Halo Verde 2022 Expansion - Validation Report

Name of Reviewers: Jules Crawshaw

Date of Review: 5/12/22 – 8/12/22

Project Name: Halo Verde – 2022 expansion sites

Project Description: Tree planting on currently unforested land

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

Visited sites:

No	Location	Activities		Description	Date
		Morning	Afternoon		
1	Dili	Arrived in Dili	Travel Dili to Laclubar	Overnight in Laclubar	4/12/2022
2	Laclubar	Visit AbF farmers in Suco Batara	Visit AbF in Suco Orlalan (Pualaca)	Overnight in Laclubar	5/12/2022
3	Laclubar	Visit AbF farmers in Suco Orlalan (Pualaca)	Visit AbF farmers in Suco Manlala	overnight in Soibada	6/12/2022
4	Soibada	Visit AbF farmers in Suco Manlala & Leo-hat	Visit AbF farmers in Suco Manehat	Overnight in Natarbora	7/12/2022
5	Lacluta	Visit AbF farmers in Suco Dilor	Visit AbF farmers in Suco Sikone	Overnight in Natarbora	8/12/2022
6	Natarbora	Travel Natarbora to Dili	N/A	Overnight in Dili	9/12/2022

List of individuals interviewed: Please see attendance lists in Appendix 2 for complete details. The interviewees consisted of Ministry of Forestry Officers, Village Heads in the communities that were participating, farmers who were participants, politicians who were supporting the programme and GIZ.

Description of field visit: Walking through the sites that were participating and observing such things as survival, weed growth, pests, tree health. Interviewing participating farmers.

Validation Opinion: PASS

Table 1. Summary of draft report major and minor Corrective Actions (2)

Theme	Major CARs	Minor CARs	Observations
Governance	0	1	0
Carbon	0	1	1

Ecosystem	0	0	0
Livelihoods	0	0	0

Table 2 - Report Conformance

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

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

Forward Action Requirement (FAR)	Description	Process to Resolve	Time Frame to be Closed By
FAR 1	*The farmers don't understand the link between PES and tree growth.*	*Put together materials which explain this in terms that the farmers understand. Could be tested by asking the farmers to explain in their own term how the PES are calculated.*	*Next audit*
FAR 2	*PES agreements must be signed before issuance can be made for those farmers.*	*Present copies of agreements with participants at next annual report.*	*Next 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?
5.4. Ecosystem services forming the basis of Plan Vivo projects must be additional i.e. would not have been generated in the absence of the project, which involves as a minimum demonstrating that: 5.4.1. Project interventions are not required by existing laws or regulations, unless it can be shown that those laws are not enforced or commonly met in practice and the support of the project is therefore justified; 5.4.2. There are financial, social, cultural, technical, scientific or institutional barriers preventing project interventions from taking place.	See explanation and justification for project expansion in Appendix 4. The project areas being included comprise of smallholders who planted trees in recent years under the GIZ scheme. The additionality argument from the project is that these smallholder families are experiencing, or would experience, high levels of mortality in these trees unless the farmers are given support. Similar to part 2.3 of this report, please assess the additionality of these sites but particularly with this context in mind. I.e. what would the success of the planted trees be without the project's support and would the climate benefits associated with these trees under the project be appropriate?	*The validator agrees with the project that without the project there would be a high level of mortality. The project insists on fencing and weeding to protect the seedlings. Additionally there is constant follow up by the FCOTI team.* *After interviewing GIZ regarding their project, it was made apparent that a lot of the seedlings were taken by community members and it was untraceable where these seedlings were planted (or planted at all).* *With the FCOTI project the agreement specifies the exact planting location.*	*None*	*n/a*	*Resolved*

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)	*Already audited and passed in the initial validation*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		

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)	*The validator interviewed the project staff – there were 5 field staff that joined the validation audit.* *All the staff stated that they were responsible for providing technical support to farmers. Particularly this involved :* - *The requirement to build a fence to stop animals eating the trees.* - *Tree species selection (helping farmers choose the appropriate trees based on site conditions).* - *Keeping the area around the trees clean of competing weeds.* - *Blanking (replacing failed trees).* - *Tree spacing* *Whilst in the field the staff showed the ability to identify pests that attacked particular species. For example, grubs (Hypsipyla grandella) that ate the apical buds of mahogany. The staff also mentioned that they undertook soil tests.* *Additionally at all interviews (23 one-on-one farmer interviews were undertaken), the validator asked what technical support was provided by FCOTI to the farmers. They all gave the same answer, which reflected what FCOTI had mentioned about their roles above.*			
D. Conformance	**Yes**	x	No ☐	N/A ☐
E. Corrective Actions (describe)	*None*			
F. FCOTI Response	*n/a*			
G. Forward Actions (describe, if applicable)	*None*			
H. Status	*CLOSED*			

