

Nakau Conservation Programme Solomon Islands

SIPORAE FOREST CARBON PROJECT BABATANA REGION, CHOISEUL PROVINCE, SOLOMON ISLANDS

PROJECT DESIGN DOCUMENT PART A (PROJECT-SPECIFIC INFORMATION)

Version 1.2
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Overview

Project title:	Siporae Forest Carbon Project
Location:	Babatana Region, South-West Choiseul, Choiseul Province, Solomon Islands
PDD Version:	Version 1.2
Programme operator:	Nakau (The Nakau Programme Pty Ltd) Mr Robbie Henderson robbie.henderson@nakau.org
Project coordinator:	Natural Resources Development Foundation (NRDF) Mr Fred Tabepuda nrdf@solomon.com.sb
Validator:	Mutu International PT Mutuagung Lestari Tbk lvvservices@mutucertification.com
Validation date:	27/01/2026
Project intervention(s):	Avoidance of commercial logging activities and legal forest protection in the project area.
Project participants:	Siporae tribal group
Project area:	Siporae project area: 666 hectares Siporae eligible forest area: 647.2 hectares
Project period:	30 years (1 January 2019 – 31 December 2048)
Carbon Methodology:	Nakau approved approach
Expected carbon benefit:	Annual PVCs: 9,847 t CO ₂ e
Expected ecosystem benefit:	Biodiversity protection, maintenance of healthy hydrological system, climate change resilience through reduced impact of extreme weather events.
Expected livelihood benefit:	Increased financial capital available for investment into activities that directly or indirectly support livelihoods. Improved community governance, community development outcomes, job creation, and empowerment of women and girls.

Siporae Project Design Document (PDD) Contents

Section ID	Section heading	Siporae PDD Part A	Siporae PDD Part B
1	General information		
1.1	Project interventions	✘	✓
1.2	Management rights	✓	✓
2	Stakeholder engagement		
2.1	Stakeholder analysis	✓	✓
2.2	Project coordination and management	✓	✓
2.3	Project participants	✓	✓
2.4	Participatory design	✓	✓
2.5	Stakeholder consultation	✓	✘
2.6	Free, prior and informed consent (FPIC)	✓	✓
3	Project design		
3.1	Baseline scenario	✓	✘
3.2	Carbon baseline	✓	✘
3.3	Livelihood baseline	✓	✓
3.4	Ecosystem baseline	✓	✓
	Theory of change		
3.5	Project logic	✘	✓
3.5.1	Outputs and results	✓	✓
	Technical specification		
3.6	Project activities (technical)	✘	✓
3.7	Additionality	✓	✘
3.8	Carbon benefits	✓	✘
3.9	Environmental and social safeguards		
3.9.1	Exclusion list	✓	✘
3.9.2	Environmental and Social Screening	✓	✘
3.9.3	Environmental and Social Assessment	✘	✓
3.9.4	Environmental and Social Management Plan	✓	✘
3.9.5	Native Species	✓	✘
3.10	Achievement of carbon benefits	✓	✘
3.11	Reversal of carbon benefits	✘	✓
3.12	Leakage	✓	✓
3.13	Double counting	✘	✓
3.14	Land management plans	✓	✓
3.15	Crediting period	✘	✓
3.16	Benefit-sharing mechanism	✓	✓
3.17	Grievance mechanism	✓	✓
3.18	Project agreements	✘	✓
4	Monitoring and reporting		
4.1	Progress indicators	✓	✘
4.2	Carbon indicators	✓	✘
4.3	Livelihood indicators	✓	✘
4.4	Ecosystem indicators	✓	✘
4.5	Monitoring plan	✓	✓
4.6	Progress monitoring	✓	✘

Section ID	Section heading	Siporae PDD Part A	Siporae PDD Part B
4.7	Carbon monitoring	✓	*
4.8	Livelihood and ecosystem monitoring	✓	✓
4.9	Annual report	✓	✓
4.10	Record keeping	*	✓
5	Governance and administration		
5.1	Project governance structure	✓	✓
5.2	Equal opportunities	✓	✓
5.3	Legal and regulatory compliance	*	✓
5.4	Financial plan	*	✓
5.5	Financial management	*	✓

1 General information

1.1 Project interventions

The project activity (intervention) in Siporae is avoided commercial logging and legal forest protection. Table 1.1 in the Siporae PDD Part B describes the expected impacts on emissions and livelihood benefits that are common to all Nakau projects implementing this intervention.

1.2 Management rights

1.2.1 Project boundaries

The Siporae project area lies within the Babatana region of Southern Choiseul Province.

The Siporae tribe is the second landowner group to declare their land a protected area under the Protected Areas Act 2010 and establish a forest carbon project under the Nakau Programme. Siporae land was registered as a legal protected area on the 19 October 2019 (see PDD Annex 2 - item 1.6) with the intention of establishing a forest carbon project to support community development.

To develop the forest carbon project, the Siporae Tribal Association have signed a Forest Carbon Project Development Agreement with the Natural Resources Development Foundation (NRDF) (see PDD Annex 2– item 2.2).

The map in **Error! Reference source not found.** shows the location of the tribal lands and settlements near the Siporae project area in central Choiseul. The map in Figure 1.2.2 shows the boundary of the Siporae tribal land that has been declared a protected area. The Siporae tribal area and project is located at longitude E 156° 79' 50" and latitude S 07°03' 65" and covers 666 hectares. All the tribal land has been included in the protected area, therefore the protected area boundary follows the tribal boundary of the Siporae Tribe. The eligible forest area for the forest carbon project excludes areas reserve for gardening and measures 647.2 hectares. The spatial files of the Siporae project are provided in PDD Annex 1.

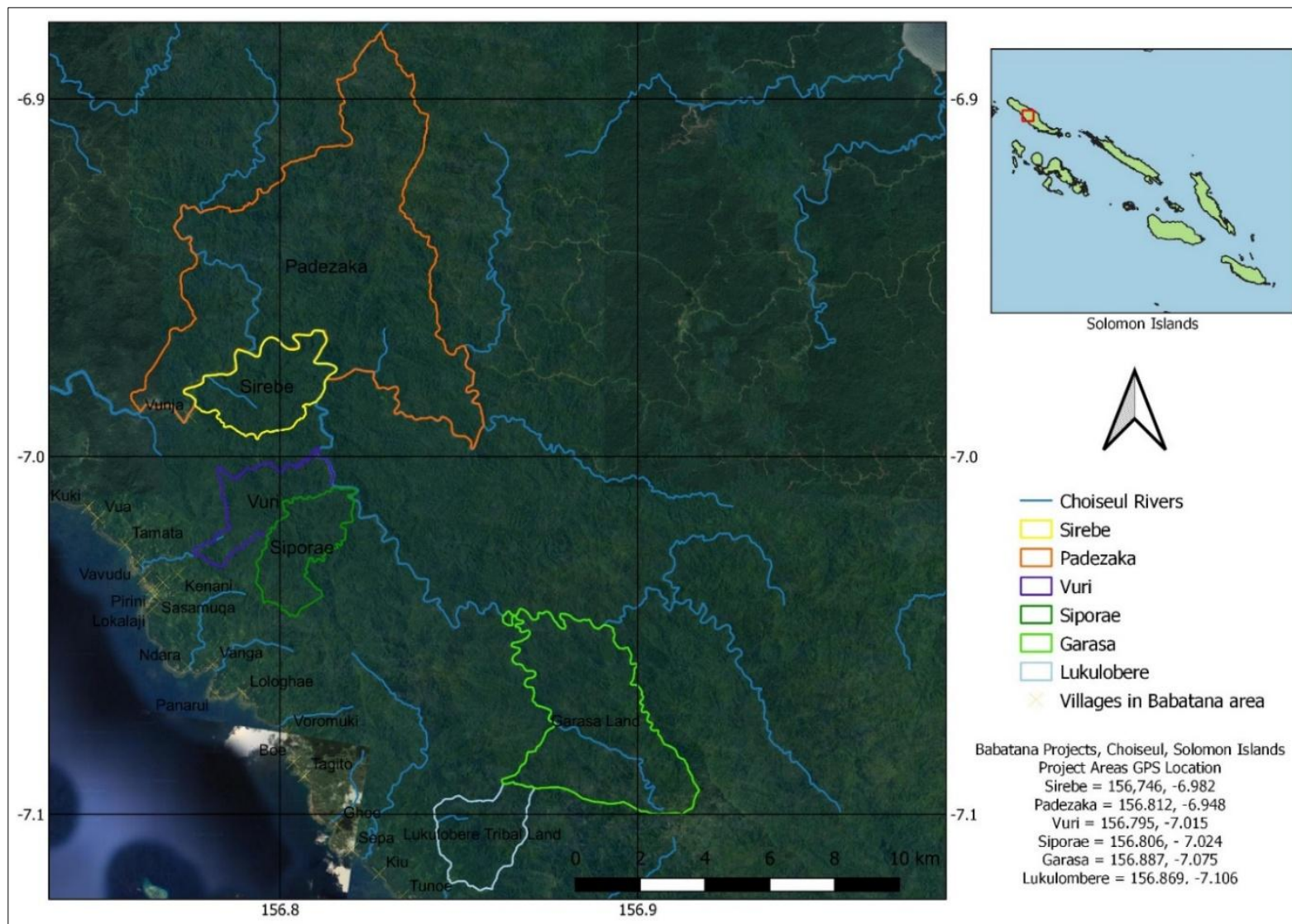


Figure 1.2.1: Project area boundaries within Babatana, and their locations to settlements and populations along the coast

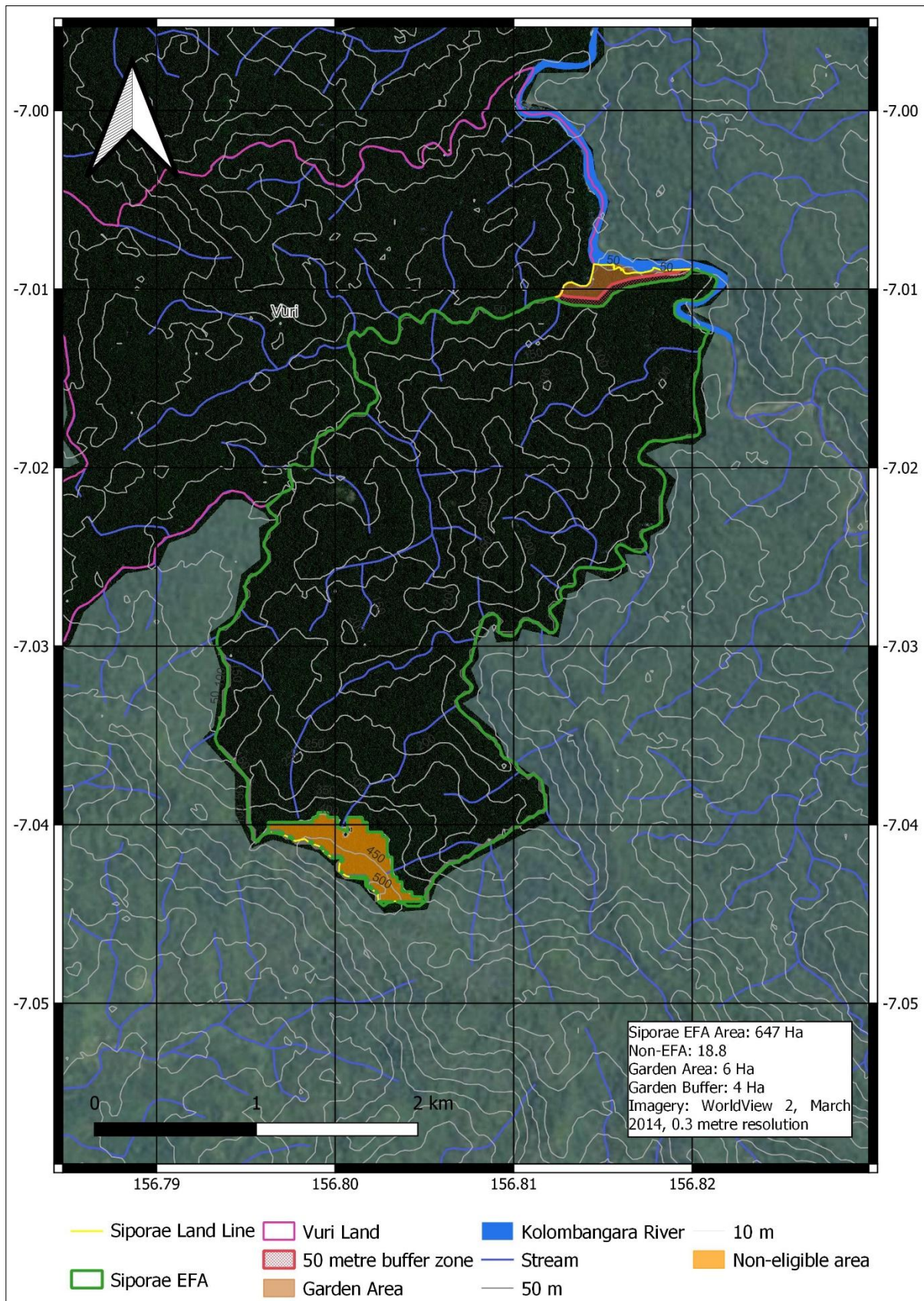


Figure 1.2.2: Location and boundary of Siporae protected area and eligible forest area

1.2.2 Land and carbon rights

Refer to Siporae PDD Part B, section 1.2.2 for an overview of land and carbon rights in the Solomon Islands.

The Siporae project is on customary land which is communally owned by the Siporae tribe. Project beneficiaries have demonstrated clear and secure land ownership rights through genealogy research that was done together with the Luru Land Conference of Tribal Communities (LLCTC), a registered organisation representing all tribes within the Choiseul Province in 2015. In the process, all individual landowners from the Siporae tribe were identified and registered as the true and rightful landowners (see Annex 4, item 4.2). According to Solomon Islands custom, the landowners also own all the rights of the forest and forest resources on the land.

The Siporae tribe has declared all its tribal land a protected area under the Protected Area Act 2010 (with the intent to develop a forest carbon project under the Nakau Programme).

As part of the protected area process, Siporae and neighbouring tribal land boundaries have been surveyed and confirmed by the LLCTC (Figure 1.2.1). Neighbouring tribes of Siporae have signed a Memorandum of Understanding (MoU) in which they formally agree to the land boundaries on the maps presented and to the declaration of the area as a protected area under the Protected Areas Act 2010 (see PDD Annex 5– item 3.2).

Table 1.2.2. Land and carbon rights in the Siporae project

Project area	Ownership and user rights status	Carbon rights	Evidence
Siporae customary land	Customary land	Tribe has proven ownership rights to the forest and, by implication, also the carbon rights.	LLCTC Letter (see PDD Annex 5– item 3.3) MoU with Siporae neighbouring tribes (see Annex 5– item 3.2)

2 Stakeholder engagement

2.1 Stakeholder analysis

2.1.1 Stakeholder identification

Stakeholders specific to the Siporae project are identified in the table below

Table 2.1.1: Stakeholder groups in the Siporae project

Stakeholder group	Description	Stakeholder type	How impacted	Influence	Engagement
Siporae customary landowners (project owner)	The Siporae customary landowners are the traditional, indigenous landowners of Siporae tribal land and the owners of the forest carbon project.	Local	Positively impacted through community development, improved livelihoods, increased resilience to climate change and conservation of native forest habitats and ecosystem services	Project owner and primary decision maker on project governance High Influence	Project owner is engaged through close collaboration and consultation with project coordinator and project operator during all phases of project development and implementation
Neighbouring customary landowners	Kumaka, Batongoa and Sikipozo tribes	Local	Positively impacted through clarification of land rights (boundaries) and spill-over from community level benefit-sharing. Low impact.	Possible negative influence if they were to contest land rights or boundaries. However, these must be settled prior to protected area (PA) declaration. High influence.	Invited to join PA consultation meetings to determine land boundaries as well as receive information on protected areas and the possible impacts that these will have on them. When the land boundaries are agreed to, the neighbouring communities sign a MoU with the project participants. MoUs have been signed between the Siporae tribe and the neighbouring Kumaka, Batongoa and Sikipozo tribes that confirm the agreement on the Siporae project area boundaries (see PDD Annex 5– item 3.2).. This process is a regulatory requirement to establish a protected area.

