazardous materials, or pesticide use.  | Require projects to enhance resource efficiency, implement waste and hazardous materials management per international standards, and adopt IPM/IVM strategies to minimize environmental and health risks.                                    |
| Community Health, Safety and Security            | It does not require provisions to prepare for and respond to emergency events<br>No mention of the evaluation of patrols and security personnel, training for proper conduct, or safeguards against abuses. | - For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.<br>- Request human rights risk assessment to understand risks from patrolling & security personnel for local communities |
| Land Acquisition and Involuntary Resettlement    | It does not mandate structured resettlement plans or livelihood restoration   | Ensure legal safeguards for displacement, including advance notice, grievance mechanisms, and due process. Require impact assessments, full compensation, and livelihood restoration evaluations to ensure long-term                         |

|  |   |  |
|--|---|--|
|  |   | economic stability.  |
| Biodiversity Conservation and Sustainable Management of Living Natural Resources | it fails to address modified, natural, and critical habitats, protected areas, invasive species, and use of living natural resources.   | Establish requirements for modified, natural, and critical habitats and protected areas. Ensure projects using living natural resources undergo assessments to evaluate impacts on local habitats and communities.           |
| Indigenous Peoples   | There are no differential requirements for indigenous groups since they are included in “Stakeholders”, omitting important aspects such as FPIC, meaningful participation, among others.                | Require projects to establish specific, culturally relevant compensation and mitigation measures, ensuring alignment with Indigenous customs and traditions.   |
| Cultural heritage  | There is no mention of cultural heritage  | Require projects to integrate cultural heritage considerations into the project cycle  |
| Stakeholder Engagement & Transparency  | it does not include mandatory provisions on benefit sharing agreements  | Ensure benefit-sharing includes all vulnerable groups, with transparent frameworks for fair distribution, monitoring, and reporting. Strengthen projects’ capacities to align with local contexts and prevent elite capture. |
| Gender   | SD VISta does not explicitly mention gender or require projects to consider principles of gender equality without providing any guidance on how to do so, nor provide assurance that this will be done. | Require all projects to conduct a GBV risk assessment, including an evaluation of available safe and ethical survivor services, and mandate the development of a GBV Action Plan if risks are identified.                    |

| Climate Community and Biodiversity Standard    |  |  |
|--|--|--|
| E&S Topic                                      | Gap  | Gap closing measures   |
| Assessment and Management of Risks and Impacts | There is an absence of a structured framework for risk mitigation, and it totally lacks requirements regarding human rights. | Establish and maintain an ESMS framework with core components E&S policy, risk assessment, management programs, and monitoring mechanisms.               |
| Labour and working conditions                  | CCBS does not have explicit requirements on child labour and forced labour.  | Explicitly state in its standard that project proponents must prohibit all forms of forced and child labour, ensuring clear expectations for compliance. |
| Resource efficiency and pollution prevention   | There are no pollution control measures, use of pesticides and hazardous materials.  | - Ensure that projects develop and implement an IPM/IVM strategy. Require projects to avoid release of pollutants and its impacts on human health        |
| Land acquisitions and involuntary resettlement | There are no requirements for most issues related to land acquisition and involuntary resettlement.                          | Require projects to develop RAPs and LRP, where necessary. Ensure that land acquisition processes involve meaningful consultation with                   |

|                                       |   |  |
|---------------------------------------|---|--|
|                                       |   | affected stakeholders.   |
| Cultural heritage                     | There is no mention of cultural heritage  | Require projects to integrate cultural heritage considerations into the project cycle  |
| Stakeholder Engagement & Transparency | Transparency is limited, as it primarily focuses on FPIC without extending to financial flows or decision-making processes. Benefit-sharing remains optional and lacks guidelines for equitable distribution. | Implement transparent financial management practices, including detailed reporting on resource allocation and expenditure. Expand benefit-sharing provisions to include not only Indigenous Peoples but also other marginalized or vulnerable groups who may be impacted by the project. |
| Gender                                | It only focuses on sexual harassment. Big gap on another GBV risk areas   | Develop protocols and documentation processes that explicitly cover all GBV areas (SEA, human trafficking, and other forms of GBV)   |

## General Recommendations

Aside from the specific recommendations to close gaps presented above and in the GA matrix (Annex 2), general recommendations to all VCM standards are presented. These are specifically related to the topic "Assessment and Management of Environmental and Social Risks and Impacts" (in part equivalent to ESS 1) as this is the topic which sets the tones and way in which projects should identify, assess, mitigate and manage E&S risk and impacts. The following recommendations outline steps for strengthening VCM project governance and risk management:

1. **Strengthen Environmental and Social Management Systems (ESMS) Across Standards.** VCM standards should **adopt a structured ESMS approach**, similar to Plan Vivo:
  - a. Require comprehensive risk identification, providing an early-stage E&S screening template, and exclusion list to immediately disregard high-risk projects (see Annex X for an example of an exclusion list for carbon projects that can be expanded).
  - b. Transparent risk categorization with severity ratings for each risk (this might be different for AFOLU or technology projects)
  - c. Mandatory Environmental and Social Management Plans (ESMPs). Its level of required details might vary depending on project size and risk categorization.
  - d. Ensure independent third-party verification and periodic re-evaluation of E&S safeguards.
  - e. Additional E&S Safeguard Criteria for carbon projects, including: evidence-based risk mitigation measures; gender assessments and human rights risk assessments, particularly for projects linked to security personnel and patrolling (this could be integrated into the E&S screening, with full assessments required for high-risk projects in specific criteria).

KfW could consider developing and implementing an ESMS framework specifically for projects on the VCM with specific safeguards requirements to provide a consistent baseline for ensuring robust and clear management of E&S safeguards.

2. **Encourage Standards to Develop More Practical and Accessible Guidance:** This relates to the point made above on clear ESMS and safeguards procedures. Provide clear, practical guidance on risk assessment and safeguard implementation, ensuring simplified documentation requirements. Reduce reliance on multiple overlapping standards (e.g., VCS + SD VISTa + CCBS), which do not necessarily resolve safeguard issues effectively. Instead, either:
  - a. Integrate strong safeguards directly into core standards, or
  - b. Require only one robust external ESMS framework for E&S aspects where necessary.
3. **Improve Stakeholder Engagement and Transparency:** Require projects to start with stakeholder mapping and analysis that clarifies which stakeholders have actual rights, whether formal or informal (i.e. including customary). Ensure continuous stakeholder engagement early on and throughout the project cycle, not just during initial consultations. Require all projects to develop and implement a comprehensive Stakeholder Engagement Plan (SEP), to have well-documented engagement and benefit-sharing mechanisms, stakeholder feedback loops to ensure communities remain involved and informed and clear, transparent disclosure of financial flows and governance structures. Stakeholders should agree to the project based on full knowledge and how it will impact them. This could mean requiring FPIC in specific contexts, particularly for projects impacting Indigenous Peoples and customary land users.

## Conclusion

This assessment highlights that **current VCM standard management systems still fall short in effectively managing social and environmental risks and impacts**. While Plan Vivo demonstrates strong ESMS implementation, other standards lack it together with clear safeguards for human rights, safety and security patrolling, gender, indigenous people, land tenure, and stakeholder engagement.

For KfW, ensuring carbon projects **adopt a risk-based approach, integrate strong safeguards, and engage communities meaningfully** will be key to improving the **credibility, integrity, and long-term impact** of the VCM. Given that no existing VCM standard fully aligns with KfW's environmental and social requirements, particularly in relation to the WB ESS, additional measures are necessary to ensure compliance. For consistency throughout, KfW could consider implementing an ESMS framework specifically for VCM projects to establish clear, transparent, and enforceable environmental and social requirements for financed initiatives.

## 2. Introduction

KfW is looking to invest in several Voluntary Carbon Market (VCM)-related funds or facilities that aim to contribute to the resilience of natural ecosystems and enhanced living conditions for local communities through climate change mitigation and adaptation actions, strengthened biodiversity, and effective participation of local communities. As part of this effort, KfW seeks to understand to what extent VCM standards could be used as references where they align with KfW requirements and in what areas additional measures would be necessary to ensure full alignment.

In 2020, KfW commissioned a gap analysis (GA) to compare VCM standards with KfW standards and against each other. The analysis examined several widely used standards, including the Clean Development Mechanism (CDM), the Gold Standard for Global Goals (GS4GG), the Verified Carbon Standard (VCS), the Climate Community and Biodiversity Standard (CCBS), the Sustainable Development Verified Impact Standard (SD VISta), the Social Carbon Standard (SCS), Plan Vivo (PV), and the American Carbon Registry Standard (ACRS) (Weber et al. 2020). However, since then, the VCM has faced substantial criticism, including concerns that its standards may not be sufficiently impactful. In response, KfW decided in 2024 to update the gap analysis to reflect these evolving discussions and assess the degree to which VCM standards align with KfW's Environmental and Social (E&S) requirements.

The updated analysis takes a deeper look into several key E&S risk aspects, including E&S management systems, workers' rights, human rights risks (including their connection to law enforcement and patrolling), access and use restrictions/resettlement, invasive species, Indigenous Peoples' rights, gender, stakeholder engagement, and grievance redress mechanisms. Additionally, in agreement with KfW, this iteration of the analysis excludes the CDM and ACRS standards<sup>1</sup>.

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<sup>1</sup> Initially, ART TREES was analysed but, it was not included in this report due to its jurisdictional nature, which differs from the project-level focus of the other standards analysed, making direct comparisons challenging and not relevant.

### 3. Methodology

The present analysis builds upon the existing GA matrix from the 2020 study. This matrix was assessed against several layers of information to refine and expand the GA matrix. Information considered included:

- **Standards and guidelines** anchored to KfW's Sustainability Guideline (2024)<sup>2</sup>;
- **Lessons learned** from similar analyses conducted;
- **Key E&S risk aspects** specified in the Task Sheet; and
- Any **other topic identified by the team of consultants** that were not analysed or analysed at limited depth in the previous GA.

Two complementary tools were developed to ensure all relevant aspects were addressed:

1. **Document Analysis Matrix:** This matrix was developed as a foundational step to validate the coverage of key E&S aspects across the reference documents outlined in KfW's Sustainability Guideline (2024). It systematically compares the World Bank Environmental and Social Standards (WB ESS) with additional reference documents (e.g., VGGT, ILO, UNDRIP) to determine the extent to which the WB ESS already addresses these aspects. Any gaps or additional requirements identified were flagged to ensure they were fully considered in the Expanded Gap Analysis Matrix, strengthening its comprehensiveness.
2. **Expanded Gap Analysis (GA) Matrix:** This matrix builds upon the GA Matrix from the previous report, refining and expanding it to incorporate new findings. By integrating insights from the Document Analysis Matrix, the Expanded GA Matrix establishes detailed requirements for evaluating VCM standards, ensuring that all critical E&S risk aspects are thoroughly assessed.

#### 3.1. Applicable Standards

The Task Sheet produced by KfW included the following list of documents to be considered:

- Standards mentioned by **KfW's Sustainability Guideline (2024)**:
  - Human rights guidelines of the German Federal Ministry for Economic Cooperation and Development (BMZ in its German acronym)<sup>3</sup>;
  - World Bank Environmental and Social Standards (WB ESS 1-10) and Corresponding Guidance Notes, or IFC Performance Standards (IFC PS 1-8) and Corresponding Guidance Notes. The WB ESS were used as the primary framework due to their broader and more detailed coverage of environmental and social issues. However, in sections where the IFC PS provide more specific guidance, these were also incorporated to enhance the analysis.
  - World Bank Group's General Environmental and Health and Safety Guidelines and Industry Specific Guidelines, as applicable;

<sup>2</sup> Available from

[https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Richtlinien/Nachhaltigkeitsrichtlinie\\_EN.pdf](https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Richtlinien/Nachhaltigkeitsrichtlinie_EN.pdf)

<sup>3</sup> Guidelines on Incorporating Human Rights Standards and Principles, Including Gender, in Programme Proposals for Bilateral German Technical and Financial Cooperation. Available at <https://www.bmz.de/en/suche?search=human+rights+guideline>

- ILO Core Labor Conventions<sup>4</sup>;
- Regarding involuntary displacement impacts, the UN Basic Principles and Guidelines on Development-based Evictions and Displacement, namely §§ 42, 49, 52, 54 and 60;
- The Voluntary Guidelines on the Responsible Governance of Tenure of Land (VGGT), Fisheries and Forests in the Context of National Food Security (FAO, 2012)<sup>5</sup>.
- Other referenced in KfW's Policy Statement on Human Rights:
  - The United Nations Guiding Principles on Business and Human Rights (UNGP, 2011)<sup>6</sup>;
- Other internally agreed Standards applicable to nature conservation and forestry projects:
  - The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007)<sup>7</sup>;
  - Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving major Civil Works (WB, 2018)<sup>8</sup>;
  - Good Practice Note: Assessing and Managing the Risks and Impacts of the Use of Security Personnel, (WB, 2018)<sup>9</sup>;
  - Use of Security Forces: Assessing and Managing Risks and Impacts (IFC, 2017)<sup>10</sup>;
  - The United Nations Basic Principles on the Use of Force and Firearms by Law Enforcement Officials (UN, 1990)<sup>11</sup>;
  - The United Nations Code of Conduct for Law Enforcement Officials (UN, 1979)<sup>12</sup>;
  - The Voluntary Principles (VPs) on Security and Human Rights (2010)<sup>13</sup>;
  - Addressing Security and Human Rights Challenges in Complex Environments, 3rd edition (DCAF/ICRC, 2016)<sup>14</sup>;

### 3.2. Alignment of Applicable Standards with WB ESS

To ensure that all requirements outlined in the referenced documents are adequately integrated into this updated analysis, the Document Analysis Matrix was used to systematically compare the WB ESS with the additional documents mentioned in section 3.1. This process allowed for a structured validation of coverage and identification of gaps, ensuring that any aspects not explicitly addressed by the WB ESS were considered in the Expanded GA Matrix.

<sup>4</sup> Core Labour Standards of the International Labour Organization. International Labour Organization. Available at: <https://www.ilo.org/global/standards/lang--en/index.htm>

<sup>5</sup> <https://www.fao.org/policy-support/mechanisms/mechanisms-details/en/c/448858/>

<sup>6</sup> [guidingprinciplesbusinesshr\\_en.pdf \(ohchr.org\)](https://www.ohchr.org/documents/e/huridocda/huridoca19/en/undp/undp_guidingprinciplesbusinesshr_en.pdf)

<sup>7</sup> <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>

<sup>8</sup> Even though mentioned separately, it is already part of WB ESF.

<http://pubdocs.worldbank.org/en/399881538336159607/Good-Practice-Note-Addressing-Gender-Based-Violencev2.pdf>

<sup>9</sup> Even though mentioned separately, it is already part of WB ESF.

<http://documents.worldbank.org/curated/en/692931540325377520/Environment-and-Social-Framework-ESF-Good-Practice-Note-on-Security-Personnel-English.pdf>

<sup>10</sup> Even though mentioned separately, it is already part of IFC PS.

[https://www.ifc.org/wps/wcm/connect/ab19adc0-290e-4930-966f-22c119d95cda/p\\_handbook\\_SecurityForces\\_2017.pdf?M OD=AJPERES](https://www.ifc.org/wps/wcm/connect/ab19adc0-290e-4930-966f-22c119d95cda/p_handbook_SecurityForces_2017.pdf?M OD=AJPERES)

<sup>11</sup> [www.ohchr.org/EN/ProfessionalInterest/Pages/UseOfForceAndFirearms.aspx](http://www.ohchr.org/EN/ProfessionalInterest/Pages/UseOfForceAndFirearms.aspx)

<sup>12</sup> <https://www.ohchr.org/en/professionalinterest/pages/lawenforcementofficials.aspx>

<sup>13</sup> [https://docs.wixstatic.com/ugd/f623ce\\_60604aa96d1c4bdccb633916da951f25.pdf](https://docs.wixstatic.com/ugd/f623ce_60604aa96d1c4bdccb633916da951f25.pdf)

<sup>14</sup> [https://www.securityhumanrightshub.org/sites/default/files/2020-04/ASHRC\\_Toolkit\\_V3.pdf](https://www.securityhumanrightshub.org/sites/default/files/2020-04/ASHRC_Toolkit_V3.pdf)

KfW Development Bank's assessment standards include either the WB ESS or the IFC PS, depending on the project context. The previous gap analysis was structured based on the IFC PS, but for this analysis, the WB ESS was deemed more appropriate. This decision was based on the following considerations:

- The WB ESS provides broader and stricter coverage of environmental and social aspects compared to IFC PS, making it a robust starting point for defining relevant topics for the GA Matrix<sup>15</sup>.
- The WB ESS is more fitting for conservation and forestry projects, whereas the IFC PS is primarily designed for infrastructure investments.

