

PNG COMMUNITIES BEST REDD TAVOLO PROJECT



Document Prepared By FORCERT (Forests for Certain: Forests for Life!) , Kimbe, Papua New Guinea, with technical assistance from Face the Future, Wageningen, The Netherlands

Project Title	PNG Communities BEST REDD Tavolo Project, Papua New Guinea
Version	1.1
Date of Issue	25 July 2022
Project Location	Papua New Guinea, East New Britain
Project Proponent(s)	FORCERT P.O.Box 772 Kimbe, West New Britain Province 612, Papua New Guinea Cosmas Makamet, Manager +675 73006023 cmakamet@forcertpng.org
Validation Body	RINA Services S.p.A. Vinay Singh +91-8779104816
Project Lifetime	23 January 2019 – 22 January 2048, 30-year lifetime
GHG Accounting Period	23 January 2019 – 22 January 2048, 30-year total period
History of CCB Status	n.a.

<p>Gold Level Criteria</p>	<p><u>Climate Change Adaptation Benefits:</u> Awareness on climate change adaptation and mitigation strategies; training on on natural disasters safeguards and mitigation; development of a Safeguards, Mitigation & Adaptation plan; Restoration and maintenance of buffer zones, by planting mangroves along coastal swamps, Eucalyptus deglupta along the river bank; Planting of climate change resilient tree species and use of drought resistant crops in the food gardens.</p> <p><u>Exceptional Community Benefits:</u> The sixteen clans that make up the Tavolo Community Conservation Association, who are project proponents and the - beneficiaries, have customary landowning rights to their traditional land; The project area is classified as a low human development country according to the UN index; 586 women (50% of the total population in the project zone) are expected to have improved livelihoods or income generated as a result of project activities; minimum requirement of involvement for women of 30% for participation in work, meetings, workshops and trainings, and for representation in governing bodies and workforce; PNG Communities Benefits from Environmental Service Trust (BEST) is set up as a benefit sharing mechanism, for support to lead to long-term financial security and social benefits; Continuous capacity building and training of the TCCA.</p> <p><u>Exceptional Biodiversity Benefits:</u> 14 species identified to be present within the Tavolo SLUP area that are listed as Vulnerable or Endangered. Of these species terrestrial and marine trigger species were identified and measures to conserve their populations and habitat were formulated, as well as specific monitoring strategies. 2 of the species are endemic to New Britain.</p>
<p>Expected Verification Schedule</p>	<p>Initial verification is expected to take place in parallel with the scheduled validation, in June 2022</p>

Table of Contents

1	Summary of Project Benefits	5
1.1	Unique Project Benefits.....	5
1.2	Standardized Benefit Metrics	6
2	General	11
2.1	Project Goals, Design and Long-Term Viability	11
2.2	Without-project Land Use Scenario and Additionality.....	30
2.3	Stakeholder Engagement.....	31
2.4	Management Capacity	47
2.5	Legal Status and Property Rights	52
3	Climate.....	56
3.1	Without-Project Climate Scenario	56
3.2	Net Positive Climate Impacts	56
3.3	Offsite Climate Impacts (Leakage).....	56
3.4	Climate Impact Monitoring	56
3.5	Optional Criterion: Climate Change Adaptation Benefits	57
4	Community	58
4.1	Without-Project Community Scenario	58
4.2	Net Positive Community Impacts	68
4.3	Other Stakeholder Impacts	74
4.4	Community Impact Monitoring	75
4.5	Optional Criterion: Exceptional Community Benefits	83
5	Biodiversity	89
5.1	Without-Project Biodiversity Scenario	89
5.2	Net Positive Biodiversity Impacts	98
5.3	Offsite Biodiversity Impacts.....	107
5.4	Biodiversity Impact Monitoring	107
5.5	Optional Criterion: Exceptional Biodiversity Benefits	111
	Appendices	116
	Appendix 1: FORCERT Participatory Process of Change overview – January 2020.....	116
	Appendix 2: PNG Communities BEST national & subnational stakeholder engagements that have taken place between 2015 and 2021	116
	Appendix 3: Dispute and complaint handling procedure V5-Apr-2022	116
	Appendix 4: Compliance with relevant laws & regulations V4-Apr-2022.....	116

Appendix 5: Legal clearance from the State Solicitor’s Office for the final draft PNG Communities BEST Program membership agreement 116

Appendix 6: Tavolo’s HCV assessment..... 116

Appendix 7: PNG Communities BEST REDD Tavolo Project Theory of Change & Monitoring Plan matrix 116

Appendix 8: Development Community-based Conservation Monitoring System 116

1 SUMMARY OF PROJECT BENEFITS

This section highlights some of this project’s important benefits. Section 1.1 (Unique Project Benefits) should be aligned with a project’s causal model and is specific to this project. Section 1.2 (Standardized Benefit Metrics) is the same quantifiable information for all CCB projects. This section does not replace the development of a project-specific causal model or the monitoring and reporting of all associated project-specific impacts (positive and negative) that are described in Sections 2-5 of this document.

1.1 Unique Project Benefits

Outcome or Impact Estimated by the End of Project Lifetime	Section Reference
1) Protection for the whole of Tavolo’s sustainable land use plan area under a formal conservation status	4.2 & 5.2
2) 16,493 ha of natural forest resources conserved and sustainably managed for the future generations by the Tavolo Community	4.2 & 5.2
3) Management and protection for the identified HCV species and biodiversity in the Tavolo sustainable land use plan area	5.2 & 5.5
4) Sustained improved livelihoods of the Tavolo community through sustainable and ethical income generating activities	4.2
5) Developed and maintained housing, transportation, education and health infrastructure for the Tavolo Community	4.2
6) Empowered, healthy and self-reliant Tavolo Community	4.2
7) Empowered marginalised community groups participating in all aspects of community life	4.2 & 4.5
8) Climate change adapted and natural disasters resilient Tavolo Community	3.5 & 4.2

1.2 Standardized Benefit Metrics

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
GHG emission reductions or removals	Net estimated emission removals in the project area, measured against the without-project scenario	not applicable	VCS PD
	Net estimated emission reductions in the project area, measured against the without-project scenario	4,544,004 tCO ₂ e	VCS PD
Forest ¹ cover	For REDD ² projects: Estimated number of hectares of reduced forest loss in the project area measured against the without-project scenario	16,493 ha	VCS PD
	For ARR ³ projects: Estimated number of hectares of forest cover increased in the project area measured against the without-project scenario	not applicable	N.A.
Improved land management	Number of hectares of existing production forest land in which IFM ⁴ practices are expected to occur as a result of project activities, measured against the without-project scenario	not applicable	N.A.
	Number of hectares of non-forest land in which improved land management practices are expected to occur as a result of project activities, measured against the without-project scenario	not applicable	N.A.
Training	Total number of community members who are expected to have improved skills and/or knowledge resulting from training provided as part of project activities	500	2.3.14, 4.2.1
	Number of female community members who are expected to have improved skills and/or knowledge resulting from training as part of project activities	150, being 30% of the above, as the minimum	2.3.14, 4.2.1, 4.5.5

¹ Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (*VCS Program Definitions*)

² Reduced emissions from deforestation and forest degradation (REDD) - Activities that reduce GHG emissions by slowing or stopping conversion of forests to non-forest land and/or reduce the degradation of forest land where forest biomass is lost (*VCS Program Definitions*)

³ Afforestation, reforestation and revegetation (ARR) - Activities that increase carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation (*VCS Program Definitions*)

⁴ Improved forest management (IFM) - Activities that change forest management practices and increase carbon stock on forest lands managed for wood products such as saw timber, pulpwood and fuelwood (*VCS Program Definitions*)

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
		target for female involvement	
Employment	Total number of people expected to be employed in project activities, ⁵ expressed as number of full-time employees ⁶	FORCERT staff: 1 PNG Communities BEST Program Team officer TCCA: 6 full-time staff Contractors: will depend on the allocation by TCCA for community projects, rough estimate is 5 full-time employees	2.3.15 4.2.1
	Number of women expected to be employed as a result of project activities, expressed as number of full-time employees	TCCCA: 2, being 30% of the above, as the minimum target for female involvement	2.3.15, 4.2.1, 4.5.5
Livelihoods	Total number of people expected to have improved livelihoods ⁷ or income generated as a result of project activities	1172 people, i.e. the total population of the project area. Difficult to estimate number of people outside of the project area that will have improvement in livelihoods or income generation, as this will depend on the exact use of the LLG and District level tax to be generated by the project.	4.2.1., 4.3.1, 4.5

⁵ Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers and community members that are paid to carry out project-related work.

⁶ Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region or economic territory (adapted from the UN System of National Accounts (1993) paragraphs 17.14[15.102];[17.28])

⁷ Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. *The Sustainable Livelihood Approach to Poverty Reduction*. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
	Number of women expected to have improved livelihoods or income generated as a result of project activities	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area	4.2.1, 4.5.5
Health	Total number of people for whom health services are expected to improve as a result of project activities, measured against the without-project scenario	1172, being the total population of the project area. Improvement for people outside the project area will depend on exact use of LLG and District level tax to be generated by the project, and the level of use of the TCCA supported facilities within the project area by people from outside the project area.	4.2.1, 4.5
	Number of women for whom health services are expected to improve as a result of project activities, measured against the without-project scenario	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area	4.2.1, 4.5

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
Education	Total number of people for whom access to, or quality of, education is expected to improve as result of project activities, measured against the without-project scenario	1172, as all 202 families within the project area have access to the Education Support Fund, and to the expected school facilities improvements within the project area, to be realized as part of the Community projects fund. Improvement for people outside the project area will depend on exact use of LLG and District level tax to be generated by the project.	4.2.1, 4.5
	Number of women and girls for whom access to, or quality of, education is expected to improve as result of project activities, measured against the without-project scenario	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area 50% of them are estimated to be women and girls	4.2.1, 4.5.5
Water	Total number of people who are expected to experience increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area	4.2.1, 4.5
	Number of women who are expected to experience increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area	4.2.1, 4.5.5

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
Well-being	Total number of community members whose well-being ⁸ is expected to improve as a result of project activities	1172 people, i.e. the total population of the project area. Difficult to estimate number of people outside of the project area that will have improvement in their well-being, as this will depend on the exact use of the LLG and District level tax to be generated by the project.	4.2.1
	Number of women whose well-being is expected to improve as a result of project activities	586, being 50% of the total population in the project area. Same calculation will apply for people outside of the project area	4.2.1, 4.5.5
Biodiversity conservation	Expected change in the number of hectares managed significantly better by the project for biodiversity conservation, ⁹ measured against the without-project scenario	Total Sustainable Land Use Plan area under the project: 21,782 ha (including terrestrial, freshwater and marine ecosystems)	
	Expected number of globally Critically Endangered or Endangered species ¹⁰ benefiting from reduced threats as a result of project activities, ¹¹ measured against the without-project scenario	4	5.1.1, 5.1.2, 5.5.1

⁸ Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Livelihoods, Health, Education and Water), and may also include other benefits such as strengthened legal rights to resources, increased food security, conservation of access to areas of cultural significance, etc.

⁹ Managed for biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation, e.g. enhancing the status of endangered species

¹⁰ Per IUCN's Red List of Threatened Species

¹¹ In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

2 GENERAL

2.1 Project Goals, Design and Long-Term Viability

2.1.1 Project Proponent (G1.1)

Organization name	FORCERT
Role in the project	Project developer
Contact person	Cosmas Makamet
Title	Manager
Address	P.O.Box 772 Kimbe, West New Britain Province 621, Papua New Guinea
Telephone	+675 73006023
Email	cmakamet.forcert@gmail.com

Organization name	Tavolo Community Conservation Association (TCCA) The Tavolo Community Conservation Association will be referred to in this document as either TCCA or as the Tavolo Community
Role in the project	Beneficiary
Contact person	Peter Kikele
Title	Chairman
Address	P.O.Box 1789 Kokopo, East New Britain Province 631, Papua New Guinea
Telephone	n.a.
Email	n.a.

2.1.2 Project Objectives (G1.2)

General/Climate objectives

- To obtain a formal conservation status for the whole of the Tavolo Community's sustainable land use plan area by 2020
- To conserve 14,981 ha natural forest resources during and beyond the project lifetime, for the future generations.
- To manage 1,309 ha of forest following FSC sustainable logging practices during and beyond the project lifetime

- To address the effects of climate change and develop adaptation measures to improve food security and resilience to natural disasters in the Tavolo Community during and beyond the project lifetime

Community objectives

- To distribute 14.4M Euro of PES benefits are distributed to community livelihood improvement activities by 2030
- To promote and develop sustainable and ethical income generating activities that sustain the livelihoods of the Tavolo Community during and beyond the project lifetime
- To establish and develop infrastructure in the Tavolo Community, including housing, transportation, education and health facilities during and beyond the project lifetime
- To empower the Tavolo Community with emphasis placed on religion, basic health, hygiene and waste management during and beyond the project lifetime

Biodiversity objectives

- To manage and protect the identified terrestrial, freshwater and marine HCV's and biodiversity present in the Tavolo SLUP area during and beyond the project lifetime, for the future generations

2.1.3 Physical Parameters (G1.3)

Topography

The southernmost part of the Tavolo project area is a relatively flat coastal zone of uplifted coral and river deposits. Moving inland this gives way to undulating hills of up to 600 m and gradually changes into the mountains. At the crest is the Nakanai Range and of below stretches mountains that have altitudes of up to 1200m. Slopes range between 0 and 30°, but mostly vary between 0 and 15°. The steepest slopes can be found around the river valleys of Tavolo.

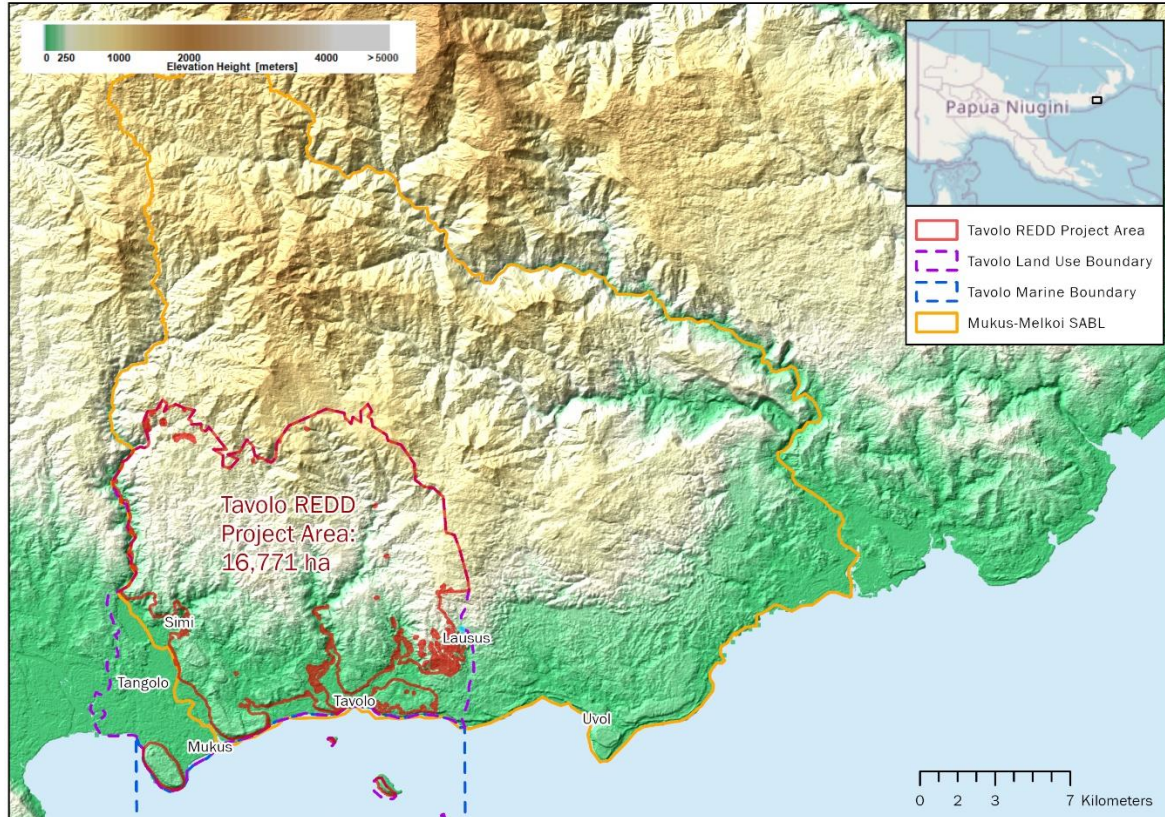


Figure 1. Elevation map Tavolo

Hydrology

Tavolo is located in the watersheds of the Wala, Ania, Mukus and Melkoi rivers of the East New Britain Province of Papua New Guinea. There are four rivers identified as important water resources, which are Tavolo, Eunga, Takai and Mukus. These water courses are used particularly for drinking, washing, ease of transport accessibility and sources for protein.

Soils

Based on Bleeker (1983)¹² the inland soils can be characterised as being dystric Cambisols, Regosols or orthic Acrisols (classified with nr. 10 / brown colour in the map below). The soils on the coast are mainly characterised as gleyic Fluvisols, eutric Histosols or eutric Fluvisols (classified with nr. 14 / green colour in the map below).

¹² Soils of Papua New Guinea, Pieter Bleeker, 1983 CSIRO & ANU Press



Figure 2. Map depicting the major soil types in and around the project area. Derived from Soil map of Bleeker (C.S.I.R.O.)¹³

Climate

New Britain has the mean maximum temperatures of 28-34°C while mean minimum temperatures are of 20-25°C. The Island has a tropical rainforest climate, with annual rainfall of 5,000-7,000mm, with heaviest and most frequent rainfall occurring on the South Coast between May and October. The weather is also affected by the monsoon and South West Trade Winds.

Vegetation

The following main forest types can be identified for the project area, as per the PNG National Forest Inventory (NFI) stratification;

1. Low Altitude Forest on Plains and Fans (2,392 ha):

The forest is found below 1000m elevation which composes of medium to large crowned forests. The main two species includes *Pometia pinnata* (Taun) and *Homalium foetidum* (Malas) are that dominate the canopy with under growth of vines, palms, scrubs and rattans. Apart from these there the is a small parcel of *Eucalyptus deglupta* (Kamarere) stand found along the Mukus river.

2. Low Altitude Forest on Uplands (15,592 ha):

This forest comprises of medium to large forest with even canopy, with *Castanopsis*, *Nothofagus* or *Araucaria*. Tree species of *Ficus spp*, *Alstonia scholaris* and *Terminalia spp* make up the upper storey and with *Instia spp*, *Petrocarpus indicus*, *Anisoptera thurifera* and *Hopea spp* found on the ridges and foot hills.

3. Lower Montane Forest (3 ha):

¹³ Available at: https://esdac.jrc.ec.europa.eu/ESDB_Archive/EuDASM/Asia/lists/k10_cpg.htm

This forest is found above the elevation of 1000m which composes of small crown forests with *Casuarina papuana*, *Nothofagus* and *Araucaria spp* found.

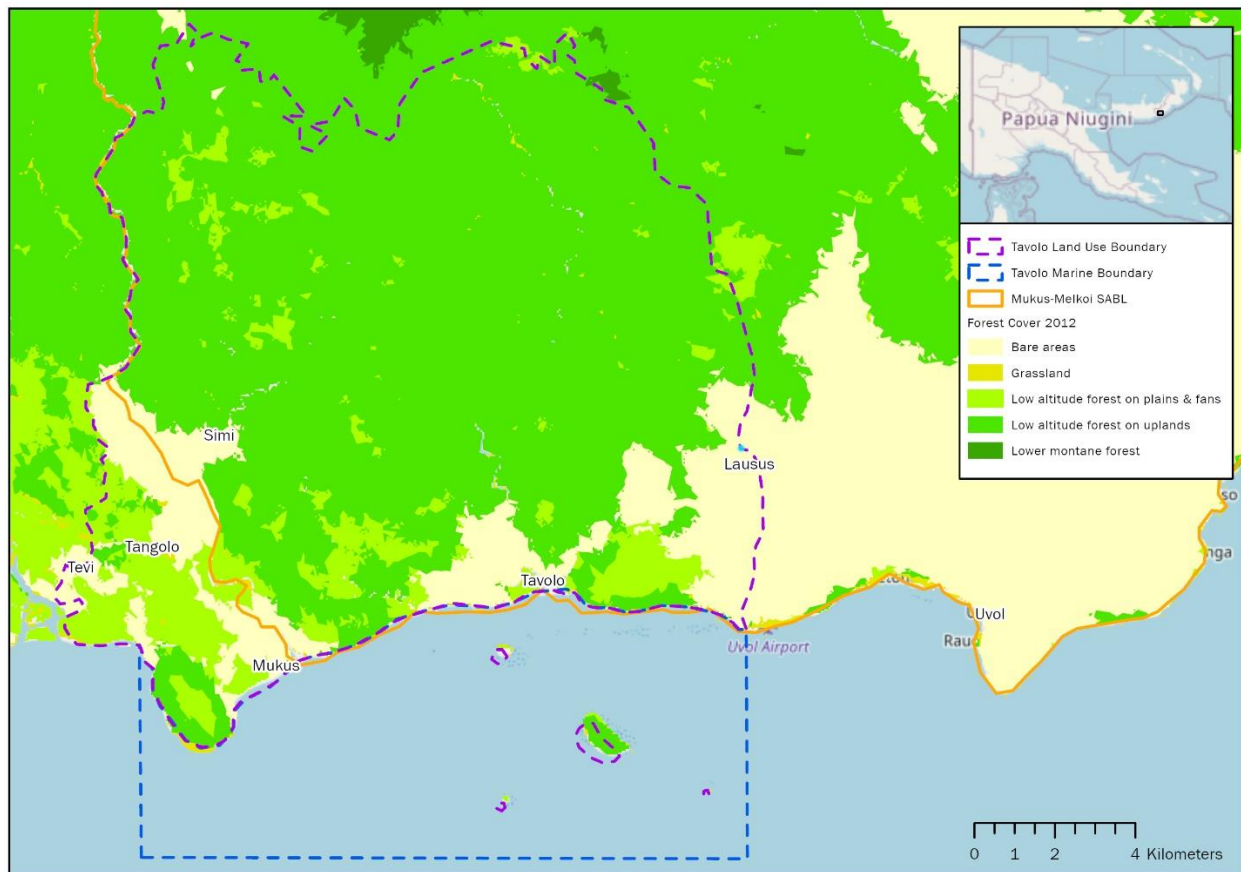


Figure 3. Main forest types identified in the 2012 PNG National Forest Inventory (NFI) forest cover stratification

Additional to these main forest types under the NFI, though observations on the ground, also small areas of the following forest types have been identified:

4. Mangrove

This forest type occurs mainly at the coastal zone with the estuarine community but this is only a very small area at the Tavolo river mouth which is composed mainly of *Rhizophoraceae*.

5. Coastal regrowth forest

Where forest has changed by former garden or cocoa blocks resulting in secondary tree species like *Callophyllum*, *Euodia*, *Artocarpus*, *Terminalia*, *Canarium* and *Octomeles*, etc.

6. Coastal Strandline Forest

Dominated by species such as *Callophyllum inophyllum*, *Cordia subcordata* and *Hibiscus tiliaceus*.

2.1.4 Social Parameters (G1.3)

Main villages in the project area are Mukus, Tavolo and Lausus, which are divided again in numerous hamlets. The Project area covers two Wards, i.e Tavolo and Lausus under the Melkoi Local Level Government. The combined population of the three villages is 1172 individuals (2021), divided over 14 main clans (Avila, Evesovul, Kaikae, Kietuna, Kipolo, Lamau Sale, Malkai, Menem, Nakise, Oio, Pianga, Rama Menikamlak, Rama Simsim, Sale, Uka and Una. The land of the Tavolo Sustainable Land Use Plan area is held by the 16 clans mentioned in Section 2.1.3 Location, who all signed the Tavolo Conservation Deed, but Nakise is considered a subclan of Menem, and Kaikea a subclan of Rama Simsim. Hence, under the Tavolo Community Conservation Association structure, only the 14 main clans are recognised and represented on the Management Committee.

The population census information for the three villages separates the population into Adults (>30 years) and Youth & students (1-30 years). The adult population is made up of 181 males (47%) and 208 females (53%), There are 781 “youth”, meaning 67% of the population is younger than 30 years. The estimated average life expectancy is 61-65 years, but Lausus has a number of individuals, especially females, reaching high ages (90+).

As with most of the Islands Region of Papua New Guinea, the community is a matrilinear society, with landownership inherited through the female line. Tavolo is a self-supporting agricultural community, practicing shifting cultivation of ‘food gardens’ within part of their forest area in a rotational system. The community has a limited number of income-earning opportunities, mostly from betelnut, cocoa and copra grown in small-scale cash crops areas near the coast. Fishing in rivers, creeks and sea, and hunting and gathering from the forest are important activities to provide sufficient protein for the general diet.

Tavolo has very difficult access to Kokopo, the provincial capital of ENB. Access is by sea only through fortnightly small passenger ship runs or by infrequent and irregular small cargo vessels. There is no road connection. There is slightly better access to Kimbe, the West New Britain capital, by a mostly unsealed road, but this road is impassable in the wet season and is serviced by a very limited number of vehicles. Because of its difficult access, very little cash income flows into the community. The main income is from the sale of betelnut. Traders from Kimbe pay cash and/or exchange various goods such as bush knives, clothes kerosene, soap, spades and kitchen utensils for the betelnut. Cash crops include coffee, vanilla, copra and cacao, but none of these provide a significant income flow for the community. There is no coconut drier and of the 2 cacao fermenting sheds in the village, one is dilapidated. Income from the sale of garden produce, fishing and pigs is small. Tavolo has a small Wildlife Management Area (2,400 ha) and a very basic guest house (Guest House and Resource Centre), which is mainly used for meetings, training and awareness-raising by government departments and NGOs. A problem expressed by Tavolo is that the Wildlife Management Area does not provide them any income – “nil economic opportunities from the forest resources”. Income from the guest house has provided funding support for other village projects.

Tavolo purchased a second-hand portable sawmill, which was in operation from 2012-2015, mainly be used to cut timber for local constructions, e.g. health clinic, primary school classrooms and family houses. At present this sawmill is not operational and needs major repairs or possibly a complete replacement. From 2007 till 2014, Tavolo was a member of the Forest Stewardship Council (FSC) Group Certification Service Network (GCSN) that FORCERT managed, and they attained the full FSC Forest Management Certification status in 2010. FORCERT voluntarily discontinued its FSC group certificate in 2014, when it changed its overall focus and strategy.

As a member of this Service Network, the community had organised itself into the Tavolo Business Group and committed itself to sustainably manage their land, carrying out FSC certified small scale reduced impact logging on a dedicated part of their forest, while the remainder of their forest is put under conservation. Also, the community has put the combined land area of all clans that make up the community under a sustainable land use plan.

The community has zoned their land into 4 land area types as revised in 2018 (Figure 4, section 2.1.5), which will have different management:

- Conservation areas include HCV and Buffer zones
- Production forest area
- Forest conversion areas (for future garden & cash crop areas)
- Gardens / cash crop areas (current)

FORCERT has a standard forest management and land use system that the Tavolo community is applying, with training and facilitation provided for its implementation. There are plans for Tavolo community to purchase a new sawmill and chainsaws to produce timber for their permanent housing and other community service projects. Their operations will initially be sourcing timber from existing garden areas and new garden and cash crop areas, but will again be following all applicable FSC certification requirements, with FORCERT planning to obtain FSC certification in the near future. Under FORCERT's Payment for Environmental Services (PES) Trial Project, which formed the basis of the development of FORCERT's PNG Communities BEST Program, Tavolo was the partner community that progressed well ahead of other partner communities under this trial. The community level discussions on and preparations for the Benefit Sharing Mechanism System of the PNG Communities BEST at Tavolo were used to inform the drafting of the national REDD+ BSM. The draft PNG REDD+ FPIC Guidelines were also field tested at Tavolo by the Climate Change & Development Authority (CCDA) together with UNDP.

2.1.5 Project Zone Map (G1.4-7, G1.13, CM1.2, B1.2)

Location

Tavolo Community is located in East New Britain Province, on the south coast of the island below the Nakanai Range of New Britain, Papua New Guinea. It is in the remote area of Melkoi Local Level Government (LLG), a one-hour boat ride from Uvol station in the Pomio District. The land is held by 16 clans; Avila, Evesovul, Kaikae, Kietuna, Kipolo, Lamau Sale, Malkai, Menem, Nakise, Oio, Pianga, Rama Menikamlak, Rama Simsim, Sale, Uka and Una. Of the Tavolo Community, which falls within the Melkoi Local Level Government (LLG). Currently almost the entire customary land area of the clans that make up the Tavolo Community is situated within the Mukus-Melkoi SABL, a SABL over 68,300 ha. Figure 1 shows the map of the Tavolo Project Area within the Mukus-Melkoi SABL.

On the map presented below (Figure 4) the geographical boundaries are presented of the different project activities taking place within the Tavolo Project Area. The following zones are defined:

1. Forest Conservation Zone: Forest areas under full conservation protection. Gathering of non-timber forest products, fishing and hunting for domestic and cultural uses may take place, provided this is done in accordance with the Community conservation laws.

2. **Forest Production Zone:** Forest areas designated for small-scale portable sawmilling operations in accordance with Forest Stewardship Council certification requirements. Gathering of non-timber forest products, fishing and hunting for domestic and cultural uses may take place, provided this is done in accordance with the Community conservation laws.
3. **Garden and Cash Crop Zone:** Areas currently in use for family food gardens and small-scale agricultural plots for various cash crops (a/o betelnut and cocoa).
4. **Conversion Zone:** Allocation of current forest areas for potential future conversion to garden or cash crop areas, as and when needed due to increasing population numbers. An assessment has been made to ensure the conversion of these areas does not affect the maintenance and management of identified High Conservation Values.
5. **Protected Marine Zone:** Beach front and fringe reef areas closed off for all fishing and gathering.

The high conservation value (HCV) areas that were identified and mapped below are further discussed in Sections 4.2.4 and 5.1.2.

