VALIDATION REPORT

Kukumuty ('Kurarama Kuthemba Muty'): Community-led Miombo enrichment and agroforestry in Sofala, Mozambique

Project Title:	Kurarama Kuthemba Muty ("Kukumuty"): Community-led Miombo enrichment and agroforestry in Sofala, Mozambique
Location:	Sofala, Mozambique, centred around and starting from Chibabava district
Project scale	☒ Microscale
Version of this validation report:	2
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Independent Expert:	Amade Real (amadereal@gmail.com)
Validation Date of Issue:	17/05/2024
Project Period (crediting period):	May 2022 – May 2052
Methodology:	PM001 Agriculture and Forestry Carbon Benefit Assessment Methodology
Expected Carbon Benefit:	The expected carbon benefit of the project is: Nhaumue Miombo enrichment = 60 480 tCO2e. Mangunde Miombo enrichment = 13 910 tCO2e. The types of PVC that will be generated is rPVC and vPVC. Total: 74 390 tCO2e
Expected Ecosystem Benefit:	The floristic biodiversity of the Miombo ecosystem is supported through the enrichment, conservation, and improved management of 369 ha community- managed woodland.
Expected Livelihood Benefit:	Agroforestry nursery providing additional livelihood benefits to participating households of Mangunde and Nhaumue.
Approved by PV:	Elena Llorente Pérez

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1. INTRODUCTION

1.1 Objective and Scope

The aim of the validation audit activity was to conduct an independent assessment of the Kukumuty project in order to determine whether the project complies with the validation criteria, as set out in the guidance documents listed in Section 1.2 of this report.

The scope of this audit report includes a validation of the following issues:

- The project and its baseline scenarios.
- Activities, stakeholder engagement, and developments 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 was performed through a combination of document review/ crosscheck, interviews with relevant personnel such as project participant (Mangunde & Nhaumue communities) and an on-site visit.

The criteria of this audit included a validation of the projects calculated emission removals with the Plan Vivo requirements and any additional requirements of AFOLU projects, besides the assessment of the additionality and the risk assessment report.

The criterion for validation was the Plan Vivo Standard version 5.0, including the following documents:

- Project requirements version 5.0
- Methodology requirements version 1.0
- Procedures Manual version v1.0
- Plan Vivo Project Design Guidance version 1.1

1.3 Level of Assurance

The evaluation was conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope.

Based on the audit findings combined with PV project requirement and standard Version 5.0, there's a positive evaluation statement reasonably guarantees that the kukumuty project is a GHG project and assertions are materially correct and is a fair representation of the GHG data and information. It was done after reviewing the Kukumuty project description, supporting documents, evaluating the land management plan combining with stakeholders' interviews and field checks. All required

information is provided and reflect ground conditions, the activities proposed is clear and consistent with approved technical specifications for the project, the activities are appropriate for the participants land and livelihood needs, the implementation of proposed activities (for example “agroforest/syntropic agriculture) will improve the outcome of the local community nursers/agriculture production above sustainable level. One limitations/challenge for the Kukumuty project in agroforest activity is to convince local peoples through field results in the first stage of the project (2-3 years).

1.4 Summary Description of the Project

The Kurarama Kuthemba Muty (Kukumuty) is a community-led Miombo enrichment and agroforestry project in Sofala, Mozambique. The project is coordinated by three internationals institutions (Azada Verde from Spain, Reseed indico from Australia and Climate Lab from Belgium) with two rural and local communities/participants group (Mangunde an Nhaumue communities).

Miombo is considered as a plagioclimax community formed and maintained by continuous human activity for at least 12,000 years. In central and norther Mozambique, this complex agro-ecosystem mosaic supports nearly two-thirds of rural livelihoods and energy requirements. Changing climate patterns, combined with growing economic stress for rural households, has increases pressure on miombo woodland resources, tree cover, biodiversity and ecosystem services.

Kukumuty project aims to pursue climate mitigation and adaptation strategies in the Chibabava District of central Mozambique. It uses a landscape approach for enrichment of Miombo woodlands and creation of climate resilient agroecosystems and sustainable livelihood opportunities.

The project activities and intervention have four objectives: (i) Build on the agroecosystem knowledge of rural communities to understand changing climatic patterns and economic pressures affecting the surrounding woodland landscape, (ii) Facilitate woodland enrichment in community-identified areas through a combined strategy of soil and fire management and planting native Miombo species sourced from local and project established nurseries, (iii) Generate alternative income opportunities for households by establishing agroforestry lots with a combination of commercially viable fruit, nut, medicinal, and other useful native trees, (iv) Boost carbon sequestration in the areas for long-term socio-environmental benefits and reinvestments by the communities.

All activities and input related to the Kukumuty project implementation and intervention include plantation of native species selected on the area and surround, fire break and mulching establishment, and agroforestry establishment during the project time. The crediting period over which carbon benefits are estimated for 30 years from 1 May 2022 to 1 May 2052.

2. VALIDATION PROCESS

1.5 Validation team, technical reviewers and approver

Role	Name	Involvement in			
		Desk/document review	On-site visit	Interviews	Validation findings
Independent Expert	Amade Real	X	X	X	X
Independent Trainee	N/A				
Technical reviewer	Natércio Nazario	X			X
PV Approver	Elena Llorente	X			X

1.6 Document Review

The Project Description Document (PDD), version 1.0 submitted by the Kukumuty Project Coordinator was reviewed against the approved methodology and against PV requirements v.5.0. Additional background documents related to the project design, baseline, land rights, agreements were also made available before and during the audit. To address the corrective actions and new information request that arose from the desk review, the PP revised the project description document version 1 and developed a final version 3. The supporting documents that were reviewed are all listed in Annex 1 of this report. IE cross checked and compared then with the relevant sections of the PD.

1.7 Site visits and Interviews

Duration of the on-site inspection: 14/11/2023 to 16/11/2023					
Name	Role	Organization/Community	Site location	Date	Audit member
Field technician	06 technician: Sete António, Pita Simão Pita, Josefina Manuel, Elisa Timoteo Mugadui, Filipe Armando Panguene, e	Azada Verde, Kukumuty	Mangunde	14/11/2023	Amade Real

	Afonso Baltazar Manheche				
Local community	17 community members (meeting minute list names on annex 1)	Mangunde households	Mangunde	15/11/2023	Amade Real
Local community	20 community members (meeting minute list names on annex 1)	Nhaumue households	Nhaumue	16/11/2023	Amade Real
Local community leaders	8 peoples (community leaders list names on annex 1)	Regulo, Sagutas, committee and subcommittee leaders	Mangunde Nhaumue	15/11/2023 & 16/11/2023	Amade Real
Local government	2 peoples: Luís Machava and Carla Chivale	Chibabava distrital planning & infrastructure services	Chibabava Village	16/11/2023	Amade Real

1.8 Sampling approach

The sampling approaches used for households interviews and biomass measure during the on-site visit was the minimum number of peoples and plots interviewed and visited calculated by the square root of the total number of project participants and plots reduced by a factor 0.6, rounded up to the next whole number. For forest plots it was Y=0.6√x, where y = number of community members/plots visited and x = total number of plots. So, the project includes 81 total plots in Magunde and Nhaumue. Applying the above formula, the sample size for the plots checked during the on-site visit was: y = 0.6√81 = 5.4 or ~6. Therefore, 6 plots were selected randomly and visited during the on-site visit with validation team. In the field, tree DBH measurements and GPS coordinates were taken and the kukumuty field team were observed measuring DBH and GPS use. For interviews, 1394 people live in Magunde and 1873 in Nhaumue with 269 families in Magunde and 362 families in Nhaumue. Using the general criteria of square root formula, the minimum number of people in Mangunde was 17 and 20 for Nhaumue for each community.

1.9 Resolution of Findings

During the desk review and on-site visit the findings were set by corrective actions request (CAR), new information request (NIR) and forward action request (FAR). All project related documents were requested for the desk review and cross check evidence. The documents include legal project registration, periodical project reports, agreements, land management right evidence and activities technical specification. During the documents desk review, other evidence such as photos and videos were requested to confirm evidences. After desk review, some gaps were solved by project coordinator and staff interviews to confirm data and to collect more details.

There were 1 NIR related to the Grievance Mechanism and 4 CARs related to the technical specification.

NIR- A physical grievance Mechanism shall be provided for project participator (Committee and subcommittee) related to good communication (information in advance about certain planning with the community or Local Government).
CAR 1- The technical planting specifications should be improved, for instance clarify aspects related to the level of tolerance of each species in adaptation whether in streamlines, termite mounds, river banks, rocky locations, low and high areas to allocate the species in the project area accordingly.
CAR 2- The selection of the species considered endemic to the region shall be a priority in the reforestation process, as well as in the multiplication of other species with the benefit of non-timber products that occur naturally in the project area; Ensure that non-native Miombo plants that have ecological adaptability occur in evergreen forest, such as Erythrophleum suaveolens and Khaya anthotheca.
CAR 3- Fire break time verification and planting of seedlings should be improved taking into account the period of burning in the region and the rainfall period (planting in the first rains to maximize the plant survival rate and adaptation).
CAR 4- The PDD needs to be improved in relation to the size of fire break and made a better fire experimental plots to active natural regeneration for miombo.
All NIR's and CARs were requested and crosschecked during the document desk review and on-site visit. All findings raised during the validation are presented in the table below.

Areas of validation findings	No. of NIR	No. of CAR	No. of FAR
GENERAL INFORMATION			
Project Interventions	N/A	N/A	N/A
Management Rights	N/A	N/A	N/A
STAKEHOLDER ENGAGEMENT			
Stakeholder Analysis	N/A	N/A	N/A
Project Coordinator and Project Participant	N/A	N/A	N/A
Participatory Design	N/A	N/A	N/A
Stakeholder Consultation	N/A	N/A	N/A
Free, Prior and Informed Consent (FPIC)	N/A	N/A	N/A
PROJECT DESIGN			
Baseline Scenario	N/A	N/A	N/A
Carbon Baseline	N/A	N/A	N/A
Livelihood baseline	N/A	N/A	N/A

Ecosystem Baseline	N/A	N/A	N/A
Theory of change	N/A	N/A	N/A
Technical specification	N/A	4	N/A
Project activities	N/A	N/A	N/A
Additionality	N/A	N/A	N/A
Carbon Benefits	N/A	N/A	N/A
RISK MANAGEMENT			
Environmental and Social Safeguards	N/A	N/A	1
Achievement of Carbon Benefits	N/A	N/A	N/A
Reversal of Carbon Benefits	N/A	N/A	N/A
Leakage	N/A	N/A	N/A
Double Counting	N/A	N/A	N/A
AGREEMENTS			
Land Management Plans	N/A	N/A	N/A
Benefit Sharing Mechanism	N/A	N/A	N/A
Grievance Mechanism	1	N/A	N/A
Project Agreements	N/A	N/A	N/A
MONITORING AND REPORTING			
Carbon indicators	N/A	N/A	N/A
Livelihoods indicators	N/A	N/A	N/A
Ecosystem Indicators	N/A	N/A	N/A
Monitoring Plan	N/A	N/A	N/A
Reporting and record recording	N/A	N/A	N/A
GOVERNANCE AND ADMINISTRATION			
Governance Structure and legal compliance	N/A	N/A	N/A
Financial Plan and Management	N/A	N/A	N/A
Others (please specify): Signed new MoU	N/A	N/A	1
Total	1	4	2

1.10 Forward Action Requests

There are two open FARs that will be checked for the future in the following verification of the project interventions. See below:

FAR 1-The new MoU should be signed when it becomes available.
FAR 2- The approach for E&S Safeguards needs to be updated in the next verification.

1.11 Public Comments

No public comments was raised during the public comment period.

3. VALIDATION FINDINGS

GENERAL INFORMATION

3.1 Project Interventions

During the audit period, the audit team understand that the Kukumuty project intervention had three main bases: carbon benefit, livelihood benefit and ecosystem benefit. Results from interviews show that he local communities are building agroecosystem knowledge to reduce climatic change patterns, local economic concerns and they understand the benefit of each project intervention that can affect their wellbeing and the surrounding enriched woodland landscape. The project participants, specifical Mangunde and Nhaumue community recognise that the project is bringing direct and indirect benefits around of the village. Direct benefits are employment in project activities such as mulching, fire breaks, plantation and agroforestry products. Indirect benefits for now are the miombo enriched by useful native plants, hood biomass, biodiversity recovering. The Kukumuty project will bring long-term socio-environmental benefits by selling Plan Vivo Certificates and reinvestments by the communities multiple commercially activities. The project participants are expecting to provide long-term increases in carbon storage or reductions in greenhouse gas emissions and have positive impacts on local livelihoods, ecosystems by miombo reforestation, cash crops and agroforestry products and Ecosystem services (Non-timber and timber forest products, increase in water flow and improvement of climate variables.

According to the local community interviews, field biomass measure, carbon calculations check and agroforest plots visit, the audit team conclude that the Kukumuty project interventions are correct.