As explained, since the WB ESS does not explicitly reference all additional documents mentioned (e.g., VGGT, ILO, BMZ guidelines, UNGP), these documents were systematically compared using the Document Analysis Matrix to determine alignment, gaps, and the need for additional considerations. The results of this comparison helped refine the Expanded GA Matrix, ensuring that all relevant requirements were captured.

The analysis revealed that, while **WB ESS often does not explicitly mention certain documents by name**, its principles **align closely** with many of their key requirements. Notable examples include:

- ILO Core Labor Conventions - ESS2 (Labor and Working Conditions) aligns with ILO conventions for project-level labor but does not extend to systemic national labor reforms, which are beyond the scope of this analysis.
- VGGT - ESS5 (Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement) addresses land-related issues, including protections for informal land tenure and fair compensation. However, broader systemic land governance reforms, emphasized in the VGGT, were considered beyond the scope of this analysis.
- UNDRIP - While not explicitly referenced, ESS7 incorporates key UNDRIP principles, including Free, Prior, and Informed Consent (FPIC) for impacts on Indigenous Peoples' rights, lands, or resources. Moreover, ESS7's Guidance Note explicitly references UNDRIP.
- UNGP - Both WB ESS and IFC PS include elements related to the UNGP framework, particularly in their stakeholder engagement, human rights due diligence, and grievance mechanisms requirements.

When supplementary documents provided additional details or enhanced WB ESS, relevant elements were incorporated into the GA Matrix and referenced accordingly, ensuring a comprehensive and structured approach to safeguard alignment.

### 3.3. Refinement of the Gap Analysis Matrix

The previous GA Matrix was expanded and refined based on insights from the Document Analysis Matrix and additional key sources. This included:

- **Expanding the range of topics.** The previous GA Matrix, structured around IFC PS, was broadened to reflect additional considerations found in the WB ESS and other reference

<sup>15</sup> This is according to an already existing comparison conducted by AAE, and included in AAE's Safeguards Hub. <https://www.aae.com.uv/safeguards-hub/categories-sub/safeguards-systems-compared>

documents. For example, under the "Indigenous Peoples" topic, the previous analysis considered only two subtopics: Avoidance of adverse effects and participation and consent. In the expanded GA Matrix the following additional aspects were included: Definition of Indigenous Peoples, Identify, assess and manage adverse risks and impacts on IPs, Traditional or Customary Lands under Use, Meaningful Participation, FPIC, Remote groups with limited external contact or voluntary isolation, Intellectual property rights and Broader Development Planning.

- **Refinement of Topics - Splitting and Merging Where Needed:** Some broad topics from the previous GA Matrix were broken down into finer, more specific subtopics to provide better granularity and more precise assessments, while others were merged for clarity and coherence and to avoid repetition.
  - An example of splitting topics is that under "Labour and Working Conditions," the previous GA Matrix grouped all aspects under "Working Conditions and Management of Worker Relationship." This included: Human resources policies and procedures, Working conditions and terms of employment, Workers' Organisations, Non-Discrimination and Equal Opportunity, retrenchment, Workers' Grievance Mechanism. For this analysis, these were split into separate sections, allowing for a more detailed evaluation of each aspect.
  - An example of merging topics: Grievance Redress Mechanisms (GRM): Instead of treating workers' GRM, gender-related grievance mechanisms, and Indigenous Peoples' GRM separately, these were merged into a single category while still ensuring that each dimension was explicitly addressed.
- **Incorporation of Lessons Learned from Other Analyses:** The review considered findings from similar studies, including Calyx Global analyses, to ensure that any relevant topics or good practices identified elsewhere were also incorporated into the updated GA Matrix.
- **Addition or Refinement of Columns for Greater Transparency and Usability:** Several new columns were introduced to enhance the clarity and usefulness of the GA Matrix:
  - Detailed Requirements Column: Defines specific requirements for each subtopic and indicates the source documents (e.g., WB ESS, IFC PS, VGGT). This was not present in the previous GA Matrix but is essential for understanding what to assess in different VCM standards.
  - Topic Priority Column: This column was introduced to rank the importance of each subtopic in the context of VCM projects, It ensures that high-priority topics (e.g., Indigenous Peoples' rights, FPIC, gender considerations) receive appropriate attention in the analysis.
  - VCM Standards Requirements Column: Specifies the requirements defined by each VCM standard for each subtopic.
  - Gap Analysis Columns such as Gap Severity Column which measures the extent to which the requirement is missing or inadequately addressed.

These additions ensure transparency in the assessment process, making it easier to understand where gaps exist and how they can be addressed.

### 3.4. Final GA Matrix and Evaluation

The final Expanded GA Matrix (Annex 2) is structured around 10 key E&S topics:

1. Assessment and Management of Environmental and Social Risks and Impacts
2. Labour and Working Conditions
3. Resource Efficiency and Pollution Prevention
4. Community Health, Safety, and Security
5. Land Acquisition and Involuntary Resettlement
6. Biodiversity Conservation and Sustainable Management of Living Natural Resources
7. Indigenous Peoples
8. Cultural Heritage
9. Gender
10. Transparency & Stakeholder Engagement

Each topic is further divided into multiple subtopics (Column A) and analyzed using the following structure:

- **KfW requirements and key good practices** mentioned in reference documents (Column B)
- **Topic priority**, indicating the importance of the subtopic in the context of VCM projects and KfW requirements (Column C)
- **VCM standard requirements** for each subtopic (Column D)
- **Summary of gaps**, outlining where standards fall short compared to KfW requirements (Column E)
- **Gap severity**, measuring the extent to which a topic is missing, inadequately addressed, or non-compliant (Column F)
- **Gap significance**, determined by a combination of topic priority and gap severity (Column G)
- **Gap closing measures**, recommending potential actions for KfW to address identified gaps (Column H)

The compliance - “gap significance” - of the standards against different criteria and sub-criteria identified has been assessed as follows. The “gap significance” results from a combination of topic relevance and gap severity:

- **Topic priority** refers to the importance of a specific topic in the context of the Carbon Market projects and KfW requirements. It considers how critical the topic is for achieving the desired E&S outcomes.
- **Gap severity** measures the extent to which a topic or requirement is not covered, inadequately addressed, or non-compliant when comparing VCM standards to KfW requirements and good practices.

Once the relevance and severity of a topic have been assessed, the final gap significance rating is determined (see the table below)

**Table 1: Gap Significance**

|                | Gap Severity |                  |                   |               |
|----------------|--------------|------------------|-------------------|---------------|
| Topic Priority | Inexistent   | Not severe       | Moderately severe | Very severe   |
| Not relevant   | No gap       | Insignificant    | Insignificant     | Insignificant |
| Low            | No gap       | Low significance | Low significance  | Moderate      |
| Moderate       | No gap       | Low significance | Moderate          | High          |

|      |        |                  |      |          |
|------|--------|------------------|------|----------|
| High | No gap | Low significance | High | CRITICAL |
|------|--------|------------------|------|----------|

| Gap Significance | Definition   | Numerical Value |
|------------------|--|-----------------|
| No gap           | The requirement is fully covered, and no gap exists.   | 0               |
| Insignificant    | A gap of varying severity exists, but it is in a topic deemed not relevant   | 1               |
| Low              | A not severe or moderate gap exists, but it has limited impact on relevant E&S outcomes/compliance                         | 2               |
| Moderate         | A gap exists, of varying severity, yet with a moderate impact on E&S outcomes/compliance                                   | 3               |
| High             | A significant gap exists, posing high risks to project E&S outcomes/compliance   | 4               |
| CRITICAL         | A very severe and urgent gap exists, posing substantial risk to E&S outcomes, regulatory compliance, or project viability. | 5               |

Once a score has been assigned to each subcriteria (e.g.; FPIC) under a broader criteria (e.g., Indigenous Peoples), an average score can be calculated to determine the overall rating of that criteria.

For each of the six VCM standards considered, a gap analysis was conducted across these 10 topics and their respective subtopics. A list of all the documents analyzed for each standard is provided in Annex Y. The GA Matrix (Annex 2) contains detailed tables, one per standard.

### 3.5. Iterative Approach to the Analysis

Given the complexity of evaluating multiple VCM standards against various E&S safeguard frameworks, an iterative approach was adopted throughout the analysis. This ensured the GA Matrix remained dynamic and adaptable to evolving insights and findings.

Key iterative steps included:

- Refining topic definitions and subtopics as new insights emerged.
- Adjusting priority rankings based on discussions with experts and stakeholders.
- Consolidating, splitting, or expanding topics where necessary to improve clarity and relevance.
- Ensuring consistency in evaluation criteria across different VCM standards.

By applying this adaptive methodology, the final GA Matrix captures the most relevant gaps and safeguard considerations, ensuring a comprehensive and practical tool for KfW.

## 4. Overview of Standards Analysed

The six standards examined—GS4GG, VCS, CCBS, SD VISta, SCS, and PV—can be divided into two broad categories: carbon standards that issue carbon credits and complementary standards that do

not but enhance the social and environmental safeguards of core carbon standards like VCS or GS4GG.

Additionally, all standards operate at the project level. Some carbon standards are applicable across different project types (AFOLU and industrial carbon projects), while others have specific restrictions. For example, PV is limited to community-driven AFOLU projects.

Based on these distinctions, the standards are grouped into four main categories:

- Core Project-Level Carbon Standards: The most widely used carbon standards that can be applied across different project types. (VCS, GS4GG)
- Niche Project-Level Carbon Standard: A carbon standard restricted to specific types of projects. (Plan Vivo, for community-driven AFOLU projects only; Social Carbon Standard for nature-based solutions projects)
- Complementary Standards: Standards that do not issue carbon credits but are used to strengthen the safeguards of core carbon standards. (CCBS, SD VISTA)

**Table 2. Summary of VCMs analysed**

| Standard      | Type                                | Applicable to AFOLU Projects?                | Applicable to Technology Projects? | Issues Carbon Credits? | Commonly Paired With                 |
|---------------|-------------------------------------|--|------------------------------------|------------------------|--------------------------------------|
| VCS           | Core Project-Level Carbon Standard  | ✓ Yes  | ✓ Yes                              | ✓ Yes                  | CCBS, SD VISTA, Social Carbon        |
| GS4GG         | Core Project-Level Carbon Standard  | ✓ Yes  | ✓ Yes                              | ✓ Yes                  | SD VISTA, Social Carbon              |
| Plan Vivo     | Niche Project-Level Carbon Standard | ✓ Yes (community-driven only)                | ✗ No                               | ✓ Yes                  | -                                    |
| CCBS          | Complementary Standard              | ✓ Yes  | ✗ No                               | ✗ No                   | VCS                                  |
| SD VISTA      | Complementary Standard              | ✓ Yes  | ✓ Yes                              | ✗ No                   | VCS, GS4GG                           |
| Social Carbon | Niche Project-Level Carbon Standard | ✓ Yes (Nature-Based Solutions projects only) | ✗ No                               | ✓ Yes                  | Sometimes still used with VCS, GS4GG |

## 4.1. “Core” Project-Level Carbon Standards: VCS & GS4GG

These standards operate at the **project level** and are widely used in **VCM**. The **VCS** and **GS4GG** are among the most recognized carbon crediting mechanisms, primarily focusing on **climate effectiveness**, i.e., the **measurement, reporting, and verification (MRV)** of carbon emission reductions or removals.

While both VCS and GS4GG include some **safeguards**, they were not initially designed with a strong emphasis on **biodiversity protection, social co-benefits, or human rights**. **GS4GG**, however, integrates **sustainable development benefits** more explicitly than VCS.

#### 4.1.1. *Gold Standard for the Global Goals (GS4GG)*

The GS4GG, established in 2017, is an advanced framework designed to quantify, certify, and maximize contributions toward climate security and sustainable development. Building upon the original Gold Standard founded in 2003 by the World Wide Fund for Nature (WWF) and other NGOs, GS4GG emphasizes alignment with the Sustainable Development Goals (SDGs). It requires that each certified project contributes to climate security (SDG 13) and at least two additional SDGs, ensuring a holistic approach to sustainable development. This framework allows for a variety of project types across sectors such as renewable energy, waste management, afforestation, and agriculture..

As of 2023, the GS4GG project pipeline has registered 3417 projects retiring approximately 157 million tons of CO<sub>2e</sub>., dominated by community services (52%) and renewable energy (35%), especially in Africa and Asia. By the end of 2023 Gold Standard-certified projects had created nearly \$46.5 billion in benefits beyond emission reductions.

Although primarily used in the VCM, GS4GG has also certified Clean Development Mechanism (CDM) projects and holds nongovernmental observer status with the UNFCCC, engaging with policy actors, project developers, and NGOs at climate conferences.

#### 4.1.2. *Verified Carbon Standard (VCS)*

The VCS, administered by Verra, is the world's most widely used greenhouse gas (GHG) crediting program. It provides a robust framework for the validation and verification of projects aimed at reducing or removing GHG emissions, thereby driving finance toward activities that mitigate climate change, improve livelihoods, and protect nature.

As of 2024, over 2,300 projects were registered under VCS across multiple sectors, including AFOLU, energy, transport, waste, and manufacturing. These projects have collectively issued over 1.3 billion credits, with more than 776 million credits retired to date.

However, VCS has faced significant scrutiny regarding the accuracy and integrity of its carbon offsetting projects. Investigations by The Guardian, Die Zeit<sup>16</sup>, and SourceMaterial<sup>17</sup> in 2023 found that a significant portion of Verra-certified rainforest carbon credits were overstated, with some projects showing no real emissions reductions. Reports also raised concerns about exaggerated deforestation threats, forced evictions, and potential human rights violations.

## 4.2. “Niche” Project-Level Carbon Standards

### 4.2.1. *Plan Vivo*

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<sup>16</sup> [As carbon offsetting faces 'credibility revolution', shoppers should be wary'. The Guardian \(2023\)](#)

<sup>17</sup> [The Carbon Con – How offsetting claims are vastly inflated. Source Material \(2023\)](#)

Plan Vivo is a project-level carbon that is unique because it combines carbon, social, and environmental safeguards within its methodology and follows a community-driven approach. The Plan Vivo system is a set of guidelines, procedures and standards to provide certified carbon offsets from rural communities through activities to restore ecosystems; prevent land degradation; conserve biodiversity; protect watersheds; and promote sustainable livelihoods.

As of 2024, Plan Vivo had registered 33 projects across Latin America, Africa, Asia, and the Pacific, issuing 10 million Plan Vivo Certificates (equivalent to 10 million tonnes of CO<sub>2</sub>). Due to its methodology and safeguarding approach, the latest version of the standard has been endorsed by the International Carbon Reduction and Offset Alliance (ICROA).

#### **4.2.2. Social Carbon Standard (SCS)**

SCS was developed by the Ecológica Institute in Brazil, with its origins tracing back to the Bananal Island Carbon Sequestration Project initiated in 1997. Launched in 2005, the SCS was initially designed as a Co-Benefit Standard to monitor the broader sustainability impacts of carbon projects, emphasizing the integration of local community participation and biodiversity enhancement. It was used as complementary to core standards such as VCS or GS4GG. In 2022, the standard transitioned to a full carbon standard for Nature-Based Solutions, managed by the newly formed Social Carbon Foundation.

