VALIDATION REPORT

BOLITREES: Quechua Medicinal Herbs And (Agro)Forestry in The Central Bolivian Andes

Project Title:	BOLITREES: QUECHUA MEDICINAL HERBS AND (AGRO)FORESTRY IN THE CENTRAL BOLIVIAN ANDES
Location:	Bolivia, department of Cochabamba, centred around and starting from Tarata.
Project scale	☒ Macroscale ☐ Microscale
Version of this validation report:	2.0
Project Coordinator/ Client	Client: ClimateLab & Misk'i Kausay Contact: info@climatelab.be
Project Participants:	1. ClimateLab 2. Misk'i Kausay
Validator:	Dwi Kus Pardianto (Lead Validator), Karina Restu Panggalih (validator) and Saul Altamirano (Local Expert) Contact: lvvservices@mutucertification.com
Validation Date of Issue:	22 May 2026
Project Period (crediting period):	The initial crediting period is from January 2024 to January 2059 (35 years period), which may be extended for project areas that were added to the project after 2023. After the crediting period, the project will keep monitoring the project for another 15 years, bringing the total project period to 50 years.
Methodology:	PM001: Agriculture And Forestry Carbon Benefit Assessment Methodology V1.0 (8 November 2023)
Expected Carbon Benefit:	319 tCO_2/ha from Silvo-pastoral forest 345 tCO_2/ha from Fruit Orchard
Expected Ecosystem Benefit:	Restoration carried out with native species results in greater biodiversity and vegetation cover, while reducing sheet erosion rates and minimizing land degradation on the steep slopes of the Central Bolivian Andes.
Expected Livelihood Benefit:	Enhanced smallholder livelihoods through agroforestry and the sale of non-timber forest products, including native fruits, apiculture products, and leaves used for traditional medicine.
Approved by:	Muhammad Syarip Lambaga

Contents

1. INTRODUCTION

1.1 Objective and Scope

The objective of the validation was to validate that the project for agroforestry restoration in the Quechua communities of the Interandean Bolivian valleys, centred around Cochabamba, Bolivia, complies with the validation method and criteria as set out in the reference documents listed in section 1.2 of this report.

The scope of this validation includes an assessment of the following issues:

- The project and its baseline scenarios.
- Activities, stakeholder engagement, and processes of the project.
- Management rights.
- The GHG sources, sinks and/or reservoirs those are applicable to the project intervention.
- The types of PVCs that are applicable to the project.
- Agreements, monitoring and reporting.
- The project crediting period.

1.2 Method and Criteria

The validation team used one or more of the methods to gather information and evidence for planning and execution such as inquiry, document review, confirmation, interviews with relevant personnel and site visit.

The criteria used for this validation as follow:

a. Plan Vivo standard Project Requirements Version 5.0
b. Standard Operating Procedure
c. Payment Ecosystem Services Agreement
d. PM001 Agriculture and Forestry Carbon Benefit Assessment Methodology
e. Plan Vivo Project Document BOLITREES: Quechua Medicinal Herbs And (Agro)Forestry in The Central Bolivian Andes, version 1 (20 October 2023)
f. Plan Vivo Project Document BOLITREES: Quechua Medicinal Herbs And (Agro)Forestry in The Central Bolivian Andes, version 2 (14 November 2025)

1.3 Level of Assurance

The level of assurance provide by validation team is reasonable following the requirements of Plan Vivo Guidance for Validation and Verification Bodies and Independent Experts version 5.1, validation criteria, and materiality threshold within the validation scope. Based on the validation findings, a positive evaluation statement reasonably assures that the project GHG assertion are materially correct and is a fair representation of the GHG data and information.

1.4 Summary Description of the Project

The Bolitrees project is led by two organization, Misk'i Kausay and Climate Lab, located in Bolivia. The project area consists of one location on Iazata (Tarata). As an initial project, the area is Tarata.

The Bolitrees project aims to restore the agroecological balance in the Quechua communities of the Interandean Bolivian valleys, centred around Cochabamba agroforestry. Particular aims are:

a. to stimulate woodland restoration on degraded slopes;

b. to foster a shift towards agroforestry
c. to assist carbon storage in the supported woodlands and agroforestry plots through sustainable management, protection and enrichment planting
d. to increase natural ecosystem resources (medicinal and aromatic plants, apiculture and agroforestry products).

The initial project is located in Cochabamba, Tarata with aims to establish woodland restoration and agroforestry plots across ca. 1000 hectares. The inter-Andean valleys around Cochabamba have a high potential for forest restoration and regeneration with environmental co-benefits, such as water infiltration, biodiversity increase and economic income from non-timber forest products (e.g. medicinal plants, fruits and apiculture).

The species used for woodland are Molle, Tara, Algarrobo, Jacaranda, Jarca, and Ceibo tree. While, for agroforestry the project will use fruit tree such as apple and peach.

2. VALIDATION PROCESS

1.5 Validation team, technical reviewers and approver

Role	Name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
			Desk/document review	On-site visit	Interviews	Validation findings
Lead validator	Dwi Kus Pardianto	PT Mutuagung Lestari Tbk	X		X	X
Validator	Karina Restu Panggalih	PT Mutuagung Lestari Tbk	X		X	X
Technical Expert	Saul Altamirano	PT Mutuagung Lestari Tbk	X	X	X	
Financial/ Other Expert	N/A					
Trainee	N/A					
Technical reviewer	Dinar Dara Tripuspita Purbasari	PT Mutuagung Lestari Tbk				x
Approver	Muhammad Syarip Lambaga	PT Mutuagung Lestari Tbk				x
Translator	N/A					

1.6 Document Review

The validation team has checked the project design on-site and reviewed the project design documentation submitted by project coordinator. Further cross-check and desk reviews were performed to conclude the assessment and state the final validation opinion.

To address the corrective actions and new information request that arose during validation activities, the project coordinator revised the project design document version 1 and developed a final version 2.1. The supporting documents that were reviewed are all listed in Annex 1 of this report. VVB cross checked and compared them with the relevant sections of the PDD.

1.7 Site visits and Interviews

The validation process was conducted using hybrid mechanism (virtual and site visit) following validation plan (20 – 22 October 2023). The activities included interviews as part of the evidence gathering process to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the PV standard.

The interviews were conducted to confirm several identified issues during document review. The main topics of the interviews as follow:

i. Description of the project activity including project boundaries.

ii. Stakeholders are involved in the project.
iii. Feasibility of project including project crediting period.
iv. Management of monitoring activities i.e roles and responsibilities, monitoring plan.
v. Social-economic, environmental, and financial aspect.

The physical site visit was conducted by local expert between 20 – 22 October 2023 including traveling time. While, the validators team have online meeting with project coordinators to confirms several information, among others:

1. Interview with Climate Lab as project coordinator based on result of desk review on 20 October 2023 regarding:
   - Project interventions (Management rights and land carbon rights)
   - Stakeholders analysis
   - FPIC, Project participants, IP and Local communities, Agreements.
   - Project coordination and management, Dispute management, Participatory design, Implementation of standard operating procedure used at the project.
   - Carbon Baseline, Livelihood baseline, Expected Livelihood change, Ecosystem baseline, Expected ecosystem change
   - Project activities, carbon benefits, risk management, reversal of Carbon Benefits, leakage, monitoring and reporting, and governance and administration
2. Site visit and Interviews in Tarata with two communities (Yanarumi and Tunasani) on 21 and 22 October 2023 regarding:
   - Project Location: Visiting the agroforestry project at Yanarumi and Tunasani
   - FPIC, Project participants, IP and Local communities, and Agreements (Interview members (sampling) regarding the FPIC Process and agreement)
   - Project coordination and management, dispute management, participatory design,
   - Implementation of standard operating procedure used at the project: (Interview members (sampling) regarding their knowledge the project and the procedures and dispute management)
   - Expected livelihood change and expected ecosystem change:
     (Interview members (sampling) regarding the expected livelihood and ecosystem change)
3. Validator team by virtually conducted meeting with local expert on 25 October to have an update from site visit. After then, validator team conduct closing meeting with project coordinator in the same day.

Duration of the validation: 20 – 22 October 2023

Name	Role	Organization/ Community	Site location	Date	Audit member
Miro Jacob	Project Coordinator	Climate Lab	Bolivia	20 October 2023	Dwi, Karina, & Saul
Claudio Vasquez	Project Coordinator	Bolitrees	Bolivia	20 October 2023	Dwi, Karina, & Saul
Claudio Vasquez & Oliver Soliz	Project Coordinator	Bolitrees	Tarata-Yanarumi	21 October 2023	Saul
Claudio Vasquez	Project Coordinator	Bolitrees	Tarata - Tunasani	22 October 2023	Saul
Zacarias Perez Verzaga	Presidento Comunidad	Tunasani	Tarata - Tunasani	22 October 2023	Saul

Name	Role	Organization/ Community	Site location	Date	Audit member
Valeriano Verzaga	Secretario Relaciones	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Abel Condori	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Teodoro Guevara	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Juan Vaizaga	Baase	Yanarumi	Tarata - Tunasani	22 October 2023	Saul
Paulino Prado	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Leon Laravayo	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Gregorio Campos	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Silverio Perez	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Timoteo Guevara	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Francisco Guevara	Base	Tunasani	Tarata - Tunasani	22 October 2023	Saul
Juan Vicente Gracia	Presidente de Vivero de Yanarumi	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Albina Berreira	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Donata Zovita	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Amadia Iviarte	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Casta Guevara	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Ayda Guevara	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Angela Guevara	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Seriano V.	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Carmen Sejas	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Teodoro Guevara	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Nicolas Verzaga	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Leonardo	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul
Isidora Escalera	Base	Yanarumi	Tarata - Yanarumi	21 October 2023	Saul

1.8 Sampling approach

The validation team concentrated the sampling on qualitative information like procedures, training of staff, data collection, database etc. as this is seen as particularly relevant for validation. Due to the initial project location was implemented in Tarata with two communities involved, the validation team visited every project location both in communities (Yanarumi and Tunasani).

1.9 Resolution of Findings

Material discrepancies identified in the course of the validation are addressed either as CARs, NIRs or FARs.

In the course of the PV validation, total 3 FAR, 3 CAR and 1 NIR were raised.

The responds of project coordinator to all findings are more details explained in annex 2 of this document and presented in the table below

Areas of validation findings	No. of NIR	No. of CAR	No. of FAR
GENERAL INFORMATION			
Project Interventions	-	-	-
Management Rights	NIR 01	CAR 01	FAR 01
STAKEHOLDER ENGAGEMENT			
Stakeholder Analysis	-	-	-
Project Coordinator and Project Participant	-	-	-
Participatory Design	-		-
Stakeholder Consultation	-		
Free, Prior and Informed Consent (FPIC)		CAR 02	FAR 02
PROJECT DESIGN			
Baseline Scenario	-		-
Carbon Baseline	-	-	-
Livelihood baseline	-	-	-
Ecosystem Baseline	-	-	-
Theory of change	-	-	-
Technical specification	-	-	-
Project activities	-	-	-
Additionality	-	-	-
Carbon Benefits	-	-	-
RISK MANAGEMENT			

Areas of validation findings	No. of NIR	No. of CAR	No. of FAR
Environmental and Social Safeguards	-	-	-
Achievement of Carbon Benefits	-	-	-
Reversal of Carbon Benefits	-	-	-
Leakage	-	-	-
Double Counting	-	-	-
AGREEMENTS			
Land Management Plans	-	-	-
Benefit Sharing Mechanism	-	-	-
Grievance Mechanism	-	-	-
Project Agreements	-	CAR 03	FAR 03
MONITORING AND REPORTING			
Carbon indicators	-	-	-
Livelihoods indicators	-	-	-
Ecosystem Indicators	-	-	-
Monitoring Plan	-	-	-
Reporting and record recording	-	-	-
GOVERNANCE AND ADMINISTRATION			
Governance Structure and legal compliance	-	-	-
Financial Plan and Management	-	-	-
Others (please specify)	-	-	-
Total	1	3	3

1.10 Forward Action Requests

All the FARs have been delivered to the project coordinator at the closing meeting, in the report writing process, the project coordinator has submitted their response to the FAR that has been raised (Evidence and documents have been submitted to the validation team). However, the results of the review by the validation team conclude that all the evidence submitted was not sufficient. So that the FAR is still open. All the FAR that has been raised must be closed in the next verification activity. The details of the FAR that must be reviewed during the next verification are as follows:

FAR 01: Considering the uncertainty of the legislative context in Bolivia regarding carbon rights, the project proponent shall continue monitoring relevant regulatory developments

FAR 02: Pinus and Eucalyptus species are not planted within the project area.

FAR 03: PES agreement has not yet been formally signed

1.11 Public Comments

No public comments were received through the PV Platform nor news during the validation activities.

3. VALIDATION FINDINGS

GENERAL INFORMATION

3.1 Project Interventions

The initial project area is located in Tarata; the project region is the Bolivian Interandean Valley. The project interventions developed is to establish forest planting and encourage agroforestry transition in the valley centred around Cochabamba, by supporting woodland restoration and agroforestry. Interviews with local communities: Yanarumi and Tunasani in Tarata showed that the communities understand the benefits of each project intervention that can improve their welfare from agroforestry and enriched forest landscapes in their surrounding areas.

Objectives of Bolitrees project: i) to stimulate woodland restoration degraded slopes; (ii) to foster a shift towards agroforestry; (iii) to assist carbon storage in the supported woodlands and agroforestry plots through sustainable management, protection and enrichment planting and (iv) to increase natural ecosystem resources (medicinal and aromatic plants, apiculture and agroforestry products). The project initial aim is to establish woodland restoration and agroforestry plots across ca. 1000 hectares in Cochabamba, Tarata.

The project intervention was designed through a process of consultation with the local community, so that the project objectives are in line with the needs of the local community. The project coordinator has considered the prevailing agricultural systems and other common land uses. Identification of native and non-native tree species was carried out to determine which species to plant. The plant species that will be selected are species that can have a positive impact on the environment or provide many benefits to the local community.

The specific project objectives of the project intervention determined based on the results of the consultation are as follows:

- A social shift towards the protection and restoration of woodland areas on the slopes.
- Restoring the natural ecosystem by planting with native tree species.
- Improved smallholder income from agroforestry and sales of non-timber forest products such as natural fruits, apiculture products and leaves (traditional medicines).
- Improved resilience and productivity of croplands downslope of woodland areas in restoration, through increased blue and green water availability and soil moisture by rainwater.
- Increased biodiversity and vegetation cover with decreased sheet erosion rates and less land degradation.
- Reviving traditional Quechua knowledge in ecosystem balance and NTFPs.
- Sequestration of carbon, mainly through increases in soil carbon and above-ground biomass

The Bolitrees project is expected to provide long-term benefits to their social life and environmental conditions. Project coordinators calculate the expected carbon benefits for the agroforestry are 319 tCO_2/ha from Silvo-pastoral forest and 345 tCO_2/ha from Fruit Orchard.

3.2 Management Rights

3.2.1 Project Boundaries

The initial project area is located in Tarata; the project region is the Bolivian Interandean Valley. Based on site visit by a local expert, it can be proven that the project location is in accordance with the map presented in the geospatial data file Note by maps of project area (Annex 1/1/, Annex 1/2/).

3.2.2 Land and Carbon Rights

The landscape of local institutions in Bolivia is dominated by the presence of agrarian syndicates which were created by government decree in 1952 but now are viewed primarily as community-initiated institutions to manage communal resources (Annex 1/50). The legal ownership for rural land in Bolivia is governed by INRA ("Instituto Nacional de Reforma Agraria") for individuals or communities. Agrarian syndicates are largely responsible to be managing community resources ranging from land, forests, and water, to resolving conflict.