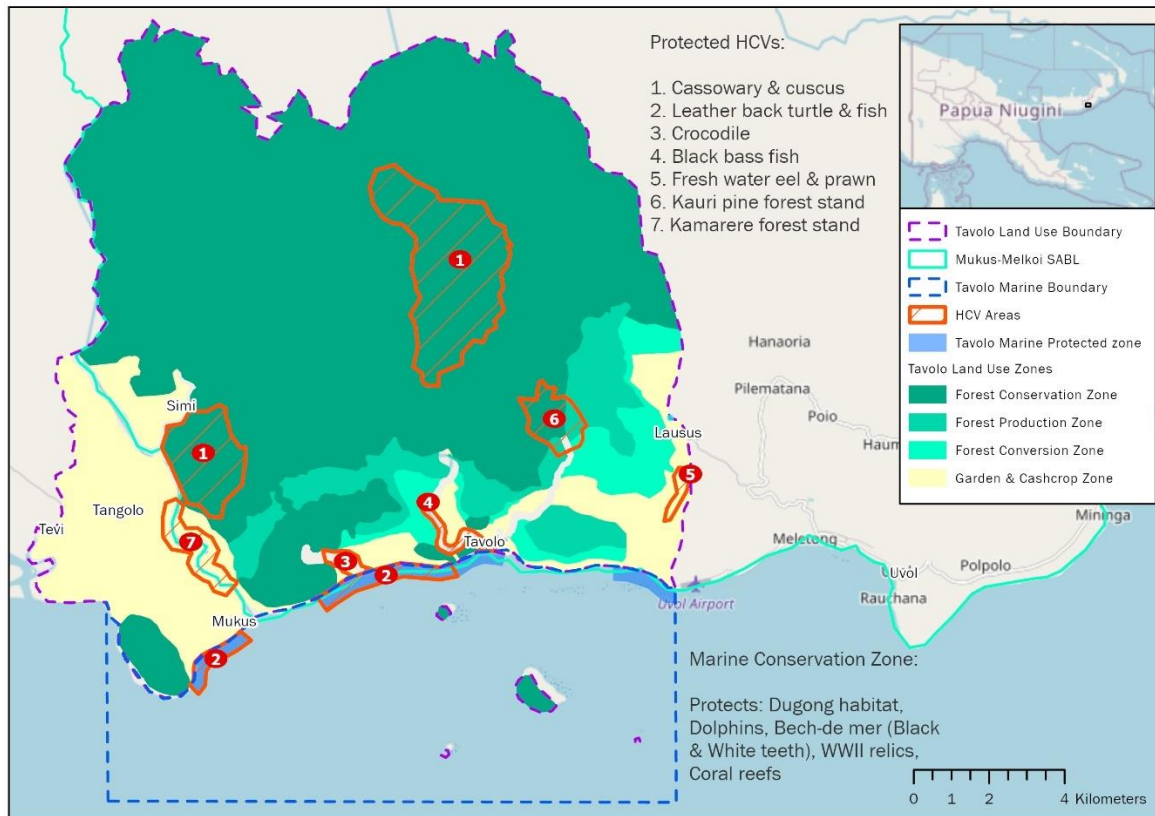


Figure 4. Land Use Plan map of Tavolo

2.1.6 Stakeholder Identification (G1.5)

The Stakeholder Identification is based on the target audience identification done by the Tavolo, Mukus and Lausus community as part of the development process of their Tavolo Community Conservation Association Management Plan 2022-2031. Through this process the community members identified all

main stakeholder groups in relation to the work of their Association. At the end of 2020, a new SWOT analysis was facilitated by FORCERT, and then compared with the one from their previous Wildlife Management Area (WMA) Management Plan (2009, facilitated by the now dysfunctional Mama Graun Conservation Trust Fund). With this information, in 2021 the draft new TCCA Management Plan's objectives were updated and finalized by the Management Committee and the TCCA administration staff, and indicators to go with these updated objectives were developed. From these the Theory of Change for TCCA was developed. The TCCA Management Plan 2022-2031 was officially approved by the members at their December 2021 Annual General Meeting, and an activity implementation and monitoring plan was developed in March 2022.

Information from the new TCCA Management Plan has been used to further include relevant stakeholders specific to the VCS-CCBS project, and to further detail their rights, interest and relevance to the project, and these additions have been confirmed with the TCCA Management Committee.

2.1.7 Stakeholder Descriptions (G1.6, G1.13)

Stakeholder	Rights, Interest and Overall Relevance to the Project
Tavolo Community	The communities and its clans that form part of the Tavolo Community Conservation Association and who are the direct Project beneficiaries.
Surrounding communities and clans	<p>SLUP Manseng Tribe (West), Sale Mantuna, Nakise, Ewesovur and Elim clans, Tevi, Burowe, Murlevi villages. Kakuna Tribe (North side), Litipupuna, Kinkana, Tamonlona, Keituna clans, and Popolokai, Urupuna and Kualopole villages / Kakuna Tribe (East Inland), Uka, Ulo, Uno, Sale, Kibolo, Keituna, Chamoso clans, Litipupuna, Warale, Pilematana and Anaoria villages / Lote Tribe (East Coastal), Menem, Avila, Aluka, Amaia, Kibolo, Sirmsim clans, Meletong village These clans will have various user rights e.g. gardening, hunting & gathering over the Tavolo sustainable land use plan area, which are known and defined under custom. Therefore, they need to be well-informed on the Tavolo Sustainable Land Use Plan zones and their Community conservation laws, and also need to be informed on Tavolo's membership of the PNG Communities BEST.</p> <p>They also have an interest in the project through the Government tax percentage paid to the Melkoi Local Level Government from the gross annual benefits going to the Tavolo community from the PNG Communities BEST.</p>
Melkoi Local Level Government (LLG)	<p>The Tavolo and Lausus Wards of the Melkoi LLG fall within the Tavolo Sustainable Land Use Plan area. The Tavolo community's Action Plan and TCCA's Management Plan link to the Ward Development Plans and the overall LLG Development Plan.</p> <p>Will be receiving part of the Government tax resulting from benefits distributions to Tavolo from the PNG Communities BEST.</p>

Pomio District Development Authority (DDA)	<p>Melkoi LLG forms part of the Pomio DDA.</p> <p>Will be receiving part of the Government tax resulting from benefits distributions to Tavolo from the PNG Communities BEST.</p>
Member of Parliament for Pomio Electorate	<p>Honourable Elias Kapavore is the current member for Pomio in the PNG National Parliament (2017-2022), who is likely to be re-elected, due to his numerous achievements delivering various services in his first full term.</p>
East New Britain Provincial Administration	<p>Pomio District forms part of the East New Britain Province.</p> <p>Will be receiving part of the Government tax resulting from benefits distributions to Tavolo from the PNG Communities BEST.</p>
FORCERT	<p>Project proponent. Will be managing and marketing the PNG Communities BEST carbon credits on behalf of the project beneficiaries.</p>
Climate Change & Development Authority (CCDA)	<p>National Designated Authority for REDD+ projects.</p> <p>Has MOU with FORCERT a/o on the development of the PNG Communities BEST as a practical trial for development of a national REDD+ system for PNG.</p> <p>Will be receiving part of the Government tax resulting from benefits distributions to Tavolo from the PNG Communities BEST.</p>
Conservation & Environment Protection Authority (CEPA)	<p>Manages PNG's conservation areas network; Tavolo has a Wildlife Management Area (WMA) over 2,400ha of their Sustainable Land Use Plan area, and has applied for extension of the WMA to cover their full SLUP area.</p> <p>The work of Tavolo Community and FORCERT is in line with the requirements of the new Protected Area Act (pending approval by parliament)</p> <p>Is working with UNDP to establish a Biodiversity Fund to provide long-term finance for the PNG conservation areas network.</p>
PNG Forest Authority	<p>Issues Forest Clearing Authorities (FCA's).</p> <p>FORCERT has a MOA with PNGFA confirming them as a partner in their Community Forest Management PES/REDD project, with Tavolo as one of the communities involved in this project.</p>
United National Development Program (UNDP)– PNG	<p>Is managing the current UNDP GEF6 Project on Sustainable Financing of PNG's Protected Areas Network together with CEPA, and will be managing the planned GEF7 Project on Sustainable Land Use Planning Systems for New Britain Island (together with the Departments of Lands & Physical Planning and Agriculture & Livestock, and CEPA), scheduled to start in 2022.</p> <p>PNG Communities BEST provides relevant on the ground experiences that can inform, and to a certain extend already has informed, both projects.</p>
NGO's	<p>Specifically PNG based NGO's working on community sustainable land use and conservation, e.g. Tenkile Conservation Association (TCA), Partners with</p>

	<p>Melanesians (PwM), Willdlife Conservation Society (WCS-PNG), The Nature Conservancy (TNC-PNG), Tree Kangaroo Conservation Program (TKCP), Organisation for Industrial, Spiritual & Cultural Advancement (OISCA-PNG), World Wildlife Fund (WWF-PNG).</p> <p>PNG Communities BEST provides relevant on the ground experiences that can inform, and to a certain extend already has informed, similar work of other NGO's. Also, previous and current similar work of these NGO's has informed the development of PNG Communities BEST.</p>
<p>Research & Educational Institutions</p>	<p>Specificly PNG based research & higher educational institutions such as Binatang Research Centre (BRC), National Research Institute (NRI), Institute of National Affairs (INA), University of Natural Resources and the Environment (UNRE), University of Technology (Unitech), University of PNG (UPNG), University Of Goroka (UOG), Pacific Adventist University (PAU), Divine Word University (DWU).</p> <p>PNG Communities BEST provides on the ground experiences that can inform, and to a certain extend already has informed, researches, students and lecturers, and can provide input for curriculum development and case studies.</p> <p>FORCERT has engaged BRC to work together with Tavolo Community to develop their Community conservation monitoring system.</p>

2.1.8 Project Activities and Theory of Change (G1.8)

The table below shows the PNG Communities BEST REDD – Tavolo Project's Theory of Change, which closely links to the TCCA Management Plan Objectives and activity implementation plan, and incorporates most of the TCCA overall Objectives.

Next pages: PNG Communities BEST REDD – Tavolo Project Theory of Change

TCCA Vision	Community members are improving their livelihoods sustainably in accordance with their environment and natural resources while they are safeguarding their land and are maintaining their cultural practices.									
TCCA Mission	The association is formed (or is being formed) for the purpose of: (i) To provide stewardship in safeguarding, protecting and upholding the inherited traditional customary birth rights to the land and natural resources owned by the sixteen clans living at Tavolo, Lausus and Mukus villages (ii) To receive all benefits derived from conservation initiatives, either in cash or material and to use and distribute this benefit in a fair, equitable and transparent manner. (iii) To work with government agencies in delivering essential services and also with NGO's, Donors and other development partners to address the issue of climate change through sustainable livelihood mitigation and adaptation initiatives.									
CCBS Project Goal	The environment and biodiversity of the Tavolo, Lausus and Mukus communities is protected and conserved, preventing industrial companies from destroying the community's HCV's and natural resources, with regained community ownership and control of the land and management of the resources					<ul style="list-style-type: none"> - Acquired benefits allow the Tavolo Community to conserve and sustainably manage its forests - Improved livelihoods of the Tavolo Community through sustainable land use and environmentally sound community development options - Resilient and self-reliant communities, organising & controlling their own development 				
CCBS Project Objectives	To obtain a formal conservation status for the whole of Tavolo Community's sustainable land use plan area by 2020	To manage 1,309 ha of forest following FSC sustainable logging practices during and beyond the project lifetime	To conserve 14,981 ha natural forest resources during and beyond the project lifetime, for the future generations	To manage and protect the identified HCV's and biodiversity present in the Tavolo LUP during and beyond the project lifetime, for the future generations.	To distribute 14.4 M Euro of PES benefits to community livelihood improvement activities by 2030	To promote and develop sustainable and ethical income generating activities that sustain the livelihoods of the people of Tavolo, Lausus and Mukus during and beyond the project lifetime	To establish and develop infrastructure in Tavolo, Lausus and Mukus, including transportation, education and health facilities during and beyond the project lifetime	To empower the communities of Tavolo Lausus and Mukus with emphasis placed on religion and basic health, hygiene and waste management during and beyond the project lifetime	To address the effects of climate change and develop adaptation measures to improve food security and resiliency to natural disasters in Tavolo, Lausus and Mukus communities during and beyond the project lifetime	

Impact	Protection for the whole of Tavolo's sustainable land use plan area under a formal conservation status	16,493 ha of natural forest resources conserved and sustainably managed for the future generations by the Tavolo Community		Management and protection for the identified HCV species and biodiversity in the Tavolo sustainable land use plan area	Improved livelihoods through realisation of the TCCA Management Plan Objectives	Sustained improved livelihoods of the Tavolo community through sustainable and ethical income generating activities	Developed and maintained housing, transportation, education and health infrastructure for the Tavolo Community	Empowered, healthy and self-reliant Tavolo Community	Empowered marginalised community groups participating in all aspects of community life	Climate change adapted and natural disasters resilient Tavolo Community
Outcomes	Tavolo LUP area becomes recognised Conservation area	1,309 ha of forest under FSC certification	Forests are effectively managed and protected by the Tavolo community	Community Conservation Laws implemented and enforced	Communities and families benefiting from Ecosystem payments	<ul style="list-style-type: none"> - Increased number and variety of income earning activities - Increased family income 	<ul style="list-style-type: none"> - Improved housing - Improved transport infrastructure - improved health services - improved education services 	<ul style="list-style-type: none"> - Social development activities successfully completed - Customary practices and knowledge maintained 	Holistic and inclusive community programs are active in Tavolo, Lausus and Mukus	<ul style="list-style-type: none"> - Stable availability of food sources - Buffer zones restored - Restoration of other degraded areas - Safeguards, Mitigation & Adaptation plan actioned if applicable

Outputs	CC Deed signed	<ul style="list-style-type: none"> - FSC certification system in place - FSC main audit organised 	<ul style="list-style-type: none"> - Community Conservation Laws developed - Community Conservation Monitoring System developed - Sustainable land use plan maintained 	PNG Communities BEST Program established	Income generating activities executed	Infrastructure and development activities executed	Social development activities implemented	Marginalised community groups empowerment programs & activities implemented	Climate change adaptation activities implemented
Activities	Discuss, draft and sign Community Conservation Deed	<ul style="list-style-type: none"> - Develop FSC certification system - Apply for FSC certification 	<ul style="list-style-type: none"> - Develop Community Conservation Laws - Develop Community Conservation Monitoring System - Maintain sustainable land use plan 	Establish and share benefits through PNG Communities BEST Program	Income generating activities are developed and implemented following TCCA management plan	Infrastructure and development activities related to housing, transportation, education and health are carried out following TCCA management plan	Social development activities are carried out following TCCA management plan	Marginalised community groups' empowerment programs and activities are carried following TCCA management plan	Climate change adaptation activities are carried out following TCCA management plan

2.1.9 Climate, Biodiversity and Community Benefits Assessment Period (G1.9)

Project start date of the Tavolo REDD Project is **23 January 2019**. This is the signing date of the Cooperation Agreement between FORCERT, Face the Future and Greenchoice (the project pre-financer). With this agreement the three parties have agreed to aid the Tavolo Community in a court case aiming to nullify the Mukus-Melkoi SABL and the Lote-Kakuna Project, and to develop a Payment for Ecosystem Service (PES) fund for the communities in the Tavolo Project Area, in order for them to benefit from preserving the forest, also in the future.

The Project Crediting Period is **30 years**. The projection of baseline emissions is presented in the VCS Project Document (PD) for the first 10-year period after the project start date. After every 10 years the baseline will be reassessed and revised. Emission reductions/removals will be claimed for the 10-year periods for which the baseline is fixed and a monitoring plan has been implemented.

Changes in the forest cover and condition will be assessed on an annual basis through checks on the general compliance with the Sustainable Land Use Plan zones, which will be reported on by the TCCA to FORCERT at their annual monitoring and reporting meetings, which will take place at a general community meeting in the project area. There will be a re-measurement of the PSP's every 5 years, till the end of the 30-year project period.

Changes in the Biodiversity Benefits will be monitored on an ongoing basis by the Community Conservation Law Committee. One of the project activities is to develop and maintain a Community Conservation Monitoring System, and this work was started in July 2021, with a visit by a team of local biodiversity scientists and researchers to the Tavolo Community, led by Binatang Research Centre. A draft monitoring plan was developed in collaboration with the Tavolo Community Conservation Law Committee and FORCERT staff. Different methods and time intervals for monitoring of identified key indicator species together with general species observations have been identified, leading to a schedule with monitoring happening at set times and intervals throughout the year, with annual update reports to be prepared and presented during the PNG Communities BEST annual community meetings.

Changes in the Community Benefits allocations will be assessed on an annual basis, through the annual report by the TCCA Management Committee to FORCERT on the results of their benefit sharing, during the general community meeting in the project area. TCCA will maintain paper and digital records for all individual families within the three communities on benefits received, compliance with project requirements, and changes in the main well-being indicators as determined by the TCCA Management Committee. Actual disbursements of the agreed annual Community Benefits allocations will be made on a quarterly basis. The TCCA admin staff will prepare a quarterly activity implementation and expenditure update report, together with a cash flow projection for the following quarter, that will be submitted to the TCCA Management Committee. After their scrutiny and approval, these reports will be submitted to FORCERT for a final check and endorsement of the transfer of next quarter's instalment.

2.1.10 Differences in Assessment Periods (G1.9)

There are no differences in assessment period between the accounting of climate impacts under VCS and the accounting of community and biodiversity impacts under CCBS.

The Tavolo Community as a member of PNG Communities BEST will comply with an annual monitoring cycle to check on their continued compliance with all FORCERT Group Certification System requirements. The FORCERT Group Certificate will combine Forest Stewardship Council Forest Management Certification, VCS, CCBS and Fairtrade requirements into one overall system, with clear

and concise procedures and guidelines in both English and PNG Pidgin English for all PNG Communities BEST members to follow and comply with.

FSC requires annual monitoring audits, with certification re-assessments every five (5) years. The World Fair Trade Organisation (WFTO) requires self-assessments, monitoring audits and peer visits every two (2) years.

Under the FORCERT Group Certification System there will be annual monitoring visits by FORCERT, which will include both meetings with the TCCA Management Committee and with all three communities involved (see Section 4.4)

2.1.11 Implementation Schedule (G1.9)

Date	Milestone(s) in the project's development and implementation
2007	Tavolo becomes a producer member of the FORCERT FSC-Fairtrade Group Certification Service Network: start partnership relation between Tavolo community and FORCERT
2008	Start of the FORCERT PES trial project with Tavolo community: development and trial of community forest carbon inventories
2012	Start PES Benefit Sharing & Distribution System discussions with Tavolo community
2015	First PGK100,000 trial benefit sharing with funds from Climate Change Development Authority (CCDA) and FORCERT to trial draft national REDD+ FPIC and Benefit Sharing & Distribution System: start permanent family housing scheme for Tavolo, Lausus and Mukus.
2018	Pre-financing agreement with Greenchoice, and technical assistance secured from Face the Future. Allows for establishment of the PNG Communities BEST Program and first REDD Tavolo Project, including continuation of trial benefit sharing for Tavolo community
Dec 2018	Second trial benefit sharing: PGK150,000 for continuation of permanent family housing scheme
23 Jan 2019	Start date of GHG accounting period
Oct 2019	Signing of the Mukus-Tavolo-Lausus Conservation Deed
25 Jan 2021	Official registration of the Tavolo Community Conservation Association with PNG Investment Promotion Authority
Jan-Feb 2020	Third trial benefit sharing: School fee support, with school fees subsidies for all registered secondary school students from the Tavolo community
Jan-Feb 2021	Fourth trial benefit sharing: School fee support, with school fees subsidies for all registered secondary school students from the Tavolo community
Nov 2021	Legal clearance of BEST membership agreement by State Solicitor's Office
Nov 2021	Signing of PNG Communities BEST membership agreement between FORCERT and Tavolo community
Aug 2021	Start of the Community conservation monitoring system development

Jan-Feb 2022	Fifth trial benefit sharing: School fee support, with school fees subsidies for all registered secondary school students from the Tavolo community. Over the three years, a total of 100 students secondary school fee subsidies (for a total amount of PGK117,950) paid by TCCA for 2020, 2021 and 2022
May-Jun 2022	Validation & verification audit VCS+CCBS
Sep 2022	Issuance first VCU's under the PNG Communities BEST REDD Tavolo Project
Sep 2022	First official benefit sharing under PNG Communities BEST Program to the Tavolo Community
2023	Incorporation of Tavolo Community Conservation Association Management Plan into Tavolo & Lausus Ward Development Plans
Dec 2022	First Tavolo Community annual PNG Communities BEST reporting meeting
Jan-Feb 2023	Annual official benefit sharing under the PNG Communities BEST Program to the Tavolo Community
2030	Evaluation of the implementation of the TTCA Management Plan 2021-2030, including review of the sustainable land use plan and community conservation laws
2031	Development of the new TCCA Management Plan 2031-2040
2040	Evaluation of the implementation of the TTCA Management Plan 2031-2040, including review of the sustainable land use plan and community conservation laws
2041	Development of the new TCCA Management Plan 2041-2050
2049	Evaluation of the implementation of the TTCA Management Plan 2041-2050, including review of the sustainable land use plan and community conservation laws
22 Jan 2049	End date of the GHG accounting period

2.1.12 Risks to the Project (G1.10)

The risk table shown represents risks identified in consultation with the Tavolo community, during the development of the TCCA Management Plan 2022-2031. Separately, a detailed project risk assessment is provided in the VCS AFOLU Non-Permanence Risk Assessment report. Many of the risks addressed here apply to the context of the community and biodiversity impacts.

Identified Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and designed to mitigate the risk

<p>Non-compliance with community sustainable land use plan by Tavolo community members</p>	<p>Clear-felling of forest through establishment of gardens and cash crop areas in conservation or forest production area</p> <p>Buffer zones not respected, with impact on water flow and quality</p>	<p>Capacity building and resourcing of the Community Conservation Law Committee</p> <p>Development & implementation of the Community Conservation Monitoring System</p> <p>Strict implementation of the non-compliance fee and benefit sharing penalty system</p> <p>Regular reporting meetings by the Community Conservation Law Committee to the Tavolo community members and to FORCERT</p>
<p>Non-compliance with community conservation laws by Tavolo community members</p>	<p>Deterioration of the status of the identified HCV's</p> <p>Shortage of non-timber forest products important to community well-being and cultural identity</p>	<p>Capacity building and resourcing of the Community Conservation Law Committee</p> <p>Development & implementation of the Community Conservation Monitoring System</p> <p>Strict implementation of the non-compliance fee and benefit sharing penalty system</p> <p>Continued awareness and education on motivation for the conservation laws and effects of non-compliance</p> <p>Regular reporting meetings by the Community Conservation Law Committee to the Tavolo community members and to FORCERT</p>
<p>Non-compliance with community sustainable land use plan by neighbouring community members</p>	<p>Clear-felling of forest through establishment of gardens and cash crop areas in conservation or forest production area</p> <p>Buffer zones not respected, with impact on water flow and quality</p>	<p>Capacity building and resourcing of the Community Conservation Law Committee</p> <p>Development & implementation of the Community Conservation Monitoring System</p> <p>Recognition of the community sustainable land use plan by the Melkoi Local Level Government (LLG)</p> <p>Use of Village Court for prosecution of offenders that refuse to respect the authority of the Community Conservation Law Committee</p> <p>Prosecution at District Court of offenders that refuse to respect the authority of the Community Conservation Law Committee and Village Court</p> <p>Regular reporting meetings by the Community Conservation Law Committee to the Tavolo community members and to FORCERT</p>

2.1.13 Benefit Permanence (G1.11)

As described in the section on project activities in the VCS PD (section 1.11), the Tavolo community will take the following measures to maintain and enhance the climate, community, and biodiversity benefits beyond the project lifetime:

1. Develop and implement Community Conservation Laws, in which rules are set by the community regarding the land use and the conservation of the forest in the project area. A Community Conservation Law Committee will be set up by the community to enforce the rules set out in the Community Conservation Laws;
2. Manage and conserve its forest under a Sustainable Land Use Plan (see map in Figure 4) which is designed by the communities in cooperation with FORCERT. These land use plans will focus on forest conservation and small-scale eco-forestry;
3. A Community conservation management & monitoring system will be developed, to allow the community itself to monitor the impact of the adherence to their sustainable land use plan and community conservation laws and to evaluate these results and feed them back into their land use and conservation management.
4. The community has decided to use part of the annual financial benefits they will receive from their membership of the PNG Communities Benefits from Environmental Service Trust (BEST) for support to families to develop income earning options, which will lead to long-term financial security and social benefits.
5. The community has decided to invest a part of their annual financial benefits for the benefit of future generations, after the project ends. TCCA will decide on a (limited) number of investments to spread risk, with institutional investments to be managed by FORCERT under the PNG Communities BEST Program. Initial institutional investments will be held in an Interest-Bearing Deposit (IBD) account, until arrangements for the establishment of an ethical and environmentally sound investment fund and/or for joining an established overseas fund have been made with financial institutions.

2.1.14 Financial Sustainability (G1.12)

The community will participate in the PNG Communities Benefits from Environmental Service Trust (BEST) Program. They will be the first member of the Program and beneficiary of this Trust. The trust will be underpinned by a FSC-VCS-CCBS-Fairtrade Group Certification System managed by FORCERT, which will qualify and quantify the environmental services provided by the PNG Communities BEST community members, and will secure long-term finance for these services from the widest possible range of responsible national and international financiers, which can be corporate entities, governments, NGO's or individuals.

Through a pre-financing agreement with Dutch electricity company Greenchoice, it has been possible for FORCERT with technical support from Face the Future (FtF) to develop the trust and the group certificate, and allow the Tavolo community to become its first beneficiary member. The agreement with Greenchoice provides a sufficiently large income stream for the first four years after the official start of the trust and group certificate, to guarantee the first eight years of annual benefit disbursements to the Tavolo community.

Also, during the PNG Communities BEST development phase, already a large number of inquiries have been received from potential other carbon credit buyers, and further talks with a selected number of them

have been started, with indications that it should be no problem to sell all credits of the first issuance. This, together with the current trend of increasing interest in Nature-Based Solutions and long-term demands for carbon credits indicates that there will be sufficient guaranteed income in the initial years, to secure disbursements of the annual benefit payments to the Tavolo Community for approximately the first 15 years of the project period.

2.1.15 Eligibility Criteria for Grouped Projects (G1.14)

Not applicable

2.1.16 Scalability Limits for the Grouped Projects (G1.15)

Not applicable

2.1.17 Risk Mitigation Approach for Grouped Projects (G1.15).

Not applicable

2.2 Without-project Land Use Scenario and Additionality

2.2.1 Land-Use Scenarios without the Project (G2.1)

See VCS PD section 3.4

2.2.2 Most-Likely Scenario Justification (G2.1)

See VCS PD section 3.4

2.2.3 Additionality (G2.2)

The project applied the VCS Tool for the demonstration and assessment of additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) project activities, to demonstrate the additionality of the project. Community and biodiversity additionality is determined by the same factors as the climate additionality (see section 3.5 of the VCS PD). Also, the same barriers apply (see section 3.5.3 of the VCS PD). I.e. the institutional and financial barriers that prevent the Tavolo community to maintain the forest and the GHG stored in the forest without GHG benefits, also prevent the Tavolo community from maintaining the biodiversity, community resources and HCVs (both community and biodiversity; see 4.1.3 and 5.1.2) that are present in the forest, also indirectly affecting the freshwater and marine ecosystems through erosion. Secondly, the absence of PES benefits will leave the community with only few options for sustainable and ethical income generating activities (see section 4.1.2). Thirdly, the GHG benefits will support the community in effectively managing and monitoring their natural resources, forest and marine conservation zone.

2.2.4 Benefits to be used as Offsets (G2.2)

The carbon stored in the Above- and belowground biomass of the forest will be accounted and used as an offset under VCS certification. See VCS PD document.

2.3 Stakeholder Engagement

2.3.1 Stakeholder Access to Project Documents (G3.1)

Under its PNG Communities BEST Program, FORCERT will make all project documentation, including project description documentation and monitoring reports fully available to all affected and interested stakeholders. This will be done through making them available in soft copies online, and in printed copies upon request. Communities can request these documents to be made available free of charge, with assistance from FORCERT to get the requested documents to convenient pick-up locations.

2.3.2 Dissemination of Summary Project Documents (G3.1)

The summary of both the VCS and CCBS project documentation has been translated into PNG Pidgin English and shared with the Mukus, Tavolo and Lausus communities at community meetings in Lausus and Tavolo in May 2022.

The TTCA Management Committee will actively distribute copies at all affected communities through a round of information meetings at these communities.

Further copies have been made available for other interested communities upon request.

Summary information on all monitoring results will be translated in PNG Pidgin English and shared with the Mukus, Tavolo and Lausus communities at the annual community meeting in the project area. This public meeting is open to any observers. Additional copies of the summary information will be made available to interested communities, either through TCCA or upon request to FORCERT.

2.3.3 Informational Meetings with Stakeholders (G3.1)

Below are three lists of informational community and local and national stakeholder meetings:

1. FORCERT with the Tavolo Community (Mukus, Tavolo and Lausus villages)
2. FORCERT with local stakeholders, often together with representatives from the Tavolo Community
3. FORCERT with national level stakeholders

For meetings with the Tavolo Community; FORCERT’s community visits are planned in consultation with the TCCA Chairperson (who is also the Tavolo Ward member) to check on dates suitable to the community. The Chairperson ensures the Management Committee is aware of upcoming visits, and it is the responsibility of each Committee member to notify their clan members of this visit. Upon arrival, a short meeting with the TCCA Chairperson and other Management Committee members is held first to discuss the planned activities, and confirm the exact program. The Management Committee members then ensure verbal notifications on the confirmed program go out to all community members. Starting 2018, separate meetings, workshops and trainings at Lausus village are being held, to allow better participation of all Lausus community members.