Projects seeking certification must demonstrate measurable benefits in six areas: carbon, biodiversity, social, financial, human, and natural aspects. SCS has been utilized in over 60 projects across three continents, contributing to the emission reduction or removal of more than 20 million tons of CO<sub>2</sub> equivalent. Despite being a full carbon standard, the standard is still often used in conjunction with other carbon standards, such as the VCS, to enhance the sustainability profile of projects.

### **4.3. "Complementary" Standards**

These standards were developed to **enhance the social and environmental safeguards** of core carbon standards like VCS or GS4GG. They are **not standalone standards**; instead, they must be **applied in combination with a core carbon standard** to certify broader **biodiversity protection, social benefits, and stakeholder engagement**, among other aspects.

Originally, carbon markets focused **solely on carbon accounting**, but over time, both **project developers and buyers have increasingly prioritized co-benefits and safeguards**. As a result, many projects now **combine** VCS or GS4GG with additional standards such as Climate, Community & Biodiversity Standards (CCBS), Social Carbon Standard (SCS) and Sustainable Development Verified Impact Standard (SD VISta)

#### **4.3.1. Climate, Community & Biodiversity Standards (CCBS)**

CCBS, developed in 2004 by Climate, Community & Biodiversity Alliance (CCBA) and now managed by Verra was specifically designed for land-based carbon offsetting project, including those that reduce greenhouse gas (GHG) emissions (e.g. deforestation and forest degradation) or remove carbon dioxide (CO<sub>2</sub>) by sequestering carbon (e.g. agroforestry, grassland management, and

sustainable agriculture). Its aim is to ensure projects contribute to climate mitigation, community well-being, and biodiversity conservation.

Currently, around 200 projects covering 10 million hectares are validated under CCBS. The standard requires projects to demonstrate tangible benefits to local communities and biodiversity while reducing greenhouse gas emissions.

#### **4.3.2. Sustainable Development Verified Impact Standard (SD VISta)**

SD VISta was developed by Verra and launched in January 2019. This standard provides a framework for assessing and reporting the sustainable development benefits of project-based activities, facilitating alignment with the SDGs. The standard promotes investment in a wide range of projects that yield sustainable development benefits, thus attracting interest from businesses, governments, and investors looking to support initiatives beyond carbon offsetting.

In the VCM, SD VISta has gained traction through its integration with VCS. The standard covers diverse sectors including renewable energy, agroforestry and circular economy initiatives. Over 200 projects globally have engaged with SD VISta since its launch, in combination with VCS or GS4GG.

## **5. Results**

### **5.1. Assessment and results per standard**

The following section presents the results of the gap analysis for each VCM standard. Each standard is assessed individually, highlighting key gaps and areas of alignment with E&S safeguards. The summaries provide a snapshot of how each standard performs across critical E&S topics, serving as a basis for comparison and identifying areas requiring improvement.

A summary figure of results per standard is presented using a radial gap significance chart. In this visualization, each bar/cone represents a broad E&S topic, which is further divided into subtopics. The colors indicate the significance level of gaps, ranging from No Gap (green) to Critical Significance (dark red). Due to the radial nature of the graph, subtopics with higher significance gaps (Critical/High) extend toward the outer edges, making them appear visually larger and more prominent. Conversely, No Gap or Insignificant areas are positioned closer to the center, appearing smaller even when they represent multiple subtopics. This means the chart naturally emphasizes critical issues, which should be interpreted with caution. The figures serve as a visual tool to quickly identify high-risk areas while ensuring a holistic understanding of how each VCM standard aligns with E&S safeguards.

#### **5.1.1. Results for Gold Standard**

**Overall:** GS4GG provides a basic foundation for E&S safeguards, addressing labour and working conditions comparably well, but falling short in key areas necessary for comprehensive risk management and equitable stakeholder engagement. The absence of a structured ESMS approach, security personnel safeguards, and detailed Indigenous People's considerations weakens its ability to address complex project risks effectively.

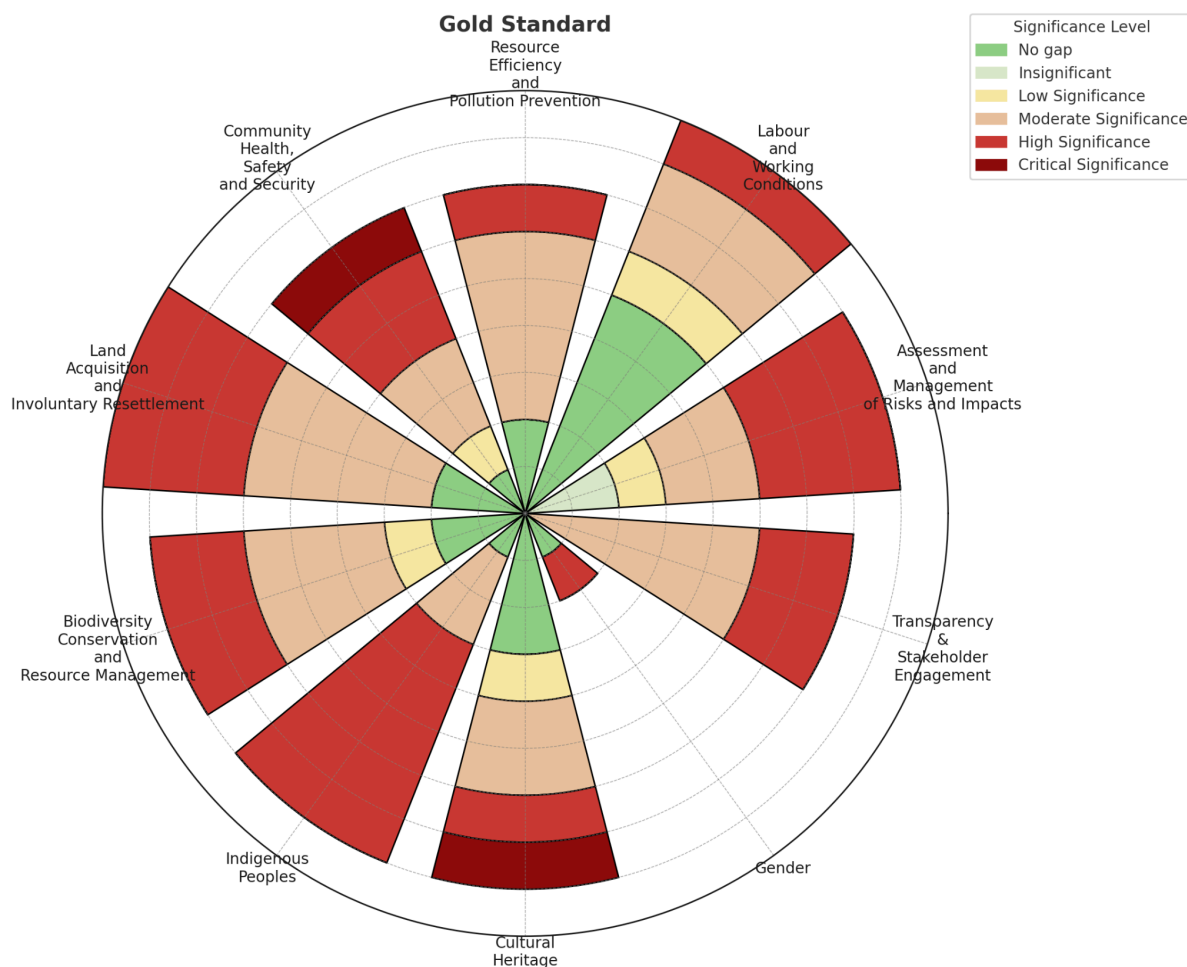
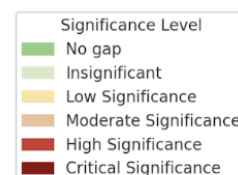


Figure 1. Summary of gap significance for GS4GG



### Risk Management

GS4GG partially addresses risk management through its **Safeguarding Principles Assessment**, which identifies potential E&S risks and requires brief mitigation measures. However, it lacks requirements regarding key components such as an overarching E&S policy, organizational capacity-building and training programs. The standard requires to document all implemented risk mitigation measures and current risk status in monitoring reports; and to outline in the Monitoring Plan—during each verification cycle— any parameters that are required to be monitored and reported upon and/or reassessed in the future, in line with the Safeguarding Principles & Requirements. Furthermore, GS4GG’s approach to human rights, though covered in the Safeguarding Principles, does not meet the detailed procedural requirements for human rights due diligence and participatory monitoring.

## Stakeholder Engagement

GS4GG provides comprehensive guidelines on stakeholder engagement mandating the identification of affected and marginalized groups and requiring consultation processes. Stakeholder consultation is required through a structured process, but it does not define roles, responsibilities, or institutional arrangements for engagement and corrective actions. Transparency requirements focus on publicly available documents but lack broader financial disclosure. Benefit-sharing provisions focus on Indigenous Peoples without considering other vulnerable groups and lack detail on technical capacity for fair resource distribution. The GRM is generally comprehensive but does not cover security personnel or gender-specific differentiated approaches. Lastly, conflict analysis lacks a broader assessment of social tensions, risks to stability, or the project's interaction with existing conflicts.

## Social Standards

GS4GG aligns with the requirements on fair treatment, prohibition of child and forced labor, and migrant worker protection but lacks formal labor management procedures, retrenchment guidance, and detailed provisions for community workers. Regarding community health, safety and security, GS4GG addresses risk prevention but omits security measures, collaboration with local authorities, and comprehensive climate hazard assessments. It notably addresses that impacts on ecosystems services may result in adverse health and safety risks and impacts to communities. Emergency preparedness lacks community training and risk hazard assessments, while patrolling and security guidelines are absent. Land acquisition requirements promote avoiding displacement and require resettlement plans, but gaps remain in evaluating project alternatives, ensuring full replacement costs, and addressing gender-specific needs and livelihood restoration follow-ups.

## Indigenous Peoples

GS4GG covers key principles for identifying Indigenous Peoples and ensures recognition of their rights (including intellectual property rights), and traditional lands. It does not provide comprehensive guidance on avoiding and mitigating adverse impacts or ensuring culturally appropriate compensation and benefit-sharing mechanisms. While stakeholder consultation and FPIC are addressed, there is an absence of detailed provisions for meaningful participation such as involving indigenous representative bodies or organizations, considering customary decision-making processes, good-faith negotiation, and documentation of agreements,

## Environmental Standards

GS4GG adequately promotes sustainable use of energy, and water consumption. With regards to waste management and the handling of hazardous materials, GS44 has requirements around the waste management hierarchy, however, there are some moderate gaps in the use of authorized landfills and procedures for the safe handling of hazardous materials. Regarding biodiversity, GS4GG emphasizes a precautionary approach, requiring Biodiversity Action Plans for critical habitats. However, it falls short on comprehensive risk identification, full mitigation hierarchy application, and explicit guidance for natural habitats. Strong requirements exist for critical habitats, but there are no provisions for stakeholder consultation in legally protected areas. For living natural resources, GS4GG aligns with best practices, including risk assessments for GMOs and sustainable management standards for primary production activities.

### Summary of Most Critical Gaps

- No structured, ongoing approach of an ESMS framework, which includes critical elements like: E&S policy, organizational capacity and competency, training programs, a broader methodology for risk identification and impact management.
- No provisions for training or capacity-building for communities or stakeholders in emergencies.
- There is no mention of the evaluation of patrols and security personnel, verification that they have no negative records, training for proper conduct, or safeguards against abuses.
- FPIC lacks specificity on application, good-faith negotiation, and documentation requirements.
- No explicit guidance on differentiated approaches in equitable benefit sharing.

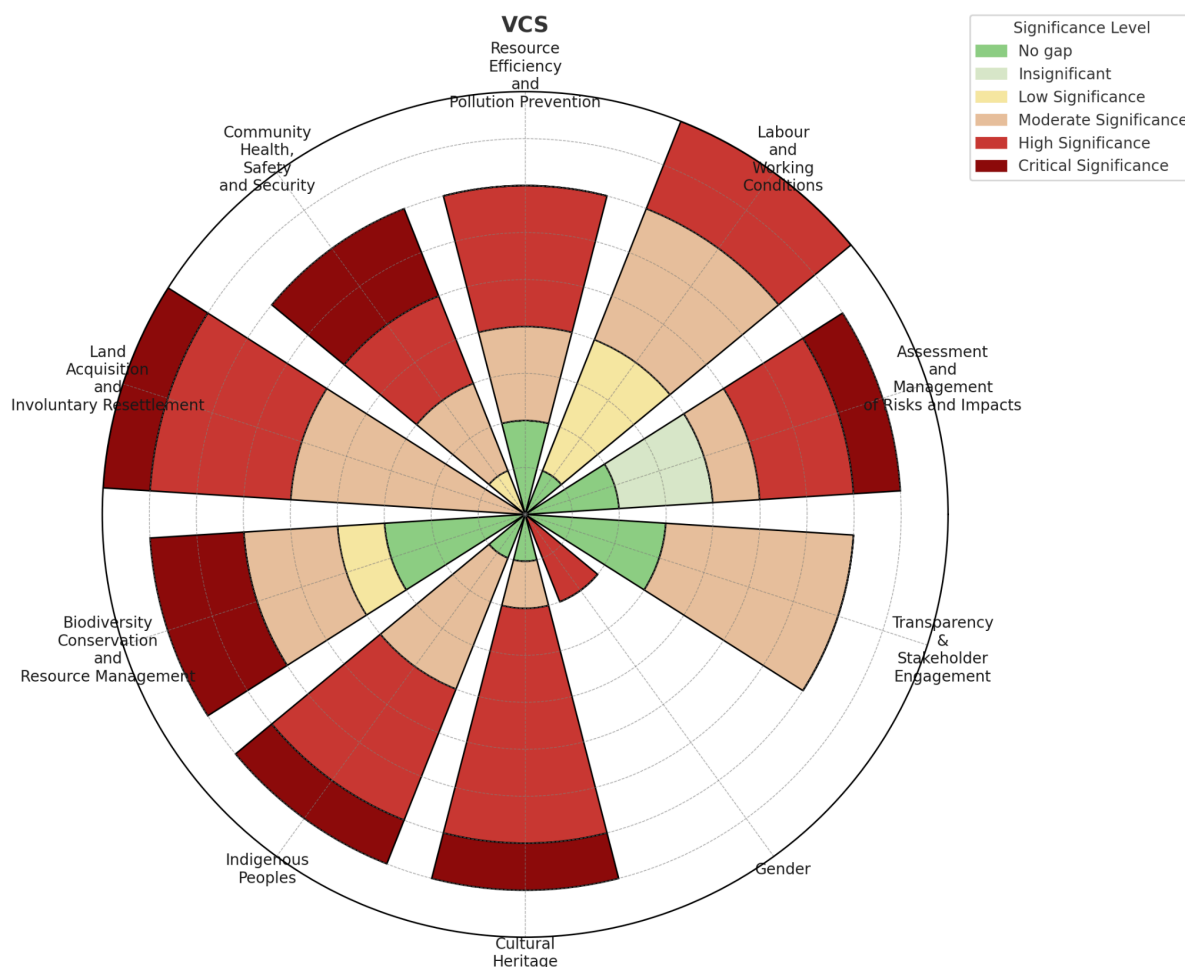
The standard could integrate existing safeguarding principles into an ESMS framework with an E&S policy, risk assessment, management programs, and monitoring mechanisms as core components. The standard can also require projects to carry out human rights risk assessment to understand and mitigate risks such as those from patrolling and security personnel for local communities, among others.

To consult additional measures to close identified gaps, please refer to the final assessment matrix.

In some cases, complementary standards such as CCBS and SDVista are used together with GS4GG to enhance the social and environmental safeguards. To understand if the safeguards indeed become more robust and which areas still remain weak, see CCBS and SDVista respectively and refer to Section 5.2.

#### **5.1.2. Results for VCS**

**Overall:** The VCS framework addresses key risk areas and includes measures for risk identification, stakeholder engagement, and E&S safeguards, but several critical gaps remain. These include limited systematic monitoring, lack of formal policies and requirements for human rights and grievance mechanisms, insufficient labor and land acquisition protections, and only partial recognition of Indigenous Peoples' rights. Environmental safeguards cover essential aspects but do not fully integrate resource efficiency or advanced management practices.