Agroforestry activities in the project area are located on state-owned land. Communities are given land management rights in accordance with the Decree 1952 (Annex 1/50) regulated through INRA. At the beginning of the project development, the registered area in the project was the K'Omer K'Ocha agrarian syndicate in Tiraque. However, evidence related to the INRA Covenant was not available during the validation process. So the validation team raised the issue with **NIR 01**.

During the process, it was discovered that Tiraque was no longer included since the interest of the community faded. So the registered area is the area located in Tarata, including Tunasani and Yanarumi. During the reporting validation process, the project coordinator has submitted the letter of INRA declaration from Tarata which includes Tunasani and Yanarumi (Annex 1/3). The project coordinator still gives more evidence of INRA declarations from other smallholders, which are available upon request. The validation team also notes that the project also received the formal letter of approval on 31 August 2023 (Annex 1/19). Based on the evidence presented by the Project Coordinator, NIR 01 is declared can be closed.

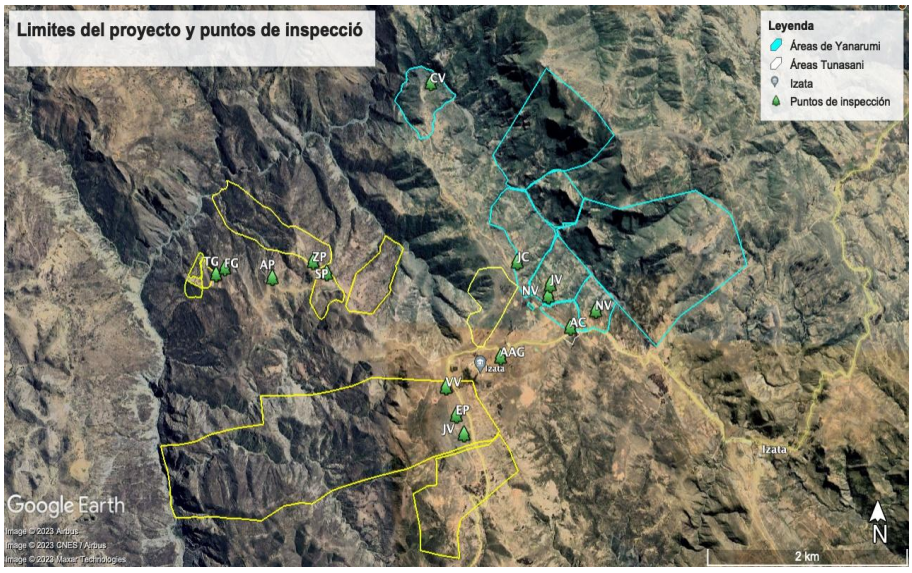
The number of memberships in agrarian syndicates varies by community. For example, in the community of Tunasani there are 39 syndicate members while the community of Yana Rumi has 24 syndicate members.

Based on the information above, it was identified that the initial participating communities involved in the carbon project activities are located in the Yanarumi and Tunasani communities. During the on-site visit, the local expert visited land areas within both communities to assess land rights and land ownership conditions and to ensure that the initial participating communities involved in the carbon project activities are legitimate participants of the carbon project. The following land areas were visited by the local expert in both communities.

Name	Community	Name	Community
Norberto Veizaga	Yanarumi	Valeriano Veizaga	Tunasani
Juan Veizaga	Yanarumi	Angela y Albina Guevara	Tunasani
Julieta Cordova	Yanarumi	Jacinto Vicente	Tunasani
Casiano Vicente	Yanarumi	Ezequiel Prado	Tunasani
Nicolas Veizaga	Yanarumi	Teodoro Guevara	Tunasani
Alberto Campos Vicente	Yanarumi	Francisco Guevara	Tunasani
Felipe Pascual	Yanarumi	Alfredo Pérez	Tunasani
Juan Vicente Gracia	Yanarumi	Silverio Pérez	Tunasani
Lidia Rioja	Yanarumi	Zacarias Pérez	Tunasani
Patricio Urbano Leon	Yanarumi	Laureano Veizaga	Tunasani

However, due to confidentiality considerations, some communities regard INRA documents as highly sensitive. As a result, the project coordinator was only able to provide one INRA document under the name of Juan Vicente Gracia from Yanarumi (Title No. PPD-NAL-251146), covering an area of approximately 14.1297 ha (Annex 1/3). Nevertheless, based on confirmation conducted by the local expert with the Yanarumi and Tunasani communities in the municipality of Tarata, Cochabamba Department, it was confirmed that all communities intended to join the project possess valid agrarian ownership rights. It is important to note that all INRA certificates issued by the government were reviewed during the assessment process, while only the INRA document of Juan Vicente Gracia was included as an annex due to confidentiality considerations (Annex 1/83 and Annex 4).

As explained in the table above, the local expert assessed and visited 10 land titles from pilot beneficiaries in the Yanarumi community and 10 land titles from pilot beneficiaries in the Tunasani community. In addition, the following locations represent the specific points visited by the local expert during the on-site visit, as generated and mapped for reference (Annex 1/52). The results of the on-site validation indicate that the observed conditions are consistent with the documented information, and no material discrepancies were identified.



Map of Project Boundary Overlap with Inspection Points

Regarding carbon rights, the PDD Version 1.0 that carbon rights for the project had not yet been clearly defined and stated that the carbon right was to be updated in line with a new legal framework under development. Based on these issues, the project coordinator had not provided sufficient evidence to demonstrate carbon rights ownership for the participating landowners. Therefore, this issue was initially raised as **CAR 01.**

The project coordinator then updated PDD to version 2.0, which stated that the *Plurinational Authority of Mother Earth (APMT)*, established under Law 300 Article 53 as a strategic and autonomous public entity under the Ministry of Environment and Water, has granted the project a formal Certificate of Registration. This has been confirmed through supporting documentation (Annex 1/76). Accordingly, CAR 01 is considered closed.

However, considering the uncertainty surrounding the legislative context in Bolivia, particularly regarding the availability and recognition of carbon rights, the project proponent shall continue monitoring and documenting any regulatory developments related to carbon rights during the project implementation period. Therefore, the validation team raised this issue under FAR 01, and FAR 01 remains open.

Table 1. Land and Carbon Rights

Project Area	**Ownership and user rights status**	**Carbon rights**	**Validation Assessment**
Tarata – Woodland restoration	The community resources (land, forest, water) are manged by agrarian syndicates to resolve conflict. Agrarian Reform Law (Decree Law No. 3464) of August 2, 1953, and Constitución Política del Estado - 2009	The Plurinational Authority of Mother Earth (APMT), constituted in Law 300: Art. 53, as a strategic and self-governing public law entity with autonomy of administrative, technical, and economic management, under the guardianship of the Ministry of Environment and Water, granted the project a formal Certificate of Registration	Based on the validation assessment, land tenure and resource management within the project are aligned with applicable national frameworks, where woodland restoration areas in Tarata are managed by agrarian syndicates in accordance with the Agrarian Reform Law (Decree Law No. 3464 of 2 August 1953) (Annex 1/86) and the Constitution (2009) (Annex 1/87), while agroforestry plots are held under individual land tenure by private smallholders. In addition, the project has obtained formal recognition through the Certificate of Registration issued by the *Plurinational Authority of Mother Earth (APMT)* under Law 300 Article 53 (Annex 1/76). However, considering the uncertainty of the legislative
Tarata – Agroforestry plot	Land tenured by individual citizen (private smallholder plot)		

			context in Bolivia regarding carbon rights, the project proponent shall continue monitoring relevant regulatory developments. Therefore, the validation team raised this issue under FAR 01.

STAKEHOLDER ENGAGEMENT

3.3 Stakeholder Analysis

The local stakeholders (Agrarian syndicate, smallholders) will be highly positively impacted by the project as co-benefits will increase their livelihoods. For indigenous people, Quechua communities with usufruct rights to land in all project areas. The Quechua community members are organized as affiliates to the agrarian syndicate. The project coordinator engages with communities by meetings to present the fruit, herbs and tree products can be harvested or sold, adding to food security and increased income. In addition, the revenue of carbon credits will be reinvested in socio-ecological projects decided by the community.

The secondary stakeholders (Low level government, Carraso National Park, Instituto Technologico Berto Nicoli, CETM and High level goverment) are all moderately positively impacted by the project. Their benefits are rather indirect in form of an increased livelihood of the inhabitants, increased visibility and extra educational tools in the neighbourhood. Their influence on the project is considered as highly positive. Without support of the municipality, a project cannot start. The scientific advice is necessary for the success of the technical part of the project.

Based on the explanation above, the validation team deems that the project coordinator has identified each stakeholder group, its impacts, and influences accurately. Thus, the validation team states that the stakeholder analysis that has been carried out is correct.

Table 2. Stakeholder Analysis and Evaluation

Stakeholder Group	Stakeholder Type	Impact	Influence	Validation Assessment
Participating communities ((starting with 2 agrarian syndicates): starting with 20 smallholders from Tarata	Local stakeholder	Highly positively impacted by the project (e.g. natural fruits, apiculture products and leaves (traditional medicines))	High positive influence on the project through project agreement, community meetings and project co-design.	Based on interviews with 20 community members conducted by local experts, it was concluded that the community has responded positively to the project. This was assessed based on on-site reports (Appendix 1/54/).
Individual participants engaged in agroforestry: starting with 20	Local stakeholder	Highly positively impacted by project (e.g. natural fruits,	High positive influence on the project through	

Stakeholder Group	Stakeholder Type	Impact	Influence	Validation Assessment
smallholders from Tarata.		apiculture products and leaves (traditional medicines))	project agreement, community meetings and project co-design	
Low-level government (municipality of Tarata)	Secondary stakeholder	Moderately positively impacted by the project (e.g. benefiting from this socioecological project in and beyond the Municipality)	Moderate positive influence on the project through general and legal support	The validation team assessed that communication with high-level government had been demonstrated by the issuance of an approval letter for this project (Annex 1/19/ and Annex 1/20/)
Instituto Technologico Berto Nicoli	Secondary stakeholder	Negligible impact by the project (as located in Cochabamba)	Moderate positive influence on the project (through technical and scientific advice)	The validation team, through interview with local project coordinator, confirmed that the project activities engage with the institution of Berto Nicoli (Annex 1/70/)
CETM	Secondary stakeholder	Negligible impact by the project	Moderate positive influence on the project (through sociotechnical advice)	The validation team, through interview with local project coordinator, confirmed that the project activities engage with the Center of woman's study and work (CETM) (Annex 1/71/)
High-level government	Secondary stakeholder	Negligible impact by the project	Moderate positive influence on the project (through legal support)	The validation team assessed based on cooperation between the high level government and climate lab - misk'i kausay (Annex 1/7/).

Indigenous Peoples or local communities	Rights to land or resources in the project area(s)	Governance structure	Involvement of women and marginalised groups	Validation Assessment
Quechua communities with usufruct rights to land in all project areas	Common usufruct rights are granted by INRA.	The community members are organized as affiliates to the agrarian syndicate. The syndicate elects a representative through a democratic election (under rotation) and makes decisions through a communal assembly.	Women take part in the agrarian syndicate and the bartolina (woman spokesperson under rotation) actively represents their voice in the discussions	The validation team assesses based on the on-site report document (Annex 1/52/)

3.4 Project Coordination and Project Participant

The project coordinator organisations that will take overall responsibility for the project consist of Misk'i Kausay and Climate Lab. Through interview to crosscheck the righteousness of the information stated in the table 2.2 in the PDD version 1 regarding responsibility and management function of project coordinators and legal documentation of each organization about the registration certificate and agreement. The validation team confirmed that the information is correct.

The project participants in the Bolitrees project initially consist of 2 communities located in Tarata. They consist of 10 smallholder farmers in each community. This information was confirmed through interview with local communities by local expert as a part of validation team and the respond of communities are tailed with the information provided by project coordinators. The validation team concluded that the participation of local communities is correct.

In this project the project coordinators include Misk'i Kausay and Climate Lab.

1. Climate Lab is a social enterprise supporting community-driven climate projects. Climate Lab sets up value-creating ecosystem restoration and agroforestry projects together with interested communities and partner NGOs. Responsibility for Project Coordination and Management Functions is:

a. Ensuring conformance with the Plan Vivo Standard and compliance with applicable policies, laws and regulations

b. Ensuring that the PDD is updated with any changes to the project

c. Registration and recording of management plans, project agreements, monitoring results, and sales agreements

d. Managing Plan Vivo Certificates in the Plan Vivo Registry

e. Preparing annual reports and coordinating validation and verification events

f. Securing certificate sales and other means of funding the project

g. Measurement, reporting and Verification of Carbon Benefits

2. Misk'i Kausay is a Bolivian association incorporated under the laws of Bolivia having registered office social, municipality of Cercado, departement of Cochabamba, Bolivia. Represented for the purposes with ID number 4506647 CBBA. Responsibility for Project Coordination and Management Functions is:

a. Stakeholder engagement during project development and implementation

b. Developing technical specifications, land management plans and project agreements with project participants

c. Managing project finances and dispersal of income to project participants as described by the benefit sharing mechanism

d. Assisting Project Participants to secure any legal or regulatory permissions required to carry out the project

e. Providing technical assistance and capacity building required for project participants to implement project interventions

f. Monitoring progress indicators, livelihood indicators and ecosystem indicators and providing ongoing support to project participants

The initial and potential project participants describe their location of residence in relation to the project area(s) and project region, their use of land or natural resources within the project region and their typical use of labour for land or natural resource management activities which are identified.

The project participants consist solely of Type I participants or direct beneficiaries include communities with usufruct rights to land in the project areas and apiculture associations.

The identified project participants consist of type I and type II. The project participant is the community with usufruct rights (utilization rights) to land in the project areas: Tarata, i.e. Tunasani and Yanarumi. Project coordinators have skills and experience regarding appropriate engagement with vulnerable or disadvantaged indigenous communities in the project area.

Regarding the measures to ensure no discrimination based on gender, age, ethnicity, religion or social status when selecting project participants, and to reduce the potential for tension or disruption within or between existing communities, there is an Ethical Charter signed by Climate Lab and Misk'I Kausay (Annex 1/4/).

The validation team assessed that project coordinators and management have a clear institutional structure with the capacity to mobilise and support the community, to implement and coordinate the project activities, to carry out technical functions and have organisational capabilities and the ability to mobilise the resources needed to develop the project. On the other hand, the design and implementation of project participants is aligned with PV standards.

3.5 Participatory Design

The Bolitrees project was conducted by collaboration between project coordinator, Misk'i Kausay and Climate Lab. During the site visit to the project location, the local expert as part of validation team conducted interviews with two communities in Tarata to ensure that all community members are involved in the project activities.

Several meetings were organized with the agrarian syndicates of the communities and the local government authorities, as a part of initial project activities. It can be seen on annex 4 of the PDD and it has been confirmed correct to the communities. The syndicate's meeting discussed regarding the basic project logic and the benefit of the project to the community. During the meetings, it confirmed that the project also performed one-to-one semi-structured interviews near the project areas in order to gain in-depth understanding of the socioenvironmental dynamics and livelihood challenges in the region. Interviewees were identified during the community meeting on a voluntarily basis. There was a high interest, ca. 50% of the syndicate members participated in the interviews.

The validation team assessed that the parties had been involved in designing activities and setting their own livelihood and ecosystem management goals (Annex 1/8/). Thus, providing a comprehensive conclusion regarding stakeholder involvement in the participatory design process was appropriate for the project. Links between livelihoods and the use of land and natural resources are a prerequisite for designing effective project activities and projects must have long-term benefits for local communities that go beyond any payments or incentives provided by the project. A gender sensitive approach has been considered; so, this project will not harm women and minority groups (Annex 1/4/).

Through all the information that has been checked, the validation team concluded that the project coordinator statement is correct and fair representation.