A. Requirement	**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: 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)	*FCOTI is taking over a role provided by an NGO, GIZ, as it exits Timor Leste. GIZ provided seedlings to farmers in an attempt to increase the ecosystem services.* *A suite of presentations were provided to the validator which included photos, minutes and attendance lists. These presentations were mentioned by the farmers in a number of interviews.* *Regarding target groups, such as marginalised and underprivileged, the validator asked the Kepala Desas and Kepala Kampungs about the structure of the villages. They all said that income levels and opportunity levels were very homogeneous within the villages, there were no disadvantaged groups. Almost everyone owned enough land to grow crops at least to feed themselves. As such, the participant villages did not really have marginalised groups.* *While most of the farmers were men, they stated that the whole family would benefit from the scheme (i.e. women and children also).* *There was certainly no "exclusivity" about the project. If people had*

<table>
<tr><td></td><td colspan="3">land that they were willing to plant with trees and they met some simple requirements they were extremely welcome to join the project. There were no community groups involved in this project, the farmers communicated directly with the FCOTI staff.
Regarding tenure rights, this in about 60% of the cases was determined by a letter that had been signed by the Timor Leste Government at some level, whether it be the Kepala Desa, Camat, Dili Government. The other cases was land that had been inherited through a family system.
Whilst the former system is more formal it has no map attached, nor GPS coordinates nor are there boundary pegs. In all cases the FCOTI confirmed ownership with the Kepala desa, Kepala Adat and the neighbours – obtaining agreement to go ahead with tree planting.
The validator asked the Kepala Desas about the incidence of land related disputes, all just shook their heads. Furthermore, there had been no incidents where FCOTI consulted the neighbours about tree planting and the neighbours rejected it.
The validator asked the farmers what the knew about carbon and ecosystem services. In reality, these are difficult concepts for farmers that are used to dealing in highly tangible products. Most of the farmers looked confused about these concepts. However, the validator believes that once they receive payments and see the link between tree growth and their payment, they will start understanding better.
The FCOTI staff clearly had established relationships with all the farmers. During the validation audit the farmers and FCOTI knew each other and the farmers said the FCOTI staff came to look at the conditions in the field every 1 -2 months, which the validator considered to be very regularly.
There is a grievance procedure that FCOTI has. Rather than grievances, some of the farmers asked for help e.g. provision of wire to build boundary fences, help with land clearing.</td></tr>
<tr><td>D. Conformance</td><td><u>Yes</u> [x]</td><td>No [ ]</td><td>N/A [ ]</td></tr>
<tr><td>E. Corrective Actions (describe)</td><td colspan="3">To be addressed by next audit – keep attempting to explain the link between tree volume and carbon sales.</td></tr>
<tr><td>F. FCOTI 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">
<table>
<tr><th>Forward Action</th><th>Why Unresolved</th><th>How to resolve</th></tr>
<tr><td>FAR 1</td><td>The farmers don’t understand the link between PES and tree growth.</td><td>Describe how this is to be resolved and who the evidence should be submitted to for review. Put together materials which explain this in terms that the farmers understand. Could be tested</td></tr>
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				by asking the farmers to explain in their own term how the PES are calculated.
H. Status	*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)	*The project had mapped out the boundaries of all blocks by walking round the edges with a GPS and turning this into a shapefile. The auditor had loaded the block boundariesinto a GPS and was able to confirm that the boundaries matched reality in the field. Similarly each boundary polygon was attributed with the name of the owner. All the owners names, on the blocks that were visited (23 blocks) were correct. The FCOTI staff had monitored how many trees had been provided to each participant and had undertaken survival counts. This data had been put in a spreadsheet. This enabled the staff to calculate how many trees needed to be provided to get full site occupancy. Many of the sites hadn't been planted out because of shortages of trees or participants had only just joined the scheme.* *Staff were able to explain how they did inventories and this was supported by written procedures.* *FCOTI has undertaken a series of sales, though not from the blocks being validated. The blocks being validated have been only planted in the last 2 years, consequently the trees are too small to have sequested a saleable amount of carbon. However the abilities of FCOTI have been validated in the previous validation report.*			
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]	
E. Corrective Actions (describe)	*None*			
F. FOCTI Response	*n/a*			

G. Forward Actions (describe, if applicable)	*None*
H. Status	*CLOSED*

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)	*The project has an expert that developed the carbon accounting methodology. Consequently, he understands this very well.* *The methodology was validated in the previous audit so the validator focused on the methodology for the new species (Toona). The major factor is the growth model. The reviewer looked at the growth predictions for Toona in table G10. This predicted trees of dbh = 39 cm at 30 years old, which based on the Validator's field experience seems very achievable (if not conservative). As a basis for this the project used measurements of 50 trees in the AOI as well as measurements from literature (Latifah et al. (2018) and Balducci et al. (2009)) in order to develop the growth model. However, no stocking figures are provided. An initial stocking of 1111 (3 x 3 m) is used but the Validator cannot see a table of mortality / thinnings.* *The AGB is based on Krisnawati et al. (2012). The total benefits in terms of carbon sequestration are provided in tables 18.1 and 18.2. In Table G13, Basal area (m^2/ha) and estimated tree biomass (tCO2e/ha) per species for woodlots is provided. However, this does not include Toona. As such, the Validator cannot make the link between the growth predictions in G10 and the tables 18.1 and 18.2. There are worksheets provided in Annex F1, but there are none for Toona.* *The validator checked the four references (Latifah, Balucci, Krisnawati*