3.2 Management Rights

3.2.1 Project Boundaries

The project intervention is located in Sofala, Mozambique, centred around and starting from Chibabava district in Mangunde and Nhaumue community. The validation team assessed the location of the project against the Project boundaries map from the annex 1 on Kukumuty PDD combined by field check and consider the location of the project correct.

3.2.2 Land and Carbon Rights

Table 1. Land and Carbon Rights

Project Area	Ownership and user rights status	Carbon rights	Validation Assessment
Mangunde and Nhaumue community Area	Based on the 1997 Land Law (DUAT – Direito de Uso e Aproveitamento dos Terras), the customary rights of rural communities, usufruct rights and land use activities (FAO, 2002) are formally determined and recognized. Members of rural community associations can hold equal shares in a single co-owned title over the use rights of all their customary lands. Access and use rights within these areas can be determined by custom. The DUAT thus formally recognises the community land rights. The project is attached by Mangunde and Nhaumue community DUAT areas. See Annex 1.	The decret 23/2018 "Regulamento para Programas e Projectos Inerentes à Redução de Emissões por Desmatamento e Degradação Florestal Conservação e Aumento de Reservas de Carbono (REDD+)" (dd. 3 May 2018) outlines the procedures governing forest conservation and carbon sequestration projects in Mozambique. It is possible to delegate the carbon benefit rights to the stakeholders concerned. The project start the register as a carbon project in line with the decree 23/2018. See Annex 1 the REDD+ Approval Letter.	The validation team reviewed the DUAT + REDD+ Approval Letter of Expression of Interest + Document Nhaumue association that is attached in annex 1 /2 and 27/
Agroforestry plots Area	Its private land, agricultural association user rights		The validation team reviewed the local association DUAT attached on annex 1 /2/

STAKEHOLDER ENGAGEMENT

3.3 Stakeholder Analysis

During on-site visit and community interviews the validation team found evidence that since the start of the Kukumuty project all stakeholders were identified through a participatory and transparent approach by project staff and community representatives. The community receive the information of the project by local government and the Azada Verde staff spoke with the Mangunde

Regulado and traditional leaders of the communities and requested their permission to hold public meetings to provide information about the project and gauge community interest.

Crosscheck of reports and meetings minutes show that the first round of public community meetings had attendance of between 50 and 60 members of each community. Both meetings resulted in broad-based support expressed for the KKM project. Following this, the Azada Verde staff held a second round of open meetings in Mangunde and Nhaumue. During this meeting, the community members and leaders identified key stakeholders and gave their opinions on the different groups to be included in the project design and development.

Successive meetings with the KKM Project team were also conducted in an open way, with community members choosing to participate in group interviews as per their interest and knowledge. This allowed for a more convivial identification of stakeholders who took up the opportunity to answer questions and voice their opinions and feelings about the project.

Stakeholder analysis was carried out based on the community responses to the group interview sessions during the on-site visit. This governance structure and decision-making processes follow open dialogue and votes by all different local participator were include Regulado, Chefes, Sagutas, dodas, retired elders, Natural Resources Committee Manager (CGRN), farmers associations, women farmers, and young resident adults not engaged in farming.

It was in these sessions where the community, the traditional leadership of the local community, decided that the CGRN, a community institution, should represent the community through subcommittees during the implementation of the KKM project.

The validation team considers that the project has correctly identified the local stakeholder groups, better local governance structure and their impacts by the project intervention (table 2 below). There're no any past or ongoing disputes over land or resources in the project areas. The validation team during the on-site visit interviewed the Mangunde and Nhaumue local communities and it was cross checked that the project coordinator´s responses are appropriate.

Table 2. Stakeholder Analysis and Evaluation

Stakeholder Group	Stakeholder Type	Impact	Influence	Validation Assessment
Mangunde Community	Local stakeholder	Highly positively impacted by the project	High positive influence on the project	The validation team reviewed the following documents : Involvement through project participant agreements attached on Annex 1 /8/, Community DUAT attached on Annex 1 /2/, community meetings minute from 1 April 2022 to

				November 2023 (Annex 1 /22/), benefit sharing agreements (Annex 1 /26/), Mangunde permanent and temporary trainings activities & employments list (Annex 1 /29/)
Nhaumue Community	Local stakeholder	Highly positively impacted by the project	High positive influence on the project	The validation team reviewed the following documents : Involvement through project participant agreements attached on Annex 1 /8/, Community DUAT attached on Annex 1 /2/, community meetings minute from 1 April 2022 to November 2023 (Annex 1 /22/), benefit sharing agreements (Annex 1 /26/), Nhaumue permanent and temporary trainings activities & employments list (Annex 1 /30/)
Mangunde and Nhaumue member agricultural associations	Local stakeholder	Highly positively impacted by the project	High positive influence on the project	The validation team reviewed the following documents : Involvement through project participant agreements attached on Annex 1 /8/,

				community meetings minute from 1 April 2022 to November 2023 (Annex 1 /22/), benefit sharing agreements (Annex 1 /26/), Mangunde & Nhaumue agroforestry trainings and employments list (Annex 1/31/)
Natural resource Management committee (CGRN)	Local stakeholder	Highly positively impacted by the project	Moderate positive impact on the project	The validation team reviewed the following documents : Involvement through project participant agreements attached on Annex 1 /8/, Community DUAT attached on Annex 1 /2/, community meetings minute from 1 April 2022 to November 2023 (Annex 1 /22/), benefit sharing agreements (Annex 1 /26/)
Régulo, sagutas and community leaders	Secondary stakeholder	Limited impact by the project	Moderate positive impact on the project	The validation team reviewed the following documents : Involvement through benefit sharing agreements (Annex 1 /26/) and community meetings minute from 1 April 2022 to

				November 2023 (Annex 1 /22/)
Government institutions (at local, provincial and national level)	Secondary stakeholder	Limited impact by the project	Moderate positive impact on the project	The validation team reviewed the following documents : Involvement through legal and regulatory processes (Chibabava local government report attached on Annex 1 /26/, Community DUAT attached on Annex 1 /2/, and REDD+ Letter of approval attached on Annex 1 /27/

3.4 Project Coordination and Project Participant

The project coordinator is organised by three main parties called Azada Verde (AV), Reseed Indico (RI) and Climate Lab (CL) that have different management responsibilities on project.

The project participants (Mangunde and Nhaumue communities) is only Type I and resides near to the project area, and directly within the project region of Chibabava district. Project participants manage land or natural resources surrounding the project area for small-scale production, and are structurally dependent on year-round hired labour for their land or natural resource management activities. The project areas that they manage: i) Collectively make up less than 30% of the total Project Area at all times; ii) Were not acquired from smallholders or community groups for the purpose of inclusion in the Project; and iii) Have clear benefits to the Project, by increasing connectivity or benefits to local communities.

One of the three main coordinator parties called Azada Verde (AV) have a historical experience with Mangunde and Nhaumue local community farmers, nurseys health and education programs around the Chibabava district. So, the validation team recognise that the project coordinator has appropriate skills and experience to engage any indigenous vulnerable or disadvantaged peoples in the project region.

The monitoring and patrolling are supported by the government by a legal and regulatory process. It was validated by crosscheck documents emitted and signed by local, provincial and national government institutions (see Community DUATs and REDD+ approved letter attached on Annex 1 /2/) and local government interviews.

During the interviews process the local community agree that all project partners have signed an ethical charter about zero discriminator and there is no discrimination based on gender, age, ethnicity, religion or social status since the selecting project participants and project implementation. There's local committee and subcommittee that have responsibility to identify and

report to the local leader and project coordinators a potential tensions or disputes within or between communities/association.

The project coordination, Management and participants are correctly justified and reflect what the local communities answered during interviews (see PDD Annex 2 – Project coordinator´s Registration Certificate and Partner Agreements on annex 1/3/ and project Agreements with Mangunde and Nhaumue association attached on annex 1/8/).

3.5 Participatory Design

The participatory design is extensive and start by Regulado of Mangunde as the traditional governance authority in the project area. The Regulado covers 11 communities, all within the District of Chibabava and including the initial project communities of Nhaumue and Mangunde. The recognised community institution for overseeing the Sustainable management of natural resources including utilization of community lands in this area is the "Natural Resources Management Committee" (CGRN). The CGRN includes representatives of all 11 communities but not with equal representation (there are 2 members for each community except for Mangunde that has 5 members). It is an incorporated body and is recognised at the provincial and national government levels. Interviews said that the consultation with communities and community leaders determined that the CGRN would be the best body to hold the titles for designated enrichment areas under the Kukumuty project, but the communities hold the co-owned titles over the use rights of their customary lands under the DUAT (see de letter of agreement on annex 1). Although titles are registered under the CGRN, project areas exist at the individual community level and are surveyed and determined by community leaders in combination with project staff. Knowledge of individual communities and families on the peripheries of project areas were essential to the selection of areas so that they do not impinge on community activities. This is a key action in mitigating the likelihood of potential conflict arising from the project.

Establishment and role of Community subcommittee

While the CGRN is a centralized committee (across 11 communities), the project areas and activities is managed at the community level. Community Subcommittees take the lead in participatory planning and decision-making because the project activities in designated areas will generate income from the sale of carbon credits. The income thus generated will be used for community benefit and to sustain and further expand project activities in the woodland areas belonging to the communities. This approach has been shaped by local staff and community consultation to:

1. Increase gender equity in decision making – While there is currently limited female representation on the CGRN, initial pilot activities in Nhaumue and Mangunde have demonstrated levels of female participation above 60%. To reflect this level of participation, community subcommittees have a mandated female representation of at least 50%.

2. Build collaboration and participation between project stakeholders – Although Azada Verde, the Regulado of Mangunde, and other administrative bodies already have well established relations, the greatest influence on project success will stem from active involvement of community members and families living adjacent to project areas. The establishment of community subcommittees open to all members of participating communities will allow for families and individuals involved in field activities to inform and influence project direction and sustainability, as well as directly benefit from employment opportunities arising from project interventions.

3. Encourage community engagement and awareness – Nomination of individuals to the community subcommittees took place at open community meetings and decisions taken at regular meetings. Discussions and decisions regarding the use and allocation of project funds will be made at annual community meetings. Annual meetings will be held in public meeting spaces where all aspects of the project can be freely discussed and individuals can be nominated to stand on Subcommittees. These actions are designed to increase engagement and ensure that community awareness is sustained throughout the life of the project.

During the crosscheck the validation team found photographs (see annex 1/5/) attendance lists of April 2023 and May 2023 (see annex 1/6/) minute meetings on annex 1/7/ with observations and interviews respondents give answer that there's inclusion of gender, age, ethnicity, religion, or social status. The local people concerns and aspirations are consistently understood and considered from the local committee and project coordinators. The stakeholder involvement in the participatory design process is correctly justified for the project.

3.6 Stakeholder Consultation

Since preliminary design phase in April 2022 the project team held public community meetings in the Community of Mangunde and Nhaumue (see minute meetings on annex 1/7/). All stakeholders listed in section 3.3, table 2, namely, members of the Nhaumue and Mangunde agricultural associations, CGRN representatives, the Régulo and sagutas, and Chibabava District officials were invited to and attended these meetings. According to the communities interviews the Kukumuty project team explained the scope and logic of the project to all attendees of the communities. After extensive discussion and response to questions, all stakeholders, the community attendees, and representatives agreed that they were willing to be involved in the project. Potential areas for forest revitalisation were identified together by communities' members but the dimensions of project areas were to be finalised after further rounds of community consultations and agreement.

The project design was further developed through preliminary fieldwork by the project team in May 2022 (see 2022 initial report in annex 1). This included community level interviews of social, economic, climatic, and ecological issues, pressures, and changes affecting agricultural production, market access, livelihood opportunities and natural resource availability in the locality, nearby towns, and district. Community-level interviews involved around 250 people residing in the settlements of Nhaumue and Mangunde (see minute meetings signature).

The local Comité de Gestão do Recursos Naturais (CGRN: Committee for Management of Natural Resources) was involved in discussions regarding collective use and management of woodland areas and transect walks in potential sites for implementing the project. Meetings were held with officials of Chibabava District and Sofala Province Environment Department to clarify legal and regulatory processes for establishing the project in communal areas and obtaining approvals from relevant government agencies and traditional authorities. The project with follow the same stakeholder's consultant process through an open dialogue and feedback meetings throughout the project period.

Stakeholder feedback and inputs

After the preliminary field surveys completed, field staff continued working with local communities to inform and answer any doubts or questions regarding the project scope and inputs for refining project design. Based on discussions with CGRN and community representatives, the team reassessed the project areas which were initially identified and redefined the site areas for woodland enrichment. After combining ground-truthing and biogeographical assessments with local

community representative consultations, some originally identified project areas were considered less appropriate for ecosystem restoration and new areas were selected.

Then, the validation team conclude that the project coordinator has consulted correctly all the stakeholders at the beginning of the project and a correct design has been made for the future consultations (see Project coordinator´s and Partner Agreements on annex 1 / 3/, project Agreements with Mangunde and Nhaumue association attached on annex 1/8/), initial minute meetings from April 2022 on annex 1/7/, Attendance lists of April 2023 and May 2023 on annex 1/6/), participatory design on annex 1 /10/ and Mangunde & Nhaumue community interview's names on annex 1 / 23/.