Stakeholder group	Description	Stakeholder type	How impacted	Influence	Engagement
Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM)	<p>The MECDM regulates the PA process. Through the PA, it vests legal rights into the community forest rangers.</p> <p>Regulates development consent for the issuance of felling/milling licenses.</p> <p>National Designation Authority overseeing participation in the Green Climate Fund financing mechanism.</p> <p>Lead agency in addressing Solomon Islands' obligations as a Party to the UNFCCC, including responsibility for the NDC.</p>	Secondary	<p>Positively impacted</p> <p>Projects will contribute to MECDM goals for protected areas that are otherwise not being achieved.</p> <p>Project may increase MECDM capacity and expertise in carbon markets for impact on policy formulation.</p> <p>Projects could positively contribute to emission reduction targets from the forest sector once these are formulated in the nationally determined contributions (NDCs)</p> <p>Medium impact.</p>	<p>Positive influence</p> <p>Responsible for declaration of protected areas and regulation of PA rules.</p> <p>Potential positive or negative influence: Influence on Solomon Islands carbon market strategies and policy.</p> <p>High influence.</p>	<p>Close collaboration on PA application process.</p> <p>Nakau engages regularly with MECDM on policy issues, including with the Permanent Secretary.</p> <p>The MECDM has formally endorsed the institution of the Siporae protected area through the protected area certificate (see PDD Annex 2- item 1.6).</p>

Stakeholder group	Description	Stakeholder type	How impacted	Influence	Engagement
Ministry of Forestry and Research (MOFR)	The MOFR regulates logging activities and concessions (e.g. issuance of felling/milling licenses) and needs to be consulted in the PA process regarding potential overlap of the PA boundary with areas under logging licenses.	Secondary	Negative and positive impact The establishment of Protected Areas and forest carbon projects reduce the forest area available for logging and associated government revenue and therefore represent a conflict with the interests of the MoFR. At the same, the MOFR is the national authority responsible for the programme to reduce emissions from deforestation and forest degradations (REDD+), to which the carbon projects could contribute. Low impacts due to the small size of the forest carbon projects	Potential positive or negative influence Positive: Could help to enforce regulations to reduce encroachment of logging / illegal logging . Negative: Could oppose PA process in lowland forest. Positive or negative: Influence on Solomon Islands carbon market strategies and policy. Moderate influence.	During the PA process, MOFR is consulted on any potential overlap between the Siporae PA area and logging concessions. Nakau engages regularly with MoFR on forest sector policy and governance issues, through participation in forest sector working groups. MoFR expertise utilised to support project field work (e.g. government botanist, REDD+ officers).
Ministry of Mines, Energy and Rural Electrification (MMERE)	The MMERE regulates mining activities and needs to be consulted in the PA process regarding potential overlap between the PA boundary and mining tenements	Secondary	Negative, due to the legal prohibition of mining activities in PA areas. Low impacts due to the small size of the forest carbon projects	Potentially negative: Could oppose PA process in areas with mining potential.	Limited engagement, mainly during PA consultation.
Choiseul Provincial governments	The Choiseul Provincial Government provides provincial government services; administers provincial budgets (e.g. infrastructure projects). Regulates through provincial ordinances. Has a role in determining timber rights acquisition under the under the <i>Forest Resources and Timber Utilisation (Amendment) Act 2000</i> .	Secondary	Positively impacted Contributes to provincial economy and development. Avoids ecosystem destruction and social impacts of logging Moderate impact.	Positive influence Can assist to build trust with communities; can support project replication; can partner on livelihood initiatives. Low influence.	The Choiseul provincial government attended protected area consultation meetings and provided support letters for the protected area process. The Provincial Land Division confirmed land boundaries (shape files and maps) of proposed protected areas.

Stakeholder group	Description	Stakeholder type	How impacted	Influence	Engagement
Project donors and partners	Nakau and project partners rely on donor funding to develop PES projects. The Siporae project was developed with funding from Bread for the World, Critical Ecosystem Partnership Fund and the New Zealand MFAT Carbon Financed Forest Conservation Project (CFFCP).	Secondary	Positive- without donor funding, Nakau and project coordinators could not operate. High impact	Highly positive influence on communities and forest ecosystems through funding of PES activities.	Donors are engaged in project activities through regular coordination meetings, provision of progress reports and site visits.
Logging companies	Mostly foreign-owned logging companies that operate under felling licenses issued by the MOFR and practice unsustainable, highly damaging commercial logging.	Secondary	Negatively impacted through loss of logging activity in forest conservation area	Negative influence, logging companies have been known to manipulate community leaders and cause disagreements and conflicts within communities. This in turn can lead to disruptions in forest conservation efforts. Logging companies have been known to encroach into and illegally extract trees in conservation areas causing environmental damage and potential reversals of carbon credits	Nakau does not directly engage with logging companies but supports project owners in their efforts to protect their forests from logging interests and potential violations of PA regulations

2.1.2 Indigenous Peoples and local communities

The project owners in the Siporae project are Indigenous customary landowners that hold the customary rights as described in section 2.1.2 of the Siporae PDD Part B.

Participants in the Siporae project hold the customary rights over Siporae land and resources. In Choiseul’s patrilineal society it is traditionally men who make the decisions over land. Women belonging to Siporae tribe (by birth) have full land-use rights but under custom need to seek approval from male tribal leaders when planning any developments on the land. These can be relatives or the tribal chief. People who become part of the tribe (for example, through marriage) have access to the land and the use of its resources but don’t have customary landowner rights. Children born to at least one Siporae tribal member inherit Siporae customary rights.

Table 2.1.2: Customary landowners in the Siporae project

Customary landowners	Rights to land or resources in the project area(s)	Governance structure and decision-making processes	Involvement of women and marginalised groups
Siporae Tribe	Members of the Siporae Tribe have the customary rights to their land and resources. The rights-holders have been confirmed through a genealogy study carried out with support from the LLCTC.	Siporae Tribe has established the Siporae Tribal Association (STA) registered under the Charitable Trust Act. The STA legally represents all tribal members and is the overarching governance and decision-making body for the Siporae project. In practice, the tribal chief(s) makes decisions over land and land use in consultation with the tribal members.	Women are seated in committees as members or executives in the Siporae Tribe’s governance structure.

2.1.3 Disputes over land or resources

For an overview of disputes over land and resources in the Solomon Islands, refer to section 2.1.3 in the Siporae PDD Part B. .

During the development of the Siporae project, there are no internal or external disputes over land boundaries and project areas. Additionally, there were no objections to the protected area public notice for the Siporae project boundary.

2.2 Project coordination and management

The Siporae project operates under the Nakau project coordination and management arrangements described in section 2.2 of the Siporae PDD Part B.

The Natural Resources Development Foundation (NRDF) undertakes the role of project coordinator for the Siporae project and has been involved in development of the Siporae project since it commenced in 2016.

NRDF is a local NGO registered under the Charitable Trusts Act (CAP 67) on 28 July 2004 (see Annex 2 Siporae registration certificate and partner agreements – item 1.2 NRDF Registration certificate 2004). NRDF was created to address the problem of increasing degradation of forests and forest resources by commercial logging companies in the Solomon Islands. NRDF is built on the core values that natural resources are fundamental to the wellbeing of local people and they provide sustainable resource management opportunities to communities that protect natural resources for current and future generations.

NRDF is a small organisation consisting of highly experienced expatriate and local staff. Local extension officers and consultants add to the team’s capacity. NRDF’s head office is in Gizo, the provincial capital of

Western Province. A field office is operated in Sasamungga village. Starting out as a very small organisation, NRDF is now recognised by communities, national and international NGOs, and the Solomon Islands Government as a key stakeholder in forest management and conservation activities and programs in the Solomon Islands.

NRDF’s engagement in forest conservation with carbon market activities began in 2012 when the organisation was introduced to the Nakau Conservation Programme. Since the inception of the partnership, NRDF has been building its position and capacity as a leading forest conservation organisation in the Solomon Islands. NRDF has supported six tribal communities so far to initiate their protected area process and has supported Sirebe, Siporae and Padezaka Tribes and Vuri Clan to achieve the first terrestrial protected areas in the country. Due to the successful development of the Sirebe project, NRDF has demonstrated the skills and experience in project governance and management to bring Nakau forest carbon projects to market. Today, NRDF is the project coordinator responsible for establishing projects under the Nakau Conservation Programme in the Western and Choiseul Provinces of the Solomon Islands.

The NRDF team is particularly skilled at setting up project governance and community development components at the community level. This includes community engagement and participatory processes, establishing project governance groups and developing benefit-sharing systems. Throughout these processes, NRDF is guided by the principles of inclusion, fairness and transparency – and by free, prior and informed consent.

Nakau and NRDF signed a license agreement (see PDD Annex 2 – item 2.1) for the ongoing management of the Siporae project, with defined roles and responsibilities in project coordination and management.

2.3 Project participants

The Siporae project satisfies Nakau’s project participant requirements described in section 2.3 of the Siporae PDD Part B.

The Siporae project participants – which are also referred to as project owners in the Nakau methodology – are the recognised customary (tribal) landowners of the project area. The customary landowners have customary rights (including decision-making and management rights) to the land, but do not live in the project area. Landowners reside downstream of the Kolombangara River or in settlements along the coast of south or north Choiseul, and some further afield in townships such as Gizo or the capital Honiara. Most Siporae participants reside in settlements on the south Choiseul coastline in the villages of Sasamungga, Panarui, Boe, Sepa and Papara (see map in **Error! Reference source not found.**).

The table below describes the customary landowners of the Siporae project area.

Table 2.3: Siporae project participants (grouped by village, area or region)

Project participant	Participant type*	Location of residence	Typical land holding	Land and natural resource use
Siporae Tribe community members	Type II	Sasamungga, Papara, Panarui, Boe, Sepa Villages, Babatana region, south Choiseul. Located along the coastline. A smaller proportion of participants reside in other locations in Choiseul Province (north) and Solomon Islands, including Honiara and Gizo.	Siporae customary land (group ownership)	Harvesting of non-timber forest products, hunting and some limited gardening. Except for some small patches of land, the whole area is a protected area with special user rules and protocols

* Type I = Project participants that do not meet the Type II definition; Type II = Project participants that are not resident within the project area, do not manage land or natural resources within the project area for small-scale production, or are structurally dependent on year-round hired labour for their land or natural resource management activities.

2.4 Participatory design

The Siporae projects has employed a participatory approach to project development and implementation as informed in sections **Error! Reference source not found.-Error! Reference source not found.** (below). This includes strategies to include people who may otherwise be marginalised due to gender, age or cultural group.

2.4.1 Representation

An overview of Nakau's approach for representation is provided in the Siporae PDD Part B, section 2.4.1.

All project design activities and free, prior and informed consent (FPIC) activities involved representatives of all clans and family lines relevant in Siporae. A tribe/clan structure is provided in the Siporae genealogy report provided in PDD Annex 4– item 4.2. At project inception, the Siporae Tribe had no tribal chief. All formal communication was through the tribal executives and tribal leaders and elders. The Siporae Tribe is in the process of re-identifying and appointing a new chief following a customary process. Some of the clans within the Siporae Tribe do have chiefs but they only have authority over their clans and not over the Siporae Tribe as a whole.

2.4.2 Indigenous Peoples' participation

An overview of Nakau's approach for indigenous peoples' participation is provided in the Siporae PDD Part B, section 2.4.2.

The members of the Siporae tribe are the indigenous customary landowners of the project area. Although most members from Siporae live near the project area, all tribal members reside outside the area, and as far as other provinces and provincial capitals. The project has engaged tribe members who live away from the main communities by keeping them updated on project activities and meeting outcomes.

All meetings held with the project owners were announced well in advance and, if needed, members were transported by canoe to the meeting venues. All meetings, gatherings and workshops were open for every member and associates. Children were only invited when the project activity was appropriate for them, for example, when awareness movies or pictures were shown. Mothers were informed in advance and encouraged to arrange caretakers for small children to avoid needing to bring them to project events to avoid distractions.

2.4.3 Inclusion of potentially marginalised groups

For a description on Nakau's approach to include marginalized groups, please refer to section 2.4.3 in the Siporae PDD Part B. This approach was applied in the Siporae project context.

2.4.4 Level of Participation

To ensure an adequate level of participation in Nakau projects, Nakau and NRDF take guidance from tables 2.4.4a and 2.4.2b presented in section 2.4.4 of the Siporae PDD Part B. These guidelines were followed throughout the development process of the Siporae project. Table 2.4.4 describes the participatory processes undertaken during project development. This section is linked with Annex 4, where evidence (e.g. meeting notes, photographs and attendee lists) is provided for each of the participation steps.

Table 2.4.4: Summary of participatory processes in the Siporae project

Participation steps	Participatory process in the Siporae project	Tools and resources used
1. Education for forest carbon project participation	<p>Education for project participation is a cross-cutting and ongoing process undertaken by NRDF and Nakau throughout the project development period, and afterwards. All participatory steps listed in this table include elements that aim to share information and raise the project owners' understanding of the project activities. Education and information were delivered through presentations, Q&A sessions and videos. Samples of events that include forest carbon education activities are provided in PDD Annex 4 – subfolder 1</p>	<p>Implementation of all activities within the Climate Change & REDD+ Education manual (CCRE). Developed specifically for the Nakau Programme and published by Live & Learn https://livelearn.org/what/resources/climate-change-and-community-based-redd-education-manualcommunity-based-redd-education-manual</p> <p>Animated film: "Climate Change: Everyone's Business" in English and Solomon Islands Pijin. Developed specifically for the Nakau Programme and published by Live & Learn https://www.youtube.com/watch?v=roKlfqvJPQ0</p> <p>Animated film: "Ready for REDD+?" in English and Solomon Islands an. Developed specifically for the Nakau Programme and published by Live & Learn: https://www.youtube.com/watch?v=kUGyZnAhdmw</p>
2. Establishment of project owner groups (to act on participants behalf)	<p>The Siporae legal project owner groups are the Siporae Tribal Association (STA) and the Siporae Community Company. The STA was registered under the Charitable Trust Act of the Solomon Islands 1996 on the 5 June 2018, before NRDF was engaged as project coordinator. To enable the Siporae Tribe to operate a carbon project and generate surplus (profits), the STA registered a community company under the Solomon Island Company Act 2009 on 29 September 2022.</p> <p>The activities and requirements to set up the project owner groups and project governance structure were shared and consulted with the project participants during several STA meetings, of which samples are provided in PDD Annex 4. The members of the STA were re-confirmed and endorsed during a tribal meeting in May 2022 (see PDD Annex 5).</p>	<p>Siporae Tribal Association constitution and certificate Siporae Community Company certificate of incorporation Solomon Island Charitable Trust ACT 1996 Solomon Islands Companies ACT 2009 (see PDD Annex 2)</p>
3. Determine respective roles and responsibilities of project owners and project coordinator	<p>The Project Agreement between NRDF, Nakau and the Siporae Tribe describe the role of the project owner, project coordinator and project operator and has been informed by decisions made by the STA regarding the project governance structure and benefit-sharing preferences. The roles and responsibilities of the STA, protected area management committee and community company are stipulated in the STA constitution, the business plan and the protected area management plan. They have been developed and consulted during meetings with NRDF and the STA.</p> <p>An introductory workshop to consult on the draft formal Project Agreement for Siporae was held on the 28 October 2022. During this meeting the</p>	<p>Siporae Project Development Agreement Siporae Project Agreement (see PDD Annex 2)</p> <p>Siporae Business Plan (see PDD Annex 16)</p>

