

ECOSYSTEM-BASED MANAGEMENT PLAN

2016-2020

Lekutu and Navakasiga Districts, Bua Province, Fiji



***A Prosperous Land, People and Ocean for
Lekutu and Navakasiga Districts***

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ENDORSEMENT

On this day, 26 of August, 2016, at Votua Village in the District of Lekutu, Bua Province, Vanua Levu, in the Republic of Fiji Islands, we, the traditional leaders of Lekutu and Navakasiga Districts, endorse this ecosystem-based management plan, and urge the people of Lekutu and Navakasiga to make every effort to ensure its effective implementation.

Buli Lekutu (Votua)	Buli Navakasiga (Naiviqiri)
Gone Marama na Tu Lekutu (Namuavoivoi)	Tui ni Mata (Nasau)
Gone Turaga Drakaniwai (Nasarowaqa)	Buli Naivaka (Naivaka)
Turaga na Rokora (Kavula & Banikea)	Roko Tui Bua
Gone Turaga na Tunidau (Tavea)	Mata ni Tikina Lekutu
Turaga ni Qele (Galoa)	Mata ni Tikina Navakasiga
Taukei Vadraba (Yaqaga)	Chairman – Lekutu & Navakasiga Resource Management Committee
	Roko Veivuke Lekutu & Navakasiga

ACKNOWLEDGEMENTS

The Lekutu and Navakasiga Resource Management Committee wishes to recognise the vision and leadership of the chiefs of Lekutu and Navakasiga Districts and celebrate their commitment to sustainable management of Lekutu and Navakasiga's precious ecosystems for the benefit of present and future generations.

The people of Lekutu and Navakasiga have given freely of their time and expertise to support the conservation and sustainable use of the districts' natural resources. They continue to ensure that management decisions are informed by the best available knowledge and their ongoing support is gratefully acknowledged.

The adoption of this management plan is a significant milestone for ecosystem-based management at a local, national and regional level. It is made possible by the contributions of a diverse range of stakeholders, including:

- Lekutu and Navakasiga Resource Management Committee
- Bua Provincial Office
- Wildlife Conservation Society
- Fiji Locally Managed Marine Area Network
- Department of Environment
- Department of Fisheries
- Department of Forestry
- Ministry of Agriculture
- iTaukei Land Trust Board
- iTaukei Lands and Fisheries Commission
- John D. and Catherine T. MacArthur Foundation
- David and Lucile Packard Foundation
- Flora Family Foundation

The continuation and further expansion of partnerships is essential to achieving our aims. The Lekutu and Navakasiga Resource Management Committee is committed to leading this process and would like to thank its leaders, communities and wider partners for efforts towards shared goals.

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Participants at the first Lekutu and Navakasiga Districts Ecosystem-based Management Planning Workshop in Tavea Village, 4-6 February, 2014. ©Ged Acton/WCS

1 INTRODUCTION

This management plan seeks to enhance the ecological value and resilience of terrestrial, freshwater, estuarine, coastal and marine ecosystems in Lekutu and Navakasiga Districts and adjacent coastal waters. Local communities are central to the sustainable management of these ecosystems and the plan aims to help them to address forthcoming challenges, including those related to climate change impacts. The planning process followed Wildlife Conservation Society's (WCS) Ecosystem-Based Management guidance for Fiji¹ and has been informed by extensive scientific assessments, as well as incorporation of local and traditional ecological knowledge. It is anticipated that the plan will be reviewed and amended periodically to reflect monitoring results and evolving management priorities (Figure 1.1).



The management plan has been prepared on behalf of the Lekutu and Navakasiga Resource Management Committee, based on community and stakeholder consultations undertaken between 2014 and 2015. In particular, the management plan largely reflects the outcomes of the *Tikina o Lekutu and Navakasiga Ecosystem-Based Management Planning Workshop* conducted within villages from both districts.

Figure 1.1 The cycle of adaptive management.

The key components of this management plan are:

- A **description of the management area**, including district and qoliqoli boundaries, demographics, habitat descriptions, resource tenure, resource use and protected area boundaries;
- Discussion on **habitat management issues** for terrestrial, freshwater, estuarine, coastal and marine ecosystems, including habitat descriptions covering flora and fauna, endemic and endangered species and species of cultural and economic significance;
- A management **implementation plan**, including:
 - a discussion of **key threats** and **underlying causes** of those threats for each habitat;
 - **management rules** for each habitat, including national laws and community rules;
 - proposed **management activities** for each habitat; and
 - **best practice** management recommendations for each habitat.
- a description of key **management institutions** and **external stakeholders**;
- an explanation of **management roles and processes**, including preparation, implementation, amendment and review of the management plan; and
- an overview of **compliance and enforcement issues**.

¹ WCS (2015) A facilitator's guide for ecosystem-based management planning in Fiji. Wildlife Conservation Society, Suva, Fiji.

2 ECOSYSTEM-BASED MANAGEMENT

2.1 ECOSYSTEM-BASED MANAGEMENT PRINCIPLES

This management plan seeks to promote an integrated approach to management of terrestrial, freshwater, estuarine, coastal and marine ecosystems. In particular, the plan reflects a community-driven, ecosystem-based management approach.

Ecosystem-based management is ‘an integrated approach to management that considers the entire ecosystem, including humans’². This aims to maintain ecosystems in a healthy, productive and resilient condition so that they can meet human needs into the future. For island communities, ecosystem resilience is particularly important for recovery from strong impacts related to climate change.

In particular, ecosystem-based management:

- emphasises connectivity within and between systems, such as between land and sea (Figure 2.1);
- emphasises the protection and restoration of ecosystem structure, function and key processes;
- focuses on a specific ecosystem and the range of activities affecting it; and
- Integrates ecological, social, economic, and institutional perspectives.

Use of land and resources by humans may result in significant alteration of ecosystem structure, function and processes, including connectivity within and between ecosystems (Figure 2.2).

Modification of ecosystems may reduce their health, productivity and resilience, and must be managed to ensure ongoing availability of ecosystem services.

Ecosystem-based management has objectives and targets that:

- focus on maintaining the natural structure of ecosystems and their productivity;
- incorporate human use and values of ecosystems in management of resources;
- recognize that ecosystems are dynamic and constantly changing;
- are based on a shared vision of stakeholders; and
- are based on scientific and local knowledge, adapted by continual learning and monitoring.³

What is an ecosystem?

An ecosystem includes all of the plants, animals, microbes, soil, air and water within a physical space and the interactions between them. Humans are a central part of both marine and terrestrial ecosystems.

The linkages within and between ecosystems arise from biological interactions (for example, seabirds hunting for marine fish to feed their offspring) and physical processes (for example, sediments transported downstream by river networks).