	and Leech) relating to Toona growth. The Validator agrees that the growth estimates applied are conservative.		
D. Conformance	Yes ☐	**No** x	N/A ☐
E. Corrective Actions (describe)	*There are no growth models for Toona provided. Without these the following requirement is not met "Whether the carbon accounting models are clear and transparent i.e. are the spreadsheets available and readily understandable". Please provide growth models for Toona in the format of tables G13 and G14. Add the Toona spreadsheet to Annex F1.*		
F. FCOTI Response	Additional information has been submitted.		
G. Forward Actions (describe, if applicable	The project has subsequently provided the additional information requested. The Validator considers this issue resolved.		
H. Status	*CLOSED*		
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 model is based on secondary data for the soil organic carbon and measurements of carbon in ex-agricultural land and degraded shrubland. From the interviews almost all of the farmers were using the land for farming a mix of corn, cassava and various other agricultural crops. It is likely that they would continue farming these sites for some time, probably abndoning them eventually when the soil fertility dropped away due to constant cropping. Particularly cassava degrades the fertility very quickly. In the upland areas around Laclubar, the farmers mentioned using peanuts, as a legume to help improve fertilty. But all farmers appear to have a suite of 3-4 sites and rotate around them. The sites that are being planted are probably at the end of the cropping rotation, so the baseline scenario probably over-estimates the amount of carbon – i.e. soil carbon is probably much reduced and there would be very few trees in the biomass pool. Consequently the validator believes that this is a conservative model and accepts it.*		

D. Conformance	**Yes** x	No	N/A
E. **Corrective Actions (describe)**	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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 previous project was a GIZ tree planting project, where from the validator's observation farmers were given free trees to plant and there was no follow up and minimal technical support to the farmers.* *From the validator's observations with similar projects elsewhere most of the trees get planted in totally inappropriate areas, receive no maintenance (so are either throttled by competing grass species, burnt in fires or eaten by wandering goats or cows). Whereas FCOTI has provided training to the farmers and demands that they build fences, weed around the trees, ensures the trees are planted in reasonable sites. Furthermore the FCOTI staff constantly travel round to the sites and inspect the condition of the trees, fences and weed growth so the participants cannot neglect the sites. Additionally participants are given trees to plant to replace any failure.* *Through doing this the staff will build up a lot of practical knowledge about what trees do well on what sites, when to plant them (e.g. the area experiences a harsh dry season, so planting prior to this would be inadvisable). Similarly there are a lot of grasses such as Imperata cylindrica, which a fiercely competitive, so only the most hard of species can survive planted amongst this.* *Regarding the additionality for PES, all the farmers had just joined this scheme and didn't really understand PES. Whilst these farmers may not be well educated, the validator knows with experience elsewhere that the farmers are extremely practical in their approach. Once they see the link between tree growth and PES they will be extremely*		

	motivated to care for the trees. All the farmers had the approach that if they got something out of PES then that was a bonus for them. There was one farmer, Tomas Pintu, who had area in the previous scheme and was receiving PES payments. He understood PES very well. This had motivated him to add to the project. A sample of one person is not really enough to prove additionality, nevertheless, the fact that this farmer was adding land to the project based on PES revenues is a good indicator of additionality. *Of the 23 farmers interviewed, 6 farmers mentioned that they were planting trees to preserve the soil and release oxygen.* *So the validator believes that it is premature to judge the additionality related to PES, however the active management of the blocks provided by FCOTI staff is definitely providing additionality to the project in its initial years.*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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)	*The validator asked each of the farmers whether they had formal agreements that they had signed with FCOTI. There were 7 members that were new to the project that had verbal agreements with the staff but had no signed agreement yet. Supposedly this was based on advice from PV.* *The farmers were asked to explain what was in the agreement. The replies were all exactly the same. That they:* - *Had to have a fence to protect the trees fron animals.* - *Had to plant trees on the site.* - *Had to keep the trees free from competing weeds.*		