Participation steps	Participatory process in the Siporae project	Tools and resources used
	<p>Project Agreement was explained to the tribal members and copies of the draft Project Agreement were shared. A second and third meeting was held on 17 March and 29 June 2023. Soon after the Project Agreement was signed under the principle of free-prior and informed consent (see PDD Annex 5).</p>	
<p>4. Development of benefit-sharing arrangements (within Project Agreements)</p>	<p>The development of benefit-sharing arrangements took place through regular meetings with the Siporae Tribe over a two-year period between 2020 and 2022 that included elements of education and participatory planning. The process included a business and benefit-sharing planning workshop, facilitated by NRDF, through which the benefit-sharing arrangements and preferences were consulted and agreed on (see PDD Annex 4–subfolder 4).</p> <p>The steps included identifying beneficiaries through a genealogy survey (see PDD Annex 4 – item 4.2 Siporae), holding a business and benefit-sharing planning workshop (see PDD Annex 4 Siporae – item 4.1) and development of the Siporae business and benefit sharing plan (see PDD Annex 16).</p>	<p>Money story tools Siporae Business Plan Solomon Islands Companies ACT 2009 Siporae genealogy and beneficiary mapping (see PDD Annex 4)</p>
<p>5. Protected area management plan</p>	<p>A participatory process was undertaken to develop the Siporae protected area management plan, which led to its registration under the Protected Areas Act 2010 in October 2019. The details of participative consultation on this are detailed in PDD Annex 4 – subfolder 5. The endorsement of the protected area management plan by the Siporae Protected Area Management Committee representatives is documented in PDD Annex – item 3.1.</p>	<p>Protected area toolkit 2010 Guidelines for writing a protected area management plan, August 2013 (Part of Protected area toolkit) Siporae protected area management plan (PDD annex 11) Protected Areas Act 2010 and Regulations 2012</p>
<p>6. Project owner technical capacity building</p>	<p>Siporae project owner trainings focused on forest ranger roles and responsibilities, forest inventory data collection and forest monitoring procedures.</p> <p>Staff from Nakau, NRDF and the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) trained local community members in the use of instruments and forest data collection procedures. The forest inventory fieldwork for Siporae was carried out in 2021 by Siporae rangers with the assistance of NRDF and MECDM officers. A forest monitoring training was conducted with the Siporae rangers in October 2022. The rangers implemented the first monitoring cycle in March 2023.</p> <p>In 2020 and 2021, NRDF and Nakau hosted women’s saving clubs computer literacy workshops, hospitality training and financial management training. Workshops over the two-year period included participants from Siporae, Padezaka and Sirebe Tribes.</p>	<p>Nakau forest inventory manual Nakau Avenza guide</p>
<p>7. Project design document (PDD) submission</p>	<p>Presentation of PDD summary to the project owner in a simple format and consultation.</p>	<p>Siporae PDD Presentation of Siporae PDD contents</p>

2.5 Stakeholder consultation

2.5.1 Design phase consultations

The Siporae project has followed a broad stakeholder consultation process.

Table 2.5.1 describes the design phase consultations undertaken by stakeholder groups. Documented evidence of consultations provided in the annexes 4 and 5 of this PDD.

Table 2.5.1: Stakeholder consultation and feedback mechanism during Siporae project development

Stakeholder group	How stakeholders are informed of and can provide feedback on the project	Feedback sought
Siporae customary landowners (primary participants)	Central involvement as 'project owners'. Refer to sections 2.3 'Project participants', 2.4 'Participatory design'; and 2.6 'FPIC'.	<ul style="list-style-type: none"> • Determine Siporae project area • Define project participant group membership Determine benefit-sharing arrangements
Neighbouring landowners: Kumaka, Batongoa and Sikipozo tribes	All neighbouring tribes (tribal groups with land adjacent to the project area) are consulted through face-to-face meetings. All projects must obtain signed MoUs with all neighbouring tribes as part of the protected areas (PA) application process (coinciding with the carbon project eligible area). Each MoU must endorse the establishment of the PA and confirm that the PA applicant and project participants are landowners with user rights to the land in question.	<ul style="list-style-type: none"> • Assist to determine or confirm Siporae project area and PA boundaries MoUs have been signed that confirm agreement on land boundaries (see PDD Annex 5)
Solomon Islands Government	Relevant Solomon Islands Government agencies are consulted and kept informed during project development and implementation. This involves direct meetings or seeking support letters), to ensure there is appropriate coordination between agencies, and there are no unforeseen barriers to project development. <ul style="list-style-type: none"> • Ministry of Forestry and Research (MoFR) to show there are no logging licences overlapping with the proposed PA. • Ministry of Mines, Energy and Rural Electrification (MMERE) to show there are no mining leases or prospecting licences in the proposed PA. • Ministry of Lands, Housing and Survey to determine if there is any registered land in the proposed PA. • Participation in multi-disciplinary forest policy/governance working groups at the national level 	<ul style="list-style-type: none"> • Consultations as part of the PA approval and declaration process (Copies of confirmation letters from government agencies are provided in Annex 4 of the PDD) • PA objection process under the <i>Protected Areas Act 2010</i>. • Ongoing information sharing in working groups at the national and provincial level

Stakeholder group	How stakeholders are informed of and can provide feedback on the project	Feedback sought
	<ul style="list-style-type: none"> Regular meetings of <i>Provincial working group for conservation and PES</i> to share information regarding project activities. 	
Donors/project proponents	Nakau and project coordination partners utilised donor (grant) funding to finance Siporae project development activities (Bread for the World, Critical Ecosystem Partnership Fund and New Zealand MFAT Carbon Financed Forest Conservation Project).. Donors routinely require regular monitoring and reporting against activity progress, budget expenditure and achievement of expected results. Further details are not included in the PDD as this engagement is obligatory under grant contracts and can be assumed to occur.	As per donor requirements

2.5.2 Stakeholder engagement plan

Table 2.5.2 provides a localized stakeholder engagement plan for the Siporae project.

Table 2.5.2: Siporae stakeholder consultation approach and feedback mechanism during project period

Stakeholder group	Consultation approach and information sharing	Feedback mechanism
Local Siporae customary landowners	Central involvement as 'project owners'. Report quarterly and annually to Nakau and the project coordinator.	<ul style="list-style-type: none"> Quarterly feedback to reports. Throughout the project period the project owners can contact the project coordinator whenever needed. Any complaints, issues or grievances will trigger the Nakau grievance mechanism (see section 3.17).
Local neighbouring Kumaka, Batongoa and Sikipozo tribal landowners	<ul style="list-style-type: none"> Engaged through face-to-face dialogue and provided with maps and other information as relevant. Consulted on land boundary or matters that arise during forest monitoring activities. 	Face to face consultation as required
Secondary Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM)	<ul style="list-style-type: none"> Ministry is to be informed on PA management. Any PA offences need to be reported to the MECDM to issue infringement notices but also updating the Ministry on the PA work. Siporae PA management committees must provide annual reports to the Ministry. 	<ul style="list-style-type: none"> MECDM provides feedback directly to the project owners by contacting the Siporae PA management committees. Feedback through working groups and meetings.

Stakeholder group	Consultation approach and information sharing	Feedback mechanism
	<ul style="list-style-type: none"> The Ministry will be timely in informing the Siporae PA management committee if any changes in the PA legislation occur. Engagement via project or sector working groups, information sessions etc. 	
Secondary Ministry of Forestry and Research (MoFR)	<ul style="list-style-type: none"> MoFR is to be engaged if there is any encroachment of logging in the vicinity of the project areas. Engagement via project or sector working groups, information sessions etc. 	<ul style="list-style-type: none"> MoFR contacted directly in the case of logging encroachment. Feedback through working groups and meetings.
Secondary Ministry of Commerce, Industry, Labour and Immigration (MCILB)	<ul style="list-style-type: none"> Provide annual return reports of the Siporae tribal association to Company Haus. Inform Company Haus on any organisational changes in company or association. 	Feedback to annual returns.
Secondary Choiseul Provincial Government	<ul style="list-style-type: none"> Regular meetings of <i>Provincial working group for conservation and PES</i> to share information regarding project activities. Engaged if there is any encroachment of logging in the vicinity of the project areas. 	<ul style="list-style-type: none"> Feedback during meetings. Direct contact in the case of logging encroachment.
Secondary Donors/project partners	<ul style="list-style-type: none"> Information shared through reporting as required by each donor. Media releases on project activities and milestones by donor. 	Feedback to reports provided.

2.6 Free, prior and informed consent (FPIC)

2.6.1 FPIC legislation

The Siporae project has followed the statutory requirements for FPIC and the FPIC process for projects in the Solomon Islands outlined in Table 2.6.1 of the Siporae PDD Part B.

2.6.2 FPIC process

The Siporae project has implemented the Nakau FPIC procedures for project development as outlined in Table 2.6.2 of the Siporae PDD Part B.

2.6.3 Initial FPIC (Project level)

The FPIC processes and resources used in the Siporae project are described in the right-hand columns of the table below. This section is linked to PDD Annex 5, where evidence of key decisions (for example, signed meeting minutes and attendance lists) is provided.

Table 2.6.3: Processes and decisions that require FPIC in the Siporae project

FPIC trigger	FPIC process in the Siporae project	Resources and tools used
1. Register a legally constituted tribal association and community company to act on behalf of land/resource user rights holders	Decision making on project governance structure. Decision making on the appointment of individuals to manage the Siporae Tribal Association and Siporae Community Company: company directors (3), operational manager, and financial manager.	Solomon Islands Charitable Trust ACT 1996 Solomon Islands Companies ACT 2009
2. Agreement with the terms and conditions of the Project Agreement	Consultation and signing of the Siporae Project Agreement by the project owner committee.	Workshop materials Siporae Project Agreement terms
3. Agreement to protected area management plan including project boundaries and management regime for the project area	Endorsement of rules and regulations for the Siporae protected area management plan. Consultation process and signing of MoU on protected area boundaries with neighbouring tribes.	Siporae protected area management plan rules and regulations (see PDD Annex 11) Protected Area Toolkit 2010 Protect Areas Act 2010 and Protected Areas Regulations 2012 Spatial data on tribal boundaries (see PDD Annex 1)
4. Project owner agreement for the PDD to be submitted for validation	PDD summary delivered and in a simplified format and consulted for endorsement by the project owners before submission to Plan Vivo.	Siporae PDD workshop presentation and materials

3 Project design

Baselines

3.1 Baseline scenario

This section provides a stepwise analysis to demonstrate that commercial logging is the most realistic and credible baseline scenario for the Siporae project. The baseline assessment follows the procedures of the CDM A/R tool 02 version 1.0 approved by Plan Vivo.

Step 0 – Preliminary screening of the project activity

This step involves confirmation that incentive from the planned sale of Plan Vivo Certificates was seriously considered in the decision to proceed with the project activity. In the context of the Siporae project, this is evidenced by demonstrating that the registration of the Plan Vivo project through a Project Idea Note (PIN) occurred before the registration of the protected area.

Table 3.1a: Evidence of the preliminary screening in the Siporae project

Action	Requirement	Documentation/evidence in the Siporae project
Start of project activity	The incentive from the planned sale of Plan Vivo Certificates was seriously considered in the decision to proceed with the forest conservation activity	The South Choiseul PIN that covers the Babatana area including the Siporae project area was submitted to Plan Vivo in 2013. The Siporae protected area was declared on 19 October 2019 (see Siporae PDD Annex 3- item 1.6)

From the evidence provided, we can substantiate that the incentive from the planned sale of Plan Vivo Certificates was seriously considered in the decision to proceed with the project activity.

Step 1 – Identification of the alternative land-use scenarios

Step 1 consists of a compilation of credible and realistic future land-use scenarios which would occur in the projects areas of the Nakau Conservation Programme in the absence of the project intervention. Justification for the credibility of the land-use scenarios stems from the fact these are the predominant land-use types in rural areas of the Solomon Islands, demonstrated by evidence that such land-use types exist and are being implemented on neighbouring lands of the project areas.

Sub-step 1a:

Identification of credible alternative land-use scenarios in the Nakau Conservation Programme:
Identification of realistic and credible land-use scenarios that would have occurred on the land within the project area boundary in the absence of the project intervention.

Outcome sub-step 1a:

The credible alternative land-use scenarios are as follows:

Land-use scenario 1: Commercial logging and timber milling

Commercial logging is a widespread land-use activity in all provinces of the Solomon Islands and concentrated in lowland (production) forest below 400 metres elevation. Commercial logging involves unsustainable timber harvesting that leads to significant forest degradation and reduction of forest carbon stocks. Commercial timber milling commonly accompanies logging operations and consists of selective felling of valuable tree species and on-site processing with chainsaws or portable sawmills.

Land-use scenario 2: Forest conservation without carbon finance

Establishment of a protected area without being registered as a Plan Vivo project and in the absence of carbon market finance. This land-use scenario is evidenced by historical and current protected area initiatives in the country.

Sub-step 1b:

Verification of consistency of identified alternative land-use scenarios with enforced mandatory applicable laws and regulations.

Outcome of sub-step 1b:

Table 3.1b: Legal compliance of land-use scenarios in the Siporae project area.

Land-use scenario	Land use in the Siporae project context	Requirement of Solomon Islands legislation
1. Commercial logging/milling	The whole eligible forest area (EFA) in the Siporae project is located below 400 metres elevation and eligible for commercial logging/milling. Source: Topographic map of EFA (see Figure 1.2.2.)	There are no legal restrictions to commercial logging/milling in areas below 400 metres elevation according to the Solomon Islands legislation. Source: Forest Resources and Timber Utilisations (Amendment) Act 2000, Chapter 40 (2000), Cap. 133 (44r), in Siporae PDD Supporting Documents SD10
2. Forest protection without carbon finance	The Siporae project is located within the Mount Maetambe-Kolombangara River Basin Key Biodiversity Area that constitutes the habitat of species of wild fauna and flora of unique national importance. Source: https://www.keybiodiversityareas.org/kba-data	Under Solomon Islands legislation, only areas that possess significant genetic, cultural, geological or biological resources are eligible to become protected areas. Solomon Islands Protected Areas Act 2010 Part 3A, in Siporae PDD Supporting Documents SD11

Step 2 – Barrier analysis

In the second step, a barrier analysis was carried out for each land-use scenario identified under step 1. The objective of the barrier analysis was to substantiate which barriers would prevent alternative land-use scenarios. The barrier analysis is carried out at two levels:

1. The national level – high-level analysis of barriers to prevent identified land-use scenarios in the Solomon Islands context.
2. The project level – analysis of barriers to prevent identified land-use scenarios in the project-specific context.

Documented evidence is provided that proves the existence and significance of the identified barriers. The outcome of the barrier analysis is a list of land-use scenarios that are not prevented by any barriers (see outcome of sub-step 2b).

Sub-step 2a:

Identification of barriers that would prevent alternative land-use scenarios at the national and at the project level.

Outcome sub-step 2a:

List of barriers that may prevent one or more land-use scenarios identified in step 1b.

Table 3.1c describes the legal compliance of land-use scenarios in the Siporae project area.