² *Scientific Consensus Statement on Marine Ecosystem-Based Management*

³ Grieve and Short, WWF EBM Toolkit

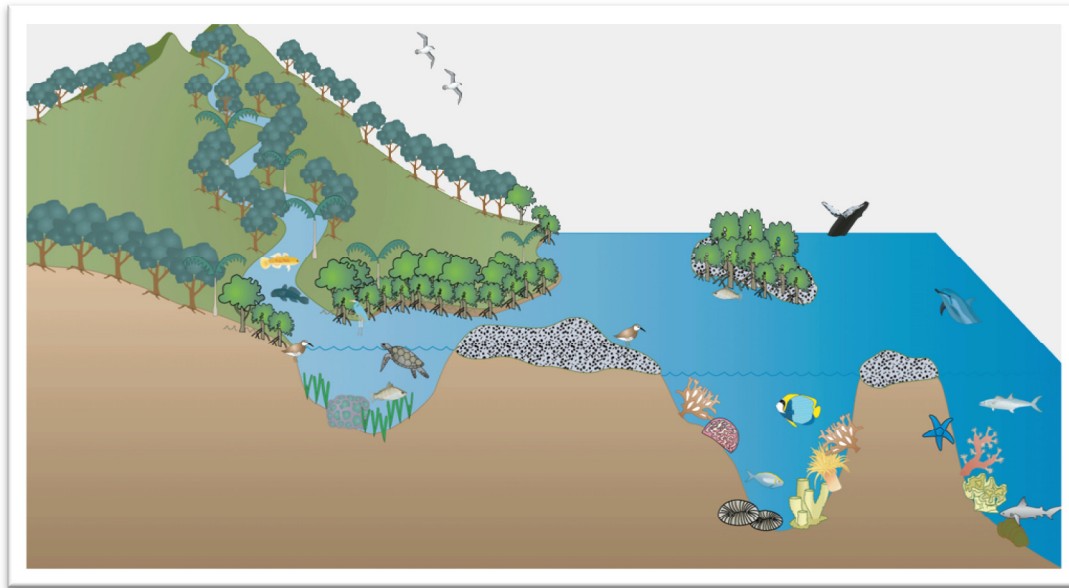


Figure 2.1. Schematic diagram of healthy connectivity between adjacent terrestrial, freshwater, coastal and marine ecosystems⁴

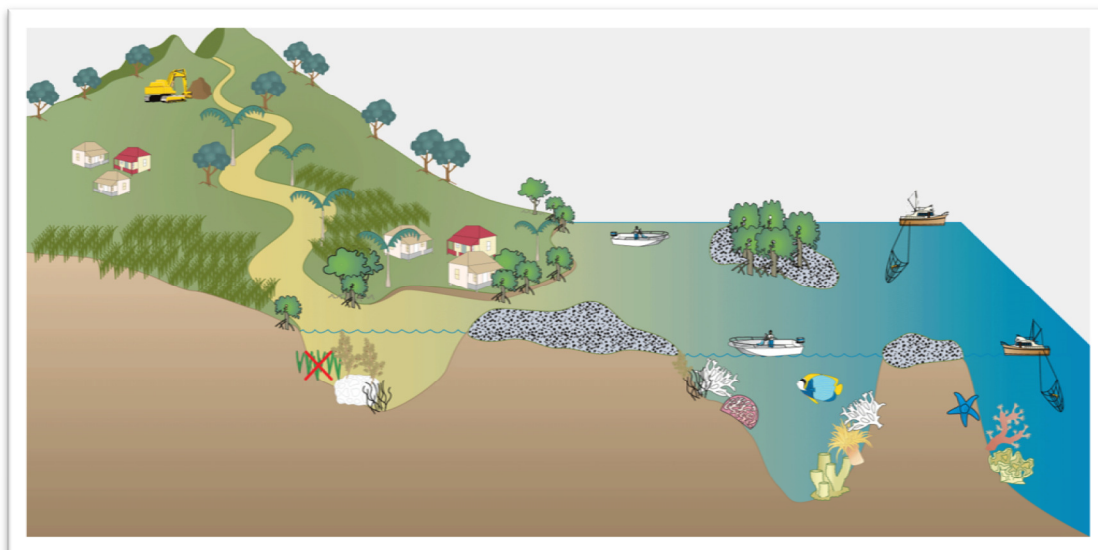


Figure 2.2. Schematic diagram depicting interruption to ecosystem connectivity due to human activity.

⁴ Symbols courtesy of the Integration and Application Network (<http://ian.umces.edu/symbols>).

2.2 ECOSYSTEM-BASED MANAGEMENT IN LEKUTU AND NAVAKASIGA

Ecosystem-based management in Lekutu and Navakasiga is community-driven, and centres around a shared vision of *‘healthy people, processes and systems’*. The overarching goal of ecosystem-based management in Lekutu and Navaksiga is “preservation of the functional integrity of Lekutu and Navaksiga ecosystems, from the ridge to the reef, through community-based management”.

The following key messages have been identified for ecosystem-based management in Lekutu and Navaksiga:

- ***Inland and coastal communities need to manage their actions and resources together.*** Connectivity between ecosystems makes each biome susceptible to degradation from factors arising in adjacent areas. For example, the health and resilience of coral reef ecosystems may be affected by clearing and burning in coastal catchments. Cooperation between inland and coastal communities is a central feature of ecosystem-based management in Lekutu and Navaksiga.
- ***Ridge to reef management protects habitats for all stages of life.*** Many organisms move between habitats during phases of their life cycles. For example, key food fish species in Lekutu and Navakasiga move between marine, estuarine and freshwater ecosystems throughout their life cycle. Preserving ecosystem connectivity and the integrity of adjacent ecosystems has been identified as a priority for ecosystem-based management in Lekutu and Navaksiga.
- ***Public health and livelihoods depend on environmental health.*** Ecosystem-based management enhances the long-term productivity of local ecosystems, providing a strong foundation for local livelihoods, food security and nutrition. Managing environmental threats (such as contamination of fresh water) promotes positive public health outcomes, including prevention of communicable disease.
- ***Successful ridge-to-reef management depends on broad stakeholder input.*** The effectiveness of government interventions in natural resource management issues is often undermined by fragmentation of responsibilities and jurisdiction between government agencies. Ecosystem-based management seeks to integrate management activities across sectoral boundaries and promote synergies between agencies, partner organisations and communities. This ensures that the concerns and priorities of a broad range of stakeholders are taken into account in management decisions, at the same time improving the quality of decision-making.
- ***Healthy ecosystems are the best defence against climate change impacts to livelihoods.*** Only intact, healthy ecosystems can provide the full range of benefits that humans want and need over long periods of time. By maintaining and restoring “natural infrastructure” such as mangroves, coral reefs and watershed vegetation, communities in Lekutu and Navaksiga may reduce their vulnerability to the predicted effects of climate change such as extreme weather events, storm surges, rising sea levels and changing precipitation patterns.

