

Plan Vivo Response on Permanence

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The Plan Vivo Standard, like most carbon Standards, manages risks to permanence through a combination of a non-permanence risk buffer and robust project design that ensures that participants are paid based on performance and that activities provide long-term incentives. Each project is required to apportion at least 10% (typically 20%) of the carbon services generated as a non-permanence risk buffer, which guarantees the integrity of Plan Vivo projects in the face of inevitable risks to permanence from factors such as a catastrophic loss event (*force majeure*), e.g. a severe drought or forest fire. The risk buffer is also available to cover losses beyond what has already been contributed to the buffer by a project, meaning that projects can draw on the buffer-pool contribution from other projects if necessary. Additionally, risk buffer credits are not sold at the end of a projects lifetime and remain present to cover any risks to permanence in other projects.

The non-permanence risk buffer credits are held in a dedicated account on the Markit Environmental Registry and administered by the Plan Vivo Foundation with third-party oversight from IHS Markit on any claims to the risk-buffer that occur.

This is all in keeping with best practice at all major standards in the voluntary carbon market.

The Plan Vivo Standard requirements to minimize risk of non-permanence are:

6.1. Risks to the delivery of ecosystem services and sustainability of project interventions must be identified and appropriate mitigation measures described.

6.2. Projects must review their risk assessment at least every 5 years and resubmit to the Plan Vivo Foundation. Additional requirements for projects generating Plan Vivo Certificates

6.3. A proportion of expected climate services must be held in a risk buffer to protect the project from unexpected reductions in carbon stocks or increases in emissions, unless there is no risk of reversal associated with the project intervention.

6.4. The level of risk buffer must be determined using an approved approach and be a minimum of 10% of climate services expected.

The level of risk buffer is documented in the Project Design Document (PDD) using the *Plan Vivo Approach for Assessing Risk and Setting the Risk Buffer*. This requires projects to describe potential risks associated with Social, Economic, Environmental, Technical and Administrative factors. These are then assessed with respect to their likelihood for the risk to materialise and the size of the impact if it were to occur. From this a risk level is assigned and mitigation actions are created to further minimise the change of any reversal events occurring. These risk assessments are assessed both by Plan Vivo and by the independent auditor through the certification project, to give confidence to the accuracy of such statements.

Plan Vivo administers the buffer account and may make cancellations from the risk buffer in the case of an unavoidable shortfall of carbon services from a project.

A dedicated account held on the Markit Environmental Registry was formalised in March 2017 for all buffer credits. This account is split into 'ex-ante' and 'ex-post' pools and can be consulted via the public view. The associated credits are denominated 'Plan Vivo Certificate Reserve Units' (or PVC-R). Buffers

are regularly and formally re-assessed in line with the general risk management of projects: at least every 5 years when a project undergoes verification, and ideally during each annual reporting cycle. Furthermore, the Plan Vivo Foundation may request a revision of the project's buffer contribution at any point. Decisions may be made that risks have increased or decreased: if risks have increased then this should immediately be reflected in the next Annual Report.

Moreover, there are project management-level systems in place to address potential shortfalls. Most projects working with smallholders will either replant trees or sign-up new participants to replace drop-outs. The Plan Vivo Standard also reserves the right to suspend or pause further issuances until projects have introduced measures to address potential shortfalls or reversals.

Furthermore, Plan Vivo's holistic focus on smallholders/communities and their forest systems means that the loss of a tree is not usually a concern. In fact, some systems encourage the removal of trees through forestry practices such as thinning. The key consideration is that any estimations of climate benefits are conservative, safeguarding that carbon credits are correct for even worst-case scenarios in tree growth outcomes, and that any plans to remove trees are planned and accounted for in the models of carbon sequestration.

To ensure climate integrity, projects must apply conservative approaches to estimating their climate benefits. These include, but are not limited, to:

- Where assumptions made and default factors are used, conservative values are applied that reduce the overall carbon benefits applied and compensate for lower-than-expected growth rates.
- The period over which carbon benefits are claimed is smaller than the period over which the interventions will have a benefit. I.e., projects and activities are likely to continue to sequester/mitigate carbon release after the project has ended.
- Any projects that plan for tree thinning or harvesting must include such plans in their climate-benefit models by applying average carbon accounting; an industry-standard practice that reduces the amount of carbon credits that can be claimed.
- Not all carbon pools are included in the project, despite the likelihood that a project might benefit them, e.g. it is common for tree-planting and forestry projects to exclude the benefit that they provide to soil carbon levels, despite strong scientific evidence suggesting such positive correlations.