	- *Could not burn the area.* - *Could not cut the trees* *Regarding the period of the agreement they understood it was for thirty years.* *All the farmers focussed on the tangible practical details of the agreement. PES is in the agreement, but it is an abstract concept. As mentioned in the previous section, the farmers will start understanding PES when they start receiving payments. There was one farmer (Tomas Pintu) who had taken part in the old project and was now receiving payments of $600 / year for PES. He understood the concept very well!* *The biggest risk to this project is mortality, many of the areas had significant mortality caused by an extremely hot and dry season. The project needs to work on getting the trees planted at exactly the right time of year and having mulch around the trees to suppress weed growth and preserve soil moisture. The project is building small nurseries in each village. Ideally this will enable the seedlings to be distributed quicklyto the sites at eactly the right time of the year. Furthermore, there is a large altitudinal range, from sea level in Natarbora to 600 masl in Laclubar, so having local nurseries is very important. Another issue is the fences, most farmers built fences out of bamboo, which get damaged and rot after 2 -3 years. Two farmers and one Kepala Desa suggested assisting the farmers with providing barbed wire for the fences as an initial project asistance. In other areas weed growth was a big problem. Paying for manpower to help weed the site, with the costs being offset against future payments may be something the project has to consider.* *Another risk factor is not having sufficient seedlings to occupy every site. In many areas the farmers had only received 10% of the seedlings required. This was because there was insufficient nursery capacity to supply them seedlings. However, this is an operational factor the project is currently addressing.* *The risk buffer that has been applied to the project is 15%. Given the very early stages of the project this is very difficult to judge for the validator. .Furthermore, the sites in Laclubar are much more difficult to establish trees than the lowland sites. The more sites in areas near Laclubar, inherently the bigger risk buffer may need to be.*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*(To be filled out by the Project Coordinator)*		

G. Forward Actions (describe, if applicable)	*PES agreements must be signed before issuance can be made for those farmers. Present copies of agreements with participants at next annual report.*
H. Status	*CONVERTED TO FORWARD ACTION*
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)	*Possible sources of leakage are the people planting trees in one area of agricultural land and then cutting down trees elsewhere to provide themselves with agricultural land.* *The Validator interviewed a member of the Forest Police (Dinas Kehutanan) at Laclubar. This person explained that there are traditional laws relating to forest utilization which have become embodied in national laws. Everyone uses firewood for cooking (electricity and gas are unaffordable). The laws mean that only dead trees and branches can be taken for firewood. Even trees on private land needed special permission to be felled.* *There are private forests and national forests in the areas but the boundaries have not been mapped.* *Every participant said that they had several locations where they owned land. Generally the current locations were used for growing corn. They would move any agricultural activities to the areas that they already own which are typically in the fallow phase of a rotation. So they wouldn't be going and opening other forest areas elsewhere because this is forbidden and they have other privately owned land available.*
D. Conformance	**Yes** [x] No [ ] N/A [ ]
E. Corrective Actions (describe)	*None*
F. FCOTI Response	*n/a*
G. Forward Actions (describe, if applicable)	*None*
H. Status	*CLOSED*
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)	*This has already been validated under the initial phase of the project.*		
D. Conformance	**Yes** x	No	N/A
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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)	*Monitoring is done by tree counts (survival) and dbh and height measurements. This is done to calculate the sequestration of carbon. In the agreements there are growth / survival targets in order to get payments.*		

	Additionally the farmers all said they were visited by FCOTI staff every 1 -2 months to check on the condition of the site. Mainly at this stage the FCOTI staff were checking on survival and weed growth. The staff input survival information into a spreadsheet that was used for determining the number of seedlings that would be required.		
D. Conformance	**Yes** x	No	N/A
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
A. Requirement	***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?		
B. Guidance Notes for Validators	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 its future impacts have been discussed and agreed.		
C. Findings (describe)	*The Plan Vivos were simple hand drawn maps of each block showing the boundaries of the blocks and the species selected. These had been developed by the FCOTI staff and the farmers. They appeared adequate. Regarding production volumes, all farmers that were interviewed had a number of blocks elsewhere. Many of these were in a fallow cycle and they intended to bring these areas back into production.*		
D. Conformance	**Yes** x	No	N/A
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		

H. Status	*CLOSED*

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 report if used)		
C. Findings (describe)	*The species that were being used were native. The exceptions were Gliricidia, Gmelina and teak. These would be classified as naturalised species. As an example teak has been used for generations as a timber tree. Similarly gliricidia as a legume is used for making fences and is used as a stock feed as well as a tree for vanilla to grow on.* *The validator considers all the species to have clear livelihood benefits most of them as timber species (e.g. Toona, mahogany and teak). However other species were being planted such as rambutan which is a fruit tree and gliricidia – a stock feed and legume.*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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)	*All the blocks are extremely spread out and very small areas in large watersheds. The impact of planting of degraded farmland in these areas will be positive in terms of water and soil conservation. However, because*		

	the areas are small and spread over many kilometres the impacts are unlikely to be measurable.		
D. Conformance	**Yes** x	No	N/A
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		

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)	*Already validated in the previous validation.* *However, all the species have been chosen by the communities and all have clear livelihood benefits. The farmers mentioned that they had been invited to a meeting at the Camat's office where the concept of the project had been socialised. The FCOTI staff subsequently worked with farmers on a one-on-one basis.* *FCOTI had ensured they had the support of government agencies at all levels – central government, local government (Dinas Kehutanan, Kepala Desa, Kepala Kampung) this was all checked by the validato during the interview process.*		
D. Conformance	**Yes** x	No	N/A