3 SITE DESCRIPTION

3.1 MANAGEMENT AREA BOUNDARIES

This management plan covers Lekutu and Navakasiga Districts' land and the adjacent customary fishing ground (*qoliqoli*). Lekutu and Navakasiga Districts is an administrative unit of Bua Province, in northwest Vanua Levu. Vanua Levu is the second largest island in the Republic of Fiji (Figure 3.1). The seaward boundary of the districts is the high water mark. The landward boundaries of the districts are contiguous with the traditional boundaries of indigenous land-owning clans (*mataqali*), as recorded by the *iTaukei* Lands and Fisheries Commission. The total area of district land for Lekutu is 353.9 km², and the total area for district land in Navakasiga is 68.3 km². The boundaries of the Lekutu and Navakasiga customary fishing ground, as recorded by the *iTaukei* Lands and Fisheries Commission, extend from the high water mark to the outer edge of the barrier reef adjacent to the boundaries of traditional fishing ground. This includes a total area of 1820.8 km².

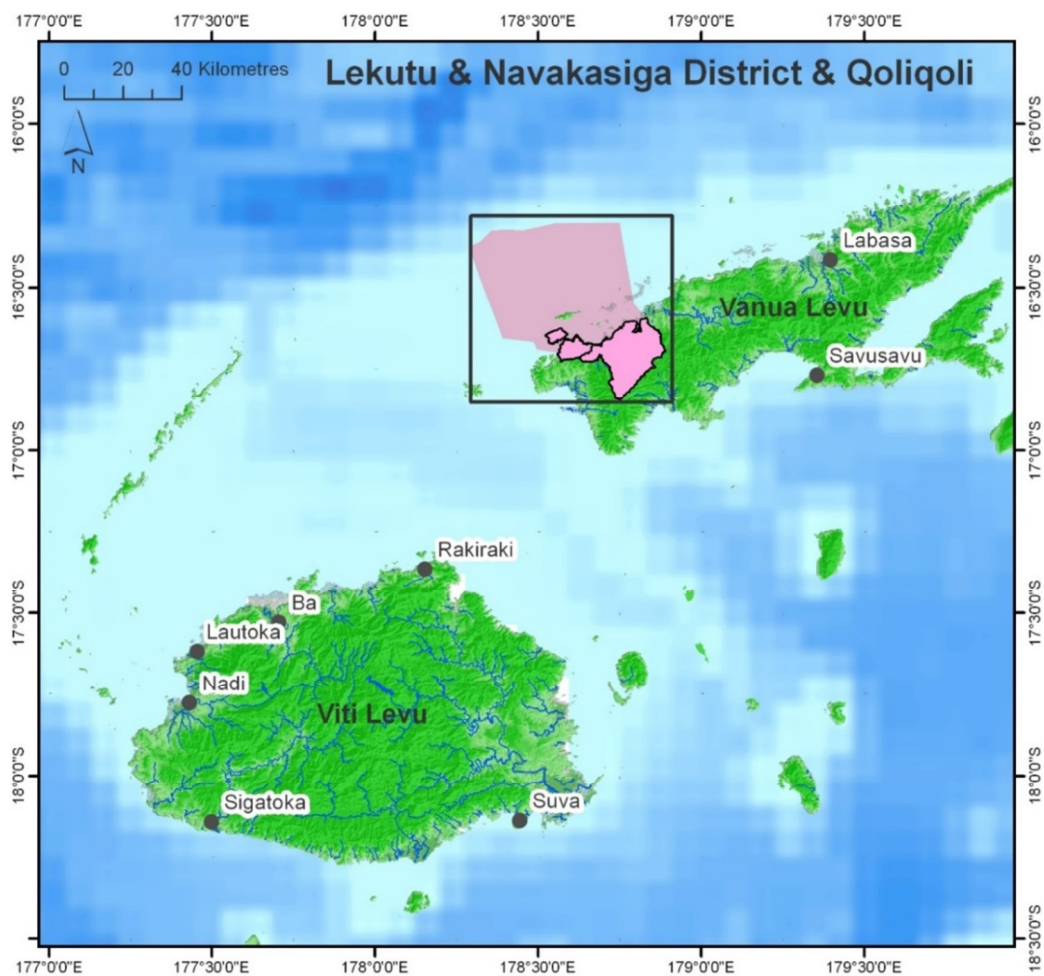


Figure 3.1. Lekutu and Navakasiga Districts (inset), Bua Province, Vanua Levu. The districts share one qoliqoli, shaded in light pink.

Lekutu is geographically a large district in the province of Bua, consisting of 5 inland villages and 3 islands totalling 8 villages, whilst Navakasiga has 3 villages. Both districts have *iTaukei* and Indo-Fijian settlements within their districts. Considerable coordination is required to ensure effective management across terrestrial and marine areas within Lekutu and Navakasiga Districts, since they share the same customary fishing grounds (Figure 3.2). This is the reason for a combined ecosystem-based management plan.

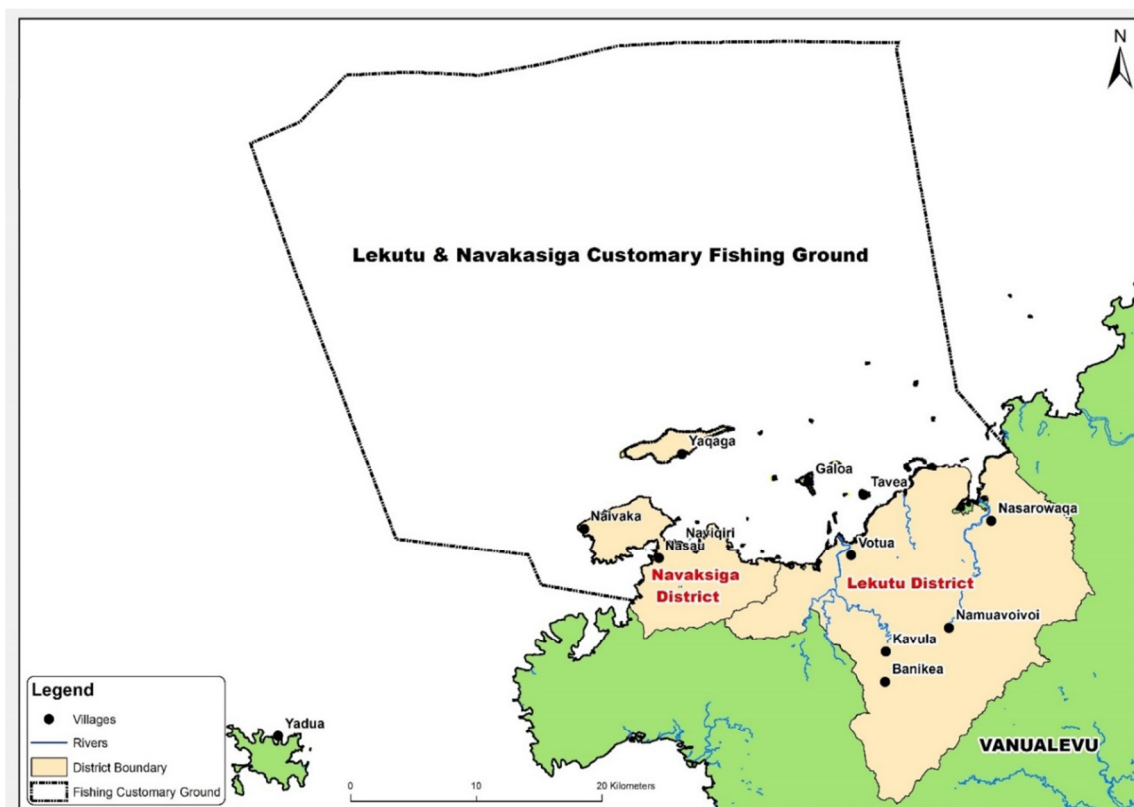


Figure 3.2. Lekutu and Navakasiga districts with their shared customary fishing ground.