Due to the nature of the Plan Vivo Standard, projects are designed in a way to not only increase carbon stocks, but also enhance the livelihoods and wellbeing of participants through increased incomes, capacity building, provision of seedlings, diversification of agricultural production which can increase output for commercial or domestic use. Moreover, the activities build resilience to climate change. All projects must demonstrate long-term sustainability drivers and defend the long-term maintenance of forests and trees. Due to the nature of land-use projects, specifically in the context of smallholder and communities, no Standard will be able to guarantee infinite monitoring of emissions reductions or removals (ERRs) since these systems are managed by humans with a limited lifespan – there is also an issue locking rural and vulnerable communities into multi-generational contracts. As such, the Plan Vivo Standard has taken the approach of having robust project rationales that support long-term sustainable land use and behavioural changes. Due to the many co-benefits provided by project activities and forestry systems that they have created, there are convincing indications that permanence will remain beyond a project's completion.

Bujang Raba

Project overview / background

The implementation and design of the project coordinated by KKI Warsi was utilised for the local community to obtain *hutan desa* status, which is a 35-year license for the local community to manage their own village forest. The ERRs from the project are based on avoided deforestation by protecting the ~5,000 ha against further oil palm expansion. The Bujang Raba community was the first to obtain this license in a context where local rights are often threatened by corporate oil palm expansion. Hence, the Plan Vivo project was instrumental in clarifying land rights over forest resources for the local community. There is therefore, a strong incentive for the community to maintain forests in the long-term, not only to maintain the forest and resources they are dependent on but also to maintain their land management rights and being seen as the primary custodians of their environment.

The project communities have a historic familial relationship and share common ancestry and belong to the Jambi ethnic group that has inhabited the region for centuries. They possess traditional leaders and institutions, as well as newly formed organization to support governance and development. Traditional institutions include the newly formed Village Forest Councils that supervise each hamlet's community forest (Hutan Desa), as well as the 1,956 ha of secondary forests being developed as sustainable agroforestry land. The project will improve the socio-economic conditions of five villages using revenues from carbon-offsets to support a transition to sustainable and productive agroforestry systems based on a mixed supply of rubber, coffee, cinnamon, dragon's blood, and other commodities and spices. In addition, carbon offsets have supported a micro-hydro and natural gas energy supply system that will reduce the need for fuel wood, coal and other high emission energy sources. By intensifying agroforestry production in their secondary forest, participating communities will not need to open primary forests for additional agricultural land. Securing legal tenure rights to their forests and achieving certification by Plan Vivo will also strengthen the project communities' capacity to resist external pressures on their forests.

Risk Management

A key factor in the risk management of a project like this is ensuring that the community take ownership of it and integrate it into their existing governance structures and that the communities involved are incentivised to make the project an ongoing success. As detailed above this is the case for Bujang Raba. Moreover, the project includes strengthening ecotourism, improving rubber production to supply to the local and national industry, and establishing women-run handicraft enterprises are also strategic components of the project in order to establish long-term incentives to maintain the forest.

The project developers KKI Warsi used a VCS method for estimating the risk buffer. Based on these calculations, the risk buffer was set at 20%, with a 14% internal risk factor, a 1% external risk factor, with no natural risk factor. The internal risk rate includes 12% for project longevity, 2% for project management, and 1% for financial viability and opportunity costs. The external risk rate was based on 1% for resource tenure, and 3% for community engagement and political risk. Natural risk causes such as forest fire, pest and disease outbreaks, extreme weather and geological risk where rated at 1%, as there has been no incidence of deforestation in the project area related to those causes. While forest fires occasionally occur around new agricultural sites and pest outbreaks arise on agricultural lands, these have not impacted the project forests in the past. Deforestation, when it does occur, is largely due to changes in land use.

It is also worth noting that Indonesian policy on illegal tree cutting is strong, regulation firmly states "forbid to cut down the forest or even harvest NTFP in forest area without permission of the authority" - Regulation no 41/1999 article 50. This regulation does not apply for the local community who harvest the forest traditionally, i.e. sustainable use models.