3.6 Stakeholder Consultation

The project coordinator gave an opportunity to all stakeholders, including men, women, youth, and other important social axes of differentiation to provide feedback on the project intervention prior to the project design. The project coordinator plan to make local stakeholders meet once a year and this was acknowledged by the community that have been interviewed by validation team. The grievance mechanisms was also provided by project coordinator to gather any potential negative impact that leads to dispute.

The mechanism of complaint and suggestion from annual meetings are well explained in the PDD. Complaints and suggestions that are raised during the meetings are recorded by the project coordinator in a "complaints and suggestions logbook", it has been verified through site visit. This logbook is stored together with the "*libro de actes*" of the community, which holds the meeting agreements of all community meetings and acts as the community secretariat.

All community members are also trained in the Plan Vivo responsibilities and commitments by the project coordinators, to optimally manage the land. Regular discussion sessions, training sessions, and workshops will be organized together with the local coordinator and the local authorities (Annex 1/9; and Annex 1/10). It also was confirmed during the interview with the local communities that they have been informed generally regarding the project and have been involved in the project design.

Based on the descriptions explained in the PDD and interviews with relevant stakeholders, the validator assesses that the stakeholder consultation and stakeholder engagement plans submitted are appropriate.

3.7 Free, Prior and Informed Consent (FPIC)

Based on stakeholder consultation, the validation team confirmed that the project coordinator conducted communication with all relevant stakeholders. The FPIC processes are well explained in the PDD and were re-checked through interview with two communities in Tarata. Based on interview with the participants (Yanarumi and Tunasani Communities), they said that in initial meeting before the

project started, the project coordinators invited the community including women, authorities representative, and the women association. The participants said that they agreed with the project and they would get so many benefits when joining the project.

The FPIC process is carried out by project coordinators referring to legal obligations under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and International Labor Organization Indigenous and Tribal Peoples Convention 169 (ILO 169). The project coordinator has identified relevant stakeholders before carrying out the FPIC process as explained in Table 2. (Stakeholder Analysis and Evaluation).

There is evidence of the FPIC process that has been carried out by the project coordinator, in the form of documentation, materials submitted and attendance lists (Annex 1/32/). FPIC is safeguarded through the agrarian syndicates, syndicates, which are meetings of a group of individuals or households from the whole community that has come together in a shared interest at the invitation of the project team. These meetings should be held well in advance of the start of project activities (in new project areas), with a mutually agreed process through the following stages:

-Selection of participants;

-Open to all other neighbours or people who are interested without exclusions;

-Participation of association members, if applicable;

-Explanation of the initial project aims with request for first feedback;

-Creating plan vivo maps, as explained above;

-Agreeing on socioenvironmental investments, based on the project agreement;

-Majority voting system within syndicate to formalize possible consent;

-Female participation grade of >30%;

-Agreement with the formal village structure (municipality)

-Nomination of representatives to sign the project agreement on behalf of the community.

The project progress will be discussed with communities at least once per year and a decision will be made on how to invest the proceeds (Annex 1/22/). Any decision on Plan Vivo investments is made in consensus, meaning that all parties must agree with the decision. It was confirmed with onsite visit and interview by Local expert that communities agree that benefit distribution would be as follows:

- 10% allocated for greenhouse maintenance, irrigation, and payment to the greenhouse caretaker.
- 50% allocated for community activities.
- 40% allocated for administrative and project management expenses. (Annex 1/16/)

Based on the explanation above, the validation team assessed that the FPIC process had been carried out.

The FPIC process has been conducted as described above. Based on interviews performed by the local expert, communities initially indicated that Pinus and Eucalyptus species would be planted due to their high economic value. However, during the site visit, no evidence of a planting plan or implementation for these species was observed. Therefore, the validation team raised this issue as **CAR 02**.

Subsequently, the project coordinator clarified that the project will not involve the planting of Pinus or Eucalyptus species. The project participant explained that these species may exhibit allelopathic characteristics, potentially inhibiting the growth of surrounding vegetation and negatively affecting the local ecosystem. Instead, the project will utilize species that do not pose adverse impacts on other vegetation. The validation team assessed this justification and, based on supporting scientific references indicating that Eucalyptus extracts can negatively affect plant growth parameters (e.g., relative water content, chlorophyll content, and biomass), considers the explanation acceptable. Therefore, CAR 02 is closed.

However, to ensure consistent implementation, the validation team requires continued monitoring to confirm that Pinus and Eucalyptus species are not planted within the project area. Therefore, this matter is raised as **FAR 02**.

PROJECT DESIGN

Baselines

3.8 Baseline Scenario

The baseline scenario in Tarata for the restoration project is an area consisting of highly degraded scrubland patches. Based on the results of field visits by local experts, it is known that the condition of the project area is indeed highly degraded scrubland and there is no vegetation. This condition has not changed for years. This condition is also confirmed based on the results of interviews with local communities. So the project coordinator concluded that ecosystem regeneration is unlikely to occur without project intervention.

The baseline scenario of all project intervention is determined using the AR-TOOL02 v1.0: “Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities” The project follows the steps below:

STEP 0. Preliminary screening based on the starting date of the project activity

In the document initial project area, Annex 3 of the PDD provided by the project coordinator states that the starting date for the agroforestry activities is 1 February 2024. This took place two years after the project was initiated, including the commencement of protection activities in the project areas in 2022. This validated in document letter of interest (Annex 1/61/, Annex 1/62/ and Annex 1/63/).

STEP 1. Identification of alternative land use scenarios to the proposed project activity

Sub-step 1a. Identify credible alternative land use scenarios to the proposed project activity

Based on the socioecological survey (see §3.3.1), we identify the following land use scenarios to be credible:

• Agroforestry (woodlot and fruit agroforestry) on the plots within the project boundaries without being registered as a plan vivo project activity; This condition was validated in on-site visit and cross checked by document satellite imagery of Tarata (Annex 1/1/).

• Continuation of the pre-project “bushy grassland scenario”, consisting of grassland with bushes and occasional trees, but largely devoid of trees. This is a land use under periodic grazing (but without cropping nor fertilizer application, nor frequent fires). Evidence of unintentional fire incidents was identified in several locations. First, in the municipality of Sacaba, specifically in the community of Melga, it was reported that a firefighter died while carrying out fire suppression activities. In addition,

in the municipality of Boliviar, a fire occurred as a result of burning crop residues that were carried by the wind, subsequently igniting grasslands and farmers' houses.

Nevertheless, the overall frequency of fire incidents is relatively low. In addition, the Project Proponent has developed a fire hotspot map for the area (covering the period 2012–2023) based on data from NASA (SUOMI VIIRS C2) (Annex 1/79). The map confirms that fire occurrence in the area is generally low. Throughout the current year, no fire hotspots have been detected within the project area, and the surrounding areas also show a relatively low frequency of fire incidents. Based on interviews conducted by local experts, community members acknowledged that fire incidents have occurred in the area; however, such events are infrequent

Sub-step 1b. Consistency of credible alternative land use scenarios with enforced mandatory applicable laws and regulations

Both alternative land use scenarios are in compliance with mandatory legislation and regulations taking into account their enforcement in Bolivia. Continuation of the status quo is in agreement with laws and regulations, while spontaneous (agro)forestation is obviously also a land cover type that is allowed by applicable regulations. The regulation was cross checked with letter of approval document from Autonomous Departemental Government of Cochabamba Governor's Office (Annex 1/24/).

Step 2. Barrier Analysis

Sub-step 2a. Identification of barriers that would prevent the implementation of at least one alternative land use scenario. No financial, technical, institutional nor social barriers would plausibly hamper the continuation of the continued bushy grassland scenario. Continuation of the current landscape scenario requires no investments, technical knowledge nor legal efforts: the project areas are regularly affected by grazing (see further). However, (agro) forestation without extra funding is not a plausible scenario, given the significant amount of funding required and the lack of nurseries and fruit trees in the area. The validator team cross-checked with explanatory note on socio-ecological needs document (Annex 1/30/).

Sub-step 2b. Elimination of land use scenarios that are prevented by the identified barriers. We eliminate the scenario of forestation without extra funding, since it is not a plausible future land cover scenario, given the lack of antecedents, the significant amount of funding required and the lack of nurseries in the area. The validator team cross checked by financial plan document (Annex 1/25/).

Sub-step 2c. Determination of baseline scenario (if allowed by the barrier analysis). Forestation without being registered as a plan vivo project is not included in the list of land use scenarios that are not prevented by any barrier. Consequently, only one land use scenario remains (continued bushy grassland scenario), so according to the tool, this scenario is the baseline scenario. This was validated in document Annex 1/64/.

STEP 4. Common practice analysis

There are no similar previous or ongoing (agro)forestation activities in or near the project zones, not even remotely like this proposed plan vivo registered project. Consequently, the plan vivo project activity is not the baseline scenario and, hence, it is additional. The "continued bushy grassland scenario" becomes the baseline scenario (Annex 1/28/). The validation team concludes that the baseline scenario is correctly justified for the project intervention and follow appropriate PV methodologies.

3.9 Carbon Baseline

The baseline scenario was calculated and refers to the approved methodology PM001 and module PU_001. Based on the desk review of the PDD, baseline emission calculation, and methodology used by project coordinator in Tarata. Module PU001 requires "no change in woody biomass carbon stocks if the conditions in AR-TOOL14 v4.2 section 5 are met".

Plan Vivo Module PU001 (applicable for Agroforestry) requires "no change in woody biomass carbon stocks if the conditions in AR-TOOL14 v4.2 section 5 are met" (§5.1.2). The AR-TOOL14 vs 4.2 states in section 5: "Changes in carbon stocks in trees and shrubs in the baseline may be accounted as zero for those lands for which the project participants can demonstrate, through documentary evidence or through participatory rural appraisal (PRA), that one or more of the following indicators apply:

i. Observed reduction in topsoil depth (e.g. as shown by root exposure, presence of pedestals, exposed sub-soil horizons);

ii. Presence of gully, sheet or rill erosion; or landslides, or other forms of mass movement erosion;

iii. Presence of plant species locally known to be indicators of infertile land;

iv. Land comprises of bare sand dunes, or other bare lands;

v. Land contains contaminated soils, mine spoils, or highly alkaline or saline soils;

vi. Land is subjected to periodic cycles (e.g. slash-and-burn, or clearing regrowing cycles [or periodic grazing]) so that the biomass oscillates between a minimum and a maximum value in the baseline."

The baseline emission from project locations are counted as zero. The validation team confirmed that the assertion of project coordinator is correct.

Table 3. Total net-greenhouse gas emissions under the baseline scenario

Year	Baseline emissions (t CO_2e)	Year	Baseline emissions (t CO_2e)	Year	Baseline emissions (t CO_2e)
1	0	11	0	26	0
2	0	12	0	27	0
3	0	13	0	28	0
4	0	14	0	29	0
5	0	15	0	30	0
6	0	16	0	31	0
7	0	17	0	32	0
8	0	18	0	33	0
9	0	19	0	34	0
10	0	20	0	35	0
11	0	21	0		
12	0	22	0		
13	0	23	0		
14	0	24	0		
15	0	25	0		

3.10 Livelihood Baseline (initial status and expected change)

The validation team conducted site visit to Yanarumi and Tunasani in Tarata to ensure the livelihood of community. The majority in Tarata engage in agricultural and extensive livestock activities (raising sheep and goats). Agriculture is rain-fed, meaning it depends entirely on rainfall, which is limited and primarily for self-consumption, with minimal surplus for commercialization.

The project conducted semi-structured interviews to understand the socioenvironmental and livelihood challenges in Tarata. The interviewees, primarily Quechua farmers (75% male), engage mainly in agriculture and livestock management. Despite access to electricity, potable water, and mobile networks, many migrate to cities for better opportunities.

Agriculture is the primary livelihood, with crop selection influenced by altitude. Potatoes dominate, followed by maize, wheat, and other crops. Farmers cultivate an average of 1.5 ha per household, with half of the produce sold at local markets. The land follows a five-year rotational cycle. Livestock ownership is common, with cattle being the most significant asset, often sold at markets. Daily laborers earn approximately 100 Bolivianos, while alternative employment exists in construction and transport. This statement was validated in document explanatory note socio-ecological needs (Annex 1/30/).

Deforestation has been a significant issue since 2000, primarily due to fires, wood cutting, and the introduction of exotic species for construction and firewood. The community relies on forests for firewood, construction materials, and hunting. Key concerns include limited water sources and the need for improved irrigation and water harvesting. This statement was validated in the environmental and social assessment document (Annex 1/14/).

Tarata's livelihood is highly dependent on agriculture and livestock, with economic opportunities limited beyond these sectors. Environmental challenges, especially deforestation and water scarcity, threaten long-term sustainability.

With the intervention, expected livelihood analysis as follows:

1. Increased vulnerability of Agriculture

2. Growing water scarcity challenges

3. Potential Economic Shift

4. Need for Climate adaptation measures

Water scarcity caused by glacial recession and climate variability has the potential to change livelihoods in Bolivia's mountainous regions. Agricultural challenges will increase, and farmers will be forced to adapt or find alternative sources of income. Without proactive water management and climate adaptation strategies, rural communities will experience economic instability and increased migration pressures. This is confirmed by interviews with local communities by local experts. (Annex 1/52/).

Based on the site visit and interview with local people in the community, it became clear that the community expected that the project intervention will improve their live, particularly to increase financial income and ecosystem benefits (Annex 1/52; 1/14 and 1/30). The validation team assessed that the baseline analysis of livelihoods and expectations had been carried out properly.

3.11 Ecosystem Baseline (initial and expected change)

The initial ecosystem baseline in project area based on document review and site visit are agricultural clearance and animal overgrazing causing severe degradation. In general, the area is characterised as environmentally diverse, because of its geographic position, located at the edge of the eastern slopes of the Eastern Cordillera. The inter-Andean valleys form a mosaic of ecosystems with high ecological diversity and richness, differentiated mainly by altitudinal gradient and bioclimatic regime.

The project area is in Bolivia's Inter-Andean geomorphic zone, characterized by rich alluvial soils and high ecological diversity due to its altitudinal gradient and bioclimatic variations. Despite its biological richness, the Inter-Andean Dry Valleys are underprotected and cover only 0.5% of protected areas in Bolivia (Annex 1/69). The region hosts a variety of endemic plant species, particularly in the Compositae, Cactaceae, and Leguminosae families.

The project area in Tarata is divided into three ecological levels:

- Valley (1850-2600 masl) – Semi-dry to dry, with tree species such as Tara and Soto.

- Pre-Puna (2600-2900 masl) – Subhumid, with Tipa, Jacaranda, and Molle.

- Puna (3000-3500 masl) – Subhumid, with Kewiña as the key species.

The region is prone to environmental degradation due to agricultural clearance and overgrazing, leading to soil erosion (gullying and pedestal erosion). The fauna includes endemic species of high conservation importance, such as:

- Red-fronted Paraba (Ara rubrogenys)

- Andean Cat (Leopardus jacobita)

- Monterita (Poospiza garleppi)

Other animals include small mammals like weasels, rabbits, guinea pigs, and field mice.

The climate of Cochabamba is semi-arid, with a mean annual temperature of 17.6°C. Rainfall averages 458 mm per year, primarily between December and February, influenced by the South American Monsoon System (SAMS). SAMS is driven by key atmospheric features like the Chaco low, Bolivian high, low-level jet (LLJ), and the South Atlantic Convergence Zone (SACZ), which regulate seasonal precipitation patterns.

In the other hand, expected ecosystem analysis following the sentences:

1. Continued deforestation and land degradation

2. Increased water scarcity and ecosystem disruption

3. Higher fire frequency and climate change impact

4. Threats to traditional ecological knowledge and biodiversity

5. Need for sustainable land management and ecosystem restoration

Without intervention, deforestation and land degradation in central Bolivia will continue, leading to increased desertification, water scarcity, and biodiversity loss. However, reviving traditional ecological knowledge and implementing sustainable land-use practices could help mitigate these impacts and promote ecosystem restoration.