3.2.DEMOGRAPHICS

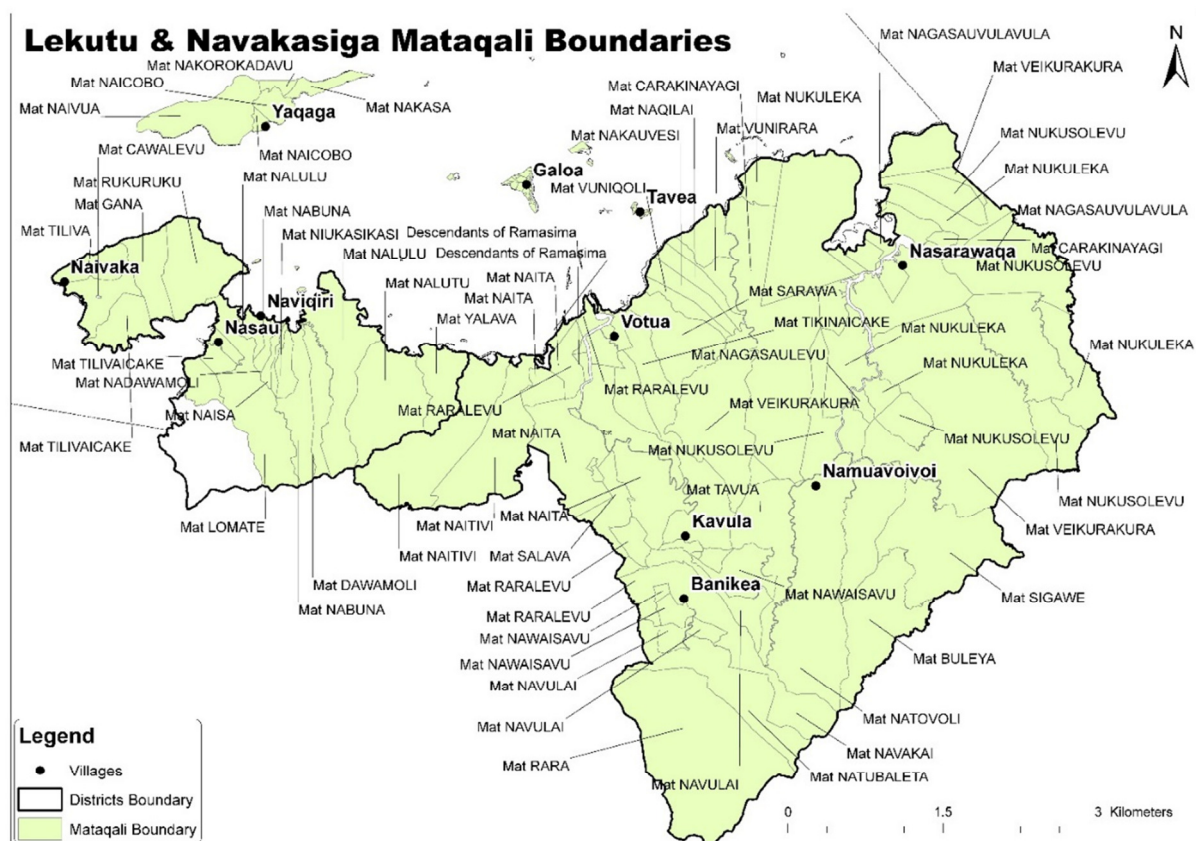
The total population for Lekutu District in 2014 was approximately 1501 people and Navakasiga District was 460⁵. The population of these two districts are predominantly *iTaukei*. Lekutu District includes 4 inland villages (Nasarowaqa, Namuavoivoi, Banikea, Kavula), a roadside village (Votua), and 3 islands (Yaqaga, Galoa and Tavea). There are 3 villages in Navakasiga District (Naiviqiri, Nasau and Naivaka) (Figure 3.3).

3.3. RESOURCE TENURE

3.3.1 Terrestrial Resources

In Lekutu 328.9 km² is native (*iTaukei*) land owned mostly by district's 45 landowning clans, with some freehold land and crown land. Land ownership boundaries for each *mataqali*, mapped by the *iTaukei* Lands and Fisheries Commission, as marked on Figure 3.3.

⁵ Fiji 2007 Census data



The *iTaukei* Lands Act recognises and maintains customary ownership of *iTaukei* lands, and provides a legal basis for traditional communal decision-making about land use and management of terrestrial resources.⁶ Decisions about occupation, use and management of land are made primarily at the indigenous land-owning clan level, within traditional decision-making structures and processes. The *iTaukei* Lands Trust Act establishes the *iTaukei* Lands Trust Board (TLTB) and allows the TLTB to enter into leases and licences on behalf of *iTaukei* landowners. Leases and licences must only be granted with the consent of the majority of landowners.

The use and management of *iTaukei*, freehold and crown land is subject to the national laws of Fiji, including legislation such as the *Forest Decree 1992* and the *Environment Management Act 2005*.

3.3.2 Freshwater Resources

Under Fijian law, rivers and streams, and the land underneath them, belong to the government.⁷ Extraction of streambed resources, such as gravel, requires approval from the Department of Lands.⁸ The *Fisheries Act* recognises subsistence fishing rights for traditional resource owners within their customary freshwater fishing grounds (*qoliqoli*).⁹ The Minister for Fisheries and Forests may declare restricted fishing areas within freshwater fishing grounds by publishing a notice in the government

⁶ *ITaukei Lands Act* [Cap 133], s.3.

⁷ *Deed of Cession 1874, Rivers and Streams Act* [Cap 136], s.2.

⁸ *Crown Lands Act* [Cap 132], s.10.

⁹ *Fisheries Act* [Cap 158], s.13.

gazette.¹⁰ There are currently no gazetted freshwater restricted areas in Lekutu and Navakasiga Districts. Freshwater streams and terrestrial habitats are shown in Figure 3.4.