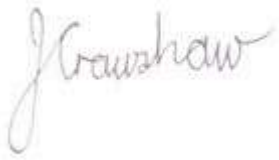
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
A. Requirement	**4.2 Socio-economic impact assessment/monitoring plan** Is there a robust socio-economic impact assessment and monitoring plan in place that can 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)	*The Validator asked all the Kepala Desa that were interviewed about the structure of the society in the Desa. They stated that all people were in a middle class. There were no poor people that didn't have enough to eat. Everyone owned land of more than 0.5 ha which was easily enough to gow crops to feed a family.* *They stated that while most of the farmers were men, additional income would benefit the whole family; women and children included.* *The social monitoring would be the additional income provided to communities, bearing in mind that the project consists of many small blocks spread over many communities. It would be impossible to attribute any change solely to the project.*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		

F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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)	*Validated in the previous project validation*		
D. Conformance	Yes ☐	No ☐	N/A [x]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		
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)	*As mentioned previously these communities are very homogeneous, made up of subsistence farmers. Most people grow crops for themselves, selling small amounts into the local markets, but everyone stated that the prices paid were so poor that it was hardly worth it.* *This project deals with the farmers on a one-on-one basis and not through local cooperatives or farmers' groups (so the concept of governance is not really relevant).* *At this stage (on planting), the farmers saw the benefits as being given seedlings to plant and then owning the trees. PES was an abstract concept for the farmers. However, they did have a very rudimentary understanding of PES.* *This project is a very small project but as part of its CSR pays school fees for a number of local children. As well as this it will provide payment for local people doing things like land clearing or weeding.*		
D. Conformance	**Yes** [x]	No [ ]	N/A [ ]
E. Corrective Actions (describe)	*None*		
F. FCOTI Response	*n/a*		
G. Forward Actions (describe, if applicable)	*None*		
H. Status	*CLOSED*		

Table 3. Site Visit Itinerary

No	Activities			Des-crip-tion	Date
	Location	Morning	Afternoon		
1	Dili	Arrived in Dili	Travel Dili to Laclubar	Overnight in Laclubar	4/12/2022
2	Laclubar	Visit AbF farmers in Suco Batara	Visit AbF in Suco Orlalan (Pualaca)	Overnight in Laclubar	5/12/2022
3	Laclubar	Visit AbF farmers in Suco Orlalan (Pualaca)	Visit AbF farmers in Suco Manlala	overnight in Soibada	6/12/2022
4	Soibada	Visit AbF farmers in Suco Manlala & Leo-hat	Visit AbF farmers in Suco Manehat	Overnight in Natarbora	7/12/2022
5	Lacluta	Visit AbF farmers in Suco Dilor	Visit AbF farmers in Suco Sikone	Overnight in Natarbora	8/12/2022
6	Natarbora	Travel Natarbora to Dili	N/A	Overnight in Dili	9/12/2022

The Validator: Jules Crawshaw	
 **Signature:**	**Date: 10/2/2023**

Appendix 3: (e.g. photos, lists of participants, scanned copies of receipts, etc.)