Table 3.1c: Barrier analysis of commercial logging/milling in the national and Siporae project context

Barrier type	Description and sources of evidence in the Solomon Islands context	Description and sources of evidence in the Siporae project context
Investment barriers	There are no investment barriers to prevent commercial logging/milling in the Solomon Islands. Tribal groups do not need funds to enable logging operations – these are carried out by logging contractors with strong financial capacity to cover operational costs.	There are several logging concessions in the vicinity of the Siporae project which demonstrates that logging companies are active and do not experience investment barriers in the project region. Source: Map of logging concessions in central Choiseul Province, Solomon Islands (see Figure 3.1.)
Institutional barriers	Logging revenue is the mainstay of the Solomon Islands economy and therefore logging is incentivised by the Solomon Islands Government where legally possible. There are no institutional barriers from the Solomon Islands Government to prevent the issuance of felling licenses in production forest below 400 metres elevation.	The whole eligible forest area of the Siporae project is located within production forest below 400 metres elevation. There are active and expired logging licenses that were issued that cover most of the landmass of Choiseul province and demonstrate the lack of institutional barriers to prevent logging.
Technological barriers	There are no technological barriers that would prevent commercial logging/milling in the Solomon Islands. Contractors own or can provide access to the necessary machinery and skilled human resources to carry out operations.	The timber harvesting plan from a logging concession that borders the Siporae project area includes a description of the equipment and machinery used in the logging operation. Source: Delta Timber Harvesting Plan, operation summary, in Siporae PDD Supporting Documents SD4
Barriers related to local traditions	There are no barriers related to local traditions to prevent commercial logging/milling except for sacred (tambu) sites. These are identified in harvesting plans and only cover a minimal extent of the harvestable forest area.	The timber harvesting map from a logging concession that borders the Siporae project area includes the locations of tambu sites to prevent trespassing. Source: Delta Timber harvesting Plan, map CY 2013, in Siporae PDD Supporting Documents SD4
Barriers related to prevailing practice	There are no barriers related to prevailing practice to prevent commercial logging/milling in the Solomon Islands. Commercial logging is a prevailing practice in the in the country as shown by numerous active and inactive logging licenses covering all provinces.	Commercial logging/milling is prevailing practice in the area surrounding the Siporae project area as shown by numerous active and inactive logging licenses. Source: Map of logging concessions in central Choiseul (see Figure 3.1.). Ministry of Forestry and Research – Spatial data on logging concessions (2021)
Barriers related to environmental conditions	There are no ecological barriers to prevent commercial logging/milling in undisturbed natural forests in the Solomon Islands. Undisturbed and moderately disturbed forests hold valuable commercial timber stocks that would allow for feasible logging operations. The majority of the legally permissible production forest area is suitable for logging in terms of topography and access.	The whole Siporae project area is covered by undisturbed forest. Forest inventory results show significant commercially valuable timber stocks (see Annex 6 Siporae carbon calculations– 6a Babatana forest inventory data). Steep and inaccessible areas unsuitable for logging in the Siporae project cover only 3% of the EFA.
Barriers related to socioeconomic conditions	There are few socioeconomic barriers that can prevent commercial logging/milling in the Solomon Islands. At the remote village level, people often welcome logging as a rare opportunity for development that carries the promise of money, jobs, roads and services.	There are no socioeconomic barriers that would prevent commercial logging/milling in the Siporae project. Most tribes in the region are currently logging or have previously logged their land. Source: Map of logging concessions in central Choiseul (see Figure 3.1.)

Barrier type	Description and sources of evidence in the Solomon Islands context	Description and sources of evidence in the Siporae project context
	<p>Decision making on logging in the communities is not participatory and is often made by elite groups. Elite groups can allow logging without the consent of other right holders who may have objections.</p> <p>Source: Minter. T. et al. 2018, from Happy Hour to Hungry Hour: Logging, Fishing and Food Security in Mailata, in Siporae PDD Supporting Documents SD5</p>	
Barriers related to land tenure	<p>There are no barriers to prevent commercial logging/milling in areas of customary land tenure. The Forestry Resources and Timber Utilisation Act provides a legal pathway to separate timber rights from customary land ownership, thereby enabling timber rights to be legally transferred to third parties.</p> <p>Source: The Forestry Resources and Timber Utilisation Act Part III: Approved timber agreements affecting customary land, in Siporae PDD Supporting Documents SD10</p>	<p>There are no barriers to transfer timber rights in Siporae customary land to third parties.</p>

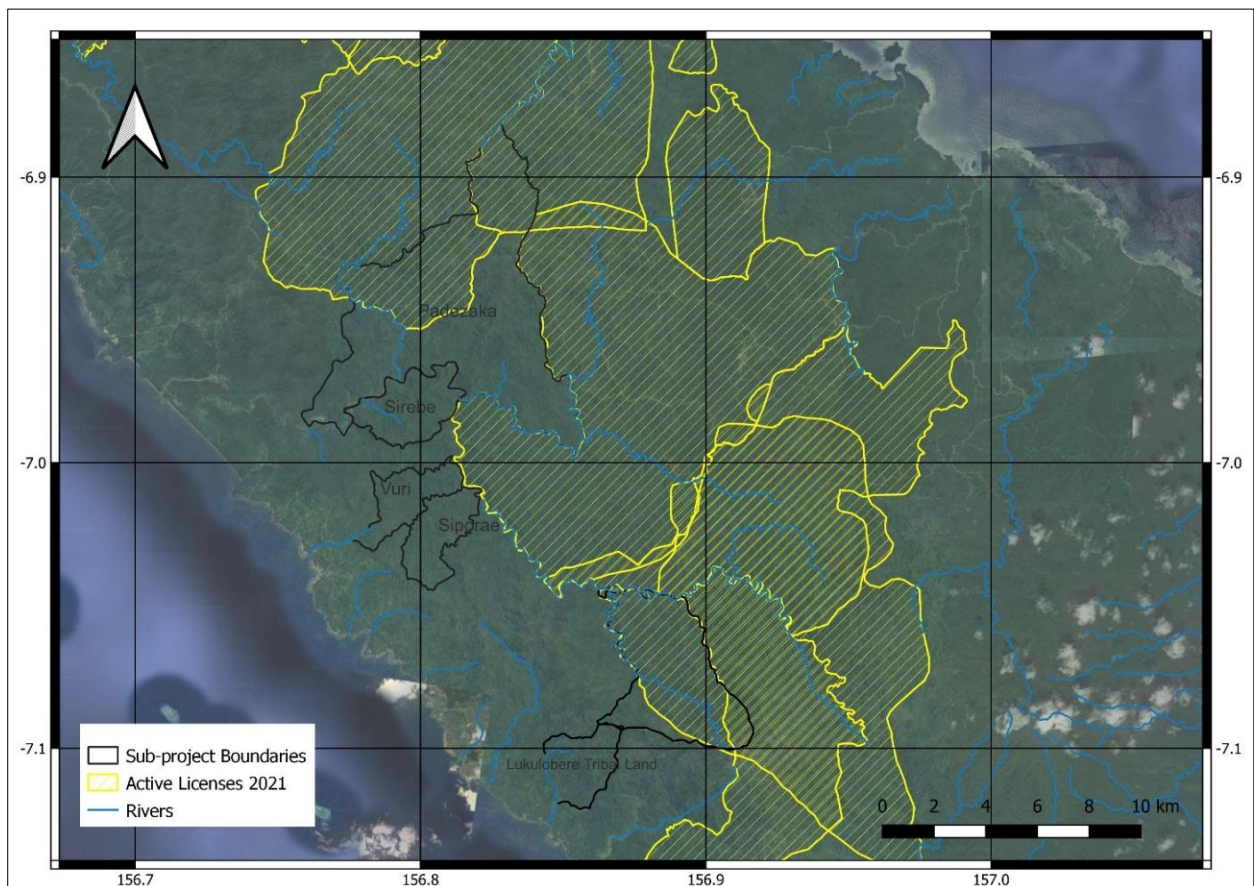


Figure 3.1. Active logging concessions surrounding project areas in Babatana, Southern Choiseul, in 2021. Source: Ministry of Forestry and Research

Table 3.1d: Barrier analysis of forest protection (without a forest carbon finance) in the national and Siporae project context

Barrier type	Description and sources of evidence in the Solomon Islands context	Description and sources of evidence in the Siporae project context
Investment barriers	<p>There are investment barriers to prevent the establishment of protected areas by rural communities in the Solomon Islands without external support and finance. Protected area establishment costs are estimated to amount to at least SBD 200,000 and requirements include a biodiversity assessment, consultations with neighbouring tribes and field verification visits from the Solomon Islands Government. There are additional costs for legal procedures to settle any objections.</p> <p>Source: Information on protected area process requirements are provided in the Land Advisory and Legal Support Unit Protected Areas Toolkit, in Siporae PDD Supporting Documents SD12.</p>	<p>There are investment barriers to prevent the establishment of a legal protected area in Siporae project area. Without donor support, it is unlikely the Siporae community would be able to raise the funds to achieve legal protection of the forest area.</p>
Institutional barriers	<p>There are institutional barriers to prevent the widespread establishment of protected areas in production forest in the Solomon Islands. The Solomon Island Government does not incentivise forest conservation in production forests (below 400 metres elevation) due to the importance of logging for the Solomon Islands economy.</p> <p>Source: Information on the importance of annual revenue from round log exports is provided in the Central Bank of Solomon Islands annual reports. https://www.cbsi.com.sb/publications/annual-report/</p>	<p>There are no institutional barriers to prevent the establishment of a protected area in the Siporae project. All Nakau projects in Babatana project enjoy government support from the MECDM due to their location within the Mount Maetambe-Kolombangara River Basin Key Biodiversity Area.</p> <p>Source: IUCN KBA website. East Melanesian Islands ecosystem profile summary: https://www.cepf.net/our-work/biodiversity-hotspots/east-melanesian-islands</p>
Technological barriers	<p>There are technological barriers to prevent the establishment and adequate management of protected areas by rural communities in the Solomon Islands without external support and finance. The protected area process involves the preparation of a biodiversity survey and protected area management plan, and both require specialised expertise not readily available in rural communities.</p> <p>Source: Information on protected area establishment and implementation activities. Protected Areas Toolkit, in PDD Supporting Documents SD12.</p>	<p>There are technological barriers to prevent the establishment and adequate management of a protected area in Siporae without external support. The protected area process involves the preparation of a biodiversity survey and protected area management plan, and both require specialised expertise not readily available in Siporae and surrounding communities.</p>
Barriers related to local traditions	<p>There are barriers related to local traditions to prevent the establishment of a protected area in the remote rural communities. Traditionally, nature conservation follows customary law and there is a lack of knowledge on the legal protected area mechanism. This leads to concerns among customary landowners about changes or loss of ownership over customary land and rights to resources on the land. These concerns can provide barriers to landowner interest in legal protection. To overcome this, significant time is needed for awareness-raising and community consultation from the project coordinator side.</p> <p>Source: Price, S. (2022) Protected Area Memo, in PDD Supporting Documents SD13.</p>	<p>There were barriers related to local traditions to prevent the establishment of a protected area in the Siporae project. Traditionally, nature conservation follows customary practice, and the legal protected area instrument was not well-known at the start of the forest carbon project. To overcome this barrier, tribal members were educated on protected areas and their implications in many meetings with the project coordinator before making an informed decision regarding protected area establishment.</p> <p>(see PDD Annex 5– item 3.1)</p>

Barrier type	Description and sources of evidence in the Solomon Islands context	Description and sources of evidence in the Siporae project context
Barriers related to prevailing practice	<p>There are barriers related to prevailing practice to prevent the establishment of protected areas in the Solomon Islands. More than a decade after the institution of the Protected Area Act 2010 and its regulations, the instrument is still relatively unknown and there are currently only relatively few terrestrial protected areas in the country, all of them in combination with forest carbon projects.</p> <p>Source: MECDM Data Portal. https://solomonislands-data.sprep.org/search?query=protected%20areas</p>	<p>There are barriers to prevailing practice in the Siporae project. Siporae is only the second terrestrial protected area established in the country, declared in 2019. Most of the area surrounding the Siporae project is covered by logging concessions.</p> <p>Source: Logging Concession Map of central Choiseul (see Figure 3.1)</p>
Barriers related to ecological conditions	<p>There are barriers related to ecological conditions to prevent the establishment of protected areas in the Solomon Islands. Protected areas by law can only be established in places that possess significant genetic, cultural, geological or biological resources.</p> <p>Source: Solomon Islands Protected Areas Act 2010 Part 3A, in PDD Supporting Documents SD11.</p>	<p>There are no barriers related to ecological conditions to prevent the establishment of a protected area in the Siporae project area. Siporae is located within the Mount Maetambe-Kolombangara River Basin Key Biodiversity Area which is recognised by the Solomon Islands Government to hold significant biodiversity value.</p> <p>Source: IUCN KBA website. East Melanesian Islands ecosystem profile summary: https://www.cepf.net/our-work/biodiversity-hotspots/east-melanesian-islands</p>
Barriers related to socioeconomic conditions	<p>There are socioeconomic barriers to prevent the establishment of protected areas in the Solomon Islands. There is little incentive for landowners to establish protected areas without the option of forest carbon finance. This is demonstrated by the fact that all terrestrial protected areas in the Solomon Islands are linked with forest carbon projects. PAs on their own contribute little revenue to improve community income and development, while resulting in forgone revenue from extractive industries prohibited in the PA.</p> <p>The protected area process typically triggers objections from tribal members that are motivated by financial benefits from commercial logging. Every objection needs to be formally settled and can stall protected area establishment for considerable time if there is no external legal support.</p>	<p>There are socioeconomic barriers that would likely prevent the establishment of a protected area in the Siporae project without the option of forest carbon finance and project development support.</p> <p>The whole Babatana region attempted to create a large forest conservation area covering south-west Choiseul Island in 2009, which ultimately failed. This shows that creating protected forest areas in the region without the prospect of forest carbon income is not successful. Many of the tribal areas that were included in that proposed Babatana protected area have since been logged.</p> <p>Source: WWF 2009, Report on the biodiversity of three proposed protected areas on south-west Choiseul Island, in Siporae Supporting Documents, SD9</p>
Barriers related to land tenure	<p>There are barriers related to land tenure to prevent the establishment of protected areas in the Solomon Islands. The protected area process requires the demarcation and agreement of land boundaries between protected area proponents and neighbouring tribes. Typically, customary land boundaries are not marked and often disputed, making boundary mapping and achieving land agreements onerous and expensive. This represents a barrier for landowners to clarify and agree on land boundaries without external support.</p>	<p>There are no barriers related to land tenure to prevent the establishment of a protected area on Siporae land. The Siporae tribe did not have any land boundary disputes with neighbouring tribes.</p> <p>(See PDDS Annex 5 -item 3.2)</p>

Outcome of sub-step 2b:

Table 3.1f: Results of the barrier analysis of land-use scenarios

Alternative land-use scenario	Number of barriers identified in the Siporae project
Land-use scenario 1: Commercial logging/milling	0
Land-use scenario 2: Forest conservation (without forest carbon finance)	5

We can substantiate that in the context of the Siporae project, the barriers identified as preventing realisation of land-use scenario 2 are valid and conclusive.

The outcome of sub-steps 2a and 2b demonstrates that commercial logging is the only land-use scenario that is not prevented by any barriers and therefore is the baseline scenario in the Siporae project.

Step 3 – Investment analysis

An investment analysis is required only if the outcome of sub-step 2b reveals more than one land-use scenario that is not prevented by any barriers.

Outcome of step 3: Not applicable in the Siporae project context because commercial logging is the only the land-use scenario not prevented by any barriers.

Step 4 – Common practice analysis

The common practice analysis shall complement the barrier analysis under steps 2 with an analysis of the extent to which forest conservation activities have already diffused in the geographical area of the proposed project activity.

Outcome of step 4:

There are no legal forest conservation activities under use of the protected area instrument that were previously established or are underway in the Siporae project region. The entire Babatana project region attempted to create a contiguous forest conservation area covering south-west Choiseul Island in 2009 which ultimately failed. This shows that forest conservation activities have not diffused into the geographical region of the Siporae project. All current protected areas in the region were established through the Nakau Programme and with the deliberate intention to access forest carbon finance.

Source: WWF 2009, Report on the biodiversity of three proposed protected areas on south-west Choiseul Island.

3.2 Carbon baseline

The net baseline emissions (NBE) in the Siporae project are shown the table below. Please refer to the Siporae PDD Annex 6 for full carbon calculations. The carbon baseline is updated every 5 years.

Table 3.2: Net baseline emissions (NBE) during the project period in the Siporae project

Activity Type	Years in Project Period	Net baseline emissions (NBE) (tCO ₂ e yr ⁻¹)
Avoided Commercial Logging and Forest Conservation	1-30	11,561

3.3 Livelihood baseline

3.3.1 Initial livelihood status

Siporae project has followed the guidance in section 3.3.1 of the Siporae PDD Part B to determine the initial livelihood status of the project owners and Siporae community.

The social baseline data in the Siporae project was collected through formal standardised questionnaires consisting of both open-ended and close-ended questions. The interviews were conducted in the Panarui, Sepa, Sasamunga and Boe villages and included families that have the primary land rights over the Siporae land. Interviews were conducted at the household level and differentiations were made between male and female occupants when appropriate. The interviewed households represent 48% of the primary households, and 15.6% of the total households within this tribal group. In most of the cases, the interviewees were both the men and women from the same household. A total of 41 members were interviewed of which 18 were women and 23 were men. At the next baseline revision, the community baseline may be expanded to include more participants. The methodology and results of the Siporae social survey are provided in PDD Supporting documents- Baselines. An updated livelihood baseline report is provided together with the Annual Report at each verification

Table 3.3.1. Summary of livelihood status prior to project start in the Siporae project.