The expected ecosystem changes from project interventions are increasing biodiversity flora and fauna. Moreover, with project intervention the local communities expected that they will get benefit from protected the environment and it will benefit future generations (Annex 1/69). These expected results of the project are confirmed through discussion with local community in both communities. Therefore, the validation team deems correct the ecosystem baseline.

Theory of Change

3.12 Project Logic

The project coordinator has determined the outcomes of project intervention such as:

Carbon benefit from precise planting beds in the dry season to enhance tree seedling growth and improved water conservation with water reservoirs to trap runoff water.

Livelihood and ecosystem benefit from the production of non-timber forest products such as fruit trees, honey and medicinal herbs and to provide an additional income streams for the rural smallholder farmers. Moreover, the project areas are protected and undergo planting with indigenous tree species to accelerate natural vegetation regeneration and provide a biodiversity habitat.

The project assumption outputs from outcomes are:

Output 1: ~1000 ha community land is undergoing woodland restoration and agroforestry.
Activities carried out to realize output are strong involvement of community members in the project management, installing water conservation structures, to trap runoff water and provide trainings on sustainable forest and water management. It was validated on project agreement document (Annex 1/16/) and confirmed interview by local expert (Annex 1/52/).

Output 2: Increase in indigenous vegetation cover as a result of planting and conservation efforts.
Activities carried out to realize output are establishing new nurseries providing seedlings for planting in project areas, enrichment planting with 600 endemic trees per hectare and monitoring progress (biomass, biodiversity) in line with the monitoring plan. It was validated on monitoring plan document (Annex 1/22/) and confirmed interview by local expert (Annex 1/52/).

Output 3: The community members are implementing the socioenvironmental changes they envisaged.
Activities carried out to realize output are pre-project and annual community meetings with the agrarian syndicates of the different project areas, providing annual trainings in agroforestry, apiculture and other non-timber forest products (such as medicinal herbs) and creating smallholder and community benefits through socioenvironmental investments. It was validated on monitoring plan document (Annex 1/22/), native species document (Annex 1/53/) and confirmed interview by local expert (Annex 1/52/).

The validation team through document review on PDD section 3.5 and discussion with project coordinator in both communities' project area. The information provided by project coordinator is true and fair presentation for the project.

Technical Specification

3.13 Project Activities

The project intervention consists of agroforestry and woodland restoration. The project aims to restore native agroforestry systems, enhance biodiversity, and improve farmers' livelihoods by integrating traditional knowledge with modern agroforestry techniques.

Agroforestry in the Andean region is a traditional land-use practice dating back to pre-colonial times, where trees and shrubs were integrated into agricultural landscapes for timber, fuelwood, soil improvement, and erosion control. However, in the Bolivian Andes, native species are rarely used in modern agroforestry systems due to the preference for more profitable exotic plantations like Eucalyptus and Pinus. To address this, the Misk'i Kausay developed an agroforestry system incorporating indigenous and traditional plants to benefit smallholder farmers economically and ecologically.

The project activities and all input were established by the project coordinator. The validation team assures that the project activities are correct and fairly representation.

Table 4 Project Activity Summary

Project Intervention	Project Activities	Inputs	Validation Assessment
Agroforestry	Assisting the smallholder farmers of the agrarian syndicates to establish tree nurseries	Two types of nurseries are constructed: forest tree nurseries for woodland planting on the slopes and fruit tree nurseries for mixed fruit orchard plots in the valleys	Based on site visit and interview with local communities. The project coordinator has established nurseries for tree seedlings (wood and fruit) and conducted several meetings and trainings (Annex 1/73). Based on interview with Tunasani communities by local expert, they stated that the distribution of the plots is in areas with significant slopes and a combination of rocky and loose soil (Annex 1/52/). It is also validated in document technical specification (Annex 1/12/).
	Assisting the smallholder farmers in setting-up and manage agroforestry plots	Creating awareness during trainings and by empowering the communities in sustainable management.	Based on interview with the two communities and project coordinators. The training was planned for empowering the communities in sustainable management (Annex 1/29). Based on interview with Yanarumi plantations communities by local expert, it became clear that the communities need pre-training to the work crews to

Project Intervention	Project Activities	Inputs	Validation Assessment
			avoid damage during the transportation of seedlings to the planting sites (Annex 1/52/).
	Tapping into the natural resources of woodland forests (non-timber forest products).	Deepen the knowledge of traditional fruits and medicinal plants to create awareness on the potential valorization of NTFPs. Provide trainings on apiculture practices	Based on interview with communities, it is confirmed that the project coordinators explained the information about the potential natural resources (NTFPs). Based on interview by local expert, it is confirmed that native species and their role in the ecosystem has been discussed with the participants. People are convinced that medicinal plants such as retama, wira wira, muña, llave, and others that are in demand in the region should be implemented complementarily (Annex 1/52/; Annex 1/74; Annex 1/27; Annex 1/14; Annex 1/31; Annex 1;70; Annex 1;71 and 1/73).
	Coordinating and supporting the farmers in maintaining the agroforestry plots.	Improved management and planting of endemic or naturalized species in woodland forests and mixed fruit orchards. Provide trainings, and implement water conservation activities to trap runoff water	Based on the interview and site visit, the communities respond confirming that the project coordinators informed them regarding management and planting. Based on interview by local expert that monthly meetings are planned, it is crucial to include the monthly activity schedule in each meeting. This way, all community members are adequately informed about project activities, ensuring greater participation (Annex 1/52/; Annex 1/31; Annex 73; Annex 1/75). Also validated in document parameter monitoring list (Annex 1/23/).

3.14 Additionality

The project has three main barriers: financial, technical and institutional/social aspect. All these barriers are similar for the project intervention. The barriers of limited financial capacity without project intervention have been corroborated by amongst others. The barriers of limited technical capacity without project intervention have been corroborated by community interviews in Yanarumi and Tunasani at Tarata.

The validator team cross checked the additionality assessment through a barrier analysis following the steps of the CDM A/R Tool 02 Version 1. The project has three barriers to implementation: financial, technical, and institutional/social. That has been cross-checked by relevant documents as specified on the table 5 below.

Table 5 Additionality Assessment Summary

Project Intervention	Main Barriers	Activities to Overcome Barriers	Validation Assessment
Financial	• Limited funds • Other priorities • Limited private credit availabilities	Start-up capital secured; payment for socioenvironmental investments scheme supported by Plan Vivo	The validator team assessed based on the project agreement document (Annex 1/16/). In addition, the validator team also assessed based on the financial plan (Annex 1/25/). Furthermore, the validation team reviewed relevant publications addressing financial aspects of agroforestry and reforestation projects, which discuss financial barriers such as high upfront costs, long-term returns, and opportunity costs faced by smallholder farmers. (Annex 1/80)
Technical	To date, technical knowledge on (agro)forestry and socioeconomic ecosystem service valuation is still limited. Thus, to strengthen the	Skilled local coordinator (Claudio); training for local farmers; focus on (agro)forestry and (socio-economic) ecosystem service valuation.	The validation team assessed based on a cross-checked monitoring plan document (Annex 1/22/) that describes forest management training activities, forest

	existing efforts, there is ample opportunity for projects focussing on the valuation of (socio-economic) ecosystem services and medicinal plants.		management document (Annex 1/54/). Furthermore, the validation team reviewed relevant publications (Annex 1/81) discussing technical barriers associated with agroforestry and reforestation projects, including in Bolivia the need for specific skills and knowledge related to tree species selection, soil management, and other aspects. These publications also highlight that such requirements differ from simpler conventional farming practices, and that limited access to technical training, extension services, and necessary materials can constitute significant barriers.
Institutional	"Top-down approach", although the room is given for local initiatives	• Bottom-up approach with first consultation round continued workshops and benefits for farmers • Rewarding for implementation results • Strengthening the capacities of the syndicates.	The validation team assessed based on the on-site-visit conducted by the local expert (Annex 1/52/) related to strengthening the capacities of the syndicates. In addition, the validation team assessed based on this FPIC document (Annex 1/9/ and Annex 1/10/). Furthermore, the validation team reviewed relevant publications (Annex 1/82) discussing the drivers of deforestation, including the opening of the agricultural economy to international markets and the institutional weaknesses in controlling

			land use. The publications also highlight a contradiction in government policy, whereby a pro-environment stance is accompanied by a parallel agenda to expand the agricultural frontier.

3.15 Carbon Benefits

The validation team has validated the technical specification of the project intervention agroforestry by communities and smallholders

Carbon Pools and Emission Sources

The validation team has assessed carbon pools and emission sources in their technical specification (Annex 1/12/) which is in accordance with Module PU001 (Table 2) (Annex 1/55/). The emission source from the project activities is considered to be zero due to the fact that the project intervention is aiming to increase the carbon sequestration from tree planting. The carbon pools sources included in the project activities are from above-ground biomass and below-ground biomass.

Baseline Emissions/Removal

This intervention is targeting plots that are currently largely devoid of trees. Based on the baseline scenario approach taken, initial carbon stock: ΔCbaseline = 0 (static). Following the Plan Vivo PU001 module, there is “no change in woody biomass carbon stocks, if the conditions in AR-TOOL14 v4.2 section 5 are met”. This tool states ‘conditions under which carbon stock and change in carbon stock may be estimated as zero’

Expected Project Emissions/Removals

In annex 7, project proponents calculated expected project emission/removals based on PU001 (annex 1/55/) through AR-TOOL14: Estimation of carbon stock and change in stocks of trees and shrubs in A/R CDM project activities, version 4.2 section 8.2 (annex 1/56/). For this project intervention, it was used the tree height-diameter relationships in the inter-andean dry valley growth model of Azero Alcocer (annex 1/21). Full calculation attached in Excel calculation Annex 6 (annex 1/11/). In the excel file, available all references to describe the DBH of each species that plan to be planted in this project, which will later be used to estimate carbon stocks during the project period. VVBs has assessed that calculations have met all the requirements in the approved methodology.

Potential Leakage

The potential leakage come from grazing activities. However, these activities based on calculation from approved methodology is considered to account as zero. Therefore, the leakage of this project is zero. It is correct based on A/R Methodological tool - Estimation of increase in GHG emission attributable to displacement of pre-project agricultural activities in A/R CDM project activity (annex 1/57/)

Uncertainty

The uncertainty is following AR-Tool14 (Annex 1/56/) which state in section 8.2: "Ex-ante estimation (projection) of carbon stock in tree biomass is not subjected to uncertainty control, although the project participants should use the best available data and models that apply to the project site and the tree species". It is therefore not necessary to control for uncertainty estimation as described in PU005. It confirmed that the calculation is true and correct.

Expected Carbon Benefits

The project coordinator has clearly explained the calculation of expected carbon benefits in the spreadsheet document (Annex 1/11). The project coordinator calculated the carbon benefits by multiplying the sequestration rate (tCO_2e/ha/year) and the total project period (years). The sequestration rate value for silvo-pastoral plots is 9.09 tCO_2e/ha/year, while for fruit orchards it is 9.75 tCO_2e/ha/year. The sequestration rate values are correct and not overestimated.

The validation team assessed that, overall, the carbon benefit calculation appropriately represents all project interventions over the project period. The calculation has considered the potential leakage and uncertainties. The total carbon benefits that will be claimed as PVCs have also added a 20% risk buffer. Therefore, the validation team concluded that the calculation is appropriate.

Details of the calculation can be found in Table 6 and Table 7.

Table 6 Validated Carbon Benefits Summary in the crediting period

Project Intervention	Baseline Emissions ($t CO_2e$/ha)	Project Emissions ($t CO_2e$/ha)	Leakage Emissions ($t CO_2e$/ha)	Carbon Benefit ($t CO_2e$/ha)
Silvopastoral forest plots	0	-319	0%	-319
Fruit orchard	0	-345	0%	-345

Table 7 Validated Plan Vivo Certificate Potential

Project Intervention	Carbon Benefit ($t CO_2e$/ha)	Project Area (ha)	Total Carbon Benefit ($t CO_2e$)	Risk Buffer ($t CO_2e$/ha)	Potential PVCs ($t CO_2e$)
Silvopastoral forest plots	319	250	-79 750	20%	-55 825
Fruit orchard	345	100	-345 000	20%	-24 150
TOTAL	**664**	**350**	**-111 650**		**-79 975**

Risk Management

3.16 Environmental and Social Safeguards

3.16.1 Exclusion List

The project does not include any activities listed in the plan vivo, it has been ensured during desk review and site visit by the local expert.

Therefore, the exclusion list is correctly justified for the project.

3.16.2 Environmental and Social Screening

Project proponents have fully described environmental and social screening in the annex 9 of PDD version 1. Based on the information in the results of environmental and social screening, the project coordinators have the ability to carry out environmental and social screening based on the level of scale and risk according to conditions in the field and in accordance with the project interventions being implemented. This was cross checked with the community interviews in Tunasani and Yanarumi.

The complete environmental and social screening report is correctly justified for the project intervention, such as detected during the site visit, PPD review and interview with local affected stakeholders and project participants.

Table 8 Environmental and Social Risks

Risk Area	**Significance (low <7, moderate <13, severe <19, high <26)**	**Validation Assessment**
Vulnerable Groups	Moderate, potential risks mainly related with perpetuation of income-related inequality	The validator team assessed moderate significance as appropriate because vulnerable groups are included in the participatory consultations. This was crosschecked with the participatory consultation documents (Annex 1/13/ and Annex 1/14/).
Gender Equality	Moderate, potential risks mainly related with perpetuation of gender-related inequality	The validator team considered moderate significance to be appropriate because the risk of adverse gender impacts due to the project/project activities, including for example discrimination or creation/worsening may occur if there is a perpetuation of gender-related inequalities, for example when women are underrepresented in decision-making at syndication meetings. This is evidenced by the crosscheck conducted with the attendance list during FPIC (annex 1/32/).
Human Rights	Low, potential risks mainly related with individuals not being present during community meetings	The validator team assessed the significance of low as appropriate because the risk that the project prevents people from enjoying their procedural rights may arise if vulnerable individuals would not be present during decision-making by syndicate meetings. This was crosschecked with the Social and risk assessment document (Annex 1/14/) and interviews conducted by local experts (Annex 1/52/).