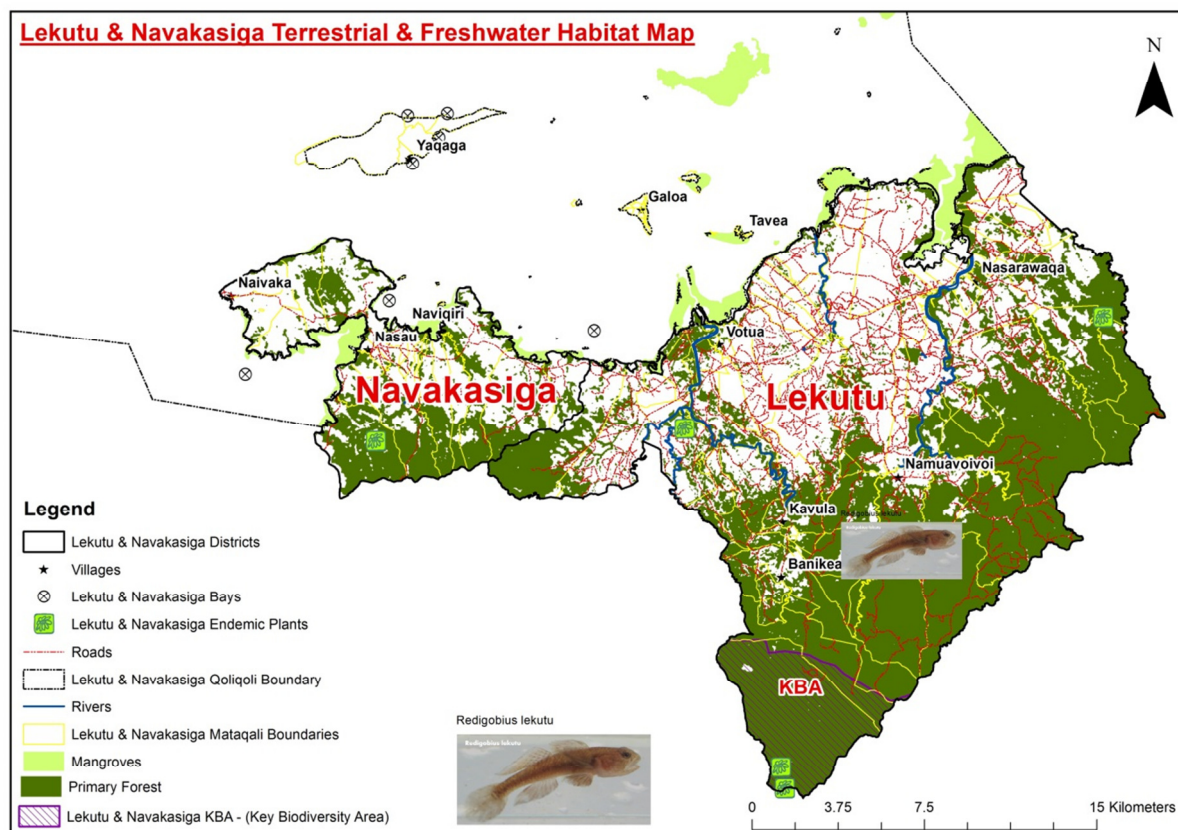


Figure 3.4 Freshwater streams and terrestrial habitats in Lekutu and Navakasiga Districts. Insets: *Redigobius lekutu*, a new fish species which was discovered in Lekutu District.

3.3.3 Coastal, Estuarine and Marine Resources

Coastal land above the high tide mark may be *iTaukei*, freehold, or crown land. Estuaries and coastal waters, and land below the high tide mark, belong to the government. Extraction of resources from land below the high tide mark requires approval from the Department of Lands. The Fisheries Act recognises and maintains subsistence fishing rights for traditional resource owners within their customary fishing ground. The boundaries of the Lekutu and Navakasiga fishing ground, as mapped by the Native Fisheries Commission, are marked on Figure 3.2.

The Fisheries Act, as currently administered, does not recognise the traditional right of resource owners to control access to their customary fishing ground and to establish and enforce restricted fishing areas (*tabu*). The Minister for Fisheries and Forests may establish a restricted fishing area “marine reserve” by making or amending regulations and publishing them in the Government Gazette. There are currently no gazetted restricted areas within the Lekutu and Navakasiga districts’ customary fishing ground.

Any person wishing to fish for “trade or business” must obtain a fishing licence from the Department of Fisheries. Licences are only granted with the written permission of the relevant chief, and may be

¹⁰ Fisheries Act [Cap 158], s.9.

granted subject to conditions, including prohibiting fishing in tabu areas. In 2016, the members of the Lekutu and Navakasiga hierarchy council (*Bose Vanua*) issued letters of consent that prohibited fishing in the various areas they have declared in their meeting to be protected.

Resource owners in Lekutu and Navakasiga recognise the customary authority of the districts' Hierarchy Council to make decisions about the use and management of marine resources within their customary fishing ground, including the establishment of village marine reserves. Decisions about additional management measures for village fishing grounds have been made at the village level, including the establishment of village *tabu* areas.

3.4 Resource Use

3.4.1 Income Generating Activities

Informal interviews with representatives from Lekutu and Navakasiga Districts indicated that their main source of income is from farming and fishing. The two main crops sold to the market are kava (*yaqona*) and taro (*dalo*). Usually these products can be either sold to middlemen who come to the village to buy, or taken to the Labasa market for more cash demand.

Members of both districts confirmed that they sell crabs and fish to nearby shopkeepers for quick cash or export companies such as Gold Hold in Labasa. Coastal fisheries in Lekutu and Navakasiga are used for subsistence and income generation. Although household surveys of resource use patterns have not been conducted for Lekutu and Navakasiga Districts, they are likely to be similar to communities in the nearby districts of Bua and others who preferentially collect reef fish, mud crab (*qari*), land crab (*lairo*), mud lobster (*mana*), shrimps (*moci*), and other freshwater fish.¹¹ In addition women in some of the villages make handicrafts such as baskets and fans from pine leaves, and other crafts from reed (*kuta*) as a source of livelihood. These are sold to visitors who come from Suva, or teachers and other government workers who reside in the nearby areas. A honey farming project, was established as an alternative source of income in the inland village of Kavula. Part of the money collected from the honey farming has contributed to their village levy for Bua's annual festival (the Adi Bua Festival).

3.4.2 Subsistence

The forested catchments in and around Mt. Navotuvotu and Mt. Kasi provide critical ecosystem services to the people of Bua and Cakaudrove Provinces, who are heavily dependent on natural resources for their food and livelihoods (WCS, unpublished data). Villagers within these two districts rely on forest products for building materials and traditional medicines streams within the forest corridor support large gudgeons (*Ophiocara porocephalus* and *Bunaka gyrinoides*) that are important to diets of inland communities and have been declining in abundance across Fiji; and largely intact forests provision and filter water¹². All of these habitats provide essential services for the health of local human populations and downstream freshwater and marine ecosystems. Mangroves are important as a source of fuel, either charcoal or firewood, and can be used as primary building material.