Livelihood criteria	Livelihood status
Access to land	Secure
Access to resources	Secure
Main land uses	Subsistence and commercial agriculture Collection of non-timber forest products Hunting Small-scale timber harvesting for domestic purposes
Livelihood activities and income sources	Cash crops 51% Own business 10% Informal employment 27% Formal employment 12%
Employment rate Men	Formal: 12% Informal: 37%
Employment rate Women	Formal: 12% Informal: 9%
Income level (SBD per month)	0–500: 76% 500–100: 12% 1000–2000: 12%
Main expenditures	Food, household goods, school fees
Expenditure level (SBD per month)	0–500 80% 500–1000 20%
Percentage of households that can save some money	Yes 79% No 21%
Power source	96% of households use solar energy as the only power source.
Water source	Rainwater tank 50% River 38%
Sanitary	Flush toilet 40% Seaside or bush 52%
Housing	Permanent house 76% Leaf house 9% Semi-permanent house 2%

3.3.2 Expected livelihood change

Section 3.3.2 of the Siporae PDD Part B summarises the expected livelihood change for project participants under a commercial logging baseline that is common to all Nakau projects with avoided logging interventions in the Solomon Islands.

3.4 Ecosystem baseline

3.4.1 Initial ecological conditions

This section describes the ecological conditions in the Siporae project immediately prior to the start of the project intervention. Refer to section 3.4.1 in the Siporae PDD Part B for the guidance on determination of the initial ecological status for projects under the NCP-SI.

The Siporae project area is fully located within the Mount Maetambe-Kolombangara River Basin Key Biodiversity Area¹ that constitutes the habitat of species of wild fauna and flora of national and international importance and therefore meets the eligibility criteria for legal protection under the PA Act 2010.

The whole Siporae project eligible forest area is covered by undisturbed old-growth natural forest. According to data from the National Forest Resource Inventory, the main forest habit types in the area are lowland (LM) and hill rainforest (HM), with varying degrees of canopy cover on well-drained soils (see forest types map in Figure 3.4**Error! Reference source not found.**).

A comprehensive biodiversity inventory was carried out in 2014, which gathered data on the flora and fauna found in the forest habitats in the Mount Maetambe-Kolombangara River Basin (see Siporae PDD Supporting Documents SD13).

The results from this study reveals several species that have been attributed high conservation value due to one or several of the following criteria: IUCN red list status of near-threatened or more, endemism/limited geographical range and/or threats from human disturbance. 13 of these were selected as key species for ecosystem monitoring (see Table 4.4**Error! Reference source not found.** for details on the key species).

3.4.2 Expected ecosystem change

Section 3.4.2 of the Siporae PDD Part B provides the description of the expected ecosystem change under a commercial logging baseline scenario that is common to all Nakau projects with avoided logging interventions.

¹ <https://www.keybiodiversityareas.org/kba-data>

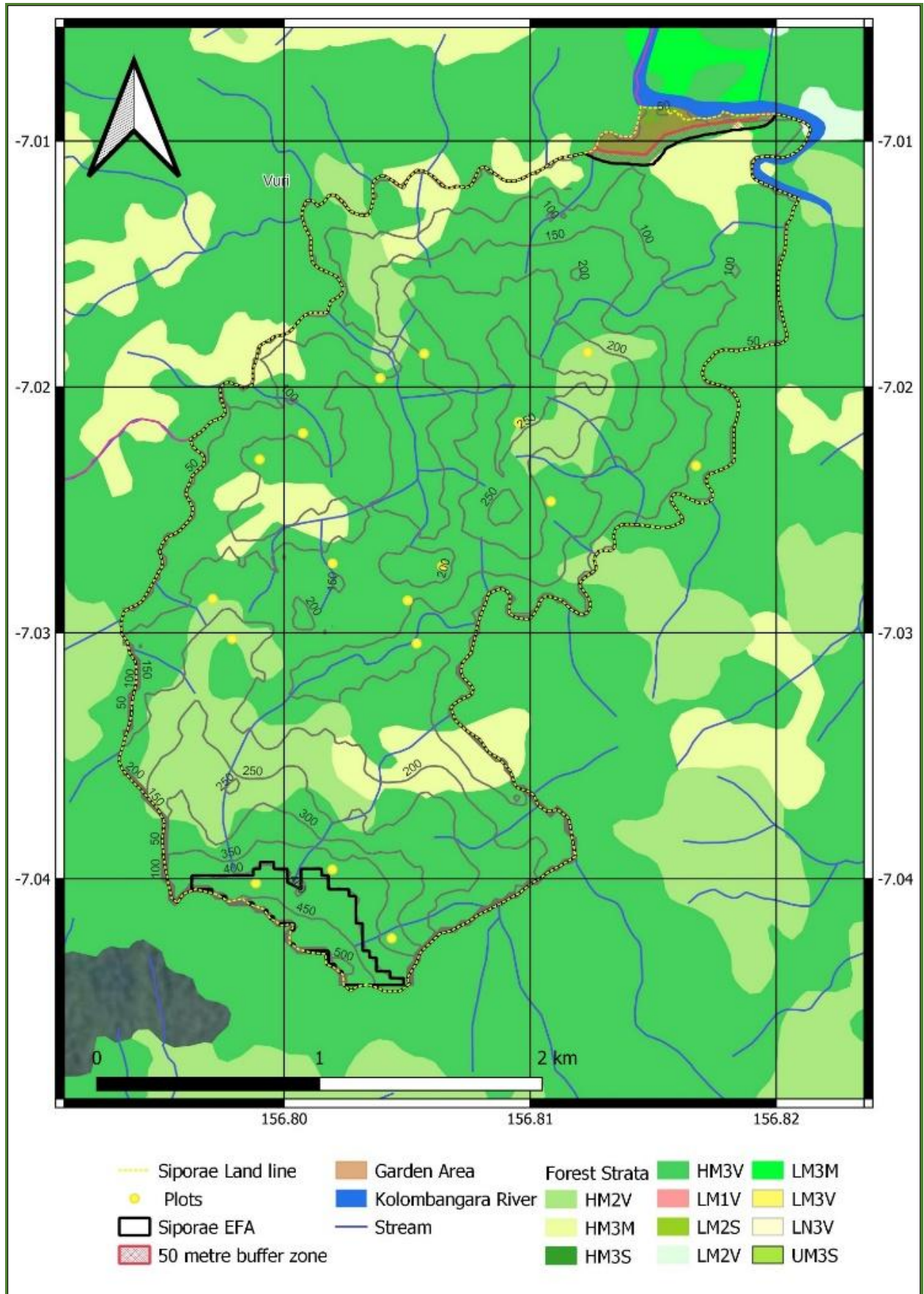


Figure 3.4: Forest types in the Siporae project area and surrounds. HM2V–HM3V are hill forest, with different canopy cover. LM1V–LN3V are lowland forest with different canopy cover. UM3S is upland forest.

Theory of change

3.5 Project logic

Please refer to section 3.5 of the Siporae PDD Part B for the theory of change of avoided logging projects developed under the Nakau Conservation Programme Solomon Islands, including project logic and results diagram.

Table 3.5 details the outputs and activities required to achieve project outcomes in the Siporae context, including the expected results and assumptions.

Table 3.5: Outputs and activities in the Siporae project.

Outputs/Activities	Expected results	Assumptions
Output 1. Siporae Protected Areas (PA) legally protected under the Protected Areas Act	Logging and mining legally excluded from project area	MEDCM supports PA application
Activity 1.a Land demarcation process and PA boundary mapping. Activity 1.b Appointment of Siporae Protected Areas management committee. Activity 1.c Development of PA bi-laws. Activity 1.d PA Biodiversity Assessment. Activity 1.e PA application process under MEDCM		
Output 2. Siporae Protected Area Management Plan incorporating Indigenous Ecological Knowledge (IEK)	Rangers and communities managing forests according to sound scientific and cultural practices	Siporae PA management plan is used by rangers to guide their activities
Activity 2.a Participatory land use planning. Activity 2.b Development of PA maps using spatial data. Activity 2.c Development of the Siporae PA management plan with inputs from the landowner community.		
Output 3. Implementation of forest management and monitoring activities	Siporae PA rules enforced; Conservation land management plans implemented	Siporae rangers have capacity to undertake conservation work
Activity 3.a Siporae PA Rangers appointed/employed. Activity 3.b Education and enforcement of Siporae PA management plan rules and regulations. Activity 3.c Implementation of forest management actions (as per PA management plan).		
Output 4. Siporae carbon baseline and monitoring	Forest Cover loss detected and quantified Siporae carbon benefits quantified according to Plan Vivo standard requirement	Carbon methodologies used meet standard requirements
Activity 4.a Mapping/stratification of Siporae Eligible Forest Area (EFA). Activity 4.b Forest inventory. Activity 4.c Establishment of technical specification Activity 4.d Development of forest/carbon monitoring plan Activity 4.e Participant-led forest monitoring using mapping application Activity 4.f Forest cover change assessment (remote sensing)		

Outputs/Activities	Expected results	Assumptions
Output 5. Siporae Ecosystem baseline and Monitoring	Siporae ecosystem and biodiversity values identified	Literature, data and/or expertise available
Activity 5.a Biodiversity survey or literature review. Activity 5.b Creation of biodiversity/ecosystem indicators Activity 5.c Development of ecosystem monitoring plan Activity 5.d Field Monitoring of ecosystem indicators.		
Output 6. Siporae Livelihood baseline and monitoring	Siporae livelihood indicators measured	Siporae communities / households agree to participate
Activity 6.a Livelihood baseline survey. Activity 6.b Livelihood monitoring survey . Activity 6.c Develop livelihood monitoring reports.		
Output 7. Project participation and FPIC	Informed Siporae landowner participation and ability to provide or withhold FPIC	Participation is effective; accessed by a broad cross-section of the participant group
Activity 7.a Broad project owner participation and FPIC in forest carbon activities. Activity 7.b PES Education embedded within participatory design activities.		
Output 8. Siporae Project Validation and Verification	Siporae project is validated or verified to the PV Standard	VVBs are available; Siporae PDD meets PV Stand requirements
Activity 8.a Preparation of Siporae Project Design Document (PDD). Activity 8.b Siporae PDD verification/validation process.		
Output 9. Siporae Benefit Sharing Mechanism (Plan)	Siporae tribal association receiving PES income and distributing benefits fairly; reinvesting into other livelihood activities	All parties implement the benefit sharing plan as designed
Activity 9.a Siporae beneficiary mapping (recording of rights holders) Activity 9.b Co-development of benefit sharing plan. Activity 9.c Facilitate community development/livelihood reinvestment plan (optional) Activity 9.d Education, consultation and FPIC for signing of Siporae Project Agreement.		
Output 10. Execution of benefit-sharing mechanism	Siporae tribal association receiving PES income and distributing benefits fairly; reinvesting into other livelihood activities	All parties implement the benefit sharing plan as designed
Activity 10.a Execution of Siporae Project Agreement; disbursement of sales revenue in accordance with benefit sharing plan. Activity 10.b Monitoring of benefit distribution by Siporae tribal association		
Output 11. Siporae Grievance redress mechanism	Grievances or disputes communicated and addressed	Participants agree to utilise dispute resolution system
Activity 11.a Education and consultation on grievance redress mechanism Activity 11.b Implementation of grievance redress mechanism (if grievances arise)		

Outputs/Activities	Expected results	Assumptions
Output 12. Siporae business entity established and supported	Transfer of carbon rights to Siporae landowner business	Transfer of rights is supported by landowners (FPIC) and allowable under law
Activity 12.a Participatory design/establishment of Siporae tribal association (STA). Activity 12.b STA business plan development. Activity 12.c STA business operation, monitoring and reporting		
Output 13. Marketing, visibility, and sales of Plan Vivo Certificates	Buyer, donor and investor support for the project	Positive response to marketing and visibility actions
Activity 13.a Development of marketing materials for Nakau channels including stories, photos and case studies. Activity 13.b Produce project stories for credit buyer platforms and channels. Activity 13.c Prepare case studies and reports for knowledge and learning, including annual reports.		
Output 14. Ongoing Project coordination/implementation support	Adherence to and maintenance of project implementation systems; meeting all PV requirements	Ongoing capacity and viability of Nakau and NRDF
Activity 14.a Technical support & training for project monitoring. Activity 14.b Technical support & training for project governance. Activity 14.c Technical support & training for business management. Activity 14.d Provision of data management services. Activity 14.e Assessment and reporting of project monitoring results and project impacts. Activity 14.f Support for annual and monitoring cycle reporting.		

Technical specification

3.6 Project activities

A summary of the avoided logging and forest conservation project activity is provided in section 3.6 and table 3.6 in the Siporae PDD Part B and . A detailed description of the project activities and inputs delivered through Nakau and NRDF in Siporae is provided in section 4 in the Siporae technical specification (Annex 7).

3.7 Additionality

This section provides an analysis of the main barriers to the implementation of forest carbon project activities in the Solomon Islands and a description and documented evidence of how these barriers will be overcome in the Siporae project context.

Table 3.7: Barrier analysis of forest conservation project activity in the Siporae project

Main barriers	Description of barriers (national context)	Description of barriers in the Siporae project context	Measures taken to overcome barriers in the Siporae project	Evidence of measures taken
Investment barriers	Project participants are remote rural communities that do not possess the financial resources to develop a protected area and Plan Vivo project in the absence of external project support.	The Siporae customary landowners and Tribal Association do not have sufficient funds to finance protected area establishment and forest carbon project development.	NRDF have sourced donor funding through Bread for the World and CEPF to finance forest carbon project development in Siporae since 2014.	Grant agreements between NRDF and Bread for the World (available on request)
Institutional barriers	The Solomon Islands economy heavily relies on logging revenue and there is still limited political support for the establishment of legal protected areas in production forest areas due to economic concerns. Source: Information on revenue from round log exports provided in the Central Bank of Solomon Islands annual reports ² :	In the Siporae project context, there are no institutional barriers. The project area is located in the Mount Maetambe-Kolombangara Basin Key Biodiversity Area ³ which enjoys full support for protected area development through the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM).	n/a	n/a
Technological barriers	Project participants are remote rural communities with generally low levels of formal education that lack the technical skills and infrastructure required to successfully develop and implement the project activity in	The Siporae customary landowners lack the technical skills and infrastructure to develop a protected area and forest carbon project without external support. For this purpose, they have signed a	Nakau and NRDF have contracted a team of experts that provide technical assistance and training to the project owners and who guide project development. NRDF has established a field office in Sasamungga, which provides services and logistical	Siporae Project Agreement Siporae registration certificate and partner agreements (see PDD Annex 2)

² <https://www.cbsi.com.sb/publications/annual-report/>

³ <https://www.keybiodiversityareas.org/kba-data>

Main barriers	Description of barriers (national context)	Description of barriers in the Siporae project context	Measures taken to overcome barriers in the Siporae project	Evidence of measures taken
	the absence of the project developer support.	partnership agreement with Nakau and NRDF.	support to the Siporae project owners.	
Barriers related to local traditions	Some of the traditional governance norms may not correspond to and represent a barrier to participatory and inclusive approaches required for forest carbon projects under PV Climate (i.e gender balance).	In the patrilineal society and leadership systems prevalent in the Siporae community, women are traditionally marginalised in decision making over land use.	The Nakau Programme seeks to strengthen gender equity through broad stakeholder engagement, participatory processes and the application of free, prior and informed consent (FPIC) throughout project development.	PDD Annex 4 Siporae participatory design evidence and PDD Annex 5 Siporae FPIC processes and evidence Nakau GEDSI strategy.
Barriers related to prevailing practice	Legal forest protection and forest carbon approaches are relatively new and unknown concepts in the Solomon Islands which customary landowners are not used to and often struggle to understand.	Before the beginning of engagement with NRDF, legal forest protection and forest carbon approaches were new concepts to the Siporae community, and project participant had little or no understanding of these concepts	Project development involves ongoing education and awareness-raising measures that aim to improve the project participants understanding of protected area and forest carbon and PES processes.	PES Awareness and education events (see PDD Annex 4 subfolder 1)
Barriers due to environmental conditions	The forest in the proposed site may not be eligible for legal protection under Solomon Islands protected area regulations.	There are no barriers due to ecological conditions in Siporae. The Siporae project area is located within the Mount Maetambe-Kolombangara River Basin Key Biodiversity Area ² that constitutes the habitat of species of wild fauna and flora of national and international importance and therefore meet	n/a	n/a