Risk Area	Significance (low <7, moderate <13, severe <19, high <26)	Validation Assessment
Community, Health, Safety & Security	Moderate, potential risks mainly related with social conflicts with food security disrupting land, water or market access.	The validator team assessed that moderate significance was appropriate because there was no risk from community health and safety. This was crosschecked with the ethical charter document prepared by the project coordinator (Annex 1/6/) and the Social and risk assessment document (Annex 1/14/).
Labour and Working Conditions	Low, as the project will at all times align with regional/national labor laws	The validator team assessed that the low significance was appropriate because there were no activities that endangered the community and did not comply with the International Labor Organization's (ILO). This was crosschecked with the ethical charter document prepared by the project coordinator (Annex 1/6/).
Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	Low, as no pollutants are used, and project GHG emissions are negligible	The validator team assessed the low significance as appropriate because this project does not use pesticides, as evidenced by the crosscheck with the forest management document (Annex 1/54/).
Access Restrictions and Livelihoods	Moderate, potential risks mainly related with displaced degradation due to access restriction	The moderate significance of the validator team is appropriate because the community is mostly farmers, so the risk that the access restrictions introduced does not exist. This is evidenced by crosschecked with the social and environmental assessment document (Annex 1/14/).
Cultural Heritage	Low, since the project areas do not contain cultural heritage	The validator team assessed that the low significance is appropriate because cultural heritage is not included in the designated or proposed and there is also no negative impact from intangible cultural heritage. This is evidenced by the results of the on-site audit conducted by local experts (Annex 1/52/) and also crosschecked with the project agreement document (Annex 1/16/).
Indigenous Peoples	Low, as the majority of all inhabitants in the project region are Quechua.	The validator team assessed the low significance as appropriate because no negative risks will arise from the indigenous people. This is evidenced

Risk Area	Significance (low <7, moderate <13, severe <19, high <26)	Validation Assessment
		by the results of the on-site audit conducted by the local expert (Annex 1/52/).
Biodiversity and Sustainable Use of Natural Resources	Low, no non-"native" trees are planted	The validator team assessed that the low significance is appropriate because this project does not use pesticides, this is evidenced by the forest management document (Annex 1/54/) besides that all fruit trees are naturalized to plant, this is in accordance crosschecked with the native species document (Annex 1/11/).
Land Tenure Conflicts	Moderate, potential risks mainly related with displaced degradation	The validator team assessed moderate significance as appropriate because the risk of land tenure conflicts is low due to the project agreement. The validator team crosschecked this with the project agreement document (Annex 1/16/).
Risk of Not Accounting for Climate Change	Low, potential risks mainly related with droughts	The validator team judged low significance to be appropriate because the risk that climate variability and change could be affected is likely, given the predicted vulnerability of the Bolivian Andes to hydroclimatic and glacier changes. This is evidenced by the journal crosscheck (Annex 1/51/).
Other – e.g. Cumulative Impacts	Moderate, potential risks mainly related with the potential leakage from displaced degradation	The validator team assessed the moderate significance as appropriate because the risk that the project will contribute cumulatively to existing environmental or social risks or impacts does not exist. This is evidenced by crosschecking with the social and environmental assessment document (Annex 1/14/).

3.16.3 Environmental and Social Assessment

The scope of the assessment of environmental and social risks and impacts is vulnerable groups, Cultural heritage, Gender equality, Human Rights, Community, Health, Safety and Security, Indigenous People, Labor and working conditions, Project GHG emissions, access restrictions and livelihoods, Biodiversity, Land Tenure conflicts and Risk of ignoring climate change.

First, the validation team analyses parameters that do not pose any risks based on the assessment conducted by the project coordinator. For the human rights parameter, no risks were identified as the

community respects human rights. The validation team deemed the assigned risk level appropriate, as it was supported by interviews conducted by a local expert (Annex 1/52/). For the community, health, safety, and security parameter, no risks were identified. The validation team confirmed that the assigned risk level was appropriate, as the members belong to the Quechua community, which upholds strong mutual respect. This assessment was validated through interviews conducted by a local stakeholder expert. Regarding labour and working conditions, no risks were identified, as all community members are smallholder farmers accustomed to working in the field. The validation team confirmed the assigned risk level based on cross-referencing with the INRA letter (Annex 1/3/). For GHG emissions, no risks were identified, as the community is aware of the importance of ecosystem restoration. The validation team determined that the assigned risk level was appropriate, as most members work in the field and understand the need to protect the planted vegetation. Lastly, for cultural heritage, no risks were identified, as cultural heritage considerations have already been incorporated. The validation team assessed this parameter and confirmed its compliance.

Meanwhile, for the parameters of vulnerable groups, gender equality, access restrictions and livelihood, indigenous people, biodiversity, land tenure conflicts, risk of ignoring climate change, how to assess fire risk and other risks proposed, there are risks where Mitigation actions are implemented to reduce risk. Overall, the validator team assessed that mitigation to reduce the risk had been prepared by the project coordinator by involving the community through an initial meeting (Annex 1/14). The validator assesses that the mitigation measures have been determined appropriately. It is also confirmed based on the results of interviews conducted by local experts, that monthly meeting plan has been designated, one of which is related to project activities (Annex 1/22/).

The validation team conclude that the environmental and social assessment report for the project activity has been justified correctly.

3.16.4 Environmental and Social Management Plan

Project coordinators have design for environment and social risks and impacts and mitigation following to table 3.9.4 in the PDD version 1. Based on desk review and communication with project coordinators, the validator assessed the management plan for reducing environmental and social risk aligned with the Plan Vivo standard.

1. To mitigate the risk of political opposition to the project and the potential social bias in the selection of target groups. The project coordinator conducted with Fonabosque (the national forest development institute under the Ministry of Environment and Water) and other relevant authorities at regional, district, and commune levels are identified as a strategic step in supporting the national reforestation program. Additionally, continuous, comprehensive, participatory community consultations are considered essential to ensuring fair and effective stakeholder engagement. Based on the statement, the validator team conduct cross checked with the ethical charter document (Annex 1/6/) and agreement between government of Tarata and climate lab (Annex 1/19/).
2. To mitigate the economic risk of insufficient incentive to support project activities, community support for the project is not maintained and external parties carry out activities that reverse climate benefit. The project coordinator provides regular training on technical agroforestry, makes an agreement with the community or smallholders and follows a bottom-up approach and focuses on non-timber forest products. Based on the statement, the validator team conduct cross checked

with monitoring plan document (Annex 1/22/), social environmental risk assessment document (Annex 1/14/) and project agreement document (Annex 1/16/).

3. To mitigate environmental risk of extreme weather, pest and disease attack and fire. The project coordinator conducted training on forest ecosystem services, seedling planting should involve a biodiverse mix of different native species and monitoring the biodiversity. Based on the statement, validator team conducted crosschecked fire management document (Annex 1/29/) and social environmental risk assessment document (Annex 1/14/).
4. To mitigate leakage of carbon benefits of project leads to displaced grazing and project activities fail to deliver expected benefits. The project coordinator conducted intensive communication with the community who join the project and ensure the community will encourage livestock stable feeding with fodder. The validator team cross checked with document monitoring plan (Annex 1/22/).
5. To mitigate the administrative risk of capacity of the project coordinator to support the project is not maintained and technical capacity to implement project activities is not maintained. The project coordinator builds a strong network with partners who have experience in sustainable forest management. Based on the statement, the validator conducted cross checked with agreement documents between Climate lab and Misk'I kausay (Annex 1/6/).

Based on validator team assessed with cross checked document, the management plan for reducing environmental and social risk made by the project coordinator aligned with the Plan Vivo standard and correctly justified for the project activity.

3.16.5 Non-Native Species

The project will use a non-native fruit tree species i.e apple and peach. The risk assessment was done by the project coordinator and the result was validated by during site visit. The validation team concluded that the non-native fruit tree species do not have any material risk to the environment nor community.

Table 9: Validated Non-Native Species Overview

Project Intervention	Non-Native Species Planted/ Introduced	Validation Assessment
Agroforestry	Apple (*Malus doméstica)*, peach (*Prunus pérsica*)	The validation team concluded that the selected species are commonly used in project area. These species are not invasive and have no environmental risk that threat local fruit tree. Based on research document it is confirmed that apple (annex 1/53/) and peach trees (annex 1/65/ and Annex 1/66/) are non-native species in Bolivia country.

3.17 Achievement of Carbon Benefits

The carbon benefit achievement presents the carbon benefits after deduction of 20% by the Plan Vivo pooled buffer and 10% proportion of carbon benefits will be held as insurance against non-achievement of carbon benefits.

3.18 Reversal of Carbon Benefits

Based on review of reversals risk from social, economic, environmental, and administrative, it can be concluded that the project is considered to have low risk since the score from the mitigation that have been taken range between 2 to 4. Therefore, the project does not need to take any further action plan to mitigate the risk arise from project intervention.

Table 10 Risk of Reversals

Risk Factor	Mitigation Measures*	Score	Validation assessment
Social			
Land tenure and/or rights to climate benefits are disputed	Project agreements agreed and signed by relevant stakeholders.	4	Based on assessment through PDD annex 12 project agreement. It also is confirmed in interviews with farmers that they agree regarding the distribution of benefits and they are included in the process of developing the community benefit- sharing mechanism (Annex 1/52/).
Political or social instability	To work closely with Fonabosque, and other relevant authorities at municipality levels	4	Based on the document review approval letters from Tarata government (Appendix 1/19/) and Tunasani government (Appendix 1/20/), the project coordinator has approached the municipalities. In addition, the project coordinator also likes to cooperate with Fonabosque (Appendix 1/18/).
Community support for the project is not maintained	The project provides extra trainings on (i) technical (forestry) issues; (ii) commercial (NTFP/apiculture) issues; and (iii) methodological issues (Plan Vivo methodology, responsibilities).	3	Agreement Agroforestry (Annex 1/16/), listed Plan Vivo committee members will also be required to attend training and engagement activities designed to build the overall capacity of the village to manage the project and increase familiarity with project areas and objectives.
Economic			
Insufficient finance secured to support project activities	Financial plan developed	3	Based on document review and interview with project coordinator regarding PDD attachment 16 Financial plan (Annex 1/25/), the financial plan has considered mitigation to maintain the balance of income and expenditure in the following year. In addition, the project agreement has explained that 60% of net carbon income must be distributed to the community (Annex 1/4)

Risk Factor	Mitigation Measures*	Score	Validation assessment
Alternative land uses become more attractive to the local community	Project agreements agreed and signed by relevant stakeholders; designated grazing areas; agroforestry plots providing wood	2	Agreement Agroforestry (Annex 1/16/). Listed the agreement will remain in force for a period of 30 years from the date of signing. Apart from that interview with farmers, the main activity for land uses is agriculture. The community has also committed to maintaining the land for the duration of the project.
External parties carry out activities that reverse climate benefits	The project agreement prohibits external parties to carry out activities that reverse climate benefits, while the project agreement discusses the procedure to handle disputes.	4	Agreement Agroforestry (Annex 1/16/). Listed external parties are not allowed to execute activities.
Environmental			
Fire	Training sessions and sensibilisation meetings are organised for all communities; community members help in protection.	4	Parameter monitoring list (Annex 1/23/) and fire management (Annex 1/29/). Yearly implementation of the fire management activities; education campaigns, community engagement and communication channels. This information was checked during the site visit and interview with the community in Tarata (Annex 1/52/).
Pest and disease attacks	Biodiversity will be monitored (see monitoring section).	2	The determination of risk score is appropriate following the identification of impact and likelihood. The mitigation taken by the project coordinator are fairly presented and plausible to be implemented in the project boundary. This information was checked during the site visit and desk review on PDD annex 13 monitoring plan (Annex 1/23/), cross-checked with the Biodiversity Guidelines monitoring document (Annex 1/33/) which states that to address the risk of pest and disease attacks, they will conduct monitoring through vegetation surveys using the Shannon Wiener index. Monitoring is planned annually and will be reported every 5 years.
Extreme weather or geological events	The occurrence of environmental shocks is included in the monitoring targets to ensure strict follow-up	4	Risk scores related to impact identification and likelihood have been determined correctly. Mitigation measures determined by the project coordinator are considered appropriate and reasonable to be implemented in the project boundaries. This

Risk Factor	Mitigation Measures*	Score	Validation assessment
			information was checked during field visits and desk reviews in the monitoring plan of annex 13 of the PDD related to monitoring the long-term survival rate of seedlings (Annex 1/23/). The survival percentage has also been explained in annex 7 of the agroforestry technical specifications (Annex 1/12/). The project coordinator has determined that the affected project areas will receive extra project attention and enrichment planting. In the Risk Assessment document (Annex 1/14) it is explained that regarding measure to reduce the risk of extreme weather will be carried out invest in water infrastructure jointly with the community.
Administrative			
Capacity of the project coordinator to support the project is not maintained	Financial plan developed	3	The determination of risk score is appropriate following the identification of impact and likelihood. The mitigation taken by the project coordinator are fairly presented and plausible to be implemented in the project boundary. This information was checked during the site visit and desk review on financial plan (annex 1/25/), agroforestry agreement (Annex 1/16/).
Technical capacity to implement project activities is not maintained	Financial plan developed, nursery manuals developed, technical specifications developed	3	The determination of risk score is appropriate following the identification of impact and likelihood. The mitigation taken by the project coordinator are fairly presented and plausible to implemented in the project boundary. This information was checked during the site visit and desk review on PDD annex 16 financial plan (Annex 1/25/); technical specification agroforestry (Annex 1/12/); Land Management Pland meeting in Tarata (Annex 1/75); Tunasani Workshop Reforestation and Correct Transplant (Annex 1/73).

3.19 Leakage

The project coordinator has been identify the risk of leakage from this project based on the approved PU004. The risk of leakage is measured using AR-TOOL15-2.0 (Annex 1/58/), leakage emission attributable to the displacement of grazing activities under the following conditions is considered insignificant and hence accounted as zero.

The validation team also reviewed the document (Annex 1/21/), which states that there are 38 members in Tiraque and 47 members in Tarata. As a result, the number of livestock units affected remains very limited.

Based on field observation and discussion with relevant stakeholders, the validation team conclude that the leakage from grazing is insignificant and accounted as zero.

3.20 Double Counting

Based on desk review on other sources, it was not identified any greenhouse gas emission reduction and removal projects, programmes or initiatives that overlap with the project activities. In addition, the project coordinator is aware of another Plan Vivo project in Bolivia, namely AR Bolivia. However, the two projects operate in distinct geographic regions; AR Bolivia is located in the lowlands of Bolivia, with elevations ranging from 250 to 450 masl. This information has been cross-checked against the Project Design Document (PDD) of AR Bolivia. In contrast, the Bolitrees project is situated in areas with elevations ranging from 1,850 to 3,500 masl. Furthermore, the official approval, in the form of the Bolitrees Project Registration Certificate, has been provided by the Project Coordinator and has been reviewed by the validation team.

3.21 Key Agreements to validate

The validation team has conducted an assessment of the key agreements, including the land management plan, benefit-sharing, grievance mechanisms, and project agreement documents and cross-checked the information through interviews with relevant stakeholders.

Referring to the findings under Section 3.7 (FPIC section) regarding the types of species to be planted, the validation team identified that the project agreement developed by the project coordinator had not yet fully reflected FPIC principles. Regarding this issue, the validation team found that the project agreement had not yet been signed by the communities. Therefore, the validation team raised this issue as **CAR 03**.

The project coordinator provided evidence that the FPIC process had been conducted (Annex 1/9 and Annex 1/10), as already explained in the FPIC section. Therefore, CAR 03 can be considered closed. However, based on the PV Standard Project Requirements Version 5.0, the project agreement is still required to ensure transparency between the project coordinator and the participating communities.

Since the project had only been introduced to the communities, no participants had been formally enrolled in the project at the time of validation. Therefore, the project agreement had not yet been signed by any of the communities. Considering that there were no confirmed participants involved in the project in the Tarata area, including the Yanarumi and Tunasani communities, the validation team raised this issue under **FAR 03**. So that, information related to the number of participating communities and signed project agreements will be assessed during the first verification period.

Meanwhile, other key components of the project agreements, including the land management planning process, benefit-sharing mechanism, and grievance procedures, have been assessed and are described as follows:

- The land management plan has been developed during community meetings. The members of the community council should have full freedom to add any element they prefer on the ‘plan vivos’. The

members develop a map of the present situation, and a map of the desired situation. Maps are developed in Tarata. It is confirmed by the interviews with the participant that participants contribute to the design of the project by expressing their different needs and ideas that can improve the implementation of the project (Annex 1/52/). After mapping, the local coordinator assesses the cartographic quality of the plan vivos (correct area delimitation, legend) and possibly invites the participating members to make cartographic corrections.

- The use of funds from the sale of Plan Vivo Certificates from agroforestry plots will be divided into two broad categories. 40% will go to program operations and development whereas the remaining 60% will go directly to the local stakeholders (via the milestone based scheme). In accordance with the carbon accounting model, the project coordinator expected producers will reach 100% planting by the first after one year. If the target miss, they will replant towards 100% capacity by the following year (Annex 1/22/). Farmers are suspended from the project if they leave before the end of their monitoring period or miss two yearly targets in a row. It is then assumed that all trees have been cut.