¹² Askew, N. Mailautoka, L. Caginitoba, A. Jenkins, A. and Jupiter, S. (2012). Strengthening Conservation and Management across the Mt. Navotuvotu – Mt. Kasi Corridor: Biodiversity Summary Report, Wildlife Conservation Society, Fij Country Program.

3.4.3 Fishing and Farming Methods

The most common types of fishing gear employed are nets, fishing lines, spear and snorkel, and gleaning. Targeted fishing areas include river tributaries, estuaries, intertidal zones (at low tide) and reefs (high tide at night). The most commonly farmed crops are cassava (*tavioka*), taro and kava. Common farming implements are hand tools such as shovels, forks and cane knives. Slash and burn shifting agriculture is regularly practiced.

3.5 Habitat Description

3.5.1 Terrestrial and Freshwater Habitat

The district of Lekutu has a total land area of 359 km² with 8 catchments, whilst the district of Navakasiga has a total of 68.34km² with 4 catchments (Figure 3.5). Of these 14 catchments, 3 catchments within Navaksiga and 1 in Lekutu have been identified as critical catchments in need of forest restoration and soil conservation measures¹³. This is because these catchments are naturally prone to heavy erosion due to their steep slopes, erodible soils, and intense and highly seasonal rainfall. In addition they are adjacent to priority reefs identified in Fiji's National Biodiversity Strategy and Action Plan.

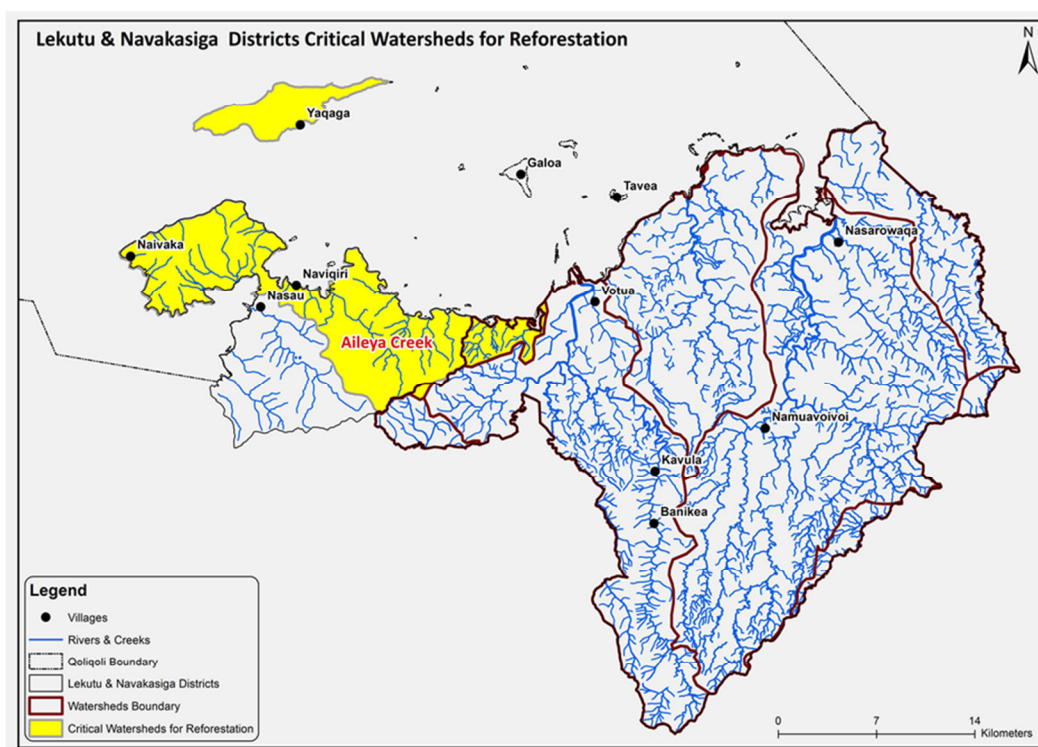


Figure 3.5 Map of Lekutu and Navakasiga Catchment Areas with critical catchments for reforestation and soil conservation measures highlighted in yellow.

Forests within the southern tip of Lekutu are part of the Mt. Navotuvotu Key Biodiversity Area (KBA), which forms a contiguous forest across seven districts in Bua. The forests within and surrounding the KBAs of Mt. Navotuvotu (in Lekutu) and Mt. Kasi (in Wailevu) are recognized as critical for

¹³ Atherton, J. Olson, D., Farley, L., and Qauqau, I. (2015) *Fiji Watersheds at Risk Watershed Assessment for Healthy Reefs and Fisheries*, Wildlife Conservation Society Fiji Program.

conservation because they contain globally threatened species and are sites of national significance for biodiversity conservation.¹⁴ Forests in the Mt. Navotuvotu KBA include the IUCN red-listed critically endangered *Astronidium kasiense* and *Gardenia anapetes*. While the biodiversity of freshwater fauna from the KBAs is currently unknown, streams within the relatively pristine forests of adjacent districts in the corridor between Mt. Navotuvotu and Mt. Kasi contain at least five species of endemic freshwater fish (*Redigobius leveri*, *Glossogobius* sp., *Stenogobius* sp., and two species of *Stiphodon*).

The information on diversity and abundance of threatened flora and fauna is limited for Lekutu and Navakasiga Districts. These two districts were once well known for sandalwood, but all trees were logged for cash. Two of the main endemic plant species are priority species for biodiversity and conservation; *Casearia adiantoides*, a slender shrub mostly found in dense forest, and a tall tree, *Elaeocarpus gillespieanu*. Lekutu and Navakasiga Districts are also considered an important habitat for endemic species of snail (*Orpiella godeffroyana*) from the family *Helicarionidae*, but this needs to be verified. The streams also support sensitive species, such as *Eleotris melanosoma*, *Butis amboinensis*, *Kuhlia munda*, *Giurus hoedti* and *Redigobius bikolanus* that are conspicuously absent from other Fiji catchment streams where forests have been cleared and non-native tilapia introduced.¹⁵

3.5.2 Estuarine, Coastal and Marine Habitat

Estuarine, coastal and marine ecosystems are vital components of the marine environment. These ecosystems maintain key functions and processes such as erosion control, storm surge protection, filtration of water flowing from land to sea, regulating and recycling of nutrients, and provide habitats for plants and animals. Seagrass beds, mangrove, mudflats and coral reefs form major habitat types within marine, estuarine and coastal environments.

The Lekutu and Navakasiga Districts traditional fishing ground covers an area of 1820.8 km² and is one of the most diverse reef ecosystems in western Bua Province including approximately 17 different habitat types¹⁶ (Figure 3.6). Habitats include intertidal fringing reefs, deep and shallow terraces with algae, reef flats and slopes dominated by corals, soft bottomed lagoon, and an outer barrier reef with pinnacles and passes. Average live hard coral cover varied from 16-91%, while average macroalgal cover varied from 0-5%.¹⁶

There are few recorded threatened and endemic species from the marine environment. For marine habitats and species, WCS survey protocols only targets certain fish groups and these groups do not contain many endemic species in general. Blacktip (*Carcharhinus melanopterus*) and whitetip (*Triaenodon obesus*) reef sharks were spotted during dive surveys, as well as the endangered humphead wrasse (*Cheilinus undulatus*).

