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Foundation



Precious Forests Foundation Project

Carbon Feasibility Checklist Implementation Executive Summary

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Introduction

The Borneo Initiative (TBI), in partnership with the Precious Forests Foundation (PFF), commenced a project in 2023 that was centered on applying the Carbon Feasibility Checklist (FC), mandated by PFF and developed by Form International, with forest concessions in Indonesia. The FC is aimed at providing forest concessions with a tool to get an indication of carbon revenue streams from Sustainable Forest Management (SFM) practices. TBI, with its strong network of forest concessions in Indonesia, worked with three different concessions to assess both the performance and useability of the FC as well as the viability of carbon projects in these concessions.

Project Objectives

The primary objectives of this initiative included:

- **Industry Research:** Undertaking extensive literature reviews and interviews with experts to gauge the eligibility of different concession types for carbon revenue streams. This step was critical in understanding the theoretical framework within which these concessions operate.
- **Concession Engagement:** Engaging with a representative sample of concessions - inactive, non-SFM, and SFM-certified - to apply the FC, thereby offering insights into carbon revenue opportunities and potential barriers.
- **Verra Certifiability Consultation:** Consulting with a Verra expert to assess the certifiability of each concession type under Verra standards, a key aspect in the carbon certification process.
- **Solution Development:** Identifying and proposing solutions or workarounds for any barriers uncovered during the assessment process.

Benefits of a Reusable Template Tool

The introduction of the FC as a reusable template tool brought several key benefits to the forest concessions. These benefits include:

- **Efficient and Rapid Assessment:** Concessions could quickly assess their potential for carbon projects, leading to significant time and resource savings.
- **Consistent and Standardized Evaluations:** The FC provided a standardized method to evaluate different concessions, ensuring consistency and reliability in the results.
- **Informed Decision Making:** Concessions were better equipped to make knowledgeable decisions regarding their participation in the carbon market.
- **Identification of Opportunities and Challenges:** The tool helped concessions understand the potential benefits they could reap and the barriers they might face in developing carbon projects.

Background and Rationale

PFF's mission is to foster innovations in tropical forests and sustainably managed areas, aiming to optimize forestry practices. Carbon projects in countries like Indonesia offer opportunities for climate mitigation, job creation, biodiversity conservation, and climate resilience, culminating in the generation of verified carbon credits to offset emissions. The FC is expected to empower forest concessions to undertake carbon projects, and as such will unlock the beforementioned opportunities.

Carbon Markets in Indonesia

The Indonesian carbon market presents a significant opportunity for environmental service initiatives, involving both Compliance and Voluntary Markets. The Compliance Market operates under regulatory frameworks, while the Voluntary Market involves the voluntary issuance, purchase, and sale of carbon credits. Indonesia's REDD+ program, aimed at reducing emissions from deforestation and degradation, underscores the country's potential as a global player in carbon trading. However, challenges such as policy uncertainty, technical knowledge limitations, and tenure conflicts exist.

Project Execution

Preparation and Data Collection Process

The preparation phase involved clearly presenting the project objectives to the concessions, formulating Memorandums of Understanding (MoUs), and gathering essential data from the head offices. This data included general work plan documents, forest inventory reports, production reports, growth data, and spatial data. The field data encompassed aspects such as land cover, growth measurements, socio-economic conditions, deforestation, and illegal logging. This thorough preparation and data collection were fundamental in ensuring the accuracy and comprehensiveness of the FC assessment.

Post-Field Execution and Analysis

Following the fieldwork, the TBI team processed the collected data in collaboration with the concessions and entered it into the FC. This post-field analysis involved tweaking model parameters and communicating the findings with the concessions. The preliminary results from the FC aligned well with TBI's expectations, indicating the tool's effectiveness in providing accurate and insightful outcomes.

This phase also involved TBI executing a detailed calculation under the Verra methodology, to be able to compare FC results with Verra methodology.

Cost-Benefit Analysis

The Cost-Benefit tool within the FC provided crucial insights into the potential financial outcomes of the carbon projects. Parameters such as carbon prices, project size, and operational start year were considered. This analysis was instrumental in assessing the financial feasibility of carbon projects, especially in concessions like Concession 1, where financial viability was a concern due to factors like concession size and additionality.

Concession Results

The study focused on three concessions, each representing a different management type and location within Indonesia:

Concession 1

Concession Type: Inactive

Location: Sumatra

Assessment Summary: The Feasibility Checklist identified concession 1 as suitable for a REDD+ project focused on unplanned deforestation or degradation.

The concession, although legally permitted for planned logging (forest degradation), was in an inactive state, resulting in significant deforestation.



Carbon Calculation: The FC recommended a REDD+ project despite the concession's current activities. The model parameterization used in the calculation incorporated various factors, including ecological zone, deforestation rates, and aboveground carbon content.

Cost-Benefit Analysis: The initial cost-benefit analysis showed no positive gross profit at a carbon price of US\$8 / tCO₂e, primarily due to the concession's small size and limited additionality in mineral soils. A higher carbon price was needed for financial attractiveness. Despite these financial challenges, concession 1's ecological importance, notably as a habitat for the Sumatran Tiger, presented a compelling reason for pursuing carbon projects.

