Terms of Reference for Gula-Gula Food Forest Project Validation against the Plan Vivo Standard V2.1

Introduction

CO2 Operate has developed The Gula Gula Food Forest Program in West Sumatra, Indonesia. It focuses on low tech ecosystem restoration approaches that work with nature. The Gula Gula Food Forest Program has integrated the ecologically-sound, cheap and easy to use Assisted Natural Regeneration (ANR) techniques with intercropping of economic valuable trees. It functions efficiently in rural settings where resources are severely limited. Even the most vulnerable farmers can implement and maintain the key elements of the ANR tools and techniques, since a wooden lodging board to press weeds and grasses is all that is needed.

Through CO2 Operate, an increasing number of companies and non-profit organisations invest their carbon offsetting payments to reduce their ecological and environmental footprints in the Gula Gula Food Forest Program, and to build sustainable, biodiversity-rich supply chains, services and products (known as insetting). Although most income to finance ecosystem restoration comes from carbon off-setting contracts, biodiversity-rich product sales are also increasing, as commercially-viable amounts begin to evolve now that the forest and trees mature, and the area continues to extend.

The project interventions consist of a combination of ecosystem rehabilitation and improved land management, depending on the baseline situation. The climate benefits of the project are assessed using international scientific standards for biomass calculations. The project is aiming for a total area of 1000 ha by 2030, and to date, the project has restored approximately 325 ha in project areas with smallholders. Approximately, 265 ha of this area is eligible for PlanVivo certification; hence validation will be focused on the 265 ha.

Objectives

The purpose of validation is to ensure a thorough, independent assessment of project design against the Plan Vivo Standard. This includes confirmation that the project area is physically as described in the project documentation, that project partners have sufficient capacity and understanding to achieve the stated project objectives by implementing the planned activities and that the intended project impacts are likely to be delivered. The validation also makes observations and recommendations based on field visits to the project and identifies any corrective actions necessary before the project can be approved under the Plan Vivo Standard.

Scope and Methods

The validation process involves application of auditing techniques including:

i. A critical review of project documentation and any other relevant documentation or supporting evidence to enable the project to be properly assessed against the Plan Vivo Standard.

ii. Field visits to the project area taking into account the requirements described in Appendix 1, in order to:

   a. Verify that the project's physical site description and governance structure is as described in the project design document and technical specification(s)

   b. Identify objective evidence of conformance with each of the requirements in the Plan Vivo Standard by:

      - Interviewing and interacting with the project coordinator (in-country manager)
      - Interviewing relevant stakeholders such as participating householders, community members and leaders, local government officials, government forestry agencies and extension services and other projects working in the same area
      - Identifying and assessing available supplementary project documentation and tools e.g. planning documentation, databases, templates, legal agreements etc.
      - Cross-checking results from interviews with project documentation to ensure that documentation reflects ground realities and staff awareness of project goals and procedures.

   c. Fully understand the project context and the views of other local stakeholders and experts regarding the project's likely impact and benefits

iii. Preparation of the validation report in the outline given in Appendix 2 and submission of this with any supporting evidence to Plan Vivo

Validation questions in four broad themes (governance, carbon, ecosystems and livelihoods) are given in the validation report template (Appendix 2). Validators are expected to answer all these questions with information taken from the field visits undertaken as part of the validation. Sources of information should be identified and, wherever possible, cross-checked with other sources to ensure that the validation report represents an accurate and relevant assessment of the project.

Activities

The project will be validated against the requirements of the 2013 Version of the Plan Vivo Standard[3], and following the Terms of Reference for Project Validation Against the Plan Vivo Standard V2.0. The validation will include the following activities, and done by the auditor and the expert:

1. Desk-based review of the approved Project Design Document and supporting evidence (The auditor)
2. Visit to project coordinator offices to conduct interviews with key members of staff, and review relevant documents held in hard copy, and stored locally (The expert).
3. Stakeholder interviews (in person or by telephone) with government, and other relevant stakeholders e.g. NGOs working in the region (The expert).
4. Site visits to three project sites to conduct interviews with interviews key community members (such as village leaders) and focus group discussions with project participants and the broader community, and to visit project areas where each of the technical specifications has been, or will be, applied (The expert).
5. Production of a Validation report with a summary of findings and supporting evidence, and identifying corrective actions required to demonstrate conformance with the Plan Vivo Standard (The auditor).
6. Review of corrective actions once the project has responded to determine whether actions taken are sufficient to address the conformance-gap identified (The auditor).

Outputs

The output of the validation is a **Plan Vivo Validation Report**. Along with any supporting documents, it presents the review findings and details of the project's compliance with each of the requirements in the Plan Vivo Standard. The template for the validation report is given in Appendix 2. The validation report template includes the following sections in each of the broad themes. All these need to be completed:

a. Requirement

The validation report should describe how the project meets each requirement of the Plan Vivo Standard (2013). This section gives the specific questions that need to be answered by the validator for each theme/sub-theme. Refer to the Plan Vivo Standard for further clarification of these.

b. Guidance notes for validators

This section indicates how the specific questions might be answered by the validator by giving some suggestions about where the necessary validation information might be obtained. Other sources or means of answering the validation question might also be possible if available.

c. Findings

In this section the validator should answer the validation questions. This should be a comprehensive response (rather than a simple yes/no) explaining the reason for the answer given. The findings should be used to justify the decision given under 'conformance'.

d. Conformance

In this section the validator should indicate whether conformance with the Plan Vivo

Standard has been achieved.

e. Corrective Actions

Where the validator finds that the project is not compliant with a given requirement of the Plan Vivo Standard, the report should specify the corrective actions needed for compliance and propose a timescale within which it must be implemented. For each corrective action identified, the report should specify whether, in the opinion of the validator, a major or minor corrective action is required.

Major Corrective Action Request (CAR): A non-conformance with the Plan Vivo Standard that is likely to result in the failure of the project or is likely to materially reduce its ability to deliver the benefits intended. A major CAR may include a collection of several less significant non-conformances that collectively suggest critical failings in the project.

Minor Corrective Action Request: A non-conformance that is unlikely to materially affect the project's delivery of the intended benefits but which still needs to be corrected in order to reach the requirements of the Plan Vivo Standard. This may include a single or small number of lapses in maintaining systems, minor omissions or inconsistencies in documentation.

f. Observations/recommendations

The reviewer may find areas where procedures, data or documentation could be clarified or improved, but which are not deemed material enough to impose a corrective action. In this case, the reviewer should make observations or recommendations, which the Plan Vivo Foundation will follow up with the project coordinator at its discretion. These should also be included in the report.

g. Project Coordinator Response

In the draft validation report, this section should be left blank in order for the Project Coordinator to provide a reply to the specific CAR/Observation raised. The Project Coordinator must ensure they explain why they believe compliance has been achieved and why the CAR/Observation has been addressed. Tables, PDD or Technical Specification extracts of text, photos, Excel tables and so on may be inserted in this section to demonstrate compliance.

h. Status

After the Project Coordinator's response to the CAR have been delivered, the reviewer should assess whether the reply has sufficiently (CLOSED) or not sufficiently (OUTSTANDING) addressed the CAR/Observation raised. The reviewer should also provide supporting arguments for the decision by explaining what steps have been taken by the Project Coordinator in order to demonstrate compliance.

i. Validation Opinion

The validation report will include a summary validation opinion, as to whether:

i. The project documents represent an accurate and clear description of the project and its activities.

ii. Based on an objective assessment of the project, the project meets the Plan Vivo Standard.

A project may receive a positive validation opinion with open minor CARs where an agreed time-frame is reached for meeting them, unless the validator considers that the number of minor CARs is so large to suggest that systemic failure is likely.

Projects with open major CARs (OUTSTANDING) should resolve the CARs with the validator before a positive validation opinion can be given.

j. Project Documentation and Supporting Evidence

The project coordinator will make all project documentation needed for the validation (e.g. PDD, technical specification and any other supporting evidence to show compliance with the Standards) available to the validator at least 2 weeks before the field visit.

The validator reviewer is expected to use his/her expert knowledge and professional judgment to evaluate all the available evidence to determine which of the requirements of the Plan Vivo Standard are satisfied by the project as designed and documented. The reviewer shall refer to indicators provided in the Plan Vivo Standard for guidance and also any other supporting materials provided by the project.

k. Publication of Validation Reports

The validation report, all of its contents and any drafts will remain confidential until the Plan Vivo Foundation publishes its contents following its decision regarding project registration.