¹⁴ Askew N, Mailautoka L, Caginitoba A, Jenkins A, Jupiter S (2012) Strengthening Conservation and Management across the Mt. Navotuvotu – Mt. Kasi Corridor: Biodiversity Summary Report, Wildlife Conservation Society, Suva, Fiji

¹⁵ Jenkins AP, Jupiter SD, Qauqau I, Atherton J (2010) The importance of ecosystem-based management for conserving migratory pathways on tropical high islands: A case study from Fiji. Aquatic Conservation: Marine and Freshwater Ecosystems. 20:224-238

¹⁶ Nand Y, Cakacaka A, Weeks R, Jupiter S (2012) Western Bua Resilience Survey 2012 Resilience Report, Wildlife Conservation Society, Suva, Fiji

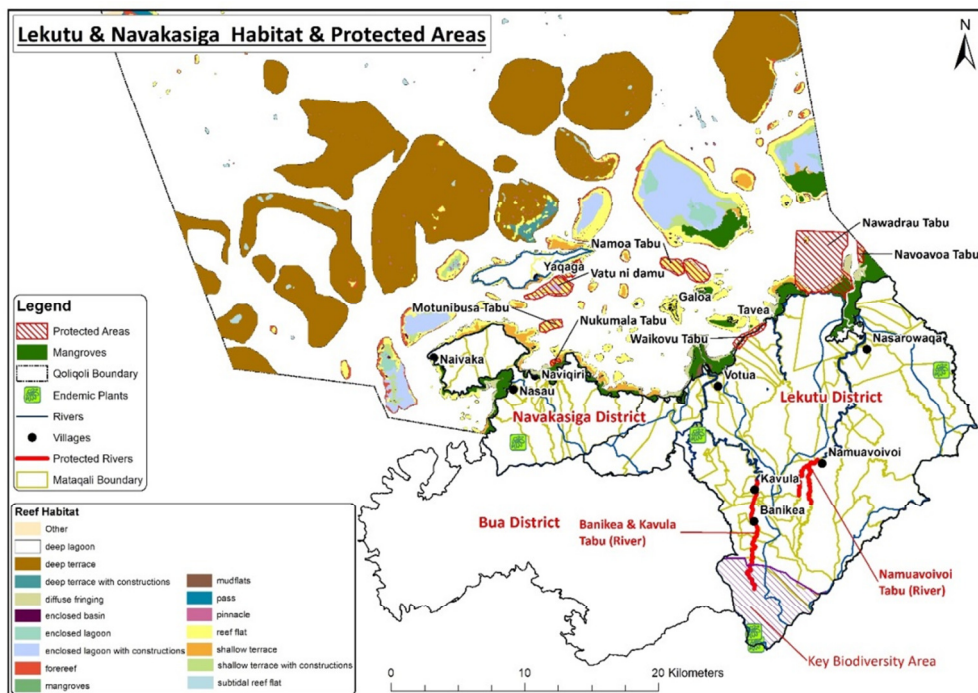


Figure 3.6 The different types of habitats found within Lekutu and Navakasiga *qoliqoli* and areas currently under protection.

3.6 Threats to Habitats

3.6.1 Terrestrial and Freshwater

The forests and freshwater areas of the Mt. Navotuvotu-Mt. Kasi forest corridor are under imminent threat from logging, mining and invasive species (Figure 3.7). Fifty-nine percent of the Mt. Navotuvotu KBA is currently allocated as logging concessions, while 80% of the Mt. Kasi KBA is under mining tenement (WCS, unpublished data). Without management, there is a high risk that these critically endangered flora and fauna could be impacted, as well as vital sources of clean drinking water. In addition adjacent near-shore habitats could be degraded by increased sedimentation associated with logging and mining.

3.6.2 Estuarine and Marine

Mangroves and seagrass meadows are directly threatened from inland activities. Threats to mangroves habitats include mangrove cutting, sedimentation, use of pesticides and herbicides, deforestation, logging, and littering. Sedimentation is considered the biggest threat to seagrass meadows, followed by tropical cyclones and storms surges. These threats can equally affect coastal fringing reefs. Reefs are additionally impacted by overfishing, and coastal communities in Lekutu and Navakasiga Districts have observed an increasing number of boats from other districts and province fishing on their reefs. Corals are also threatened by impacts from climate change, such as elevated sea surface temperatures which can cause the animals to become stressed and die. When the coral animals die, their hard skeleton structures that form the shape of the reefs can break down, causing loss of habitat for important food fish and invertebrates.

4 IMPLEMENTATION PLAN

4.1 OVERVIEW

Through a range of consultations, planning and conceptual modelling activities, the communities in Lekutu and Navakasiga Districts have established four management targets for terrestrial, freshwater, coastal, estuarine and marine ecosystems. As part of this local adaptive management process, communities together outlined their vision for the future to represent what they are working towards and identified management goals and targets to focus planning and measure progress.

Ecosystem-based management principles were applied to highlight direct and indirect threats to achievement of management targets. Community representatives also explored the social, economic, societal and institutional factors which underlie or allow these threats to occur. This enabled the identification of appropriate strategies and specific actions through which to mitigate threats and achieve desired results. The actions formed the basis of a management implementation plan. A version of this implementation plan in Fijian will be distributed to communities and stakeholders and will be available from the Resource Management Committee or WCS on request.

Management goals are outlined in Table 4.1 and described in this section. This section also includes a summary of the targets nested within these goals, threats, management rules, management activities and best practice considerations across the districts of Lekutu and Navakasiga.

Conceptual models were developed by communities during the workshop. The communities were divided into the three thematic areas (terrestrial, freshwater, coastal and marine). The main purpose of the exercise was to identify the natural resources within the thematic areas that need to be restored or replenished. Communities also identified the various threats and root causes that are major barriers to achieving their management targets. Strategies to address the threats and root causes were also developed. It is hoped that by implementing these strategies the communities will be able to achieve their management targets for their benefit and also the benefit of their future generations.

Table 4.1 Ecosystem types and management goals identified in the ecosystem-based management planning workshop in Tavea Village, Lekutu District, Bua.

Ecosystem type	Management goals
Terrestrial	Clean healthy rivers and streams, abundant indigenous birds and trees.
Freshwater	Clean drinking water and healthy river systems, abundant gravel, and healthy riparian vegetation.
Coastal	Healthy mangroves, good source of protein and medicine.
Marine	Abundance of gigantic corals and invertebrates, plentiful mangroves, and increased fish abundance and biomass.