- Complaints and suggestions that are raised during community meetings, satisfaction surveys or walks around the project areas are recorded by the project coordinator in a "complaints and suggestions logbook". This logbook is stored together with the "libro de actes" of the community (Annex 1/26/), which holds the meeting agreements of all community meetings and acts as the community secretariat. The community elects an arbitrator by democratic election to handle community disputes.

MONITORING AND REPORTING

Indicators

3.22 Carbon Indicators

Project Intervention	**Carbon Indicator**	**Validation Assessment**
Agroforestry: fruit orchard establishment and woodland restoration	C1: Number of seedlings planted across the enrichment planting areas	The validation team assessed: 1. Registration of tree seedlings leaving the nurseries for enrichment planting across the agroforestry areas review in document on site report by local expert (Annex 1/54/) 2. photographs of planting activities on satellite imagery (Annex 1/62/)
	C2: Survival rate of seedlings planted in the project areas	The validation team assessed monitoring of survival rate of seedlings planted 6 months after planting based on technical specification document (Annex 1/12/)
	C3: Annual observations of disturbances (%) (grazing, logging or fire) in the project zones	The validation team assessed the method to observation disturbances using Qfield and listen

Project Intervention	Carbon Indicator	Validation Assessment
		in document directives de Qfield (Annex 1/68/).
	C4: Above Ground Biomass conditions in the monitoring plots	The validation team assessed monitoring plan document (Annex 1/67/) the plot will be checked annually for seedling.

3.23. Livelihood Indicators

Livelihood Indicator	Validation Assessment
% female participation during the annual community meetings per project area	The validation team assesses that the indicator for female participants is included as a monitoring parameter (Annex 1/32/). Additionally, based on the attendance record from May 11, 2024, the team noted that female participation in the meeting was 42%.
Organised trainings on agroforestry	The validation team, based on the *Agroforestry Management* document (Annex 1/31/), acknowledges that the project coordinator also conducts capacity building through workshops.
Socioenvironmental payments and investments in the project areas and % increase in annual household income	The validation team, based on the *Explanatory Note on Socio-Ecological Needs* (Annex 1/30/), notes that it highlights how the local ecosystem directly influences the livelihoods and well-being of the community.
Establishment of apiculture associations	The validation team, based on the *Carta Etica* (Annex 1/6/), confirms that the established association upholds principles of non-discrimination, respecting religious and cultural diversity.

3.24. Ecosystem Indicators

Ecosystem Indicator	Validation assessment
E1: Average Above Ground Biomass conditions across woodland restoration areas.	Based on the data of vegetation survey conducted by the project coordinator, the AGB in the community can be calculated. The monitoring approach is described in technical specification (Annex 1/12/).
E2: Species Richness in the project areas	Based on the data of vegetation survey conducted by the project coordinator, the total number of species in the community can be calculated. They use the Shannon's diversity listen in biodiversity monitoring field guide (Annex 1/33/) or evenness index as a robust indicator for biodiversity status in the project

	areas. The evolution of the Shannon index will be reported every 5 years (Annex 1/11/).
E3: Number of observations of fire and agriculture expansions in and around the project zones	Based on the review of the risk assessment document (Annex 1/14/) that there is a risk of fires that will occur due to human activities. Therefore, this indicator needs to be monitored and has been set in the monitoring plan (Annex 1/23/ and Annex 1/22/).

Monitoring

3.25. Monitoring Plan, Process and Sharing results

Methods to monitor carbon indicators, livelihood indicators and ecosystem indicators are described in section 3.22, 3.23, and 3.24. Frequency of assessment will progress annually; in parallel every 5 years (at minimum) a full-scale (carbon) monitoring round will be organized. The monitoring plan is a shared responsibility of the project team. Climate Lab takes the lead in preparing the annual and 5-yearly Plan Vivo monitoring reports. Misk'i Kausay and Climate Lab have the resources and capacity to collect the required monitoring data.

Ecosystem and livelihood monitoring results are discussed directly with all local stakeholders involved in the project by setting- up joint workshops, with local government partners (e.g. Fonabosque) and associations (e.g. CETM) to inspire communities outside the project areas. The preferable method to distribute the monitoring results to the people of the village is the annual Plan Vivo meeting together with a poster summarizing the results in a public place. This statement is in accordance with the agreement restoration. Apart from that is an interview with communities during on-site visit, a statement which was delivered by farmers about plan sharing ecosystem and livelihood monitoring annex results align with the agreement (Annex 1/6/).

The annual report will include all new areas and participants included in the program and all updated information regarding carbon, livelihood and ecosystem benefits collected through monitoring activities.

The report will also include the financial aspects related to costs and revenues generated, as well as the amounts of PVCs issued and retired, with corresponding benefit sharing with participants. The report will also focus on the results of the monitoring of environmental and social KPIs, as well as the results of the grievance mechanism activated.

Based on the information assessed above, the validation team concluded that the monitoring plan complies with the requirements of the approved methodology.

3.26. Reporting and record keeping

The project coordinator is aware to make annual report as PV standard. The annual report will be submitted in January of the following year. All record for reporting is kept and stored on a shared project drive with limited access (Google Drive). The project data (technical data, financial data, monitoring data) are updated on the drive at least once per month.

The project coordinator is aware to make annual report as PV standard. The annual report will be submitted in February of each project year. Monitoring of the project milestones will be organised as stipulated in the project agreement. All record for reporting is kept and stored on a shared project

drive with limited access (Google Drive). The project data (technical data, financial data, monitoring data) are updated on the drive at least once per month

The validation team confirms the correctness of the annual reporting and record keeping for project interventions.

GOVERNANCE AND ADMINISTRATION

3.27. Governance Structure and Legal Compliance

The project's governance structure consists of direct governance, community participation, conducting extra sessions and workshop, and managing suggestions and complaints. The governance structure comprises two primary parts. The first part includes the direct governance by the project coordinators and local project coordinators. The project is coordinated by Misk'i Kausay and Climate Lab, each with distinct responsibilities. Climate Lab is responsible for higher-level monitoring activities, including developing project management guidelines, carbon monitoring, and integrated assessment of project activities. Meanwhile, Misk'i Kausay manages on-the-ground project activities, including administrative reporting.

The agrarian syndicates are responsible for working with the Project team to ensure legitimate decision-making, equitable participation in implementation and benefit sharing in the project activities. Each syndicate will oversee the agroecological activities in the project areas. Each Syndicate will meet at least bimonthly to discuss matters related to the project. The environmental licenses from the relevant authorities – that approve the project activities – are included in Annex 15 and it has been verified by validation team.

Letter of approval from the authorities with overall responsibility for land management and greenhouse gas emissions assessment within the project region, which states that the project does not violate any national or regional laws or regulations (Annex 1/7/)

The validation team during site visit, cross-checked this with the community interviews in Tarata.

Table 11: Legal and Regulatory Compliance

Policy, Law or Regulation	Relevance	Validation Assessment
RM 067/2025	Establishes the official criteria and process for evaluating and prioritizing projects. This ensures projects align with Bolivia's national climate goals (NDCs) and deliver required social and environmental co-benefits.	The validation team assesses that the project design adheres to RM 067/2025 (Annex 1/78/), as its objectives directly contribute to the national NDCs through measurable carbon sequestration and the inclusion of community-led social safeguards, ensuring the project is prioritized in accordance with state sustainability mandates
RM 066/2025	Registro Nacional Obligatorio (RENAPP): Creates the mandatory state registry for all carbon projects, ensuring traceability of Emission Reduction Units (UREs) and preventing double counting—a fundamental requirement for market integrity.	The validation team confirms that the project's integration into the RENAPP (under registration APMT-MC-CR-01/2025) satisfies the requirements for institutional

Policy, Law or Regulation	Relevance	Validation Assessment
		transparency. This ensures the unique ownership and traceability of emission reductions, aligning with the state's framework for preventing double counting and maintaining market integrity (Annex 1/77/)
The Mother Earth Law and Integral Development to Live Well, Law No 300	The Mother Earth Law is a piece of legislation that epitomises Bolivia's dedication to sustainable development, respecting the balance between human life and the natural environment, and prioritising the rights and knowledge of the country's majority indigenous population. The expressed objective of the law is to 'establish the vision and fundamentals of integral development in harmony and balance with Mother Earth to Live Well, guaranteeing the continued capacity of Mother Earth to regenerate natural systems, recuperating and strengthening local and ancestral practices, within the framework of rights, obligations and responsibilities'. In relation to climate change the law has many provisions that outline the state's vision, citizens' rights, and responsibilities. It embraces the concept of 'climate justice', defined by the ability of all Bolivian citizens to 'Live Well', especially those who are most vulnerable to climate change. It reinforces the point that some states have more of a global responsibility to respond to climate change.	The validation team assesses that the listed regulations (Annex 1/40/) are appropriate because their discussion aligns with guaranteeing the continued capacity of Mother Earth to regenerate natural systems, recuperating and strengthening local and ancestral practices, within the framework of rights, obligations, and responsibilities related to the restoration project to be developed.
The Rights of Mother Earth Law n. 071/2010	This law is a general framework that preceding the more comprehensive 2012 Mother Earth Law. This law's single objective is to recognize Mother Earth as a political subject enshrined with the following rights: life, biodiversity, water, clean air, equilibrium, restoration, and life free from contamination. The law stipulates the obligations of the government to protect the rights of Mother Earth as well as the responsibilities of all citizens.	The validation team conducts its assessment based on the regulatory document The Rights of Mother Earth Law No. 071/2010 (Annex 1/45/) provided. This aligns well with the planned socio-ecological initiatives, including water availability and restoration.
Forest Law No. 1700	The law updates the legal framework, shoring up the federal state's authority to regulate the forestry industry and economic land use. The objective listed in the law's text is to establish legal norms for the sustainable use and protection of national forests, harmonising	The validation team conducts its assessment based on the regulatory document Forest Law No. 1700 (Annex 1/42/), ensuring alignment with the

Policy, Law or Regulation	Relevance	Validation Assessment
	social, economic and ecological interests for present and future generations. This is an early legislative action to combat desertification in Bolivia, mitigate the negative effects of GHG emissions through the conservation of tropical forests, and preserve the natural environment for future generations. While climate change was one driver for this law, explicit mention of climate change is marginal to the logic of conservation; and the Law of Mother Earth (listed above as the national flagship legislation) now occupies the main role in incorporating mitigation and adaptation strategies to forestry management.	project's objective of enhancing the natural ecosystem. Furthermore, this restoration also aims to reduce emissions, a factor that has been carefully considered, as the carbon calculations have been conducted and deemed appropriate.
Supreme Decree no 071/2009	The Supreme Decree no 071/2009, signed by the Bolivian President, creates a number of authorities in the environmental area, establishes new regulatory processes in the field and changes the name of the General Superintendence of Mines and the Regional Superintendencies of Mines. Chapter III, art. 30, on the attributions of the Minister of Rural Development and Land, charges the Minister in its first paragraph of the renewable natural resources in forestry and agrarian matters. Art. 31 on the attributions of the Authority for the Control and Social Control of Forests and Land, notably charges the Authority to 1) ensure the integral and sustainable management of forest resources and land in application of the current legal regulations, by local populations, communities and native indigenous peoples, Community Forestry Organizations, as well as private actors; to 2) grant the permits for the use and exploitation of forest resources according to the capacity of land use, for forestry, agricultural, agroforestry, research and conservation activities, through suitable instruments to be developed; and to 3) promote and participate in the development of the National Forest and Land Inventory, in order to facilitate access to the sustainable use of renewable natural resources.	The validation team assesses the alignment of this project with *Supreme Decree No. 071/2009* (Annex 1/34/), which emphasizes the sustainable management of forest resources and land in accordance with current legal regulations by local populations. Additionally, the monitoring section specifies that monitoring is carried out by local communities after they have received appropriate training.
Supreme Decree No. 25.558 creating the	This Decree creates the Inter-institutional Council for Climate Change (CICC), as an instance of dialogue and consultation of the social, governmental and non-governmental	The validation team assessed that requirement not relevant because CICC is not part of the participant.

Policy, Law or Regulation	Relevance	Validation Assessment
Interinstitutional Council for Climate Change	sectors, related to climate change. It is the responsibility of the CICC to deliberate and propose -national policies and strategies for the implementation of the United Nations Framework Convention on Climate Change.	
Supreme Decree No. 2.914 on Deforestation monitoring and control	This Decree creates the Program for Monitoring and Control of Deforestation and Degradation of Forests 'Our Forests'. It establishes its components and the mechanisms for its execution, according to the Economic and Social Development Plan within the framework of Integral Development to Live Well 2016-2020 and in compliance with international commitments on climate change.	The validation team assesses the alignment of the proposed project objectives with Supreme Decree No. 2.914 (Annex 1/38/) on Deforestation Monitoring and Control within the framework of Integral Development to Live Well 2016-2020.
Supreme Decree No. 2.342 on Risk Management	This Supreme Decree regulates the Risk Management Law No. 602 of 2014, which introduced the institutional framework and the rules that govern risk management. This rules include prevention, mitigation and recovery, and disaster or emergency care through preparation, alert, response and rehabilitation against disaster risks caused by natural, socionatural, technological and anthropic threats, as well as social, economic, physical and environmental vulnerabilities.	The validation team assesses that Supreme Decree No. 2.342 (Annex 1/39/) on Risk Management is well aligned with the project, as it pertains to mitigation and recovery from anthropic threats. This project is implemented as a mitigation measure in response to global warming.
Supreme Decree No. 942 regulating the Universal Agrarian Insurance Pachamama	This Decree contains the regulation of the Universal Agricultural Insurance "Pachamama", through the implementation of the Agricultural Insurance for Municipalities with higher levels of Extreme Poverty (SAMEP). The "Pachamama" Universal Agrarian Insurance insures the agricultural production affected by damages caused by climatic phenomena and adverse natural disasters. The Decree also establishes the nature and institutional financing, the role and powers of the highest executive authority of the Agrarian Insurance Institute. The Ministry of Rural Development and Land, in coordination with the Ministry of Development Planning are the entities responsible for identifying the municipalities with high levels of poverty.	The validation team assesses that Supreme Decree No. 942 (Annex 1/35/), regulating the Universal Agrarian Insurance Pachamama, serves as a reference for the baseline livelihood. This ensures that the benefit-sharing targets of the proposed project are well-directed and contribute to reducing poverty in the project area.
Constitution of Bolivia (Spanish: Constitución	The Constitution of Bolivia was adopted in 2009. This Constitution was drafted in accordance with the then President, Evo Morales', political campaign promise to convene a new constituent assembly. In 2007,	The validation team assesses that the Constitution of Bolivia (Spanish: Constitución Política del Estado) (Annex 1/41/) aligns with the project, as it also

Policy, Law or Regulation	Relevance	Validation Assessment
Política del Estado)	the assembly established the year before had prepared a draft of the current Constitution. Following the Constitutional Referendum of 2009, through which 61.43% out of over 3.5 million voters approved the project, the Constitution of Bolivia came into effect. The Constitution establishes that Bolivia is composed as a Unitary Social State of Pluri-National Communitarian Law (Estado Unitario Social de Derecho Plurinacional Comunitario) that is free, independent, sovereign, democratic, inter-cultural, and decentralized and with autonomies. In the Constitution's preamble, there is a reference to the "strength of Pachamama", Mother Nature. Moreover, it includes in its main text a provision specific to climate change. Article 407 of the Constitution states that rural development policy objectives include protecting agricultural and agro-industrial production from climate-related risks, as follows: "Article 407. The objectives of the policy of the State for comprehensive rural development, in coordination with the autonomous and decentralized territorial entities, are the following: […] 4.To protect agricultural and agro-industrial production from natural disasters and inclement climate, and geological catastrophes. The law shall provide for the creation of agricultural insurance. […]".	addresses the enhancement of agroindustry to reduce risks associated with climate change.
Economic and Social Development Plan - PDES 2021-2025	This document sets the government's development vision over the period 2021-2025. Under its 8th goal, the plan aims to: 8.1. Strengthen the comprehensive and sustainable management of forests as a strategic resource, promoting the protection of areas with a forestry vocation. 8.2. Promote mitigation, adaptation and monitoring actions for climate change, with effective response measures to its impacts in harmony and balance with mother earth. 8.3. Promote life systems with a healthy, protected and balanced environment in harmony with Mother Earth. 8.4. Promote the system of protected areas, wetlands, bofedales, as part of the country's -natural heritage. 8.5. Strengthen the integrated management of	The validation team assesses that the Economic and Social Development Plan – PDES 2021-2025 (Annex 1/44/) aligns well with the project, as it promotes activities that prioritize the protection of areas with forestry functions. This project, which begins in the Tarata region, is expected to expand to other areas in the future, supported by the promotional efforts of Climate Lab.