Table 1. Tavolo-FORCERT community informational meetings 2008-2015

Date & Location	Meeting topic
2008 – Tavolo	Introduction of Community Carbon Forestry (CCF) project
Sep 2008 – Tavolo	- Awareness on Climate Change and its impacts

	<ul style="list-style-type: none"> - Awareness on the concept of carbon credits & carbon trade - Introduction of CCF work (2 years project) - Training on Forest Carbon inventory - Established 15 Pilot Plots for 2 strata (Primary and Secondary forest)
Nov 2008 – Tavolo	Permanent Sample Plots (PSP) establishment for Primary forests (30 PSPs established)
Dec 2008 – Tavolo	Establishment of 12 remaining PSPs for Primary forest and 26 PSPs for Secondary forests
Sep 2009 – Tavolo	Re-establishment of all (68) PSPs for both strata
Dec 2009 – Tavolo	Reporting of CCF project and inventory data collected from Tavolo forest area, (end of CCF project).
Apr 2010 – Tavolo	- Awareness of PES work plus updates from National and International level (COP meetings etc).
Sep 2010 – Tavolo	1 st Remeasurement of PSPs for both strata
Dec 2010 – Tavolo	- End of year reporting
Sep 2011 – Tavolo	- 2 nd Remeasurement of PSPs
Sep 2012 – Tavolo	3 rd Remeasurement PSPs
Mar 2015 - Tavolo	Present FORCERT Change Story and obtain community consent on continuation of partnership with FORCERT

NB: details on meeting attendance are available in the FORCERT community visit reports for these meetings.

Table 2. Tavolo-FORCERT engagement process with local stakeholders 2017-2021

Date & Location	Stakeholder name + meeting participants (& their position if relevant)	Meeting topic
Nov 2017 - Uvol	Melkoi Local Level Government (LLG) <ul style="list-style-type: none"> - TCCA Management Committee - various Tavolo community members - FORCERT Kimbe CEP Team - LLG Participants: <ol style="list-style-type: none"> 1. Peter Palengio, Caretaker Manager & Fisheries officer 2. Vincent, Assistant admin officer 3. Philomena Oule, Collector Public Money 4. Sebastian Pagot, Community Development officer 5. Joseph Romane, Administration officer 6. Peter Kikele, Chairman Economic sector & Tavolo ward member 7. Titus, Handyman 8. John, Driver & OBM operator 	Brief on FORCERT as an organisation & its work with the Tavolo Community
Ap 2018 - Uvol	Melkoi LLG <ul style="list-style-type: none"> - FORCERT Kimbe CEP Team 	- Presentation of FORCERT Programs

	<p>- Tavolo Community Conservation Law Committee members:</p> <ol style="list-style-type: none"> 1. Elizabeth Sumlo 2. Margret Telesi 3. Pius Popal 4. Ben Utu 5. Blaise Kiare 6. Robert Menem 7. Magistrate 8. William Apeaua 9. Michael Saki 10. John <p>- LLG Participants:</p> <ol style="list-style-type: none"> 1. Joe Longtopaka – Environmental Health Officer 2. Philomena Nomele – Collector Public Money 3. Peter Palangio – Fisheries Officer 4. Elin Longoelel – Commerce Officer 	<p>- Presentation of Community Conservation Laws & penalties by Tavolo Community Conservation Law Committee</p>
Sep 2018	Pomio District Development Authority (DDA)	Brief on FORCERT as an organisation & its work with communities in Pomio district
Mar 2020 -	<p>Melkoi LLG</p> <p>- FORCERT Kimbe CEP Team</p> <p>- Melkoi LLG participants:</p> <ol style="list-style-type: none"> 1. Samson Moang, LLG Manager 2. Elin Chris, Business Development Officer 3. Philomena Nomele, Public Money Collector 4. Peter Palingio, Fisheries Officer 5. John, Handyman 	Present, clarify and discuss the draft MOU between FORCERT and Melkoi LLG
Sep 2020 - Uvol	<p>Melkoi LLG</p> <p>- FORCERT Kimbe CEP Team</p> <p>- Melkoi LLG participants:</p> <ol style="list-style-type: none"> 1. Thomas Osa – President 2. Joe Lontopaga– LLG Manager 3. Francis Navelo – Ward Member Uvol 4. Clement Kipolo – Ward recorder Uvol 5. Joe Rolmane – Admin Clerk, Melkoi LLG 6. Lukas Tau – Ward Member Pilematana 7. Thomas Uka.- Ward Member Maso 8. Philomena- Public Money Collector. 9. Pal -Standard Education Officer (SEO) 10. Augustine Hetoel. - LLG Elementary Coordinator 11. Thomas Mande – Ward Member Poio 12. Ben Moet – Ward recorder Meletong 13. Simon Samuel – Ward recorder Pilematana 14. Joe Una – Community elder Uvol 	Presentation of FORCERT Programs in details and check on MOU between FORCERT and Melkoi LLG.

	15 Charles Porme – Community Leader Uvol 16 William Pianga- Ward Member Haomakia 17 Anthon Seksek- Aluka Clan leader 18 Andrew Angae- Una Clan leader 19 Leo Liliu- Kipolo Clan leader 20 Leo Kolealo- Avila Clan leader 21 Paul ANgae- Village Elder 22 William Rumit- Village Elder 23 Benard Chaué- Village Elder	
Nov 2021 - Tavolo	TCCA – FORCERT PNG Communities BEST Program membership agreement signing ceremony - Melkoi LLG President - Pomio DDA representative - PNGFA representative - CCDA representative	Witnessed signing of the PNG Communities BEST Program membership agreement, and made speeches.

Furthermore, a detailed list of the PNG Communities BEST national & subnational stakeholder engagements that have taken place between 2015 and 2021 is available in Appendix 2.

2.3.4 Community Costs, Risks and Benefits (G3.2)

A presentation and discussion meeting was held in June 2015 during which a comparison was made between the (potential) benefits from logging and oil palm under a 99-year SABL arrangement and the community conservation related benefits achieved to date. The community developed and presented a timeline of their conservation work. This timeline formed the basis of the calculation of the monetary value of their achieved community conservation related benefits to date. FORCERT provided and presented an overview of the potential benefits from logging and oil palm on the community's sustainable land use plan area under the proposed SABL for the full 99-year term of the lease. The figures from this were taken from the actual amounts paid in royalties for export logs and land rental for oil palm in the neighbouring West Pomio SABL areas. The community concluded from this comparison and their discussions that their community conservation efforts have already brought them more benefits to date than what they would get under the SABL. Money story style financial reporting used for easy understanding and comparison, also for less or non-financial literate community members



Figure 5. Money story style presentation of opportunity cost for palm oil plantation versus community conservation income.

In July 2018, group discussions (3 mixed groups; men, women and young men) were held on with and without project scenarios at the Tavolo Resource Centre with TCCA Management Committee members and other community members, facilitated by FORCERT, with attendance of Kars Riemer of Face the Future. The group discussions were guided by two questions:

1. How do you see and assess the situation for the forest, land and your well-being in 10 years' time if there will be no conservation activities?
2. How do you see and assess the situation for the forest, land and your well-being in 10 years' time if there will be conservation activities?

In summary, these were the responses to the two questions (a more detailed report of the answers by the various groups is available on file):

For the without-project scenario, the community members saw there would be destruction of their forest, rivers and creeks, loss of clean water sources for drinking and washing, irreversible losses of biodiversity for both terrestrial as well as marine environments, including a decrease in animals hunted for food, also leading to the situation where future generations would no longer see or know certain species. There would be social disruption due to the company's operation, increase in law & order issues, with land grabbing by outsiders, and culture, traditions and customs of the clan would be lost over time.

For the with-project scenario, the community will remain in control of their own development through their SSLUP, and local tradition, clan history, culture and custom practices will be maintained. Life will be more comfortable as the forest will continue to provide basic necessities such as fresh water, medicine traditional materials, and wildlife in abundance, also for future generations. Community members will be able to implement sustainable practices, and attract tourist to visit the area. The conservation program will

help reduce climate change issues globally through REDD in balancing natural systems. Environmental destruction that has been faced by developed countries such as pollution of water and air will not occur.

One group asked 2 questions in return to Kars Riemer of FtF and the FORCERT Technical Advisor:

- Do developed nations without a conservation program still maintain their customs, traditions, cultures or family ties?
- In a developing nation can the living standards be improved to that of a developed nation through Conservation programs?

These questions were answered through interactive discussions with all participants, with examples given of the current situation in the Netherlands, Europe and other Western or so called “developed” countries, with the first question answered mainly in the negative and the second in the positive.

2.3.5 Information to Stakeholders on Validation and Verification Process (G3.3)

The preparation work for the PNG Communities BEST, including the work for the community to meet all FORCERT Group Certification requirements has been discussed at least once a year with the Tavolo community at general community meetings, and Action plans have been developed and updated jointly by FORCERT and the community at those meetings

USAIT	WANEM WOK	WANEM TAIM
KOMITI	MEKIM RIPOT BILONG KAPA GO LONG KOMUNITI NA FORCERT	PINIS BILONG MEI ?
FORCERT	SEKIM LOYA LONG KOPI BILONG LIS NA STATIM KOT NA KAM LO PES	PINIS BILONG MEI ✓
FORCERT	SEK WANTEM FACE THE FUTURE LONG WANEM TAIM OL I KEN KAM LUKIM TAVOLO, LAUSUS NA MIKUS	PINIS BILONG MEI ✓
KOMUNITI	REDI LONG GIVIM RIPOT BILONG LUP NA KOMUNITI KONSEVESEN LO	BIHAIN LONG JUN.
KOMUNITI	REDI LONG BUNGIN TINGTING LONG TOK ORAIT PEPA WANTEM LIG NA DISTRICT	BIHAIN LONG JUN.
FORCERT	BUNG WANTAIM LLG NA DISTRICT LONG TOK KIA LONG BEST	JUN
KOMUNITI NA KOMITI	WOK REDI BILONG REGISTRATION BILONG ASOSIASEN	MEI-JUN.

USAIT	WANEM WOK	WANEM TAIM
KOMUNITI KAWANEM	MEKIM RIPOT BILONG KAPA GO LONG KOMUNITI NA FORCERT	PINIS BILONG JUNE
KOMUNITI KAWANEM	BUNGIN KERT BILONG LUP NA KOMUNITI KAWANEM -SEN LB.	PINIS BILONG JUNE
KOMUNITI	DRAT KAWANEM TAIM WANTEM LLG NA DISTRICT REDI, KENAN-ORAIT-TINGTING LONG LUKIM SALIM GEM LO LONG FORCERT	PINIS BILONG OKTOBER
FORCERT	BUNG WANTAIM LLG NA DISTRICT LONG TOK KIA LONG BEST	PINIS BILONG OKTOBER
KOMITI	REGISTRARIN ASSOCIATION LONG MEDIA	JUN-JULY
FORCERT	ROLES & RESPONSIBILITY TRAINING	SEPTEMBER
FORCERT	KAWANEM WEI BILONG SPELM WOK KONSEVESEN	OKTOBER
FORCERT NA KOMUNITI	WOK SEKIM KAWANEM LONG BUL	SEPT-NOV
FORCERT	STRETA OLWETA TOK BILONG BEST NA KAWANEM KAM LONG KOMUNITI	NOV
KOMUNITI	STRETA SYSTEM BILONG KOMUNITI BASKET NA SALIM GO LONG FORCERT	NOV JUN-OCT
KOMUNITI KAWANEM/NA FORCERT	MEKIM AMANWESS 160 LONG OL KOMUNITI ISAP KLOSTU	JULY-ABRIST
FORCERT NA KOMUNITI	PANISH WOK KAPA	DEC
FORCERT	WOK WANTAIM LOYA LONG WOK KOT	JUN-

Figure 6 .Communities BEST preparations Action plans for Tavolo Community and FORCERT.

The Tavolo community has previous experience in independent third-party auditor visits through their involvement in the FORCERT FSC Group Certificate.

During the community meetings it was also explained that Project Documents for VCS and CCB standards had to be drafted, and that although most information required under the standards would already be available from the TCCA Management Plan 2010-2029 and Tavolo Community & FORCERT's work over the years, there could be further requirements for information for which FORCERT and the Tavolo Community may need to organise specific activities to collect.

The Tavolo Community was reminded at all community visits that the real start of the project would only happen if the VCS+CCB audit would be successful, after which carbon credits will be issued.

The Melkoi Local Level Government (LLG), District Development Authority, and the Member of Parliament for Pomio have all been informed of the progress of the Tavolo project and the VCS + CCBS audit as forming the completion of the project development process.

At the national level, through meetings as part of its National Level Program, FORCERT have been keeping all relevant Government Departments and Authorities, and its partner NGO's up to date of the Tavolo project development process and are aware that it is planned for this process to be concluded with a VCS+CCBS audit.

Neighbouring communities are aware of the Tavolo community working with FORCERT to develop a carbon credit project, under VCS and CCBS, through their social relationships with Tavolo community members, peoples attendance to the PNG Communities BEST membership agreement signing ceremony at Tavolo Village, and through the awareness on the project provided to the Melkoi Local Level Government (LLG), which comprises of the Ward members of all Government Wards within the Melkoi LLG area. FORCERT together with Tavolo Community representatives will visit the Melkoi LLG to deliver and explain Pidgin English summaries of the VCS and CCBS PDs.

At present only the land area of the Tavolo and Lausus Ward within the Melkoi LLG is included in this project. This is because the project is a result of the long-term partnership relation between FORCERT and the Tavolo community. It is expected that other communities within the Melkoi LLG will show interest to join FORCERT's PNG Communities BEST Program, and if so, they will be asked to send in a written expressions of interest to start the normal FORCERT partner community screening and selection process as per FORCERT's Participatory Process of Change (See Appendix X FORCERT Participatory Process of Change overview – January 2020

2.3.6 Site Visit Information and Opportunities to Communicate with Auditor (G3.3)

The Tavolo community has also been kept informed of the likely date for the auditor's visit, and the current challenges for that due to the COVID-19 pandemic. Once a date for the audit has been confirmed, the community will be informed in the first mobile phone communication possible with the TCCA chairperson, and in the first following community visit. During that visit, details on how the audit will take place will be shared with both the TCCA Committee and the whole community, during a public community meeting. During that visit also all local other stakeholders will be informed, both verbally and in writing.

FORCERT will inform all other stakeholder in writing via email of the audit, as soon as the date for the audit has been confirmed.

FORCERT and TCCA will arrange for a site visit to the project area for the auditor team, with a meeting with the TCCA Management Committee and workforce, and two general community meetings; one at Tavolo village for the Mukus and Tavolo communities, and one at Lausus village for the Lausus community. Neighbouring communities and Local Level Government and District Development Authority officials will be informed of the auditor's visit and be invited to also attend these two general community

meetings. They will also be informed that they can request FORCERT in advance to arrange for a separate meeting opportunity with the auditor at a central location outside the project area, if they so desire.

2.3.7 Stakeholder Consultations (G3.4)

The project design is a joint effort of the Tavolo Community and FORCERT, resulting from the trial work on PES/REDD the two parties started already in 2008. It is the result of many rounds and years of awareness and discussions by FORCERT with the Tavolo Community, meaning the community has been consulted and involved on all levels and each step in the project design process. Also, the Tavolo Community has gone through its own inclusive planning process with their development of the TCCA Management Plan 2021-2030. The project design has been largely guided by this community process and plan, e.g., for the determination of project objectives, outcomes and impacts, the Theory of Change, and the monitoring plan.

The below table provides an overview of the stakeholder consultations carried out between 2010 and 2021.

Table 3. Stakeholders' consultations

Date & Location	Stakeholder name + meeting participants / Meeting topic
NB: details on community level meetings participants are available in the FORCERT community visit reports	
Apr 2010 – Tavolo	Tavolo, Mukus & Lausus communities - Introduction of draft VCS project document and VCS methodology
Dec 2010 – Tavolo	Tavolo, Mukus & Lausus communities - Awareness and updates, National and international level plus progress on the VCS methodology - Introduce pre-financing negotiations with Greenchoice
Sep 2011 – Tavolo	Tavolo, Mukus & Lausus communities - Detailed discussion on Greenchoice pre-financing - PES updates and progress on VCS Methodology development
Nov 2012 – Tavolo	Tavolo, Mukus & Lausus communities - Introduction of PES Benefit Sharing Mechanism (BSM) concept - Community present draft for policy and laws for PES benefit distribution - PES progress and updates at all levels
May 2013 – Tavolo	Tavolo, Mukus & Lausus communities - PES BSM follow-up meeting - UN-REDD, Office of Climate Change & Development (OCCD), Department of Lands & Physical Planning site visit on the FPIC process of REDD+ projects - Explanation of rejection pre-financing agreement by Greenchoice Board of Directors
Jun 2015 – Tavolo	Tavolo, Mukus & Lausus communities, OCCD officers - OCCD/FORCERT field test REDD+ FPIC Guidelines.

	- BSM discussions and announcement of plan on K100, 000.00 being committed to Tavolo by OCCD & FORCERT to field test BSM.
Dec 2015 – Tavolo	Tavolo, Mukus & Lausus communities, OCCD officers Launching of BSM field test used to start the Tavolo Community permanent family housing scheme. FORCERT and CCDA officers witnessed the launching.
Feb 2017 – Tavolo	Tavolo, Mukus & Lausus communities - Facilitation of HCV assessment - Check on BSM trial report with Management Committee
Jul 2017 – Tavolo	Tavolo, Mukus & Lausus communities - Awareness on Community Based Organisation (CBO) establishment - Review SLUP
Jan 2018 – Tavolo	Tavolo, Mukus & Lausus communities - Finalisation and confirmation Community Conservation Laws - Presentation of FORCERT Programs
Feb 2018 – Tavolo	Tavolo, Mukus & Lausus communities - Second CBO awareness - Continuation of SLUP revision - PES update with announcement and discussion of possible Greenchoice pre-financing arrangement
Apr 2018 – Tavolo	Tavolo & Mukus communities Finalisation of SLUP revision with incorporation of Lausus & Tavolo SLUP areas
Jul 2018 – Lausus	Lausus community - Finalisation SLUP map - Check on Community Conservation Laws enforcement
Sep 2018 – Tavolo	TCCA Management Committee - Facilitate TCCA Management Plan revision - REDD+ stakeholder engagement survey (WCS subcontract)
Oct-Nov 2018 – Lausus & Tavolo	Tavolo, Mukus & Lausus communities - PNG Communities BEST preparation work discussions
Nov 2018 – Lausus, Tavolo & Mukus	Tavolo, Mukus & Lausus communities - Community needs identification - PNG Communities BEST presentation at Mukus
Feb 2019 – Lausus	Lausus community - Completion HCV assessment - Sustainable Development awareness
Feb 2019 – Tavolo & Mukus	Tavolo & Mukus communities - Discussion Community Conservation Laws implementation & enforcement
Apr 2019 – Tavolo	- Discussion revised Management Plan with Management Committee - Check on usage BEST trial benefit sharing
Oct 2019 – Tavolo	Tavolo, Mukus & Lausus communities -vFacilitation of Conservation Deed signing
Mar 2020 – Tavolo	TCCA Management Committee - Discussion revised Management Plan with Management Committee - Check on SLUP and Conservation Deed implementation

May 2020 – Lausus & Tavolo	Tavolo, Mukus & Lausus communities <ul style="list-style-type: none"> - Discussion revised Management Plan with Management Committee - COVID-19 awareness - Facilitation of Action Plan for Theory of Change development
Jun 2020 – Port Moresby	CCDA Gwen Sissiou, Director REDD+ & Mitigation / Terence Barambi, Manager REDD+ FORCERT National Level Program Team <ul style="list-style-type: none"> - Presentation & discussion with CCDA REDD+ Team on FORCERT with focus on PNG Communities BEST trial work. CCDA showed large interest and support of both FORCERT’s PNG Communities BEST trial work at the community level, as well as the possibility of using this experience & thinking to develop a national level REDD+/BEST system.
Jun 2020 – Lausus & Tavolo	Tavolo, Mukus & Lausus communities <ul style="list-style-type: none"> - Presentation & discussion on PNG Communities BEST Program rules, including monitoring & reporting system - Review milestones for Greenchoice instalments and update expenditure to date & allocations - Discuss draft PNG Communities BEST Program membership agreement
Aug 2020 – Tavolo	TCCA Management Committee <ul style="list-style-type: none"> - Continue drafting of TCCA Management Plan - Obtain report from Community Conservation Law Committee - Update PNG Communities BEST Action Plan - Collect information for Community Situational Change Monitoring matrix
Aug 2020 – Uvol	Melkoi LLG <ul style="list-style-type: none"> - FORCERT Kimbe CEP Team - Melkoi LLG participants: <ol style="list-style-type: none"> 1. Thomas Osa – President 2. Francis Navelo – Ward Member Uvol 3. Clement Kipolo – Ward recorder Uvol 4. Joe Rolmane – Admin Clerk, Melkoi LLG 5. Lukas Tau – Ward Member Pilematana 6. Thomas Mande – Ward Member Poio 7. Ben Moet – Ward recorder Meletong 8. Simon Samuel – Ward recorder Pilematana 9. Joe Una – Community elder Uvol 10. Charles Porme – Community Leader Uvol - Presentation on FORCERT Programs and FORCERT PNG Communities BEST Program at Lausus & Tavolo and get input & comments
Oct 2020 – Palmalmal	Pomio District Development Authority (DDA) <ul style="list-style-type: none"> - FORCERT Kimbe CEP Team - Tavolo Ward Member & TTCA Chairman Peter Kikele - Tavolo Ward Development Committee Feliz Leklek - Pomio DDA participants: <ol style="list-style-type: none"> 1. John Liskia – Pomio District Deputy Administrator 2. Thomas Yakenta – Pomio MP Electoral Officer 3. Veronica Pulkapo – District Lands Coordinator

	<p>4. Chris Tasman – District Finance Manager 5. Stanford Talmar – District Internal Auditor 6. Hillary Songtava – District Community Development officer 7. Nathaniel Mesulam – District School Inspector 8. Jeremiah Joshua – District M&E officer 9. Wesley Palor – District Business Development Officer 10. March Danny – District Examiner 11. Clara Joshua – a/DAO 12. Joe Lontopaga – Manager Melkoi LLG 13. Betty Maloei – District logistics officer 14. Brian Kopi – District sports officer 15. Flavia Paruru – District Education officer 16. Jonas Mogi – CIR NID officer 17. Caspar Kasking – Rural Development officer 18. Kathy Liskia – District Administration officer 19. Clara Sonai – NID registration officer 20. Jacklyn Pinia – NID officer 21. Terence Kaltaprea – NID officer 22. Philip Koamuna – UPNG Open Campus 23. C. Bugo – Technical Services 24. Dominic Kenpale – Ward Member Poro/Salil ward 25. Leonard Pakila – Ward Member Manginuna ward 26. Anton Kosilia – a/Manager One Stop Mini Mart 27. Philip Lanlang – Chairman Manginuna Conservation</p> <p>- Conducted a full presentation on FORCERT programs and FORCERT PNG BEST trial project at Tavolo and updated the District on the status of the project and how the BEST trail system will work and how it will contribute to the Ward, LLG, District, Provincial and National Government and get their input & comments.</p>
Sep 2020 – Tavolo, Mukus & Lausus	<p>Tavolo, Mukus & Lausus communities</p> <ul style="list-style-type: none"> - Carbon forest inventory training - Data collection Community Situation Change Monitoring matrix
Sep 2020 – Kimbe	<p>PNG Forest Authority (PNGFA) Goodwill Amos, Director CC & REDD+ / Jerry Kowin, Area Manager West New Britain Province FORCERT Manager / Team Leader National Level Program / Certification Officer</p> <p>- Discussed FORCERT’s partnership under the MOA with PNGFA regarding the ITTO Community Forest Management PES/REDD project, how the project will be organized and coordinated with FORCERT’s programs. It was agreed for Tavolo to be included under the project, and the Tavolo Project was discussed, with agreement that FORCERT will use its process and systems of working with communities to work towards achieving the expected outputs.</p>
May 2021 – Lausus & Tavolo	<p>Tavolo, Mukus & Lausus communities</p> <ul style="list-style-type: none"> - PNG Communities BEST membership agreement discussions
May 2021 – Tavolo	TCCA Management Committee

	- Roles & Responsibilities training for TCCA Management Committee
Jun 2021 – Port Moresby	Member for Pomio, Honourable Elias Kapovore FORCERT National Level Program Team -Presentation & discussion on FORCERT’s work in general and in Pomio District in particular and the PNG Communities BEST Program, with Tavolo as the first project. MP is keen to have a focus on sustainable livelihoods under the project.
Jul 2021 – Lausus & Tavolo	Tavolo, Mukus & Lausus communities - Development & field testing of a Community Conservation Monitoring System
Sep 2021 – Tavolo	TCCA Management Committee - Facilitation of smartening TCCA Management Plan objectives & developing Indicators

2.3.8 Continued Consultation and Adaptive Management (G3.4)

FORCERT will produce annual PNG Communities BEST Program reports, which will be shared with all member communities during the annual community monitoring & evaluation meetings and with other identified stakeholders via email. Stakeholders will be encouraged to request any additional information and submit comments and other input. All comments and input will be responded to in writing, explaining how they have been considered, and what management adaptations they have resulted in, if applicable.

The Tavolo community will invite local stakeholders, including neighbouring communities, to attend their annual PNG Communities BEST monitoring & evaluation meetings. There will be a separate agenda item during these meetings for stakeholder queries, comments and input. Meeting notes are made and stored both in hardcopy and softcopy. Before the next annual monitoring & evaluation meeting, stakeholders will be informed in writing (and whenever feasible also verbally) of the consideration of their comments and input, and what management adaptations they have resulted in, if applicable.

2.3.9 Stakeholder Consultation Channels (G3.5)

As described under 2.3.7 the project development and design has been a highly consultative and participatory process, over many years of awareness, meetings, workshops and trainings, all of them done at the Tavolo Community, mostly through open community meetings, held at times and locations determined by the Tavolo committee, with separate meetings held for Tavolo & Mukus at Tavolo village, and for Lausus (3 hours walk uphill), to allow access by all community members. This has been recorded through the FORCERT Community Enhancement Program Team community visit reports, with an overview of all visits and their purpose given in the table under 2.3.3 and the detailed reports held on file.

Awareness to neighbouring communities and clans was done on SLUP and Community Conservation laws on both Northern and Western sides, but not yet on Coastal and Inland sides. Awareness on the SSLUP and Community Conservation Laws and the BEST project has also been done by Tavolo Community reps together with FORCERT staff at the Melkoi LLG and the Pomio DDA. A presentation meeting on PNG Communities BEST Program and the REDD Tavolo Project was held with the Member of Parliament for Pomio in 2021. The President of the Melkoi LLG signed the Tavolo Conservation Deed as a witness.

Members of all surrounding communities, the Melkoi LLG President, Pomio DDA rep, PNGFA and CCDA representatives came to the public signing ceremony of the PNG Communities BEST Program membership agreement.

2.3.10 Stakeholder Participation in Decision-Making and Implementation (G3.6)

For its main work with rural communities in Papua New Guinea under its Community Enhancement Program, FORCERT has developed a special approach called the Participatory Process of Change (PpoC, see Appendix 1). The aim of this approach is to encourage full and effective equal participation by each member of the community, with each community to make informed decisions about the change they desire to see in their community and to take ownership, lead and monitor the progress of change in their own communities.

FORCERT through its Community Enhancement Program facilitates the community participatory process of change with each selected partner community to empower them in organizing their own community and devise simple plans that would guide them to bring about the necessary changes in their community. The Program aims to enhance the community's capacities for them to take the lead in their change, balancing their economic and social interests and environmental, social and cultural values.

FORCERT's core work is empowering Papua New Guinea communities through community practiced, sustainable land use planning and community action planning processes, and through village-based business enterprise support.

Working with PNG communities is very unique and complex because the situation varies from one community to another and each has its own difficulties and challenges. Each community's culture has influence on the way they think and do things however, there is one common thing that is practiced in all communities and that is; they always come together to talk about issues affecting them. This may be conflict management, resources use, government involvement or other big aspirations.

In this way things are done in public, because this is part of the Melanesian culture. Using the Participatory Process of Change (PpoC) Manual, the FORCERT community facilitators and other staff engaged at the community level, will ensure that dialogue is being facilitated between members of each community including men, women, youths, leaders and others so that all are free to discuss the change(s) the community as a whole would like to see and determine how they would work together to achieve them.

In general, to allow for inclusive community level discussions and presentations, and avoid male domination in plenary community group gatherings, the community is divided into their three main groups; men, women and youth. It may vary per community if the youth group includes young women or not; in some communities young women prefer to join the women's group. This is something the community themselves decide. For some specific discussions (e.g., as part of our High Conservation Values assessment work), it is possible and better to have mixed groups, i.e., with men, women and youth included in each group. Again, here the community itself decides whether this is possible and desirable.

This approach is captured in the following manner in the FORCERT PpoC Manual (April 2020):

PHILOSOPHY

The Community Participatory Process of Change is for FORCERT to facilitate equal and cohesive participation within and among communities, be keen learners and strengthen and improve their capacities for them to take ownership of their own process of change.

PRINCIPLES AND VALUES

- This process is guided by the following key principles and values;
- Approach the Melanesian Way
- Encourage Equal Participation
- Build and Strengthen Community Ownership of their process of change
- Balance Social, Cultural, Economic and Environmental Aspects

PNG communities are bound by their cultural heritage as elsewhere in the Pacific and Melanesia and the best way to facilitate such a process would be to use the under-lining principle of the “Melanesian Way”. In the Melanesian context people communally talk together about aspirations they want to see in their community and this is what this process is promoting.

To approach the community, the Melanesian Way is for FORCERT to work with communities in a way that is appropriate to Melanesians in regard to their culture, way of life and customs, having in mind their traditional leadership system.

Encouraging Equal Participation is for FORCERT as the facilitator to always involve every individual in the community, either they are male or female, old or young and be of different age groups, i.e., adult or youths are to participate in any activity in the community. Therefore, everyone in the community will feel and be part of this process. Because of this all major activities for all steps at the community will be carried out by a gender balanced team of Community Facilitators.

To Build and Strengthen Community Ownership of the community’s process of change, FORCERT is to conduct/carry out activities which will build up individuals especially the leaders in the community to have confidence in organising themselves and take lead in their process of change. As a result, the community will own that the change and will not see that FORCERT is taking the lead in the process.