3.7 Free, Prior and Informed Consent (FPIC)

The project takes in account to the 1997 National Land Law, UNDRIP in accordance to article 8.2., and ILO 16 on its article 6.1. The 1997 National Land Law formally that recognises It recognises the customary rights of rural communities, their usufruct rights and land use activities. Members of rural community associations can hold equal shares in a single co-owned title over the use rights of all their customary lands. Access and use rights within these areas are determined by custom. The project will follow the process outlined by the DUAT to obtain agreement from community members for using sections of their community land for Miombo woodland enrichment. The DUAT agreement will be formally registered with the relevant government departments.

UNDRIP in accordance to article 8.2. One shall provide effective mechanisms for prevention of, and redress for any action which has the aim or effect of dispossessing them of their lands, territories or resources and any form of forced population transfer which has the aim or effect of violating or undermining any of their right. The project recognizes that the participant communities have the right to the project lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. The communities have the right to own, use, develop and control the project lands, territories and carbon benefits in line with the project agreements.

The ILO 16 on its article 6.1. In applying the provisions of this Convention, one shall: (a) consult the peoples concerned, through appropriate procedures and in particular through their representative institutions, whenever consideration is being given to legislative or administrative measures which may affect them directly; (b) establish means by which these peoples can freely participate, to at least the same extent as other sectors of the population, at all levels of decision-making in elective institutions and administrative and other bodies responsible for policies and programmes which concern them; c) establish means for the full development of these peoples' own institutions and initiatives, and in appropriate cases provide the resources necessary for this purpose.

The project recognizes that the participant communities have the right to the project lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. The communities have the right to own, use, develop and control the project lands, territories and carbon benefits in line with the project agreements.

All consultations carried out are undertaken in good faith and in a form appropriate to the circumstances, with the objective of achieving agreement or consent to the project. Community control of decision-making and institutions is ensured through the Subcommittees freely established through community processes.

FPIC Process

According to the interviews, signed meeting minutes and attendance lists all local stakeholders have been provided with full information on the project concept and consulted from the initiation of the project. Participation of all local stakeholders has been voluntary and based on fully informed understanding of the project scope and design. FPIC, and in particular, community consent, is safeguarded and formalized through the DUAT procedure. Community agreement (in annex 1) regarding the areas to be allocated for the project is necessary prior to applying for the DUAT authorization.

After the provisional authorization period, the state authorities conducted an inspection (dd. 10/03/2023) to verify the proposed development and project design for the designated areas and ensure that the FPIC principles, community rights and environmental health are secured. Following this verification, the state authorities issued the DUAT title and formal authorization for the proposed land use of the project.

Regarding the FPIC legislation identification and process, is correctly justified, accurate, complete for the project and provides an understanding of the nature of the project (see Mangunde and Nhaumue Community DUAT on annex 1/2/) and PDD Initial FPIC (see annex 1/11/).

PROJECT DESIGN

Baselines

3.8 Baseline Scenario

During the on site visit, it was checked that the project areas are located on highly eroded soils.These upland areas are particularly affected by frequent uncontrolled late dry season fires inhibiting ecosystem enrichment.

The baseline and the additionality of the 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.

The audit team validated the starting date of the activity of the project intervention is 1 May 2022 This date was cross checked with the date of the first employee hired /59/. The validation team deems correct the incentive from the planned plan vivo project was seriously considered in the decision to proceed with the project activity.

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

The project participant has identified two project scenarios, and the validation tema has checked the following:

• Continuation of the pre-project ”pressure-as-usual” (combination of burning, grazing, timber harvesting and charcoaling), pushed by increased drought conditions;

• Hypothetical forestation of the land within the project boundary performed without being registered as a plan vivo credit generating project activity;

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 the Sofala and Mozambique. Continuation of the status quo is in agreement with laws and regulations, while forestation is obviously also a land cover type that is allowed by applicable regulations.

STEP 2. Barrier analysis.

Sub-step 2a. Identification of barriers that would prevent the implementation of at least one alternative land use scenarios

No financial, technical, institutional nor social barriers would prevent the continuation of the *pressure-as-usual scenario*. This was cross checked during the on site visit and with the letter from the District confirmed that there are thus no nurseries for Miombo forest species and fruit species to support forestation without the project intervention /60/.

Sub-step 2b. Elimination of land use scenarios that are prevented by the identified barriers

The scenario of forestation without extra plan vivo funding was removed since it is not a plausible future land cover scenario, given the significant amount of funding required for mulching, planting, rainwater harvesting and firebreaks. The audit team cross checked this against Decree of the Flemish Minister of Environment /61/, signed by the minister. Since the relatively low per capita annual GDP is overcome by the GOVERNMENT OF FLANDERS (BELGIUM) FUNDS grant using that Decree.

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 (*pressure-as-usual scenario*), so according to the tool, this scenario is the baseline scenario.

The validation team deems correct the identified baseline scenario that reasonably represents what would have occurred in the absence of the project.

STEP 3. Common practice analysis.

During on-site visit the validation team observe that there are no similar previous or ongoing forestation activities in or near the project zones, not even remotely similar to this proposed plan vivo project. Consequently, the plan vivo project activity is not the baseline scenario and, hence, it is additional. Also the audit team check that there is no other PV project, VERRA, GS or UNFCCC registered in the area.

The validation team concludes that the baseline scenario is correctly justified for the project intervention and follow appropriate PV methodologies.

3.9 Carbon Baseline

3.10 Livelihood Baseline (initial status and expected change)

Communities of Mangunde and Nhaumue

During the crosscheck documents the validation team found on Activities report and PDD that Mangunde Regulado comprises 11 communities, including Mangunde and Nhaumue. The total population of Mangunde is estimated around 1394, with 729 women (52%) and 665 men (48%). The number of households is 269 with an average household size of 5.18. The total population of Nhaumue is around 1873, with 1016 women (54%) and 857 men (46%). The number of households in Nhaumue is 362 with an average household size of 5.17.

All households in Mangunde and Nhaumue are primarily engaged in subsistence agriculture, combined with some small market crop production and seasonal labour migration. There are no industrial or other formal employment opportunities available for working age individuals within the communities or in Chibabava district. In many cases, adult males travel to cities such as Beira, Chimoio or Maputo, or to neighbouring countries such as South Africa and Zimbabwe, for seasonal or longer-term work and send remittances to support their households. Most of the farming work is carried out by women, retired older men, and youth (Community Surveys, May 2022).

Both Nhaumue and Mangunde settlements are located along the eastern flank of the Buzi River. Houses are well above the high flood level of the river, though flooding has occasionally inundated Mangunde Mission. Cultivation occurs in the low-lying areas closer to the riverbank and in upland areas. The average farming plot size per household in both communities is between 1 and 2.5 ha which is allotted between riverine and upland areas. Plots near the Buzi river are usually under 1 ha, and plots in the upland areas may range between 1 and 2 ha, depending on the terrain, soil, and rainfall conditions. Households generally cultivate vegetable crops in the river irrigated plots and maize, sorghum and beans in the rainfed upland plots (machambas). Cash crops such as sesame and pigeon pea are also cultivated as market crops in the upland plots. Most households also maintain small livestock such as chicken, sheep, pigs and goats. Cattle ownership is limited to very few households and is usually an indicator of relative wealth within their communities (Community Surveys, May 2022).

Income differentiation is minimal in Nhaumue and Mangunde and mainly influenced by the extent of remittances. A rough estimate of annual per capita income for these settlements is between US $185 and $245. The population in the rural districts of Sofala Province are far poorer and their annual per capita income is 30 to 40% less than the per capita GDP average for Sofala Province.

The total area of the Mangunde community is 2752 ha and that of Nhaumue is 2237 ha. While all land and natural resources are owned by the Mozambican state, the 1997 Land Law (DUAT) formally bestows customary rights of usufruct and land use on rural communities. Access and use rights of land and natural resources in these communities are determined according to custom by traditional authorities. The community areas of Mangunde and Nhaumue extend from the Buzi River to the uplands which encompass Miombo woodlands. As per custom, traditional authorities allocate machamba plots, extraction of stone and timber for household or community building construction, clay for pottery, non-timber forest products for subsistence and artisanal production in the woodland areas. Machamba plots are not allowed to be located adjacent to watercourses due to customary belief that doing so will result in guardian water spirits abandoning the channels. Hunting of herbivores is permitted in the woodlands during the dry season and hunters are required to deliver the breast of the animal to their traditional leader (Community Surveys, May 2022).

Interviews with local communities reveals that Both Mangunde and Nhaumue fall under the traditional authority of the Mangunde Regulado. All 11 communities in total are within the locality of Toronga in Chibabava District. The traditional leadership structure is made up of three levels, with the Régulo of Mangunde Regulado being the highest level for all 11 communities, the Chefes at the second level representing groups of villages under each community, and Sagutas at the third level representing village settlements. The sagutas may also perform the role of Dodas who serve as counsellors for traditional governance within each village. The sagutas and dodas have detailed knowledge of the land boundaries between settlements, and are responsible for plot allocation, resolution of land conflicts and other social issues within their village.

The Régulo of Mangunde Regulado resides in the Mangunde community. In addition, there is one Chefe for the community and three sagutas representing the villages of Chingüoni, Nhamapondoro, and Tchigodi which make up the Mangunde community. The Nhaumue community has one Chefe and three sagutas representing the villages of Nhazvitundu, Mucuetcha, and Chinguone. They are centrally involved in all decisions regarding the project area, boundary determination, and conformity with customary rights and pratices.

The CGRN (Natural Resources Management Committee) operates as a bases governance structure dedicated to the management of natural resources in the Mangunde Regulado. It works in partnership with the Mangunde traditional leadership structure and the district government agencies. The CGRN has a formal governing structure with members from all 11 communities of Mangunde Regulado and elected office-bearers of President, Vice-President, Secretary, Treasurer and ex-officio members.

The KuKuMuty Project is being managed by Community Subcommittees (SC) responsible for their designated project areas. The membership of the SCs is explained in Section 3.3, table 2. The SCs is responsible for decision-making regarding the membership and gender balance in project design, area, rules for participation, and utilisation of future carbon incomes for social benefit of Mangunde and Nhaumue communities (and others as the project grows). The Project mandates 50% or greater membership of women in the CCs and now is 40%.

The Nhaumue community each have an agricultural association comprising male and female farmers residing in their respective village. These agricultural association are also formally organised with their respective office-bearers. The association enable farmers to collectively invest labour and coordinate cultivation in plots near the Buzi River. The association also work with the assistance provided by Azada Verde for solar-based pumped irrigation to cultivate vegetable crops for household consumption and market sale. Nhaumue agricultural association is represented on their respective SCs. The Project's agroforestry activities and revenue generation is overseen by a special working group created from participating households in Nhaumue communities and include both non-members and members of the agricultural associations. The working group operate under and report to their respective SCs.

Expected Livelihood change

The populations of Mangunde and Nhaumue can be largely considered as economically marginalized and politically disadvantaged in comparation with those working in urban centres of Sofala and Maputo provinces. Within these populations, women and youth-headed households are particularly vulnerable because of their reliance on subsistence cultivation and very limited income generation opportunities in the area. Under the baseline scenario, there is little likelihood of their socio-economic conditions improving in the short- or medium term. Their share of the annual per capita

GDP is less than half of that of the national average of US $500 and is unlikely to improve under the present national economic policies for rural areas in central and northern Mozambique. In addition, the increased likelihood of extreme weather events and greater variability in seasonal rainfall due to climate change can further contribute to decline in agricultural production and overall livelihood security. All the stakeholders identified in Section 3.3, table 2 are likely to experience further income deterioration and distress under the prevailing baseline scenario.

According to the PDD cross check, Chibabava local government report on annex 1/28/), observations, interviews (see Mangunde & Nhaumue community interview's names on annex 1/23/) were made during the on-site visit the validation team conclude that the expected livelihood change is correctly justified, accurate and complete for the project.

3.11 Ecosystem Baseline (initial and expected change)

The Chibabava district experiences a tropical monsoon climate, ranging from dry semi-arid tropical in the inland areas to humid tropical near the coast. Average temperatures are above 24°C, with temperatures reaching up to 35°C during summer. The district is watered mainly by the Búzi, Revue and Lucito rivers. The annual dry season occurs between September and April, and a wet season between May and Agoust. Average annual rainfall ranges between 800 and 1000 mm, and average daytime temperatures vary between 30°C in the dry season and 18°C in the wet season.

According to the Chibabava distrital Profile and PDD cross checked, the Mangunde and Nhaumue communities are located on relatively gentle undulating landscapes, although there are steeper river terraces carved by floods along the banks of the Buzi River. The geology consists of a Precambrian granitoid and gneiss basement complex, sometimes expressing inselbergs and kopjes, flattened along erosion surfaces. Altitude along the floodplain of the Buzi River ranges between 80 and 90m above sea level. In some areas the flood plain narrows dramatically, but in most areas, it ranges between 1.2 and 2km in width. Settlement areas are concentrated along the eastern flank of the Buzi River with almost all settlements occurring within 4km and well above the high flood level of 90 m.