All validation reports will be published on the Plan Vivo website and comments invited.

Appendix 1: Requirements for Project Visit

The field visit to the project must include:

i. Visits to at least one area covered by each technical specification e.g. if the project has 3 technical specifications for woodlots, boundary planting and fruit orchards, then each of these land-use systems must be visited and observed by the validator including interactions with project participants (household members) in each

ii. In the case of projects involving multiple smallholders, at least 5 smallholders must be visited in each project area (a project area is defined by an area where a technical specification or set of technical specifications apply). Smallholders to be visited should be selected at random

iii. At household level, interactions should take place with a range of household types with particular emphasis on those that are most disadvantaged e.g. poor, women-headed, landless, ethnic minorities or otherwise socially excluded

iv. In the case of projects with community-based activities and community-managed land e.g. for control of locally-driven deforestation

    - For projects involving up to 3 community-managed areas, every community and community-managed area must be visited
    - For projects involving more than 3 community-managed areas, a minimum of 3 communities and 3 community-managed areas must be visited, chosen randomly

Appendix 2: Project Validation Report Template

The project validation report should be completed using the following template as a guide. Additional material such as photographs, copies of documents or parts of documents (providing material evidence) may also be added if relevant to the validation. **Please, do not modify the format of this report.**

Name of Reviewers: Jules Crawshaw / Mahendra Taher

Date of Review:5-09-2021 (field visit 23 – 27 August 2021)

Project Name: Gula Gula Food Forest Program

Project start date: 1st August 2012

Project Description: The Gula Gula Food Forest Program in West Sumatra, Indonesia, focuses on low tech ecosystem restoration approaches that work with nature. The Gula Gula Food Forest Program has integrated the ecologically-sound, cheap and easy to use Assisted Natural Regeneration (ANR) techniques with intercropping of economic valuable trees. It functions efficiently in rural settings where resources are severely limited. Even the most vulnerable farmers can implement and maintain the key elements of the ANR tools and techniques, since a wooden lodging board to press weeds and grasses is all that is needed. The Gula Gula Food Forest Program in West Sumatra, Indonesia, is in a very rural setting where resources are scarce, and the people are impacted by poverty. In the Gula Gula Food Forest area, monthly incomes are around 50% of the official minimum wage for West Sumatra. For one, the carbon payments can (partly) bridge the gap between planting and the first harvest from the trees. From this moment onwards, tree products will provide good income sources above the minimum wage level of West Sumatra. The interventions are as follows : • Ecosystem rehabilitation: Agroforestry development using Assisted Natural Regeneration (ANR) combined with tree planting. • Improved land management: Diversification of (former) vegetable and degraded areas into agroforests. • Ecosystem restoration: Natural Regeneration of secondary forests as a result of fire management.

List of Principal documents reviewed (including list of sites visited and individuals/groups interviewed):

Evidence of payments to participants (Annex 1)

Statement letter of support for individual candidate pairs in the election of the regent and deputy regent of Solok (Annex 2)

Evidence of participants confirming received payments (Annex 3)

Samples of project databases (Annex 4)

Evidence of sales records (Annex 6)

Group VCM Paninggahan_Bukik Panjang

Group VCM Paninggahan - Bukik Subaka

Group Tani VCM Aia Dingin

NGO RPL

Village Head Aia Dingin

Village Head Paninggahan

BPDASHL Agam Kuantan

Gula Gula Food Forest Program PDD (version 4th August 2021) and associated annexes

Visited sites:

Village and sites in Aia Dingin

Village and sites in Paninggahan

List of individuals interviewed: Attendance Lists attached (Annex 5)

Description of field visit: The field visit took place 23 – 27 August 2021 and involved face-to face interviews with 3 farmers groups and also visiting a selection of sites. RPL, the project coordinator was also interviewed. In order to gather background, a series of stakeholders such as village heads were interviewed.

Validation Opinion: The project is of high quality and the validation produced a relatively small number of Minor CARs and FARs in the initial validation assessment. After evidence being submitted to the validation team in response to the Minor CARs, and detailed discussions around this evidence, the Minor CARs were closed.

The project must still collect baseline data that for the socio-economic and environmental indicators described in the PDD, however the delay in this process is understandable given the recent outbreaks of COVID19 in the country and region affecting the capacity of the local university to visit the project sites.

Overall, the project is compliant with the 2013 version of the Plan Vivo Standard.

Table 1. Summary of draft report major and minor Corrective Actions

Theme	Major CARs	Minor CARs	FARs	Observations/ recommendations
Governance	0	2	0	0
Carbon	0	1	0	0
Ecosystem	0	0	1	1
Livelihoods	0	1		0

Table 2 - Report Conformance

Theme	Conformance of Draft Report	Conformance of Final Report or Forward Actions Required
Governance	~~Yes/~~No	Yes~~/No~~
Carbon	~~Yes/~~No	Yes~~/No~~
Ecosystem	Yes~~/No~~	Yes~~/No~~
Livelihoods	~~Yes/~~No	Yes~~/No~~

Table 3– Summary of open Forward Actions (if any)

Forward Action Requirement (FAR)	Description	Process to Resolve	Time Frame to be Closed By
FAR 01	*Not all of baseline monitoring data for indicators described in the PDD has not yet been collected*	*Data is to be collected for the monitoring indicators described in the PDD. This is to be submitted to the Plan Vivo Secretariat as soon as possible through the annual reporting process, but at latest within the second annual report. The Plan Vivo Secretariat has the ability to close this FAR once they feel that sufficient information has been submitted.*	*At least before the finalization of the second annual report.*

Table 4– Assessments requested by reviewers from PDD and/or technical specification review process

Relevant requirements within Standard	Description of concern	Validator comments	Corrective actions (if any)	Coordinator response	Resolved?
5.19. All potential sources of leakage and the location of areas where leakage could occur must be identified and any appropriate mitigation measures described. 5.20. Where leakage is likely to be significant, i.e. likely to reduce climate services by more than 5%,	Degradation appears to have largely already taken place due to deforestation/ removing trees for mining purposes. Whilst locals tried to apply mixed-tree cultivation to the degraded sites, this failed. They are now Imperata-dominated. This therefore means that a key assumption of the project's design is that the drivers of degradation were entirely historical. It is important to check that this assumption is correct, given that the project is assuming that leakage is 0 and that continued deforestation/loggins is not included as a managed risk	The reviewer queried the communities (Aia Dingin and Paninggahan) about the history of land cover on the project sites. They responded that from 10 years ago or more that it has been Imperata cylindrica dominated grassland. In Paninggahan they said that in some areas farmers grew markisas (passionfruit) which grow on vines. But these has been abandoned due to low yields. The project has assumed that the leakage will be zero and the reviewer agrees with this assumption. Any tree cover in the project area	None	n/a	n/a

an approved approach must be used to monitor leakage and subtract actual leakage from climate services claimed, or as a minimum, make a conservative estimation of likely leakage and deduct this from the climate services claimed. 6.1. Risks to the delivery of ecosystem services and sustainability of project interventions must be identified and appropriate mitigation measures described.	in Section H1 of the PDD. Please can the validator(s) give their opinion as to whether this assumption, that the drivers of degradation were wholly historical, is accurate?	was a very long time ago. With respect to risks to delivery of ecosystem services. The main ecosystem service would be soil stabilization and provision of clean water. The major threat to these would be the loss of vegetation cover. The communities all stated that prior to the project the areas caught fire every year. Note that Imperata is extremely flammable with large quantities of resins in its tissues. It spreads through burning as all the competition is burnt and it is able to regenerate quickly after fire. However, with the project these cycle of burning has stopped and a constant vegetation cover is now maintained. Imperata is considered the final step of an ecosystem that has been consistently burned.