Any change in the community with fair and positive impacts on the lives of the people should be balanced in the aspects of Social, Economic and Environment. In ensuring that, the Social, Economic and Environmental aspects for the community are balanced, FORCERT is to facilitate that these are part of the discussions by the community.

The four (4) principles described above are what FORCERT bases its work on. These are the guiding principles which all FORCERT staff, partners, communities and others should know. All these provide value to FORCERT’s core work.

All FORCERT Teams are gender balanced, as meaningful participation of women in the community will only happen if there are female FORCERT staff present and directly engaging with the women in the community, Specific attention to the empowerment of women and their meaningful participation in meetings, discussions, trainings and workshops is given by FORCERT’s female staff, and this normally leads to a clearly improved engagement of women in meetings and discussions. A general indicator of at least 30% women to be included in all activities and management structures is used for all FORCERT community level work.

Providing the possibility for the youth to gather and discuss in their own groups, and present their own views back to the larger community, helps to increase their interest and involvement in the change processes of their community.

2.3.11 Anti-Discrimination Assurance (G3.7)

FORCERT has the following Appendices included in their Staff Manual (Version 4, January 2010): Appendix b. Workplace Harassment Policy / Appendix c. Gender Policy / Appendix d. HIV/AIDS Policy. These policies ensure that in all FORCERT's work and that of its partner communities, there no form of discrimination or sexual harassment is allowed.

2.3.12 Feedback and Grievance Redress Procedure (G3.8)

See Appendix 3. Dispute and complaint handling procedure V5-Apr-2022.

2.3.13 Accessibility of the Feedback and Grievance Redress Procedure (G3.8)

The FORCERT Group Certification System Dispute and Complaint Handling Procedure is made available to all PNG Communities BEST member communities, will be available on the FORCERT website, and will be made available by email or in printed copy to any stakeholder requesting the procedure.

All formal disputes and complaints will be registered, and the responses to them documented in the PNG Communities BEST Dispute & Complaints Registry, and this Registry will be publicly available online, and provided in printed form for community-based stakeholders upon request.

2.3.14 Worker Training (G3.9)

Training is focused on building the management capacity of TCCA (with a particular focus on administration and finance), its Management Committee, the Community Conservation Law Committee, and full- and part-time workers. Special consideration is given to building the capacity of women and youth to enable them to be fully considered and included as management committee members and in the workforce.

Examples of training are Management Roles & Responsibilities, Financial planning, management & reporting, Administration organisation & management, Planning, monitoring, learning & evaluation.

Through providing further coaching, guidance and follow up assessments after training, committee members and staff will be encouraged to make long-term commitments to their positions. Particular attention will be given to young women, as due to cultural and social norms it can be difficult for them to continue in staff positions after getting married and/or having children.

Operational Health & Safety training will be conducted for all equipment purchased by and operated under the TCCA.

In March 2022, a training needs analysis was done with the TCCA staff. Also training needs were discussed with the Community Conservation Law Committee. TCCA will include the priority trainings from these assessments in its annual activity plan and budget. This training schedule will be evaluated and updated as part of the PNG Communities BEST monitoring meeting at the end of every calendar year.

2.3.15 Community Employment Opportunities (G3.10)

All local work position created or related to the PNG Communities BEST REDD - Tavolo project are managed by the TCCA, and will be filled by local community members. Regarding equal opportunity, as specified in the FORCERT-TCCA Agreement, a minimum of 30% of all staff positions have to be filled by women.

TCCA has included rules in their standard operating procedures that for all construction projects and service delivery projects, suitable contractors from within the Tavolo, Mukus and Lausus communities will be sought first, and if not available, other local contractors will be considered.

2.3.16 Relevant Laws and Regulations Related to Worker's Rights (G3.11)

The following laws and regulations covering worker's rights apply for the project, and its minimum requirements will be met or exceeded:

- Industrial Safety, Health and Welfare Act (1990)
- Workers Compensation Act (1990)
- Companies Act (1997)
- Association Incorporation Act (1966)
- Employment Act (1978)
- ILO Conventions:
 - 29 Forced Labour Convention, 1930
 - 87 Freedom of Association and Protection of the Right to Organise Conventions, 1948
 - 98 Right to Organise and Collective Bargaining Convention, 1949
 - 100 Equal Remuneration Convention, 1951
 - 111 Discrimination (Occupation and Employment) Convention, 1958
 - 131 Minimum Wage Fixing Convention, 1970
 - 138 Minimum Age Convention, 1973
 - 141 Rural Workers' Organizations Convention, 1975
 - 155 Occupational Safety and Health Convention
 - 182 Worst Forms of Child Labour Convention, 1999
- ILO Code of Practice on Safety and Health in Forestry Work (ILO 1998)
 - 135 Minimum Wage Fixing Recommendation, 1970
- Minimum wage regulation for PNG (as per 03-2022): PGK 3.50 per hour
- Workers' conditions for FORCERT and TCCA are fully compliant with all above mentioned laws and regulations.

FORCERT's staff are fully informed and kept updated about their rights by the FORCERT HR Officer. TCCA staff and Management Committee have been made aware of the legal requirements they will have to consider as an officially registered Association, including requirements regarding worker's rights. Where necessary these will be included in the TCCA standard operating procedures.

2.3.17 Occupational Safety Assessment (G3.12)

FORCERT has its own Operational Health & Safety Policy as captured in the FORCERT Staff Manual (Version 4, January 2010, Appendix E).

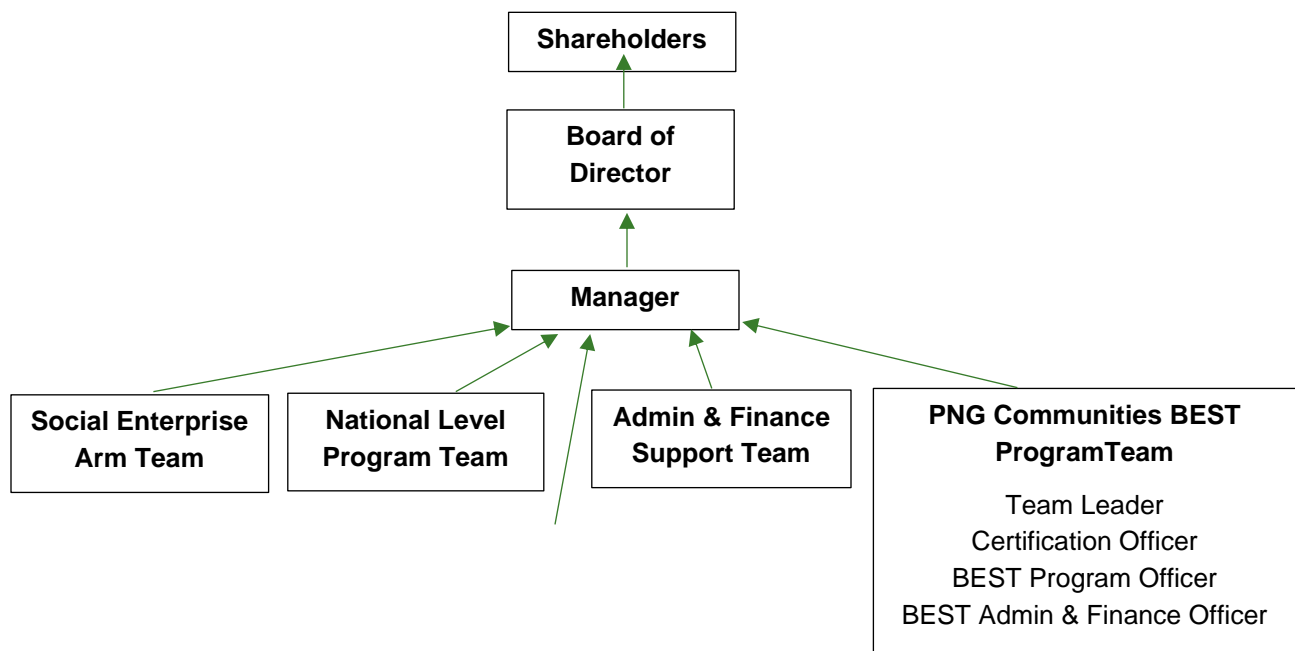
All PNG Communities BEST Program members are required to develop their own Operational Health & Safety Procedures, using the PNG Communities BEST Program Members' Operational Health & Safety Procedures (Version 1, March 2022).

2.4 Management Capacity

2.4.1 Project Governance Structures (G4.1)

Organisation & Role	Responsibilities
FORCERT; Project developer	Overall responsibility for project design and implementation Carbon credit sales Development and implementation of the PNG Communities BEST Group Certification System Management and disbursement of income from carbon credit sales as per the PNG Communities BEST benefit sharing mechanism Overall responsibility for monitoring and reporting compliance with all PNG Communities BEST Program requirements Regular reporting on PNG Communities BEST Program implementation to all community members and other stakeholders
TCCA; Main beneficiary Carbon credit owner	Development and maintenance of TCCA Development and management of the community benefit sharing mechanism Monitoring of community level compliance with all PNG Communities BEST Program requirements Regular reporting on community compliance to community and FORCERT
Face the Future; Consultants	Technical support in project design, validation, verification and monitoring Advisory and supporting role in carbon credit sales

Organisational structure FORCERT



Community Enhancement Program Teams

Kokopo Team Kimbe Team Madang Team

Each Team consists of 3-4 Community Facilitators (one of them being the Team Leader) and is gender balanced

See 4.5.8 for a description of the TCCA management structure.

2.4.2 Required Technical Skills (G4.2)

The technical skills required for successful project implementation are listed in Table 4, below, together with the implementing and/or supporting partner that has these skills. Where the required skills level for implementing partners is considered inadequate, the planned skills building action is identified.

For TCCA an initial Training Needs Analysis has been done, which will be completed once the final Admin Team composition has been agreed upon by the TTCA Management Committee.

Table 4. Key technical skills requirements

Community Engagement	Implementing/supporting partner
Community facilitation	FORCERT
Community organizing	FORCERT
Community Planning, Monitoring, Evaluation & Learning cycle development and implementation guidance	FORCERT
Any new FORCERT Community Enhancement Program and PNG Communities BEST Program staff will undergo Community facilitation training, and a general induction on implementation of the FORCERT Participatory Process of Change.	
Biodiversity Assessment and Monitoring	Implementing/supporting partner
Assessment	TCCA/FORCERT/FtF/Binatang Research Centre(BRC)
Monitoring & Reporting	TCCA/FORCERT/FtF/BRC
Data Analysis	FORCERT/FtF/BRC
The TCCA Community Conservation Law Committee and relevant FORCERT staff will receive further training from BRC on species identification, monitoring techniques and data processing.	
Carbon Measurement and Monitoring	Implementing/supporting partner
Forest carbon Inventory - Remeasurement	TCCA/FORCERT/FtF
Tree species identification	TCCA/FORCERT
Forest carbon Inventory - Data Processing	FORCERT/FtF

Forest carbon monitoring	FORCERT/FtF
All relevant FORCERT staff will receive Tree Identification refreshers training from the Forest Research Institute.	
General	Implementing/supporting partner
Drone operation	TCCA/ FORCERT
Database development & management	TCCA/ FORCERT
Remote Sensing & GIS	FORCERT/FtF

2.4.3 Management Team Experience (G4.2)

FORCERT has been a FSC FM & COC Group Certificate Manager from 2005-2014. FORCERT is currently working with 22 communities in 5 provinces (New Ireland, East New Britain, West New Britain, Morobe and Madang) in PNG, covering a total land area of more than 136,000 hectares. Since 2004, FORCERT has built its capacity and expertise in community engagement, organising and empowerment, sustainable land and resource planning and management, High Conservation Values assessment, development of Community conservation laws, and small village-based enterprise support. FORCERT started its trial Community Carbon Forestry work in 2008, and has developed a forest carbon inventory methodology, and has trained community forest carbon inventory teams in 5 trial communities to inventor and monitor their own forests. FORCERT has worked closely with 3 trial communities to develop the PNG Communities BEST Program, with particular attention to the benefit sharing system. For the Tavolo community so far 4 trial benefit sharing exercises have been conducted, with a 5th and final one planned for the end of 2021. These trial benefit sharing exercises have been used by the CCDA and UNDP-REDD+ Program in PNG to field test the draft REDD+ FPIC Guidelines for PNG, and they have provided important input for the draft PNG REDD+ Benefit Sharing and Distribution System (BSDS), REDD+ Implementation Guidelines, and the REDD+ Grievance Redress Mechanism (GRM).

Combined, FORCERT staff have more than 80 years of experience working in support of PNG communities in the areas mentioned above.

Face the Future has been developing forest carbon projects since 1990, before the development of the voluntary carbon market and is very familiar with the existing carbon certification standards, especially VCS and CCB. Face the Future successfully developed and certified two projects under VCS; A reforestation project in Kibale National Park, Uganda and a forest restoration and conservation project in Sabah, Malaysia . Since 2015, the project in Uganda is also CCB (Biodiversity Gold level) certified. For the project in Malaysia they developed a VCS methodology for the quantification of GHG emission reductions and removals generated by avoiding re-logging and/or the rehabilitation of previously logged forest.

Between 2003 and 2009, Face the Future participated in a project (ENCOFOR) for the European Commission, developing a toolkit for the design and implementation of sustainable, community based, CDM A/R projects.

Next to the management of their own projects, Face the Future assists organisations all over the world in project the development and certification of their own forest carbon projects as well as in feasibility studies and monitoring. Amongst others Face the Future is currently assisting organizations in the

development and certification of REDD+ projects under VCS and CCB in Ethiopia, Uganda and Tanzania and Madagascar.

Tavolo Community Conservation Association was incorporated in 2021 as a community-based and owned Conservation Association covering the Mukus, Tavolo and Lausus communities and the 16 clans living in these communities and their land area, as included in their Tavolo Community sustainable land use plan. The Tavolo Community started their conservation thinking and efforts in 1997, and obtained protection of 2,500ha of their overall land area under a so-called Wildlife Management Area (WMA) from the then Department of Environment and Conservation (DEC), now Conservation and Environment Protection Authority (CEPA). This also included the establishment of a WMA Committee to manage and monitor the WMA. The community has since fought off various attempts of logging and oil palm companies to enter their land and the WMA, and has been very vocal on their conservation aspirations. The WMA Committee has now been transferred to the TCCA Management

2.4.4 Project Management Partnerships/Team Development (G4.2)

Although FORCERT does have ample experience with FSC and Fairtrade certification from its 10-year period (2005-2014) as FSC Group Certificate manager, and has built some relevant experience in forest carbon inventories during its 2008-2012 CCF/PES trial project period, it lacks the specific technical skills and expertise to achieve VCS and CCBS validation and verification. For that reason, Face the Future was engaged as the technical consultant firm to assist with that.

FORCERT identified it lacked the skills and experience to assist the Tavolo Community to develop a simple yet scientifically sound community conservation monitoring system, that can be used to monitor and report on the status of the biodiversity in the project area and be used to assess the impact of the community conservation laws. Therefore, Binatang Research Centre, the only local PNG biological research organisation in the country, is engaged to assist with that.

2.4.5 Financial Health of Implementing Organization(s) (G4.3)

FORCERT has a solid fundraising history, having secured more than EUR 6.6 Million from a range of international donors since its inception in 2004. FORCERT has a long-term support relationship with its current main donor, Bread for the World (BftW). At present FORCERT has a contract with BftW for EUR1,130,000 funding support for the overall work of the organisation for the January 2021 – December 2023 period. Some smaller co-funding support has been secured amounting to around EUR35,000 was secured for 2021. For 2022 onwards a number of additional major funding support options have been identified, but are yet to be secured.

Under its current 2020-2024 Strategic Plan, FORCERT aims to grow from the current 18 to 26-28 full-time staff. To enable this growth, BftW has engaged the support of AskRight to get 4 senior FORCERT staff trained in innovative ways of fundraising aimed at a wide range of potential financial supports, and to help develop a long-term Fundraising Strategy for the organisation.

One of the plans under the current Strategic Plan is for FORCERT to establish its own facilities, including office space, meeting and guesthouse facilities. This will very much reduce operational costs, and use of the facilities by third parties will generate an additional income stream for FORCERT. Also, FORCERT has started its own Social Enterprise Arm, at present focussing on trading in cacao and vanilla, which over time is expected to provide some limited funding support to the activities and costs for the rest of the

organisation. At present it is unclear what level of income the Social Enterprise Arm may be able to generate in the long-term.

Under the PNG Communities BEST Program benefit sharing system, FORCERT will get 20% of the carbon credit sales income. Depending on credit sales prices, this may become a major income source for the organisation, which will assist in building financial reserves, and allow for the PNG Communities BEST Program to expand to other interested FORCERT partner communities.

There is an increasing interest from carbon credit buyers and international project developers, to provide pre-financing support to the PNG Communities BEST Program to assist it to achieve VCS and CCBS validation and verification, and to expand the Program to other communities. At present, FORCERT has an EUR200,000 pre-financing agreement with the Dutch electricity company Greenchoice, to which Face the Future is also a party. Also, Greenchoice has agreed to extend its financial support to cover the audit costs for the combined VCS and CCBS validation and verification. FORCERT is planning to slowly increase the community membership of the PNG Communities BEST Program, with the second potential member already identified as the Kait community, in the Namatanai District, New Ireland Province. To date, FORCERT has not agreed to any other pre-financing arrangement, although this could still be considered in future, if found necessary.

2.4.6 Avoidance of Corruption and Other Unethical Behavior (G4.3)

FORCERT, Face the Future and TCCA ensure that they are not involved in, or complicit in any form or corruption, such as bribery, embezzlement, fraud, favouritism, cronyism, nepotism, extortion and collusion. Their work under the Project shall not give rise to any of these aforementioned acts. If FORCERT, Face the Future or TCCA would become aware of or would suspect any of these acts happening, all necessary measures will be taken to remedy the situation in a manner satisfactory to all stakeholders involved, in a transparent manner, using the Disputes & Complaints Settlement Procedures.

Both FORCERT's PNG Communities BEST Program accounts (as well as FORCERT's overall organisational accounts) and TCCA accounts will be audited on an annual basis by a registered national accountant.

FORCERT works according to its Values & Principles as described in its Strategic Plan 2020-2024 and the Code of Ethics captured in both its Staff contracts as well as the FORCERT Staff Manual (V4, Jan 2010). The TCCA Management Plan 2021-2030 has a number of objectives of their Association that deal with avoiding corruption, bribery, favouritism, etc:

- To help the communities manage their resources so the communities will be able to enjoy and benefit from their resources now and in future
- To ensure equal benefit is distributed among the legitimate landowners.
- To create and establish different sustainable means and ways of bringing money in to the communities and in doing so will improve the livelihood of families and the community as a whole.
- To take lead in planning, managing and monitoring the equal sharing of benefits of the 14 clans of Tavolo, Lausus and Mukus communities.
- To promote equal participation and distribution of benefits to all members in the development of any natural resources found within Tavolo, Lausus and Mukus communities customary land boundary.

FORCERT has been recognised by the World Fair Trade Organisation (WFTO) as a Fair Trade Support Organisation, complying with the global standards for Fair Trade Organisations, since 2009.

2.4.7 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

No commercially sensitive information has been excluded.

2.5 Legal Status and Property Rights

2.5.1 Statutory and Customary Property Rights (G5.1)

The clans of the Tavolo Community hold the customary land ownership over the total area of 21,782 ha, out of which 84% is classified as forest cover in the PNGFA Forest Basemap 2012.

Land ownership across PNG, and therefore also in the Tavolo Project Area, is organized at the clan level. There is no traditional individual ownership, but non-written customary laws and regulations assign and guide the rights of individual families to land for food gardens and cash crops, and their rights to other natural resources (fishing, hunting, collecting). Customary ownership of land in PNG is recognized in the Constitution of the Independent State of Papua New Guinea (1975) under the Division 3 Basic Rights in Section 53 (Protection from unjust deprivation of property) subject to Section 54 (Special provision in relation to certain lands). This also includes full ownership of all natural and forest resources on the land. Customary landownership can be claimed and proven through oral history and traditional knowledge of the land and its specific features. There is no need for written land titles or other paper documented proof of traditional landownership in PNG. Correlating to Section 54 (Special provision in relation to certain lands) is the Land Act 1996 Section 132. Disposal of Customary Land that says a customary landowner has no power to sell, lease or otherwise dispose of customary land or customary rights otherwise than to citizens in accordance with custom, and a contract or agreement made by him to do so is void.

The land area of the Tavolo Community is currently officially still under the Rera Special Agricultural Business Lease (SABL), which was established under Subsection (2) of Section 11 of the Lands Act 1996. This has put all customary land within the SABL area under a 99-year State Lease, with the land leased back to the Rera Land Owner Company (LOC). The Tavolo Community has never recognized the validity of the Rera SABL, and several community members testified under oath about this during the Commission Of Inquiry into the SABLs held in 2014, but no report was ever submitted by the Commissioner that investigated the Rera SABL to the Government. A second inquiry into non-reported SABLs was done by the Lands Ministerial SABL Investigation Committee, which included the Rera SABL. The conclusions and recommendations from this second inquiry are yet to be published and implemented. However, The Tavolo Community has signed a Conservation Deed in 2019 to obtain legal protection for their sustainable land use plan and community conservation laws, and FORCERT and the Tavolo Community have received legal clearance from the State Solicitor's Office for the PNG Communities BEST Program membership agreement between TCCA and FORCERT, which confirms recognition of the signed Tavolo Community Conservation Deed within the Rera SABL area.

With support from FORCERT, the Tavolo Community developed and mapped their own Sustainable Land Use Plan, depicted in Figure 4 in section 2.1.5. In a second round, the Land Use Plan was later revised following completion of the HCV assessment and Community Conservation Laws. There are few changes to the land use zones exact boundaries, following from discussions based on satellite images and ground truthing, done with assistance from FORCERT officers. The SLUP and the Community conservation laws will guide the community to themselves promote and strengthen conservation and sustainable management of their natural resources. They will be evaluated and if found necessary revised by the Tavolo community every 10 years, in line with the Community's Conservation Deed and the VCS baseline revision process.

2.5.2 Recognition of Property Rights (G5.1)

Property rights are recognized, respected and strengthened by the project. The Sustainable Land Use Plan, delineation of the project area and Community Conservation Laws were developed with full participation of the Tavolo Community. The signing of the Conservation Deed re-establishes the community's customary landownership rights within the SABL area. Also see Section 2.5.1 on how property rights are organized within the community

2.5.3 Free, Prior and Informed Consent (G5.2)

The project is based on the Community Conservation Laws and Sustainable Land Use Plan, developed through participatory community processes over a number of years, facilitated and guided by the Community Facilitators of the FORCERT Community Enhancement Program Kimbe Team. At present this team consists of 2 females plus 1 male staff member, with one female being the Team Leader.

This process was conducted both at Tavolo and Lausus village to ensure maximum participation of all community members, in particular women, for whom it is more difficult to attend gatherings in a central place not too close to their homes. The outcomes of the participatory High Conservation Values Assessment workshops and the participatory Sustainable Land Use Plan process have led to the formulation of the Community Conservation Laws, with these laws effectively becoming part of the community's customary laws, which can be upheld through their village court. Provisions were made for access to natural resources for local consumption and livelihood needs by members from neighbouring with such user rights, under clear conditions. The Community Conservation Laws have been communicated to the neighbouring communities, but more work will be needed on that, as well as on monitoring and enforcement of compliance.

A PNG Communities BEST membership agreement will be signed between FORCERT and the Tavolo Community Conservation Association as the legal entity representing the Mukus-Tavolo-Lausus communities. This agreement will specify the FPIC process and the agreed Benefit Sharing Mechanism.

The FPIC process leading to the signing of this agreement has been further documented in FORCERT community visit reports for the Mukus, Tavolo and Lausus communities, since the start of the involvement of the Tavolo community in the FORCERT PES Trial Project in 2008.

A special community visit was made in May 2021 to the Tavolo and Lausus communities to present, discuss and get feedback on the draft PNG Communities BEST Program membership agreement (Wanbel Pepa) between TCCA and FORCERT. This was done through a full day general community meeting, one at Lausus village, and one at Tavolo village, with the agreement clauses divided into 4 equal parts and discussed by 4 groups of meeting participants, each supported by one FORCERT staff as the discussion facilitator. Ample time was given for explanation of the meaning of all clauses, with further explanations and discussions on this in the local Lote language. All groups presented back to the plenary, with consensus reached on proposed changes and additions to the draft agreement text.

The Tavolo Community chose the Centre for Environmental Law and Community Rights (CELCOR) as their legal advisor to check the content of the draft agreement with their suggested changes and additions. CELCOR organised a one-day meeting with a delegation of the TCCA Management Committee in Palmal to go through the document with them. It was found that there was no need for any major changes or additions, other than some clarifications of terms and intentions, and the transfer of one clause to a more relevant section. CELCOR communicated the outcome of their meeting with TCCA on the agreement verbally with FORCERT.

The minor changes and additions suggested by CELCOR were confirmed by Environmental Lawyer Sarah Stocks, who checked the draft agreement on FORCERT's behalf. Sarah has ample experience in REDD+ related work at the national level, a/o through her coordination of the

2.5.4 Property Rights Protection (G5.3)

There is no involuntary removal or relocation of property rights holders, as all customary landowning clans are involved in TCCA, and have developed their sustainable community land use plan and community conservation laws together. They have jointly developed and agreed to the limitations in (potential) activities that result from both the sustainable land use plan (zoning of land uses) and the community conservation laws (e.g. restrictions in tree felling, hunting, gathering, fishing)

2.5.5 Illegal Activity Identification (G5.4)

Illegal activities that could affect the project's impact can operate at two levels: institutional through attempts by large-scale logging and agricultural companies, working with corrupt Land Owner Companies and government officials to access the Tavolo Community's land and natural resources, and at the community level through non-compliance with the Tavolo Community's Sustainable Land Use Plan and Community Conservation Laws by both community members and members of neighbouring communities.

Mitigation of the potential institutional level illegal activities is through the signing of the Conservation Deed and official government recognition of the project through the legal clearance received from the State Solicitor's Office.

Mitigation of the potential illegal activities at the community level is through the ongoing monitoring and enforcement of the Sustainable Land Use Plan and Community Conservation Laws by the Community Conservation Law Committee.

Also see VCS PD Appendix 6.a Non-permanence risk report.

2.5.6 Ongoing Disputes (G5.5)

There is a dispute over the Silang area, in the North-West corner of the SLUP area, for which a mediation process was started with one meeting held led by a land mediator, with the dispute settled in favour of TCCA in July 2021. Kakuna Tribe members are the challenging party, who were settled by TCCA clan ancestors on their land. The disputing party did not agree to the outcome, and was given to option to take the matter to the Land Court within six months, but this did not happen. TCCA was approach by the disputing party in March 2022, requesting for a meeting to discuss the option of them accepting the mediation outcome and joining TCCA. There is a long-term dispute over the Mu'una area on project area's eastern side boundary, as indicated on the Sustainable Land Use Plan map. As there is no mediation ongoing or planned/expected to be started on this disputed area, the area as a whole has been excluded from the overall project area.

2.5.7 National and Local Laws (G5.6)

See Appendix 4. Compliance with relevant laws & regulations V4-Apr-22

2.5.8 Approvals (G5.7)

Legal clearance from the State Solicitor's Office for the final draft PNG Communities BEST Program membership agreement between FORCERT and TCCA was received on 15 November 2021 (see Appendix 5), as required per Clause 90 (2) of the CCMA (2021 Amended).

Official registration with the Climate Change and Development Authority was submitted in April 2022, following the procedure as captured in the draft REDD+ Development Guidelines (2012), as directed by CCDA, due to the official registration procedures and forms for REDD+ project developers not yet being finalised.

2.5.9 Right to Claim Benefits (G5.8)

As mention in section 2.5.1, the Tavolo Community, being the project proponent, hold customary land ownership. Customary ownership of land in PNG is recognized in the Constitution of the Independent State of Papua New Guinea (1975) under the Division 3 Basic Rights in Section 53 (Protection from unjust deprivation of property) subject to Section 54 (Special provision in relation to certain lands). This also includes full ownership of all natural and forest resources on the land.

The whole of the Tavolo Project Area falls under the Mukus-Melkoi SABL area, which was initially granted in 2008 to a landowner company called RERA Holdings Ltd (RHL) for a period of 99 years. The Tavolo Community never gave their consent for their land to be included in the Mukus-Melkoi SABL. Recently, the Kakuna-Lote Landowner company applied for a Forest Clearing Authority (FCA) covering the whole of the Mukus-Melkoi SABL area. The Tavolo Community also never gave their consent for this large scale deforestation and land use conversion under the Kakuna-Lote project on their land.

This Lease currently conflicts with the community ownership and rights to claim benefits from the project. The following project activities are/were undertaken to reclaim i.e.

- 1) A Court's or official Government administrative decision will be obtained to declare the Mukus-Melkoi SABL and any accompanying or underlying logging permits and project plans over the Tavolo Sustainable Land Use Plan area null and void.
- 2) A formal protection status was obtained for the forests under the REDD project. Tavolo Community has put their whole Sustainable Land Use Plan area under a Conservation Deed, which was signed in November 2019. Additional Tavolo has submitted an application for the extension of the present Wildlife Management Area (WMA) covering only 1,500ha of their LUIP area, to cover the whole area, with the Conservation & Environmental Protection Authority (CEPA). This has not yet been processed.

2.5.10 Other Programs (G5.9)

The Project will generate VCU's under the VCS. It will also seek FSC Certification, including for Ecosystem Services, to allow the possibility of making promotional claims in relation to the selected services, which currently are expected to be carbon and biodiversity.

2.5.11 Double Counting (G5.9)

FORCERT will comply with the requirements under the CCMA (2021 Amended) regarding registration of its VCUs in a national carbon credit registry to avoid any double counting. Regulations under the CCMA,

based on the National REDD+ Development Guidelines, are in preparation on nesting of voluntary carbon market projects within a national level REDD+ implementation system.

3 CLIMATE

In parallel the project is applying for VCS certification. The Climate Section is covered in the VCS PNG Communities BEST REDD Tavolo Project Description and the VCS Monitoring Reports. However the Gold level for climate change adaptation is described here, Following the section numbers of the CCB standard document.