Policy, Law or Regulation	Relevance	Validation Assessment
	surface and groundwater resources to achieve water security. The plan also seeks to guarantee food security and sovereignty, with a specific focus on indigenous populations. It promotes productive capacities and potentialities, under comprehensive management of basins (water), air, soil, forest resources, flora, fauna, risk management and adaptation to climate change based on the formulation of a Plan with a Comprehensive Management approach of their Territories. The plan further calls for an increase in renewable energy capacity.	
Supreme Decree 2912 on the National Forestry Program and reforestation and its implementing strategy	The purpose of this Supreme Decree is to declare the National Afforestation and Reforestation Program - PNFR as a strategic and national priority within the framework of the Economic and Social Development Plan, and to approve the National Implementation Strategy of the PNFR 2016-2030. The implementing strategy is attached to the text of the decree as an annex. Article 4 states that the National Implementation Strategy of the PNFR 2016-2030, applies to afforestation and reforestation activities throughout the territory of the Plurinational State of Bolivia, which includes protection, commercial, agro-silvo-pastoral and urban forestry plantations. The National Strategy for the Implementation of the PNFR 2016-2030 establishes the execution mechanisms of the PNFR, which will be mandatory for the central level of the State and for the autonomous territorial entities and will govern the actions to be developed by the other actors considered in this Supreme Decree.	The validation team assessed, the alignment of the project with Supreme Decree 2912 on the National Forestry Program and reforestation and its implementing strategy. Additionally, the project supports these goals through the monitoring of carbon, livelihoods, and ecosystems.
Law No. 602 of Risks Management	This law creates a national framework for disaster prevention and resilience as well as protocols for responding to disasters. It incorporates a climate change perspective by including measures that aim to adapt to changing climate conditions. The law creates the National Advisory for the Reduction of Risks and Attention to Disasters, which will include the national as well as provincial and municipal governments. The board allows for	The validation team assesses the alignment of Law No. 602 on Risk Management (Annex 1/39/) with the project, as it incorporates a climate change perspective by including measures aimed at adapting to evolving climate conditions. Additionally, the project includes monitoring of

Policy, Law or Regulation	Relevance	Validation Assessment
	regional governments to declare a state of emergency without a federal decree. It further decentralizes responsibility to local governments to implement resiliency plans in preparation for climate and natural disasters before they occur. The law creates an initial fund of 0.15% of the national budget, amounting to BOB80m (USD11.6m) to fund humanitarian aid during aftermath of natural disasters.	carbon, livelihood, and ecosystems.

3.23 Financial Plan and Management

The responsible accountant is Vandelanotte, an approved legal entity by the Professional Institute of Chartered Accountants and Tax Consultants. The agreement between Vandelanotte and Climate lab was checked during the validation. Vandelanotte performs an annual audit and submits the annual accounts to the Belgian national bank.

The validator team assessed that the financial plan (see Annex 1/25/) provided was transparent, because it had described and recorded the finances obtained from the sale of the Vivo carbon plan. The financial plan has a balance between income and expenditure obtained from sales of the Vivo carbon plan. Regarding the PV Climate Project Requirements document version 5.1, section 5.5.2 that the annual audit financial must be conducted 12-months of the end of each financial year. The responsible accountant to financial audit is Vandelanotte, an approved legal entity by the Professional Institute for Tax Advisors and Accountants (ITAA) with number 50792735. This is validated in document registration (Annex 1/46/) and document agreement between Climate lab and Vandelanotte (Annex 1/47/).

In addition, regarding the financial plan document and based on the interview with the project coordinator it is known that financial plan is based on initial future forecasts. Thus, if total revenues are higher due to a higher price per credit or additional vPVCs emerged from the verification process, the delta of additional revenue will be recognized in the 60% to Project Participants and 40% to project developer (Climate Lab) to compensate for the economic loss generated by the project.

The validation team concludes that the financial plan is correctly justified for the project intervention

4. VALIDATION OPINION

The validation team has performed the validation of the Bolitrees and has verified that the project is in compliance with the Plan Vivo Standard version 5 without qualifications or limitations.

The validation process was performed on the basis of all issues and criteria of Plan Vivo Standard version 5.0.

The conclusions of this report show that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation. The review of the project design documentation and additional documents related to baseline and monitoring methodology; and the subsequent

background investigation, follow-up interviews and review of comments by local stakeholders have provided the validation team with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarized as follows:

- ✓ The project is in line with all criteria of the Plan Vivo Standard version 5.0.
- ✓ The project additionality is sufficiently justified in the PDD version 2.0 (14 November 2025)
- ✓ The Monitoring Plan is transparent and adequate.
- ✓ The analysis of the baseline emission, project emissions and leakage has been carried out in a transparent and conservative manner.
- ✓ The project is likely to achieve estimated carbon storage or reductions in greenhouse gas emissions.

Date of the validation report: 22 May 2026

Name and Signature of the lead validator:

Dwi Kus Pardianto

Annexes

Annex 1 – Documents reviewed or referenced

No.	Author	Title and version	Provider
1	CLIMATE LAB	Bolitress – Tarata (Maps of project area). png	CLIMATE LAB
2	CLIMATE LAB	Details of area per project location	CLIMATE LAB
3	CLIMATE LAB	Letter of INRA declaration for the agrarian syndicate_ Juan Vicente Gracia	CLIMATE LAB
4	CLIMATE LAB	Annex 2a_ Agreement bolitress project signed	CLIMATE LAB
5	CLIMATE LAB	Annex 2b_ statues_staatsblad of Climate lab	CLIMATE LAB
6	CLIMATE LAB	Annex 2c_Ethical carter	CLIMATE LAB
7	Municipal Autonomuos Government of Tarata	Annex 2d_Framework agreement between the autonomous municipal government of tarata and climate lab misk'I kausay	CLIMATE LAB
8	CLIMATE LAB	Annex 4_Project design Flow	CLIMATE LAB
9	CLIMATE LAB	Annex 5_FPIC Letter of Tarata	CLIMATE LAB
10	CLIMATE LAB	Annex 5_FPIC Letter of Tsunasani	CLIMATE LAB

No.	Author	Title and version	Provider
11	CLIMATE LAB	Annex 6_Carbon regression model	CLIMATE LAB
12	CLIMATE LAB	Annex 7_Techspec agroforestry	CLIMATE LAB
13	CLIMATE LAB	Annex 9_ Envromental & Social Risk Screening	CLIMATE LAB
14	CLIMATE LAB	Annex 10_Enviromental &Social Risk Assessment	CLIMATE LAB
15	CLIMATE LAB	Internal management guidelines for forest	CLIMATE LAB
16	CLIMATE LAB	Annex 12_Project agreement	CLIMATE LAB
17	CLIMATE LAB	Biodiversity Note	CLIMATE LAB
18	FONABOSQUE	Acta de reunion between FONABOSQUE and CLIMATE LAB	CLIMATE LAB
19	Tarata Goverment	Approval letter from Tarata Government on 24 January 2022.	CLIMATE LAB
20	Tiraque Goverment	Approval letter from Tiraque Government on 31 January 2022	CLIMATE LAB
21	Cindy Herbas Garcia and Mauricio Azero	Journal Carbon fixation in 10 dynamic agroforestry systems (SAFD) from Cochabamba inter-Andean dry valley	CLIMATE LAB
22	CLIMATE LAB	Annex 13_Monitoring Plan	CLIMATE LAB
23	CLIMATE LAB	Annex 13_Monitoring flow chart	CLIMATE LAB
24	CLIMATE LAB	Annex 15_Letter of Approval from Autonomous Departemental Government of Cochabamba Governor's Office	CLIMATE LAB
25	CLIMATE LAB	Annex 16_Financial Plan	CLIMATE LAB
26	CLIMATE LAB	Annex 17_Flowchart_Grievance	CLIMATE LAB
27	Johanna Jacobi	Agroforestry in Bolivia: opportunities and challenges in the context of food security and food sovereignty	CLIMATE LAB

No.	Author	Title and version	Provider
28	CLIMATE LAB	Statement for non-registration on other VCS Proggrames	CLIMATE LAB
29	CLIMATE LAB	Community -driven fire management	CLIMATE LAB
30	CLIMATE LAB	Explanatory note socio-ecological needs	CLIMATE LAB
31	CLIMATE LAB	Agroforestry Guidelines	CLIMATE LAB
32	CLIMATE LAB	List attendance 11/05/2024	CLIMATE LAB
33	CLIMATE LAB	Biodiversity monitoring guidelines	CLIMATE LAB
34	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Decreto Supremo Nº 071, 9 de abril de 2009	CLIMATE LAB
35	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Decreto Supremo Nº 942, 2 de agosto de 2011	CLIMATE LAB
36	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Decreto Supremo Nº 2912, 27 de septiembre de 2016	CLIMATE LAB
37	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Decreto Supremo Nº 25558, 22 de octubre de 1999	CLIMATE LAB
38	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Decreto Supremo para crear el Programa de Monitoreo y Control de la Deforestación y Degradación de Bosques, DS Nº 2914, 27 de septiembre de 2016	CLIMATE LAB

No.	Author	Title and version	Provider
39	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_ Reglamenta la Ley N° 602, de 14 de noviembre de 2014, de Gestión de Riesgos., DS Nº 2342, 29 de abril de 2015	CLIMATE LAB
40	GACETA OFICIAL DEL ESTADO PLURINACIONAL DE BOLIVIA	Bolivia_Law-No.-300-the-Framework-Law-of-Mother-Earth-and-Integral-Development-to-Live-Well_70	CLIMATE LAB
41	Presidente Contitucional de la Republica	Constitución Política del Estado (CPE) (7-Febrero-2009)	CLIMATE LAB
42	Presidente Contitucional de la Republica	LEY N° 1700 LEY DE 12 DE JULIO DE 1996	CLIMATE LAB
43	Ministerio de Defensa	Ley de Gestión de Riesgos	CLIMATE LAB
44	MINISTERIO DE PLANIFICACIÓN DEL DESARROLLO	PLAN DE DESARROLLO ECONÓMICO SOCIAL 2021 - 2025	CLIMATE LAB
45	Estado Plurinacional de Bolivia	Ley De 21 De Diciamebre de 2010 No. 071	CLIMATE LAB
46	Institute for Tax Advisor & Accountants	Vandelanote_ITAA number	CLIMATE LAB
47	Vandelanotte	Agreement between vandelanote and climate lab	CLIMATE LAB
48	Vandelanotte	Finance audit climate lab 2022	CLIMATE LAB
49	Vandelanotte	Finance audit climate lab 2023	CLIMATE LAB
50	Grootaert & Narayan	Local Institutions, Poverty and Household Welfare in Bolivia	MUTU

No.	Author	Title and version	Provider
51	Carlos Gustavo Machicado	Effects of the Global Financial and Economic Crisis on the Bolivian Economy: A CGE Approach	MUTU
52	Saul Altamirano	On-Site visit Report	MUTU
53	Royal Botanic Garde	Plant of the world	MUTU
54	CLIMATE LAB	Internal Management Guideline	CLIMATE LAB
55	Plan Vivo	Agriculture and Forestry Carbon Benefit Assessment Methodology V1.0	MUTU
56	UNFCCC	Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities	MUTU
57	UNFCCC	"Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity	MUTU
58	UNFCCC	Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity	MUTU
59	IZATA	Agreement between the izata sub-cetral and climate lab misk'I kausay	CLIMATE LAB
60	Government of Tsunasani	Mom of government tsunasasi	CLIMATE LAB
61	Province of Tiraque	Letter of intent by the province of Tiraque (dated: 20 January 2022)	CLIMATE LAB
62	The municipality Tarata	Letter of interest by the municipality Tarata (dated: 24 January 2022)	CLIMATE LAB
63	The municipality of Villa Rivero	Letter of interest by the municipality of Villa Rivero (dated: 10 February 2022)	CLIMATE LAB
64	Climate Lab	Forest Cover Change_Bolivia	CLIMATE LAB

No.	Author	Title and version	Provider
65	Stadler-Kaulich, Francois and Barreiro (2014)	Sistemas Agroforestales en áreas secas del Departamento de Cochabamba: caracterización y descripción	CLIMATE LAB
66	Alocer and Garcia	Sistematización socioeconómica de parcelas agroforestales dinámicos de la zona seca de Cochabamba	CLIMATE LAB
67	CLIMATE LAB	Annex 13 Indicator Parameter	CLIMATE LAB
68	CLIMATE LAB	Directrices de Qfield	CLIMATE LAB
69	RAMIRO PABLO LO'PEZ	An estimation of the floristic richness of Bolivia'sAndean dry valleys	MUTU
70	CLIMATE LAB	Meeting with Alfredo Aguilar Docente Del Tecnologico Berto Nicoli	CLIMATE LAB
71	CLIMATE LAB	Meeting with Directora Lic Sonia from CETM	CLIMATE LAB
72	CLIMATE LAB	Meeting with Technical Director of the Carrasco NP	CLIMATE LAB
73	CLIMATE LAB	Tunasani Workshop Reforestation and Correct Transplant (Reforestacion y corecto transplante)	CLIMATE LAB
74	Misk'i Kausay	References for Activities to Overcome Barriers	CLIMATE LAB
75	CLIMATE LAB	Land Management Plan : Meeting in Tarata (Tunasani & Yanarumi)	CLIMATE LAB
76	Autoridad Plurinacional de la madre tierra	Certificate Registration Nomor: APMT-MC-CR-01/2025	CLIMATE LAB
77	Ministerio de Economía y Finanzas Públicas	Resolución Ministerial Nº 066 / 2025 (ministerial decree)	MUTU
78	Ministerio de Justicia y Transparencia Institucional	Resolución Ministerial Nº 067 / 2025 (ministerial decree)	MUTU

No.	Author	Title and version	Provider
79	CLIMATE LAB	Fire Hotspot 2012-2023 (Project area Yana Rumi - Tunasani)	CLIMATE LAB
80	Mayr, S., Pokorny, B., Montero-de-Oliveira, F. E., & Reinecke, S.	Scaling agroforestry through payments for ecosystem services: a scoping review. Climate Policy	CLIMATE LAB
81	Jacobi J	Agroforestry in Bolivia: opportunities and challenges in the context of food security and food sovereignty. Environmental Conservation.	CLIMATE LAB
82	Müller, R., Pacheco, P., Montero, J.C.	The context of deforestation and forest degradation in Bolivia: Drivers, agents and institutions	CLIMATE LAB
83	Saúl Job Altamirano A., S.H.	Informe Saul Altamirano Tunasani Yanarumi, Tarata regarding the statement of INRA	CLIMATE LAB
84	Andualem AM, Aragaw MW, Molla AE, Tarekegn ZG, Kassa GM.	Allelopathic effects of leaf extracts of Eucalyptus camaldulensis Dehnh. on morphological, physiological, and yield traits of Ethiopian wheat (Triticum durum L.) cultivars.	MUTU
85	PRESIDENTE CONSTITUCIONAL DE LA REPÚBLICA	Bolivia: Ley de reforma agraria -Artículos vigentes, DL Nº 3464, 2 de agosto de 1953	CLIMATE LAB
86	PRESIDENTE CONSTITUCIONAL DE LA REPÚBLICA	CONSTITUCIÓN POLÍTICA DEL ESTADO - Febrero de 2009 -	CLIMATE LAB

Annex 2 – New information requests, corrective action requests and forward action requests

Table 1. NIRs from this validation

NIR ID	NIR 1	**Section no.**	3.2.2	**Date:** 25/10/2023
Description of NIR				
Agroforestry activities in the project area are located on state-owned land. Communities are given land management rights in accordance with the Decree 1952 (Annex 1/50) regulated through INRA. At the beginning of the project development, the registered area in the project was the K'Omer K'Ocha agrarian syndicate in Tiraque. However, evidence related to the INRA Covenant was not available during the validation process and it has to be provided. So, the validation team raised the issue with NIR 01.				
Project participant response				**Date:** 30/11/2023
The project coordinator confirmed that Tiraque is no longer included in the project, as community interest has declined. Therefore, the initial registered area participating in the Plan Vivo project is located in Tarata, including the Tunasani and Yanarumi areas. Based on this, the project coordinator has submitted an INRA Declaration for Tarata, represented by the Yanarumi area, as supporting evidence.				
Documentation provided by project participant				
INRA Declaration for the Agrarian syndicate of Tarata under the name of Juan Vicente Gracia (Annex 1/3)				
VVB assessment				**Date:** 18/12/2023
The project coordinator has provided INRA documentation for Tarata, specifically for the Yanarumi area. Based on confirmation from the local expert, INRA documents are considered highly confidential, and therefore many community members are not willing to share soft copies of such documents. Considering this limitation, the validation team concludes that the INRA evidence provided is sufficient, as crosschecked has been conducted through the local expert, including tracing of land registration and confirmation of agrarian ownership status for the sampled areas. All assessed conditions were found to meet the applicable requirements. Accordingly, the finding is considered closed.				