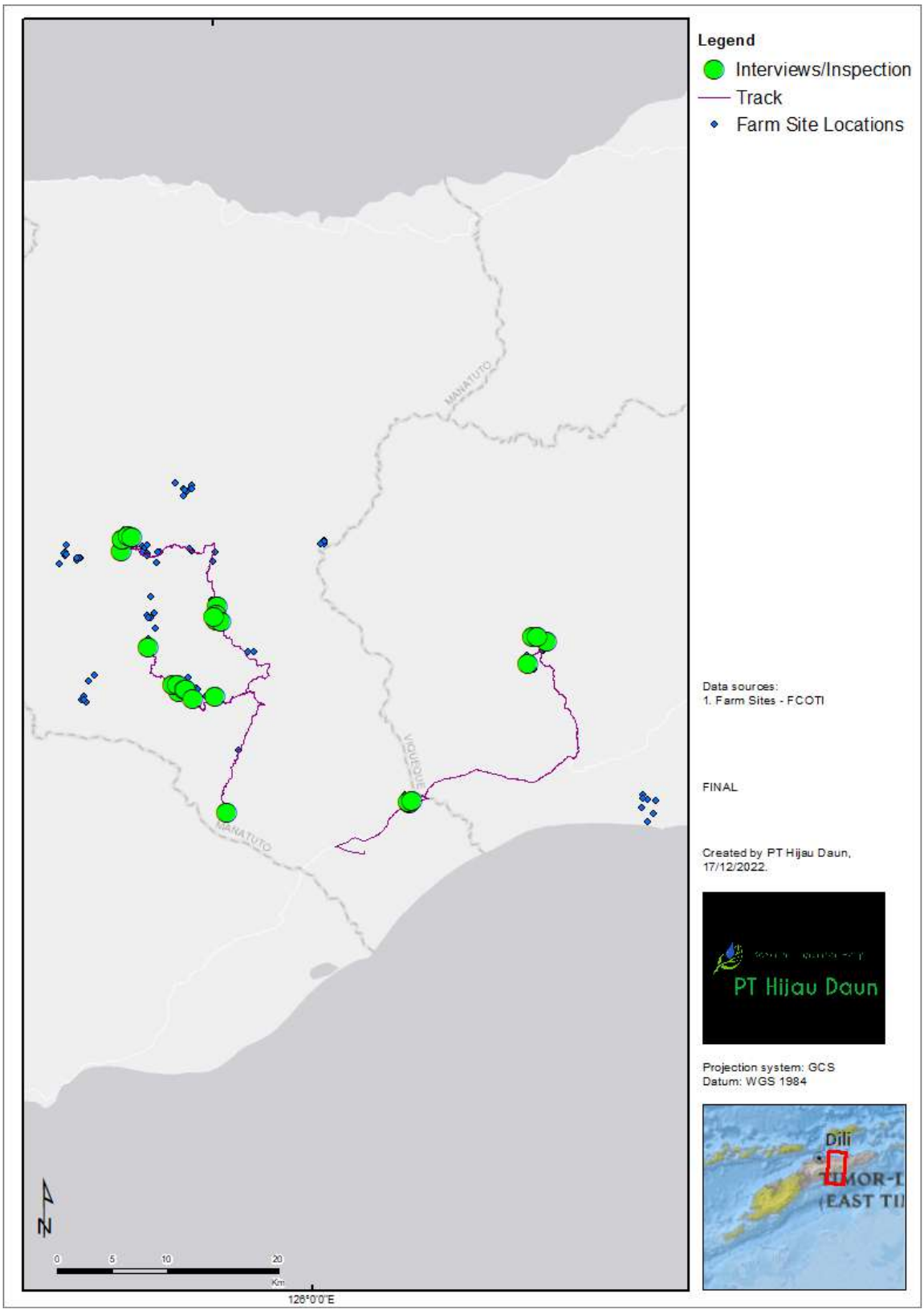


Figure 1. Track and locations of interviews and site inspections.

FCOTI Interview Sheet

Date: 5.12.22

Nama	Posisi	Tanda tangan
1. Pedro da costa l. Bxb	Staff F. coti	
2. Vicente pereira	staff F. coti	
3. Domingos Baptista	Staff F-coti	
4 Maria da silva	staff - F coti	
5. Liberio A.T. do R.	Staff - F - coti	
6. AGUSTINHO	Gr. Floresta	
7 Mario da silva	Floresta	
8 Tomas pinto	Chefe de suco Bulara	
9. Mateus soares	Gor grupo — =	
10 Felix ximenes	Petani	
11. jose Dasilva sarmento	Chefe Aldeia Dirikun petani	
12 FELIX amtou	petani	
13. Date; 6:12:22		
1. Marciliano Soares	petani	
2. Mario da costa	petani	
3. Egas das Neves	petani	
4. Domingos d.c. oliveira	Petany	
5. Rogerio M. S. da Cruz	petani / Kepala kampung	
6. jose Sarmento Leonel	Petani	
7. Leonardo Soares	Petani	