**Figure 2. Summary of gap significance for VCS**

**Risk Management**

VCS partially addresses risk identification and mitigation through the Project Description and Monitoring report documents, requiring the identification of risks and corresponding mitigation measures. It lacks the structured and ongoing approach of an ESMS framework. It requires projects to demonstrate that management teams have relevant expertise or partner with experienced organizations to fill gaps in capacity. Key elements, such as systematic monitoring of safeguard-related risks and participatory monitoring involving third parties or affected communities are not fully integrated. Monitoring remains focused on GHG emissions, with limited emphasis on broader social and environmental impacts. The human rights component covers essential principles but does not mandate a formal policy commitment or human rights due diligence process.

**Stakeholder Engagement**

The VCS framework requires comprehensive stakeholder engagement during project design and implementation, covering stakeholder identification, consultation, and mechanisms for ongoing communication. Project proponents must identify affected stakeholders, assess their rights and vulnerabilities, and document engagement processes and outcomes. Although VCS does not mandate a SEP, it incorporates many SEP components, including FPIC and mechanisms for continuous feedback. However, gaps exist in monitoring stakeholder well-being and transparency in

financial flows, procurement processes, and benefit-sharing agreements. Also, VCS lacks specific requirements for grievance mechanisms having a differentiated approach or roadmaps to address security-related, working conditions and GBV issues.

### **Social Standards**

VCS requirements cover general occupational health and safety and calls for identifying and mitigating risks related to child labor, forced labor, and human trafficking. However, it lacks specific written labor management procedures and retrenchment measures. Non-discrimination measures are primarily gender-focused, with no reference to race, disability, or other statuses. Community health and safety are partially covered, with key issues such as emergency preparedness and disease risk missing. Land acquisition requirements do not explicitly assess or safeguard subsidiary tenure rights, such as informal land use or customary resource collection, which are vital for vulnerable groups. There are no requirements for developing Resettlement Action Plans (RAP) or Livelihood Restoration Plans (LRP), which are crucial for ensuring adequate compensation. Cultural Heritage is generally well addressed, with requirements aligned with UNESCO conventions. Gender considerations are limited to preventing sexual harassment, leaving out other issues, such as Sexual Exploitation and Abuse (SEA), and lacking provisions for GBV risk assessments and action plans.

### **Indigenous Peoples**

VCS recognizes Indigenous Peoples and customary rights holders, in line with ILO Convention 169 and UNDRIP. While the standard includes provisions to identify and mitigate risks to Indigenous Peoples, it does not mandate developing an Indigenous Peoples Plan. Customary land rights are acknowledged, but recognition is conditional on legal recognition. Stakeholder engagement requirements include culturally appropriate consultations but do not explicitly mandate involving representative bodies or participation in mitigation design. FPIC is well addressed, requiring documented good faith negotiations and transparent agreements. However, critical gaps remain regarding remote groups in voluntary isolation and intellectual property rights.

### **Environmental Standards**

VCS's environmental standards adequately cover pollution prevention, water consumption, and invasive species management, but they fall short on resource efficiency by not addressing raw material reuse or toxic input reduction. Waste management is insufficiently detailed, lacking mandates for reduction, recovery, reuse, and licensed disposal, while hazardous materials management remains overly general without full lifecycle considerations. Although natural habitats and ecosystem services are generally well protected, the framework does not differentiate risks for sensitive habitats or address critical habitats and legally protected areas. Moreover, sustainable use of living natural resources is only moderately covered, omitting explicit requirements for advanced management technologies and farming activities.

### **Summary of most critical gaps**

- VCS lacks a systematic and ongoing framework for identifying, assessing, and managing E&S risks.
- Monitoring focuses on GHG emissions, with no structured process for tracking E&S risks, community well-being, or participatory monitoring with affected stakeholders.

- There are no requirements to assess or protect subsidiary tenure rights, such as informal land use or resource collection, robust resettlement planning, or explicit recognition of customary land rights unless legally recognized.
- Lack of specific requirements for labor management procedures, emergency preparedness, security personnel and patrolling oversight, and GBV.

To close some of these gaps, the standard should expand safeguarding assessment and requirements, ensuring risk ratings are systematically applied. In addition, a comprehensive M&E system should be established that includes E&S safeguard-related indicators beyond GHG emissions, focusing on compliance with mitigation measures. To consult the gap closing measures for the remaining gaps, please refer to the final assessment matrix.

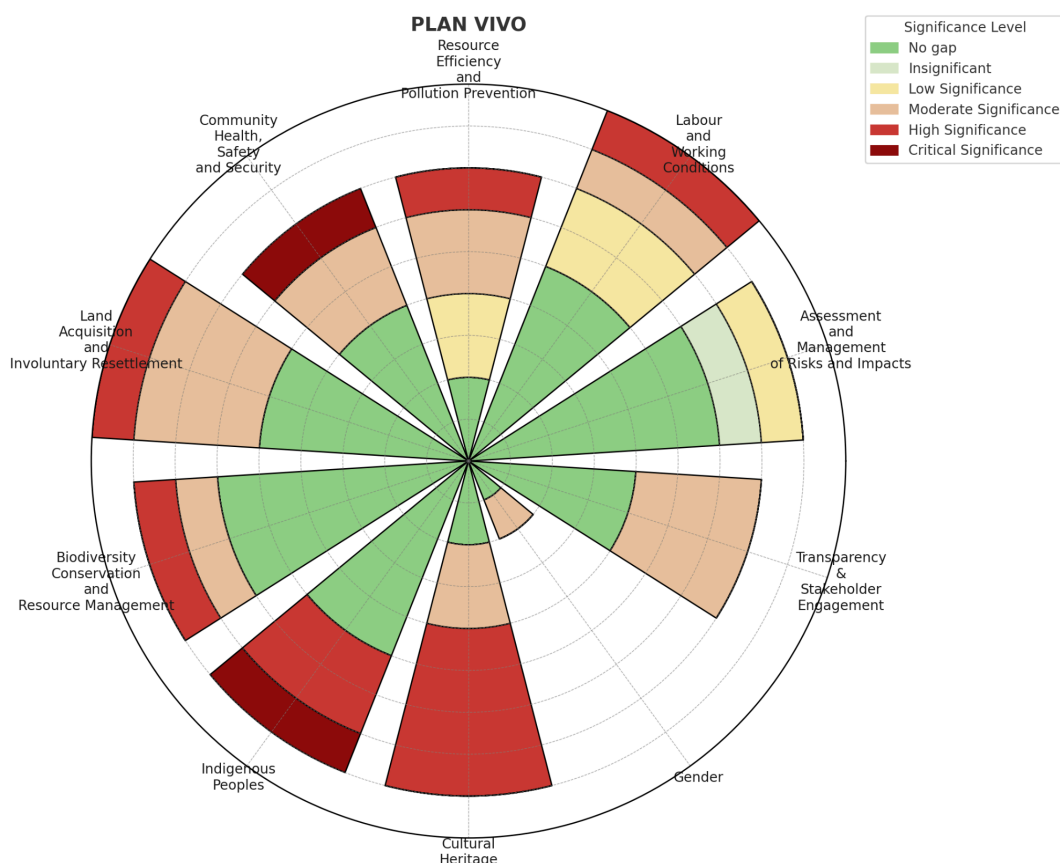
In some cases, complementary standards such as CCBS and SDVista are used together with VCS to enhance the social and environmental safeguards. To understand if the safeguards indeed become more robust and which areas still remain weak see CCBS and SDVista respectively

### **5.1.3. Results for Plan Vivo**

Overall, Plan Vivo stands out among the six standards analyzed for its comprehensive risk management structure. Its robust approach is based on IUCN's ESMS, and stems from PlanVivo's analysis of the 4.0 version of the standard against IFC and WB norms. The document "[Plan Vivo E&S Procedures](#)" details all the E&S risk management procedures to be followed by projects to comply with the requirements of the Plan Vivo Climate Standard v5.1. The standard effectively addresses stakeholder engagement, social safeguards and Indigenous Peoples' rights, while promoting climate change resilience, biodiversity conservation and sustainable resource use. The areas with critical gaps are emergency preparedness, the recognition of those with non-formalized claims or rights to land<sup>18</sup>, some aspects of Indigenous Peoples, such as remote or voluntarily isolated groups and intellectual property rights, and various cultural heritage issues.

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<sup>18</sup> Plan Vivo focuses on ensuring participants have "clear, stable land tenure" (legal or customary) but does not differentiate between persons with formal rights vs. those with non-formalized claims.



**Figure 3. Summary of gap significance for Plan Vivo**

### Risk management

Plan Vivo, of the six standards analyzed, is the only one that presents such a complete risk management structure. It has a comprehensive approach to E&S risk management, clearly detailing different safeguards procedures projects are required to complete during project development and implementation. It includes a robust ESMS approach beginning with pre-screening of environmental and social risks via Exclusion List, followed by E&S screening at the Project Idea Note stage assessed by the Plan Vivo Foundation’s E&S reviewers, followed by a detailed field-based assessment and development of a comprehensive ESMP at the Project Design Document stage to systematically identify and mitigate risks. Organizational capacity is ensured through clear guidelines for project management, capacity building, and technical assistance. Its monitoring, evaluation, and review framework includes progress indicators, annual E&S monitoring, and independent verification, ensuring continuous oversight. Plan Vivo integrates a human rights-based approach, ensuring risk screening, mitigation, and remediation measures in line with the Universal Declaration on Human Rights, and prohibiting projects that violate human rights, as per the Plan Vivo Exclusion List. Climate change adaptation and resilience are promoted through project interventions that enhance financial stability, food security, and social cohesion. Overall, Plan Vivo effectively addresses these requirements, with no significant gaps identified.

## Stakeholder Engagement

The Plan Vivo Standard ensures comprehensive stakeholder engagement through a participatory approach involving stakeholder identification, consultation, information disclosure, monitoring, and benefit sharing. Something to highlight is the Participatory Toolkit, which offers different guidelines for activities, such as stakeholder mapping and analysis, disadvantaged groups engagement, and others. The SEP required by the standard details ongoing consultation, feedback mechanisms, and clear channels for addressing grievances. Participatory tools and transparent governance structures facilitate meaningful engagement throughout the project lifecycle. Minor gaps exist in defining roles and responsibilities for monitoring stakeholder activities, which may affect enforcement consistency. The standard requires that a fair and equitable benefit-sharing mechanism be applied that has been agreed with the participation of communities involved. Lastly, Plan Vivo presents a framework for the development of a very comprehensive Grievance Mechanism, with very minor gaps on specifications for vulnerable groups, Indigenous Peoples and workers, among others.

## Social Standards

Plan Vivo effectively integrates key social standards, ensuring non-discrimination, equal opportunity, workers' organizations, and protections against child and forced labor. However, moderate gaps remain, such as not requiring retrenchment policies, written labor management procedures or providing workers with documented information about their rights. It also addresses issues related to community health risks, climate hazards, security personnel and patrolling, with a major gap due to lacking requirements on emergency preparedness and response. Land acquisition safeguards are well-addressed, preventing forced eviction and ensuring compensation for affected individuals, although inclusive decision-making in resettlement processes could be improved. Gender considerations are strong, promoting equal opportunities and protections against gender-based violence. Cultural heritage protections are included, preventing harm to significant sites, but there is no mention of more specific issues, such as use of cultural heritage, confidentiality, and removal of replicable and non-replicable cultural heritage.

## Indigenous Peoples

Plan Vivo effectively integrates Indigenous Peoples' rights by ensuring identification of communities with statutory or customary land rights, describing governance structures, and requiring their involvement in project planning and impact assessments, project implementation and where possible, monitoring and evaluation. It mandates indigenous participation in risk assessments and requires FPIC before and throughout project implementation. Customary land tenure is recognized, and compensation is required for unavoidable negative impacts. The standard also emphasizes the need for culturally appropriate information sharing and grievance mechanisms. However, some significant gaps exist, including the lack of specific protections for remote groups in voluntary isolation, the absence of broader development planning to strengthen indigenous participation, and no explicit safeguards for indigenous intellectual property rights.

## Environmental Standards

Plan Vivo properly incorporates environmental requirements across resource efficiency, pollution prevention, waste management, and biodiversity conservation, with some minor gaps. It ensures projects assess potential direct, indirect and cumulative environmental risk factors related to energy and water consumption, though the scope regarding raw material usage remains unclear. Pollution

prevention and waste management measures are robust, but the standard lacks a detailed definition of hazardous waste and does not reference international bans on high-toxicity or ozone-depleting substances. Biodiversity conservation is integrated through requirements for ecosystem baselines, risk assessments, and natural, modified and critical habitats protection. In addition, invasive species are effectively regulated and sustainable use of living resources is emphasized, with measures to prevent habitat destruction and unsustainable harvesting. However, there is no mandate for Biodiversity Management/Action Plans (BMP/BAP), and legally protected areas are not explicitly considered.

### **Summary of most critical gaps**

- There are no requirements regarding emergency preparedness and response.
- Remote groups with limited external contact or in voluntary isolation, intellectual property rights, and broader development planning are not mentioned/covered.
- There are gaps related to some cultural heritage specific issues, such as use of cultural heritage, confidentiality, and removal of replicable and non-replicable cultural heritage.

To mitigate these gaps, KfW could require projects applying to Plan Vivo standards to include in its requirements that, when necessary, projects should conduct a thorough risk hazard assessment prior to initiating activities with potential emergency risks. It also has to implement a binding requirement to avoid undesired contact with isolated groups, ensure project activities respect indigenous knowledge and intellectual property rights. In addition, KfW may want to foster more comprehensive cultural heritage safeguards by requiring chance find procedures, restricted disclosure guidelines, community access and participation, fair benefit-sharing, and rigorous impact assessments.

### **5.1.4. Results for Social Carbon**

SOCIALCARBON's risk management approach is divided into two distinct parts: a safeguarding assessment that identifies potential environmental and social risks, and a separate, self-selected indicator system used to monitor sustainability impacts. It addresses biodiversity conservation issues extensively. Key gaps include weak human rights requirements, land-use risk management, security and emergency measures, and protections for Indigenous Peoples, cultural heritage, and gender-based violence. Transparency and participatory mechanisms are also underdeveloped, limiting its effectiveness in ensuring robust safeguards.