Table 2. CARs from this validation

CAR ID	CAR 01	**Section no.**	3.2.2	**Date:** 25/10/2023
Description of CAR				
The legal framework governing carbon rights in Bolivia is not clearly described in the PDD. Furthermore, the project proponent has not provided sufficient evidence to demonstrate carbon rights ownership for the landowners participating in the project.				
Project participant response				**Date:** 30/11/2023

The project coordinator has stated in the PDD that the Plurinational Authority of Mother Earth (APMT), established under Law 300 (Art. 53), has granted the project a formal Certificate of Registration, and has provided the corresponding (Referring to certificate No. APMT–MC–CR–01/2025) certificate as supporting evidence.
Documentation provided by project participant
APMT–MC–CR–01/2025, (Annex 1/76)
VVB assessment **Date:** 18/12/2023
The project coordinator has adequately addressed the CAR by describing the applicable framework in the PDD and providing a Certificate of Registration issued by the Plurinational Authority of Mother Earth (APMT) as supporting evidence of carbon rights. Therefore, the CAR is considered closed. However, considering the uncertainty surrounding the legislative context in Bolivia, particularly regarding the availability and recognition of carbon rights, the project proponent shall continue monitoring and documenting any regulatory developments related to carbon rights during the project implementation period. Therefore, the validation team raised this issue under FAR 01, and FAR 01 remains open

CAR ID	02	**Section no.**	3.7	**Date:** 25/10/2023
Description of CAR				
Based on interviews conducted by the local expert, communities initially indicated that Pinus and Eucalyptus species would be planted due to their high economic value. However, during the site visit, no evidence of a planting plan or implementation for these species was observed.				
Project participant response				**Date:** 30/11/2023
The project coordinator justified that the project will not involve the planting of Pinus or Eucalyptus species. The project participant explained that these species may exhibit allelopathic characteristics, potentially inhibiting the growth of surrounding vegetation and negatively affecting the local ecosystem. Instead, the project will utilize species that do not pose adverse impacts on other vegetation.				
Documentation provided by project participant				
N/A				
VVB assessment				**Date:** 18/12/2023
The validation team assessed this justification and, based on supporting scientific references indicating that Eucalyptus extracts can negatively affect plant growth parameters (e.g., relative water content, chlorophyll content, and biomass), considers the explanation acceptable. Therefore, CAR 02 is closed. However, to ensure consistent implementation, the validation team requires continued monitoring to confirm that Pinus and Eucalyptus species are not planted within the project area. Therefore, this matter is raised as FAR 02.				

CAR ID	03	**Section no.**	3.21	**Date:** 25/10/2023

Description of CAR	
Regarding the types of species to be planted, the validation team identified that the project agreement developed by the project coordinator did not yet fully reflect FPIC principles. In addition, the project agreement had not been formally signed by the participating communities at the time of validation. Therefore, this issue was raised as CAR 03.	
Project participant response	**Date:** 30/11/2023
No participants had been formally enrolled in the project at the time of validation. Therefore, the project agreement had not yet been signed by any of the communities.	
Documentation provided by project participant	
Annex 5_FPIC Letter of Tarata (1/9) and Annex 5_FPIC Letter of Tunasani (1/10)	
VVB assessment	**Date:** 18/12/2023
The project coordinator provided evidence that the FPIC process had been conducted (Annex 1/9 and Annex 1/10). Therefore, CAR 03 can be considered closed. However, based on the PV Standard Project Requirements Version 5.0, the project agreement is still required to ensure transparency between the project coordinator and the participating communities. Since the project had only been introduced to the communities, no participants had been formally enrolled in the project at the time of validation. Therefore, the project agreement had not yet been signed by any of the communities. Considering that there were no confirmed participants involved in the project in the Tarata area, including the Yanarumi and Tunasani communities, the validation team raised this issue under FAR 03	

Table 3. FARs from this validation

FAR ID	FAR 01	**Section no.**	3.2.2	**Date:** 25/10/2023
Description of FAR				
The project proponent shall continue monitoring and documenting any regulatory developments related to carbon rights during the project implementation period. The project coordinator shall also ensure that any applicable regulations related to carbon rights in Bolivia allow the issuance of carbon credits for projects related to carbon activities.				
Project participant response				**Date:**
N/A				
Documentation provided by project participant				
N/A				
VVB assessment				**Date:**
FAR 01 remain open				

FAR ID	FAR 02	Section no.	3.7	Date: 25/10/2023
Description of FAR				
The project proponent shall ensure and demonstrate during the verification stage, that pinus and eucalyptus species are not planted within the project area, in accordance with the stated project design.				
Project participant response				**Date:**
N/A				
Documentation provided by project participant				
N/A				
VVB assessment				**Date:**
FAR 02 remain open				

FAR ID	FAR 03	Section no.	3.21	Date: 25/10/2023
Description of FAR				
The project agreement shall be formally signed by the participating communities and developed in accordance with FPIC principles. This iisue will be assessed during the verification process, as no communities had formally joined the project during the validation stage.				
Project participant response				**Date:**
N/A				
Documentation provided by project participant				
N/A				
VVB assessment				**Date:**
FAR 03 remain open				

Annex 3 – Other additional information: Carbon Calculations spreadsheet, stakeholder meeting list

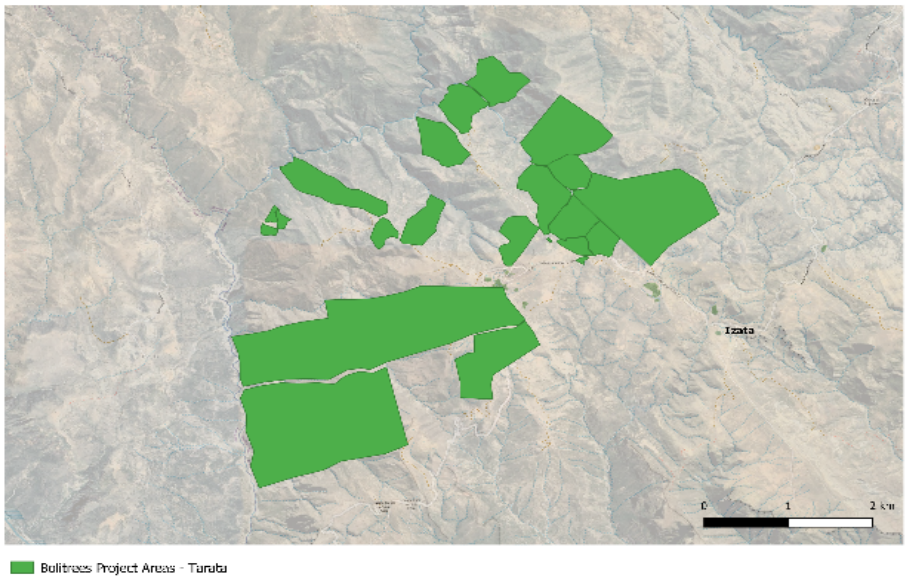


Fig 1. Project region and initial project area

Fig 2. Photographs of validation workshops. a) Participant registration, b) Interview participants in the validation workshop; c) Preparation of the communal potluck lunch; d) Beneficiaries in front of the greenhouse for forestry production (Yarumi community)

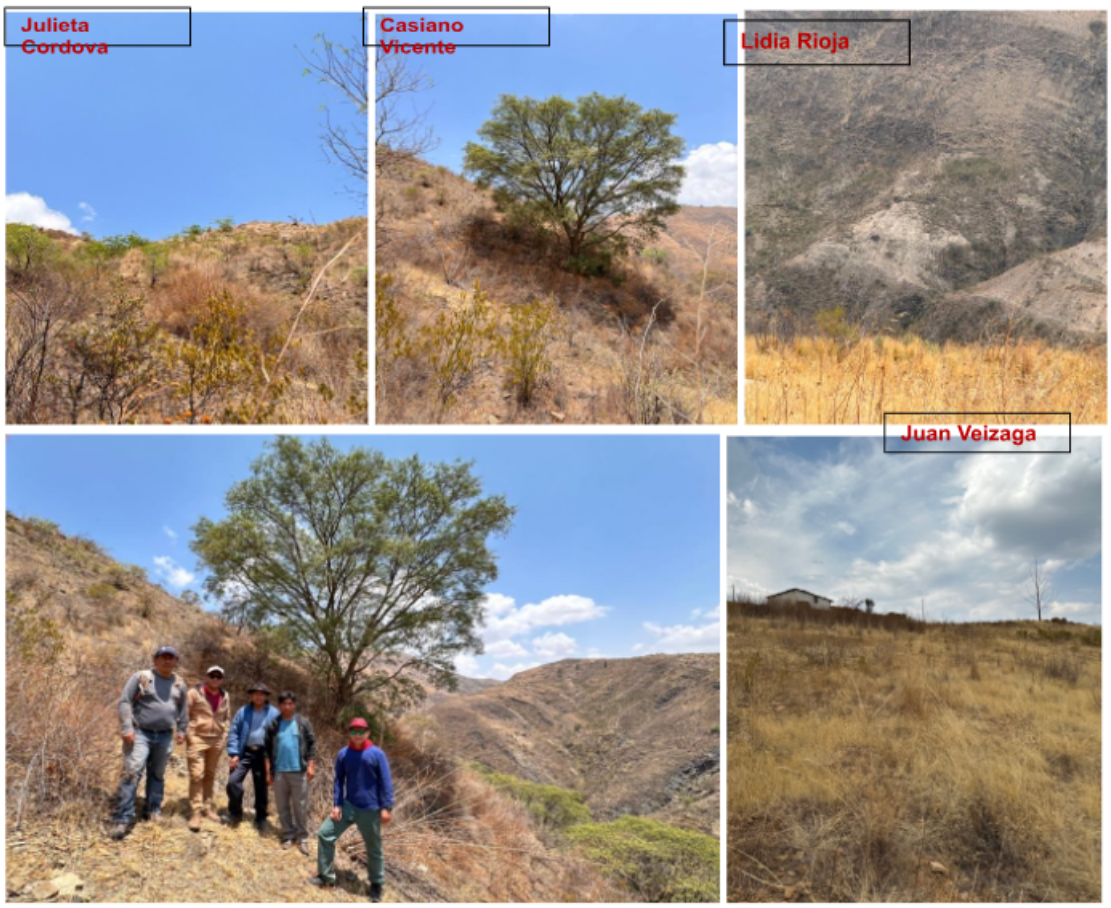


Fig 3. Beneficiary Plots of the Yanarumi Community

a) b)

Fig 4. Photographs of Validation Workshops: a) Participant Registration, b) Participants in the Validation Workshop Interviews (Tsunasani Community).

Fig 5. Beneficiary Plots of the Tunasani Community

Annex 4 – INFORME TÉCNICO (Statement of Local Expert regarding Land Titles)

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INFORME TÉCNICO

A:	Helena Barona **Plan Vivo** Miro Jacobs **Climate Lab.**
Vía:	Claudio Vázquez **Misk´i Kausay**

Fecha: 15 de diciembre de 2025

ANTECEDENTES:

El **Instituto Nacional de Reforma Agraria (INRA)** es la entidad encargada del saneamiento y administración de tierras en Bolivia. Los principales documentos que se revisan o que confirman acuerdos vigentes son:

- ✓ **Títulos Ejecutoriales**
  - Son el documento definitivo que acredita la propiedad agraria.
  - Se inscriben en el **Registro de Derechos Reales** junto con planos y coordenadas georreferenciadas.
  - Una vez inscritos, tienen plena validez jurídica.
- ✓ **Certificados de Saneamiento**
  - Emitidos tras el proceso de saneamiento de tierras.
  - Confirman que la propiedad cumple con los requisitos legales y sociales establecidos.
  - Sirven como respaldo para la inscripción en Derechos Reales.
- ✓ **Resoluciones Finales**
  - Determinan la situación jurídica de un predio (propiedad privada, comunitaria o tierra fiscal).
  - Pueden declarar tierras fiscales o anular títulos anteriores emitidos por entidades previas (INC o CNRA).
  - Son vinculantes y se registran oficialmente.

El **Marco normativo** en el país de Bolivia es el siguiente:

- ✓ **Ley N° 1715 (1996)**: Ley del Servicio Nacional de Reforma Agraria.
- ✓ **Ley N° 3545 (2006)**: Ley de Reconducción Comunitaria de la Reforma Agraria.
- ✓ **Decreto Supremo N° 29215 (2007)**: Reglamento de la Ley 1715 y 3545.
- ✓ **Decreto Supremo N° 5143 (2024)**: Establece que los documentos emitidos por el INRA (títulos, certificados, resoluciones) deben inscribirse en Derechos Reales para tener plena vigencia.

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CONCLUSIONES:

Los acuerdos sobre tierras en Bolivia tienen vigencia legal únicamente cuando el INRA ha emitido **Títulos Ejecutoriales, Certificados de Saneamiento o Resoluciones Finales**, y estos han sido inscritos en el **Registro de Derechos Reales**.

Por lo tanto, según la revisión efectuada a los beneficiarios de las Comunidades de Yana Rumi y Tunasani, del municipio de Tarata, departamento de Cochabamba, se **concluye que todos tienen el derecho propietario agrario correspondiente**, es importante mencionar que se han revisado todos los títulos ejecutoriales emitidos por el gobierno, y se ha presentado solamente algunas fotocopias de algunos propietarios como anexos, ya que pedir de todos los beneficiarios causaría susceptibilidades a los mismos.

Lic. Saúl Job Altamirano A.