Main barriers	Description of barriers (national context)	Description of barriers in the Siporae project context	Measures taken to overcome barriers in the Siporae project	Evidence of measures taken
		the eligibility criteria for legal protection.		
Barriers related to social conditions	Local leadership systems may present barriers to establishing inclusive project governance and equal benefit-sharing mechanisms in the absence of the project intervention (participatory approach).	In the local leadership systems such as in Siporae, decision-making over benefit distribution is traditionally placed on the chief and influential/elite members of the tribe. This circumstance may represent a barrier to transparent and equitable benefit sharing.	Nakau guides the community to establish a project governance system that ensures equal participation in project decision-making and fair and transparent benefit distribution among project owners.	Nakau Methodology PDD Annex 16 – Siporae business plan
Barriers related to economic conditions	There is an increasing need for cash and a lack of alternative income opportunities for people in rural communities of the Solomon Islands. Logging is often viewed as the only option for income and community development. At the village level, people welcome logging for different reasons, all of which have to do with a promise of a better life. This includes money, jobs, roads and services (Minter, 2018). The prospect of establishing a protected area may cause objections from tribal members with conflicting economic and land use interests that can delay or permanently stall project activities.	The prospect of logging income represents a socioeconomic barrier to the project activities in Siporae. Like many other communities, In the absence of forest carbon finance, Siporae forests would likely have been logged due to external and internal pressure	To overcome economic barriers Nakau and NRDF have acquired significant funding and invested years or work into the establishment of the Siporae protected area and the development of the forest carbon project. In the project implementation phase, Siporae beneficiaries will obtain significant income through the sales of carbon credits that can compensate any forgone income from alternative (non-conservation) land uses in the project area.	PDD Annex 16 – Siporae business plan

Main barriers	Description of barriers (national context)	Description of barriers in the Siporae project context	Measures taken to overcome barriers in the Siporae project	Evidence of measures taken
Barriers related to land tenure	The existence of current and/or historical disputes over land ownership and boundaries may disrupt or inhibit project development.	In the Siporae project, there are no internal or external disputes over land ownership or boundaries. The land boundaries were successfully demarcated and agreed on with neighbouring tribes early in the protected area process. There were no internal land tenure conflicts that emerged during project development.	n.a	Protected Area declared by the Solomon Islands Government MoU on land boundaries with neighbouring tribes (see PDD Annex 5, item 3.2)

3.8 Carbon benefits

This section provides a summary of the expected carbon benefits from the Siporae project over the project period. The full details of procedures for estimating carbon benefits using the Nakau approved approach are provided in PDD Annex 6- Siporae Carbon Calculations, and in Annex 7 - Siporae technical specification.

Table 3.8a: Expected carbon benefits summary in the Siporae project

Project	Baseline emissions	Project emissions	Leakage emissions	Net carbon benefit
Siporae project	(t CO ₂ e/ha)			
Total emissions	712.1	0	0	
Total removals	-176.2	34.7	n/a	
Net benefits	535.9	34.7	0	570.6

Table 3.8b: Plan Vivo Certificate potential in the Siporae project

Project	Net carbon benefit	Project area	Total net carbon benefit	Risk buffer	Potential PVCs
Siporae project	(t CO ₂ e/ha)	(ha)	(t CO ₂ e)	(t CO ₂ e)	(t CO ₂ e)
	570.6	647.2	369,270	73,854	295,416

Risk management

3.9 Environmental and social safeguards

3.9.1 Exclusion list

No activities in the Siporae project are part of the Plan Vivo exclusion list (see PDD Annex 8 Siporae exclusion list).

3.9.2 Environmental and social screening

A summary of the environmental and social risk screening results in the Siporae project is provided in the table below. The full details of the environmental and social screening of the Siporae project are provided in PDD Annex 9

Table 3.9.2: Summary of environmental and social risks in the Siporae project

E&S topic/ risk area	Likelihood (1-5)	Magnitude (1-5)	Significance (low, moderate, severe, high)
Vulnerable Groups	1	3	Low
Gender equality	2	3	Moderate
Human Rights	1	3	Low
Community, Health, Safety & Security	2	2	Low
Labour and working conditions	3	1	Low
Resource efficiency, pollution, wastes, chemicals and GHG emissions	1	3	Low
Access restrictions and livelihoods	1	3	Low

E&S topic/ risk area	Likelihood (1-5)	Magnitude (1-5)	Significance (low, moderate, severe, high)
Cultural heritage	1	2	Low
Indigenous Peoples	1	1	Low
Biodiversity and sustainable use of natural resources	1	3	Low
Land tenure conflicts	3	1	Low
Risk of not accounting for climate change	3	3	Moderate
Other – eg. cumulative impacts	1	3	Low

3.9.3 Environmental and social assessment

The environmental and social circumstances and risks of Nakau projects operating avoided logging interventions are comparable across the Solomon Islands. Therefore, Nakau has taken a high-level approach to assessing environmental and social risks that is applicable across Nakau projects of this intervention in the country. The environmental and social risk assessment (ESRA) provides a thorough assessment of potential environmental and social risks and describes the strategies and activities designed to avoid, minimise or mitigate the risks that have been identified. The details of the ESRA are contained in the 'Environmental and social risk assessment' report, provided in PDD Annex 10.

3.9.4 Environmental and social management plan

This section presents a localized matrix of environmental and social risks and mitigation measures in the Siporae project.

Table 3.9.4: Environmental and Social management plan for the Siporae project.

Risk/Impact (PDD Annex 10)	Mitigation Measures	Reference to Outputs (Section 3.5.1, PDD Part B)
Social		
Elite capture of decision making or benefit sharing by landowner participants who are educated or have power.	<ol style="list-style-type: none"> 1. Siporae beneficiaries (carbon rights holders) of the project area are mapped and identified. 2. Selection of a representative landowner group (Siporae tribal association) triggered FPIC process requiring a broad landowner mandate. 3. The Nakau benefit distribution system requires fairness & transparency and will be monitored & audited 	Outputs 9, 10, 12 & 14 Participatory process and FPIC process is cross-cutting across project design and implementation (PDD sections 2.4 & 2.6)
Landowner participants misuse or mismanage funds.	<ol style="list-style-type: none"> 1. Nakau system for fair & transparent benefit sharing and financial discipline. 2. Provide financial literacy and management training to participants. 3. Undertake livelihood monitoring to track impact of money on social outcomes. 	Outputs 6, 9, 10, 11, 12 & 14 Benefit sharing mechanism is described in PDD Section 3.16.

Risk/Impact PDD Annex 10)	Mitigation Measures	Reference to Outputs (Section 3.5.1, PDD Part B)
Failure to consider broad community development needs, including food security, land for housing and short-term needs for income	<ol style="list-style-type: none"> 1. Participatory land use and community development planning to ensure PES was developed in the context of other needs. 2. PES methodology and protected area regulations allows for continued customary use of forests (e.g. harvesting of fuel wood and timber for local building). 3. Project activities (i.e forest monitoring, ecotourism) provide income opportunities for local people 	Output 2
Community expectations are not met (for example delays in generating income, income less than expected).	<ol style="list-style-type: none"> 1. Effective & ongoing engagement and education to ensure realistic expectations. 2. Nakau invests in marketing to stimulate demand for PES units / off-take agreements from Nakau projects 	Outputs 7 & 13. Refer to the education component of the Participatory Process (PDD Section 2.4)
Project diminishes landowners land and resource rights (e.g. land registration)	<ol style="list-style-type: none"> 1. Identify customary rights holders under the Protected Areas Act (FPIC process) 	Outputs 1, 7 & 11 (beneficiary mapping)
Lack of support from central government, and/or relevant line ministries	<ol style="list-style-type: none"> 1. Siporae PA was declared and protected under the Protected Area ACT 2010; expected to receive all the SIG support under the regulations of this ACT. 2. Siporae rangers monitor and report illegal logging in the area. 3. Nakau and NRDF actively engage with relevant SIG ministries (at national and provincial level) 	Outputs 1 & 4 Refer to Stakeholder consultation PDD Section 2.5.
Insufficient local capacity to deliver project	<ol style="list-style-type: none"> 1. Nakau engages (licences) a local NGO Project Coordinator (NRDF) that has sufficient capacity to support local implementation. 2. Nakau and NRDF provide capacity building activities support and technical backstopping for Siporae project participants . 3. Nakau fosters knowledge exchanges between participant groups. 	Output 14 Capacity building is built in and cross cutting across all activities. Refer to PDD Section 2.2 Project Coordination and Management.
Land disputes	<ol style="list-style-type: none"> 1. Assess project sites using the Nakau site screen criteria to avoid developing projects in areas where land rights are contested. 2. Ensure that a Chiefs Hearing is undertaken as part of the PA Application process to increase the reliability of boundary determination 	Outputs 1, 7 & 11 (beneficiary mapping) Nakau site screen process (occurs prior to project development)

Risk/Impact PDD Annex 10)	Mitigation Measures	Reference to Outputs (Section 3.5.1, PDD Part B)
	and strengthen the case for the PA in the instance of an appeal.	
Environmental		
Non-native / invasive species	1. The project intervention does not involve tree planting.	Outputs 2 and 3
Biosecurity- introduction of wildlife diseases	1. The Siporae PA management plan contains a code of conduct for overseas visitors that aims at minimizing the introduction of wildlife diseases 2. The code of conduct will be enforced by Siporae forest rangers	Outputs 2 and 3
Habitat loss	1. The project activity will not include the clearing of vegetation that represents an important natural habitat for wildlife species	Outputs 2 and 3
Unsustainable harvesting	1. The Siporae PA does not allow harvesting of any species for commercial purposes. 2. The protected area management plan includes activities aimed at conservation, education or for sustainable use of resources, for instance small-scale timber harvesting for domestic purposes	Outputs 2 and 3
Soil erosion	1. The project intervention does not involve any activities that would lead to soil erosion	Outputs 2 and 3
Pollution	1. The project intervention does not involve activities that would lead to significant pollution 2. The Siporae PA management plan includes measures to minimize pollution from solid and liquid waste	Outputs 2 and 3
Use of herbicides and pesticides	1. The project activity does not involve the use of herbicides and pesticides	Outputs 2 and 3

3.9.5 Native species

Section 3.9.5 of the Siporae PDD Part b provides general guidance on the use of non-native species in forest carbon projects under the Plan Vivo Climate standard.

The Siporae project does not involve introduction of any non-native species (plant or animal).

3.10 Achievement of carbon benefits

The Siporae project will not generate PVCs based on projected future emission reductions or removals

3.11 Reversal of carbon benefits

The risks related to forest loss and reversals are comparable across projects of avoided logging interventions in the Solomon Islands. Therefore, Nakau has taken a high-level approach to describing these risks and associated mitigation measures, that is provided in section 3.11 of the Siporae PDD Part B.

3.12 Leakage

Section 3.12 in the Siporae PDD Part B provides an overview of the leakage risks and mitigation measures that is relevant for all Nakau forest conservation projects in the Solomon Islands. The table below details the site-specific leakage risks and mitigation measures for the Siporae project.

Table 3.12: Potential leakage risks and mitigation measures in the Siporae project

Leakage type	Leakage risk	Mitigation measures
Market leakage from displacement or intensification of commercial logging and timber milling.	Currently low due to small scale of projects under the Nakau conservation programme	Impossible to mitigate as Nakau has no influence over the issuance of felling licenses outside the project areas.
Activity shifting leakage from displacement of slash-and-burn agriculture activities to areas outside the project area due to forest conservation management.	Low. Potential leakage risks and impacts in the Siporae project have been mitigated through adequate land-use planning.	Through participatory land-use planning, the eligible forest area (EFA) area was demarcated to exclude any areas which would potentially be used for agriculture in the future. A 10-hectare garden area within the protected area has been excluded from the EFA to cater for future agriculture activities in the project area. Through planning and land-use stratification, the incentive to shift agricultural activities elsewhere due to project activities has been mitigated.

3.13 Double counting

Nakau has developed procedures to assess and monitor the potential occurrence of double counting (of carbon benefits) at the national level. A description of these measured is provided in section 3.13 in the Siporae PDD Part B. and sections 4.2 and 4.7 in this PDD.

Agreements

3.14 Land management plans

In the context of Nakau projects that avoid logging and protect forest through formal protected area, land management plans are referred to as “Protected Area Management Plans”

The Participatory land-use planning that precedes the elaboration of PA management plans follow the general procedures for all Nakau forest conservation projects as outlined in section 3.14 of the Siporae PDD Part B. The Siporae project applies scenario a) where the project area is located remotely from villages or areas where landowners are residing. It is not considered readily accessible for gardening or daily use, and gardening occurs only in limited areas which have been mapped and excluded from the EFA (see Figure 1.2.2).

The Siporae protected area management plan is presented in PDD Annex 11.

3.15 Crediting period

The project period for all Nakau avoided logging projects is 30 years. For a rationale on the crediting period in Nakau projects including Siporae, refer to section 3.15 in the Siporae PDD Part B.

The start date and project period for the Siporae project is specified in Clause 1.5 of the Project Agreement (see PDD Annex 12) as from 1 January 2019 until 31 December 2048 (30 years).

3.16 Benefit-sharing mechanism

Nakau follows a standardized approach to develop the benefit-sharing mechanism at the project level, as described in section 3.16 (3.16.1–3.16.9) in the Siporae PDD Part B. The Siporae benefit-sharing mechanism was developed through a community consultation workshop. The workshop was preceded by the identification of project beneficiaries through a genealogy survey (see PDD Annex 4, item 4.2). The benefit sharing arrangements were consulted and designed in a business and benefit-planning workshop, guided by Nakau staff (see Annex 4– item 4.1) which provides the foundation for the development of the Siporae business and benefit sharing plan (see PDD Annex 16).

The benefit sharing arrangements are included in the Siporae Project Agreement, which was signed between the responsible parties through free, prior and informed consent (FPIC process described in section 2.6). The FPIC documentation and signed Project Agreement are provided in PDD Annex 5-subfolder 2.

The benefit-sharing plan is presented as a sub-section of the Siporae Tribal Association's business plan (see PDD Annex 16).

3.17 Grievance mechanism

Nakau applies a standardized approach to develop a grievance mechanism in all projects in the Solomon Islands, as described in section 3.17 in the Siporae PDD Part B.

The Siporae project grievance mechanism is provided in PDD Annex 17 mechanism. This project-specific grievance mechanism was designed by Nakau and NRDF staff during the project development phase, with the following steps to be completed during year one of the project:

- Consultation with projects owners regarding the details of the grievance mechanism
- Confirmation of nominated roles, responsibilities and procedures related to grievance management
- Details of grievance mechanism shared with all relevant tribal members and stakeholders.

3.18 Project agreements

The Siporae Project Agreement was established in accordance with the general requirements for Nakau Project Agreements described in the Siporae PDD Part B, section 3.18.

The Siporae Project Agreement signing followed the free, prior and informed consent (FPIC) process (see PDD section 2.6), which is detailed in the Project Agreement report (see PDD Annex 5– item 2.3). The Project Agreement between the responsible parties for the Siporae project is available in PDD Annex 12.

4 Monitoring and reporting

4.1 Progress indicators

Table 4.1 presents an overview of progress indicators used to monitor the performance of the Siporae project, based on project outputs and activities as per section **Error! Reference source not found.** The full details of progress indicators, targets and monitoring procedures are described in the Siporae

monitoring plan (see PDD Annex 13). The progress monitoring results are reported annually in the annual reports.