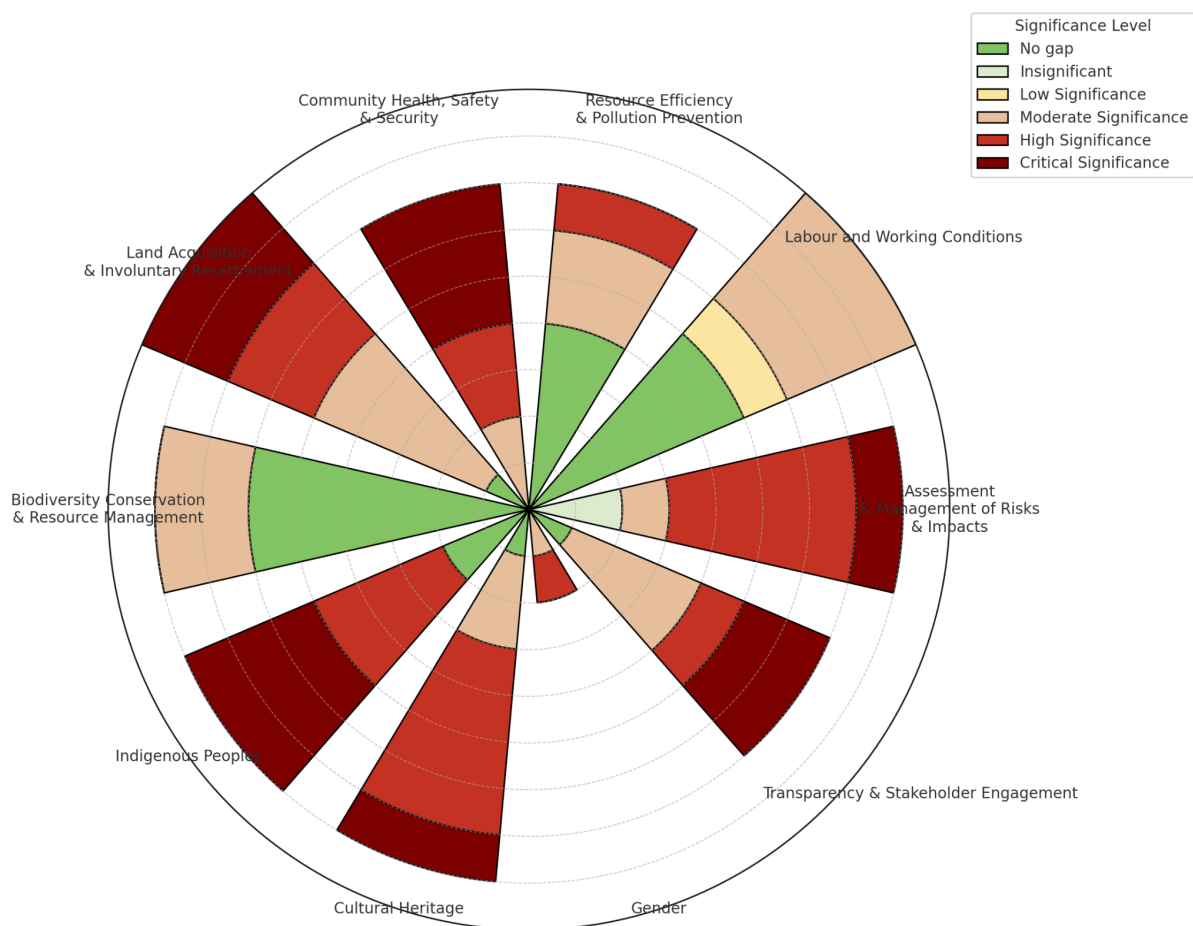


Figure 4. Summary of gap significance for Social Carbon

### Risk Management

SOCIALCARBON lacks a comprehensive approach to ESMS and does not require an overarching E&S Policy, structured risk identification tools, or a comprehensive ESMP. Risk management is primarily addressed through a **Safeguarding Assessment**, which lists topics such as land tenure, and environmental protection but offers limited guidance on methodologies or compliance processes. There is no requirement for a structured human rights due diligence process or policy commitment. **SOCIALCARBON Indicators**, used to assess six resource areas (Social, Human, Financial, Natural, Biodiversity, and Carbon), help track sustainability impacts through a scoring system (1 to 6), but their **self-selection** leads to gaps in risk identification and management. This approach is diagnostic and reactive rather than preventive. SOCIALCARBON complements the impact assessment process by providing a detailed, ongoing evaluation of sustainability performance across multiple dimensions. Its contribution is particularly valuable for continuous improvement but does not replace safeguard systems that focus on compliance and risk management.

### Stakeholder Engagement

The standard requires listing stakeholders and describing their rights and diversity, but does not mandate a consultation during stakeholder mapping, or an assessment of historical and social

context. The **consultation process** emphasizes culturally appropriate communication and ongoing dialogue but it does not require a formal **SEP** or a two-way feedback mechanism to document how stakeholder input shapes project decisions. Regarding **Information disclosure**, the standard requires projects to make information available and accessible to communities and other stakeholders through the project lifetime. **Moreover**, SOCIALCARBON mandates the development and description of a grievance redress procedure takes into account traditional methods of communities, and that includes a process for receiving, hearing, responding to and attempting to resolve grievances within a reasonable time period. **Benefit-sharing** requirements ensure fair distribution of benefits, including carbon revenues, and track co-benefits across six sustainability indicators, but there are no tailored mechanisms for equitable distribution and capacity building. However, **transparency measures for financial and managerial decisions** are absent, and there is no strong emphasis on participatory monitoring or formal conflict analysis.

### Indigenous Peoples

SOCIALCARBON recognizes Indigenous Peoples' rights to land, resources, and equitable benefit-sharing, ensuring protection of their cultural, intellectual, and spiritual property through FPIC. However, there is an important gap in that it does not provide a concrete definition of formal definition of Indigenous Peoples. It also lacks structured risk assessment procedures, and the requirement for an Indigenous Peoples Plan (IPP) if risks are identified. There are no detailed provisions for alternative impact avoidance strategies, culturally appropriate compensation, or long-term monitoring. Critical gaps also exist regarding remote groups in voluntary isolation.

### Social standards

SOCIALCARBON addresses key social standards, including labor rights, non-discrimination, OHS, and freedom of association, with requirements aligned with ILO conventions. It prohibits child labor, forced labor, and ensures fair working conditions and gender equality. However, community health, safety, and security are weakly addressed, focusing primarily on health risks without provisions for safety, security personnel and patrolling, or emergency preparedness. Land requirements ensure informed participation and protection against forced eviction but lack robust mitigation frameworks like Resettlement Action Plans or Livelihood Restoration Plans. On cultural heritage, while use of community knowledge and equitable benefit-sharing are acknowledged, there are no requirements for early risk assessments, protections for intangible heritage, or confidentiality of sensitive information. Regarding gender issues, there is no structured approach to address GBV or ensure responsive grievance mechanisms for gender-related issues.

### Environmental Standards

The SOCIALCARBON Standard robustly addresses resource efficiency, pollution prevention, water conservation, and pesticide management by requiring adherence to local laws or IFC performance standards, with no significant gaps in these areas. Biodiversity conservation is well covered through mandates to avoid ecosystem transformation, protect critical habitats, and manage invasive species. However, gaps exist in waste management—lacking verification of licensed disposal sites and structured long-term monitoring—and in hazardous materials management, which does not provide disposal measures. Additionally, while sustainable use of living natural resources is promoted, there is no guidance for large-scale commercial farming or for integrating certification systems.

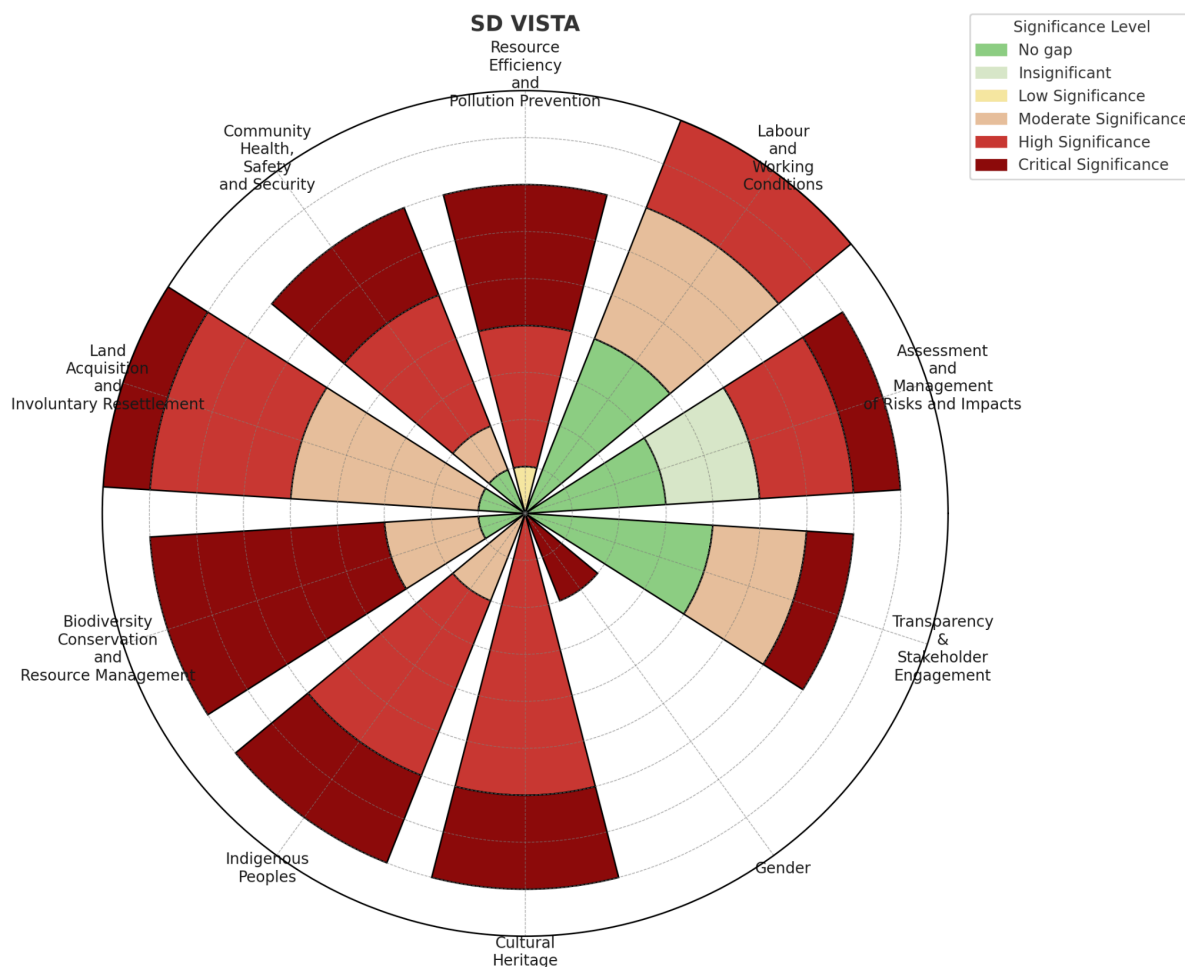
### Summary of most critical gaps

- It does not mandate a formal policy commitment or a structured human rights due diligence process.
- It does not have requirements regarding community exposure to disease, climate hazards, security personnel and patrolling, or emergency preparedness.
- It lacks a broader approach to managing land use risks, and requiring mitigation frameworks like Resettlement Action Plans or Livelihood Restoration Plans.
- It does not explicitly require identifying all potentially affected indigenous communities or detailing the expected impacts (direct and indirect) on these communities beyond FPIC.
- There is no structured approach to address GBV or ensure responsive grievance mechanisms for gender-related issues

Some of these gaps could be closed if KfW requested the introduction of a structured human rights due diligence process in line with the UN Guiding Principles on Business and Human Rights. Requiring projects to include targeted strategies for mitigating vector-borne and communicable diseases, particularly for vulnerable populations. And, requiring projects to assess and document the socioeconomic impact of displacement on informal or non-landowner resource users, ensuring equitable compensation and access restoration. To consult the rest of the gap closing measures for the remaining gaps, refer to the final assessment matrix.

#### **5.1.5. Results for standard SD VISta**

As a complementary standard, SD VISta could be expected to address gaps in core certification frameworks, but instead it covers some aspects that are already addressed by core standards, and presents significant gaps in other key safeguard areas. It lacks structured risk management procedures, human rights due diligence, and explicit protections for Indigenous Peoples. It does not mandate benefit-sharing agreements, cultural heritage safeguards, or gender equality measures. Additionally, its environmental provisions are weak, with no clear requirements for pollution prevention, biodiversity conservation, or sustainable resource use. As a result, SD VISta provides little added value without fully addressing most of the gaps in VCS or GS4GG.



**Figure 5. Summary of gap significance for SD VISTA**

### Risk Management

SD VISTA incorporates methodologies such as causal chains and project boundary identification to assess potential environmental and social impacts. It does not mandate a formal E&S Policy, structured risk assessment procedures, or an ESMP, creating a critical gap in risk management. However, the standard does ensure adequate organizational capacity and competence for project implementation. Monitoring and evaluation are well-integrated through a structured monitoring plan, participatory processes, and continuous stakeholder engagement. Despite these strengths, SD VISTA does not require a defined human rights policy or due diligence procedure, and it lacks requirements related to associated facilities, cumulative impacts, and structured safeguards for environmental and social risk categorization.

- VCS + SD VISTA:** By linking both standards, SD VISTA complements only the gap related to M&E, where VCS is very oriented to GHG emissions without further specifications, while SD VISTA has a broader M&E approach addressing aspects such as impacts depicted in the causal chain of a project's activities on all stakeholder groups, and the participation of stakeholders in the project cycle, including monitoring. On the other hand, gaps remain in terms of ESMS approach, human rights, associated facilities and activities, and cumulative impacts.

- **GS4GG + SD VISta:** In this case, SD VISta complements the gaps related to organizational capacity and M&E, requiring projects to ensure that projects have the human, financial and administrative resources to carry out the project, and requiring within M&E the participation of stakeholders, and the roles and responsibilities of the entities in charge of project design and implementation.

### Stakeholder Engagement

SD VISta provides a comprehensive framework for stakeholder engagement, ensuring stakeholder identification, consultation, transparency, and grievance mechanisms. It mandates ongoing stakeholder involvement, culturally appropriate communication, and public disclosure of project information. Additionally, it requires monitoring of stakeholder impact and conflict resolution measures. Critical gaps exist regarding benefit-sharing provisions, as there are no mandatory requirements ensuring fair distribution of benefits. Additionally, the grievance mechanism, though present, lacks specificity in addressing security personnel, Indigenous Peoples, gender-based grievances, and worker-related issues. Conflict analysis also does not fully account for broader instability factors such as war and civil unrest.

- **VCS + SD VISta:** In terms of information disclosure and stakeholders in M&E and reporting, SD VISta complements a gap in VCS, referring to the need to monitor the differentiated impact on stakeholder groups, and specifying the inclusion of stakeholders on an ongoing basis. Benefit sharing is not mentioned in SD VISta, but it is mentioned in VCS. And grievance mechanisms and conflict analysis have some gaps in both standards thus SD VISta does not comprehensively serve as a complementary standard to VCS in stakeholder engagement. .
- **GS4GG + SD VISta:** SD VISta complements GS4GG well in stakeholder identification, taking a broader approach by considering aspects such as locally appropriate methods, and providing opportunity for self-identification of stakeholder groups that are vulnerable and/or marginalized. Also, SD VISta, presents a much better way of requiring transparency issues (e.g. access to full information with differential approach, and measures against corruption, bribery, embezzlement, fraud, among others) than GS4GG, which is limited to financial issues, but around additionality. In benefit sharing and grievances mechanisms both present important gaps.

### Indigenous Peoples

SD VISta's approach to Indigenous Peoples presents notable gaps compared to best practices. It follows the ILO Convention's definition but does not account for varying national terminologies or unrecognized indigenous groups. The standard acknowledges stakeholders' rights, but it does not require assessing Indigenous Peoples' collective attachment to land when legal title is absent, nor does it mandate mitigation measures, cultural impact assessments, or benefit-sharing aligned with their customs. The framework lacks specific provisions for early consultation, sufficient time for indigenous decision-making, and direct engagement with indigenous governance structures. Its FPIC requirements focus on property rights but do not extend to customary land, relocation, or cultural heritage impacts. Furthermore, SD VISta does not address remote groups, broader development planning, or indigenous intellectual property rights, leaving critical gaps in its inclusivity and protection of Indigenous Peoples.

- **VCS + SD VISta:** In this case, SD VISta's contribution to the VCS is almost nil. SD VISta has critical and high significance gaps in all issues related to indigenous communities, with a small

exception in that SD VISta provides clear criteria for determining indigenous identity, filling a gap in VCS, as this standard does not provide them.

- **GS4GG + SD VISta:** The deficiency presented in SD VISta with respect to Indigenous Peoples, due to the level of gaps presented, makes this standard not complementary in any aspect to GS4GG.

### Social Standards

SD VISta addresses key social standards but presents critical gaps in several areas. While it aligns with ILO conventions, the absence of an explicit prohibition on child and forced labor raises enforcement concerns. There is no mention of retrenchment, community, voluntary, or migrant workers, leaving these groups unprotected. Community health and safety measures lack a lifecycle approach, with no specific safeguards for vulnerable groups, exposure to diseases, or security risks. Land acquisition provisions rely on FPIC but fail to mandate structured resettlement plans or livelihood restoration. SD VISta does require compensation, but only for formal property holders, leaving informal land users, and landless communities (potentially including Indigenous Peoples) unprotected; the gap is not the absence of compensation but its narrow scope and lack of enforcement mechanisms. Cultural heritage is entirely absent, and gender considerations are weak, lacking explicit requirements for gender equality or protections against broader GBV and SEAH risks.