3.1 Without-Project Climate Scenario

3.1.1 Without-Project Estimated Greenhouse Gas Emissions (CL1.1)

See VCS PD

3.2 Net Positive Climate Impacts

3.2.1 With-Project Estimated Greenhouse Gas Emissions (CL2.1)

3.2.2 Net Impact (CL2.2)

See VCS PD

3.3 Offsite Climate Impacts (Leakage)

3.3.1 Types of Expected Leakage (CL3.1)

See VCS PD

3.3.2 Quantity of Expected Leakage (CL3.1, 3.3)

See VCS PD

3.3.3 Leakage Mitigation (CL3.2)

See VCS PD

3.4 Climate Impact Monitoring

3.4.1 Climate Monitoring Plan (CL4.1)

See VCS PD

3.4.2 Dissemination of Monitoring Plan and Results (CL4.2)

See VCS PD

3.5 Optional Criterion: Climate Change Adaptation Benefits

3.5.1 Regional Climate Change Scenarios (GL1.1)

Weather patterns i.e. rainy season and dry season, were very distinct and predictably, and preparation, planting and harvest of food gardens was determined and facilitated by this predictability. In the last 10 years, weather patterns have changed with both the clear demarcation as well as the timing of rainy season and dry season becoming less and less distinct and very unpredictable. Also, the intensity of weather events has increased, with heavier rains and longer dry spells, and also a clearly felt increase in daily temperature.

3.5.2 Climate Change Impacts (GL1.2)

Without the project, the Tavolo Community would be increasingly vulnerable for climate change related impacts. Already, the traditional gardening practices and especially their timing of the Tavolo Community members are affected, due to the change in weather patterns and the unpredictability, leading to lower or less frequent harvest of crops. The increase in daily temperature has reduced the number of working hours in gardens or cash crop block, as the level of midday heat requiring rest is reached earlier and lasts longer.

3.5.3 Measures Needed and Designed for Adaptation (GL1.3)

The project will see full awareness on climate change adaptation and mitigation for the Tavolo Community, and engage with the National Agricultural Research Institute to set up and implement a program for drought resistant crops. Together with the ENB Disaster Office a training and preparedness program will be run on natural disasters safeguards and mitigation. Based on this, a Safeguards, Mitigation & Adaptation plan will be developed by TCCA. TCCA will have a separate Emergency Fund for risk management and adaptation and mitigation measures, including any necessary relocation of community hamlets. Furthermore, the community plans to restore and maintain buffer zones, by planting mangroves along the coastal swamps, Kamarere (*Eucalyptus deglupta*) along the river bank, climate change resilient tree species in the food gardens and drought resistant crops.

The expected results of the conservation of the existing forests and natural resources and above described specific adaptation efforts are:

- The Tavolo Community will maintain a stable availability of food sources
- The Tavolo Community is aware of the climate change and natural disaster risks and trained in mitigation and adaptation measures
- There will be an Emergency Fund in place

4 COMMUNITY

4.1 Without-Project Community Scenario

4.1.1 Descriptions of Communities at Project Start (CM1.1)

The communities involved in the Tavolo project are Lote language speaking people, called the Melkoi Tribe. They are clan-based people, who traditionally would welcome and look after visitors in their clan communal house, or men's house (Haus Boi / Haus Man in Pidgin English). As with all tribes in PNG, building and maintaining social relationships between clan members and with other related clans is highly valued, in particular through the in-laws and relations from other clans who are married into another clan or into whose clans others are married.

The Melkoi Tribe name comes from one of main rivers in the area. The Melkoi people occupy the area that covers the south-western end of the Pomio District that extends from the south-western coastline into the northern foothills of the central Nakanai Range that forms the middle range of the New Britain Island.

The Lote language is one of the more than 850 languages spoken in Papua New Guinea, and one of the 46 spoken on New Britain Island, of which 18 are spoken in the East New Britain Province. There are about 2 or 3 dialects spoken within the Lote language, especially up in the hinterlands at the foothills of the Central Nakanai Range. From anthropological point of view Lote (also known as Lohote) is an Austonesian language, spoken by about 15,000 people in total. The language was earlier known as Uvol, after the name of a local river where the first wharf and later airstrip in the area were built

Like almost all tribes in the East New Britain Province, the Melkoi Tribe is a matrilineal society with the female members of the clans being the custodians of clan lands and traditional intellectual properties. This means that inheritance is derived from the mother's side of the clan. In the olden days, this role and position was strongly respected and adhered to in relation to distribution and use of land and resources. Nowadays, the male members of the clan tend to usurp this role by deciding or actually taking charge of land and resources distribution and usage, with often short-term personal plans and purposes coming into play, rather than the long-term interests of the overall clan and community.

Traditionally, culturally and spiritually, people are closely connected to their land and to Nature. There are many ancestral stories involving the land and nature, and there were also many customary practices and laws related to the management of land and natural resources. Some of these laws were still known and/or in use and have been incorporated into the current Tavolo Community Conservation Laws.

People's diets are mostly vegetarian, not by culture but through limited availability of animal protein. Fish and (pig) meat are occasional treats, especially during feasts and at times of fishing and hunting. Food gardening is done for own food consumption and to meet traditional customary obligations. Rural communities in PNG very much depend on their natural forest for their survival, well-being and cultural identity. The forests provide food, water, herbal medicine, materials for housing and materials for traditional ceremonies that confirm their identity & history. The provision of these environmental services is essential for the lives of the present and the future generations. Tavolo's HCV assessment, conducted with support from FORCERT (Appendix 6) includes a list of important plant and animal species identified by the community. The list includes a description of the use and importance for each identified species.

Like many parts of the New Britain Island, the contact of the Lote people with outsiders settling in their area has been very recent, with the first Catholic missionaries establishing a mission in Uvol in 1939.

The area was first contacted in passing by outsiders from the Western world during 1700 when British explorer William Dampier came ashore in Uvol. He named two spots in the Melkoi Area where he actually landed, and named Cape Dampier east of Uvol after himself.

The main reason for remote rural people in PNG, such as those living in the Melkoi LLG area (population 6,805 from Year 2000 Census), to allow foreign resource exploitation companies onto their land, is that people are lacking in cash income and in the basic government services like education, health care, agricultural extensive services, small business support services, and transport and communication infrastructure. They are keen to improve their standard of living to match that of other Papua New Guineans in towns and cities, without them having to migrate into urban areas.

Rural communities in PNG are characterised by a large equality within the community, due to the strong customary systems of the tribes and clans, and the importance of relationship building and maintenance between clans, e.g., through intermarriage. This means the communities generally are very homogenic in cultural, social and economic aspects. Groups that can be distinguished are based on gender and age, i.e., men, women and youth. There may be distinctions in groups within the community based on the various Christian church denominations present within the community, but for Mukus, Tavolo and Lausus the sole denomination is Catholic, with a small congregation of Seventh Day Adventists recently introduced.

Tavolo and Mukus community make up the Tavolo Ward, whilst Lausus itself is a Ward, which the lowest level of government. They are part of the Melkoi Local Level Government (LLG). There is limited support from the national government level to the LLG's, and the little finances that are received are often mismanaged. This means basic services at the ward level are poor, hence community livelihoods and well-being have not improved much since independence.

At the Ward level, there are Women's and Youth groups, with representatives being part of the Ward Development Committee (WDC). In Mukus, Tavolo and Lausus there are 2 community groups at the Ward level, i.e., a Ward Youth Group and a Ward Women's Group, and there are various Catholic Church Groups, i.e., Youth, Women, Big Catholic Community (BKK) at the village level, subdivided into Small Catholic Communities (LKK) at the hamlet level, and also some special Catholic devotion groups. Most community level activities are organised through these groups.

Relationship with other communities is strengthened through clan and church relationships. Intermarriages with other clans are important as these build and tie strong long-term relationships. There is an overall division of clans into two major groups at the subtribe level; Paele (Bikpela Pisin) and Sipa (Liklik Pisin), with marriage only being allowed between these two groups. The traditional cultures or customs also govern how clan members behave and how disputes are settled. The clans that make up Tavolo, Mukus and Lausus have brother clans also in the neighbouring communities. Normally there will be various customary rights exercised over any clan land. Where one clan may have ownership rights over the land, there will be a number of other clans that have some form of user rights over the same land, e.g., settlement, gardening, hunting and collection rights. These rights are not documented but generally well-known and respected, and orally transferred to next generation. Through the traditional governance system and religious obligations, respect and order are maintained within the communities. There is effective collaboration and cooperation among the groups in regard to community activity implementation.

Due to the lack of basic transport infrastructure and agricultural extension and other small business support services, income generating options for the communities, especially for cash crop production have dropped. The main cash crops in the area are cocoa & kopra, but transport is hard and costs are

very high. Another important cash crop is betelnut, which previously was supplied to Kimbe Town, with buyers travelling to Mukus, Tavolo and Lausus to purchase their betelnut. However, due to further deterioration of the Kimbe-Amio road and a widespread disease killing off most betelnut palms, this trade has now completely stopped.

The Tavolo community have used their conservation work to get support from Seacology to establish a community health clinic at Tavolo village, and have received recognition from the Provincial Government health system for a Health Post Orderly position to man this small centre. A challenge still is to adequately equip the clinic with the necessary medical equipment and to maintain regular medicine stock and supply. This community health centre is a one hour walk for Mukus, and three hours for Lausus. The nearest government health facility is the Uvol Sub-Health Centre, one hour walk from Tavolo, two hours from Mukus, and three hours from Lausus. which most time is short of medication, and very limited in the type and level of health services it can offer. A new District Hospital is under construction at the District Centre (Palmaal), a four-hour boat ride (40 Horse Power banana boat) away from the Tavolo Community. Main medical referrals now mean traveling to the Nonga Hospital near East New Britain's former provincial capital Rabaul, which means 2 nights on a cargo/passenger ship, at PGK160 for a one-way ticket.

Tavolo Ward established a Primary School in 2015, which as of this school year has all Grades covered (Early Child Hood and Grades 1 to 8). Previously, from 1997 to 2020, Tavolo had only an Elementary School (up to Grade 1) and sent students out to either Tangolo Primary School situated at north of Mukus village or Uvol Primary School at the east, at walking distances of about 2 hours.

Tangolo Primary School was established in the 1980s and the Elementary school in the 1990s. This school provided education service for the Mukus village, about one hour's walk.

Lausus has an Elementary School (now called Early Child Hood School). The nearest primary school is at Pilematana, about 1 hours walk.

For secondary education, the nearest facilities are at Palmaal (High School), a four-hour boat ride from Tavolo village. The school facilities are run down and require major renovation and upgrade. Palmaal is the District Centre for Pomio, located next to the West Pomio SABL oil palm plantation development. The oil palm plantation operation has created a non-conducive environment for students as they are being disturbed by company workers, and security is also not assured, hence parents from Mukus, Tavolo and Lausus no longer want their children to board at this school, and are trying to get them accepted at secondary schools in Kokopo or Kimbe.

There is currently no road access to the rest of Pomio District, the rest of East New Britain Province or to the West New Britain Province from the project area. The Kimbe-Amio Highway is nothing more than an old deteriorating logging road, and in good road and weather conditions, it takes about 5 hours to travel from Kimbe (West New Britain) to Pere, the pickup point for a 45 minutes boat ride by 40HP to Tavolo.

In the first quarter of 2022, a dirt road connection to Lausus was bulldozed through, but is yet to be fully graded and graveled. This road now connects inland Lausus with Uvol on the coast.

The nearest wharf is at Uvol, 30 minutes by 40HP from Tavolo village, which at present has a relatively regular service from cargo/passenger ship MV Pomio on a weekly basis. The ship has started to pick up bags of kopra from Alis Island, located within the project area, as it is able to shore at its beach.

There is an old airstrip at Uvol, actually just outside the project area, which has not been in service for more than 20 years.

There is also no telecommunication network coverage within the project area, except for limited mobile phone coverage on Miopalau Island, 15 minutes 40HP boat ride from Tavolo village.

In 1997 the Tavolo community established the 2,000 ha large Tavolo Wildlife Management Area. The WMA was established by the people of Tavolo village under the Fauna (Protection and Control) Act 1966. The responsibility of regulation and management of WMA's is left solely to local communities. The communities select representatives to form a Wildlife Management Area Committee, who then creates the rules and regulations to protect the flora and fauna of the WMA. These rules and regulations become legally binding statutes upon approval from the Conservation and Environment Protection Authority (CEPA). With the continuing threats to their customary land the Lausus, Mukus and Tavolo communities decided to approach FORCERT in 2007, to get assistance for their plans to sustainably managed and conserve their land and natural resources and get legal recognition for these plans.

The TCCA is the combined initiative of the people of Tavolo, Lausus and Mukus, set up as the legal governing entity over the newly proposed Tavolo Community Conservation Area which includes their total SSLUP area of 22,081 ha. TCCA is managed by a management committee operating on a voluntary basis with no support from the Conservation and Environment Protection Authority (CEPA) or any other government entity.

4.1.2 Interactions between Communities and Community Groups (CM1.1)

Under FORCERT's community engagement approach, the four main groupings found in PNG communities. i.e., men, women, youth and elderly, are used to ensure full community participation and ownership for all interventions. For many activities and discussions, the community members are separated out into these three groups and then brought back again together in plenary sessions to share their results and obtain general consensus. In some communities, youth may want to separate themselves again in young men and young women, however, for Tavolo, Mukus and Lausus generally the young women prefer to join the women's group. This approach ensures that the voices, opinions and decisions of women and youth are heard and seriously considered by the men and the overall community.

The Mukus and Tavolo Community Conservation Law Committees are organised under their Small Catholic Communities (LKKs), but notifications of non-compliances and fee collection is done by the committee's clan representative of the clan the perpetrator belongs to.

The TCCA Management Committee is made up of representatives of the 14 clans together with a Women's and Youth representative.

4.1.3 High Conservation Values (CM1.2)

As part of the revision of their original Land Use Plan, the Tavolo Community has undertaken a participatory HCV Assessment, facilitated by FORCERT. The basis of the FORCERT participatory community HCV assessment is the identified by the community itself of their High Conservation Values within their land use plan area, including waters and sea. Then, the community is advised of any additional HCV's that result from protected species under PNG law and/or IUCN Red List species. Based on this assessment, the community then develops Community Conservation Laws with penalties for non-compliance. When doing this, they consider any existing or previously respected traditional conservation laws or taboos, and incorporate those into their new laws.

The Tavolo-Mukus and Lausus Community HCV Assessment can be found in Appendix 6.

Some of the HCVs identified and listed below can be found on the Land Use plan map (Figure 4). Others have not (yet) been mapped. Sacred sites, which are often secret places and restricted for outsiders, are, due to this reason intentionally not mapped.

High Conservation Value	HCV 6: Sacred and cultural sites SLUP
Qualifying Attribute	Umavave – a sacred stone where a female octopus lives. The place was slightly disturbed and the Octopus left for a while and now has returned. The water has become shallow and it is believed that the spirit has left due to women using the river upstream. But the area or site is still being protected or restricted.
Focal Area	As management measure, a law was passed for restriction to all sacred sites or cultural sites with an amount of K5 fine being charge for breaching. Much of these areas are under Malasai (Spirit) Places as specified in the laws and this applies to all Sacred sites.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Lukluk Tako – a snake with man’s head. Its home is in a underground creek, which runs in a natural limestone culvert in the forest at the back of the Tavolo guest house. In the past, a small portion of this forest was cleared for gardening, but the rest of the forest stand is now being fully restricted and protected. The forest is being identified as a breeding site for birds where different birds are seen but on seasonal periods hence it is put as a Conservation area.
Focal Area	The site is being identified and assessed as a sacred site and as a breeding site for birds and is put as a Conservation Area where there is restriction with a fine of K50 if breached.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Leme Kalate – two huge fish that live in and look after Takai river. They are at a certain pool spot that is quite deep. When men want to turn into tumbuans they make rituals at that spot. This is still practiced today. The site is being respected, with the area not being disturbed when gardens are made around it. Portion of forest in the buffer zones around the area have been cleared for gardens. The area is to be restored as buffer zones

	that will protect the river, stop erosion and enhance fresh water fauna.
Focal Area	Restriction on buffer zones have been put in place and action such as replanting of trees planned. Monitoring will be carried out against planned activities of restoration and to stop shifting cultivation returning to the buffer zone part of these old gardens.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Wilwil – a masalai river with many bends. A black and white snake and a fish without bones are believed to be owners of that river. The river has as a special fire dance to represent it and this is performed on special occasions. The song for the fire dance was given to an old man during his sleep. The area is still being respected in the Forest Production area which is surrounded by intact forest.
Focal Area	As it is a sacred site, it is restricted with fines placed as specified in the conservation laws.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Umpania – a big stone at the top of Tavolo river. Hunters perform rituals on this stone to catch wild pigs. Found on the mountain top near Tavolo river with croton species, tanger (cordyline) found growing around it. A <i>Callophyllum</i> tree species believed to not have grown any larger since an incident where a man was chased by a wild pig where he climbed the tree, bending and it since has stayed that way.
Focal Area	This is also a Masalai (spirit) site hence is restricted and protected by the conservation laws, with fines put in place.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Sampal – an area in the midst forest that no one is allowed to go to. There is a Masalai (spirit) who looks after this area with the name of Chasan. It is a pool (raun wara) which is found near Tavolo village and it is being respected has it is believed that some have died from being attacked by the spirit. Hence the pool is a habitat for prawn, freshwater eel, fish, crocodile and lobster.
Focal Area	It is a sacred site hence is restricted and protected. Community members would not enter the area because of their believe, as specified above.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Usipoke – a cave in the forest which is guarded by a man with two genitals.
Focal Area	It is a sacred site hence is restricted and protected.

High Conservation Value	HCV 6: Sacred and cultural sites
Qualifying Attribute	Chalangin – an area in the forest towards Lausus which had only <i>Hibiscus thiliaesus</i> (Mangas) trees, which was believed to be brought to the forest by ancestors. The site has flora species of coastline or river banks, like the Mangas trees, and also <i>Octomeles (erima)</i> , ferns, wild pitpit and pandanus which grow high.
Focal Area	Effective monitoring and conservation law enforcement is needed to protect this area. Restoration of buffer around the site is necessary to protect it.

High Conservation Value	HCV 5: Community Needs
Qualifying Attribute	Water sources: Tavolo, Eunga, Takai and Mukus. These rivers provide water for washing and laundry, and various side creeks and small streams that end in these rivers, provide water for drinking and cooking for the various hamlets that make up Tavolo, Mukus and Lausus villages. Old gardens were established on the banks of these rivers before the start of the conservation initiative, as ancestors determined the soil being suitable for cultivation. As shifting cultivation practices are applied, portions of the buffer zones still have garden, whereas other portions have forest still intact, or have mature secondary forest regrowth.
Focal Area	Buffer zones for all rivers and streams have been included in the Tavolo Sustainable Land Use Plan and Community Conservation Laws with penalties for non-compliance. Measures to restore buffer zones have been planned by TCCA.

High Conservation Value	HCV4: Critical Ecosystem Services (Indicated as HCV area nr. 7 in Figure 4)
Qualifying Attribute	The site has a natural stand of <i>Eucalyptus deglupta</i> which small parcels have been cleared for gardening and part has been eroded by the Mukus river. The stand is found at the Mukus rivers banks hence it plays an important role as a buffer and also is a habitat for flying fox.

Focal Area	The area is identified on the Tavolo Sustainable Land Use Plan (7. Kamarere stand) and restoration activities have been identified by TCCA.
------------	---

High Conservation Value	HCV4: Critical Ecosystem Services
Qualifying Attribute	The Kauri pine stands protects the head of the Takai river, a water source that support the Lausus & Tavolo communities.
Focal Area	The area is identified on the Tavolo Sustainable Land Use Plan (6. Kauri Pine forest stand), with more than half of the stand being within the Conservation area zone, and the other part within the Forest Production zone. Any harvesting with chainsaw mills, that may take place in future in the Production forest, FSC certification requirements will apply.

High Conservation Value	HCV 4 Critical Ecosystem services
Qualifying Attribute	Conservation areas. The two largest conservation areas identified and zoned as part of the Tavolo Sustainable Land Use Plan contain intact forest and form important catchment areas for the rivers the Tavolo, Mukus and Lausus communities rely on.
Focal Area	These areas are identified on the Tavolo Sustainable Land Use Plan as Conservation areas.

High Conservation Value	HCV 5 Community needs
Qualifying Attribute	Production Forest area, Conversion areas, Garden & cash crop areas As the Conservation areas are strictly no hunting or harvesting, the communities will rely on the Production forest areas, Conversion areas and Garden & cash crop areas to meet their community needs. Within these areas, conservation laws on gathering and hunting for any identified community need HCV species still apply, to control harvesting and ensure sustainable management.
Focal Area	Within the Production forest, Conversion and Garden & cash crop areas conservation laws on gathering and hunting for any identified community need HCV species still apply, to control harvesting and ensure sustainable management.

High Conservation Value	HCV 5 Community needs – Fundamental resources
-------------------------	---

Qualifying Attribute	Tavolo's HCV assessment (Appendix 6) lists a whole range of plant and animal species important to the community, including:
	<p>Plant species</p> <p>Cane/<i>Calamus sp</i> <i>Ailanthus sp</i> <i>Pandanus sp</i> Rosewood/<i>Pterocarpus indicus</i> Areca <i>sp</i> Coconut/<i>Cocos nucifera</i> Galip/<i>Canarium indicum</i> <i>Areca sp</i> Vine species Ginger/<i>Zingiber sp</i></p>
	<p>Terrestrial Animal species</p> <p>Admiralty Flying fox / <i>Pteropus admiralitatum</i> Dragon tubed–Nose Fruit bat / <i>Nyctimene draconilla</i> Black-Bellied Fruit bat / <i>Melonycteris melanops</i> Fruit dove / <i>Ptilinopus sp</i> Manman / Bird spp. (English/Scientific name to be confirmed) Melanesian scrubfowl / <i>Megapodius eremita</i> Blyth's Hornbill / <i>Rhyticeros plicatus</i> Blue eyed cockatoo / <i>Cacatua ophthalmica</i> Owl / <i>Ninox odiosa</i> Torresian Imperial–Dove Bird / <i>Ducula spilorrhoa</i> Sugar Glider / <i>Petaurus breviceps</i> Pied Coucal / <i>Centropus ateralbus</i> Eclectus parrot / <i>Electus roratus</i> Dwarf Cassowary / <i>Cassuarius bennetti</i> New Guinea pademelon / <i>Thylogale browni</i> Monitor lizard (<i>Sc name tbc</i>) New Ireland Python / <i>Liasis boa (Sc name tbc)</i></p>
	<p>Marine animal species</p> <p>Leatherback turtle / <i>Dermodochelys coriacea</i> Green turtle / <i>Chelonia mydas</i> <i>Dugong dugong</i> Whale (<i>Eng/Sc name tbc</i>) Indo-Pacific bottlenose dolphin / <i>Tursiops sp (Eng/Sc name tbc)</i> Sea cucumber / <i>Holothuria (Microthuria) spp</i> Prawns/ <i>Panulirus ornatus</i> Clam shell / <i>Tridacna sp</i> Roronga, Lalai / Shell (<i>Eng/Sc name tbc</i>)</p>

	<p>Coneshell / <i>Conus</i> spp (Eng/Sc name tbc) Coneshell / <i>Conus</i> spp (Eng/Sc name tbc) Alak, Hekeke / Shell spp. (Eng/Sc name tbc) Octopus spp Giant Clam / <i>Tridacna</i> sp Scad mekerel (Sc name tbc) Ainanga (Eng/Sc name tbc) Crocodile / <i>Crocodylus porosus</i> Parrot fish (with swollen fore head) / Family <i>Labridae</i></p>
	<p>Freshwater animal species</p>
	<p>Freshwater eel Black Bass / <i>Lutjanus</i> sp Makai / freshwater fish spp. (Eng/Sc name tbc) Canaiu / freshwater Snake (Sc name tbc) Pipit / freshwater Snake spp. (Sc name tbc)</p>
	<p>For many of the identified plants and animals, the specific species still needs to be confirmed by the experts from the Binatang Research Centre, which is planned during their next planned visit in the second half of 2022.</p>
Focal Area	<p>These species occur within the various Land use Zones, within the Tavolo SLUP (see Figure 4). The Community Conservation Laws, TCCA Management plan and Community-based Conservation Monitoring and Management System provide a more detailed description of how these HCV species will be maintained, managed and monitored over time.</p>

4.1.4 Without-Project Scenario: Community (CM1.3)

In the without-project scenario, the community's ownership and control over their customary land would not be recognized, most of their forest area would be cleared and the community will not benefit from the sustainable management and conservation of forest. The Tavolo Community would remain under threat of deforestation and forest degradation (either under the current SABL, under potential other future land deals without community consent, or other external or internal pressures). With the clearing of forest, much of the existing biodiversity would be lost and many of the identified HCV areas will be compromised. There would be no PES benefits for the community and only very little benefit sharing from one-off log export royalty payments, and some income from cocoa and eucalyptus plantations, but the forest clearance and cocoa and eucalyptus plantation development will leave very few options for sustainable and ethical income generating activities.

Substandard logging roads and temporary bridges will be constructed under the logging operation, with no long-term maintenance by the Land Owner Company. Very limited and substandard education and health facilities may be constructed by the logging company and will not be maintained by the Land Owner Company. The logging and plantation operations will create social disharmony, decreased health due to changes in diet and increase in transmittable diseases, dependency on royalties and low paid

labour (with very little to no skills development or enhancement), land and water pollution and waste problems. Royalty payments, which are in the form of cash hand-outs to men, will lead to alcohol abuse, sexual harassment, and social conflicts.

Logging and plantation operations will increase the community's vulnerability to climate change and natural disasters due to environmental degradation and destabilisation, increase in the consumption of store goods and decrease in gardening activities.

Overall, compared to the *current and* with-project scenario, the without-project scenario would lead to a deterioration in resource availability and access, income, livelihood options and benefits, health and education services, HCV status, skill development and enhancement. It would diminish the community's self-reliance and prospects of achieving their TCCA vision.

See also the VCS PD baseline scenario for reference to the without-project scenario changes and impacts.

4.2 Net Positive Community Impacts

4.2.1 Expected Community Impacts (CM2.1)

The expected impacts of the Project are based on the results of the identified project activities, outputs, and consequent outcomes, as detailed in the Project's Theory of Change shown under Section 2.1.8 of this document.

As explained and detailed under Section 2.3.7, all groups in the Tavolo Community have been fully involved in the identification of activities and evaluation of the consequent outcomes and expected impacts. A large part of this work was done as part of the development of the TCCA Management Plan.

The evaluation of the with-project benefits, costs and risks were done in community level meetings at Tavolo as described under Section 2.3.4.

As the Tavolo Community is working in a manner that includes all 3 identified groups in the community; men, women and youth, both during project preparation and implementation, the expected community impacts are similar for them.

Expected Benefits	
Community Group	1,2,3,4,5,6,7,9. TCCA: men / women / youth / elderly 8. TCCA: women / youth / elderly
Impact(s)	1. Protection for the whole of Tavolo's sustainable land use plan area under a formal conservation status 2. 16,289 ha of natural forest resources conserved and sustainably managed for the future generations by the Tavolo Community 3. Management and protection for the identified HCV species and biodiversity in the Tavolo sustainable land use plan area 4. Improved livelihoods through realization of the TCCA Management Plan Objectives

	<p>5. Sustained improved livelihoods of the Tavolo community through sustainable and ethical income generating activities</p> <p>6. Developed and maintained housing, transportation, education and health infrastructure for the Tavolo Community</p> <p>7. Empowered, healthy and self-reliant Tavolo Community</p> <p>8. Empowered marginalised community groups participating in all aspects of community life</p> <p>9. Climate change adapted and natural disasters resilient Tavolo Community</p>
Type of Benefit/Cost/Risk	<p>1,2. Actual direct benefit</p> <p>3, 4, 5, 6. Predicted direct benefit</p> <p>7, 8. Predicted indirect benefit</p> <p>9. Predicted direct and indirect benefit</p> <p>Also see Section 2.3.4.</p>
Change in Well-being	<p>1,2,3 – Assurance of long-term protection of the Tavolo Community’s ancestral land that forms an essential part of the people’s identity, with all its natural resources available for current and future generations</p> <p>4,5,6 – Improved lives for the Tavolo Community members through permanent housing, schools, health clinic, roads, bridges, wharf, means of transport (truck and boats), and sustainable income generation based on family and other small local business activities</p> <p>7,8 – Well-organised, healthy, vibrant and independent Tavolo Community, including all community groups in their activities and general village life</p> <p>9 – Well-informed and more resilient Tavolo Community dealing with the impact of climate change and other natural disasters through adjustments in their agricultural and environmental management practices, location and protection of coastal and riverside hamlets, etc.</p>

Family level Risks	
Community Group	TCCA: men / women / youth / elderly
Impact(s)	Misuse of funds received
Type of Benefit/Cost/Risk	Direct risk
Change in Well-being	Increased social family issues, e.g., drug & alcohol abuse, domestic violence, second wife, marriage break-up

Risks associated with Education	
Community Group	<ol style="list-style-type: none"> 1. TCCA: Youth 2. TCCA: men / women / youth
Impact(s)	<ol style="list-style-type: none"> 1. Students slacking and taking advantage of TCCA school fee subsidy 2. Families encouraged to have more children due to available school fee support
Type of Benefit/Cost/Risk	1,2 Indirect risk
Change in Well-being	<ol style="list-style-type: none"> 1. Students not performing well 2. Higher increase of Tavolo population

Community level Risks	
Community Group	<ol style="list-style-type: none"> 1, 6. TCCA: women / youth / elderly 2, 3, 4, 5, 7. TCCA: men / women /youth / elderly
Impact(s)	<ol style="list-style-type: none"> 1. Management level decision making not democratic, with few influential men dominating 2. Different service level improvements for the 3 participating communities 3. TCCA assets misuse 4. Business competition among families 5. Local job opportunities through community projects implementation not equally distributed 6. Benefits generated not reaching marginalised groups within the Tavolo Community (women, youth, elderly) 7. Abandonment of cultural practices
Type of Benefit/Cost/Risk	<ol style="list-style-type: none"> 1, 4, 7. Indirect risk 2, 3, 5, 6. Direct risk
Change in Well-being	<ol style="list-style-type: none"> 1. Increased inequality between men/women/youth 2. Increased inequality between participating communities 3. Conflicts and damage to assets or rapid deterioration of assets 4. Conflict and impoverished social relationships or cultural cohesion 5. Increased inequality between individual community members

	<p>6. Increased inequality between men/women/youth/elderly</p> <p>7. Loss of custom, traditional cultural knowledge and skills</p>
--	--

4.2.2 Negative Community Impact Mitigation (CM2.2)

In April 2022, Lausus and Tavolo+Mukus community groups (men, women, youth, elderly) identified potential negative impacts of the expected annual benefits that TCCA will receive and use under the identified community fund categories (community projects, health, education, family business support, emergency, investment, TCCA management), and that input was used by the TCCA Management Committee to develop draft rules for the identified community funds. These will be presented and finalised in a community meeting in May.