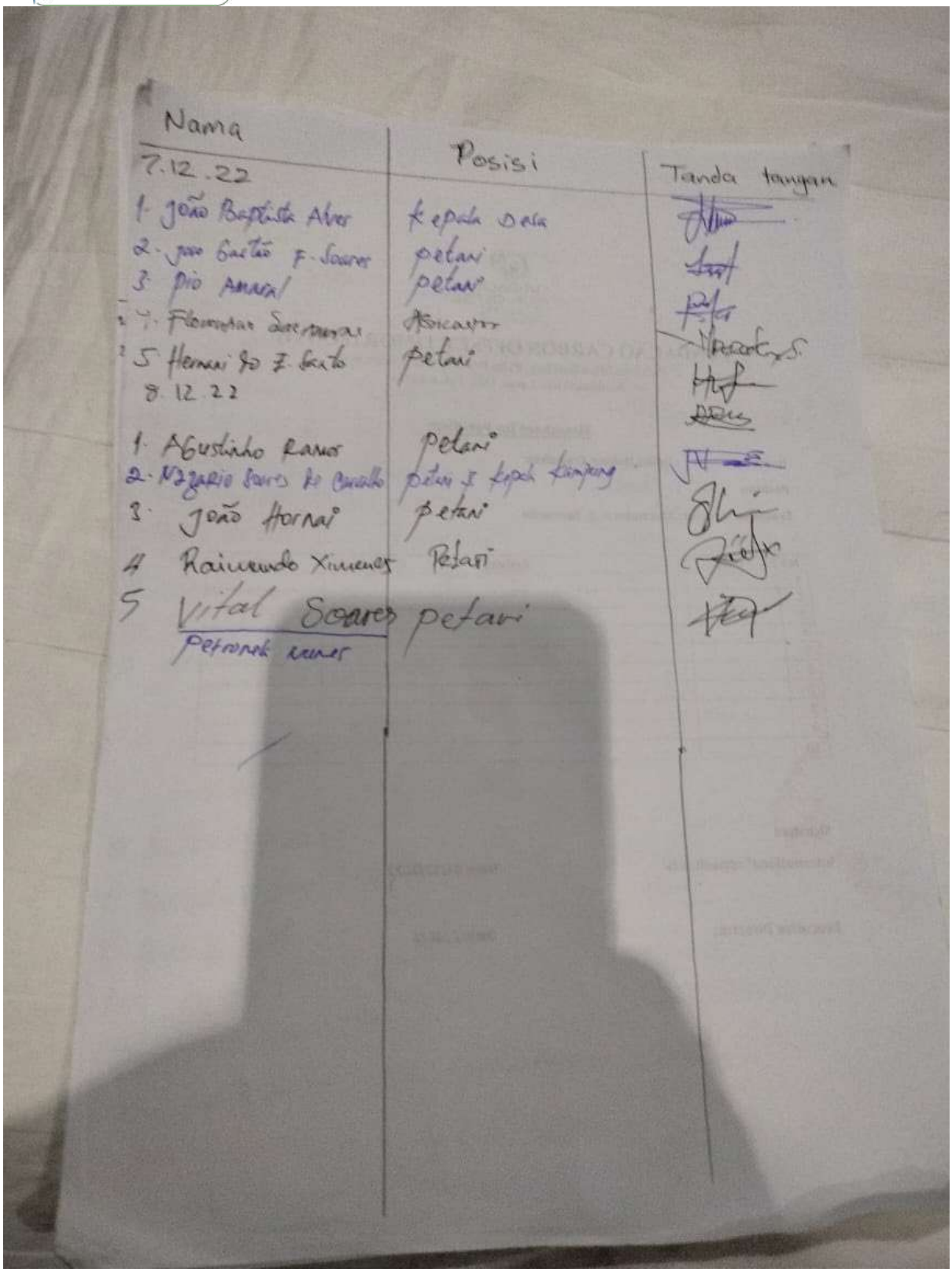


Figure 2. Interview sheets including all the staff, village leaders and farmers who were interviewed.

Figure 3. Casurina planting near Laclubar.