Soils include a mixture of acidic soils, consisting of ferrasols and acrisols, and ferruginous soils made up of lixisols and cambisols. These are highly acidic, low in cation exchange capacity, low total exchangeable bases and low in available phosphorus. The soils are formed by a catenary sequence of deeply weathered soils in higher elevations, a narrow zone of sandy colluvial soils along the foot slopes, and poorly drained alluvium along rivers. Generally, the soils in the area have low levels of organic matter due to abundant termite activities and frequent incidence of fire (Chidumayo, 1997). Soils in the project areas are mostly sandy loams (organic content between 0.5-3.1%), varying significantly from upslope to downslope areas. The lowest quantities of soil organic matter are found in the sandy lowlands, closer to creeks and gullies.

The local vegetation type is Miombo-related woodlands ecosystem prevalent across southern and south-eastern Africa. Miombo woodlands is seen as a transitional system between the closed tropical African rainforests and the open semi-arid savannas of southern Africa (Vinya 2010). This tropical dry forest formation is critical for biodiversity and for the livelihoods of millions. The woodlands have been modified by settled and swidden farming practiced over millennia to create a complex agroecosystem mosaic (Ribeiro et al. 2020a). In fact, Miombo woodlands can be regarded as socio-ecological systems maintained by humans over a long period of time (Ribeiro et al. 2020b).

According to the PDD cross check and paper cited review, the Miombo woodlands can be defined as "deciduous woodlands composed of broad-leaved trees of the legume subfamily *Detarioidae*, well-

developed grass layer, high level of endemism and habitat of charismatic megafauna" and a significant portion of the world's tropical dry forests (Ribeiro et al., 2020). Vegetation is adapted to the occurrence of fire. Nearly 55% of the 8500 floristic species in the Miombo ecosystem are endemic and about 80 percent of the largest terrestrial mammals of Mozambique are found in Miombo woodlands (FAO, 2021). Because of its structural characteristics, the Miombo.

Miombo woodlands generally occur under a unimodal rainfall pattern characterised by distinct and prolonged dry seasons, coupled with leached and weathered soils. Three key factors shaping the Miombo socio-ecological system are (i) climate variability, (ii) nutrient availability of soils, and (iii) occurrence of fire (Ribeiro et al., 2020).

Ribeiro et al. (2020) classify the Southern African woodlands along seven vegetation categories: (1) Hymenocardia/Uapaca miombo, (2) Diplorhynchus miombo, (3) Combretum miombo, (4) Baikiaea, (5) Mopane (Colophospermum), (6) Acacia (Vachellia / Senegalia) and (7) Androstachys. Our field surveys (see Annex 7) indicated that the project areas fit within the class of *Combretum* woodland, although Diplorhynchus is also commonly present. The project woodland areas is classified as "Miombo woodlands".

Expected Ecosystem Change

Miombo woodlands are complex socio-ecological systems maintained by humans through cycles of clearing, cultivation, abandonment, and fire over millennia (Ribeiro et al. 2020b). Based on an analysis of remote sensing imagery and interviews on Miombo dynamics in Mozambique, Silva et al. (2009) show that shifting cultivation in the Miombo biome creates a complex agroecosystem mosaic in which change may occur simultaneously in many directions and at different rates. Such dynamics are best explained by multiple causes and driving forces rather than by single-factor causation. This is in line with the review of Geist & Lambin (2002), indicating that land-use cover change in Southern Africa is driven by a variety of economic, cultural/socio-political, demographic, technological but also institutional/policy factors.

Across much of the rural development and biodiversity conservation literature, however, there is little acknowledgement of the Miombo woodlands as a complex agroecosystem mosaic. The dominant narrative is that charcoal production, timber harvesting, and slash and burn agriculture contribute to massive loss of Miombo ecosystems (Mather and Needle 2000; Brown 2001) and that reforestation projects must consequently protect Miombo from interference by local communities. Although Syampungani et al. (2016) relate Miombo cover loss with three main activities: (i) charcoal production, (ii) slash and burn agriculture and (iii) timber harvesting, they also state that Miombo woodland on sites abandoned after different traditional use and agricultural practices can recover to good health. Some authors argue that charcoal production and slash and burn agriculture may even be necessary disturbances that enhance the establishment and development of the regeneration pool of the Miombo plagioclimax (Luoga et al. 2002). Miombo woodland can recover easily on a timescale of about 20 to 25 years, under the condition that regeneration is not inhibited by late dry season fires (Chidumayo, 2019). Monfort et al. (2021) infer a high woodland regeneration capacity in terms of woody species diversity and soil properties but also find that disturbances and light conditions have a long-term effect on species composition and stand structure, underlining another condition of integrated landscape management.

Field observations of areas near the project sites in Mangunde and Nhaumue show the occurrence of slash and burn agriculture, timber harvesting and occasional instances of charcoal production. However, the project sites are neither located on abandoned formerly *machambas* nor used as

grazing lands. They are on higher topography which have more eroded soils and are frequently affected by uncontrolled late dry season fires. The late dry season fires can contribute to increased erosion and impoverishment of soils and thus inhibit woodland enrichment. As outlined in the abovementioned literature findings, the field observations do not indicate massive losses of biomass due to slash and burn agriculture, timber harvesting, or charcoal production, but can expect a stable biomass baseline scenario. This most likely future land use and land management scenario of the project areas, in the absence of project interventions, is fully described in PDD Annex 7 (based on AR- TOOL02 v1.0: "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities".

According to the PDD annex 7 cross check, miombo related paper review (see Classification of Southern African woodlands by Ribeiro et al. (2020) on annex 1/32/ and Ecosystem services from southern African woodlands and their future under global change on annex 1/49/), Chibabava Distrital profile Report review (on annex 1/33/), and observations made during the on-site visit the validation team conclude that the ecosystem baseline is correctly justified for the project.

Theory of Change

3.12 Project Logic

According to the project intervention using integrated landscape management strategy for enrichment of Miombo woodlands and creation of climate resilient agroecosystems for sustainable livelihood opportunities in Chibabava District, the outcomes as Carbon, Livelihood and Ecosystem Benefit. The Outputs and activities proposed to the project is summarised below:

Output 1: Indigenous mulching techniques successfully applied across the project areas

Activities: Assessing community knowledge on grasses and soil fertility, and making "soil fertility maps", Identify good locations in project area for mulching and develop mulching strategy with community participants, Annual mulching activities in project subareas, Construction of water-retaining swales or other soil and water conservation (SWC) structures in project areas, Community-led soil strategy elevation, Community liaison regarding soil fertility improvement techniques.

Risk mitigation: Local soil management techniques are key to the successful enrichment of Miombo woodlands, Active and broad-based involvement of communities as project designers and project partners will build a strong project support base, Implementing soil enrichment and landscape water harvesting (mulching and building SWC structures) will speed up the growth of the biomass.

Output 2: Firebreaks installed and maintained around the project areas

Activities: Assessing community knowledge of fire regime in project areas, and making an "uncontrolled fire exposure" map, Develop firebreak strategy for project sites and discuss it with the community, Establish firebreaks at project sites, with community members, Community-led fire strategy evaluation and Community liaison regarding uncontrolled fire reduction through mulching and firebreak techniques.

Risk mitigation: The project is not 'anti-fire' but rather about reducing the occurrence of uncontrolled fires in the project areas. Community-based management will establish mulching zones and fire breaks to protect and enrich project areas from uncontrolled fires, and Active and broad-

based involvement of communities as project designers and project partners will build a strong project support base.

Output 3: Native Miombo species planted across the project areas

Activities: Biomass and soil plot measurements, Community-led identification of the use of tree species and the timing for seed harvesting for making a "tree species distribution map, develop strategy on planting different tree species and discuss it with the community, Enrichment planting in project areas, Continuous monitoring of temperature, rainfall, fire occurrence and seasonal plant behaviour and Regular community liaison.

Risk mitigation: Enrichment planting of native Miombo seedlings can only take place when soil and fire management strategies are in place, Seeds are harvested from local trees (in Chibabava district), based on community knowledge on best timing for seed harvesting, Next to nutrient availability of soils, and occurrence of fire, Miombo trees are highly dependent on climate variability – so it is important to gather local climatic data.

Output 4: Agroforestry systems applied by the participants of the Project's Agroforestry Work Group

Activities: Training project team members in agroforestry nursery, strategies and processes, setting up nurseries and nursery irrigation system, and engage nursery labourers, Planting and supporting replanting and long-term maintenance of the agroforestry system with the Project Agroforestry Work Group, Community and association liaison and Distribution of agroforestry crop benefits.

Risk mitigation: High-quality river-irrigated local nurseries are constructed since these are crucial to supply the necessary seedlings for Miombo enrichment and agroforestry cultivation, The project selects agroforestry species that are best suited for the local socioecological circumstances and conditions, Fruits and other products from agroforestry can be effectively sold at local markets.

According to the PDD cross check, Mangunde & Nhaumue agroforestry trainings and employments list (attached on annex 1/31/), project participant interviews (see Mangunde & Nhaumue community interview's names on annex 1/23/), and field observations during the on-site visit the validation team conclude that the project logic is correctly justified, accurate and complete for the project.

Technical Specification

3.13 Project Activities

According to the PDD Annex 7 (technical specification of the ecosystem restoration) cross checked in combination with forest biomass measure, field observations and Project participant interviews (see annex 1/23/) made during the on-site visit the validation team conclude that the project intervention is correctly justified for the project.

At the point of the validation, only the technical specification of the Miombo enrichment (ecosystem restoration) was submitted to PV.

Table 4 Project Activity Summary

Project Intervention	Project Activities	Inputs	Validation Assessment
Ecosystem Restoration	Assessing community knowledge on grasses and soil	Community interviews,	The PDD Annex 7 was used to validate the activities needed to implement the

	quality, and making a "soil fertility map". Identify good locations in project area for mulching and develop mulching strategy and discuss it with community. Annually mulching in project subareas Construction of swales in project areas (or other SWC structures). Community-led soil strategy evaluation. Community liaison. Assessing community knowledge of fire regime in project areas, and make an "uncontrolled fire exposure map". Develop firebreak strategy for project sites and discuss it with the community. Establish firebreaks at project sites, with community members. Community-led fire strategy evaluation. Community liaison Biomass and soil plot measurements. Community-led identification of the use of tree species and the timing for seed harvesting, and make "tree distribution map". Develop strategy for planting tree species and discuss it with the community. Enrichment planting in project areas.	participatory mapping Community interviews and community meetings Daily labour Daily labour and regular monitoring Community interviews and community meetings Regular community interviews Community interviews, participatory mapping Community interviews and community meetings Daily labour and regular monitoring Community interviews and community meetings Regular community interviews Monitoring plots Community interviews, participatory mapping	project intervention) in combination with Forest biomass database (see annex 1/34/) and biomass field measured during on site-visit, observations and Project participant interviews (see annex 1/23/) and Mangunde & Nhaumue permanent/temporary trainings activities and local employments list (see annex 1/29 & 30/).

	Continuous monitoring of temperature, rainfall, fire occurrence and seasonal plant behaviour. Community liaison	Local nurseries, daily labour and monitoring Thermometer, pluviometry, regular community interviews Regular community interviews	
Agroforestry	Training project team members in agroforestry strategies and processes. Setting up nurseries and nursery irrigation, and engage nursery labourers. Planting with the Project's. Agroforestry Work Group. Community and association liaison.	Training sessions Nursery investments, water infrastructure, nursery labour Available communal or private lands close to nursery and river irrigation Regular community interviews and interviews with association members	The Mangunde & Nhaumue agroforestry trainings and employments list (attached on annex 1/31/), Project participant interviews (see annex 1/23/) in combination with seedling project and nursery centre visit/observations, and Project technicians and nursery interviews (see annex 1/35/) made during the site visit was used to validate the activities needed to implement the project intervention. The technical specification of the agroforestry project have not yet been provided.

3.14 Additionality

The steps taken to validate the additionality assessment started from PDD cross check were financial, technical specification and coordinator structure was checked. Livelihood and Ecosystem baseline scenario reports was checked in combination with project participants interviews and field observation during the on-site visit.

According to the PDD Annex 7 cross checked in combination with field observations and interviews made during the on-site visit the validation team conclude that the additionality of the project intervention is correctly justified for the project.