- **VCS + SD VISta:** Regarding working conditions, SD VISta complements some topics such as labor management procedures, non-discrimination, workers' organizations and OHS, but other topics such as community, voluntary and migrant workers remain with significant gaps. Under community health and safety, SD VISta only complements the ecosystem services part, requiring the management of direct impacts depicted in a causal chain of a project's activities on ecosystem services. Finally, SD VISta does not complement any aspect of land acquisition and involuntary resettlement, cultural heritage and gender.
- **GS4GG + SD VISta:** Under working conditions, GS4GG has only one major gap in labor management procedures, which SD VISta closes by having requirements regarding labor practices and policies, and informing workers of their rights. However, SD VISta does not contribute to closing gaps in issues related to community health and safety, land, cultural heritage and gender.

### Environmental Standards

SD VISta lacks coverage of key environmental aspects, with no mention of resource efficiency, water consumption, waste management, hazardous materials, or pesticide use. It does not mandate pollution prevention measures throughout a project's lifecycle. Under biodiversity conservation, SD VISta includes requirements for assessing project impacts on natural capital and ecosystem services but does not differentiate risk levels for sensitive habitats or apply the mitigation hierarchy. Additionally, it fails to address critical topics, such as modified, natural, and critical habitats, legally protected and internationally recognized areas, invasive alien species, and the sustainable use of living natural resources.

- **VCS + SD VISta:** SD VISta does not complement VCS in any aspect in these topics, since most of the topics have critical and high significance gaps, both in resource efficiency and pollution prevention, as well as in biodiversity conservation.

- **GS4GG + SD VISta:** SD VISta does not complement GS4GG in any aspect, since most of the topics have critical and high significance gaps, both in resource efficiency and pollution prevention, as well as in biodiversity conservation.

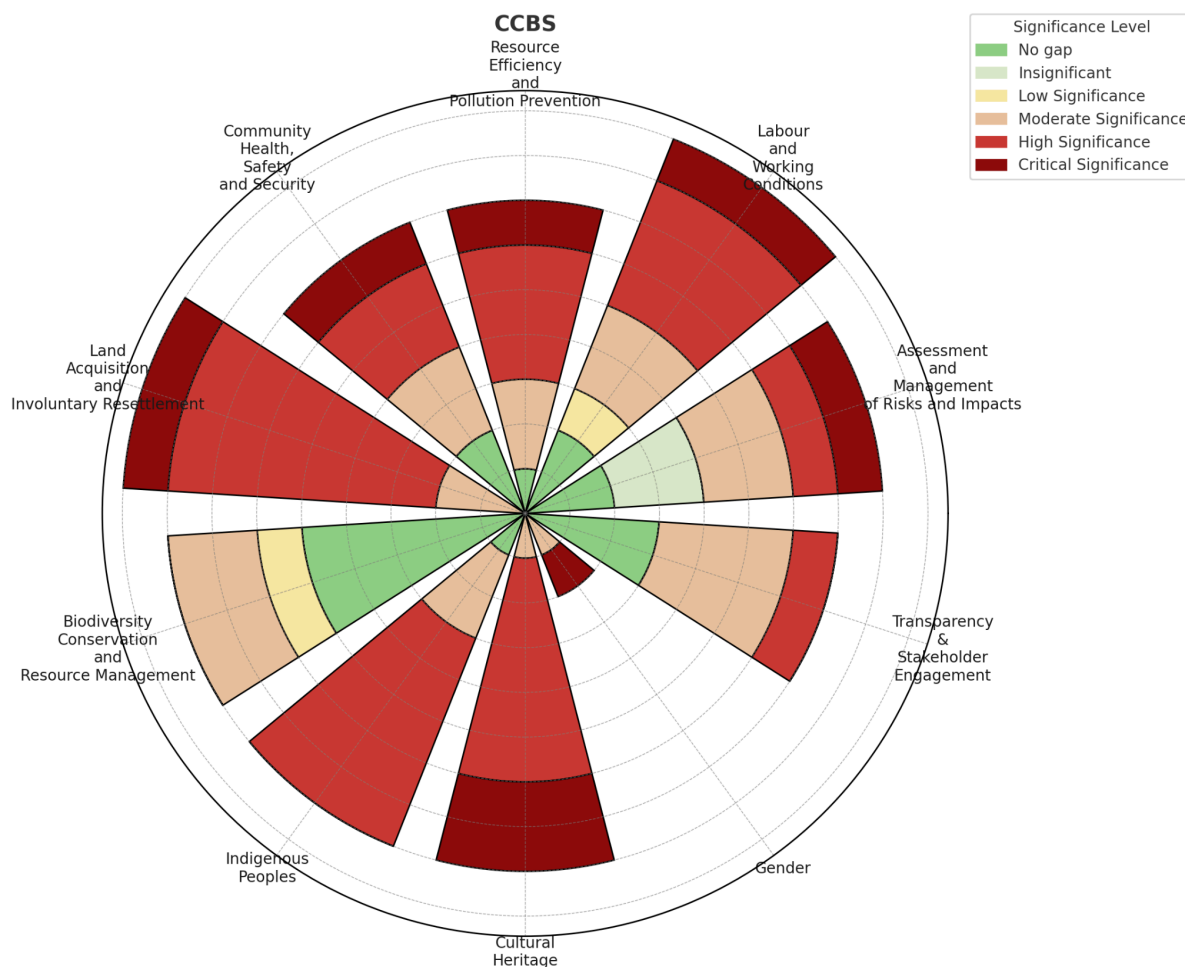
#### Summary of most critical gaps

- SD VISta does not provide a structured process for categorizing and evaluating environmental and social risks, nor does it require the development of an ESMP detailing mitigation actions.
- It does not require appropriate policies and processes to respect human rights, does not mention in the main documents the term “human rights”, does not require a due diligence procedure.
- It does not include mandatory provisions on benefit sharing agreements
- There is no mention of cultural heritage
- SD VISta does not explicitly mention gender or require projects to consider principles of gender equality without providing any guidance on how to do so, nor provide assurance that this will be done.
- There are no differential requirements for indigenous groups since they are included in “Stakeholders”, omitting important aspects such as FPIC, meaningful participation, among others.

SD VISta complements stakeholder engagement and M&E in VCS but major gaps remain in risk management, human rights, Indigenous Peoples’ protections, and environmental safeguards. It does not make VCS fully robust in safeguards. This standard strengthens transparency and labor protections in GS4GG but does not close gaps in Indigenous Peoples’ rights, land acquisition, gender, cultural heritage, or environmental safeguards. Its contribution is limited. Refer to section 5.2 for a visual representation of these results.

#### **5.1.6. Results for CCBS**

CCBS has some important gaps in risk management, human rights, pollution control, and safeguards related to land acquisition, labor rights, and gender-based violence. It lacks a structured framework for continuous risk assessment and does not comprehensively address social and environmental risks beyond monitoring benefits. As a complementary standard, it strengthens certain aspects of stakeholder engagement and biodiversity conservation, but it does not fully close critical gaps, especially in human rights protections, pollution prevention, and community health and safety.



**Figure 6. Summary of gap significance for CCBS**

### Risk Management

CCBS does not have an ESMS approach or structure for continuous risk assessment, and there is no explicit requirement for an E&S Policy or structured risk categorization. It mandates risk identification and mitigation to sustain climate, community, and biodiversity benefits, but it does not require procedures or documents like an ESMP detailing mitigation measures. It is focused on monitoring benefits rather than risks and their mitigation measures, and it lacks institutional arrangements and dedicated personnel for monitoring. Finally, the standard does not incorporate a human rights approach, omitting essential commitments to prevent and mitigate human rights risks.

- VCS+CCBS: Regarding this issue, CCBS gives almost no added value to VCS. With respect to M&E, CCBS complements somewhat by addressing issues other than GHG emissions as does VCS, however its focus on monitoring “benefits” and not “risks” makes the contribution not very significant.
- GS4GG+CCBS: CCBS only complements GS4GG in one aspect, by having requirements concerning organizational capacity, such as describing the project’s governance structures and roles and responsibilities, and documenting key technical skills required to implement the project successfully

## Stakeholder Engagement

CCBS provides a structured approach to stakeholder engagement, including clear requirements for stakeholder identification and consultation, by requiring projects to develop plans and document formal approvals from relevant authorities and implement ongoing communication and consultation plans. However, significant gaps exist. Transparency is limited, as it primarily focuses on FPIC without extending to financial flows or decision-making processes. Benefit-sharing is a major weakness, as it remains optional and lacks mandatory guidelines for equitable distribution. The grievance mechanism, while established, does not fully address issues related to security personnel, Indigenous Peoples, gender-based violence, or land acquisition. Additionally, conflict analysis is insufficient, failing to assess how projects might contribute to or be affected by broader societal tensions.

- **VCS + CCBS:** CCBS complements the VCS with respect to information disclosure and reporting by ensuring that full project documentation is actively disseminated in accessible formats and in local languages, and by requiring the development of a comprehensive monitoring plan that includes community-specific indicators, which requires ongoing stakeholder participation in project design, implementation and evaluation. Other aspects such as transparency, grievance mechanisms and conflict analysis continue to present gaps.
- **GS4GG + CBS:** CCBS complements GS4GG, covering some of the gaps presented in stakeholder identification and consultation, and information disclosure, by strengthening stakeholder engagement through detailed identification, active information sharing, and continuous consultation. It requires a detailed assessment of stakeholder rights and interests, and active dissemination of project documentation in local languages. GS4GG's issues related to benefit sharing, transparency, grievance mechanisms and conflict analysis continue to present important gaps.

## Indigenous Peoples

CCBS recognizes Indigenous Peoples within its broader definition of "communities", without a multidimensional definition incorporating collective attachment to ancestral lands and governance structures. It mandates consultation and participation, but does not require tools or procedures such as Indigenous Peoples Plans. Customary land tenure is acknowledged but not systematically assessed, and benefit-sharing mechanisms are not explicitly tied to indigenous governance. FPIC is applied primarily to property rights, without explicit recognition for impacts on traditional land use or cultural heritage. The standard also overlooks broader development planning and intellectual property rights, presenting a significant gap in addressing Indigenous Peoples' holistic rights.

- **VCS + CCBS:** Only one of the several gaps presented by VCS would be complemented by CCBS. The absence of requirements associated with remote groups or voluntary isolation is covered by CCBS by ensuring that all contact with these groups is avoided, and even proposes a buffer area to prevent this from happening.
- **GS4GG + CCBS:** With respect to meaningful participation, CCBS presents requirements such as the inclusion of established formal and/or traditional authorities customarily required by the communities: in addition, it includes consultation requirements and mandates gender- and intergenerational-sensitive engagement. CCBS requirements also close the gap related to groups in voluntary isolation. The other areas related to Indigenous Peoples, such as definitions, risk identification and management, FPIC, broader development and intellectual rights, continue to present important gaps.

## Social Standards

CCBS mandates compliance with national labor laws, but it does not mention relevant issues regarding human resources policies. It omits retrenchment, worker organizations, and critical protections against child and forced labor. Occupational health and safety are well covered. Community health monitoring is required, but the standard does not comprehensively mitigate health risks such as disease exposure or security personnel and patrolling issues. Land acquisition provisions protect formal property rights but fall short in safeguarding informal land users and ensuring livelihood restoration. Cultural heritage is not addressed, and gender considerations focus only on sexual harassment, overlooking broader gender-based violence risks.

- **VCS+CCBS:** In this case CCBS complements VCS on issues that the latter does not mention or mentions very vaguely, such as Non-Discrimination and Equal Opportunity, OHS and Workers Engaged by Third Parties. With respect to Community Health, Safety and Security, VCS is strengthened in Ecosystem Services and Climate hazards, as CCBS has requirements such as evidencing decreased access to ecosystem services of importance for communities, and Identify likely regional or sub-national climate change and climate variability scenarios and impact. Finally, CCBS does not complement VCS in any aspect related to land acquisition, cultural heritage and gender.
- **GS4GG+CCBS:** CCBS addresses the gaps in VCS, present in the topics of Working conditions and management of worker relationship. Regarding community health and safety, only the topic of climate hazards is addressed by CCBS complementing VCS, leaving gaps in other topics such as Community exposure to disease, emergency preparedness and security personnel and patrolling. Issues related to land, cultural heritage and gender continue to present large gaps.

## Environmental Standards

CCBS incorporates key environmental considerations but has notable gaps in resource efficiency and pollution prevention. While it ensures net positive climate benefits and addresses water efficiency in some projects, it lacks explicit requirements for broader resource efficiency, pollution control, and hazardous materials management. Waste and pesticide management are addressed but without mandates for compliance with Good International Industry Practices, or developing IPMs or IVMs. Biodiversity conservation in natural, modified and critical habitats is well integrated, including HCV assessments and invasive species control, but the standard does not mandate the mitigation hierarchy or biodiversity action plans. Additionally, it lacks structured guidance for the sustainable use of living natural resources, particularly for large-scale commercial activities.

- **VCS+CCBS:** With respect to resource efficiency and pollution prevention, CCBS only complements the VCS gap related to wastes by providing detailed information regarding good waste management practices. On the other hand, the requirements of CCBS with respect to critical habitats and protected areas close the critical gaps present in VCS.
- **GS4GG+CCBS:** CCBS complements the moderate VCS gap related to wastes, not only by requiring proper waste management, but also by providing detailed information and examples of good practice. The gaps presented in VCS related to natural habitats, protected areas, and ecosystem services are addressed by CCBS, as the standard has requirements

around High Conservation Values, the contribution of targets such as the Aichi targets, and the description of risks in the access to ecosystem services by communities.

### Summary of most critical gaps

- There is an absence of a structured framework for risk mitigation, and it totally lacks requirements regarding human rights.
- CCBS does not have explicit requirements on child labour and forced labour.
- There are no pollution control measures, use of pesticides and hazardous materials.
- The standard has no risk avoidance requirements with respect to community disease, emergency preparedness, and security personnel and patrolling.
- There are no requirements for most issues related to land acquisition, involuntary resettlement, and cultural heritage.

VCS benefits from CCBS in stakeholder engagement, biodiversity conservation, and waste management but still has gaps on risk mitigation, human rights, Indigenous Peoples considerations, and pollution prevention. GS4GG sees improvements in working conditions, Indigenous Peoples' participation, and some environmental standards, yet retains deficiencies in transparency, grievance mechanisms, land acquisition, and gender considerations. Across both pairings, major weaknesses persist in child and forced labor protections, pollution control, pesticide and hazardous materials management, and community health risks such as disease exposure and security personnel oversight.

## 5.2. Overview of results per topic

This section presents a comparative analysis of how the assessed VCM standards perform across the key E&S safeguards topics. The tables provide a structured comparison, highlighting which topics are least covered in the core standards, which are well addressed, and whether complementary standards would be able to close identified gaps in the core standards. This was done assuming that where complementary standards have no gaps they can close gaps of core standards, where they have low or moderate gaps they might be able to partly close the standards and where they have high or critical gaps themselves, they will not be able to close gaps in the core standards. This visualization helps to identify gaps that remain despite adding an extra standard and thus creates an understanding of the extent to which combining multiple standards improves overall safeguard coverage.