Management Response: The management recognized the limited potential for carbon due to the concession's small size. However, they remained hopeful about developing the area for carbon business, given its ecological significance.

Concession 2

Concession Type: SFM FSC Certified

Location: Kalimantan

Assessment Summary: The likely project for this concession is IFM - Logged to Protected Forest (planned degradation). The concession legally obtained a permit for planned logging (planned degradation) but wants to convert the area to protection, ending logging.



Carbon Calculation: The FC carbon calculations confirmed that the most financially attractive option for the concession is a Logging-to-Protect scenario.

Cost-Benefit Analysis: The initial cost-benefit analysis showed a positive gross profit at a carbon price of US\$8 / tCO₂e, with a reasonably attractive IRR of 15+% for a 15-year IRR and 18+% for a 25-year IRR. The concession's size of more than 150,000ha makes the concession sizeable enough for a carbon project.

Management Response: After studying the result from the Pre-Feasibility Study conducted with the Feasibility Checklist, the concession conducted a comparative analysis between the potential financial gains from converting to a carbon business and keeping the status quo as a logging business. They concluded that the timber business was more profitable. In addition to this conclusion purely for the concession in which we conducted the feasibility study, the parent company (a timber processing and manufacturing business) also relies on the concession for the supply of wood products. So their decision to continue to focus on logging is not just one made from a financial consideration, also for an operational perspective.

However, the concession's management is truly committed to conservation and combatting climate change and is committed to trying to reduce emissions from their business. Whilst this particular concession may not convert to a carbon business, they are considering acquiring concessions that have a clearer carbon business case.

Concession 3

Concession Type: SFM but Non-FSC

Location: Papua

Assessment Summary: Concession 3, being an SFM concession without FSC certification, presented a different set of parameters for the FC assessment.

This concession's status as non-FSC certified yet practicing SFM indicated potential for carbon projects that might differ from those in FSC-certified areas.



This concession's scenario is most suitable since the estimated illegal logging area is small, around 500-1000 m³/year. The degraded area is also minimal and scattered, able to naturally regenerate into forest again.

Carbon Calculation: The FC carbon calculations confirmed that the most financially attractive option for the concession is a Logging-to-Protect scenario.

Cost-Benefit Analysis: The initial cost-benefit analysis showed a positive gross profit at a carbon price of US\$8 / tCO₂e, but the IRR associated with the project was below what investors would be looking for in the project: 10-15% for a 15-year IRR and a bit over 15% for a 25-year IRR.

Management Response: The concession's relatively low VCU valuation indicates limited carbon business viability. They acknowledge concessions differ - Papua forests remain largely intact, restricting feasible project types, unlike Kalimantan and Sumatra. VCU value, however, is minor compared to timber revenue. Though wood prices are decreasing, vertical integration limits effects. The concession remains committed to emissions reductions. They will explore aggregated programs leveraging scale across multiple concessions to balance transaction costs.

Each concession presented unique characteristics and challenges, highlighting the FC tool's adaptability in assessing a diverse range of forest concessions. From an inactive concession with significant ecological importance to SFM certified and non-certified concessions, the FC provided tailored insights into the feasibility and potential of carbon projects, considering financial, ecological, and certification factors. These detailed assessments are pivotal in guiding concessions toward sustainable carbon projects that align with their specific contexts and constraints.

Conclusion

This joint project by TBI and PFF highlights the FC's effectiveness in assessing carbon revenue potential in Indonesian forest concessions. **The user-friendly and analytically robust nature of the FC positions it as a valuable asset** in the evolving Indonesian carbon market. The insights and methodologies derived from this project are expected to serve as a **valuable guide** contributing significantly to improving the business case of SFM in the tropics and efforts to reduce carbon emissions.

The focus of the implementation was on the carbon component, analyzing concession-wide opportunities and comparing results with Verra's in-depth carbon analysis. Findings indicate that carbon revenue in SFM concessions is **best viewed as a component rather than a standalone focus**. The results are encouraging because they confirm a **balanced approach** involving sustainable logging, reduction of land degradation from illegal activities, voluntary set-asides of high conservation values, and other revenue drivers such as carbon or agroforestry.

By strategically integrating this combination of activities, SFM concessions can emerge as potent advocates for **enhanced forest valuation**. This aligns with PFF's and TBI's view that a multifaceted approach not only prevents deforestation but also safeguards biodiversity and fosters social values, ultimately contributing to improved livelihoods. The impact of this holistic strategy far surpasses the benefits derived solely from focusing on carbon sequestration and revenue generated through carbon credits.

This is further supported by government regulations in Indonesia, which stipulate that any active logging concession needs to derive at least 50% of its revenues from logging, and **a trend in voluntary credit methodologies that appear to prefer carbon revenues in projects to be just a minority component of the total project revenues**.

Practically, the FC should not be seen as a standalone tool, but rather a **key component of a broader analysis** carried out by SFM concessions to determine their optimal unique, balanced combination of sustainable activities that maximize results for both nature and business.

While Indonesian regulations are still unclear, it is evident that carbon will play a key role. **Future steps** involve TBI, PFF, and Form International exploring how to support SFM concessions in determining optimal activity combinations, with the FC playing a key role in the analysis.