4.1. A voluntary and *participatory planning* process must take place to identify project interventions that address local needs and priorities and inform the development of technical specifications, taking into consideration: 4.1.6. Practical and resource implications for participation of different groups including marginalised groups 4.3. Barriers to participation in the project must be identified and reasonable measures taken to encourage participation of those who experience barriers.	The project has not commented on whether there are any marginalized groups in the project or project area. Please can the validator(s) give their opinion as to whether there are any marginalized groups in the project area? And, if there are, whether there are any barriers to participation in the project compared to non-marginalized groups?	The project has provided a Master's Thesis "Socio-economic impacts of the Gula-gula food forestry project in Nagari Paninggahan, Indonesia" by Dea Hasna Isadora. This gives a short description of the society in the area and the economic activities undertaken. In short most of the people are farmers. Damming of the lake has destroyed the livelihoods of fishermen. It is a matrilineal society, so land is technically inherited and owned through women. The farmers and women could be considered marginalized groups because making a living is very difficult in this area. However, this project is clearly inclusive of these groups, assuming all the family benefits from an additional source of income and once vacant land is	**Minor CAR 01** The project must provide a community profile and identify marginalized groups.	We have included a more detailed community profile.	Changes made in PDD are sufficient. **Minor CAR 01** can now be considered closed.

		now been utilized economically. Inherently this is a project to assist marginalized groups. To participate in the project, people have to be part of the Suku Pisang or Urang Sumando. So, it could be considered that newcomers to the area are excluded from participation. However, most people coming to the area come as a result of marriage. As such, they would have land through their marriage.			
4.14. A robust grievance redressal system should be part of project design, and should ensure that participants are able to raise grievances with the project coordinator at any given point within the project cycle, and that these grievances are dealt with in a transparent, fair, and timely manner. A	Participants sign up to the project via their farmers groups. If a farmer does not meet their targets, the other farmers in the farmers group can choose to have them removed from the project. However, it is not clear whether or not there are good grievance mechanisms in	The following information was obtained from the Paninggahan farmers' group • Complaints are submitted in group meetings. From the existing complaints, the group administrator will discuss solutions to the	**Minor CAR 02** A written procedure for addressing complaints must be developed. This must include documentation of the complaint and the steps involved in finding a solution.	There is a procedure for addressing complaints, but since it was developed by the farmers themselves, it was never written. We just knew it exists. So we included a graph and explanation about the grievance mechanisms in our sites. These were set up by the farmers themselves, after a rather large conflict	We are happy with the information that has now been included into the PDD. **Minor CAR 02** can now be considered closed.

summary of grievances received, the manner in which these are dealt with, and details of outstanding grievances must be reported to the Plan Vivo Foundation through the periodic reporting process.	place for any individuals who are voted out of a farmers group. Please can the validators give their opinion on whether or not the project has appropriate grievance mechanisms in place for participants who are forced to leave the project?	source of the problem. • Solutions to complaints are not always based on formal rules, but what is emphasized is an agreement that is acceptable to all parties. • Member removal. If there are members who do not implement the agreed action, they will be subject to sanctions (based on the results of the meeting) or fines. Even if the person does not fulfil the request the is some leniency in the system. In essence, because this group still has strong civil ties, removal should be avoided. There are members who have been inactive for 1 year, their membership is not removed but is assigned an inactive status. For non-active members, usually the work on the land will be replaced by their children	in the early years of the program (2010). I included the "Democratisation wave" in a text box. From there the current mechanisms developed and are still effective.

	or relatives. • All processes that have been running have never been documented (no minutes of meetings, no written agreements). The following was obtained by from an interview with the Aia Dingin farmers' group : • Complaints are submitted by farmers in group meetings to the field coordinator. • If the complaint is internal, a joint solution will be sought. • Solutions to complaints are not always based on formal rules, but what is emphasized is an agreement that is acceptable to all parties. • If a solution cannot be found, the field coordinator will forward it to the group

		administrator. • The group management will then coordinate with the RPL. • Unprecedented member removal. If there are members who do not carry out the agreement, they will be given a warning. There was once a member who left but was sick. In this case, the member appointed a replacement, e.g. his son or his brother. • All processes that have been running have never been documented (no minutes of meetings, no written agreements).			
2.2. Project interventions must be designed to maintain or enhance biodiversity and any threats to biodiversity caused by the project intervention must be identified and mitigated.	Given that the project has been operating for several years now, please give your opinion as to the effectiveness of their management practices.	To answer this question the reviewer asked a third party that was not directly involved in the project in this case the Village Heads. This is the response from the Village Head Aia Dingin :	None	n/a	n/a

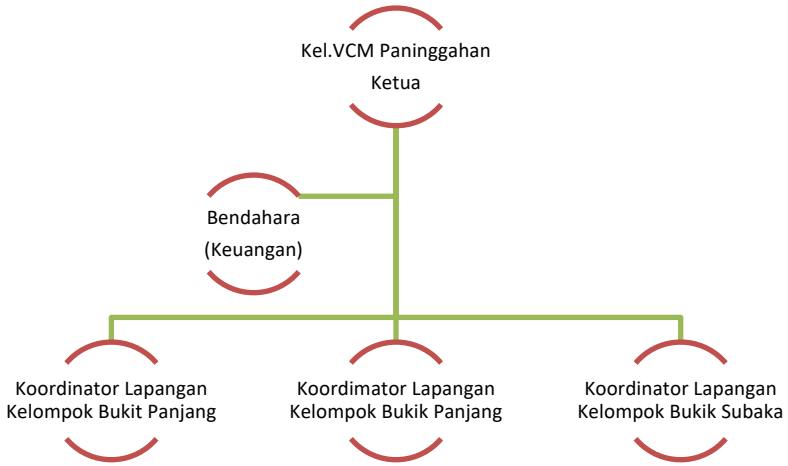
2.3. Project interventions must not lead to any negative environmental impacts, e.g. soil erosion or reduction of water quality.	I.e. have the management activities, that have thus-far been applied, been able to control the Imparata grass and maintain the project's trees?	• From Wali Nagari's point of view, this project is good and very different from the government project. Therefore, Wali Nagari is optimistic that the project will be successful. • The main reason is because of the assistance in the field. Farmers who are provided with funds and seeds are then not left alone, but there are assistants so that farmers can consult on problems that arise. • In addition, the project also facilitates farmers with the Solok Radjo Cooperative which will later accommodate the arabica coffee grown through the project. With the certainty of buyers, farmers are more confident to grow coffee. • Wali Nagari plans to invite other community/customary

	leaders to support this project. It is planned that Wali Nagari will invite the chairman of KAN (Kerapatan Adar Nagari) to attend a group meeting in the near future. • Wali Nagari's expectation, If possible, the project should be expanded and more farmers should be involved. From the Village Head Paninggahan : • This project has been running for a long time in Paninggahan and is very beneficial for the community/farmers. Even now there are farmers who reap the results of planting such as avocados and cloves. • From the nagari government's perspective, this project can be seen as a back-up to the community welfare	

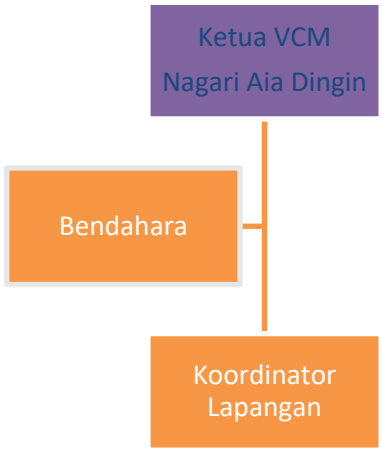
	improvement program. Because welfare issues are broad in scope, not all aspects can be handled by the village government. So that the existence of this project clearly slightly eases the burden on the village government. The positive comments from both village leaders gives the reviewer confidence that the project is achieving its goals. Furthermore information that the outbreak of fires has reduced to almost zero in recent years is testimony to the success of the project.	