The main identified potential negative impacts on the community and their mitigation measures are listed in the table below. Section 5.2.2 covers the potential negative impacts identified related to biodiversity. The TCCA Management Plan includes a detailed mitigation measures table, based on their SWOT analysis.

Table 5. identified potential Negative project impacts and mitigation measures

	Potential Negative Impact	Mitigation measures
Family level	Misuse of funds received leading to social family issues, e.g., drug & alcohol abuse, domestic violence, second wife, marriage break-up,	Family accounts held by the women.
		All family level funds to be allocated, no non-allocated cash hand-outs
		Monitoring by TCCA at the family level through family profile form, using clan and church social structures to pick up and address arising social issues at the family level.
		Sanctions on access to family level benefits if monitored social issues are not resolved
Education	Students not performing well, taking advantage of TCCA school fee subsidy	School fee support is linked to students' performance level; results, behaviour and attendance
	Families encouraged to have more children due to available school fee support	Parents have to first deposit 50% of school fees, then TCCA assists with other 50%
Community level	Management level decision making not democratic, with few influential men dominating	TCCA Management Committee to have 3 women's reps and 3 youth reps, one from each of the 3 communities
		Annual monitoring meetings held as public community meetings, with FORCERT's presence, allowing people to speak out on any perceived non-democratic decision making
	Different service level improvements for the 3 communities	FORCERT complaint & dispute procedures
		Annual monitoring meetings held as public community meetings, with FORCERT's presence, allowing people to speak out on any perceived imbalances between the 3 communities
		FORCERT complaint & dispute procedures

	Potential Negative Impact	Mitigation measures
	TCCA assets misuse leading to conflicts and damage to assets or rapid deterioration of assets	TCCA to include clear rules on assets use and management through separate signed agreements
	Business competition among families may cause conflict and affect social relationships or cultural cohesion	TCCA to organize livelihood options training and the 3 communities and clans to discuss and agree on livelihood options development among communities, clan and families
	Local job opportunities through community projects implementation not equally distributed	TCCA Community projects fund rules to include clauses on local job opportunities that guarantee and help monitor equal job opportunities
	Benefits generated not reaching marginalized groups within the Tavolo Community (women, youth, elderly)	TCCA benefit funds rules include clause on provision of pension to single elderly people (70 year and older)
		TCCA Management Plan includes specific objective and related activities to ensure inclusion of women and youth
	Abandonment of traditional cultural practices, leading to loss of custom, traditional cultural knowledge and skills	TCCA has a specific objective on maintaining cultural values with related activities

4.2.3 Net Positive Community Well-Being (CM2.3, GL1.4)

In July 2018, group discussions (3 mixed groups; men, women and young men) were held on with and without project scenarios at the Tavolo Resource Centre with TCCA Management Committee members and other community members, facilitated by FORCERT, with attendance of Kars Riemer of Face the Future. The group discussions were guided by two questions:

1. How do you see and assess the situation for the forest, land and your well-being in 10 years' time if there will be no conservation activities?
2. How do you see and assess the situation for the forest, land and your well-being in 10 years' time if there will be conservation activities?

The summary of the responses are already given in Section 2.3.4, and below an overview of their answers related to the various aspect of the communities well-being is given (a full report of the answers by the various groups is available on file):

Access to land and resources: With the project access to the Tavolo Community's customary land and all its natural resources is secured and guaranteed, as it has led to signing of a Conservation Deed and legal clearance of the project by the State Solicitor's Office, with de-facto exclusion of their SLUP area from the Kakuna-Lote FCA area.

Income generation: Under the project, there will be a wide range of income earning opportunities through the development of and financial and technical support for sustainable family level income earning options, and the improvement of transport infrastructure which will considerably improve the access to markets. Without the project, the main income generation would be through one off royalty payments for log export, and mainly temporary low paid job opportunities with the Kakuna-Lote LOC and Mekar PNG logging company.

Family living conditions: With the project, each family will now have a permanent house with electricity, and all basic housing utensils. Without the project, there would be a limited number of permanent houses.

Health: With the project, health services will be improved with well-equipped clinics to be available in all 3 communities, and financial support for any health referrals to higher level health facilities. Also awareness on and implementation of the Healthy Island Concept will be facilitated by TCCA under the project. Without the project, health conditions would very much deteriorate, due to poor and non-maintained health services, and unhealthy living conditions due to the destruction of natural resources and their environmental services. Also, the use of outside workforce will lead to an increase in commutable diseases, including HIV/Aids.

Education: With the project, education services will be upgraded with fully equipped primary schools in all 3 communities, and upgrading of the Tavolo primary school to become a Secondary School. Also, school fee support will be given for all types of tertiary education. Without the project, local school services and community education levels are likely to deteriorate due to disorganisation of the Tavolo Community, lack of income with parents to pay for school fees, and focus by young men on job opportunities with the Land Owner and Logging companies.

Community HCV's: With the project, all identified community HCV's will be protected, with their status either maintained or enhanced, leading to guaranteed long-term availability of all community need resulting from HCV's and the long-term protection of all identified cultural HCV's. Without the project, there would be no protection of community HCV's, leading to a high level of threat for individual HCV species, and potential destruction of cultural HCV areas.

Employment & skills enhancement: With the project, there will be direct employment for Tavolo Community members as part of Community projects implementation, and (self)employment through the family level businesses that will be developed and supported. This employment will lead to skills enhancement, as preference has to be given to local staff by contractors, meaning some level of skills training will be part of most community project contracts. The training and support on family business development will also lead to skills enhancement. Also TCCA school fee support will include Technical & Vocational Education & Training (TVET) Centres. See Income generation above for the without project situation.

Community self-reliance: For the with-project scenario, the community will remain in control of their own development through their SLUP, Community Conservation Laws, and the maintenance of their local tradition, clan history, culture and custom practices. Life will be more comfortable as the forest will continue to provide basic necessities such as fresh water, medicine traditional materials, and wildlife in abundance, also for future generations. Community members will be able to implement sustainable practices, and attract tourist to visit the area. Their Association will be strengthened, and through the provision of long-term community services like permanent houses, transport infrastructure, education and health facilities, and through their Investment Fund, the Tavolo Community will be able to continue their self-reliance well after the 30-year duration of the project. Without the project, the Tavolo Community would be disorganised and very dependent on the companies working on their land for some level of income and service provision, and would lead a miserable life also due to the destruction of their natural resources and all environmental services that will be lost with them.

Climate change adaptation: The project will see full awareness on climate change adaptation and mitigation for the Tavolo Community, and engage with the National Agricultural Research Institute to set up and implement a program for drought resistant crops. Together with the ENB Disaster Office a training and preparedness program will be run on natural disasters safeguards and mitigation. TCCA will have a

separate Emergency Fund for risk management and adaptation and mitigation measures, including any necessary relocation of community hamlets. Without the project, the Tavolo Community would be increasingly vulnerable for climate change related impacts.

4.2.4 High Conservation Values Protected (CM2.4)

The community has done its own HCV assessment, identifying the conservation values that are important to their lives and well-being as the basis, with added on identification of any present and not yet as HCV listed endangered and/or officially protected species at National and International level. This information led to the development of Communities conservation laws, which are based on (still) existing customary rules regarding protection and/or management of important plant and animal species, places and areas. Sometimes customary rules that may have been lost or abandoned, can be revived in their original or an updated/adjusted version.

The information from their HCV assessment is used by the community as important input into their participatory sustainable land use planning process, and helps determine location and boundaries of the various user zones, in particular for conservation areas or other types of restricted use/collection areas, used together with some specific rules on hunting and gathering in the Community conservation laws.

Enforcement and monitoring of the HCVs is the responsibility of the Community Conservation Law Committee, The TCCA has tied continued access and rights by families to its share from the TCCA annual financial benefits from the sales of their carbon credits, to compliance at the family level with both their Sustainable Land Use Plan zoning, and the Community Conservation Laws.

FORCERT will continue to work with TCCA via its Community Enhancement Program (CEP) Team together with the FORCERT Certification Officer to further build the capacity of the Community Conservation Law Committee to enforce their conservation laws and monitor their impact. The developed draft Community Conservation Monitoring System with Binatang Research Centre (BRC) will be further tested and fully finalised, and BRC will assist in further training and guiding the TCCA Community Conservation Law Committee members, both on and off-site.

Training, capacity building with technical advice will focus to create a conducive environment for the project to advance. Working relationship political decision makers and the public servant is of another key area to the success of the project which is under the National Level Program Team & the CEP Team to cover.

4.3 Other Stakeholder Impacts

4.3.1 Impacts on Other Stakeholders (CM3.1)

Potential positive impacts

Neighbouring communities within Melkoi Local Level Government (LLG) will indirectly benefit from the project through the 4% tax contribution from the gross overall project income that will be made available to the Melkoi LLG. Also members originating from the Tavolo Community, but now residing in neighbouring communities or elsewhere in PNG, will directly benefit from the project through their inclusion in the TCCA benefit distribution structure. Five years after the start of the annual benefit sharing under the project, Tavolo Community clan members not residing within the SLUP area, will also be eligible for certain areas of family support under the overall Community Funds structure.

The sustainable management and conservation measures of the Tavolo Community over their SLUP area can be expected to lead to “spill-over” effects in terms of wildlife venturing into neighbouring areas. This would be an indirect positive impact.

Communities within Pomio District will indirectly benefit from the project through the 3% tax contribution from the gross overall project income that will be made available to the Pomio District Development Authority.

East New Britain Provincial Government will benefit from the project through the 1% tax contribution from the gross overall project income that will be made available to the ENB Provincial Administration.

The Climate Change & Development Authority will benefit from the project through the 7% tax contribution from the gross overall project income that will be made available to the CCDA as per the requirement under the Climate Change Management Act (2021, Amended).

Neighbouring communities and rural communities elsewhere in FORCERT’s operational area, and throughout PNG will indirectly benefit from the project, as FORCERT uses the experiences and expertise gained through this first project under its PNG Communities BEST Program, to duplicate the developed approach and systems to include other interested communities, and also to inform the development and implementation of the country’s national REDD+ implementation system.

Potential negative impacts

Members of neighbouring communities or clans that have some form of user rights over the Tavolo Community SLUP area, will be restricted in their rights, in the sense that they will have to comply with the Community Conservation Laws. These laws do not completely stop them from exercising their rights, but there are certain restrictions under the Laws, e.g., the need for them to first inform their appropriate relative or a Community Conservation Law Committee member of them entering the SLUP area for a certain hunting or gathering activity, and they will then get the specific agreement to go ahead, after the check if this is in line with the Community Conservation Laws.

4.3.2 Mitigation of Negative Impacts on Other Stakeholders (CM3.2)

See 4.3.1

4.3.3 Net Impacts on Other Stakeholders (CM3.3)

The project will lead to the long-term sustainable management of the SLUP area of the Tavolo Community. Customary rights of neighbouring clan members over the area are maintained, with the environmental services which underly the usage and value of these rights being guaranteed for the long run.

4.4 Community Impact Monitoring

4.4.1 Community Monitoring Plan (CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

A complete overview of the project’s objectives, activities, expected outputs, outcomes, impacts and indicators is provided in Appendix 7 (PNG Communities BEST REDD Tavolo Project Theory of Change & Monitoring Plan matrix). It includes all aspects of the CCBS PD, i.e., Climate, Community and Biodiversity.

Monitoring by TCCA will be done according to the Activity implementation and monitoring schedule of the TCCA Management Plan.

Apart from the monitoring of the REDD Tavolo Project under the FORCERT PNG Communities BEST Program, monitoring by FORCERT for the Tavolo Community will be done under the Community Enhancement Program and any other FORCERT Program the Tavolo Community may be/get involved in, with monitoring timing and standard formats specified in the FORCERT PME system. This other Program monitoring is included as data source information in the PNG Communities BEST REDD Tavolo Project Theory of Change and Monitoring Plan matrix.

Annual PNG Communities BEST monitoring meetings will be held at the Tavolo community at the end of each calendar year. These will be public meetings during which the TCCA Management Committee and the Community Conservation Law Committee will report to the Tavolo, Mukus and Lausus community members and to FORCERT on their activity implementation, achieved results, challenges and activity plans and related budget for the following year. FORCERT will report to the TCCA Management Committee and the Tavolo, Mukus and Lausus community members on the PNG Communities BEST Program in general, and in detail on all issues related to the REDD Tavolo Project.

Under FORCERT's Community Enhancement Program, baseline information is gathered of all FORCERT partner communities, with annual monitoring focussing on situational change in the indicators monitored.

TCCA has established a 10-year management planning cycle, with a mid-term review to be done at year five and a full review at the end of the 10-year cycle.

FORCERT will produce Annual BEST Monitoring reports based on the information gathered at the Tavolo Community. Input for these reports will a/o be the TCCA quarterly activity and financial update reports from the TCCA Admin-Finance Staff to their Management Committee, the overall annual activity and financial reports from TCCA Management to its members and to FORCERT, and the annual activity reports from the Conservation Law Committees, together with their annual Community Conservation Monitoring System data collection reports.

The following table provides an overview of the output, outcome and impact indicators specified for each objective. Where the project intends to monitor specifically the impact on the women and youth and elderly of the Tavolo Community, this is specified.

The community and biodiversity outputs, outcomes and impacts defined are often intertwined. Therefore, also an overlap in indicators and monitoring methods can be observed (also see 5.4.1).

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
To obtain a formal conservation status for the	Output	Signed Community Conservation Deed	N/A (one-time output)	- signed CC Deed	All TCCA clans

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
whole of Tavolo Community's sustainable land use plan area by 2020	Outcome	Government recognized and respects Tavolo SLUP area as Conservation area	N/A (one-time outcome)	<ul style="list-style-type: none"> - Witness signing of Conservation Deed by LLG President - FCA map excluding Tavolo SLUP area - Legal clearance letter BEST agreement Tavolo project from State Solicitor's Office 	TCCA & FORCERT
	Impact	<ul style="list-style-type: none"> - Area of intact forest within the Tavolo SLUP area - Areas of intact other ecosystems within the Tavolo SLUP area 	<ul style="list-style-type: none"> - Remote sensing analysis (as part of VCS monitoring; every 1-5 years) - BEST community monitoring (annual) 	<ul style="list-style-type: none"> - Forest and landcover monitoring following VCS monitoring plan - Annual BEST Tavolo monitoring reports 	FtF, FORCERT & TCCA
To manage 1,309 ha of forest following FSC sustainable logging practices during and beyond the project lifetime	Output	<ul style="list-style-type: none"> - Required documentation developed for FSC certification - FSC auditor contracted - Community Conservation Laws in place 	N/A (one-time output)	<ul style="list-style-type: none"> - FSC certification system documents - Audit contract - Correspondence with FSC Auditor certification body - Community Conservation Laws 	FORCERT & TCCA

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
	Outcome	<ul style="list-style-type: none"> - FSC certification - Sustainable harvesting levels in the forests under FSC - Community Conservation Law awareness meetings held - Nr. of regular Community Conservation Committee meetings held - Nr. of Community Conservation Law non-compliances reported and handled - Community Conservation Monitoring System implemented & reported on 	<ul style="list-style-type: none"> - FSC certification monitoring (annual) - Remote sensing analysis LUP compliance (as part of VCS monitoring; every 1-5 years) - BEST community monitoring (annual) 	<ul style="list-style-type: none"> - FSC main audit report - FSC certificate - FSC annual monitoring reports - Community Conservation Committee reports - Non-compliance handling records - Community Conservation Monitoring records - Annual BEST monitoring reports - FORCERT's baseline & situational change monitoring matrix 	FORCERT & TCCA
	Impact	<ul style="list-style-type: none"> - Area of intact forest within the Tavolo SLUP area - Condition of forest within the Tavolo SLUP area - Condition of the identified HCVs - Trend in conservation law and land use plan non-compliances & their enforcement - HCV species population trends (see 4.1.3) 	<ul style="list-style-type: none"> - FSC certification monitoring (annual) - Remote sensing analysis LUP compliance (as part of VCS monitoring; every 1-5 years) - BEST community monitoring (annual) - Community Conservation Monitoring (annual) 	<ul style="list-style-type: none"> - FSC annual monitoring reports - Harvesting reports - Annual BEST monitoring reports - FORCERT's baseline & situational change monitoring matrix - Forest and landcover change maps following VCS monitoring plan - Community Conservation Monitoring reports 	FORCERT, FtF & TCCA

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
To distribute 14.4 M Euro of PES benefits to community livelihood improvement activities by 2030	Output	<ul style="list-style-type: none"> - PNG Communities BEST Program membership agreement has been signed - BEST benefit sharing system incorporated in TCCA management system 	N/A	<ul style="list-style-type: none"> - signed PNG Communities BEST Program membership agreement - BEST annual monitoring reports 	FORCERT
	Outcome	<ul style="list-style-type: none"> - Nr. of annual benefit sharings - Value of annual benefit sharings - Nr. of activities supported - Nr. of families benefitting - Nr. of men, women and youth employed in project activities 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - TCCA family records - BEST annual monitoring reports 	TCCA & FORCERT
	Impact	<ul style="list-style-type: none"> - Nr. of families with improved livelihoods 	<ul style="list-style-type: none"> - BEST community monitoring (annual) - Midterm review of TCCA Management plan implementation - Review of TCCA Management plan implementation 	<ul style="list-style-type: none"> - TCCA family records - BEST annual monitoring reports - TCCA Management plan mid-term review report - 10-yearly TCCA Management plan review report 	TCCA
To promote and develop sustainable and ethical income generating activities that	Output	<ul style="list-style-type: none"> - Nr. of activities implemented - Budget spent - Nr. of families benefitting 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - BEST annual monitoring reports 	TCCA & FORCERT

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
sustain the livelihoods of the people of Tavolo, Lausus and Mukus during and beyond the project lifetime	Outcome	<ul style="list-style-type: none"> - Nr. and variety of operational income earning activities - Nr. of men, women & youth with improved skills/knowledge resulting from training - Value of income earning activities - Family income 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - TCCA family records - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix 	TCCA & FORCERT
	Impact	<ul style="list-style-type: none"> - Nr. of families with long-term improved income from sustainable and ethical income generating activities 	<ul style="list-style-type: none"> - BEST community monitoring (annual) - Midterm review of TCCA Management plan implementation - Review of TCCA Management plan implementation (every 10 years) 	<ul style="list-style-type: none"> - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix - TCCA Management plan mid-term review report - 10-yearly TCCA Management plan review report 	FORCERT & TCCA
To establish and develop infrastructure in Tavolo, Lausus and Mukus, including transportation, education and health facilities during and beyond the project lifetime	Output	<ul style="list-style-type: none"> - Nr. of activities implemented - Budget spent 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - BEST annual monitoring reports 	TCCA & FORCERT
	Outcome	<ul style="list-style-type: none"> - Nr. of families with permanent houses - Accessibility for Tavolo, Mukus and Lausus - Travel time to nearest service centre - Status of education 	- BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - BEST annual monitoring reports - FORCERT's baseline & situational change 	TCCA & FORCERT

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
		infrastructure for Tavolo, Mukus and Lausus - Status of health infrastructure for Tavolo, Mukus and Lausus		monitoring matrix	
	Impact	- Education level of men and women	- BEST community monitoring (annual)	- BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix	TCCA & FORCERT
To empower the communities of Tavolo Lausus and Mukus with emphasis placed on religion and basic health, hygiene and waste management during and beyond the project lifetime	Output	- Number of activities implemented - Budget spent - Planned program activities completed in Tavolo, Lausus and Mukus	BEST community monitoring (annual)	- TCCA activities reports - TCCA financial reports - BEST annual monitoring reports	TCCA & FORCERT
	Outcome	- Healthy Island Community status achieved - Nr. of awareness meetings / training on Customary knowledge values - Nr. and quality of customary practices practised - Nr. of ongoing programs targeting and including marganilsed	BEST community monitoring (annual)	- TCCA activities reports - TCCA financial reports - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix	TCCA & FORCERT

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
		community groups			
	Impact	<ul style="list-style-type: none"> - Healthy Island Community status maintained - Nr. of youth trained in customary knowledge - Nr. of youth applying customary practices - Nr of youth, women and people living with disability actively involved in organisation and implementation of community activities 	<ul style="list-style-type: none"> - BEST community monitoring (annual) - Midterm review of TCCA Management plan implementation - Review of TCCA Management plan implementation (every 10 years) 	<ul style="list-style-type: none"> - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix - TCCA Management plan mid-term review report - 10-yearly TCCA Management plan review report 	FORCERT & TCCA
To address the effects of climate change and develop adaptation measures to improve food security and resiliency to natural disasters in Tavolo, Lausus and Mukus communities	Output	<ul style="list-style-type: none"> - Nr. of adaptation activities implemented - Area with Climate Change resistant food crops planted - Safeguards, Mitigation & Adaptation plan created and implemented - Budget spent 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - BEST annual monitoring reports - Safeguards, Mitigation & Adaptation plan 	TCCA & FORCERT

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
during and beyond the project lifetime	Outcome	<ul style="list-style-type: none"> - Area of restored buffer zones and degraded areas - Safeguard / mitigation / adaptation measures implemented 	BEST community monitoring (annual)	<ul style="list-style-type: none"> - TCCA activities reports - TCCA financial reports - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix 	TCCA & FORCERT
	Impact	<ul style="list-style-type: none"> - Overall food availability / food shortage - Variation of available food sources - Water quality in rivers and creeks 	<ul style="list-style-type: none"> - BEST community monitoring (annual) - Midterm review of TCCA Management plan implementation - Review of TCCA Management plan implementation (every 10 years) 	<ul style="list-style-type: none"> - BEST annual monitoring reports - FORCERT's baseline & situational change monitoring matrix - TCCA Management plan mid-term review report - 10-yearly TCCA Management plan review report 	FORCERT & TCCA

4.4.2 Monitoring Plan Dissemination (CM4.3)

The monitoring plan, and all monitoring reports will be made publicly available on the FORCERT website (www.forcertpng.org), as well as on the project registry page of Verra and hard copies of the monitoring plan and monitoring summary reports will be made available upon request to stakeholders. The main outcome of the monitoring will be presented to the stakeholders for their feedback and a summary of the monitoring reports will be made available in both English and Tok Pisin.

4.5 Optional Criterion: Exceptional Community Benefits

4.5.1 Exceptional Community Criteria (GL2.1)

The sixteen clans that make up the Tavolo Community Conservation Association have customary landowning rights to their traditional land, as recognised per the PNG Constitution. They have confirmed and strengthened these traditional customary rights through the signing of a Conservation Deed that

covers their Sustainable Land Use Plan area. The TCCA has a ten (10) year Management Plan cycle, and the members have detailed their planned activities that will generate the project’s climate, community and biodiversity benefits in its current plan (2022-2031).

The project area is located in a remote area of Papua New Guinea, itself classified as a low human development country according to the UN index.

4.5.2 Short-term and Long-term Community Benefits (GL2.2)

See Sections 4.2.1 and 4.2.3

4.5.3 Community Participation Risks (GL2.3)

See Section 2.3.4

4.5.4 Marginalized and/or Vulnerable Community Groups (GL2.4)

Community Group 1	Women
Net positive impacts	<p>Under the project and in all FORCERT’s work there is a minimum requirement of involvement for women of 30% for participation in meetings, workshops and trainings, and for representation in governing bodies and workforce.</p> <p>The TCCA Management Committee already consists of 25% women representing their clan plus one dedicated women’s rep. TCCA will discuss increasing this to 3 women’s reps, one from each of the 3 communities (Lausus, Tavolo, Mukus).</p> <p>Tavolo Community has decided that the family bank accounts will be held and managed by the women.</p> <p>There is equal opportunity for females to access the education school fee support from TCCA, meaning families will be able to allow all their children to continue education beyond primary school and not discriminate against their daughters.</p>
Benefit access	<p>In two general community meetings with Lausus community & Tavolo-Mukus community in April 2022, barriers/risks of benefits use and distribution in relation to the situation/position of women were identified and used as input for the development of the Community Funds Rules, and TCCA Financial Manual and Standard Operating Procedures.</p>
Negative impacts	<p>No negative impacts are expected. Annual monitoring will be done by TCCA at the community and family level on use and impact of the benefits from the project. If from analysis and discussion of these monitoring results it proves necessary to take any measures, TCCA Management will discuss this with</p>

	FORCERT and upon mutual agreement then implement those measures.
--	--

Community Group 1	Youth
Net positive impacts	<p>TCCA Admin staff is predominantly made up of youth from the Tavolo Community. This is a deliberate choice by the TCCA Management Committee and all TCCA members, as they are keen to involve and build their youth under this project.</p> <p>There are some youth representing their clan on the TCCA Management Committee, but TCCA will discuss adding 3 dedicated youth reps to the Committee, one from each of the 3 communities (Lausus, Tavolo, Mukus).</p> <p>Through Community project implementation there will be many job opportunities created, which will preferably go to Tavolo Community members, which in practice means the majority of workers will be youth (<30years), as they make up the majority of the population and have less other obligations than the elder men and women. Considering the obligations for young mothers in childcare, there will be more male youth than female youth able to take up these job opportunities.</p> <p>All newly formed families will be joining the permanent housing scheme that has been identified as priority project under the TCCA Community Projects Fund. They will also be eligible for the family level support under the Support for family income generating activities fund.</p>
Benefit access	In two general community meetings with Lausus community & Tavolo-Mukus community in April 2022, barriers/risks of benefits use and distribution in relation to the situation/position of women were identified and used as input for the development of the Community Funds Rules, and TCCA Financial Manual and Standard Operating Procedures.
Negative impacts	No negative impacts are expected. Annual monitoring will be done by TCCA at the community and family level on use and impact of the benefits from the project. If from analysis and discussion of these monitoring results it proves necessary to take any measures, TCCA Management will discuss this with FORCERT and upon mutual agreement then implement those measures.

4.5.5 Net Impacts on Women (GL2.5)

See Section 4.5.4 above

4.5.6 Benefit Sharing Mechanisms (GL2.6)

See Section 2.3.7 on details on the start and timing of community level stakeholder consultation meetings and discussions on the design and implementation of the project's benefit sharing mechanism, which started in 2012 and were completed in 2022.

The outcomes of the various rounds of discussions with the Tavolo Community over the years, have also informed national level Benefit Sharing & Distribution System development, with CCDA joining forces with FORCERT in 2015, both contributing PGK50,000 for a trial benefits sharing to see how the proposed BSM for the Tavolo Community would work in practice. The Tavolo Community decided to use the amount to start their permanent housing scheme through buying and transporting roofing iron sheets, to be equally distributed among all clans. The limited amount only allowed the start of the housing scheme, as it was not sufficient to purchase the total amount of roofing iron sheets for each family to enable them to build the selected standard 3-bedroom house. After general agreement on the BSM between FORCERT and the Tavolo Community, further trial benefit sharing rounds were done under the pre-financing support from Greenchoice. FORCERT fully disclosed the amount and conditions of the Greenchoice pre-financing, and has been reporting publicly every year at community meetings on the instalments paid by Greenchoice and the break-up of the expenditure/use of these instalments.

The second round of the trial benefit sharing in 2019, saw continuation of the housing scheme with purchase of additional roofing iron sheets. For the third, fourth and fifth round (2020, 2021 and 2022) of the trial benefit sharing, the Tavolo Community's priorities shifted to school fee support for secondary school students. These trial rounds of benefit sharing have proven to be very useful to test the practical implementation of the BSM on the ground at the community, clan and family level.

After the initial general BSM agreement on gross income division between the Tavolo Community, FORCERT and the level of Government tax, further discussions at the community level were facilitated by FORCERT, and led to agreement by the Tavolo Community on the more detailed BSM at their level. The uncertainty in the level of government tax due to the lack of a national level BSDS Policy, was explained during the discussions on the PNG Communities BEST Program agreement between TCCA and FORCERT and captured in that agreement.

The PNG Communities BEST Program membership agreement, specifies that FORCERT will establish the PNG Communities Benefits from Environmental Services Trust (PNG Communities BEST) as a general Service Trust for their partner communities that want to become members of this Program, with the Tavolo Community having become the first member.

The PNG Communities BEST will be managed by a reputable independent financial management entity, and will hold all funds received for specific environmental services provided and any other financial support for the conservation efforts of the member communities. This independent management will be established once the PNG Communities BEST has sufficiently grown in size, i.e., community membership and annual income, to warrant the expenses of engaging these management services, or if and when the planned PNG Biodiversity and Climate Fund would prove to be available and suitable to take on this task. At the start of PNG Communities BEST, with for now only the Tavolo Community Conservation

Association as its first community member, and the Tavolo VCS REDD project VCU sales as its sole income source, funds will be managed by FORCERT in accordance with their strict financial procedures, overseen by the FORCERT Board of Directors, and kept strictly separated from other FORCERT funds. This financial management arrangement has been agreed to by the Tavolo Community.

General benefit sharing under the Trust has already been agreed to and results from various round of community discussions with the Tavolo Community.

This general break-up is as follows:

- 15% to Government (4% Local Level, 3% District, 1% Provincial & 7% National)
- 20% to supporting organizations (FORCERT and Face the Future)
- 65% to the landowning community

NB: The proposed Government tax division is preliminary, as the final version of National REDD+ Benefit Sharing Distribution System Policy has not been released yet, and no Regulations governing benefit sharing under the Climate Change Management Act (CCMA, 2021 Amended) have yet been established. If the Government tax percentage would be lower than 15%, that the percentage going to the landowning community will be increased with the difference.