Table 3. Overview of Results per Topic and how different VCM standards complement each other

**Topic: Assessment and Management of Environmental and Social Risks and Impacts**

| Subject  | VCS           | Gold Standard | Plan Vivo                            | Social Carbon                        | SD Vista                  | CCBS                                 |
|--|---------------|---------------|--------------------------------------|--------------------------------------|---------------------------|--------------------------------------|
| <i>Environmental and Social Assessment and Management System (ESMS), including:</i><br>- E&S Policy<br>- System to identify E&S risks and impacts<br>- System to manage risks & impacts (ESMP) | High          | Low           | ●                                    | ●<br><br>Cannot fill gaps            | ●<br><br>Cannot fill gaps | ●<br><br>Cannot fill gaps            |
| <i>Organisational capacity and competence</i>  | No gap        | High          | Can fill gaps                        |                                      | ●                         | ●<br>Can fill gaps                   |
| <i>Monitoring, evaluation (M&amp;E) and review</i>   | Critical      | Low           |                                      |                                      | Can fill gaps             | ●<br>May be able to partly fill gaps |
| <i>Project Description &amp; Area of Influence</i>   | No gap        | Low           |                                      | ●<br>May be able to partly fill gaps |                           | ●<br>Can fill gaps                   |
| <i>Alternatives</i>  | Insignificant | Insignificant | Insignificant                        | Insignificant                        | Insignificant             | Insignificant                        |
| <i>Human Rights Approach</i>   | Low           | Low           | ●<br><br>Can fill gaps               | ●<br><br>Cannot fill gaps            | ●<br><br>Cannot fill gaps | ●<br><br>Cannot fill gaps            |
| <i>Climate change</i>  | Insignificant | Insignificant |                                      | Insignificant                        | Insignificant             | Insignificant                        |
| <i>Associated facilities &amp; activities and Cumulative Impacts</i>   | High          | Moderate      | ●<br>May be able to partly fill gaps | ●<br>Cannot fill gaps                | ●<br>Cannot fill gaps     | ●<br>May be able to partly fill gaps |

**Key insights:** This is the most relevant topic as it is the topic which sets the tones and way in which projects should identify, assess, mitigate and manage E&S risk and impacts. Almost all standards rank badly in this category due to the lack of clear ESMS frameworks. Plan Vivo avoids most risks related to this topic, and is the only standard that completely covers subject 1 - a complete ESMS. The next “best” combination of standards that does not involve Plan Vivo would

be the Gold Standard with either SD Vista or CCBS, though coverage of several subjects may remain suboptimal or would need further analysis, e.g. monitoring and evaluation when combining the Gold Standard with CCBS.

| Topic: Labour and Working Conditions                       |          |               |                                      |                                      |                                      |                                      |  |
|--|----------|---------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--|
| Subject  | VCS      | Gold Standard | Plan Vivo                            | Social Carbon                        | SD Vista                             | CCBS                                 |  |
| Working Conditions and Management of Worker Relationship   | Low      | High          | ●                                    | ●                                    | ●<br>Can fill gaps                   | ●                                    |  |
| Retrenchment   | Moderate | Moderate      | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps |  |
| Non-Discrimination and Equal Opportunity                   | Low      | No gap        | ●                                    | ●                                    | ●                                    | ●<br>Can fill gaps                   |  |
| Workers' Organisations                                     | Low      | Low           | ●<br>Can fill gaps                   | ●<br>Can fill gaps                   | ●<br>Can fill gaps                   | ●                                    |  |
| Protecting the Work Force<br>Child Labour<br>Forced Labour | No gap   | No gap        |                                      |                                      |                                      | ●<br>Cannot fill gaps                |  |
| Occupational Health and Safety                             | Low      | No gap        |                                      |                                      |                                      | ●<br>Can fill gaps                   |  |
| Workers Engaged by Third Parties                           | Low      | No gap        | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps | ●                                    |  |
| Community workers/voluntary workers/Migrant workers        | High     | Moderate      |                                      |                                      |                                      | ●<br>Cannot fill gaps                |  |
| Supply chain   | High     | No gap        | ●<br>Cannot fill gaps                | ●<br>May be able to partly fill gaps | ●<br>Cannot fill gaps                | ●<br>Cannot fill gaps                |  |

**Key insights:** Overall, the topic of labour and working conditions is better covered by safeguards requirements than other topics although some gaps remain. The subject where most standards have gaps concerns risks along the supply chain, where the Gold Standard is the only standard without gaps. However, the Gold Standard has gaps in working conditions and worker relationship management, which can only be partially addressed either by SD Vista or Social Carbon. For several subjects, including retrenchment, further assessment is needed to determine whether complementary standards can adequately fill gaps. Under the VCS standard, the two most critical gaps cannot be satisfactorily addressed by any other standard.

| Topic: Resource efficiency and pollution prevention     |          |               |  |                                      |                                      |                       |                                      |                                      |
|---|----------|---------------|--|--------------------------------------|--------------------------------------|-----------------------|--------------------------------------|--------------------------------------|
| Subject   | VCS      | Gold Standard |  | Plan Vivo                            | Social Carbon                        |                       | SD Vista                             | CCBS                                 |
| <i>WB EHS Guidelines and relevant Sector Guidelines</i> | High     | High          |  | ●<br>Cannot fill gaps                | ●<br>Cannot fill gaps                |                       | ●<br>Cannot fill gaps                | ●<br>Cannot fill gaps                |
| <i>Resource Efficiency</i>                              | High     | Moderate      |  | ●<br>May be able to partly fill gaps | ●<br>Can fill gaps                   |                       | ●<br>Cannot fill gaps                | ●<br>May be able to partly fill gaps |
| <i>Pollution prevention</i>                             | No gap   | No gap        |  | ●<br>Can fill gaps                   |                                      |                       | ●<br>May be able to partly fill gaps | ●<br>Cannot fill gaps                |
| <i>Water consumption</i>                                | No gap   | Low           |  | ●<br>May be able to partly fill gaps |                                      | ●<br>Cannot fill gaps |                                      |                                      |
| <i>Waste management</i>                                 | Moderate | Moderate      |  | ●<br>Can fill gaps                   | ●<br>May be able to partly fill gaps |                       | ●<br>Cannot fill gaps                | ●<br>Can fill gaps                   |
| <i>Hazardous Materials Management</i>                   | High     | Low           |  | ●<br>May be able to partly fill gaps |                                      |                       |                                      | ●<br>Cannot fill gaps                |
| <i>Pesticide use and management</i>                     | Low      | No gap        |  |                                      | ●<br>Can fill gaps                   |                       |                                      |                                      |

**Key insights:** None of the complementary standards (including niche standards) can fill identified gaps in the core standards regarding EHS and relevant sector guidelines, i.e. extra measures are indeed needed here to meet requirements and good practice standards. An example for complementarity under this topic is the combination between the VCS and the CCBS standard, but only regarding the subjects of pollution prevention and water consumption: since there are no gaps in the VCS for those topics, it is of no consequence that CCBS cannot fill any gaps here. However, the combination would still leave the EHS and sector guidelines as well as hazardous materials management unaddressed. The niche standards (PV and SC) cover almost all subjects in detail but EHS and relevant sector guidelines.

| Topic: Community Health, Safety and Security  |          |               |  |                                 |                                 |  |                                 |                                 |
|---|----------|---------------|--|---------------------------------|---------------------------------|--|---------------------------------|---------------------------------|
| Subject   | VCS      | Gold Standard |  | Plan Vivo                       | Social Carbon                   |  | SD Vista                        | CCBS                            |
| <i>Identify, assess and manage risks and impacts on "Community Health, Safety &amp; Security"</i> | Low      | Low           |  | Can fill gaps                   | Cannot fill gaps                |  | Cannot fill gaps                |                                 |
| <i>Infrastructure and Equipment Design and Safety</i>   | Moderate | Low           |  | May be able to partly fill gaps |                                 |  | May be able to partly fill gaps | May be able to partly fill gaps |
| <i>Ecosystem Services</i>   | Low      | No gap        |  | Can fill gaps                   | May be able to partly fill gaps |  | Can fill gaps                   | Can fill gaps                   |
| <i>Community exposure to disease</i>  | High     | High          |  | May be able to partly fill gaps |                                 |  |                                 | Cannot fill gaps                |
| <i>Climate hazards</i>  | Low      | Moderate      |  | Can fill gaps                   | Cannot fill gaps                |  | Cannot fill gaps                | Can fill gaps                   |
| <i>Emergency preparedness and response</i>  | Critical | High          |  | Cannot fill gaps                |                                 |  |                                 |                                 |
| <i>Patrolling &amp; Security Personnel</i>  | Critical | Critical      |  | Can fill gaps                   |                                 |  |                                 | Cannot fill gaps                |

**Key insights:** The Standard that is best prepared to deal with risks under this topic is Plan Vivo, with the exception of the subject on emergency preparedness and response. This subject presents a high or even critical significance gap across all standards. However, Plan Vivo is also the only standard that addresses risks from patrolling and security personnel. This is a subject under the topic of community health, safety and security that experiences increasing attention, and should not go unnoticed in any VCM project. Where core standards are used alone or in combination with any of the standards apart from Plan Vivo, additional measures will be needed to deal with this subject, as well as with community exposure to disease and emergency preparedness and response.

| Topic: Land Acquisition and Involuntary Resettlement  |          |               |  |                                 |                                 |  |                                 |                                 |
|---|----------|---------------|--|---------------------------------|---------------------------------|--|---------------------------------|---------------------------------|
| Subject   | VCS      | Gold Standard |  | Plan Vivo                       | Social Carbon                   |  | SD Vista                        | CCBS                            |
| <i>Project design: Avoidance of Displacement</i>  | Low      | Low           |  | Can fill gaps                   | Cannot fill gaps                |  |                                 | May be able to partly fill gaps |
| <i>Identify, assess and manage risks and impacts on "Land Acquistiton and Involuntary Resettlement"</i> | High     | No gap        |  | May be able to partly fill gaps | Cannot fill gaps                |  | May be able to partly fill gaps | Cannot fill gaps                |
| <i>Affected persons (eligibility)</i>   | High     | Low           |  | Cannot fill gaps                | May be able to partly fill gaps |  |                                 | May be able to partly fill gaps |
| <i>Compensation and benefits for affected persons</i>   | Low      | High          |  |                                 | Cannot fill gaps                |  |                                 |                                 |
| <i>Physical displacement</i>  | Critical | High          |  |                                 | May be able to partly fill gaps |  | Cannot fill gaps                | Cannot fill gaps                |
| <i>Forced eviction</i>  | Low      | No gap        |  | Can fill gaps                   | Can fill gaps                   |  |                                 |                                 |
| <i>Economic displacement</i>  | High     | High          |  |                                 | Cannot fill gaps                |  |                                 |                                 |
| <i>Technical and financial assistance</i>   | Moderate | Moderate      |  |                                 |                                 |  |                                 |                                 |
| <i>Private Sector Responsibilities Under Government-Managed Resettlement</i>                            | Moderate | Moderate      |  | May be able to partly fill gaps | May be able to partly fill gaps |  | May be able to partly fill gaps | May be able to partly fill gaps |

**Key insights:** This is a very sensitive topic and the core standards are not very well prepared to deal with risks, with the Gold Standard ranking somewhat better than the VCS. Again, Plan Vivo is best equipped to deal with risks, especially on the subjects of compensation and benefits, physical and economic displacement, followed by Social Carbon. Where Plan Vivo is used as a standalone standard, certain subjects will need extra measures to ensure full coverage, especially regarding the eligibility of affected persons. Overall, apart from Plan Vivo, any combination between core and other standards would still require a significant number of additional gap closing measures before it can be assumed that subjects are adequately covered.

| Topic: Biodiversity Conservation and Sustainable Management of Living Natural Resources                        |          |               |  |                                      |                                      |  |                                      |                                      |
|--|----------|---------------|--|--------------------------------------|--------------------------------------|--|--------------------------------------|--------------------------------------|
| Subject  | VCS      | Gold Standard |  | Plan Vivo                            | Social Carbon                        |  | SD Vista                             | CCBS                                 |
| <i>Identify and Manage Risks and Impacts on Biodiversity (including Biodiversity Management/Action Plans).</i> | Low      | High          |  | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps |  | ●<br>May be able to partly fill gaps | ●<br>May be able to partly fill gaps |
| <i>Modified Habitat</i>  | Low      | Low           |  | ●<br>Can fill gaps                   | ●<br>Can fill gaps                   |  |                                      |                                      |
| <i>Natural Habitat</i>   | No gap   | High          |  |                                      |                                      |  | ●<br>Cannot fill gaps                | ●<br>Can fill gaps                   |
| <i>Critical Habitat</i>  | Critical | No gap        |  |                                      |                                      |  |                                      |                                      |
| <i>Legally protected and internationally recognised areas</i>  | Critical | Low           |  | ●<br>May be able to partly fill gaps | ●<br>Can fill gaps                   |  |                                      | ●<br>Can fill gaps                   |
| <i>Invasive alien species</i>  | No gap   | No gap        |  | ●<br>Can fill gaps                   |                                      |  |                                      |                                      |
| <i>Management of Ecosystem Services</i>  | No gap   | Low           |  |                                      |                                      |  | ●<br>Can fill gaps                   |                                      |
| <i>Sustainable use of living natural resources</i>   | Low      | Low           |  |                                      | ●<br>May be able to partly fill gaps |  | ●<br>Cannot fill gaps                | ●<br>May be able to partly fill gaps |









**Key insights:** Overall, the topic is better covered than others, however, certain gaps also remain. Within the core standards, VCS has critical significance gaps under the subjects of critical habitat and legally protected and internationally recognised areas. Both Social Carbon and CCBS can fully cover these gaps though, so a combination between VCS and one of these two would be helpful. In the case of the Gold Standard, there are also two high significance gaps, but the first on the subject of identifying and managing risks and impacts on biodiversity cannot be completely filled by any of the other standards. A comparison among the standards apart from VCS and the Gold Standard shows that Plan Vivo, Social Carbon and CCBS are better placed to deal with risks under the topic than SD Vista.

| Topic: Indigenous Peoples   |          |               |  |                  |                  |  |                  |                  |
|---|----------|---------------|--|------------------|------------------|--|------------------|------------------|
| Subject   | VCS      | Gold Standard |  | Plan Vivo        | Social Carbon    |  | SD Vista         | CCBS             |
| <i>Definition</i>   | High     | Low           |  |                  |                  |  |                  |                  |
| <i>Identify, assess and manage adverse risks and impacts on IPs</i>       | Low      | High          |  |                  | Cannot fill gaps |  |                  | Cannot fill gaps |
| <i>Traditional or Customary Lands under Use</i>                           | Low      | High          |  | Can fill gaps    |                  |  |                  |                  |
| <i>IP Meaningful Participation</i>  | Low      | High          |  |                  |                  |  |                  |                  |
| <i>Free, Prior, and Informed Consent (FPIC)</i>                           | No gap   | High          |  |                  | Cannot fill gaps |  | Cannot fill gaps |                  |
| <i>Remote groups with limited external contact or voluntary isolation</i> | Critical | Low           |  |                  | Cannot fill gaps |  |                  |                  |
| <i>Broader Development Planning</i>                                       | High     | High          |  | Cannot fill gaps |                  |  |                  |                  |
| <i>Intellectual property rights</i>                                       | High     | No gap        |  |                  |                  |  |                  |                  |

**Key insights:** Both core standards show several high or even critical significance gaps under this topic. Interestingly, these gaps are almost complementary between these two standards regarding the coverage of subjects under the topic of Indigenous Peoples. The combination between the Gold Standard and Plan Vivo would fill almost all the gaps. However, there is one subject that is not covered by any of the standards, and that regards the consideration of Indigenous Peoples in broader development planning. The only standard that covers the subject of remote groups with limited external contact or in voluntary isolation is CCBS, however, all the remaining subjects are insufficiently addressed. SD Vista does not fully meet requirements on any of the subjects that were assessed. All in all, this is a delicate topic which is not ideally addressed by any of the standards, although Plan Vivo could easily properly cover it by adding specific mitigation measures to certain topics.