Theme	1. Effective and Transparent Project Governance
Ensuring that the project meets requirements 3.1-3.16 of the Plan Vivo Standard (2013)	
A. Requirement	**1.1 Administrative capabilities** Is there a legal and organisational framework in place that has the sufficient capacity and a range of skills to implement all the administrative requirements of the project? Aspects of this framework may include: 1.1.1 A legal entity (project coordinator) that is able to enter into sale agreements with multiple producers or producer groups for carbon services 1.1.2 Standard sale agreement templates for the provision of carbon services 1.1.3 Systems for maintaining transparent and audited financial accounts able to the secure receipt, holding and disbursement of payments to producers 1.1.4 All necessary legal permissions to carry out the intended project activities 1.1.5 Mechanisms for participants to discuss issues associated with the design and running of the project 1.1.6 Procedures for addressing any conflicts that may arise 1.1.7 Ability to produce reports required by Plan Vivo on a regular basis and communicate regularly with Plan Vivo
B. Guidance Notes for Validators	Organizational and administrative capacity may be demonstrated through: • A record of managing other projects - especially those involving the receipt, safeguarding and management of funds and disbursement of these to smallholders/community groups • Project staff who can explain the legal status of the organisation and its management and financial structure i.e. how funds will be held and transferred – backed up by evidence of setting up bank accounts and record-keeping systems etc. • The views of others who have worked with the organisation in the past (such as government, other project partners or other NGOs) • A visibly efficient and functioning office with all necessary staff
C. Findings (describe)	*Co2operate disburses funds to the farmers groups. A copy of the contract between Co2operate and the farmer's group is in annex 1. Records of funds disbursements are in annex 2. Proof of the receipt of funds is in Annex 3.* *The legal and financial structure of Kelompok VCM Nagari Paninggahan*

is as follows:



The structure of Kelompok VCM Nagari Aia Dingin is as follows:



The legal basis of the group is a letter from the village head.

The views of the both the village heads expressed satisfaction with the progress being made by the project.

Regarding the functioning of the field office in Nagari Paninggahan.

Field office functions:

	- As a place for monthly coordination of the RPL team in the Paninggahan area - As a place for preparing administrative documents related to the project (printing attendance lists for meetings, printing materials/letters, etc.). - As a place of transit and also as a place to stay for field companions. There is also a field office in Nagari Aia Dingin, with the same function as the Paninggahan field office. However, since August 5, 2021, the Aia Dingin field office has been moved by RPL to Nagari Sirukam, which is about 20 km from Aia Dingin. The reason for the relocation is because the RPL project in this area is not only in Aia Dingin but also covers many other villages so that it will be more strategic if it is located in Sirukam. Because the distance was quite far, the field office in Sirukam was not visited.		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**1.2 Technical capabilities** Is the project through its staff or partners able to provide timely and good quality technical assistance to producers and/or communities in planning and implementing the productive, sustainable and economically viable forest management, silvicultural and agroforestry actions proposed for the project and for any additional livelihoods activities that are also planned?		
B. Guidance Notes for Validators	Technical capabilities may be determined through: • Discussions with project staff who should be able to define clearly who is responsible for the provision of technical support • Interviews with project staff to demonstrate that they are familiar with the content of project technical specifications e.g. species to be planted, spacing requirements, management systems and any potential issues		

	• Feedback from farmers/communities who have been supported in the past • On-site evidence of project activities (possibly from other projects) that have benefited from technical support
C. Findings (describe)	Kelompok VCM Nagari Paninggahan Until now, only received direct technical support from CO2 and RPL • For technical problems relating to critical land rehabilitation, questions and problems faced by farmers are clearly answered. CO2 and RPL have provided knowledge about ANR (Assisted Natural Regeneration). The implementation of ANR was in accordance with the requests. This responded to the failure of the rehabilitation program in the past due to its low cost, and could be implemented by farmers. • For the problem of plant pests, until now technical questions have not been clearly answered. Kelompok VCM Aia Dingin • From RPL, covering soil media improvement and cultivation activities • From the Koperasi Solok Radjo (coffee arabica cooperative), in the form of facilitating group meetings, preparing nursery media, nurseries, pest management, and a little post-harvest support. • Technical questions have been answered but new problems always arise. Such as the slow growth of plants in some locations even though they have applied the preparation of soil media according to the instructions. It is clear that this is difficult land to establish trees on, Imperata grass is fiercely competitive and the soil will be very degraded from repeated cycles of fire. What is important is that RPL and other cooperatives are providing technical support.

<table>
<tr><td></td><td colspan="3"> 
Figure 1. Photo of technical support involving clearing around Imperata to enable seedlings to establish</td></tr>
<tr><td>D. Conformance</td><td>Yes ☑</td><td>No ☐</td><td>N/A ☐</td></tr>
<tr><td>E. Corrective Actions (describe)</td><td colspan="3">None</td></tr>
<tr><td>F. CO2 Operate's Response</td><td colspan="3">n/a</td></tr>
<tr><td>G. Forward Actions (describe, if applicable)</td><td colspan="3">None</td></tr>
<tr><td>H. Status</td><td colspan="3">n/a</td></tr>
<tr><td>A. Requirement</td><td colspan="3">1.3 Social capabilities
Is the project, through its staff or partners able to demonstrate an understanding of the social conditions of the target groups/communities and likely implications of the project for these? This might include:</td></tr>
</table>

	1.3.1 A demonstrated ability to select appropriate target groups through stakeholder analysis and to understand the implications of the project for specific groups e.g. poor, women, socially disadvantaged etc. 1.3.2 Groups/communities that are well-informed about the Plan Vivo System and the nature of carbon and ecosystem services 1.3.3 Local groups/communities that can demonstrate effective self-governance and decision-making 1.3.4 Well-established and effective participatory relationships between producers and the project coordinator 1.3.5 Demonstrated ability to establish land-tenure rights through engaging with producers/communities and other relevant organisations 1.3.6 Ability to consult with and interact with producers/communities on a sustained basis through participatory 'tools' and methods 1.3.7 Established system for conflict resolution
B. Guidance Notes for Validators	Social capabilities may be determined through: • Records/minutes/photographs of community meetings and training workshops etc. • Project staff able to explain (in line with PDD) how land tenure is checked by the project • Project staff and communities able to explain how communities/target groups were selected and involved in the development of the project and in the choice of activities • Project staff able to demonstrate that they are familiar with the communities/target groups and able to interact with them easily through meetings facilitated during the validation • Meetings held with specific target groups e.g. women, socially disadvantaged etc.
C. Findings (describe)	*Regarding **training** to following response from Kelompok VCM Paninggahan Bukik Panjang:* *• Training was received in the first phase of the project.* *• Receive training on ANR* *• The training is formal in nature, conducted in 2014 (before the current project, but some farmers who used to participate are currently involved in the ongoing project). The training lasted 2 days indoors and 2 days of field practice. The trainers came from Bagong Pagasa Foundation, Philippines.* *From the other 2 groups they said they had no formal training.* *Regarding **land tenure** the following response was received from Kelompok VCM Nagari Paninggahan* *• The land proposed for the project site is 'Ulayat' land which has*

	traditionally been recognized for generations by the community in Nagari Paninggahan. *• Additionally, inspections were still carried out at the beginning of the project, especially to ascertain the boundaries of arable land between farmers. The inspection was carried out by the group management together with CO2 through direct checks in the field, taking coordinates, and making maps.* *• After the process, the map and ownership data were validated by the Head of KAN (Kerapatan Adat Nagari). The chairman of KAN is the head of the tribal leaders (Ninik Mamak) in Nagari Paninggahan.* *From Bukik Subaka - the process of land inspection and validation is as follows:* *- The farmers concerned, field coordinators, state group administrators, together with CO2 officers (at that time RPL had not been involved) carried out field checks to the proposed location.* *- From field checks, it is measured whether the minimum area requirements are met and checked whether the boundaries with other farmers are clear and not in conflict.* *- CO2 then made a map of the measurement results and field checks.* *- The map is shown again to the management and farmers concerned for confirmation and correction (if needed).* *- After that the land was legalized as part of the project.* *From Aia Dingin* *• The farmer concerned, the field coordinator, the management of the nagari group, together with the RPL staff conducted a field check to the proposed location.* *• Checks were made as to whether the boundaries with other farmers are clear and not in conflict.* *• RPL then made a map of the results of the measurements and field checks, overlaying it with a map of the forest area. If you enter the area, the location cannot be validated.* *• The map was shown again to the management and farmers concerned for confirmation and correction (if needed).* *• Confirmation was also made to the ninik mamak (customary leader) or mamak rumah (brother) of the proposed farmer's wife.*