Table 4.1: Progress indicators used in the Siporae project (noting that only recurring indicators will be included in project monitoring plans)

Output/activity	Progress indicators	Means of verification	Monitored (Recurring)
Output 1. The Siporae project area is legally protected under the Protected Areas Act 2010	1.1 Absence of notice to change or revoke the PA status	<ul style="list-style-type: none"> Notice change or revoke the PA status 	Yes
	1.2 Absence of illegal logging incidents; Absence of penalties issued for illegal logging	<ul style="list-style-type: none"> Description enforcements actions and outcomes in forest monitoring activity reports Siporae Annual reports 	Yes
Output 3. Implementation of forest management and monitoring activities	3.1 Quantity and type of ranger-led forest management actions as defined in the PA management plan and project monitoring plan	<ul style="list-style-type: none"> Data reported in quarterly land management reports Annual reports 	Yes
Output 4. Forest carbon baseline and monitoring	4.1 Siporae forest inventory and carbon baseline updated	<ul style="list-style-type: none"> Original and updated forest inventory data and analysis results (Siporae PDD Annex 6) 	Yes
	4.2 Completion of forest field monitoring <ul style="list-style-type: none"> Level of effort (days, personnel) Area monitored 	<ul style="list-style-type: none"> Data collected by rangers Annual forest monitoring field reports 	Yes
	4.3 Forest change assessment (remote sensing) completed annually	<ul style="list-style-type: none"> Forest cover change analysis report Verification monitoring report 	Yes
Output 5. Ecosystem monitoring	5.1 Ecosystem monitoring completed including <ul style="list-style-type: none"> Level of effort (days, personnel) 	<ul style="list-style-type: none"> Data collected by rangers Annual forest monitoring field reports 	Yes
Output 6. Siporae livelihood monitoring	6.1 Livelihood monitoring conducted once per verification cycle, as per sections 4.3 and 4.8	<ul style="list-style-type: none"> Livelihood monitoring results in annual report Annual benefits sharing results in annual reports 	Yes
Output 10. Execution of Siporae benefit sharing mechanism	10.1 Value of service fee commissions and participant payments	<ul style="list-style-type: none"> Annual reports 	Yes
	10.2 Value of participant payments	<ul style="list-style-type: none"> Quarterly reports 	Yes
	10.3 Siporae tribal association reports business and benefit distribution expenditure	<ul style="list-style-type: none"> Quarterly reports 	Yes
	10.4 Results of community benefit investments (e.g. goods, services, infrastructure, savings)	<ul style="list-style-type: none"> Quarterly reports Annual reports 	Yes

Output/activity	Progress indicators	Means of verification	Monitored (Recurring)
Output 11. Grievance redress mechanism	11.2 Grievance redress mechanism SOP applied as needed	<ul style="list-style-type: none"> • Livelihood monitoring report in verification monitoring reports • Annual report 	Yes
Output 12. Siporae business entity established and supported	12.2 Siporae tribal association business health	<ul style="list-style-type: none"> • Quarterly finance reports from tribal association • Tribal association annual report 	Yes
Output 13. Marketing, visibility, and sales of Plan Vivo Certificates	13.1 Annual volume and value of PVC sales or sales commitments	<ul style="list-style-type: none"> • Emission reduction purchase agreements (ERPAs) • Annual reports 	Yes
Output 14. Ongoing project coordination and implementation support	14.1 Training and support activities delivered as planned in annual general meetings (project level)	<ul style="list-style-type: none"> • Siporae Annual general meeting minutes • Annual reports 	Yes

4.2 Carbon indicators

The following table provides a summary of carbon indicators monitored in the Siporae project, including methods of measurement, sampling approach, monitoring frequency, groups involved, and resources and capacity requirements.

Table 4.2.: Carbon indicators monitored in the Siporae project.

Carbon indicator	Methods of measurement	Monitoring Frequency	Groups involved	Resources required	Capacity required
Forest cover loss/ reversals of carbon stocks	Field measurement of areas of forest cover loss incidents and estimation of actual project emissions from carbon stock loss	Annual	Forest rangers with support from Nakau and NRDF	Forest rangers and technical expertise	Technical expertise in monitoring procedures and equipment use, mapping and spatial analysis
	Remote assessment of areas of forest cover loss incidents and estimation of actual project emissions from carbon stock loss	Continuous, reported annually	Nakau and NRDF support remote monitoring, results shared with project owner	Recent high-resolution satellite imagery and analysis tools	Technical expertise in remote monitoring procedures and spatial analysis
Carbon baseline	Measurement of commercial stock	Every 5 years	Forest rangers with technical support from Nakau and NRDF	Trained forest rangers Forest inventory equipment	Forest mensuration techniques Forest data analysis skills
Baseline scenario	Gathering and assessing information on forest sector policy and regulatory changes and their impact on the	Continuous	Nakau and NRDF experts	Professional networks in forest and environmental sectors	Expertise in forest sector policy and governance

Carbon indicator	Methods of measurement	Monitoring Frequency	Groups involved	Resources required	Capacity required
	credibility of the baseline scenario				
Project removals	Modelling of forest biomass and increment	Once per verification period	Nakau technical team	Scientific literature	Forest data analysis skills
Activity-shifting leakage	Not monitored (leakage has been mitigated through land-use planning, see Table 4.2:)	n/a	n/a	n/a	n/a
Market leakage	Comparison of foregone log export volumes from protected areas under the NCP-SI versus actual timber export volumes at the national level	Once per verification period	Nakau experts	Data on logging volumes (export and domestic markets) Data on avoided logging volumes by Nakau projects	Expertise in forest data analysis and carbon accounting
Double counting	Gathering and assessing information on changes to the Solomon Islands national REDD+ programme, or other emerging emission trading schemes, and the impacts of these on Nakau projects	Continuous	Nakau experts	Professional networks in forest and environmental sectors	Expertise in forest governance and emission trading schemes

The full details of carbon indicators and monitoring procedures are described in the Siporae monitoring plan (see PDD Annex 13)

4.3 Livelihood indicators

Livelihood monitoring in the Siporae project is guided by the livelihood indicators described in Table 4.3. Indicators may be revised or new indicators added where appropriate at project scale.

The detailed livelihood indicators and monitoring procedures and targets are described in the Siporae monitoring plan (see PDD Annex 13).

Table 4.3: Livelihood indicators and means of verification in the Siporae project

Livelihood indicator and sub-indicators	Methods of measurement	Sampling approach	Frequency	Groups involved	Resources	Capacity required
Livelihood indicator: Food Security 1. Food purchased from the store won't adversely change (increase or decrease) on average. 2. The average size of the household or family garden does not decrease as a result of the project. 3. How often food is harvested from the garden does not decrease. 4. The types of crops sold does not impact food security over time. 5. Households do not run out of food more often as result of the project. 6. The frequency that food and other items are harvested from the forest does not decrease.	Measurement of indicators relating to household food security compared over time	Random selection of participating households 1 man or 1 woman interviewed at each household	Once per verification period	Nakau, NRDF	Kobo Toolbox and data collection device, survey questionnaire	Social survey skills and proficiency in local language
Livelihood Indicator: Water Security 1. Households will not run out of water more frequently as a result of the project. 2. Water sources available to households will remain the same or improve as a result of the project. 3. The types of toilets used will remain the same or improve a result of the project. 4. Percentage of project owner budget spent on infrastructure each year. 5. Number of households receiving water tanks (or equivalent water supply infrastructure) each year. 6. Number of households receiving improved sanitation infrastructure (toilets etc.) each year.	Measurement of indicators relating to household food security compared over time	Random selection of participating households 1 man or 1 woman interviewed at each household	Once per verification period	Nakau, NRDF	Kobo Toolbox and data collection device, survey questionnaire	Social survey skills and proficiency in local language

Livelihood indicator and sub-indicators	Methods of measurement	Sampling approach	Frequency	Groups involved	Resources	Capacity required
<p>Livelihood Indicator: Financial Security</p> <ol style="list-style-type: none"> 1. The housing conditions will not get worse as a result of the financial benefits. 2. The sources of electricity will not be negatively impacted. 3. School attendance will not decrease. 4. The main expenditures will not increase as a result of the project. 5. Households' ability to save income will remain the same or improve. 6. Use of alcohol or other drugs will not increase. 7. Percentage of community benefit-sharing allocation spent on education each year. 8. Number of households receiving school fee support each year. 9. Percentage of community benefit-sharing allocation spent on supporting livelihoods projects each year. 10. Number of households benefiting from supported livelihoods initiatives each year (microloans etc.). 11. Percentage of community benefit-sharing allocation spent on women saving club accounts each year. 12. Number of women/household members of savings groups supported by project. 	<p>Measurement of indicators relating to household food security compared over time</p>	<p>Random selection of participating households 1 man or 1 woman interviewed at each household</p>	<p>Once per verification period</p>	<p>Nakau, NRDF</p>	<p>Kobo Toolbox and data collection device, survey questionnaire</p>	<p>Social survey skills and proficiency in local language</p>
<p>Livelihood Indicator: Project Participation</p> <ol style="list-style-type: none"> 1. The community's ability to access information about the carbon project has improved. 2. The community feels that they are learning skills from the project. 3. Participation in the project is increasing. 4. More community members trust the project and feel that it is improving community wellbeing. 	<p>Measurement of indicators relating to household food security compared over time</p>	<p>Random selection of participating households 1 man or 1 woman interviewed at each household</p>	<p>Once per verification period</p>	<p>Nakau, NRDF</p>	<p>Kobo Toolbox and data collection device, survey questionnaire</p>	<p>Social survey skills and proficiency in local language</p>

4.4 Ecosystem indicators

This section provides a summary of ecosystem monitoring procedures and a list of the ecosystem indicators (key species).

Table 4.4a: Ecosystem indicators monitored in the Siporae project

Indicator	Methods of measurement	Sampling approach	Monitoring Frequency	Groups involved	Resources required	Capacity required
Presence or absence of key flora and fauna species.	Field assessment and comparison of number of observations of key flora and fauna species.	Opportunistic observations during forest boundary and transect patrols. Observations documented using the Avenza App, georeferenced with photographic evidence if possible.	Annual	NRDF, Siporae rangers	Avenza App Mobile devices (smart phones or tablet). Key species identification guide	Species identification skills. Competency with monitoring app. GIS support (provided by Nakau and NRDF).

The detailed ecosystem monitoring procedures are described in the Siporae monitoring plan (see PDD Annex 13)

Table 4.4b: List of key species used as ecosystem indicators in the Siporae project

Taxonomic group	Common name	Species name	IUCN Red List status (2023)	Conservation value	Threats in project area	Other relevant information
Flora	Rosewood	<i>Pterocarpus indicus</i>	EN ⁴	Very high	Logging and timber milling	
Mammals	Bougainville giant rat	<i>Solomys salebrosus</i>	VU ⁵	High	Hunting	
	Poncelet's giant rat	<i>Solomys ponceleti</i>	CR ⁶	Very high	Hunting	
	Solomon flying fox	<i>Pteropus rayneri</i>	NT ⁷	High	Hunting	Endemic to Choiseul and Bougainville
	Admiralty flying fox	<i>Pteropus admiralitatum</i>	LC ⁸	Medium	Hunting	Endemic to Solomon Islands
Birds	Sanford's sea eagle	<i>Haliaeetus sanfordi</i>	VU ⁹	High	Wildlife trade	Endemic to Solomon Islands
	Blyth's hornbill	<i>Aceros plicatus</i>	LC ¹⁰	Medium	Hunting and wildlife trade	
	Crested cuckoo dove	<i>Reinwardtoena crassirostris</i>	NT ¹¹	High	Hunting and wildlife trade	
	Eclectus parrot	<i>Eclectus polychloros</i>	LC ¹²	Medium	Wildlife trade	
Amphibians	Solomon Islands leaf frog	<i>Cornufer guentheri</i>	LC ¹³	Medium	Wildlife trade	Endemic to Solomon Islands

⁴ Barstow, M. 2018. *Pterocarpus indicus*. The IUCN Red List of Threatened Species 2018.

⁵ Dando, T. 2021. *Solomys salebrosus*. The IUCN Red List of Threatened Species 2021.

⁶ Leary, T., Seri, L., Flannery, T., Wright, D., Hamilton, S., Helgen, K., Singadan, R., Menzies, J., Allison, A. & James, R. 2008. *Solomys ponceleti*. The IUCN Red List of Threatened Species 2008.

⁷ Lavery, T.H. 2017. *Pteropus rayneri*. The IUCN Red List of Threatened Species 2017.

⁸ Lavery, T.H., Bonaccorso, F.J. & Hamilton, S. 2020. *Pteropus admiralitatum*. The IUCN Red List of Threatened Species 2020.

⁹ BirdLife International. 2016. *Haliaeetus sanfordi*. The IUCN Red List of Threatened Species 2016.

¹⁰ BirdLife International. 2020. *Rhyticeros plicatus*. The IUCN Red List of Threatened Species 2020.

¹¹ BirdLife International. 2016. *Reinwardtoena crassirostris*. The IUCN Red List of Threatened Species 2016.

¹² BirdLife International. 2019. *Eclectus roratus*. The IUCN Red List of Threatened Species 2019.

¹³ IUCN SSC Amphibian Specialist Group. 2020. *Cornufer guentheri*. The IUCN Red List of Threatened Species 2020.

Taxonomic group	Common name	Species name	IUCN Red List status (2023)	Conservation value	Threats in project area	Other relevant information
	Solomon giant tree frog	<i>Cornufer hedigeri</i>	LC	Medium	Wildlife trade	Endemic to Solomon Islands
Reptiles	Solomon Islands prehensile-tailed skink	<i>Corucia zebrata</i>	NT ¹⁴	High	Hunting and wildlife trade	
	Western crocodile skink	<i>Tribolonotus pseudoponceleti</i>	LC ¹⁵	Medium	Wildlife trade	Endemic to Choiseul and Bougainville

¹⁴Hagen, I.J., Harlow, P., Allison, A., Hamilton, A. & Tallwin, O. 2021. *Corucia zebrata*. The IUCN Red List of Threatened Species 2021.

¹⁵ Harlow, P. 2013. *Tribolonotus pseudoponceleti*. The IUCN Red List of Threatened Species 2013.

Monitoring

4.5 Monitoring plan

The Siporae project monitoring follows the general project monitoring guidelines established for Nakau forest conservation projects in the Solomon Islands, as described in the Siporae PDD Part B, section 4.5.

The monitoring plan of the Siporae project (see PDD Annex 13) was developed by Nakau and NRDF and describes the detailed procedures to monitor progress, carbon, livelihood and ecosystem indicators. The Siporae monitoring plan will be implemented by the project owner and NRDF, with technical support from Nakau.

Prior to the verification of the Siporae project PDD, Nakau and NRDF delivered training to the Siporae Protected Area Management Committee and forest rangers through forest monitoring and data-collection workshops (see PDD Annex 4– subfolder 6). The workshops covered the basic principles of community participation in monitoring in alignment with the PDD, as well as how to use the field mapping applications to monitor project indicators. Rangers were specifically trained to use the Avenza mapping app to measure forest cover loss in the field and collect data on ecosystem indicator species.

NRDF will continue to strengthen the capacity of the project owners in project monitoring as long as necessary. The trainings will happen based on mutual agreement and at times, opportunistically, during NRDF field visits.

4.6 Progress monitoring

Table 4.6 provides milestones or thresholds for the progress indicators in the Siporae project.. Progress of indicators are numbered in relation to outputs, as per Table 4.1 (above). Ongoing progress monitoring activities will focus on recurring outputs (as opposed to one-off outputs), as explained in section 4.1.