Table 5 Additionality Assessment Summary

Project Intervention	Main Barriers	Activities to Overcome Barriers	Validation Assessment

Ecosystem Restoration	Financial: Limited funds Other priorities Limited private credit availabilities	Start-up capital secured by GOVERNMENT OF FLANDERS (BELGIUM) FUNDS to initiate the project; benefit sharing scheme supported by Plan Vivo; funding for soil and fire management, wages and enrichment planting	The PDD Annex 7 was used to validate the additionality of the project intervention) in combination with observations and interviews with project technician and community made during the site visit (see annex 1/35/).
Ecosystem Restoration	Technical: Although biodiversity conservation projects are being pursued in other parts of Sofala Province, these are mainly targeted for wildlife parks. There is limited focus on enrichment of Miombo woodlands in rural community areas in conjunction with agroforestry activities Limited land availability for agroforestry plantings	Skilled local coordinator with understanding of local agroecosystems for enriching Miombo woodlands; inputs of environmental scientists and researchers linked to three universities; construction of plant nurseries for miombo enrichment and agroforestry plantings. Collaboration with ESMABAMA for use of Mangunde Agricultural Training Centre and lands for agroforestry activities.	The Project coordinators CVs (see annex 1/36/) with Project and Manica High Polytechnic Institute (ISPM) and Research Centre agreements (see annex 1/37/) was used to validate the additionality of the project intervention) in combination with observations and interviews with project technician and community made during the site visit (see annex 1/35/) made during the site visit.
Ecosystem Restoration	Institutional /Social: 4. " Top-down approach" adopted by government officials, with limited room for local decision- making and grassroots initiatives	Bottom-up approach with first consultation rounds, continued workshops and benefit sharing for participating communities, and insertion of project within local	The initial minute meetings from April 2022 on annex 1/7/, participatory design (on annex 1/10/), Mangunde & Nhaumue community interview's names made during the site visit (on annex 1/23/), field observations and Azada Verde and local

		community associations such as CGRN.	CGRN understanding memorandum (see annex 1/41/) was used to validate the additionality of the project intervention.

3.15 Carbon Benefits

The validation team has validated the technical specification of the project intervention ecosystem restoration and this is the outcome of the validation process:

Carbon Pools and Emission Sources

The validation team assessed this information against Annex 7 and the applied PV methodology . For carbon pools, soil organic carbon, above-ground biomass and below-ground biomass is included for this project intervention. The validation team deems this correct and in accordance with the methodology applied.

Baseline Emissions/Removals

It was assessed against Google Earth satellite images and during the validation on site visit that the Miombo landscape remained metastable over the years.

Therefore, the project intervention follow the Methodology PM001 (Agriculture and Forestry Carbon Benefit Assessment Methodology): The change in carbon stocks expected under the baseline scenario for each project area is calculated with Module PU001 (P6). Module PU001 requires “no change in woody biomass carbon stocks if the conditions in AR-TOOL14 v4.2 section 5 are met” (§5.1.2).

After checking the module PU001 and the AR-TOOL14 vs 4.2 section 5, the validation team considers correct that the *changes* in carbon stocks in trees, shrubs and soil in the baseline pressure-as-usual scenario of the project zones may conservatively be accounted as zero.

Expected Project Emissions/Removals

The project emissions are calculated following the changes in carbon are calculated PU001 through AR-TOOL14: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities, Version 4.2.

For this project intervention, it was used the age-dependent growth model of Williams et al. (2007) and the allometric model of Ryan et al. (2011), both calibrated in Miombo woodlands of Sofala, Mozambique.

Based on both models, the intervention model was calculated and presented in Annex 6.

A summary of the Expected Project Emissions/Removals and Net Carbon Benefits is provided in table 6 of this report.

The validation team has assessed and reproduced the calculation presented in Annex 6 /4/ and consider correct the calculation of the project emissions.

Potential Leakage

There is no potential leakage for this project intervention. This is in line with AR-TOOL04 Tool for testing significance of GHG emissions in A/R CDM project activities, Version 1.0, which is applicable under PU004, the sum of decreases in carbon pools and increases in emissions may be neglected if it is less than 5% of the total decreases in carbon pools and increases in emissions, which is the case of the project intervention.

Uncertainty

The project intervention meets the requirements of the approved methodology.

The project is in line with AR-Tool14, 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.

Expected Carbon Benefits

The validation team has assessed and reproduced the calculation presented in Annex 6 /4/ and consider correct the calculation of the expected carbon benefits.

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)**
Nhaumue Miombo enrichment	0	-288	0	288
Mangunde Miombo enrichment	**0**	**-288**	**0**	**288**

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)**	Achievement Reserve	**Potential PVCs (t CO_2e)**
Nhaumue Project Area	288	300	86 400	20%	10%	60480
Mangunde Project Area	288	69	19 872	20%	10%	13910
TOTAL	**288**	**369**	**106272**	**20%**	10%	**74390**

Risk Management

3.16 Environmental and Social Safeguards

3.16.1 Exclusion List

According to PV Annex 8, the project does not include any activities listed in the Plan Vivo Exclusion List.

3.16.2 Environmental and Social Screening

The steps taken to validate the Environmental and Social Screening started from PDD cross check were Risks associated by Restoration and Social interventions. The table 8 summarized all the risks identified and possible significant.

According to the PDD Annex 7 cross checked, reports combined with field observations and interviews with local community made during the on-site visit the validation team conclude that the complete Environmental and Social Screening is correctly justified for the project.

Table 8 Environmental and Social Risks

Risk Area	**Significance (low, moderate, severe, high)**	**Validation Assessment**
Vulnerable Groups	Moderate, potential risks mainly related with perpetuation of income-related inequality	Validated by PDD crosscheck, baseline reports (see Project report from June to October 2022 on annex 1/ 38/, from February to June 2023 on annex 1/39/, and from July to November 2023 on annex 1/40/), Mangunde & Nhaumue community interview's names made during the on-site visit (on annex 1/23/) and field observations made during the on-site visit.
Gender Equality	Moderate, potential risks mainly related with perpetuation of gender-related inequality	Validated by PDD crosscheck, initial minute meeting signature (see annex 1/7/), baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), aattendance lists of April 2023 and May 2023 (on annex 1/6/), Mangunde permanent/temporary trainings activities and local employments list (see annex 1/29/), observations and

		interviews with local community made during the on-site visit.
Human Rights	Moderate, potential risks mainly related with individuals not being present during Subcomité meetings	Validated by PDD crosscheck, baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), Photographs (on annex 1/5/), Chibabava local government report (on annex 1/28/), Mangunde & Nhaumue community interview's names made during the on-site visit (on annex 1/23/), Azada Verde and local CGRN understanding memorandum (see annex 1/41/), observations made during the on-site visit.
Community, Health, Safety & Security	Moderate, Mozambican Civil War ended in 1992, thereafter relative peace prevailed	Validated by PDD crosscheck, baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), Photographs (on annex 1/5/), Chibabava local government report (on annex 1/28/), observations and Mangunde & Nhaumue community interview's names made during the on-site visit (on annex 1/23/), made during the on-site visit.
Labour and Working Conditions	Low, as the project will at all times align with regional/national labour laws and provide basic resources, equipment to work	Validated by PDD crosscheck, Photographs (on annex 1/5/), Chibabava local government report

		(on annex 1/28/), Project technicians and nursery interviews (on annex 1/35/) and Mangunde & Nhaumue community interview's names made during the on-site visit (on annex 1/23/) and observations made during the on-site visit.
Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	Low, as no pollutants are used, and project GHG emissions are negligible	Validated by PDD crosscheck, National Environmental law (see annex 1/42/), REDD+ Letter of approval from the National authorities (see annex 1/27/), observations, community interview's names made during the on-site visit (on annex 1/23/), Project technicians and nursery interviews (on annex 1/35/) made during the on-site visit.
Access Restrictions and Livelihoods	Moderate, potential risks mainly related with displacement in the in cases of uncontrolled fire events	Validated by PDD crosscheck, baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), Azada Verde and local CGRN understanding memorandum (see annex 1/39/), observations and community interview's names made during the on-site visit (on annex 1/23/).

Cultural Heritage	Low, no registered cultural heritage within the project areas; community subcommittees to ensure culturally significant sites are properly identified and not affected by project interventions	Validated by PDD crosscheck, Mangunde & Nhaumue Community DUAT (see annex 1/2/), observations and community interview's names made during the on-site visit (on annex 1/23/).
Indigenous Peoples	Moderate, the majority of all inhabitants in the project region are Ndau	Validated by PDD crosscheck, observations, Chibabava local government report (on annex 1/28/), Mangunde & Nhaumue Community interview's names made during the on-site visit (on annex 1/23/).
Biodiversity and Sustainable Use of Natural Resources	Low, project activities promote biodiversity enhancement;	Validated by PDD Annex 7 crosscheck (on annex 1/12/), Carbon sequestration and biodiversity of re-growing miombo woodlands in Mozambique (see annex 1/51/), field observations, Photographs (on annex 1/5/) and baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/).
Land Tenure Conflicts	Moderate, potential risks mainly related with fire outbreaks that may occur adjacent to the project areas	Validated by PDD Annex 7 crosscheck combined by Photographs (on annex 1/5/), Mangunde & Nhaumue Community interview's names (on annex 1/23/) and field observations made during the on-site visit.

Risk of Not Accounting for Climate Change	Low, potential risks mainly related with cyclones and increased frequency of extreme weather events	Validated by PDD crosscheck, National Institute of Disaster Management (INGD) report from 2016 – 2019 (on annex 1/43/) and from 2020 – 2023 (on annex 1/44/), Mangunde & Nhaumue Community interview's names (on annex 1/23/) and field observations made during the on-site visit.
Other – e.g. Cumulative Impacts	Moderate, potential risks mainly related with the potential spread of uncontrolled fire outbreaks	Validated by PDD Annex 7 crosscheck combined by Photographs (on annex 1/5/), Mangunde & Nhaumue Community interview's names (on annex 1/23/) and field observations made during the on-site visit.

3.16.3 Environmental and Social Assessment

The scope of the assessment of environmental and social risks and impacts was analysing the potential social groups vulnerable or environmental threat on the Kukumuty project areas.
The assessment criteria/methods and sampling strategy used to assess the significance of potential environmental and social risks and impacts were by agreement cross check, project participant focal group discussion, interviews and social project indicator measured with observation to avoid, minimize or mitigate these impacts – including consultations with affected communities, local stakeholders, and vulnerable and/or disadvantaged people.
Below are the comments cross checked on PDD Annex 10 according to the Social and Environmental assessment: How do people assess the potential costs and benefits of the project and how to ensure representation of vulnerable groups and the poor throughout project design and development. How to avoid benefit capture of the local elite? For these questions, some answer founded were:
Inclusion of community participation through smart rotation and decentralised communication.
Keep records of community participation to allow smart rotation and decentralise communication.
Women: How to ensure women's representation throughout project design and development? The project target is 50% women participation in project activities. Answer: The project team should keep track of women's participation during each meeting.
How to assess the potential costs and benefits of access restrictions? benefits and function as natural defenders of the area. Answer: Sensibilization and dissemination of project objectives and benefits to strengthen community ownership of the project. Distributing tree seedlings and/or seeds for direct seeding of important timber wood species to be planted in individual or communal

woodlots. Valorising non-timber forest products and particularly supporting honey production. Established bee-hives in the project area provide.

Risk of conflict with neighbouring communities? All project lands are covered by a DUAT. DUAT are established for each project area.
Indigenous peoples: how to work with indigenous peoples in the project area, and how to assess the risk of conflict? The project should respect cultural heritage and support traditional ceremonies when relevant. Traditional ceremony done in 2022 at project initiation.
Risk of not accounting for climate change: How to assess the potential impacts of extreme weather events on proposed activities. Seedlings should be micro-irrigated in periods of low rainfall to avoid desiccation SWC structures support tree growth in enrichment planting areas. Micro-irrigation of seedlings, Establish SWC in enrichment planting areas. No cost, solar irrigation system installed in 2022.
How to assess fire risks? Integrated fire management strategy: including firebreaks, fuel breaks and controlled (cold) fire). Engage subcommittee members in fire prevention and fire suppression. Support local grass cut-and-carry systems, which provide roof grasses for the community members, while also reducing the dry material in the project areas. Integrated fire management Establish “fire brigade” with the Subcommittee. Allow local and organized cut-and-carry of grasses. Permanent cost of firebreaks.

Other risks proposed: Not keeping promises made to the community is a risk. In that case the community may lose interest. Pro-active, honest and careful communication to the project participants. Clear communication.

The project staff and experts that conducted the environmental and social assessment were identified by their relevant document requested, including qualification and experience. The environmental and social assessment were conducted by Project Coordination team which include 4 international multisectoral experts with 1 national Environmental and forest technician, 2 national in social field technician, 2 nationals in agronomy field technician from Azada Verde as focal by having historical socioeconomic understanding and work experience in the region and with local communities.

According to the PDD Annex 10 the Social and Environmental assessment /13/ cross checked, Project staff and experts CVs (on annex 1/45/), baseline reports ((see annex 1/ 38/, annex 1/39/ and annex 1/40/), Mangunde & Nhaumue Community interview’s names (on annex 1/23/), Project technicians and nursery interviews (on annex 1/35/) combined with field observations made during the on-site visit the validation team conclude that the environmental and social assessment report is correctly justified for the project activity.