	• *After that the land is legalized as part of the project.* *Regarding the communication between RPL and the farmers groups the field operative made the following report :* • *Overall, both in Paninggahan and in Aia Dingin, the RPL staff seemed to be able to communicate and interact well with the farmers.* • *This was most evident in Paninggahan where in the FGD when discussing the problem of clove pests, farmers were very open in stating to RPL staff that they had to work harder to help farmers to find solutions to these problems. The presentation was done seriously but in a joking manner. If there is no good relationship, it is impossible for farmers to open up like that in front of new people.* • *However, this good interaction and communication cannot be concluded whether it has been effective or not. One thing that was found was that these mentors were self-taught about the aspects of mentoring. They are not equipped with knowledge of relevant methods, tools or theories.* ***Regarding joining the cooperative :*** *From Paninggahan Bukik Panjang* • *The first criteria for joining a group is that they must come from the same tribe (tribe/clan), namely the "Suku Pisang".* • *The second criterion is that the person concerned is "Urang Sumando". Urang Sumando in Minangkabau custom which adheres to the matrilineal system means a man who marries a woman from the Suku Pisang. The status of Urang Sumando is only a land cultivator because the rights (or ownership) to the tribal land sit with the tribal women.* • *The third criterion is that both people from the Suku Pisang and Urang Sumando, if they want to join the group, must be willing to follow the rules that were mutually developed, including: willingness to devote time and energy to work on the land according to the agreed schedule, willing to be fined if they violate the rules, obey the group program , and others.* • ***For new members there are no more admissions**. The reason is, if there are new members and new land starts to be worked on, the group's performance will be disrupted. However, this condition does not mean that the group is exclusive, the rule is only for membership in farmer groups. Meanwhile, for the results/benefits of the cultivated land, all members of the Suku Pisang benefit. The portion of the*

	distribution of the benefits is different between the members of the Suku Pisang who are members of the farmer group and those who are not members of the group. *Paninggahan - Bukik Subaka* *• Own your own land with a minimum area of 0.1 hectares.* *• Willing to follow the group's agreements.* Aia Dingin *• The main thing required is to have the desire/willingness to join the group* *• Owns own land and is outside the Protected Forest Area* *• Register as a group member* *• Willing to follow group agreement.* *• But in the process of forming the group at that time, no one was rejected. Even if there are those who cannot participate, it was due to the condition of their land that did not meet the requirements (eg rocky land, very steep, etc.)* *• What happened was a natural selection, where initially around 200 people were interested, in the end there were only 87 people who were really serious about joining.* *It is clear to the reviewer that the groups are well organised and inclusive of the whole society.*		
D. Conformance	Yes ☐	No ☑	N/A ☐
E. Corrective Actions (describe)	*There is definitely room for additional training and technical support regarding dealing with pests and RPL could be trainied in mentoring processes.* ***Minor CAR 03** : Develop an SOP (Standard Operating Procedure) for pest management.*		
F. CO2 Operate's Response	A pest management procedure. Again, this is done informally. Our team knows whenever there is an issue, they can contact us or the university to ask for support from an expert. For the cloves, we had someone from		

	Gadjah mada University advising them. But the farmers thought it would be too much work, seeing the small-scale issue of pests. In the report it already says minor CAR, so we have not written about this, as it is a minor issue so far. For coffee, however, we have our coffee partner Solok Radjo, who has trained farmers in pest management, and they will also be the contact point for any issues related to coffee. We will include this in the PDD.
G. Forward Actions (describe, if applicable)	*None*
H. Status	After further discussion with the project, the following became clear: • The likelihood of damage from pests and disease was lower than first appreciated, considering that the project only had one instance of pest damage in 2011 and the diversification of crop systems since then has helped reduce this risk. • There is no dominent potential pest species that was likely to casuse problems • The project has an MoU with Andalas university to provide technical support on an ad-hoc basis when pest outbreaks do occur. Given the above and the evidence submitted to the validation team, we are happy to close this minor CAR. *(CLOSED~~, OUTSTANDING, or CONVERTED TO FORWARD ACTION~~)*
A. Requirement	**1.4 Monitoring and Reporting capabilities** Does the project have an effective monitoring and reporting system in place that can regularly monitor progress and provide annual reports to the Plan Vivo Foundation according to the reporting schedule outlined in the PDD? 1.4.1 Accurately report progress, achievements and problems experienced 1.4.2 Transparently report sales figures and demonstrate resource allocation in the interest of target groups
B. Guidance Notes for Validators	Monitoring and reporting systems and capabilities may be determined through: • Staff and participating communities able to explain the monitoring system (how each of the indicators in the PDD will be monitored) • Records of any monitoring already undertaken e.g. baselines or other information • Project staff showing an understanding of the importance of annual reporting to Plan Vivo as a requirement for issuance of certificates • Demonstrated ability to produce simple reports (e.g. for other projects)

C. Findings (describe)	*In Annex 5 there is an example of a simple monitoring system provided. These reports show clearly the number of trees provided to each individual.* *Regarding Monitoring* *• In the Ds Aia Dingin, no monitoring of growth and planted area has been carried out. What is monitored is the progress of planting (number of trees planted). However, the boundaries of the project area has been measured at the beginning of the project. Planting progress data is on Annex 5.* *• At Paninggahan, periodic growth monitoring has not been carried out. However, there was a one-off growth measurement by RPL at the request of CO2OPERATE for avocado, mahogany, petai. Meanwhile, the stocked area has been measured since the beginning of the project.* *Special note for Aia Dingin location:* *• RPL needs a special focus or strategy because farmers' interest in planting wood and fruit trees is not that good, compared with Paninggahan. This is because the economic value of wood and fruit trees cannot compete with horticultural crops. Meanwhile, at this location, most of the project participant farmers also own other land that are cultivated for horticultural cultivation.* *• This location is in the highlands (above 1,000 meters above sea level), the growth of wood and fruit trees is very slow. From the land inspection, it can be seen that many cinnamon and mahogany seedlings planted 6 months ago have not shown any growth at all. According to RPL, this condition is quite common, although not in all areas. (Bear in mind that some trees do take some time to get established).* *• The distribution of project sites is far apart and the topography is quite extreme (steep hills). Monitoring will be very difficult if you rely on site checks directly to each land by RPL field officers and group administrators. The use of drones needs to be considered.* *There is mention of monitoring in Table 17 of the PDD*		
D. Conformance	Yes ☐	No ☑	N/A ☐
E. Corrective Actions (describe)	***Minor CAR 04*** *The project needs to develop a **documented** carbon stock monitoring*		

	system. *Currently the monitoring system appears to be based on survival of the trees, but subsequent growth also needs to be monitored.* *The reviewer suggests a Permanent Sample Plot system, where plots are laid out and periodically the diameter and heights of the trees are measured in order to monitor growth. This is mentioned in table 16 of the PDD, but no one seems to know about it.* *If the Project were to adopt this system, a suite of permanent plots would be laid out across a sample of geographies and species and the plot centres and trees would be labelled permanently so that the plots could be periodically remeasured. Plot data would be stored in a database and the plot locations and measurement system would be documented.* *To close this Minor CAR, we woule require the following evidence to be developed and/or submitted to the validator:* • *Geographic plot data (shapefiles if possible, but coordinates of boundaries can be appropriate) of the permenant sample plots* • *An SOP (Standard Operating Procedure) for measuring the above and below ground carbon in these sites* • *Evidence of the database where this information will be stored* *Initial measures, representing the baseline data, must also be colleted. However, this can be completed after project registration and is covered by* ***FAR 01***
F. CO2 Operate's Response	It is not clear what happened here, I understand Ai Farida was not asked about carbon issues. the director of RPL. She is our carbon assessment coordinator. She could have explained that we do have permanent sampling plots, however, these are all in the areas, which are not eligible for carbon certification. The areas that were visited, are all recently developed, and we have not set up the plots yet. We do have the baseline calculations, and because of budget constraints we waited to set up the permanent sampling plots. We aimed to do so last June, but our technical expert was on leave. She is now back for work, so we aim to set up the plots by the end of this year. However, we have included the system in more detail on relevant PDD page. Using the remote sensing images has helped to reduce costs, so we are able to move on with this.
G. Forward Actions (describe, if applicable)	None
H. Status	The project provided the validation team with the following:

	• shapefiles of the permenant sampling polts • 2 manuals and a powerpoint describing, in Bahasa, the steps taken to estimate carbon stock in an area of trees. This was deemed appropraite and comprable to an SOP. • A screenshot of the database where the data from the permanent sampling plots will be stored. As such, we are happy to consider the CAR closed. *(CLOSED~~, OUTSTANDING, or CONVERTED TO FORWARD ACTION~~)*