The 65% community benefits can be allocated to seven possible funds:

- Community service projects
- School fee/education
- Health care costs
- Support for family income earning options
- Community organization (legal entity) management costs
- Emergencies
- Investment

Please note that this benefit sharing system does not include direct cash payment to families or individuals, while still catering for financial support to families and individuals for important areas such as school fees and health care. Also, it includes financial support to families to develop and support income earning options/small business.

The reason for not including direct cash payment to families or individuals in our benefit sharing system is that this will only create dependency, division, discrimination and exclusion, increase the danger of domestic violence, and even stimulate population growth (if also children are included in the cash distribution). Also, it may lead to outside people trying to trace themselves back to the clan/ILG involved, to claim clan/ILG membership.

The PNG Communities BEST benefit sharing system does allow for genuine existing clan members living elsewhere to still be considered in the benefit sharing, e.g., through the Education, Health, or family business support funds, something which can be decided upon by all clans involved.

There will be annual benefit disbursements in equal amounts for the 30-year duration of the PNG Communities BEST agreement signed with the community, based on secured income into the PNG Communities BEST. The decision on the actual breakup of the annual amount received by the participating community over the various "baskets" for each year, is with the community. Also, the management of the use of the funds for each basket is organized and implemented by the community itself, except for the Investment basket, which will be managed at the PNG Communities BEST level. Considering the large annual amounts available for the Tavolo Community, disbursements will be made

on a quarterly basis, allowing for both interim progress reporting on activity implementation and expenditure, and any necessary adjustments for the following quarter.

There will be annual public community meetings at which FORCERT will report back to the community on the management of the PNG Communities BEST, including its finances, and the community management committee will give their management and finances report back to FORCERT.

FORCERT will comply with the monitoring and reporting requirements of VCS, and with the annual reporting requirements of CCDA under the relevant CCMA (2021 Amended) clauses, and the yet to be finalized REDD+ project guidelines and regulations. The current applicable government reporting requirements can be found in Section **Error! Reference source not found.** below.

4.5.7 Benefits, Costs, and Risks Communication (GL2.7)

See Section 2.3.4

4.5.8 Governance and Implementation Structures (GL2.8)

The project governance and implementation structure is largely based upon the self-governance structure of the Tavolo Community Conservation Association, the main beneficiary and carbon credit owner. As the TCCA is the representative organisation of the three communities and 14 clans of the project area this enables the full and effective participation of the community members in project decision-making and implementation.



Figure 7. The governance/monitoring diagram for the PNG Communities BEST REDD Tavolo Project as explained and discussed during a community visit in 2020.

The TCCA Admin Team is responsible for the implementation of all community level project activities, and will provide activity progress and financial reports to the TCCA Management Committee on a quarterly basis, and the TCCA Management Committee will report twice a year all Tavolo, Lausus and Mukus community members during their AGM (mid-way throughout the calendar year) and during the Annual Monitoring Meeting with FORCERT (end of the calendar year).

The FORCERT PNG Communities BEST Program Team plans its general annual and detailed six-monthly activities together with the whole FORCERT team during their Annual Planning Meetings, and the mid-year Team Leaders Meetings. Program and organisational level monitoring and evaluation also takes place during the Annual Planning Meetings. Throughout the year the PNG Communities BEST Program Team reports directly to the FORCERT Manager on a regular basis, with debriefings after each community visit and other stakeholder meetings. FORCERT has an elaborate PME system, using standard reporting formats.

FORCERT will report annually to all Tavolo, Lausus and Mukus community members during the Annual Monitoring Meeting at the Tavolo Community. It will also report on an annual basis to the Government (CCDA), and it will be monitored itself annually by the FSC certification auditor.

4.5.9 Smallholders/Community Members Capacity Development (GL2.9)

See Section 2.3.14

5 BIODIVERSITY

5.1 Without-Project Biodiversity Scenario

5.1.1 Existing Conditions (B1.1)

The majority of the project area is classified under the WWF Terrestrial Ecoregions as “New Britain-New Ireland Lowland Rain Forests”. The upper part of the Tavolo SLUP area however is classified as “New Britain-New Ireland Montane Rain Forests”. Both types fall under the tropical moist forest ecoregion. More than 75% of the project area is covered with forest. PNG Forest Basemap 2012 classifies most of the forest in the project area as Low altitude forest on uplands (see **Error! Reference source not found.**). A small proportion is classified as Low altitude forest on plains and fans. The remaining area, which includes cleared forest, agricultural fields and residential areas are grouped under ‘bare areas’.

FORCERT’s approach to biodiversity conservation is to build on and strengthen the traditional conservation thinking and practices of our partner communities. This approach is worded as follows in one of our Position statements in our current 2020-2024 Strategic Plan:

PNG communities are natural conservationists

Our rural communities of customary land managers have looked after and lived sustainably with PNG forests, waters and oceans since time began. This has led to PNG being the most biologically and culturally diverse place in the world. Over the last 50,000 years we have developed an interdependent and deep spiritual relationship with nature. Our ancestral stories and customary practices demonstrate our profound understanding and resulting wise and sustainable management of our natural environment and its resources.

By incorporating and strengthening traditional ecological knowledge and conservation practices into officially recognised community sustainable land use and conservation area management, PNG communities greatly contribute to climate change mitigation and biodiversity conservation.

This approach means that no extensive scientific biodiversity survey by external experts was done for the Tavolo SLUP area, but instead a participatory HCV assessment, using the local traditional ecological knowledge and focussed on identification of the community's High Conservation Values and priorities, was done by the Tavolo Community, facilitated by FORCERT. The results of this assessment can be found in Appendix 6. The final parts of the Tavolo Community HCV assessment were the development of the Community Conservation Laws and the linkage of the HCV assessment results to the revision process of the Tavolo SLUP. For the Community Conservation Laws covering the whole of their SLUP area, the Tavolo Community built on and added to their existing Wildlife Management Area (WMA) Rules, which at first only covered the 2400 ha of the original WMA¹⁴.

The HCV assessment still needs a final round of check and confirmation of species identification, which will be done by Binatang Research Centre (BRC) during their next planned visit in the second half of 2022. This check did not take place as planned during their first visit to the Tavolo Community in September 2021, as due to miscommunication no photo and picture species ID information was brought by BRC.

The outcome of the HCV assessment and initial survey results from the Community-based Conservation Monitoring and Management System training exercises, although not complete, provide some insight of the presence of important endemic and endangered species present in the project zone. These are presented in Table 6 and Table 7, below.

Table 6. List of endemic and endangered species in the Tavolo SLUP project zone

No.	Common name	Genus	Species	IUCN Red List Global Status *
1	Pied Coucal	<i>Centropus</i>	<i>ateralbus</i>	LC
2	New Ireland Friarbird	<i>Philemon</i>	<i>eichhorni</i>	LC
3	Ashy Myzomela	<i>Myzomela</i>	<i>cineracea</i>	LC
4	Blue Eyed Cockatoo	<i>Cacatua</i>	<i>ophthalmica</i>	VU
5	Violaceous Coucal	<i>Centropus</i>	<i>violaceus</i>	LC
1	New Britain Naked-backed Fruit Bat	<i>Dobsonia</i>	<i>praedatrix</i>	LC
2	Admiralty Flying Fox	<i>Pteropus</i>	<i>admiralitatum</i>	LC
3	Black Bellied Fruit Bat	<i>Melonycteris</i>	<i>melanops</i>	LC
1	Green turtle	<i>Chelonia</i>	<i>mydas</i>	EN
1	White teeth sea cucumber	<i>Holothuria</i>	<i>fuscogilva</i>	VU
2	Black teeth sea cucumber	<i>Holothuria</i>	<i>nobilis</i>	EN

* LC = Least Concern; VU = Vulnerable ; EN = Endangered

¹⁴ In 2018 the Tavolo Community submitted their request for an extension of their original WMA to cover the whole of their SLUP area with the Conservation and Environment Protection Authority (CEPA). To date this request is pending with no response received from CEPA.

Also, during the Community-based Conservation Monitoring and Management System development, key indicator species were identified that will be used to monitor the status of the marine and forest ecosystems present in the project zone. Also see 5.4.1.

Table 7. Key indicator species present in the Tavolo SLUP project zone.

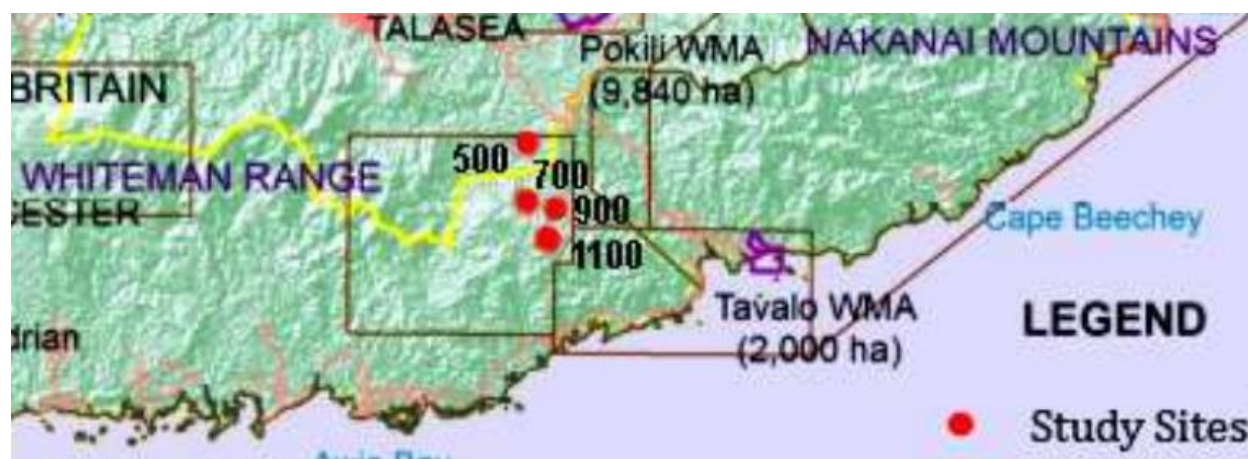
Healthy Coral Reef Indicator Species			
1	Butterfly fish spp. (Ororo)		
2	Parrot fish spp. (Rangrang)		
Ecological Indicators of large-scale processes in lowland forest			
1	Dwarf Cassowary	<i>Casuarius bennetti</i>	HCV
1	Ficus	<i>Ficus spp</i>	HCV

The complete description of the development process for the draft Community-based Conservation Monitoring System developed with the Binatang Research Centre (BRC) can be found in Appendix 8.

For the below general description of the biodiversity in the area, the following two publications were used:

1. Biodiversity Survey of the Whiteman Range, West New Britain Province, Papua New Guinea, PS Toko and FF Dem (Editors), New Guinea Binatang Reseach Centre. Madang, PNG, 2019
2. Distribution, diversity and conservation status of the Biota of New Britain, A Allison and O Tallowin, 2015

The Whiteman Range survey was done in an area right next to the Tavolo SLUP area, as shown on the map below, with study sites as 500, 700, 900 and 1100m above sea level:



Although the study did not include sites close to sea level and at 300m asl, guidance was taken from the study for identification of keystone species when finalizing the Community Conservation Monitoring system that the Tavolo Community together with BRC and FORCERT have drafted, as due to the proximity of the study area and due to the mostly intact linkage of the forest in the area studied with the forest in the Tavolo SLUP area.

Biodiversity of New Britain

Despite the proximity of the Bismarck Archipelago to New Guinea and the existence small islands that appear to the remnants of a land bridge, the island arc was never connected to the mainland. The islands

breached the ocean surface in the late Miocene period (8-10 million years ago) as a result of volcanic uplift, and many active volcanoes still exist (particularly on New Britain). Most of the islands are made up of volcanic soils and limestone. Soils with limestone substrates differ from volcanic soils in that the former lack nutrients and drain quickly.

The vegetation of the Bismarck Is therefore unusual in that there appears to be no noticeable difference between the two main substrates in species composition. Major lowland rain forest tree genera include *Pometia* (Sapindaceae), *Octomeles* (Datiscaceae), *Alstonia* (Apocynaceae), *Camptosperma* (Anacardiaceae), *Canarium* (Burseraceae), *Dracontomelon* (Anacardiaceae), *Pterocymbium* (Sterculiaceae), *Cryptocarya* (Lauraceae), *Intsia bajuga* (Leguminosae), *Ficus* (Moraceae), and *Terminalia* (Combretaceae) (John, 2001). While no one tree species is dominant throughout New Britain, certain species can be locally dominant, with all the above species being valuable as sources of timber, making the forests of New Britain highly desirable for logging.

The Island of New Britain, a crescent-shaped island lies east of the mainland New Guinea, stretching about 500 km long and 40-100 km wide. It contains some of the nation's endemic biodiversity, beautiful rivers and unique land forms (Allison and Tallowin, 2015). The island has contributed some of the significant discoveries to science and culture (Diamond et al., 1999; Diamond, 1971; Pavlides and Gosden, 1994; Torrence et al., 1992). The spine of the island has volcanic mountains mostly of karst limestone, resulting in dense forest and rugged mountain ranges. Much of the lowland forests in the West New Britain Province have been heavily destroyed by logging, subsistence agriculture and large scale commercial agriculture, especially oil palm. From 1972 to 2002, it is estimated that 58,467 ha of lowland rainforest was cleared for oil palm plantation, which is 3.2% of the total lowland rainforests in the province (Shearman, 2008). An anthropological discovery at the Yobon village (located 35 km north east of Kandrian) suggests that early settlement in West New Britain in the mid to higher montane forests dates back to 35,000 years ago (Pavlides and Gosden 1994). This could be one of the oldest settlements in the high elevation rainforests in New Britain, Papua New Guinea and the world. The Whiteman Range lies central in the West New Britain province and stretches towards the East New Britain connecting the Nakanai and Baining mountain ranges. There has been some studies conducted on the Nakanai Range (Richards and Gamui, 2011) but very few for the Whiteman Range. The biodiversity at the Whiteman Range remains understudied, with the potential for new species discoveries and wildlife protection proposals.

Because of the low cloud cover, the various mountain zones occur at much lower altitudes than those found on the main island of New Guinea. The boundary between lowland and mountain vegetation is gradual and exhibits species very similar to the corresponding vegetation zones on the mainland.

The lowland rainforest is characterized by stretching from around 200 m to 700 m elevation. It is mostly characterized by the predominant trees like *Pometia pinnata*, *Ficus* species including strangling figs, and *Terminalia* species. These forests have typical structure including wide emergent canopy crowns, lianas, rattans and wide buttresses (Paijmans, 1976 et al.; Whitmore T, 1990). Tree canopies are about 25-45 meters high with often high turnover of lowland and highland animal species.

The forest structure and wildlife of the mid-montane rainforest within the elevational bands of 900-1100m asl is different. Montane forest are categorized into three broad vegetation types. The lower montane forests, which are largely dominated by broadleaf evergreen trees, including *Castanopsis*, *Lithocarpus* and *Laurales* species extending from 700 to 1500 meters elevation. The upper montane forests are dominated by moss-covered *Nothofagus* and extend from 1500 to 2500 meters elevation. The high mountain forest extends from 2,500 to 3,000 meters elevation and is characterized by low canopy height.

The montane forests are home to a rich and endemic wildlife (Whitmore T, 1990). At most times of the year, the forest floor can be wet and damp with some tree trunks covered with heavy mosses, lichens and many epiphytes such as orchids. There can be some woody lianas and rattans.

The BRC Whiteman Range study found a total of 29 species of freshwater fishes belonging to 10 families, with 4 species that may be new to science, 261 species of butterfly from 6 families, 373 species of moth, 26 species of frogs from 5 families. Also, it found an endemic frog species that is restricted to the Nakanai, Baining and Whiteman Range mountains (Figure 5). This species *Cornufer akarithymus*, commonly known as Pomugu Wrinkled Ground Frog is classified as Vulnerable by the IUCN red list (Richards, S.J. and Parker, F. 2004; Kraus, F. and Allison, A. 2007). The frog lays eggs on the ground and has direct development. Little is known about this frog species and needs more studies. They are normally found under leaf litters or rock crevices and call at night. The biggest threat to them is deforestation. A total of 40 different species of *Ficus* were found.

A total of 19 different species of bats were found out of the total of 42 bat species that have been recorded or are expected to occur on the Island of New Britain.

There are 38 endemic birds species on the Islands New Britain and New Ireland, and under the study 27 species of bird were recorded, including 7 species endemic to New Britain Island, listed as vulnerable by IUCN: Bismarck Honeyeater / *Vosea whitemanesis*, Black honey-buzzer / *Henicopernis infuscatus*, New Britain Bronzewing / *Henicophaps foersteri*, New Britain Goshawk / *Accipiter princeps*, New Britain Sparrowhawk / *Accipiter brachyurus*, Russet Hawk-owl / *Ninox odiosa*, Slaty-mantled Sparrowhawk / *Accipiter luteoschistaceus*

The study also found 177 species of trees from 64 different genera, of which 4 are listed by IUCN as vulnerable: *Canarium acutifolium*, an edible nut tree, *Myristica subalulate*, which is widely distributed and has 5 different varieties, *Cupaniopsis acuticarpa*, an endemic species, with very few records, and *Magnolia tsiampacca*, a timber tree that can grow up to 60 meters in height.

Unfortunately, the BRC Whiteman Range study did not include all mammals, only bats. The nearest study also including mammals is a Rapid Biological Assessment done in the Nakanai Range by Conservation International. This study found 10 species of terrestrial mammals (3 marsupials and 7 rodents) and 16 species of bat. This result made the researchers conclude that the New Britain mammal fauna contains many mammalian taxa of global significance, leading them to advocate for effective protection of the large tracts of pristine forests that still exists in the Nakanai Mountains.

Presence of dugongs, leatherback turtles, and green turtles, dwarf cassowaries and bush wallabies has been confirmed by the members of the Tavolo Community, and these trigger or keystone species will be included in the community conservation monitoring system, together with key species identified in the BRC Whiteman Range study, to obtain annual verified data to assist with the assessment of their status and future conservation management decisions.

5.1.2 High Conservation Values (B1.2)

As part of the revision of their original Land Use Plan, the Tavolo Community has undertaken a participatory HCV Assessment, facilitated by FORCERT. The basis of the FORCERT participatory community HCV assessment is the identified by the community itself of their High Conservation Values within their land use plan area, including waters and sea. Then, the community is advised of any additional HCV's that result from protected species under PNG law and/or IUCN Red List species. Based on this assessment, the community then develops Community Conservation Laws with penalties for non-

compliance. When doing this, they consider any existing or previously respected traditional conservation laws or taboos, and incorporate those into their new laws.

The Tavolo-Mukus and Lausus Community HCV Assessment can be found in Appendix 6.

Some of the HCVs identified and listed below can be found on the Land Use plan map (Figure 4). Others have not (yet) been mapped.

High Conservation Value	HCV 3: Forest areas that provide basic services of nature in critical situation.- Forest along and between Takai river and Lausus
Qualifying Attribute	This forest stand is being protected to help in restoring water courses to enhance fauna in the river. The forest also plays an importance role which it minimizes soil erosion or landslides and provides food for the fauna in the area.
Focal Area	Area of forest along and between Takai river and Lausus Effective monitoring and law enforcement by the Community Conservation Law Committee is required to protect this area of forest.

High Conservation Value	HCV 1.1: Protected areas-- Wildlife Management Area (WMA)
Qualifying Attribute	Leather back turtle and green turtle nesting site, wild sago palm used for roofing, crocodile habitat and black bass fish species.. It is a swamp vegetation which is a unique habitat. The Eunga river has a concentration of crocodiles, and forms a good habitat for the crocodile and other freshwater animals. The WMA also covers the island Alis and the reefs on the coastline.
Focal Area	2400ha of the WMA. Part of the area at the coastline has eroded due to sea level rising, and TCCA has identified coast line tree planting as one of their activities. The Community Conservation Committee reported that recently one garden area (0.8ha) was established within the WMA boundary, but no remedial action has been taken yet. Law enforcement and effective monitoring by the Community Conservation Law Committee is needed to reduce or prevent threats to the area, and mitigate any impacts. Awareness raising is needed to remind community members of the importance of the ecosystem.

High Conservation Value	HCV 1.3: Concentration of endemic species-- <i>Eucalyptus deglupta</i> stand alongside Mukus river. (Indicated as HCV area nr. 7 in Figure 4)
-------------------------	--

Qualifying Attribute	The site has a natural stand of Kamarere-- <i>Eucalyptus deglupta</i> , endemic to New Britain Island, of which small parcels have been cleared for gardening and part has been eroded by the Mukus river. The stand is found at the Mukus rivers banks hence it plays an important role as a buffer and also is a habitat for bat species.
Focal Area	<i>Eucalyptus deglupta</i> stand alongside Mukus river. There needs to be effective monitoring and law enforcement by the Community Conservation Law Committee to prevent and remedy unacceptable activities. Awareness raising is required to control gardening, reduce the current threats, with restoration of cleared areas.

High Conservation Value	HCV 4.1: Forest critical to water catchment-- Kauri pine stand at the top of Takai river. (Indicated as HCV area nr. 6 in Figure 4)
Qualifying Attribute	The Kauri pine stands protects the Takai rivers has it keeps the river flowing that provides for the flora and fauna in and around it. It is also a water source that support the Lausus & Tavolo communities.
Focal Area	Kauri pine stand at the top of Takai river. Effective monitoring and law enforcement by the Community Conservation Law Committee is necessary to protect this area.

High Conservation Value	HCV 1.3: Concentration of endemic species – Pomio Brown orchid
Qualifying Attribute	Forest corridor – Area of forest between the Tavolo guest house to the Takai river contains the popular orchid called the Pomio brown – a brown variety of <i>Dendrobium helix</i> which species is endemic to the Bismarck Archipelago.
Focal Area	The forest area between the Tavolo Guesthouse and Takai river is part of the conservation areas, but recently a few food gardens have been cleared within the conservation area boundary. The Community Conservation Law Committee has to improve the effectiveness of their monitoring and law enforcement, with remedial action to be taken on the food gardens..

High Conservation Value	HCV 1 Concentration of biodiversity values – Breeding site Black bass fish (Indicated as HCV area nr. 4 in Figure 4)
-------------------------	---

Qualifying Attribute	Breeding site that includes the Tavolo river and Tavolo river waterhead for Black Bass – <i>Lutjanus spp</i> which has been identified by the community and is being protected.
Focal Area	Tavolo river and watershed, with the area being respected as it is protected by the conservation laws, including water buffer zones, but effective monitoring and enforcement by the Community Conservation Law Committee is required.

High Conservation Value	HCV 1.2 Critically endangered species – Leatherback turtle and Green turtle breeding site (Indicated as HCV area nr. 2 in Figure 4)
Qualifying Attribute	Breeding site for Leatherback turtle – <i>Dermochelys coriacea</i> , and Green turtle – <i>Chelonia mydas</i> where they lay their eggs on the beach between Mukus and Eunga hamlets,
Focal Area	Beach between Mukus and Eunga hamlets, with the area is being respected as it is protected by the conservation laws but effective monitoring and enforcement is required.

High Conservation Value	HCV 1 Concentration of biodiversity values – Breeding site for flying foxes
Qualifying Attribute	Breeding site for flying foxes at Lausus which have been identified and protected. There are a few spots where the flying foxes normally roost.
Focal Area	The breeding site area at Lausus is being respected as it is protected by the conservation laws, but effective monitoring and enforcement is required.

High Conservation Value	HCV 1 Concentration of biodiversity values-- Breeding site at Alis Island
Qualifying Attribute	Alis Island is a refugia habitat for most species of doves present in the Tavol SLUP area, where they fly over to rest and nest, returning to the mainland to feed.
Focal Area	Alis Island is being respected as it is protected by the conservation laws, but gardening activities and recent use as loading point for kopra by MV Pomio have to be properly controlled, with effective monitoring and enforcement required.

High Conservation Value	HCV 2. Landscape level connectivity – Forest Production zone
-------------------------	--

Qualifying Attribute	The Forest Production Zone between the two Conservation areas is important for connectivity for fauna, e.g. the Dwarf Cassowary and New Guinea Pademelon, in the area.
Focal Area	The Forest Production zone is being respected as it is protected by the conservation laws, but effective monitoring is required.

High Conservation Value	HCV 1. Concentrations of biodiversity values & 4 Basic ecosystem services
Qualifying Attribute	The Forest Conservation Zone. The forest within the conservation areas is still intact and have been earmarked for Conservation as the areas contain breeding sites for certain HCVs species that are identified by the community that play important role in the lives of the people in and around the community and also to the global community. The forest areas also are water catchment area,.
Focal Area	The Forest Conservation Zone and the conservation laws put in place are respected by the community members , but more efforts are still needed, especially on the monitoring of the outsiders entering the area without getting consent from the Community Conservation Law Committee (CCLC).

5.1.3 Without-project Scenario: Biodiversity (B1.3)

In the without-project land use scenario, 14,695 ha of the total of 16,289 ha forest or 90.2% in the Tavolo SLUP area will be clear-felled. As can be seen in the neighbouring West Pomio SABL areas where this has already happened, there will be no consideration to respect buffer zones for rivers, creeks, beach or swamp areas, and very little consideration for specific conservation areas or sacred sites as indicated by the community or individual clans.

The project development plan of the Kakuna-Lote LOC, 32% of the area will be replanted with Kamarere – *Eucalyptus deglupta*, and 4% with cacao. The plan also specifies development of cattle grazing areas, but there is no indication given of the planned size of these areas. For the remaining areas, a small part (few %) of the clear-felled areas, closest to the villages and existing garden and cash crop areas, can be expected to be used by the local communities for expansion of their food gardens and cash crop blocks. According to these plans the remaining clear-felled area, around 60%, would not be used, meaning a regrowth process of pioneer species, followed by a succession into secondary forest would take place.

With the initial clear-felling of 90.2% of all forest in the project area, the direct biodiversity loss of all forest related species will be catastrophic, with a very large indirect effect through soil erosion on all freshwater ecosystems, the fringe and islands' reef systems and further marine ecosystem within the SLUP area.

5.2 Net Positive Biodiversity Impacts

5.2.1 Expected Biodiversity Changes (B2.1)

The expected impacts of the project are based on the results of the identified project activities, outputs, and consequent outcomes, as detailed in the Project’s Theory of Change shown under Section 2.1.8 of this document.

As explained and detailed under Section 2.3.7, all groups in the Tavolo Community have been fully involved in the identification of activities and evaluation of the consequent outcomes and expected impacts. A large part of this work was done as part of the development of the TCCA Management Plan and during the HCV assessment.

Through the formal registration of the project zone under a Community Conservation Deed, the implementation of the Sustainable Land Use Plan (SLUP) and the Community Conservation Laws (CCL) and the carbon project activities (i.e. prevention of deforestation of the forests within the Tavolo SLUP area), the project expects to have a significant positive biodiversity impact

Biodiversity Element	<p>Rare, threatened and endangered species within the Tavolo SLUP area:</p> <p>Terrestrial:</p> <ul style="list-style-type: none"> - Blue eyed cockatoo (<i>Cacatua ophthalmica</i>)-- VU - Russet Hawk-Owl/ New Britain Boobook (<i>Ninox odiosa</i>)-- VU <p>Marine:</p> <ul style="list-style-type: none"> - All sea cucumber species (<i>Holothuroidea</i>) – EN/VU - Leatherback turtle (<i>Dermochelys coriacea</i>) – VU - Green turtle (<i>Chelonia mydas</i>)-- EN - Kamarere (<i>Eucalyptus deglupta</i>)-- VU - New Guinea Pademelon (<i>Thylogale browni</i>)-- VU - Dugong (<i>Dugong dugon</i>)-- VU
Estimated Change	Enhancement of the status of all identified RTE species
Justification of Change	<ul style="list-style-type: none"> - Implementation of the Sustainable Land Use Plan (SLUP) and the Community Conservation Laws (CCL) - Monitoring and enforcement of SLUP and CCL by the Community Conservation Law Committee - Development and implementation of the Community Conservation Monitoring System by the Community Conservation Law Committee

	- Continued capacity building, guidance & support for TCCA and Community Conservation Law Committee by FORCERT and Binatang Research Centre.
--	--

Biodiversity Element	Forest Conservation areas
Estimated Change	Maintenance and enhancement of all identified HCV species and elements in the Conservation areas.
Justification of Change	<ul style="list-style-type: none"> - Obtained a formal conservation status over the whole Tavolo SLUP. - Nullification of the SABL overlapping the Tavolo SLUP. - Deve - Implementation of the Sustainable Land Use Plan (SLUP) and the the Community Conservation Laws (CCL) - Monitoring and enforcement of SLUP and CCL by the Community Conservation Law Committee - Development and implementation of the Community Conservation Monitoring System by the Community Conservation Law Committee - Continued capacity building, guidance & support for TCCA and Community Conservation Law Committee by FORCERT and Binatang Research Centre.