3.16.4 Environmental and Social Management Plan

To measure the project Environmental and Social Risk and Impact Mitigation the PDD Management Plan was cross checked combined by observation and interviews during on-site visit was Possible Risk was identified, Mitigation measures according to the project activities as described below:

Possible Risk/Impact 1: Potential risk related with spread of uncontrolled fire outbreaks

Mitigation measures 1: The neighbouring Miombo zones were included in the participatory zonation maps and in the monitoring program. Community Subcommittees (SC) organise regular meetings to discuss strategies and are prepared. To act swiftly in cases of fire outbreaks, SCs and local

community ensure and agree that community members are involved in fire monitoring around project areas. The Miombo restoration zones and nurseries will always be repaired, replenished and rehabilitated after any occurrence of uncontrolled fire, or any other extreme weather events such as high temperatures, low rainfall, or cyclones.

Project activity 1: All activities mentioned on Section 3. 3, table 2 were checked to evaluate their risk/impact.

Possible Risk/Impact 2: Potential risk of disproportionate labour demands for mulching or planting activities falling on women.

Mitigation measures 2: This could increase female workloads during specific phases of cultivation during the wet and dry seasons. The project aims to mitigate these negative social risks by ensuring 50 % or more representation of women in the Subcommittees so that they can determine how to distribute the labour demands according to women's household needs and circumstances. Interviews with communities reveals that all project activities include proportional gender and the local workers on fire breaks and mulching are selected by local subcommittee.

Project activity 2: All activities mentioned on Section 3. 3, table 2 were checked to evaluate their risk/impact.

According to the PDD Annex 7 – Project technical Specifications (on annex 1/12/), PDD Annex 17 – Project structure (see annex 1/20/), PDD Annex 11 – Land Management Plans (see annex 1/16/), PDD Annex 10 – Environmental and Social Assessment Report (see annex 1/15/), Mangunde & Nhaumue permanent/temporary trainings activities and local employments list (see annex 1/29 & 30/) cross checked combined with field observations and Mangunde & Nhaumue Community interview's names (on annex 1/23/) made during the on-site visit the validation team conclude that the environmental and social Management Plan is correctly justified for the project activity.

3.16.5 Native Species

Mainly trees planted in the Miombo woodland project areas are native. The non-native tree species planted on project areas is *Moringa oleifera, Mangifera indica, Ceiba pentandra* from Mexico, central America, Caribbean and *Millettia pinnata* from tropical Asia, Australia and Pacific Island. All non-native tree species planted on project areas is not environmental risk or threat to the project intervention because of its historical naturalized in Mozambique villages throughout its useful values such as fruit edible, fuelwood, timber and medicinal value. Example, *Moringa oleifera* is widely established right across Mozambique and is a useful plant to many communities who use the leaves as a source of food especially during wet months. It is not an invasive species, although it can be easily germinated in nursery conditions using cuttings or seeds. Bigger branches are also useful for construction purposes. Low risk species – little chance of self-propagation. Moringa are used in agroforestry areas only, both in upland and lowland areas due to lack of invasive threat.

According to the Annex 7 Technical specification from PDD cross checked (on annex 1/12/), The endemic plants of Mozambique: diversity and conservation status (see annex 1/46/), An updated checklist of Mozambique's vascular plants (see annex 1/47/), Classification of Southern African woodlands (see annex 1/32/), Project Forest database (see annex 1/34/) baseline reports ((see annex 1/ 38/, annex 1/39/ and annex 1/40/) combined with field observations and interviews with local community and Azada Verde technician made during the on-site visit the validation team conclude that the non-native species are correctly justified in the project intervention.

Table 9: Validated Non-Native Species Overview

Project Intervention	Non-Native Species Planted/ Introduced	Validation Assessment
Agroforestry	*Moringa oleifera*	Validated by The endemic plants of Mozambique: diversity and conservation status (see annex 1/46/), An updated checklist of Mozambique's vascular plants (see annex 1/47/).
Agroforestry	*Mangifera indica*	Validated by The endemic plants of Mozambique: diversity and conservation status (see annex 1/46/), An updated checklist of Mozambique's vascular plants (see annex 1/47/).
Ecosystem Restoration	*Ceiba pentandra*	Validated by The endemic plants of Mozambique: diversity and conservation status (see annex 1/46/), An updated checklist of Mozambique's vascular plants (see annex 1/47/).
Ecosystem Restoration	*Millettia pinnata*	Validated by The endemic plants of Mozambique: diversity and conservation status (see annex 1/46/), An updated checklist of Mozambique's vascular plants (see annex 1/47/).

3.17 Achievement of Carbon Benefits

The project will generate rPVCs (to be transformed to vPVCs after every verification cycle), so a 10% proportion of carbon benefits will be held as insurance against non-achievement of carbon benefits. This is in accordance with the PV requirements.

3.18 Reversal of Carbon Benefits

The steps used to validate the total score of the risk factor to reversal of the Carbon Benefits achieved by the project was taken by multiplying the Impact and Likelihood scores to give a total score between 0 and 9. There's no total score greater than 4 and the stated mitigation measures are in included on project intervention.

According to each Risk factor the validation team assessed the impact, likelihood, mitigation measures and the final scores. The validation team cross check the Risk and Reversal on PDD and correlated by participants declaration during the interviews. The project intervention considers all social, Environmental, Economic and administrative Risks.

After the cross-check process and during the project coordinator interviews, the validation team understand that the risk factor will lead to reversal of the Carbon Benefits achieved by the project, because the stated mitigation measures are in place, such as planting trees, agroforestry seedling activities, fire breaks and regular meetings with project participants to discuss concerns and strategies to guarantee.

Table 10 Risk of Reversals

Risk Factor	Mitigation Measures*	Score	Validation assessment
Land tenure and/or rights to climate benefits are disputed	Project agreements agreed and signed by relevant stakeholders, DUAT in place	4	Validated by National Land & Environmental law (on annex 1/42/), Ecosystem services from southern African woodlands and their future under global change (see annex 1/49/), Mangunde & Nhaumue community DUAT cross checked (see annex 1/2/), Project Agreements (Mangunde and Nhaumue agreements) signed by Chibabava & Sofala Government, Azada Verde and local CGRN understanding memorandum (on annex 1/41/), and Mangunde & Nhaumue community interview's names made during the on-site visit.
Political or social instability	To work closely with the different levels of government, i.e. at District, Province and National level	4	Validated by Project initial Signed meetings minutes (see annex 1/7/), REDD+ Letter of approval from the authorities (on annex 1/27/), Chibabava local government report (on annex 1/28/), field observations and Chibabava District government members interview (on annex 1/48/) made during the on-site visit.
Community support for the project is not maintained	Project agreements agreed and signed by relevant stakeholders,	3	Validated by Mangunde & Nhaumue community DUAT cross checked (see annex 1/2/), Project

	benefit sharing mechanism included, DUAT in place		Agreements (Mangunde and Nhaumue agreements) signed by Chibabava & Sofala Government, Azada Verde and local CGRN understanding memorandum (on annex 1/41/), PDD Carbon benefit spreadsheet (on annex 1/4/), and Mangunde & Nhaumue community interview's names made during the on-site visit.
Insufficient finance secured to support project activities	Financial plan developed	3	Validated by PDD financial plan (see annex 1/19/) and project coordinators interviews made during the on-site visit.
Alternative land uses become more attractive to the local community	Project agreements agreed and signed by relevant stakeholders. Diversification of income opportunities from agroforestry reduces attractiveness of alternative land uses in Miombo enrichment areas	2	Validated by Project Agreements (Mangunde and Nhaumue agreements) signed by Chibabava & Sofala Government, Azada Verde and local CGRN understanding memorandum (on annex 1/41/), Ecosystem services from southern African woodlands and their future under global change (see annex 1/49/), Mangunde & Nhaumue permanent/temporary trainings activities and local employments list (on annex 1/29 & 30), Carbon sequestration and biodiversity of re-growing miombo woodlands in Mozambique (see annex 1/51/), Mangunde & Nhaumue agroforestry trainings and employments list (see annex 1/31/), and Mangunde & Nhaumue community interview's

			names made during the on-site visit.
External parties carry out activities that reverse climate benefits	The project agreement discusses procedures to handle disputes arising in relation to project areas. Community subcommittees have monitoring in project areas to prevent theft or damage of trees by outsiders	4	Validated by Project Agreements (Mangunde and Nhaumue agreements) signed by Chibabava & Sofala Government, Azada Verde and local CGRN understanding memorandum (on annex 1/41/).
Fire	Meetings to discuss fire practices and seasonal burning strategies are regularly organised; community members are involved in creating fire breaks	3	Validated by Mapping Fire Regimes in the Miombo Woodlands of the Beira Corridor, Central Mozambique (see annex 1/50/), Community meeting minute names and Local government names (on annex 1/22/), made during the on-site visit, Azada Verde and local CGRN understanding memorandum (on annex 1/41/).
Pest and disease attacks	Biodiversity will be monitored (see PDD monitoring section) with special attention to potential pest outbreaks.	3	Validated by PDD monitoring plan in annex 13 (see annex 1/17/), project coordinators and field technician interviews (see annex 1/35/) made during the on-site visit.
Extreme weather or geological events	Potential cyclone damage in the project areas will be mitigated by planting a range of native species that are adapted to different levels of disturbance	4	Validated by National Institute of Disaster Management (INGD) report from 2020 – 2023 (see annex 1/44/), PDD Technical specification in annex 7 (see annex 1/12/), baseline reports ((see annex 1/ 38/, annex 1/39/ and annex 1/40/), field observation and project coordinators and field technician interviews

			made during the on-site visit.
Capacity of the project coordinator to support the project is not maintained	Financial plan developed with Community Subcommittees and CGRN to ensure long- term stability in project coordination	3	Validated by PDD financial plan in annex 16 (see annex 1/19/), and Azada Verde and local CGRN understanding memorandum (on annex 1/41/), and Mangunde & Nhaumue community interview's names (see annex 1/24/) made during the on-site visit.
Technical capacity to implement project activities is not maintained	Financial plan developed, technical specifications developed; project employees and Community Subcommittee participants are given ongoing technical training to expand local capacity	3	Validated by Project coordinators CVs (see annex 1/36/), PDD Technical specification in annex 7, PDD Financial plan in annex 16, Mangunde & Nhaumue permanent/temporary trainings activities and local employments list (see annex 1/29 & 30/), Mangunde & Nhaumue community interview's names (see annex 1/23/), Project technicians and nursery interviews (see annex 1/35/) and field observation made during - site the on visit.

3.19 Leakage

Two types of leakage risks have been identified, displaces grazing and displaces timber harvesting and charcoaling. Mitigations measures have been included in the PDD and the validation team deems that correct.

3.20 Double Counting

There is no other greenhouse gas emission reduction and removal projects, programmes or initiatives that overlap with the project areas or that would generate transferable emission reduction or removal credits from carbon pools or emission sources already included in the Kukumuty project.

In every annual report, the project coordinator will check emerging regulations that relate to trading carbon credits and REDD+ in Mozambique and state how compliance will be organized (if applicable).

Therefore, the validation team deems correct that no double counting is happening in the project area.

3.21 Key Agreements to validate

The validation team has assessed in this section, the management plans, benefit sharing mechanism, grievances and project agreeemets.

The Local government, Mangunde and Nhaumue local communities interviewed agreed that they were present and included on all land management plan stages. The management plan stages started since initial meetings which the Plan Vivo Maps were drawn on sandy ground by the community members and then copied on paper by the project field staff. It was done in a participatory and collaborative manner where members of the community were able to fact check and correct what was sketched by fellow community members and the paper drawings by the project team. Roughly 15 to 20 community members including the sagutas participated in the exercise for each village. The management plan was cross checked on PDD Annex 11.

The validation team found evidence by stakeholder interviews and agreement letter checked that benefit sharing mechanism from the sales of Plan Vivo Certificates were completed following a community consultation and coordinated by the Community Subcommittees. Payments are indirectly linked to environmental management performance and is allocated for investment in the associated community area. It is agreed that shared benefits will be used for investments in social or environmental activities that benefit the local community, preferably in line with future plans for the designated project areas which are developed by the communities themselves.

The correct land management plans have been developed by the project participants. The benefit sharing mechanism was developed and agreed with project participants on a certain social or environmental investment. Contract and direct payments will be made to tenders if applicable with standard contracting practice, allowing fair competition for contractors from the locality or surrounding region. All contracts are overseen by the project coordinators, who guarantee that at least 60% of the income from the sales of the certificates will directly benefit project participants and other local stakeholders. The distributions are transparently reported in the annual reports. Activities that do not require a contractor, e.g. firebreak maintenance, the Subcommittee are employing local community members directly to conduct the work, giving preference to people living adjacent to the intervention areas.

The percentage allocation of income from the sale of Plan Vivo Certificates to different stakeholders is at least 60% and will directly benefit project participants and other local stakeholders.

Any complaints and suggestions that are raised during community and subcommittee meetings or walks around the project areas are recorded by the project coordinator in a “complaints and suggestions logbook”. Note that these walks are conducted twice a year by members of the Subcommittee with representatives of the CGRN and the project team. In addition, walks are conducted when enrichment activities are being undertaken in the project. So, the grievances mechanism raised by all stakeholders are reported and resolved in a transparent, fair, and timely manner.