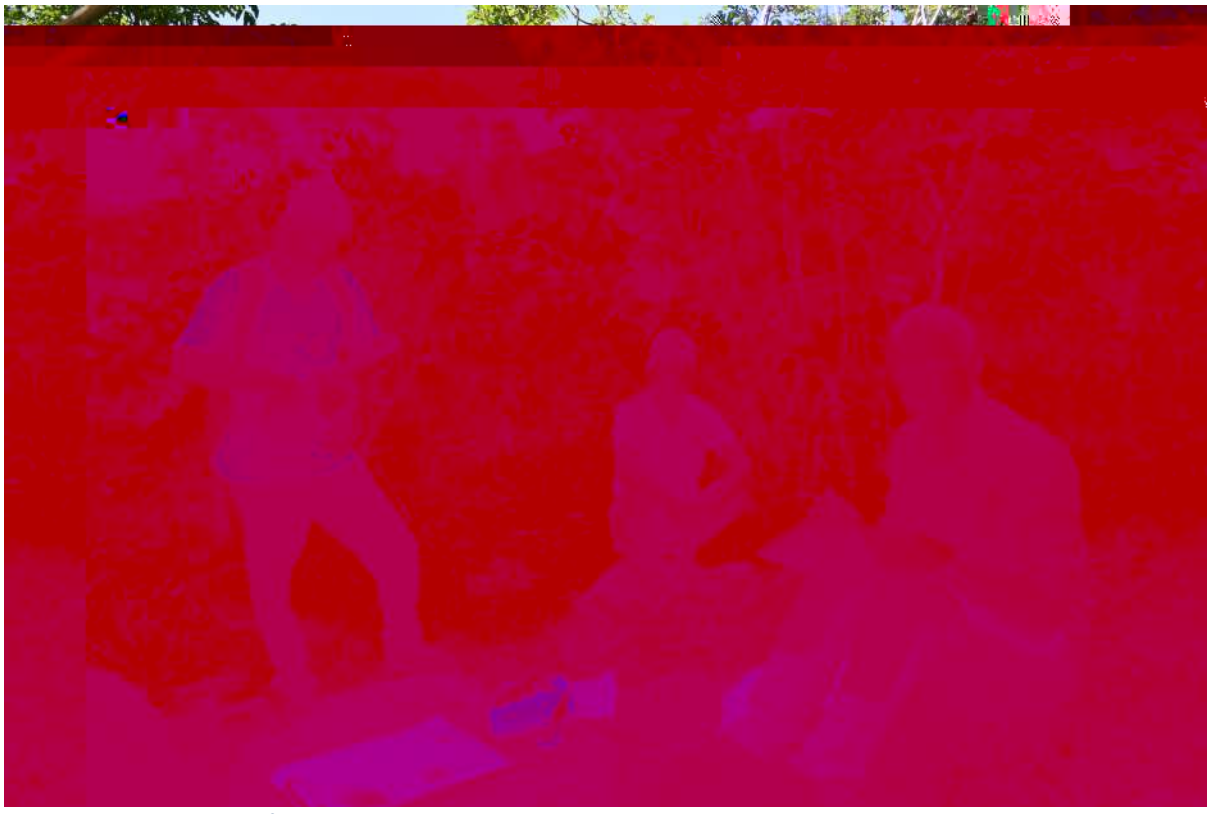


Figure 4. Interview with farmer near Laclubar.

Figure 5. Mahogany seedling. Note that it is surrounded by Imperata cylindrica, which is a fiercely competitive grass. This seedling will need constant weeding until it is > 1 m high.

Figure 6. Farmers showing the validator their seedlings.

Figure 7. Infield inspection with FCOTI team. Note mahogany seedlings.

Figure 8. Interviews with farmers at Suco Orlalan the fence and site are in the background.

Figure 9. Farmer showing mahogany seedling -Suco Leo-hat.

Figure 10. Interview with farmers-Suco Leo-hat.

Figure 1. FCOTI staff showing the grubs that eat the apical tips of mahogany seedlings.

Figure 12. Cinnamon seedling.

Figure 13. Interview with farmer.

Figure 14. Interviews with farmers - in Suco Manehat.

Figure 15. Fruit tree planting - Suco Dilor.

Figure 16. Farmer next to a teak tree - Suco Sikone.

Figure 17.. Gliricidia stakes that will form a live fence - Suco Sikone.

Figure 18. Farmer with mahogany trees at Suco Dilor

Appendix 4: Expansion description and justifications

Summary of Proposed Modifications to the Technical Specifications of the Halo Verde (HV) PDD
-FCOTI (Timor-Leste)-

This is a brief summary of the approach proposed for additional areas and old and new species in the HV's technical specification:

A. Climate Benefit Calculations: allometric equations.

1) Species already included in the PDD, planted in new areas: No changes in the application of allometric equations and carbon calculation approach for new areas where species already included in the PDD (see Table G10) are planted.
2) New species in new sites: *Toona sureni* (Red cedar, native), *Lannea coromandelica (Amare fuik,* naturalised) where carbon estimations are based on allometric equations for each one of these species without departing from the approach already used in the PDD.
3) Mixed species approach in new sites: Application of one single allometric equation (developed by Hung et al. (2012)) for mixed species of: *Cinnamomum verum (*Cinamon, naturalised), *Artocarpus heterophyllus (*Jack fruit, naturalised) and *Nephelium lappaceum* (Rambutan, naturalised).
4) The soil organic carbon (SOC) estimation approach used will be the same already included in the PDD.
5) All interventions are the same as those already included in the PDD. The biophysical area is the same already included in the PDD.
6) All calculations are done using the SHAMBA model as per the process already included in the PDD.

B. Additionality

The heavy mortality that trees planted by GIZ experienced during the last two years following establishment is attributed to lack of financial incentives for farmers to look after these trees. Based on the experience of FCOTI, survival rates greatly increase when socialization of activities and time and resources are allocated, which becomes possible if payments for carbon (future or present) are part of the tree life cycle.

C. Baseline and ensuring climate benefits are conservative

1) For trees planted two years ago, the baseline will be the carbon sequestered during the last two years. The total climate benefit will be based on the carbon at the end of the carbon cycle minus the baseline described above. i.e.:
Climate Benefit = Total carbon at end of rotation - two years of carbon sequestered.
2) For trees planted in 2022 and in the future, the baseline proposed is the same already included in the PDD. Refer to section G4.3 in the PDD.
3) As per the current PDD, all estimations for new species will be based on the lowest growth increment that can be measured for Timorese conditions or otherwise; growth found in the literature.

References

Hung, D.N., Son, N.V., Hung, N.P. (2012) Tree allometric equation development for estimation of forest above-ground biomass in Viet Nam - Evergreen broadleaf forests in Quang Binh Province in (Eds) Inoguchi, A., Henry, M. Birigazzi, L. Sola, G. Tree allometric equation development for estimation of forest above-ground biomass in Viet Nam, UN-REDD Programme, Hanoi, Viet Nam.

Ramos, J., Sarmento, A., Millar, J. (2020) Halo Verde Timor -Community Forest Carbon-Project Design Document (PDD). https://www.planvivo.org/Handlers/Download.ashx?IDMF=0af80357-af5f-4950-8891-4fa2fa0420de