Biodiversity Element	Forest Production Area
Estimated Change	<p>Maintenance and enhancement of all identified HCV species and elements within the Forest Production Area</p> <p>Maintenance of connectivity of the overall forest areas within the Tavolo SLUP area</p>
Justification of Change	<ul style="list-style-type: none"> - Obtained a formal conservation status over the whole Tavolo SLUP. - Nullification of the SABL overlapping the Tavolo SLUP. - Implementation of the Sustainable Land Use Plan (SLUP) and the the Community Conservation Laws (CCL) - Monitoring and enforcement of SLUP and CCL by the Community Conservation Law Committee - Development and implementation of the Community Conservation Monitoring System by the Community Conservation Law Committee

	<ul style="list-style-type: none"> - Continued capacity building, guidance & support for TCCA and Community Conservation Law Committee by FORCERT and Binatang Research Centre - Development and implementation of the all FSC requirements under the FORCERT Group Certification System
--	--

Biodiversity Element	Marine conservation areas
Estimated Change	Maintenance and enhancement of all identified HCV species
Justification of Change	<ul style="list-style-type: none"> - Implementation of the Sustainable Land Use Plan (SLUP) and the Community Conservation Laws (CCL) - Monitoring and enforcement of SLUP and CCL by the Community Conservation Law Committee - Development and implementation of the Community Conservation Monitoring System by the Community Conservation Law Committee - Continued capacity building, guidance & support for TCCA and Community Conservation Law Committee by FORCERT and Binatang Research Centre

Biodiversity Element	Conversion Areas
Estimated Change	<ul style="list-style-type: none"> - Forest cover loss of an estimated 10ha per annum (up to the a maximum of 694 ha designated in the SLUP), converted to food garden or cash crop blocks of approximately 1 ha each - Individual tree felling for sawn timber production
Justification of Change	<p>Designated areas for necessary increase of food gardens and cash crop block due to the increasing population.</p> <p>The location of the conversion areas was determined based on the outcomes of the HCV assessment, to ensure no current forest areas critical for the maintenance of any of the identified HCV's would be included.</p>

Biodiversity Element	<p>Trigger/Keystone species</p> <p>Through the development of the draft Tavolo Community Conservation Monitoring System, the following trigger/keystone species have been identified as good and easy to monitor indicators of ecosystem health:</p> <ul style="list-style-type: none"> - Marine: Parrot fish & Butterfly fish
----------------------	---

	- Terrestrial: Dwarf Cassowary & Ficus spp
Estimated Change	Through the conservation and sustainable management of the forest and marine ecosystems, an enhancement of the status of all trigger species is expected compared to the baseline.
Justification of Change	<ul style="list-style-type: none"> - Implementation of the Sustainable Land Use Plan (SLUP) and the the Community Conservation Laws (CCL) - Monitoring and enforcement of SLUP and CCL by the Community Conservation Law Committee - Development and implementation of the Community Conservation Monitoring System by the Community Conservation Law Committee - Continued capacity building, guidance & support for TCCA and Community Conservation Law Committee by FORCERT and Binatang Research Centre

Indicator / keystone species

Through the development of the Tavolo Community Conservation Monitoring and Management System, the following indicator / keystone species have been identified as good and easy to monitor indicators of ecosystem health:

- Marine: Parrot fish & Butterfly fish
- Forest ecosystem: Dwarf Cassowary & Ficus spp.

Although they are not listed on the IUCN Red List as RTE species, these species are considered characteristic for the ecosystems in which they have their habitat and population trends of these species are expected to provide insight in changes in the condition of these ecosystems. More detailed information can be found in the Community Conservation Monitoring and Management System report in Appendix 8.

Below the trend in indicator / keystone species for monitoring of the overall forest and marine ecosystem health are discussed in detail.

Indicator Species	Dwarf cassowary-- <i>Casuarius bennetti</i>
Population Trend at Start of Project	As per the HCV Assessment on its current status or situation the community has identified that the number of dwarf cassowaries is declining, and it is no longer abundant as in the past.
Without-project Scenario	Without this project the species habitat would be largely destroyed and hunting for sales would further decrease its numbers. Overall numbers would largely decline and it would be rarely seen, only in the more remote forest remains within the Tavolo SLUP area.

With-project Scenario	As it is being identified as an HCV species for the Tavolo Community, community conservation laws have been put in place to protect it, with specific protection of food trees, no egg collection and a complete ban on hunting. This means numbers are expected to increase over time.
-----------------------	---

Indicator Species	Butterfly fish (<i>Chaetodontidae</i> family)
Population Trend at Start of Project	Butterfly fish were not included in the Tavolo HCV assessment, and the first full monitoring rounds to be done as part of the organized monitoring of the draft Community Conservation Monitoring System will be used to establish a baseline for future monitoring.
Without-project Scenario	Without this project the habitat of the Butterfly fish will be heavily impacted with sedimentation from river and creek runoff resulting from forest clearance, and pollution by oil spills from logging ships as per the company's plan to establish a log pond at Tavolo. The Tavolo community would also have no community conservation laws leading to overharvesting of Butterfly fish species. With the SABL project, outsiders would also start fishing in the area.
With-project Scenario	Although Butterfly fish have not been identified as HCV for the Tavolo Community, the general protection under the overall marine conservation zones is expected to lead to an increase in Butterfly fish species,

Indicator Species	Parrot fish (<i>Labridae</i> family)
Population Trend at Start of Project	Parrot fish population has been identified by the community as being in decline and not being as abundant as in the past.
Without-project Scenario	Without the project the habitat of the Parrot fish will be heavily impacted with sedimentation from river and creek runoff resulting from forest clearance, and pollution by oil spills from logging ships as per the company's plan to establish a log pond at Tavolo. The Tavolo community would also have no community conservation laws leading to overharvesting of Parrot fish species. With the SABL project, outsiders would also start fishing in the area.
With-project Scenario	Parrot fish species have been identified as HCV by the community, and the general protection under the overall marine conservation zones is expected to lead to an increase in Parrot fish species.

Indicator Species	Ficus spp
Population Trend at Start of Project	For 2 local Ficus spp, called Sipa and Kaleo, it was established by the community that numbers were now short, compared with abundant in the past. For one local Ficus sp called Melo in the local language, it was established by the community that numbers were still similar as in the past. For other Ficus species the first full monitoring rounds to be done as part of the 103rganzed103d103n of the draft Community Conservation Monitoring System will be used to establish a baseline for future monitoring.
Without-project Scenario	More than 90% of all forest would be cleared, meaning Ficus spp numbers would suffer similar losses, and with disappearance of most of the population of birds and bats distributing Ficus seeds due to this forest loss, re-establishment of Ficus spp in regrowing secondary forest would be seriously affected.
With-project Scenario	Overall protection in Conservation Areas and the Forest Production Areas, plus recognition in the HCV Assessment of the importance of individual Ficus trees as habitat for birds and bats. This means that <i>Ficus spp</i> populations are expected to be maintained or enhanced.

5.2.2 Mitigation Measures (B2.3)

The only expected negative biodiversity impact (compared to the current situation, not the baseline, wherein it is expected that all forest will be cleared) is the expected 10 ha/year conversion of forest to community gardens, due to the expected growth of the Tavolo population. The measure that TCCA has taken to mitigate the biodiversity impact, is the development of the Sustainable Landuse Plan. The sustainable land use plan will guide them in development, and biodiversity has been considered with HVCs being identified and conservation laws being established to protect this HCV sites or RTE species & forest. With that is the Ward Development Plan and the Management Plan that further strengthens the practice of promoting sustainable development. Also recently being developed is the Community Conservation Monitoring System where assessment are to be done with results produce for decision making in fine tuning or improve their management.

In April 2022, Lausus and Tavolo+Mukus community groups (men, women, youth, elderly) identified potential negative impacts of the expected annual benefits that TCCA will receive and use under the identified community fund categories (community projects, health, education, family business support, emergency, investment, TCCA management), and that input was used by the TCCA Management Committee to develop draft rules for the identified community funds. These will be presented and consolidated in a community meeting in May.

The main identified potential negative project impacts on biodiversity and their mitigation measures are listed in the table below. Section 4.2.2 covers the potential negative impacts identified related to

biodiversity. The TCCA Management Plan includes a detailed mitigation measures table, based on their SWOT analysis.

Table 8. Potential negative project impacts on biodiversity

Negative Impact		Mitigation measures
Biodiversity	Lack of adherence to the Community Conservation Laws by members of the Tavolo Community	TCCA clearly links compliance with the Community Conservation laws with the rights and access to benefits for families
		Community Conservation Law Committee to receive further training and guidance on enforcement and monitoring, including use of sign boards and Village Court
		Education program to be developed for primary schools in Mukus, Tavolo and Lausus
	Lack of adherence to the Community Conservation Laws by members of neighbouring communities	Community Conservation Law Committee to receive further training and guidance on enforcement and monitoring, including use of sign boards and Village Court
		Community Conservation Law Committee to do repeat awareness in neighbouring communities
	Uncontrolled spread of invasive species	TCCA to organize ENB Fisheries Department to train and monitor on Tilapia fish pond management

TCCA will not journey alone as its partnership with FORCERT will be maintained and strength over the period. FORCERT will assist and support TCCA in its monitoring and assessment of working with TCCA. FORCERT as per its development approach will guide and strengthen TCCA to be self-reliant providing advice and technical support where necessary for improvement and advancement.

5.2.3 Net Positive Biodiversity Impacts (B2.2, GL1.4)

As described in sections 5.1.3, 5.2.1 and 5.2.2, the project expects to have a significant positive impact compared to the without project scenario. Without the project logging and plantation development would convert the whole current forest areas of the TCCA sustainable land use plan area to other land use and seriously damaged secondary forest, leading to high loss (or virtual depletion) of biodiversity and HCVs. This directly affects all forest ecosystems present in the project zone. Also, it is expected that under the without-project scenario the water quality and condition of the freshwater and marine ecosystems will indirectly be severely negatively affected, through erosion. Under the with-project scenario, the project interventions will prevent all negative biodiversity impacts expected in the without project scenario from taking place. Furthermore, the development, mapping and implementation of a Sustainable Landuse Plan, Community Conservation Laws and a Community Conservation Monitoring and Management System, as well as the annual benefit sharing through the PNG Communities Benefits from Environmental Service Trust (BEST) and continued guidance and capacity building of the TCCA by FORCERT and Binatang Research Centre, will ensure sustainable use of Tavolo's community land and its natural resources, based on informed planning and decision making, by and in full support of the community.

In addition, to ensure resilience to potential negative effects from climate change, the TCCA intends to restore and maintain buffer zones, by planting mangroves along the coastal swamps, Kamarere

(*Eucalyptus deglupta*) along the river bank, climate change resilient tree species in the food gardens and drought resistant crops (also see section 3.5).

5.2.4 High Conservation Values Protected (B2.4)

See the HCV Assessment which was facilitated by FORCERT and where laws were developed by the community members with the enforcement being implemented by the Community Conservation Law Committee. Following this HCV Assessment, the zoning of the land uses was done where HCVs sites were considered and excluded to be protected. The sustainable land use plan that has been developed is based on the HCV Assessment. The community development plan that is covered by the Tavolo Ward Plan was based on the sustainable land use plan. Apart from these the TCCA Management Plan also promotes conservation and has outlined threats with measures necessary to be taken to address the potential negative impacts on biodiversity.

5.2.5 Species Used (B2.5)

The TCCA plans to use a wide range of native trees species (to be determined) for buffer zone and degraded area restoration. These will at least include Kamarere (*Eucalyptus deglupta*) along the river bank and mangrove tree species (*Avicennia* and *Rhizophora*).

However, Balsa (*Ochroma pyramidale*) a non-native fast growing species will be promoted in the Garden and Cash crop Zone by TCCA as part of widening the range of income earning options.

5.2.6 Invasive Species (B2.5)

Balsa (*Ochroma lagopus*)

Although Balsa is not commonly regarded as an invasive species, a report by ACIAR (2018)¹⁵, mentions that the species is considered to be invasive in some Pacific Islands and, in some situations, it has become naturalised and formed dense, closed-canopy, nearly monospecific stands that shade out other species, and/or compete for water and sunlight, suppressing growth and regeneration of understorey plants. Due to the short rotation period (4-5 years), there may be the danger of abandoned Balsa plantation blocks if this planned alternative income earning option would not prove viable due to market or transport constraints. In that situation, Balsa may be able to spread to forest clearings.

Tilapia (*Oreochromis mossambica*)

The Tilapia ponds present in the Tavolo SLUP have been present before the project started and are not introduced or promoted by the project. However, although the project is not introducing Tilapia, the TCCA has identified the existing situation as problematic and threatening to the local fresh water fish biodiversity. Therefore, as one of their priority activities, TCCA is putting existing fish ponds at Lausus with Tilapia under control, due to the concern on the possibility of flooding of fish ponds allowing Tilapia to spread to nearby creeks and rivers, as has happened in neighbouring communities. TCCA has identified priority activities to contact and engage the East New Britain Fisheries Division to provide awareness and training on proper fish pond management.

¹⁵ Thomson L., Doran J. and Clarke B. (eds) 2018. Trees for life in Oceania: conservation and utilisation of genetic diversity. ACIAR Monograph No. 201. Australian Centre for International Agricultural Research: Canberra. 278 pp

5.2.7 Impacts of Non-native Species (B2.6)

Species	Balsa-- <i>Ochroma lagopus</i>
Justification of Use	Balsa has been promoted by PNG Forest Authority and 3A Composite/PNG Balsa Company (Gazelle Peninsula, East New Britain Province) as another income generating option. Apart from this company, there are other companies now in the province buying balsa, which has led to a considerable increase in the price of Balsa, and its cultivation spreading to other areas in the province. As there are very limited cash crop options with a good established market for the Tavolo Community members, they are keen on trying out Balsa.
Potential Adverse Effect	Although Balsa is a good potential income sources with a 4-5 year rotation period, there are adverse effects to its cultivation. Similar to oil palm, Balsa is very competitive taking up a lot of water and soil nutrients, hence it can affect soil fertility. TCCA and FORCERT will closely monitor this situation, and ensure that any abandoned Balsa plantation blocks with be fully cleared.

Species	Tilipia - <i>Oreochromis mossambica</i> (African Tilapia)
Justification of Use	As mentioned in 5.2.6, Tilapia is not introduced or promoted by the project. This was done by the East New Britain Provincial Fisheries Division purposely as an alternative protein source and income generating option for inland communities.
Potential Adverse Effect	It is a good income and protein source, but has a strong adverse effect, as already seen by the communities in Mukus, where Tilapia from neighbouring inland communities have flooded into tributaries of the Mukus river. Once Tilapia enters the watercourses by accident its population increases rapidly and causes native freshwater fishes to decline in number or to become completely locally extinct. Awareness and training for fish farming by the ENB Fisheries Division will be organised as a priority activity by TCCA to develop strong control measures to avoid this from happening within the TCCA SLUP area.

5.2.8 GMO Exclusion (B2.7)

No GMO's are or will be used to generate GHG emissions reduction or removals

5.2.9 Inputs Justification (B2.8)

Not applicable. No fertilizers, chemical pesticides, biological control agents or other inputs are used for the project

5.2.10 Waste Products (B2.9)

There will be no major waste products resulting from project activities.

Waste management is included in the Community Conservation Laws, with fines for improper disposals of different types of waste. Also, TCCA has identified activities for 2022 and 2023 on waste awareness, development of a waste monitoring plan, and identification of proper waste disposal pit locations under Sub-objective 5.1 of their Theme 5. Community Social Development.

5.3 Offsite Biodiversity Impacts

5.3.1 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Measures (B3.2)

There are no expected negative offsite biodiversity impacts

5.3.2 Net Offsite Biodiversity Benefits (B3.3)

There are no expected potential negative impacts on biodiversity outside the project zone, and the development of and adherence to the Tavolo SLUP and Community Conservation Laws is expected to result in strong positive effects on the biodiversity within the project zone, as explained in the previous sections of Chapter 5 above.

5.4 Biodiversity Impact Monitoring

5.4.1 Biodiversity Monitoring Plan (B4.1, B4.2, GL1.4, GL3.4)

A complete overview of the project's objectives, activities, expected outputs, outcomes, impacts and indicators is provided in Appendix 7 (PNG Communities BEST REDD Tavolo Project Theory of Change & Monitoring Plan matrix). It includes all aspects of the CCBS PD, i.e., Climate, Community and Biodiversity.

Monitoring by TCCA will be done according to the Activity implementation and monitoring schedule of the TCCA Management Plan. Monitoring of biodiversity, HCVs and ecosystem health indicators will follow the Community-based Conservation Monitoring and Management System (Appendix 8) developed by the Binatang Research Centre in close collaboration with the community (further described below).

The following table provides an overview of the output, outcome and impact indicators specified for each objective.

The community and biodiversity outputs, outcomes and impacts defined are often intertwined. Therefore, also an overlap in indicators and monitoring methods can be observed (also see 4.4.1).

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
<p>- To conserve 14,981 ha natural forest resources during and beyond the project lifetime, for the future generations.</p> <p>- To manage and protect the identified HCV's and biodiversity present in the Tavolo LUP during and beyond the project lifetime, for the future generations.</p>	Output	<ul style="list-style-type: none"> - Community Conservation Laws in place - Community Conservation Monitoring System in place - Land use plan in place 	N/A (one-time output)	<ul style="list-style-type: none"> - Community Conservation Laws - Community Conservation Monitoring System - Land Use Plan 	TCCA
	Outcome	<ul style="list-style-type: none"> - Community Conservation Law awareness meetings held - Regular Community Conservation Committee meetings held - Community Conservation Law non-compliances handled - Community Conservation Monitoring System implemented & reported on - Nr. Of community conservation monitoring surveys completed 	<ul style="list-style-type: none"> - Remote sensing analysis LUP compliance (as part of VCS monitoring; every 1-5 years) - BEST community monitoring (annual) - Community Conservation Monitoring (annual) 	<ul style="list-style-type: none"> - Community Conservation Committee reports - Non-compliance handling records - Community Conservation Monitoring records - Annual BEST monitoring reports - FORCERT's baseline & situational change monitoring matrix - Community Conservation Monitoring reports 	FtF, TCCA & FORCERT

Objective	Indicator type	Indicator	Monitoring method & frequency	Data source	Who is responsible?
	Impact	<ul style="list-style-type: none"> - Area of intact forest within the Tavolo SLUP area - Condition of forest within the Tavolo SLUP area - Condition of the identified HCVs - Trend in conservation law and land use plan non-compliances & their enforcement - Population trends of indicator species (see 5.2.1) - Population trends of trigger species (see 5.5.2) - Identified HCV species trends (see 5.1.2) - Distribution of non-native species (Balsa) 	<ul style="list-style-type: none"> - FSC certification monitoring (annual) - Remote sensing analysis SLUP compliance (as part of VCS monitoring; every 1-5 years) - BEST community monitoring (annual) - Community Conservation Monitoring (annual) 	<ul style="list-style-type: none"> - FSC annual monitoring reports - Harvesting reports - Annual BEST monitoring reports - FORCER's baseline & situational change monitoring matrix - Forest and landcover change maps following VCS monitoring plan - Community Conservation Monitoring reports 	FtF, FORCERT, TCCA & BRC

Monitoring of Biodiversity, HCVs and ecosystem health

The Community Conservation Monitoring and Management System report (Appendix 8), details the biodiversity survey methods that will be used, monitoring schedules, implementation of the monitoring system and enforcement of the Management By-laws. The below table, extracted from the Community Conservation Monitoring and Management System report, provides an overview of the assessment methods and draft monitoring schedule for the main ecosystem types and species groups that will be monitored.

Table 9. Tavolo Community Conservation Monitoring Schedule (draft).

HCV	Assessment Method	Month												Responsible	Management Strategy	
		J	F	M	A	M	J	J	A	S	O	N	D			
AQUATIC																
Marine																
Corals	Point Intersect Transect Survey: 10am to 12pm	■	■	■											TCCA Management Committee, Conservation Committee, Trained Community Member, Community, Melkoi LLG, Judiciary System, National Fisheries Authority, Provincial Fisheries Division	Customary Conservation Laws, WMA Rule & Penalties, Historical Laws, Existing Government Laws, Conservation Laws & Penalties
Fishes	Fish Census Survey: 10am to 12pm	■	■	■												
Sea cucumbers / Bech de mere	Transect Survey: 10am to 12pm	■	■	■												
Mammals	Observation: 6am to 10am								■	■	■	■				
Turtles	Observation: 6am to 10am								■	■	■	■				
Freshwater	Observation	■	■	■					■	■	■	■				
TERRESTRIAL																
Flora																
Trees, Herbs, Vines	Observation	■	■													
Fauna																
Birds	Observation & Point Count: 6am to 10am & 2pm to 6pm													TCCA Management Committee, Conservation Committee, Trained Community Member, Community, Melkoi LLG, Judiciary System, PNG Forest Authority, Provincial Forest Division	Customary Conservation Laws, WMA Rules & Penalties, Historical Laws, Existing Government Laws, Conservation Laws & Penalties	
Mammals	Chance Observation: 6am to 10am & 2pm to 6pm						■	■	■	■	■	■	■			

5.4.2 Biodiversity Monitoring Plan Dissemination (B4.3)

The monitoring plan, and all monitoring reports will be made publicly available on the FORCERT website (www.forcertpng.org), as well as on the project registry page of Verra and hard copies of the monitoring plan and monitoring summary reports will be made available upon request to stakeholders. The main outcome of the monitoring will be presented to the stakeholders for their feedback and a summary of the monitoring reports will be made available in both English and Tok Pisin.

5.5 Optional Criterion: Exceptional Biodiversity Benefits

5.5.1 High Biodiversity Conservation Priority Status (GL3.1)

Table 10, below shows the 14 species that have been identified to be present within the Tavolo SLUP area that are listed as rare, threatened or endangered (Vulnerable or Endangered).

There are regular sightings of the IUCN Red List endangered species Green turtle (*Chelona mydas*) within the marine zone of the Tavolo SLUP area. Also, there is a Community Conservation Law forbidding any catching of Green turtles. Three of the seven species of sea cucumber found within the marine zone of the Tavolo SLUP area are listed as Endangered on the IUCN Red List.

Table 10. List of Vulnerable and Endangered species present in the project zone

Local name	English name	scientific name
BIRDS		
Hilei	Blue-eyed cockatoo (VU)	<i>Cacatua ophthalmica</i>
Tut	Russet Hawk-Owl (New Britain Boobook) (VU)	<i>Ninox odiosa</i>
SEA CUCUMBERS		
Hooke	Black teatfish (EN)	<i>Holothuria nobilis</i>
Hooke	White teatfish (VU)	<i>Holothuria fuscogilva</i>
Hooke	Sandfish (EN)	<i>Holothuria scabra</i>
Hooke	Curry fish (VU)	<i>Stichopus hermanni</i>)
Hooke	Pricky redfish (EN)	<i>Thelenota ananas</i>)
Hooke	Surf redfish (VU)	<i>Actinopyga mauritiana</i>
Hooke	Deep-water redfish (VU)	<i>Actinopyga echinites</i>
TURTLES		
Pepei	Leatherback (VU)	<i>Demochelyidae coriacea</i>
Pora	Green turtle (EN)	<i>Chelonia mydas</i>
PLANTS		
Lauso	Kamarere (VU)	<i>Eucalyptus deglupta</i>
MAMMALS		
Nelo	New Britain pademelon (VU)	<i>Thylogale browni</i>
Roli	Dugong (VU)	<i>Dugong dugong</i>

5.5.2 Trigger Species Population Trends (GL3.2, GL3.3)

Section 5.5.1 lists the Endangered and Vulnerable species present in the project zone. For these threatened species, representing considerable biodiversity value, it is important to develop appropriate conservation measures and monitor population trends. These species can be considered potential trigger species, and their habitat as Key Biodiversity Areas.

Table 11. List of potential trigger species occurring in the Tavolo SLUP

Species	Red list status	IUCN Red list estimated global population range	A1a/b Criteria minimum population Range project site	Comments
Blue-eyed cockatoo-- <i>Cacatua ophthalmica</i>	VU	87,000-378,000	870-3,780	Endemic to New Britain
New Britain Boobook-- <i>Ninox odiosa</i>	VU	10,000-19,999	100-200	Endemic to New Britain
Kamarere-- <i>Eucalyptus degluta</i>	VU	Unknown	unknown	
Leatherback turtle-- <i>Dermochelys coriacea</i>	VU	Unknown	unknown	
Green turtle – <i>Chelonia mydas</i>	EN	Unknown	unknown	
Dugong-- <i>Dugong dugong</i>	VU	Unknown	unknown	
Sea cucumbers	<i>Holothuria nobilis</i>	EN	Unknown	unknown
	<i>Holothuria fuscogilva</i>	VU	Unknown	unknown
	<i>Holothuria scabra</i>	EN	Unknown	unknown
	<i>Stichopus hermanni</i>	VU	Unknown	unknown
	<i>Thelenota ananas</i>	EN	Unknown	unknown
	<i>Actinopyga mauritiana</i>	VU	Unknown	unknown
	<i>Actinopyga echinites</i>	VU	Unknown	unknown

Especially, the terrestrial species Blue-eyed cockatoo and Russet Hawk-Owl (New Britain Boobook) are important trigger species, as they are both endemic to New Britain, they are considered forest dependent species and, although no population estimates for the Tavolo SLUP are currently available, it is likely that the forests within Tavolo SLUP are part of a Key Biodiversity Area that holds a significant population of these vulnerable species.

The coastal area of Tavolo SLUP, where there are nesting sites of the leatherback- and green turtle, are also important to monitor as they contribute to the reproduction and maintenance of the populations of these threatened species.

Marine species such as the Sea cucumber have only been recently shown to be of significance to world trade, livelihoods and marine ecosystems. Correspondingly, they have been the subject of increased worldwide interest for scientific knowledge, sustainable use and conservation purposes. Nationally, sea cucumbers are protected by PNG law, under the authority of the NFA. Sea cucumbers Black and White Teat are listed as threatened species under the IUCN Red List. Many other Sea cucumber species are not on the IUCN Red List, but are considered good indicators of healthy reef based on their biology.

RTE Species	Blue-eyed cockatoo-- <i>Cacatua ophthalmica</i> -- VU
Population Trend at Start of Project	As per the HCV Assessment on its current status or situation the species is still abundant and many can be seen and heard on a daily basis in the communities.
Without-project Scenario	Without this project the species habitat would be largely destroyed and hunting for sales would further decrease its numbers. Overall numbers would largely decline and it would be rarely seen, only in the more remote forest remains within the Tavolo SLUP area.
With-project Scenario	As it is being identified as an official Threatened species as per the HCV Assessment, community conservation laws have been put in place to protect it, and numbers are expected to increase.

RTE Species	Russet Hawk-Owl/New Britain Boobook-- <i>Ninox odiosa</i>
Population Trend at Start of Project	As per the HCV Assessment on its current status or situation the species is still abundant and many can be heard on a daily basis in the communities.
Without-project Scenario	Without this project the species habitat would be largely destroyed. Overall numbers would largely decline and it would be rarely heard or seen, only in the more remote forest remains within the Tavolo SLUP area.
With-project Scenario	As it is being identified as an official Threatened species as per the HCV Assessment, community conservation laws have been put in place to protect it, and numbers are expected to increase.

RTE Species	Leatherback turtle-- <i>Dermochelys coriacea</i>
Population Trend at Start of Project	As per the HCV Assessment on its current status or situation the community has identified that the number of leatherback turtle is declining.
Without-project Scenario	Without this project the species the habitat of the leatherback turtle will be destroyed and will be polluted by oil spills from logging ship as per the company's plan to establish a log pond at Tavolo. The Tavolo 1 community would also have no

	community conservation laws for organised protection of the species, leading to egg collection and killing of adult turtles. With the SABL project, pressure from outsiders also would lead to encroachment into the habitat to collect eggs and kill it.
With-project Scenario	As it is being identified both as an HCV species for the Tavolo Community as well as an official Threatened species, community conservation laws have been put in place to protect it. This means numbers are expected to increase over time.

RTE Species	Green turtle – <i>Chelonia mydas</i>
Population Trend at Start of Project	As per the HCV Assessment on its current status or situation the community has identified that the numbers of green turtles have gone down considerably compared with the past..
Without-project Scenario	Without this project the species the habitat of the green turtle will be destroyed and will be polluted by oil spills from logging ship as per the company’s plan to establish a log pond at Tavolo. The Tavolo 1community would also have no community conservation laws for organised protection of the species, leading to egg collection and killing of adult turtles. With the SABL project, pressure from outsiders also would lead to encroachment into the habitat to collect eggs and kill it.
With-project Scenario	As it is being identified both as an HCV species for the Tavolo Community as well as an official Threatened species, community conservation laws have been put in place to protect it. This means numbers are expected to increase over time.

RTE Species	Dugong-- <i>Dugong dugong</i>
Population Trend at Start of Project	As per the High Conservation Value Assessment on its status or situation it the Tavolo Community members report that there are still many in the marine zone with regular sightings.
Without-project Scenario	With logging under the SABL project and the plan to develop a log pond in the area this will lead to deterioration of the dugong feeding habitat, hunting by outsiders and further disturbance from ship traffic withing the marine zone. This is expected to lead to a serious decline in Dugong numbers or even a complete disappearance of the species from the area.
With-project Scenario	As it is being identified as both an HCV for the Tavolo Community as well as an official Threatened species, community conservation laws have been put in place to stop all hunting, This, together with the overall protection measures for

	the marine zone, means that numbers are expected to increase over time.
RTE Species	Sea cucumber species— <i>Holothuria nobilis</i> , <i>H. nobilis</i> , <i>H. fuscogilva</i> , <i>H. scabra</i> , <i>Stichopus hermanni</i> , <i>Thelenota ananas</i> , <i>Actinopyga mauritiana</i> and <i>Actinopyga echinites</i>
Population Trend at Start of Project	The community notes that there are still a good number of sea cucumbers in the marine zone, however further assessment needs to be done as part of the Community Conservation Monitoring System development and training. Outsiders have been taking advantage of the sea cucumber resources and have harvested them within the area.
Without-project Scenario	With logging under the SABL project and the plan to develop a log pond in the area, this will certainly cause the species number to decline and outsiders brought in by the company would be expected to go into harvesting the species for income generation. Also, the Tavolo community members would not have their conservation laws, leading to uncontrolled harvesting of all sea cucumber species. This is expected to lead to near disappearance of all sea cucumber species from the area.
With-project Scenario	As it is being identified as a Threatened species as per HCV Assessment, community conservation laws have been put in place to protect it. Also there will be more collaboration with the Provincial Fisheries Division in monitoring of the species as stipulated in the TCCA Management plan. This is expected to maintenance of a healthy population of all sea cucumber species present.

APPENDICIES

Appendix 1: FORCERT Participatory Process of Change overview – January 2020

Attached seperately

Appendix 2: PNG Communities BEST national & subnational stakeholder engagements that have taken place between 2015 and 2021

Attached seperately

Appendix 3: Dispute and complaint handling procedure V5-Apr-2022

Attached seperately

Appendix 4: Compliance with relevant laws & regulations V4-Apr-2022

Attached seperately

Appendix 5: Legal clearance from the State Solicitor’s Office for the final draft PNG Communities BEST Program membership agreement

Attached seperately

Appendix 6: Tavolo’s HCV assessment

Attached seperately

Appendix 7: PNG Communities BEST REDD Tavolo Project Theory of Change & Monitoring Plan matrix

Attached seperately

Appendix 8: Development Community-based Conservation Monitoring System

Attached seperately