The logbook is regularly updated and scans are stored on the shared drive. Where possible, remediating actions – following complaints and suggestions – are taken. The project coordinators are responsible to organise extra consultation rounds, if required, and to implement remediation

actions. We refer to the project agreement for actions in case of dispute. The *régulo* of Mangunde will be responsible for mediating resolution of any grievances that cannot otherwise be resolved, as per community norm.

The project agreements process between project participants and the project coordinator follows FPIC principles. The minimum requirement is met in the agreements, specifical: is extendable to cover the entire crediting period, the minimum amount the project participant as part of benefit sharing mechanism is on agreement letter and eligible and met targets. The grievance mechanism and accessibility were mentioned by participants during interviews and on-site visit.

Therefore, the validation team has assessed this section reviewing the following this: The management plan on PDD Annex 11, complaints and suggestions logbook, an example of project agreement Annex 12 provides an example of a project agreement.

MONITORING AND REPORTING

Indicators

3.22 Carbon Indicators

The carbon indicators are 4 that are summarized in the below table:

The validation team considers correctly justified the carbon indicators for the project intervention.

Project Intervention	Carbon Indicator	Validation assessment
Ecosystem Restoration	C1: Number of Miombo seedlings planted across the ecosystem restoration areas	The validation team assessed this during the on site visit in the nurseries. This will be measured by pictures and registration of the tree seedlings by the project coordinator.
	C2: Survival rate of seedlings planted in the Miombo project areas	This will be monitored at the end of eaxch rainy season.
	C3: Above Ground Biomass and SOC conditions in the monitoring plots	The validation team assessed this against the excel spreadsheet AGB and SOC /62/
	C4: Miombo tree density	The validation team assessed this against the excel spreadsheet AGB and SOC /62/

3.23 Livelihood Indicators

During the interviews all participants agreed that the livelihood indicators were defined according to the concerns and questions raised by community members in the public meetings and focus group discussions. The livelihoods indicators that will be monitored for each project intervention is potential income generating activities from agroforestry including income from labour for firebreaks, mulching, seed collection, planting and swale building in project areas were of greatest interest. The

livelihoods indicators were cross checked by validation team through PDD monitoring plan review and interviews with project participants from local community, Subcommittees, Distrital government made during on-site visit.

According to the PDD monitoring plan cross checked, participants interviews, reports combined with field observations made during the on-site visit the validation team conclude that the livelihood indicators are correctly justified for the project activity.

Livelihood Indicator	**Validation Assessment**
Number of trees allocated for timber harvesting and charcoal making from agroforestry cultivation	PDD annex 7 Technical specification, Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/) and observation made during the site visit.
% female participation during the Subcommittee meetings per project area	PDD engagement mechanism, Attendance lists of April 2023 and May 2023 (see annex 1/6/), signed minute meetings (see annex 1/6/), photographs (on annex 1/5/), Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), Mangunde & Nhaumue permanent/temporary trainings activities and local employments list (see annex 1/29 & 30), Mangunde & Nhaumue community interview's names (see annex 1/23/), field observations and Mangunde & Nhaumue community interview's names (see annex 1/23/) made during the on-site visit.
Formal training in agroforestry and landscape water harvesting techniques	PDD annex 7 Technical specification, Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), photographic evidence, Mangunde & Nhaumue agroforestry trainings and employments list (see annex 1/31/), and field observations made during the site visit.
Metical spent on socioenvironmental reinvestments	Financial reporting cross checked included in Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/).
L5: Annual cash income generated from agroforestry activities	Project financial statements cross checked on Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/) and Mangunde & Nhaumue agroforestry trainings and employments list (see annex 1/31/).

3.24 Ecosystem Indicators

The ecosystem indicators that will be monitored during the project intervention was cross checked in the monitoring plan included on *Kukumuty* PDD and the four (4) project baseline report from June 2022 to October 2023 checked (. Data collect field procedure on the forest, data sheets form view, data base analyse and technical specification attached on PDD Annex 7 were also checked during the site visit.

The ecosystem indicators are correctly justified for the project intervention and is valid.

Ecosystem Indicator	Validation assessment
Native Miombo species planted Miombo plant richness, abundancy and Shannon-wiener diversity index Frequency of fire, timber harvesting and charcoal making in the miombo enrichment project areas. Fuelwood, wild fruits, medicinal plants	Details in PDD Annex 7 was used to validate the ecosystem indicators of the project intervention, Project Forest database (see annex 1/34/), Project baseline reports (see annex 1/ 38/, annex 1/39/ and annex 1/40/), observations/interviews made during the site visit.

Monitoring

3.25 Monitoring Plan, Process and Sharing results

The PDD have plans to monitor the progress of carbon, livelihood, and ecosystem indicators. The annual indicators or targets of the progress monitoring indicators are listed on monitoring plan. The targets are subdivided in three categories: full, partial and missed target. As rPVC project are issued based on the expected carbon benefits, annual progress reports will present activity-based indicators to determine whether the project activities are being carried out as needed to achieve the expected benefits. rPVCs will transform into vPVCs after every verification audit. The monitoring approaches, sample selection, frequency of assessment, groups or individuals responsible for monitoring, and resource and capacity requirements are full attached on PDD monitoring plan in annex 13.

The focus group sessions at the community meetings provided baseline data related to household needs, activities and income at a collective level. These were collectively determined and checked by open discussion within groups. These data will be used as baseline for assessing livelihood improvements during subsequent phases of the project. Every 5 years (at minimum), a full-scale carbon monitoring round will be organised to recalibrate the carbon benefit calculations. All livelihood indicators listed in Section 3.23 and ecosystem indicators listed in Section 3.24 will be monitored every 5 years or less during 30 years crediting period.

The sharing livelihood plan, ecosystem monitoring results with all stakeholders, feedback receiving mechanism on causes of any trends identified and their relationship to project activities, and adjusting project activities to address any issues identified are considered.

According to the PDD monitoring plan cross checked, participants interviews, reports combined with field observations made during the on-site visit the validation team conclude that the monitoring plan include and consider livelihood, Carbon and Ecosystem indicators and are in concordance with PV approved methodology and correctly justified for the project activity.

3.26 Reporting and record keeping

The project annual cycle runs from May to May. Project activities started on 1 May 2022. The project coordinator wants to submit draft Annual Reports by April of each calendar year.

All project data are stored on a shared project drive with limited access (Dropbox). The project data (technical data, financial data, monitoring data) are updated on the drive at least once per month.

The validation team deems correct that the correct annual reporting and record keeping will be made for the project interventions.

GOVERNANCE AND ADMINISTRATION

3.27 Governance Structure and Legal Compliance

Project Governance is structured through the Community Subcommittees comprising individuals or household representatives from the Mangunde and Nhaumue communities where the project areas are located. The Community Subcommittees include also ex-officio members from the CGRN and from Azada Verde as representative of the Project Coordinators (cross checked on PDD Annex 2 combined with focal group interviews). The Community Subcommittees is represented by key stakeholders of the project, including the Regulado, CGRN, participating communities and individuals and families of those communities, and Azada Verde (acting as the lead partner of the overall Kukumuty Project).

Each participating community (Mangunde and Nhaumue) form its own subcommittee to oversee and govern project activities on designated community lands. Each committee have up to 15 members including one representative from Azada Verde, two representatives from the CGRN were women comprise at least 40% of the community subcommittee membership.

The Community Subcommittee (SC) is responsible for working with the Project team to ensure legitimate decision-making, equitable participation in implementation and benefit sharing in the project activities. Each SC supervise the miombo enrichment activities in the project areas and the agroforestry activities in the areas allocated by the Chefes of both communities (Mangunde and Nhaumue) and new committees for new community project areas is doing the same (with the input of the Mangunde Régulado).

The agroforestry working group for each community include additional members from the community through an open and transparent consultation process. Each SC do at least three meetings annually (once every four months) to discuss matters related to the project. It liaises with the Kukumuty Project Team to determine seasonal labour needs for creating firebreaks, mulching, building swales, tree planting. The seasonal labour needs for agroforestry activities are determined between the Project Team, SCs and their respective working groups. It was agreed that two members of the agroforestry systems working group participate in the Subcommittees. One member has to be from the agricultural association and other from outside of the agricultural association.

The Subcommittees address grievances and dispute resolution according to the rules set out in the Statutes for Community Subcommittees (cross checked on PDD Annex 17).

According to the assessed letter of approval from the authorities, which states that the project does not violate any national or regional laws or regulation. The project partners signed an ethical charter not to discriminate based on gender, age, ethnicity, religion or social status when selecting project participants or employing staff members. Applicable labour laws are always adhered to – these also forbid all forms of discrimination.

Community Subcommittees (SCs) ended and ensure that stakeholder participation is embedded in the design phase consultations at the very beginning of the project. The SCs create opportunities for project participants to build capacity and gain experience in Miombo enrichment and agroforestry practices Each SC ensure proper representation of different groups and 50% or more representation and participation of women in all meetings and decision-making processes (cross checked on PDD Engagement mechanism combined by focal group interviews and observation).

According to the PDD Annex 2 and Annex 17 cross checked, focal group participants interviews, reports review combined with field observations made during the on-site visit the validation team

conclude that the compliance with national and international laws and regulations are correctly justified for the project intervention.

Table 11: Legal and Regulatory Compliance

Policy, Law or Regulation	Relevance	Validation Assessment
2013-2025 National Strategy for Climate Change (ENMC)	The National Climate Change Strategy aims to reduce vulnerability to climate change and improve the living conditions of the Mozambican people. It proposes climate change adaptation and disaster risk reduction measures and also focuses on mitigation by targeting low carbon development. The ENMC is structured around three core themes: (i) adaptation and climate risk management; (ii) mitigation and low carbon development (iii) cross cutting issues. These include institutional and legal reform for climate change, research on climate change, and training and technology transfer. Covering the period 2013-2025, the implementation of the ENMC is planned in three phases. The first phases focus on improving the response of local communities to climate change, reducing poverty, planning adaptation measures, as well as identifying opportunities for the development of low-carbon economy in local communities. The Strategy also proposes the establishment of a Centre of Knowledge on Climate Change (CGC) within the Ministry of Science and Technology. The primary objective of the centre should be to collect, manage and disseminate scientific knowledge on climate change, providing crucial information for the development of policies and plans.	-Validated by 2013-2025 National Strategy for Climate Change (ENMC) attached on annex 1/52/, REDD+ Letter of approval from the authorities (see annex 1/27/), National Land & Environmental law (see annex 1/42/) and Project and Manica High Polytechnic Institute (ISPM) and Research Centre agreements (see annex 1/37/).

National Environ- mental Policy (03/ 08/ 1995)	The National Environmental Policy was adopted by the Council of Ministers as a part of the implementation of the Five-Year Government Plan (1995- 1999). The Policy provides guidance for the establishment of national environment plans and legislations, aiming at conciliating development with environment protection. Under this broad scope, the 1995 National Policy proposes a set of activities in the short and long term in the field of the environment. The Policy suggests the adoption of an Environment Law and regulations, followed by the creation of a Ministry for Coordination of Environmental Action, and an Environmental Monitoring Centre. The Policy acts on the following issues: marine and coastal area protection; engagement of the private sector in environmental management; development of databases and research activities; investments in environmental education projects; the engagement of civil society with environmental protection; waste management; and international cooperation.	- Validated by National Land & Environmental law (see annex 1/42/).
Decree No. 6/2016 creating the National Fund for Sustainable Develop- ment (FNDS) (24/ 03/ 2016)	The decree creates the National Fund for Sustainable Development (FNDS) which aims to promote and finance programmes and projects that ensure sustainable, harmonious and inclusive development. Main objectives include: (i) mobilising financial resources in actions leading to sustainable development, (ii) promote and support	- Validated by National Fund for Sustainable Development (FNDS) Decree No. 6/2016 (see annex 1/53/).

	strategies, programs and projects that contribute to rural development, (iii)promote scientific research programs and actions in the field of sustainable development, (iv) fund programs for environmental adaptation and mitigation of climate change, sustainable management of forests, conservation of biodiversity, land administration and land use planning, (v) finance programs for transferring technologies that contribute to sustainable development in rural areas, (vi) carry out investment projects and financial applications that promote sustainable development, (vii) create and participate in the capital of companies or institutions whose object competes for integrated and sustainable development, (viii) finance institutional development activities.	
Mozambique NDC operatio- nalization plan for 2020-2025	This plan was approved by the Council of Ministers at its 38th Session, held on 11 December 2018. It has identified Mozambique's updated NDC, however no further documentation is available.	- Validated by Mozambique NDC operationalization plan for 2020-2025 (see annex 1/54/).
Green Economy Action Plan	his plan notably seeks to favour low-carbon growth in the country, and to increase resilience to adverse effects of climate change in a number of sectors, including agriculture, transport and infrastructure.	- Validated by Green Economy Action Plan 2020 – 2030 (see annex 1/55/).
Governmental five- year program	This document notably aims to increase the resilience of the country's infrastructure and population to adverse effects of climate change.	- Validated by Governmental five- year program (2019 – 2024) attached on annex 1/56/.
National develop- ment strategy 2015-2035	This document notably identifies climate change as a purveyor of disasters and thus	- Validated by National development strategy 2015-2035 (see annex 1/57/).

	a major risk for the long term resilience of a range of sectors including agriculture, infrastructure and energy supply. It also aims to develop alternative sources of energy.	
Decree No. 23/2018	This Decree approves the Regulation for the Implementation of Projects to Reduce Emissions from Deforestation and Forest Degradation, Conservation and Increase of Carbon Reserves (REDD+ Regulation). It aims to regulate, define principles and standards for the implementation of the above mentioned Programmes and Projects, defining the institutional framework and competencies. This Regulation applies to REDD+ Programmes and Projects to be implemented in any area of the national territory. The legitimacy and ownership of the State in the creation, generation, emission, validation, verification and withdrawal of emission reductions and corresponding titles must be respected. The compatibility of REDD+ activities with the conservation of natural environments, biological diversity and scientific research that support the sustainable use of forest resources, must also be respected. The purpose of this Regulation is to: (i) Define rules for REDD+ Programmes and Projects in the national territory; (ii) promote the conservation and restoration of degraded natural ecosystems and enhance their ecosystem and environmental services; (iii) Define rules for generation,	- Validated by REDD+ Regulation Decree No. 23/2018 (see annex 1/58/).

	transfer, transaction and withdrawal of emission reduction titles; (iv) Ensure the monitoring and transparency of information on REDD+ emissions and removals at the national, provincial and district levels; (v) Promote the adoption of good practices in sustainable forest management.	