| Topic: Cultural heritage   |          |               |  |                                 |                                 |  |                  |                                 |                  |
|--|----------|---------------|--|---------------------------------|---------------------------------|--|------------------|---------------------------------|------------------|
| Subject  | VCS      | Gold Standard |  | Plan Vivo                       | Social Carbon                   |  | SD Vista         | CCBS                            |                  |
| <i>Identify, assess and manage risks and impacts on "Cultural Heritage"</i>  | Low      | Low           |  | May be able to partly fill gaps | May be able to partly fill gaps |  | Cannot fill gaps | Cannot fill gaps                |                  |
| <i>Critical Cultural Heritage (including Legally Protected &amp; Internationally recognized cultural heritage)</i> | No gap   | No gap        |  | Can fill gaps                   | May be able to partly fill gaps |  |                  | May be able to partly fill gaps |                  |
| <i>Chance Find Procedures</i>  | High     | Moderate      |  | Cannot fill gaps                | Cannot fill gaps                |  |                  | Cannot fill gaps                | Cannot fill gaps |
| <i>Confidentiality</i>   | High     | High          |  |                                 | Cannot fill gaps                |  |                  |                                 |                  |
| <i>Community Access</i>  | Critical | Critical      |  | May be able to partly fill gaps |                                 |  |                  |                                 |                  |
| <i>Use of cultural heritage</i>  | High     | Low           |  | Cannot fill gaps                | Can fill gaps                   |  |                  |                                 | Cannot fill gaps |
| <i>Removal of replicable and non-replicable cultural heritage</i>  | High     | No gap        |  |                                 | Cannot fill gaps                |  |                  |                                 |                  |
| <i>Intangible cultural heritage</i>  | High     | No gap        |  | Can fill gaps                   | Cannot fill gaps                |  |                  |                                 |                  |

**Key insights:** The topic is among the most poorly covered in general. Among the core standards, the Gold Standard is a lot better equipped to address risks under the topic than the VCS, however, the subjects of confidentiality and community access show high and critical significance gaps for both core standards. These two subjects - confidentiality and community access - actually show a high significance gap across all standards, except Plan Vivo that addresses the issue of community access. Chance find procedures is another subject only barely covered by one standard, Gold Standard. Complementary standards cannot fill the gaps in the core standards, although Plan Vivo ranks slightly better on some subjects than other standards. The only standard that adequately covers the subject of use of cultural heritage is Social Carbon.

| Topic: Gender  |      |               |  |   |   |  |  |   |
|--|------|---------------|--|---|---|--|--|---|
| Subject  | VCS  | Gold Standard |  | Plan Vivo   | Social Carbon   |  | SD Vista   | CCBS  |
| Identify, assess and manage gender-based risks and impacts (Gender sensitive approach) | High | High          |  |  May be able to partly fill gaps |  Cannot fill gaps                |  |  Cannot fill gaps |  May be able to partly fill gaps |
| GBV & SEAH Risk areas  | High | No gap        |  |  Can fill gaps                   |  May be able to partly fill gaps |  |  Cannot fill gaps |  Cannot fill gaps                |

**Key insights:** Taking the attention that the topic receives, it is surprising to see that a gender-sensitive approach to risk and impact identification, assessment and management is inadequately covered by the majority of standards and only partly by Plan Vivo and CCBS. From the two core standards, the Gold Standard is again better equipped to deal with risks that might occur under this topic, although it falls equally short on the first subject. Apart from the core standards, Plan Vivo once again shows the best coverage of subjects, but some extra measure would be needed in a combination between one of the core standards and Plan Vivo, or with Plan Vivo as a stand alone standard, to ensure full coverage. The next most suitable combination would be between the Gold Standard and CCBS, since CCBS can partly fill the high significance gap on the first subject and there is no gap in the Gold Standard on the second.

It should be noted that other gender-relevant subjects - such as GRM - were integrated into other topics and are thus not repeated here.

| Topic: Transparency & Stakeholder Engagement                        |        |               |  |                                 |                                 |  |                                 |                                 |
|---|--------|---------------|--|---------------------------------|---------------------------------|--|---------------------------------|---------------------------------|
| Subject   | VCS    | Gold Standard |  | Plan Vivo                       | Social Carbon                   |  | SD Vista                        | CCBS                            |
| Stakeholder identification  | No gap | Low           |  | Can fill gaps                   | May be able to partly fill gaps |  | Can fill gaps                   | Can fill gaps                   |
| Consultation and engagement process                                 | No gap | Low           |  |                                 | Cannot fill gaps                |  | Can fill gaps                   | Can fill gaps                   |
| Information disclosure, Monitoring & Evaluation (M&E) and reporting | Low    | Low           |  | May be able to partly fill gaps | Can fill gaps                   |  |                                 |                                 |
| Transparency  | Low    | Low           |  | Can fill gaps                   | Cannot fill gaps                |  |                                 | Cannot fill gaps                |
| Benefit sharing   | No gap | High          |  |                                 | May be able to partly fill gaps |  | Cannot fill gaps                | May be able to partly fill gaps |
| Grievance Mechanism (GRM)   | Low    | Low           |  | May be able to partly fill gaps | May be able to partly fill gaps |  | May be able to partly fill gaps | May be able to partly fill gaps |
| Conflict analysis   | Low    | High          |  | May be able to partly fill gaps | Cannot fill gaps                |  | May be able to partly fill gaps |                                 |

**Key insights:** In general, there is better coverage of the topic across standards as compared to other topics. Plan Vivo overall ranks best in terms of coverage, followed by the VCS. The subjects that remain inadequately covered include benefit sharing (apart from in Plan Vivo) and conflict analysis, while the subject that is generally fairly well covered is grievance redress, with only low significance gaps across the standards. While there is no standard that could be used without any additional gap filling measures, extra measures would likely be limited in using the VCS, Plan Vivo or SD Vista. In fact, the combination of VCS and SD Vista would only require a revision of gaps on grievance redress and conflict analysis, while all other subjects would be well covered.

## 6. Conclusion and Recommendations

The detailed analysis of the six Voluntary Carbon Market (VCM) standards highlights substantial differences in how they address environmental and social (E&S) safeguards. Each standard presents varying levels of compliance with good practices, and significant gaps remain when compared to internationally recognized frameworks, such as the WB ESS, IFC PS, and other applicable standards and key human rights and environmental guidelines.

### Key Takeaways from the Gap Analysis

- Core project-level standards (GS4GG and VCS) alone are insufficient to ensure alignment with KfW's E&S requirements. While they integrate some safeguards elements, critical areas such as human rights, security personnel and patrolling, gender considerations, physical and economic displacement, and Indigenous Peoples' rights remain inadequately addressed.
- The addition of complementary standards (CCBS, SD VISta, and Social Carbon) does not fully bridge these gaps. While they provide improvements in certain aspects, they do not create a sufficiently robust safeguard system that aligns with good practices. In many cases where the core standards fall short—such as in gender protections, security personnel, and land acquisition safeguards—the complementary standards do not even mention these issues, leaving critical risks entirely unaddressed.
- Plan Vivo, despite being a niche standard applicable only to community-led AFOLU projects, presents the most robust, clear, and detailed E&S safeguards procedures among the analyzed standards. Its 2024 update introduced a systematic approach based on IUCN's Environmental and Social Management System (ESMS) methodologies, making it the easiest to understand and implement compared to other standards. While its scope is limited to community-led AFOLU projects, its structured risk management approach could serve as a good-practice framework for other VCM projects.
- SCS has evolved from a complementary standard into a complete niche standard with strong sustainability impact tracking, but its safeguard framework is still insufficient when assessed against the KfW requirements and good practices.

### Recommendations on Gap Closing Measures

A full overview of all gaps and closing measures are included in Annex 2 (GA Matrix). Below we present some illustrative examples for some of the critical gaps per standards. When the gap is similar across standards, the same mitigation measure is applicable.

| Gold Standard for Global Goals        |   |  |
|---------------------------------------|---|--|
| E&S Topic                             | Gap   | Gap closing measures   |
| Community Health, Safety and Security | It does not require provisions to prepare for and respond to emergency events<br>No mention of the evaluation of patrols and security personnel, training for proper conduct, or safeguards against abuses. | <ul style="list-style-type: none"> <li>- For projects having the potential to generate an emergency event, conduct a comprehensive Risk Hazard Assessment.</li> <li>- Request human rights risk assessment to understand risks from patrolling &amp; security personnel for local communities</li> </ul> |
| Cultural                              | It does not address issues regarding  | <ul style="list-style-type: none"> <li>- Require projects to maintain community</li> </ul>   |

|          |  |  |
|----------|--|--|
| Heritage | community access to cultural heritage, and confidentiality of sensitive information. | access to cultural sites whenever possible or provide alternatives while ensuring safety and security. |
|----------|--|--|

| Verified Carbon Standard                       |  |   |
|--|--|---|
| E&S Topic                                      | Gap  | Gap closing measures  |
| Assessment and Management of Risks and Impacts | VCS lacks a systematic framework for identifying, assessing, and managing E&S risks. Monitoring focuses on GHG emissions, with no structured process for tracking E&S risks.   | <ul style="list-style-type: none"> <li>- Establish and maintain an ESMS framework with core components</li> <li>- Expand Safeguarding Principles Assessment</li> </ul>  |
| Land Acquisition and Involuntary Resettlement  | There are no requirements to assess or protect subsidiary tenure rights, such as informal land use or resource collection, robust resettlement planning, or explicit recognition of customary land rights unless legally recognized. | <ul style="list-style-type: none"> <li>- Require projects to develop RAPs and livelihood restoration plans (LRP), where necessary.</li> <li>- Ensure that land acquisition processes involve meaningful consultation with affected stakeholders.</li> </ul> |

| Plan Vivo          |  |   |
|--------------------|--|---|
| E&S Topic          | Gap  | Gap closing measures  |
| Indigenous Peoples | Remote groups with limited external contact or in voluntary isolation, intellectual property rights, and broader development planning are not mentioned/covered. | <ul style="list-style-type: none"> <li>- Ensure project activities respect and protect Indigenous knowledge and intellectual property rights. And implement a binding requirement to avoid undesired contact with isolated groups.</li> </ul> |

| Social Carbon Standard                         |   |  |
|--|---|--|
| E&S Topic                                      | Gap   | Gap closing measures   |
| Assessment and Management of Risks and Impacts | It lacks a comprehensive approach to ESMS and does not require an overarching E&S Policy, structured risk identification tools, or a comprehensive ESMP             | <ul style="list-style-type: none"> <li>- Establish and maintain an ESMS framework with core components. Expand Safeguarding Assessment &amp; Requirements</li> <li>- Require project developers to include an ESMP with mitigation measures, roles, timelines, and monitoring procedures.</li> </ul> |
| Stakeholder Engagement & Transparency          | It lacks requirements for engagement planning. No specific transparency measures and limited public reporting mechanisms. It does not address conflict assessments. | <ul style="list-style-type: none"> <li>- Require projects to create a formal SEP. Develop a structured mechanism for public disclosure.</li> <li>- Require a conflict analysis that evaluates risks of exacerbating conflict</li> </ul>  |

| Sustainable Development Verified Impact Standard |   |   |
|--|---|---|
| E&S Topic  | Gap   | Gap closing measures  |
| Labour and working conditions                    | There is no mention of, community, voluntary, or migrant workers  | Introduce explicit guidance on voluntary labor agreements. Ensure that migrant workers receive equal working conditions,  |
| Resource Efficiency and Pollution Prevention     | No mention of resource efficiency, water consumption, waste management, hazardous materials, or pesticide use.  | Require projects to enhance resource efficiency, implement waste and hazardous materials management per international standards, and adopt IPM/IVM strategies to minimize environmental and health risks. |
| Gender   | SD VISta does not explicitly mention gender or require projects to consider principles of gender equality without providing any guidance on how to do so, nor provide assurance that this will be done. | Require all projects to conduct a GBV risk assessment, including an evaluation of available safe and ethical survivor services, and mandate the development of a GBV Action Plan if risks are identified. |

| Climate Community and Biodiversity Standard |   |  |
|---|---|--|
| E&S Topic                                   | Gap   | Gap closing measures   |
| Cultural heritage                           | There is no mention of cultural heritage  | Require projects to integrate cultural heritage considerations into the project cycle  |
| Stakeholder Engagement & Transparency       | Transparency is limited, as it primarily focuses on FPIC without extending to financial flows or decision-making processes. Benefit-sharing remains optional and lacks guidelines for equitable distribution. | Implement transparent financial management practices, including detailed reporting on resource allocation and expenditure. Expand benefit-sharing provisions to include not only Indigenous Peoples but also other marginalized or vulnerable groups who may be impacted by the project. |

Where KfW supports a project applying any of the assessed standards, and in order to ensure alignment with KfW's own E&S requirements, gap closing measures need to be integrated into the project at hand. While this might mean to consider all closing measures included in Annex 2, generally for all projects this means to adopt a more risk-based approach, prioritize early risk identification and mitigation, and implement clear evidence-based safeguards. Thus, some general recommendations to all VCM standards are presented. These are specifically related to the topic "Assessment and Management of Environmental and Social Risks and Impacts" (equivalent to ESS 1) as this is the topic which sets the tones and way in which projects should identify, assess, mitigate and manage E&S risk and impacts. This recommendations outline steps for strengthening VCM project governance and risk management:

1. **Strengthen Environmental and Social Management Systems (ESMS) Across Standards.** VCM standards should **adopt a structured ESMS approach**, similar to Plan Vivo:

- a. Require comprehensive risk identification, providing an early-stage E&S screening template, and exclusion list to immediately disregard high-risk projects (see Annex 3 for an example of an exclusion list for carbon projects that can be expanded).
- b. Transparent risk categorization with severity ratings for each risk (this might be different for AFOLU or technology projects).
- c. Mandatory Environmental and Social Management Plans (ESMPs). Its level of required details might vary depending on project size and risk categorization.
- d. Ensure independent third-party verification and periodic re-evaluation of E&S safeguards.
- e. Additional E&S Safeguard Criteria for carbon projects, including: evidence-based risk mitigation measures; gender assessments and human rights risk assessments, particularly for projects linked to security personnel and patrolling (this could be integrated into the E&S screening, with full assessments required for high-risk projects in specific criteria).

If VCM standards do not enhance their safeguards, KfW could consider developing and implementing an ESMS framework specifically with specific safeguards requirements to provide a consistent baseline for ensuring robust and clear management of E&S safeguards in VCM projects that KfW decides to support.

2. Encourage Standards to Develop More Practical and Accessible Guidance: This relates to the point made above on clear ESMS and safeguards procedures. Provide clear, practical guidance on risk assessment and safeguard implementation, ensuring simplified documentation requirements. Reduce reliance on multiple overlapping standards (e.g., VCS + SD VSta + CCBS), which do not necessarily resolve safeguard issues effectively. Instead, either:
  - a. Integrate strong safeguards directly into core standards, or
  - b. Require only one robust external ESMS framework for E&S aspects where necessary.
3. Improve Stakeholder Engagement and Transparency: Ensure continuous stakeholder engagement early on and throughout the project cycle, not just during initial consultations. Require all projects to develop and implement a comprehensive Stakeholder Engagement Plan (SEP), to have well-documented engagement and benefit-sharing mechanisms, stakeholder feedback loops to ensure communities remain involved and informed and clear, transparent disclosure of financial flows and governance structures. Stakeholders should agree to the project based on full knowledge and how it will impact them. This could mean requiring FPIC in specific contexts, particularly for projects impacting Indigenous Peoples and customary land users.

### Final Considerations

This assessment highlights that current VCM standards still fall short in effectively managing social and environmental safeguards. However, the evolution of Plan Vivo's ESMS demonstrates that comprehensive safeguards can be implemented without excessive cost or administrative burden.

For KfW, ensuring carbon projects take a risk-based approach, engage stakeholders meaningfully, and incorporate robust evidence-based safeguards will be crucial for improving the integrity of the voluntary carbon market.



If VCM standards do not enhance their ESMS and safeguard measures, KfW could develop and require to implement a specific ESMS framework for financed carbon projects. This could provide much-needed consistency, simplicity, transparency, and accountability in the VCM landscape.

The assessment conducted to date consisted exclusively of a desk-based review of documentation available on the websites of the different standard providers. A very interesting extension to the assessment would be to consult about the results with different stakeholder groups, including, for example, the standard providers themselves, but also representatives of organisations, local communities and Indigenous Peoples involved in VCM projects. Such an extension would enrich the analysis by adding perspectives from the practice of applying E&S safeguards in VCM projects to the picture, likely lead to additional ideas for gap closing measures and overall further enhance the validity of the findings. AAE will be very interested to explore the possibility for such an extension, should this be of interest to KfW.

## Annexes

Annex 1. List of documents analysed per VCS.

Annex 2. Gap Analysis Matrix per standard and results



Asesoramiento  
Ambiental  
Estratégico

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