Performance

The project has been operating for 8 years without major issues, has successfully passed one audit suggesting compliance with the Plan Vivo Standard, and has since never claimed any credits on the non-permanence risk buffer. This suggests a successful project and that there is a strong consensus among community members to protect the primary forest and develop the secondary forest for sustainable agroforestry, and considering the relative abundance of natural resources in the area, this level of risk buffer (as detailed above) should be adequate for the proposed project.

Moreover, the project has been in the catalyst for setting up a legal structure and community ownership of the community forest. So, in addition to raising awareness, providing alternative incomes and setting up eco-tourism and agroforestry initiatives, it is highly unlikely that the forest would be deforested even after the project finishes, as it is providing viable long-term economic incentives.

Trees for Global Benefits

Project overview / background

Active since 2003, the [UN Seed Award-winning](#) TGB project (coordinated by ECOTRUST) works with smallholder farmers in Uganda plant trees to create agroforestry systems. Such activities only take place on degraded land that otherwise would not be suitable for arable farming, thereby eliminating any prior incentive to grow crops on the land. The carbon sequestered by farmers is estimated for woodlots, dispersed interplanting systems and boundary planting systems. Such estimates are inherently conservative, models assume that every farmer will undertake cyclical harvesting, which thereby diminishes the overall estimated carbon benefits despite a potential that not all farmers will want to harvest their trees. Moreover, the project coordinator continues the engagement with farmers to help them manage their trees. The TGB project has undergone three successful, independent audits to-date. The [latest audit](#) was completed by a third-party auditing body in 2019 and confirmed a reasonable level of assurance (equal to or greater than 5% of the total GHG assertion in the original model) with regards to the claims made by the project on their carbon pools and climate benefits.

Risk Management

Moreover, the project has a robust risk management to address potential shortfalls, divided into the categories of: internal risks, natural risks and external risks. The external and internal risks stem from several factors and can include an inadequate understanding by farmers of the concepts of transacting carbon and carbon sequestration, to the lack of land tenure rights or rights to forest resources and even an inadequate grasp of the positive implications for local livelihoods derived from long-term resource management plans. ECOTRUST has also established two different funds that act as risk management tools and that overall decrease the threat of non-delivery associated with the project.

1. The Community Carbon Fund (CCF) –This fund represents a kind of self-managed insurance scheme to support farmers that may be disproportionately affected by natural disasters. The

Fund uses 10% of each farmer's revenue generated by the sales of Plan Vivo Certificates (PVCs) to recruit substitute farmers where farmer dropouts or other Business As Usual (BAU) losses create a deficit in the project's carbon stocks. Please, refer to PART H (Risk Management) of the Technical Specifications for more details regarding the Community Carbon Fund.

2. The Endowment Fund – which is then subdivided in to the PES Fund and Carbon Fund. The PES Fund is a donor-financed fund that allows farmers to receive payments for Non-Carbon Benefits (NCBs), typically biodiversity and watershed services, and for Ecosystem-based Adaptation (EBA) strategies. (a) The PES Fund complements the sales of carbon credits and, for farmers, it represents an extra source of income linked to the project activities. The other component of the Endowment Fund is the (b) Carbon Fund. The Fund is used to recruit new farmers and to pay them while a new Technical Specification is in the process of being approved by the Plan Vivo Foundation. This way, the project is allowed to expand and, when finally approved, the money generated by the sales of Plan Vivo Certificates under the new Technical Specification is then used to recapitalise the Fund. Consequently, the risk of failure is shifted to the Carbon Fund and not to the overall project risk.

Performance

Like the Bujang Raba project, the TGB project offers many incentives for farmers to participate in the programme, such as delivering health and sustainable energy programmes. In Uganda, trees are protected by law, the law requires that before a tree is cut one has a permit, so that discourages illegal deforestation.

The project also has been operating for over 20-years and no claims on the risk buffer have been made to-date, suggesting that the project is being managed successfully and that there are sufficient and robust long-term incentivisation of farmers.

It is also worth noting that the Trees for Global Benefit project is particularly looking at restoring degraded land. Due to the participatory approach, farmers (and future generations) will choose to restore with locally useful and important trees, that are likely to be replanted when they die or are harvested, as they are important from an economic and income perspective, but also because they have become an important part of the landscape that farmers have restored as part of a consultative, participatory process.

On behalf of the Plan Vivo Foundation on **14-10-2021**



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