3.28 Financial Plan and Management

The validation team assessed annex 16/19/ where it is described the detailed project costs, investment, operational costs, personal cost, administrative costs, and project revenues of the project.

During the on site visit, it was checked that once the Community Subcommittee agrees on a certain social or environmental investment it will provide a budget estimate and call for tenders.

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 /63/.

Vandelanotte performs an annual audit and submits the annual accounts to the Belgian national bank.

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 “Kurarama Kuthemba Muty (“Kukumuty”): Community-led Miombo enrichment and agroforestry in Sofala, Mozambique ” 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 “IE” 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

- 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.

17/05/2024

Elena Llorente

Annexes

Annex 1 – Documents reviewed or referenced

No.	Author	Title and version	Provider
1	Consultancy firm	PDD Annex 1. Project Boundaries (Geospatial data files)	KKMT
2	Mozambique government	PDD annex 15. Community DUAT	KKMT, Mangunde and Nhaumue association
3	Consultancy firm	PDD Annex 2 – Project coordinator´s Registration Certificate and Partner Agreements	KKMT
4	CL	Annex 6. Carbon benefit spreadsheet	KKMT
5	Azada Verde Staff	Photographs	KKMT
6	Azada Verde Staff	Attendance lists of April 2023 and May 2023	KKMT
7	Azada Verde Staff	Initial Project Signed meeting minutes	KKMT
8	Azada Verde, Mangunde and Nhaumue association	PDD annex 12. Project Agreements (Mangunde and Nhaumue agreements)	KKMT, Mangunde and Nhaumue association
9	CL	PDD Annex 3 – Initial Project Areas	KKMT
10	CL	PDD Annex 4 –Participatory Design	KKMT
11	CL	PDD Annex 5 – Initial FPIC (one)	KKMT
12	CL	PDD Annex 7 – Project technical Specifications	KKMT
13	CL	PDD Annex 8 – Exclusion List	KKMT
14	CL	PDD Annex 9- Environmental and Social Screening Report	KKMT
15	CL	PDD Annex 10 – Environmental and Social Assessment Report	KKMT

16	CL	PDD Annex 11 – Land Management Plans	KKMT
17	CL	PDD Annex 13 – Monitoring Plan	KKMT
18	CL	PDD Annex 15 – Letter of Approval	KKMT
19	CL	PDD Annex 16 – Financial Plan	KKMT
20	CL	Annex 17. Project structure	KKMT
22	Eco-visão	Community meeting minute names and Local government names from Abril & November 2023	Azada Verde
23	Eco-visão	Mangunde & Nhaumue community interview's names	Azada Verde
24	Eco-visão	Local community leader's names	Azada Verde
25	Azada Verde	Stakeholder grievance procedure version 1	KKMT
26	CL	Benefit sharing mechanism procedure version 1 (cross checked on PDD and two local agreements (Mangunde & Nhaumue association)	KKMT, Mangunde and Nhaumue association
27	REDD+ Moz	REDD$^+$ Letter of approval from 2022	Azada Verde
28	Distrital government	Chibabava local government report	Chibabava Distrital government
29	Azada Verde	Mangunde 1 permanent training activity and local & temporary employments lists	KKMT
30	Azada Verde	Nhaumue 1 permanent training activity and local & temporary employments lists	KKMT
31	Azada Verde	Mangunde & Nhaumue agroforestry 2 trainings and employments list	KKMT
32	Ribeiro et al. (2020)	Classification of Southern African woodlands	KKMT
33	MAE 2005	Chibabava Distrital Profile report	Chibabava Distrital Government
34	Azada Verde	Project forest biomass database	KKMT
35	Eco-visão	Project report from June to October 2023	KKMT
36	KKMT	Project coordinators CVs	KKMT
37	Azada Verde	Project and Manica High Polytechnic Institute (ISPM) and Research Centre agreements	KKMT

38	Azada Verde	Project report from June to October 2022	KKMT
39	Azada Verde	Project report from February to June 2023	KKMT
40	Azada Verde	Project report from November to December 2023	KKMT
41	Azada Verde	Azada Verde and local CGRN understanding memorandum.	KKMT
42	Govern of Mozambique	National Land & Environmental law	Sofala Environmental Services
43	Govern of Mozambique	National Institute of Disaster Management (INGD) report from 2016 – 2019	Sofala INGD department
44	Govern of Mozambique	National Institute of Disaster Management (INGD) report from 2020 – 2023	Sofala INGD department
45	Azada Verde	Project staff and experts CVs	KKMT
46	Darbyshire et al. (2019)	The endemic plants of Mozambique: diversity and conservation status	Eco-visão
47	Odorico et al. (2022)	An updated checklist of Mozambique's vascular plants	Eco-visão
48	Eco-visão	Chibabava District government members interview	Azada Verde
49	Ryan et al. (2016)	Ecosystem services from southern African woodlands and their future under global change	Eco-visão
50	Ribeiro et al. (2019)	Mapping Fire Regimes in the Miombo Woodlands of the Beira Corridor, Central Mozambique	Eco-visão
51	Williams et al. (2008)	Carbon sequestration and biodiversity of re-growing miombo woodlands in Mozambique	Eco-visão
52	Govern of Mozambique	2013-2025 National Strategy for Climate Change (ENMC)	KKMT
53	Govern of Mozambique	National Fund for Sustainable Development (FNDS) Decree No. 6/2016	KKMT
54	Govern of Mozambique	Mozambique NDC operationalization plan for 2020-2025	KKMT
55	Govern of Mozambique	Green Economy Action Plan 2020 – 2030	KKMT
56	Govern of Mozambique	Governmental five- year program (2019 – 2024)	KKMT
57	Govern of Mozambique	National development strategy 2015-2035	KKMT
58	Govern of Mozambique	REDD+ Regulation Decree No. 23/2018	KKMT
59	Azada Verde	First employee contract, 01/05/2022	CL
60	District of Chibabava	Confirmation letter from the district to the number of nurseries	CL
61	Flemish Minister Environment	Confirmation letter from Flemish Minister of Environment	CL

62	KKMT	Excel spreadsheet of AGB and soil plot data surveys	CL
63	KKMT	Agreement between Vandelanotte and Climate lab	CL

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

Table 1. NIRs from this validation

NIR ID	1	**Section no.**	1.9	**Date:** 13/11/2023
Description of NIR				
NIR- A physical grievance Mechanism shall be provided for project participator (Committee and subcommittee) related to good communication (information in advance about certain planning with the community or Local Government).				
Project participant response				**Date:** 25/01/2024
Thank you. We send a physical example via email.				
Documentation provided by project participant				
Physical grievance Mechanism provided via email				
IE/PV assessment				**Date:** 29/01/2024
The IE has reviewed the evidence provided and considered that everything is resolved, therefore NIR is closed.				

Table 2. CARs from this validation

CAR ID	1	**Section no.**	1.9	**Date:** 13/11/2023
Description of CAR				
CAR 1- The technical planting specifications should be improved, for instance clarify aspects related to the level of tolerance of each species in adaptation whether in streamlines, termite mounds, river banks, rocky locations, low and high areas to allocate the species in the project area accordingly.				
Project participant response				**Date:** 25/01/2024
In the technical specifications (Annex 7 to the PDD), we added a new table (as Table A7.3) that details the tolerance to local conditions: preferential zones for planting.				
Documentation provided by project participant				
New table (Table A7.3) added in Annex 7 to the PDD				
IE/PV assessment				**Date:** 29/01/2024
Annex 7 of the PDD has been improved, so this CAR it is resolved.				

CAR ID	2	Section no.	1.9	Date: 13/11/2023
Description of CAR				
CAR 2- The selection of the species considered endemic to the region shall be a priority in the reforestation process, as well as in the multiplication of other species with the benefit of non-timber products that occur naturally in the project area; Ensure that non-native Miombo plants that have ecological adaptability occur in evergreen forest, such as Erythrophleum suaveolens and Khaya anthotheca.				
Project participant response				**Date:** 25/01/2024
We added *Millettia mossambicensis* as a key target specie for future planting in Table A7.3. of technical specifications. Also, under Table 3.9.5 of the PDD, we now added the following note: "During the first project year, when performing a first Miombo planting trial, the project planted a few *Erythrophleum suaveolens* and *Khaya anthotheca* seedlings derived from the Mozembite nursery. *Erythrophleum suaveolens* is native to Mozambique and *Khaya anthotheca* is naturalized, but these species are not very well adapted to the Miombo conditions of Sofala. The project will not plant these species again."				
Documentation provided by project participant				
New table (Table A7.3) added in Annex 7 to the PDD				
IE/PV assessment				**Date:** 29/01/2024
Annex 7 of the PDD has been improved, so this CAR it is resolved.				

CAR ID	3	Section no.	1.9	Date: 13/11/2023
Description of CAR				
CAR 3- Fire break time verification and planting of seedlings should be improved taking into account the period of burning in the region and the rainfall period (planting in the first rains to maximize the plant survival rate and adaptation).				
Project participant response				**Date:** 25/01/2024
We will create the firebreaks at least 1 month before the fires and perform planting during the first rains. We clarified and safeguarded this under Activity 2.3 in Table 3.5 of the newest version of the PDD: "Establish firebreaks (minimum 10m wide) at project sites, with community members, and at least 1 month before the start of the fire season". And as Activity 3.4: "Enrichment planting in project areas, during the first rainy months to maximize the plant survival rate and adaptation".				
Documentation provided by project participant				
Table 3.5 of the newest version of the PDD				
IE/PV assessment				**Date:** 29/01/2024
Annex 7 of the PDD has been improved, so this CAR it is resolved.				

CAR ID	4	Section no.	1.9	Date: 13/11/2023
Description of CAR				
CAR 4- The PDD needs to be improved in relation to the size of fire break and made a better fire experimental plots to active natural regeneration for miombo				
Project participant response				**Date:** 25/01/2024
We will widen all firebreaks to 10m and start experimenting in experimental fire plots. We clarified and safeguarded this under Activity 2.3 in Table 3.5 of the newest version of the PDD: "Establish firebreaks (minimum 10m wide) at project sites, with community members, and at least 1 month before the start of the fire season". In the same Table, under Output 2, we also added a new risk and assumption: R9: Banning all fire would not be smart since fire is an integral part of the ecological integrity and ecosystem function of miombo woodlands. A9: The project is therefore not 'anti-fire' but rather about managing the occurrence and frequency of uncontrolled fires in the project areas. According to Ribeiro et al. (2021), an (alternatingly cold and hot) fire return interval of ~3 (to 5 years) is beneficial for the Miombo ecosystem. Community-based management will establish mulching zones and fire breaks to protect and enrich project areas from uncontrolled annual fires. The project establishes fire experimental plots to gain detailed understanding of the effect of fire frequency and intensity on biomass.				
Documentation provided by project participant				
Table 3.5 of the newest version of the PDD				
IE/PV assessment				**Date:** 29/01/2024
Table 3.5 of the PDD has been improved, so this CAR it is resolved.				

Table 3. FARs from this validation

FAR ID	01	Section no.	1.10	Date: 14/03/2024
Description of FAR				
FAR 1-The new MoU should be signed when it becomes available.				
Project participant response				**Date:** xx/xx/xxx
N/A				
Documentation provided by project participant				
N/A				
IE/PV assessment				**Date:** xx/xx/xxx
N/A				

FAR ID	01	**Section no.**	1.10	**Date:** 14/03/2024
Description of FAR				
FAR 2- The approach for E&S Safeguards needs to be updated in the next verification.				
Project participant response				**Date:** xx/xx/xxx
N/A				
Documentation provided by project participant				
N/A				
IE/PV assessment				**Date:** xx/xx/xxx
N/A				