Theme	**2. Carbon Benefits**
Ensuring that the project meets requirements 5.1-5.20 of the Plan Vivo Standard (2013)	
A. Requirement	**2.1 Accounting methodology** Have the carbon benefits been calculated using recognised carbon accounting methodologies and/or approved approaches and are the estimates of carbon uptake/storage conservative enough to take into account risks of leakage and reversibility?
B. Guidance Notes for Validators	Check the carbon accounting methodology used including: • The level of understanding of the methodology used amongst technical project staff • Whether all references and sources of information are available (include copies with the validation report if possible) • Whether the carbon accounting models are clear and transparent i.e. are the spreadsheets available and readily understandable? Can project staff answer and explain any technical questions about these? • Are local experts able to comment on the accounting methodology and on the sources of information used?
C. Findings (describe)	*• In Aia Dingin location, no monitoring of growth and planted area has been carried out. What is monitored is the progress of planting (number of trees planted). However, the project area has been measured at the beginning of the project. Planting progress data is attached in Annex 5.* *• In Paninggahan, periodic growth monitoring has not been carried out. However, there was once a random growth measurement by RPL (at the request of CO2OPERATE for the types of avocado, mahogany, petai. Meanwhile, the area has been measured since the beginning of the project.* *In the PDD, the project has growth models (which seem reasonable to*

	the reviewer). However, the project needs to be able to validate these growth models by measuring trees at various ages and comparing them with the growth model in order to check that the carbon sequestered matches with predictions.		
D. Conformance	Yes ☐	No ☑	N/A ☐
E. Corrective Actions (describe)	*Refer to **Minor CAR 04***		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable	*None*		
H. Status	*Please refer to the outcome of requirement " 1.4 Monitoring and Reporting capabilities"* *(CLOSED, ~~OUTSTANDING, or CONVERTED TO FORWARD ACTION~~)*		
A. Requirement	**2.2 Baseline** Are the carbon benefits of the project measured against a clear and credible carbon baseline (for each project intervention)?		
B. Guidance Notes for Validators	Check the baseline scenario in the technical specifications of the PDD: • Check that baseline measurements have been carried out and information properly recorded • Check that the information from the baseline matches that in the PDD/Technical specifications and corresponds to the situation on the ground (by discussing with local experts and others)		
C. Findings (describe)	*The baseline scenario is Imperata grasslands that are subject to periodic burning. The average C stock is 5 tC/ha which seems reasonable to the reviewer from experience with grassland C stocks elsewhere in the region. A reference - Syahrinudin et al., (2020) – is provided.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. **Corrective Actions (describe)**	*None*		

F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**2.3 Additionality** Are the carbon benefits additional? Would they be generated in the absence of the project? Will activities supported by the project happen without the availability of carbon finance?		
B. Guidance Notes for Validators	Assess whether the project simply owes its existence to legislative decrees or to commercial land-use initiatives that are likely to be economically viable in their own right i.e. without payments for ecosystem services. Also, assess whether without project funding there are social, cultural, technical, ecological or institutional barriers that would prevent project activities from taking place.		
C. Findings (describe)	*The project has been established on abandoned lands. The community has occasionally tried to utilise these areas and attempts at utilisation have been rapidly abandoned in the past. The carbon benefits have given this land and the crop a financial value that previously didn't exist.* *Without the carbon financing there would be no incentive for a third party (Co2perate) to step in and manage the project.* *It is the opinion of the reviewer that this project is additional.*		
D. Conformance	☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		

A. Requirement	**2.4 Permanence** Are potential risks to the permanence of carbon stocks identified in the project technical specifications and are effective and feasible mitigation measures included in the project design?
B. Guidance Notes for Validators	Assess whether members of the community/producers are aware that they will enter into formal sale agreements with the project coordinator and that they therefore need to comply with the monitoring and mitigation requirements of the project. Check whether the risk buffer proposed in the PDD and technical specifications for each intervention (that will be deducted from the saleable carbon of each producer) conforms to the recommended percentages in the Plan Vivo Standard or other Plan Vivo documentation. Check with Plan Vivo if this is unclear.
C. Findings (describe)	*Regarding the sale agreements relating to carbon stocks the following response was from Paninggahan* *• The group does not know about the carbon sales system and mechanism.* *• The group only understands that they have an agreement (contract) with CO2. In the contract CO2OPERATE has purchased and paid for their carbon at the beginning of the project in the amount of Rp. 7,500,000 per hectare. This fund is disbursed according to progress in the field (clearing land, making planting holes, planting, and maintenance). The results from the plant are fully their rights while the issue of documentation and sales of carbon is the right of CO2OPERATE.* *Notes :* *• This project is very different from other VCM projects in Indonesia.* *• Questions related to measurement, sales and recording procedures and how to ensure that carbon is not sold twice, should be asked to CO2OPERATE. This is because in the agreement at the beginning of the project between the farmer group and CO2OPERATE, it was explained that the sale of carbon was part of CO2OPERATE.* ***Kelompok VCM Paninggahan - Bukik Subaka and Aia Dingin*** *• Farmers don't know how to deal with carbon, let alone selling it.* *• Even though their own group is called the Nagari Paninggahan VCM Group, what they understand is that this project is to improve critical land by planting various types of beneficial timber and fruit crops. If later there is carbon sequestration produced, then it is a matter of CO2 because in the initial contract it was agreed that way.*

	Notes : *If you look at the contract between CO2 and the Group, it is clearly written that CO2 is the 'Buyer' of Carbon and the Group is the 'Seller' of Carbon. But they, the farmers, admit that although this Carbon has been explained before, it is too difficult for them to understand. The easiest thing to understand according to them is that this project provides funds that can be used as capital to plant their land which has been neglected for a long time. They feel very helpful because the funds are not credits that must be returned and the CO2 party also does not ask for profit sharing if the plants are already producing.* *Risks – most of the risks relate to pests and disease that will inhibit growth or the theft of fruit. This will slow the growth of the trees. Theft of the fruit will not affect carbon stocks. The following comments on risks were elicited from the farmers groups.* *• Clove plant disease, attacks on shoots and causes dead plants in Paninggahan.* *- There is no solution that can be given to farmers to reduce this risk.* *- Most likely because the seeds come from young trees* *• Avocado plant disease, attack on leaves but did not cause death in Paninggahan.* *- There is no solution that can be given to farmers.* *• Theft of cinnamon and avocado in Paninggahan.* *- The garden is guarded/occupied. Currently, farmers have built residential huts on each land. Some of these huts are even built permanently.* *• Seedlings were not planted according to schedule, happened in Cold Aia* *- Continuous monitoring of farmers.* *From* *• The risks faced are:* *- Fire* *- Clove plant disease (Dead of shoots which ultimately causes the plant to die)* *- Certain weeds, especially a fern (Dicranopteris linearis).* *- Pests from large animals such as deer.*

	• To deal with fires, firebreaks are made. This action has proven to be very effective so that since the project started until now there have been no more fires at the project site. *• The solution for clove plant pests has not been obtained. Farmers have tried to learn from farmers in other areas through social media (facebook) but have not shown results.* *• Deer attack decreases naturally as the plant grows as the plant grows taller.* *The risks that the farmers have highlighted relate to the crops' yields. The only threat that relates to carbon stocks is fire. Annecdotally annual fires have not occurred after the implementation of the project. Imperata grass is extremely fire prone. The more that this can be replaced by tree crops, the lower will be the risk of fires.* *The project has used a risk buffer of 10% which appears reasonable. However there is no monitoring against the yield tables*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None.*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**2.5 Leakage** Have potential sources of leakage been identified and are effective and feasible mitigation measures in place for implementation		