Table 4.6: Progress indicators, milestones and potential corrective actions in the Siporae project

Progress indicators	Milestone/thresholds	Corrective action if milestone is not met
1.1 Permanence of legal protection status	Absence of notice to change or revoke the Siporae PA status	Delay verification events until PA reinstated
1.2 Effective enforcement of Siporae PA regulations	PA remains protected from illegal logging threats	<ul style="list-style-type: none"> Delay verification events until illegal logging incidents have been assessed Update carbon accounting with reversals
3.1 Quantity and type of ranger-led forest management actions as defined in the Siporae PA management plan	Targets of PA management activities met	NRDF to provide additional support and training as required
4.1 Forest inventory and carbon baseline updated	Siporae forest inventory and carbon baseline updated as per Plan Vivo requirements (every 5 years under PV v4)	Delay verification events until completion

Progress indicators	Milestone/thresholds	Corrective action if milestone is not met
4.2 Forest field monitoring completed	Siporae rangers achieve targets for forest/carbon monitoring	<ul style="list-style-type: none"> • Ensure forest carbon accounting can be confirmed prior to verification • NRDF to provide additional support and training as required
4.3 Remote forest monitoring completed	Forest cover change assessment completed at least annually	Delay verification events until completion
5.1 Ecosystem monitoring completed	Siporae rangers achieve targets for ecosystem monitoring	NRDF to provide additional support and training as required
6.1 Livelihood monitoring completed	Siporae livelihood monitoring results reported at each verification	<ul style="list-style-type: none"> • NRDF to provide additional support and training as required • Delay verification events until completion
10.1 Value of service fee commissions and participant payments	Target max. 40% for services fees from Nakau and the project coordinator, and min. 60% to Siporae Tribal Association	Actions to remedy payment amounts for compliance
10.2 Value of participant payments		
10.3 Siporae tribal association (STA) reports business and benefit distribution expenditure	STA reports financial results according to agreement	<ul style="list-style-type: none"> • Nakau/NRDF to provide support and capacity building for reporting • For funds misuse or elite capture, implement localised strategy to remedy • For serious non-compliance, delay payments until remedied
10.4 Results of community benefit investments	STA meets targets and/or priorities established in the project community benefit sharing plan	NRDF to provide additional support and training as required
11.2 Grievance redress mechanism SOP applied as needed	Assess effectiveness at project monitoring meeting before each new verification event	Nakau to work with NRDF and STA to improve system
12.2 STA business health	STA is financially stable	NRDF to implement activities for continual support and improvement
13.1 Annual volume and value of PVC sales or sales commitments	Sales targets met	Nakau increases efforts in sales and marketing
14.1 Training and support activities delivered as planned in annual general meetings (project level)	Training and support delivered as identified in the AGM	Nakau to work with NRDF and STA to improve delivery of training and support

The Siporae-progress indicators and targets are described in the Siporae project monitoring plan, see PDD Annex 13, and the monitoring results are reported in the annual reports.

4.7 Carbon monitoring

The carbon monitoring follows of the Siporae project monitoring plan (see PDD Annex 13), and technical specification (Annex 7).

The following table describes the carbon monitoring schedule in the Siporae project throughout the project period.

Table 4.7: Overview of carbon monitoring schedule in the Siporae project

Carbon indicators	Activity	Verification period					
		2019–2022	2023–2027	2028–2032	2033–2037	2038–2042	2043–2048
Forest cover loss	Field monitoring	annually	annually	annually	annually	annually	annually
	Remote monitoring	once	annually	annually	annually	annually	annually
Carbon baseline	Re-assessment of commercial stock	Initial values	once	once	once	once	once
Baseline scenario	Review of policy/ legislative changes	Initial status	once	once	once	once	once
Activity shifting leakage	Not monitored						
Market leakage	Review of market leakage assumptions (national level)	once	once	once	once	once	once
Double counting	Review of changes to national GHG reduction programmes	once	once	once	once	once	once

4.8 Livelihood and ecosystem monitoring

4.8.1 Livelihood monitoring

General rules around livelihood monitoring applicable to Nakau projects in the Solomon Islands are described in section 4.8.1 of the Siporae PDD Part B.

The livelihood indicators are measured at household level across the Siporae community. The target values are derived from the Siporae livelihood baseline survey results (initial values). The livelihood indicators are reassessed, and project impacts are evaluated once per verification period.

Table 4.8.1: Overview of livelihood indicators, initial values and targets in the Siporae project

Livelihood indicators	Initial value	Target value
Food security		
No change in how often food is purchased from the store or market on average	4.2 days a week	≤4 days a week
No decrease in the average size of a household/family garden	0.25 hectares	≥0.25 hectares
No decrease in the average number of days food is eaten from the garden	≥2.8 days a week	≥3 days a week

Livelihood indicators	Initial value	Target value
No change in crops grown in the gardens	Potato, taro, casava, yam, pana, cabbage, banana, beans	Same
Fewer households report running out of food	16%	≤16%
The average frequency food is harvested from the forest will not decrease	1-2 days a month	≥1 day a month
Water security		
On average, less households run out of clean water	68%	≤68%
Water sources available to households will remain the same or improve	92% households access mains 64% of households can access rainwater tanks	≥92% households access mains ≥64% of households can access rainwater tanks
Access to toilets and sanitation improves, with more households using a pour/flush toilet	30% of households have access to a flush toilet	≥30% of households have access to a flush toilet
% of project owner budget spent on infrastructure each year	n/a	Confirmed annually in AGM
Number of households receiving water tanks (or equivalent water supply infrastructure) each year	n/a	Confirmed annually in AGM
Number of households receiving improved sanitation infrastructure (toilets) each year	n/a	Confirmed annually in AGM
Financial security		
The housing condition will remain the same or not get worse due to finances	76% of people live in a permanent house	≥76% of people live in a permanent house
Access to electricity is consistent or improves	96% of households have access to solar energy	≥96% of households have access to solar energy
School attendance will not decrease	93% of children attend school	≥93% of children attend school
More households can save some money on a monthly basis	79% of households can save some money on a monthly basis	≥79% of households can save some money on a monthly basis
The household main expenditures will not increase due to the project	Food and household items are the biggest expenditures	Same
Alcohol and drug consumption doesn't increase because of the project	72% of people observe alcohol consumption increasing	≤72% of people observe alcohol consumption increasing
% of community benefit-sharing allocation spent on education each year	n/a	Confirmed annually in AGM
Number of children (or households) receiving school fee support each year	n/a	Confirmed annually in AGM
% of community benefit-sharing allocation spent on supporting livelihood projects each year	n/a	Confirmed annually in AGM
Number of households benefiting from supported livelihoods initiatives each year (micro loans)	n/a	Confirmed annually in AGM
% of community benefit-sharing allocation spent on Siporae women saving club accounts each year	n/a	Confirmed annually in AGM
Number of women/household members of savings groups supported by project	n/a	Confirmed annually in AGM

Livelihood indicators	Initial value	Target value
The community's ability to access information about the carbon project has improved	76% of households can access project information	≥76% of households can access project information
The community feels they are learning skills from the project	84% of households feel that skills have improved through the project	≥84% of households feel that skills have improved through the project
Participation with the project is increasing	60% of households have members directly engaged with the project	≥60% of households have members directly engaged with the project
More community members trust the project and feel it is improving community wellbeing	92% of households feel that the project is improving community well being	≥92% of households feel that the project is improving community well being

4.8.2 Ecosystem monitoring

This section provides an overview of the Siporae ecosystem monitoring schedule and targets throughout the project period. The ecosystem monitoring system follows the ecosystem indicators described in section 4.4.

Table 4.8.2: Overview over ecosystem monitoring targets and schedule in the Siporae project

Verification Period	Ecosystem Indicator	Target Value
2019-2022	Presence of Key Species	Not yet started (training phase)
2023-2027	Presence of Key Species	The project area is monitored annually
		Recorded key species are reported annually
2028-2032	Presence of Key Species	The project area is monitored annually
		Recorded key species are reported annually
		Change in number of recorded key species is reported at verification
2033-2037	Presence of Key Species	The project area is monitored annually
		Recorded key species are reported annually
		Change in number of recorded key species is reported at verification
2038-2042	Presence of Key Species	The project area is monitored annually
		Recorded key species are reported annually
		Change in number of recorded key species is reported at verification
2043-2048	Presence of Key Species	The project area is monitored annually

Verification Period	Ecosystem Indicator	Target Value
		Recorded key species are reported annually
		Change in number of recorded key species is reported at verification

The detailed ecosystem indicators and monitoring procedures are included in Annex 13 Siporae project monitoring plan.

4.8.3 Sharing monitoring results

General guidance on sharing monitoring results across Nakau projects is provided in section 4.8.3 in the Siporae PDD Part B.

NRDF has the responsibility of supervising and supporting monitoring activities according to the Siporae monitoring plan (see PDD Annex 13) and sharing and consulting the monitoring results with the Siporae Tribal Association and the broader community during the annual general meetings. The initial livelihood baseline has informed the business plan and benefit sharing priorities (Annex 16) while the carbon baseline has informed project carbon benefits and project owner income and enabled the planning of community investment options. The results of both baselines were shared with the Siporae TA and broader community during the business and benefit sharing workshop (see Siporae PDD Annex 4, item 4).

Reporting

4.9 Annual report

The Siporae project annual reporting follows the project requirements of Plan Vivo Climate as outlined in the Siporae PDD Part B, section 4.9..

A (simplified) annual report (AR) for the Siporae project will be prepared to cover the first verification period (2019-2022) and then annually starting from 1 January 2023 onwards. The ARs will be submitted to Plan Vivo until 31 December of the following year.

4.10 Record keeping

A summary of Nakau's filing system is provided in section 4.10 of the Siporae PDD Part B. PDD Annex 14 contains a report on the Siporae project database structure. At verification events, the third-party validation and verification body (VVB) and Plan Vivo will be given access to the Siporae project database and documentation for auditing.

5 Governance and administration

5.1 Governance structure

The Siporae project governance structure was established in accordance with the general project governance structure required under the NCP-SI, as described in section 5.1 of the Siporae PDD Part B. Figure 5.1 shows the governance structure at the project level.

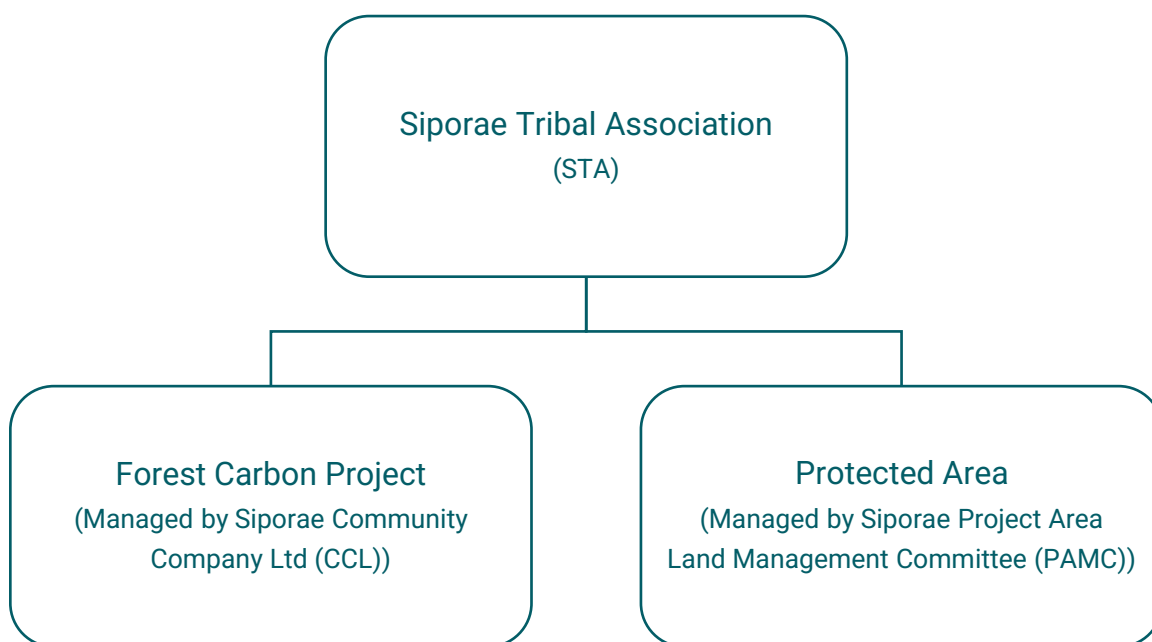


Figure 5.1: Siporae project local governance structure

The Siporae Tribal Association (STA)

The Siporae Tribe established and registered the STA in June 2018 (see Annex 2– item 1.3). During the readiness process, tribal members agreed the STA should be responsible for the coordination and management of the Siporae project. The responsibility to manage the STA is placed on the executive committee consisting of 14 members. The STA’s executive members were reconfirmed and endorsed by the tribe during a tribal meeting in May 2022 (see Annex 5– item 1.1). All the mandates of the STA are captured in the Constitution of the Siporae Tribal Association (see Annex 2– item 1.5).

The Siporae Protected Area Management Committee (PAMC)

The Protected Area Management Committee (PAMC), formally established under the Protected Area Regulations 2012, is responsible for the management of the Siporae Tribal Forest Conservation Area protected area (PA), the enforcement of rules and regulations of the Siporae PA Management Plan (see Annex 11) and forest monitoring in the PA and project area. The PAMC is comprised of six committee members, six rangers and two inspectors.

5.2 Equal opportunities

5.2.1 Employment procedures

The employment procedures applied by Nakau and it’s partners in projects under the NCP-SI are described in section 5.2.1 of the Siporae PDD Part B.

5.2.2 Avoiding elite capture

5.2.3 Measures to avoid elite capture in the Siporae project are described in section 3.9.4 of this PDD. Women's projects

Throughout project development, NRDF and Nakau have prioritised the inclusion of women in all workshops and participation processes (see PDD Annex 4) in a manner that does not result in cultural subjugation of Choiseul's patrilineal society.

In their benefit-sharing plan, the Siporae Tribal Association (STA) has dedicated 5% of their income from carbon credit sales to be allocated to women through the saving club structures (see Annex 16). The STA has established seven women's savings clubs, with a total of 225 participating members. The savings clubs act as a micro-banking service for women and provide small loans for household economic development. The women's savings club participants have also received training, including on financial literacy, computer literacy, bookkeeping, and hospitality (see PDD Annex 4– items 6.7 to 6.11).

5.3 Legal and regulatory compliance

Refer to section 5.3 in the Siporae PDD Part B for an overview of legal and regulatory compliance of projects under the NCP-SI.

5.4 Financial plan

The Siporae project financial plan is developed in accordance with procedures outlined in sections 5.4, 3.5 and 3.6 of the Siporae PDD Part B and follows the template used in all projects under the NCP-SI (see PDD Annex 16). The project coordinator (NRDF) has the responsibility to develop and maintain annual budgets for its activities to support the Siporae project. The Financial plan includes Nakau, NRDF and Siporae Tribal Association annual budgets and is updated in quarterly intervals each year (after the start of credit sales).

5.5 Financial management

Financial management procedures implemented within the Siporae project follow the requirements of the NCP-SI, as outlined in the Siporae PDD Part B, section 5.5. The full financial plan for the Siporae project is provided in PDD Annex 16.

Annexes

Annex 1 – Siporae spatial data

Contains spatial data and maps of the Siporae project area

Annex 2 – Siporae registration certificate and partner agreements

Contains the partner certificates and agreements for the Siporae project

Annex 4 – Siporae participatory design evidence

Contains evidence documents of participatory processes during the Siporae project design phase

Annex 5 – Siporae FPIC processes and evidence

Contains evidence documents of the FPIC processes during the Siporae project design phase

Annex 6 – Siporae carbon calculations

Contains the Siporae project forest inventory data and carbon calculations

Annex 7 – Siporae technical specifications

Contains the Siporae technical specification document.

Annex 8 – Siporae exclusion list

Contains the Plan Vivo exclusion list applicable to the Siporae project.

Annex 9 – Siporae environmental and social screening report

Contains the Siporae environmental and social screening report

Annex 10 – NCP-SI Environmental and social assessment report

Contains the NCP-SI Environmental and social screening report

Annex 11 – Siporae protected area management plan

Contains the Siporae protected area management plan document

Annex 12 – Siporae project agreement

Contains the signed Siporae project agreement document.

Annex 13 – Siporae project monitoring plan

Containers the Siporae project monitoring plan document.

Annex 14 – Siporae project database

Contains a description of the of the Siporae project file management system.

Annex 15 – Siporae project letter of approval

Contains a government letter of no objection of Nakau projects in the Solomon Islands

Annex 16 – Siporae project financial plan

Contains the Siporae business and benefit sharing plan and the financial plan

Annex 17 – Siporae project grievance mechanism

Contains the Siporae project grievance mechanism document.