B. Guidance Notes for Validators	Check the sources of leakage and the effectiveness of mitigation measures: • By discussions with local experts, the project coordinator and others. • Assess whether there is a good understanding of the importance of addressing leakage amongst project participants • Assess whether the mitigation measures proposed are really effective and likely to be implemented. Have they already started?
C. Findings (describe)	*Leakage would assume that the project was causing deforestation elsewhere. The reviewer interviewed the Wali nagari about restrictions on use of forest areas.* *Wali Nagari Aia Dingin* *• Traditionally, both forest areas and non-forest areas are territories owned by various ethnic groups in Nagari Aia Dingin. Some areas have been divided into tribal family heads, but some are still under communal control.* *• However, for forest areas these generally are under government control, generally the people recognize the government's jurisdiction so that they cannot manage or use the forest freely. This means that in forest areas are within the government's jurisdiction, customary law recognizes this and is automatically subject to this jurisdiction.* *Wali Nagari Paninggahan* *• Within the Nagari Paninggahan area, there are Protected Forest Areas and Conservation Forests. These areas are recognised by the community. Therefore, the Protected Forest and Conservation Forest Areas are not claimed as "Ulayat".* *• The nagari government together with Ninim Mamak support the existence of Protected Forests and Conservation Forests because they are located upstream (on a hill). If these areas were not protected through the establishment of Protected Forests and Conservation Forests by the government, it would be difficult to prevent logging. This would result in flash floods. This has often happened in the neighboring Nagari, such as Nagari Guguk Malalo.* *• So in terms of forest use, the customary stakeholders agree with the designation of the area as a Protection Forest and Conservation Forest because if it is claimed as Ulayat, it will be very difficult to regulate it according to adat because there are always parties who want to take timber for commercial purposes.* *The leakage is assumed to be zero in the project, which the reviewer agrees with. Any forest areas appear to be protected and that protection is recognized by the communities. The project is converting*

	grassland into forest (not locking up forest areas from exploitation).		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**2.6 Traceability and double-counting** Are carbon sales from the project traceable and recorded in a database? Are the project intervention areas covered by any other projects or initiatives (including regional or national initiatives)? Are there formal mechanisms in place to avoid double counting?		
B. Guidance Notes for Validators	Check the possibility of double counting and whether the carbon sales are traceable by: • By discussions with local experts, the project coordinator and other projects (including any national or regional level GHG coordination unit) • Understanding the project system for maintaining records of carbon sales and keeping records and determining whether this is sufficiently robust and transparent (through discussions with project staff and local participants)		
C. Findings (describe)	*There are no overlapping projects with the Gula2 project. This has been ascertained from village and governemnt interviews.* *The following description was obtained from Co2operate of their system of managing sales and traceability.* *There are two different kinds of ecosystem restoration funding in our sites.*		

	- ***5-year contract with offsetting clients*** *For each 5-year contract with an offsetting client Co2perate restores a new area. That means that each client has exclusive rights of carbon credits in their project site. This is made transparent through the explorer.land platform, where each area can be identified, including hectares. The hectares for each client corresponds with a certain amount of (ex-ante) carbon credits, which equal the offsetting needs of the client. In the excel sheet it is clear that more ex-ante carbon credits are generated than needed by the offsetting clients. Co2perate have reserved some of the additional credits for our small clients, who participate on an annual basis (817,08 tonnes in excel sheet). Certificates will be handed over to them, once all is registered.* *Records are kept for each site on the total ex ante credits according to Plan Vivo PDD, and what each client actually has claimed (see excel sheet). The excel sheet shows these data down to the level of each jorong (sub village or dusun as it is called on Java). Double counting is thus prevented, as we have a particular site for each client from where they get their carbon credits, and have detailed information for each site.* *In order to make this official, Plan Vivo accreditation is the crucial next step. After registration, carbon credits for each site and jorong are registered with unique numbers. These carbon credits will consequently be reserved/taken out of the market registry for the clients (as discussed with Luke some time ago). Hence, not offered for sale to others.* - ***Development capital from FMO*** *In addition to our "regular" offsetting clients, Co2perate also received development capital from Dutch FMO development bank last year to restore another 200 ha under Plan Vivo certification. This upfront funding allows us to restore a total of 200 ha first before Co2perate start selling carbon credits. Here, double counting is not possible, as this area will get Plan Vivo registration first before any carbon credits are reserved or sold.* *An example of the traceability system which traces to the sub-district level is provided in Annex 7.*

D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**2.7 Monitoring** Does the project have a monitoring plan in place? Is it being implemented and does it seem to be an effective system for monitoring the continued delivery of the ecosystem services? Does the project coordinator prescribe and record corrective actions where monitoring targets are not met and are these effectively followed up in subsequent monitoring?		
B. Guidance Notes for Validators	Check whether the monitoring plan is effective and likely to be fully implemented: • Assess the level of understanding of project staff and participating communities of the monitoring system and ensure that there are responsibilities for monitoring are matched by sufficient capacity • Are the selected indicators (covering all aspects of monitoring) SMART? I.e. Specific, Measurable, Achievable, Relevant and Time-bound? • Do the selected indicators properly measure impacts of the project or are they only able to measure inputs/activities? • Are communities effectively involved in monitoring and do they understand their role?		
C. Findings (describe)	*The main ecosystem services that are being provided by the project are :* - *Prevention of erosion* - *Improvement of water quality* *These first 2 factors will be automatically improved by a conversion of grassland to forest. There is information about the number of trees that have been planted. However the reviewer believes this should be further strengthen by archiving satellite images every 6 -12 months.* *PES are mentioned in Table 16 of the PDD though don't appear to implemented on the ground yet.*		

<table>
<tr><td>D. Conformance</td><td>Yes ☑</td><td>No ☐</td><td>N/A ☐</td></tr>
<tr><td>E. Corrective Actions (describe)</td><td colspan="3">FAR01: Data is to be collected for the monitoring indicators described in the PDD. This is to be submitted to the Plan Vivo Secretariat as soon as possible through the annual reporting process, but at latest within the second annual report.</td></tr>
<tr><td>F. (Insert Project Coordinator' Name) Response</td><td colspan="3">(To be filled out by the Project Coordinator)</td></tr>
<tr><td>G. Forward Actions (describe, if applicable)</td><td colspan="3">(Please, delete table and write "None" if there wer no Corective Actions were identified or all Corrective Actions were closed)
<table>
<tr><th>Forward Action</th><th>Why Unresolved</th><th>How to resolve</th></tr>
<tr><td>FAR01</td><td>Data not yet collected.</td><td>Collect data for baselines of monitoring indicators described in the PDD and submit to Plan Vivo for review as soon as possible through the annual reporting process, but at latest within the second annual report.</td></tr>
</table></td></tr>
<tr><td>H. Status</td><td colspan="3">Converted to Forward Action Request</td></tr>
<tr><td>A. Requirement</td><td colspan="3">2.8 Plan Vivos
Are the plan vivos (or land management plans) clear, appropriate and consistent with approved technical specifications for the project? Will the implementation of the plans cause producers' overall agricultural production or revenue potential to become unsustainable or unviable?</td></tr>
<tr><td>B. Guidance Notes for Validators</td><td colspan="3">Where small-holder farmers have prepared individual plan vivos, check a sample of these on the ground (in the company of the farmer) to determine whether they have really been prepared by the farmer and what the farmer expects to be the results of implementation.

For community-projects managing a common (forest) resource, check the management plan for the forest area and assess the extent to which target groups within the community have been involved in preparing it (especially women and disadvantaged groups) and the extent to which</td></tr>
</table>

	its future impacts have been discussed and agreed.		
C. Findings (describe)	*This is a smallholder project.* *• For the Paninggahan location, all tree species are determined by the farmers. These are species they wanted on their land.* *• For Aia Dingin location, CO2OPERATE determined 1 type of plant to be planted through the project, namely Cinnamon (Cassiavera). Meanwhile, other types of species were provided to farmers.* *Clearly the smallholders were given freedom to plant the trees they wanted. Their comments are as follows:* *• Abandoned land has become productive land. Some plants have even started to bear fruit like avocados.* *• Now the community can also plant other crops in between timber and fruit trees. Generally, they grow chilies, vegetables, papaya.* *• They have become more enthusiastic about formerly abandoned lands because the plants are now growing and able to be well cared for.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		

Theme	3. Ecosystem benefits		
Ensuring that the project meets requirements 2.1-2.4 of the Plan Vivo Standard (2013)			
A. Requirement	**3.1 Planting native and naturalised species** Are the planting activities of the project restricted to native and naturalised species? If naturalised species are being used, are they invasive and what effects will they have on biodiversity? Have the species been selected because they will have clear livelihoods benefits?		
B. Guidance Notes for Validators	Check this using a number of sources: • Visual observations of local tree-growing practices • Discussions with communities and project staff • Discussions with local experts (forestry and biodiversity experts) • Published information (refer to this in the validation rep and cinnart if used)		
C. Findings (describe)	*Table 8 in PDD provides the list of species that have been planted. These are all either timber species or livelihood species. Examples of the former are mahogany or shorea species, these are native. Examples of the latter are durian, coffee and cinnamon. These are a mix of natie and introduced species. None are known to the reviewer to be invasive and there was no sign of wildling spread on site.* *Regarding bringing biodiversity to the area, this is rather anecdotal at this stage, but forest birds will come if there are trees, which will inherently improve species diversity. The following observations were made:* *• In the last 2 years there have been many birds coming. Some of them never seen before.* *• With the number of birds starting to increase, there is currently a regulation issued by the Nagari (Village) government which prohibits shooting and catching birds in Nagari Paninggahan.* *• Monkeys, deer, bats are also often seen.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		

G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**3.2 Ecological impacts** Have the wider ecological impacts of the project been identified and considered including impacts on local and regional biodiversity and impacts on watersheds?		
B. Guidance Notes for Validators	Check this using a number of sources: • Visual observations of the environment in the project area • Discussions with communities and project staff • Discussions with local experts (environmental experts) • Published information (refer to this in the validation report if used)		
C. Findings (describe)	*Regarding bringing biodiversity to the area, this is rather anecdotal at this stage, but forest birds will come if there are trees, which will inherently improve species diversity. The following observations were made:* *• In the last 2 years there have been many birds coming. Some of them never seen before.* *• With the number of birds starting to increase, there is currently a regulation issued by the Nagari (Village) government which prohibits shooting and catching birds in Nagari Paninggahan.* *• Monkeys, deer, bats are also often seen.* *This is mentioned in Table 16 of the PDD but no baseline data is available.* *It is of the opinion of this validator that a more-substantial method of measuring bird and mammal species should be created, beyond only camera traps (as described in the PDD). An alternative approach for surveying can be periodic (e.g. every 3 or 5 years) and can be based on patrols and therefore cost effective.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*See **FAR 01** with regard to comment on baseline data* ***Reccomendation 1**: We recommend that a periodic survey of mammal and bird species is included in the biodiveristy monitoring plan.*		

F. CO2 Operate's Response	This refers to biodiversity measurements. Please find the proposal for biodiversity surveys in the excel sheet attached. We put some red blocks and names of RPL/students as part of our current discussions with Andalas to reduce the costs, as it is a long term project, but very costly. We are now discussing with Andalas to make this into a university collaboration, but this will mean making a MoU with them, get approval, and so on. This will recue costs, but it will take time to get the administrative procedures done. The surveys will take months to finish. Currently, the staff is not willing to go to the field, due to CORONA restrictions. They want to make an inventory of where they can reduce costs or leave out some data gathering to make it into a doable but still good monitoring system cost-wise.
G. Forward Actions (describe, if applicable)	None
H. Status	*n/a*

Theme	**4. Livelihood Benefits**
Ensuring that the project meets requirements 4.1-4.14, 7.1-7.5 and 8.1-8.10 of the Plan Vivo Standard (2013)	
A. Requirement	**4.1 Community-led planning** Has the project has undergone a producer/community-led planning process aimed at identifying and defining sustainable land-use activities that serve the community's needs and priorities?
B. Guidance Notes for Validators	Assess this by discussions with project staff and communities and by looking at any records of the planning process. It may be useful to conduct a time-line exercise with communities to understand the planning process that has taken place.
C. Findings (describe)	*The following comments were made by the groups which have planted abandoned land with livelihood and timber trees.* • *Abandoned land becomes productive land. Some plants have even*

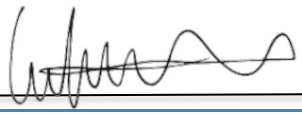
	started to bear fruit like avocados. *• Reduce forest fires. There has never been a fire at the project site since the project started until now. Previously every year there was always a fire.* *• Reviving the water sources/springs that were once dead. Now some of the springs are flowing again* *• Now people can also plant other crops in between timber and fruit trees. Generally they grow chilies, vegetables, papaya.* *• Become more enthusiastic about land because the plants are growing well and well cared for.* *It appears to the reviewer that the plantings have been done in a sustainable community led forum. The reasoning being that forest cover would be a better land cover than degraded grassland.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**4.2 Socio-economic impact assessment/monitoring plan** Is there a robust socio-economic impact assessment and monitoring plan in place that can measure changes against the baseline scenario?		
B. Guidance Notes for Validators	Discuss with project staff and communities to understand how the baseline assessment was conducted and how the socio-economic monitoring plan developed out of this. Assess in particular: • Whether the livelihoods indicators can effectively monitoring socio-economic changes takeing place		

	• The extent to which women, disadvantaged people and other social groups have been involved project processes and whether the selected indicators will enable impacts on them to be determined • Whether any groups in the community are likely to be adversely affected by the project and whether there are any mitigation meausures in place to addres this.		
C. Findings (describe)	In the verification, there was a lot mentioned about inclusion of marginalised groups. However, there is no specific information in the PDD or elsewhere about marginalised groups.		
D. Conformance	Yes ☐	No ☑	N/A ☐
E. Corrective Actions (describe)	Please refer to **Minor CAR 01**		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	Please refer to the outcome of **Minor CAR 01** in Table 4. *(CLOSED~~, OUTSTANDING, or CONVERTED TO FORWARD ACTION~~)*		
A. Requirement	**4.3 Sale agreements and payments** Does the project have clear procedures for entering into sale agreements with producers/communities based on saleable carbon from *plan vivos*? Does the project have an effective and transparent process for the timely administration and recording of payments to producers?		
B. Guidance Notes for Validators	Check the systems that are being proposed by the project and make an assessment of whether these are fully functional already or whether they can be made functional when required? Are communities/producers aware of the system and do they understand it? Are documents and materials readily available to producers/communities?		

C. Findings (describe)	*There are contracts with the communities which relate to saleable carbon (Annex 1). The communities do not really understand the concept of selling carbon. They state that it has been explained to them but it is too complicated. Regardless, they understand the payments system and are content with this, so we do not see this as a problem.* *Evidence of a payment mechanism was provided.(Annex 4)*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*n/a*		
A. Requirement	**4.4 Benefit sharing and equity** Will the project have livelihoods benefits for the local community? Are these benefits likely to accrue to all community members and/or are benefits targeted at particular groups within the community? What other actions is the project taking to ensure that disadvantaged groups e.g. women, landless households, poor people will benefit from sales of Plan Vivo certificates?		
B. Guidance Notes for Validators	Whilst there may be livelihoods benefits resulting from the project aspects of benefit sharing are critical to ensure that benefits are equitably shared. This can be assessed by: • Checking whether a local stakeholder/well-being analysis has been conducted to identify socio-economic groupings in the communities • Assessing the level of governance of local groups (are issues of equity and benefit sharing discussed during meetings?		

	☐ Discuss with a small sample of households from different socio-economic groups to determine their level of understanding of the benefits they are likely to get from the project.		
C. Findings (describe)	*The concept of benefit sharing is based on the inputs as can be seen in the payments mechanisms in Annex 4. Additionally, the project has provided seedlings to landowners. There is a discussion of the benefits that the community is getting from the project. The comments that were made were:* ☐ *Abandoned land has become productive land. Some plants have even started to bear fruit like avocados.* • *Now the community can also plant other crops in between timber and fruit trees. Generally, they grow chilies, vegetables, papaya.* ☐ *They have become more enthusiastic about formerly abandoned lands because the plants are growing well and well cared for.*		
D. Conformance	Yes ☑	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*		
F. CO2 Operate's Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*None*		

The Independent Expert: Jules Crawshaw	
Signature: J Crawshaw	**Date:** 6.11.2021

The representative of the Plan Vivo Foundation: Luke Howard	
Signature: 	**Date:** 6th November 2021

Annex 1: Evidence of payments to participants

Contains sensitive information and therefore not available in public version of report

Annex 2: Statement letter of support for individual candidate pairs in the election of the regent and deputy regent of Solok

Contains sensitive information and therefore not available in public version of report

Annex 3: Evidence of participants confirming received payments

Contains sensitive information and therefore not available in public version of report

Annex 4: Samples of project databases

Contains sensitive information and therefore not available in public version of report

Annex 5: List of individuals interviewed

Contains sensitive information and therefore not available in public version of report

Annex 6: Evidence of sales record

Contains sensitive information and therefore not available in public version of report

Annex 7: Photos from validation site visit

Field discussion photos


REDMI NOTE 8
AI QUAD CAMERA

Site photo: Aia Dingin

Site photo: Paninggahan - Kel Bukik Subaka