4.1.1 Management Rules

Communities have identified a range of management rules relating to local resources and ecosystems, as well as new rules to manage behaviours and address threats. This process highlighted existing rules and laws that were not being implemented. Existing management rules are outlined in the following process sections.

4.1.2 Protected Areas

Setting aside areas to be protected from hunting, fishing, gathering or other types of resource extraction has long been practiced as a mechanism for sustainable management in Fiji. Although Fijians have long implemented *tabus* (periodically harvested closures) on harvesting various resources, this type of customary management was often implemented for social, cultural or spiritual reasons, such as to conserve food for feasts or to respect the passing of a chief, rather than explicitly for conservation. Modern community conservation initiatives have increasingly linked to these cultural practices in Fiji.

This plan has sought to integrate terrestrial, freshwater and marine ecosystems within a network of protected areas through an ecosystem-based management approach. The community declared protected areas in Lekutu and Navaksiga and their management rules are shown in Table 4.2 below.

Table 4.2 Community coastal and marine protected areas in Lekutu and Navakasiga Districts.

VILLAGE	PROTECTED AREA & HABITAT	MANAGEMENT RULE	EXCEPTION	AREA (km ²)
LEKUTU DISTRICT				
Nasarowaqa Village	Nawadrau Island and Navoavoa Marine and Coastal Mangrove Protected Area	Tabu for 3 years (optional). 2015–2018	Open for traditional and religious ceremonies ONLY, by approval from the <i>Liuliu ni Yavusa</i>	16.2 km ²
Votua Village	Lekutu River to Nukudamu coastal mangrove	Tabu for 3 years starting now: August 26, 2016–2019	Open ONLY if a chief dies or for a traditional District gathering or religious ceremony within the <i>Tabacakacaka</i>	0.5 km ²
Tavea Island	Matasawanidoi to Selesele Coastal Mangrove Area Matasawa – Nawavu Mangrove Coastal Area	Tabu for 5 years, 2015–2020		0.46 km ²
Galoa Village	Namoa and Lasea reefs marine <i>tabus</i> Vatoo Reef	Tabu for 5 years, Jan 2016–Jan 2021 Vatoo reef will be open to members of Lekutu and Navakasiga districts only. Other communities will not be allowed to fish in this area.	Open for traditional and religious functions only with the approval from the <i>Turaga ni Qele in Galoa</i>	3.9 km ²
Yaqaga Village	Vatunidamu and Tulacici reefs	Tabu for 5 years		4.3 km ²

NAVAKASIGA DISTRICT				
Naiviqiri Village	Motu ni busa, this is a Marine protected area	This was protected since 2014 for 5 years	Open for traditional functions,such as the funeral of their chief for 2–3 days	1.1 km ²
Nasau Village	Nabalevu Coastal and Marine Tabu	This tabu will be for 3 years from 2016–2019	Open after 3 years to pay for the villages tertiary students tuition	3.3 km ²
Baravi - Navakasiga	Dokanivale and Vananikia Reefs Tabu	Tabu will will be for 3 years from 2016-2019	None	0.75 km ²

4.2 MANAGEMENT OF TERRESTRIAL AND FRESHWATER ECOSYSTEMS

4.2.1 Management Targets for Terrestrial and Freshwater Ecosystems

Due to overlapping threats and integrated strategies, management of terrestrial and freshwater ecosystems have been consolidated in the following section of the management plan. The four priority management targets, the keys threats to these targets, factors contributing to these threats, and strategies to reduce the threats are listed in table 4.3 below. These targets and threats are illustrated graphically as conceptual models in Appendix 4, 5, 6, and 7.

The management targets are:

- Plentiful boulders, rock and gravel
- Clean and healthy drinking water and rivers
- Abundant riparian vegetation, and
- Abundant native trees and native birds

Table 4.3 Freshwater and terrestrial targets and threats, contributing factors and potential strategies to reduce threats.

Targets	Threats	Contributing factors	Strategies
Plentiful boulders, rock and gravel	Gravel extraction	Road construction, need for money,	Increase awareness about: legislation regarding gravel extraction;and more sustainable livelihoods
Clean and healthy drinking water and rivers	Dumping rubbish and setting pig pens close to rivers; unsustainable logging.	No place to dispose rubbish, people don't understand environmental impact of their actions, laziness to dispose of rubbish properly, easy to clean pig pens, Improper EIA, lack/no monitoring of logging practices.	Install rubbish pits and ensure they are maintained (<i>Raikoro</i> to inspect). Ensure that construction or village projects dispose of waste correctly, establish a village rule that pig pens be built away from rivers banks and increase awareness why.
Abundant riparian vegetation	River bank logging	Cattle raising and farming for cash, need for housing materials	Raise awareness on impacts of bank logging and clearing riparian vegetation, give communities other options for

			housing materials such as invasive trees, develop alternative livelihoods
Abundant native trees and native birds	Unsustainable and commercial logging, burning, livestock farming, habitat loss	Improper EIA, no monitoring, need for money, lack of awareness, farming, laziness, no site assessment and need for housing timbers	Increase awareness about value of native forest and birds, set up nurseries for native trees and sell as a source of income, get advice from relevant stakeholders, establish forest protected areas, implement a village rule banning burning, find alternative sites for cattle



Workshop participant explaining the conceptual modelling exercises to identify and explore threats in relation to management targets. ©WCS

4.2.2 Terrestrial and Freshwater Protected areas

Kavula and Banikea Villages, the two inland villages within Lekutu District, have identified part of the Kavula River to be protected. The river has lost most of its invertebrates and fish due to gravel extraction and overharvesting. Their main goal for protecting part of the Kavula River for 3 years is to help replenish, restore and conserve the terrestrial and freshwater ecosystem (Figure 3.6). The communities in Namuavoivoi Village have also established a Freshwater Protected Area. The Tavua River was proposed by the chiefly clan – *Tavua* – to be protected. It has been protected for the last 3 years and this was declared by the *Marama ni Yavusa* in *Namuavoivoi Adi Senimili*. This area can only be opened upon her approval for the yearly cleaning of the village burial site, which is usually done on the last day of the year.



The view of Navakasiga Bay from Lekutu District. ©Waisea Naisilisili/WCS

4.2.3 Management Rules for Terrestrial and Freshwater Ecosystems

Communities have identified a range of management rules relating to terrestrial and freshwater ecosystems they wish to adopt (Table 4.4). As well as rules to manage behaviours and address threats, this process highlighted existing rules and laws that were not being implemented. These management rules apply to all marine areas in Lekutu and Navakasiga Districts.

Table 4.4 Management rules adopted for Lekutu and Navakasiga Districts.

Management Rule	Exception	National	District ¹⁸	Management Action ¹⁹
LOGGING				
Logging is prohibited within 50 m of river banks.	Bridges and stream crossings approved by Forest Department.		X ²⁰	Turaga ni-mataqali to ensure this rule is included in native land lease and/or forest license as a condition of consent. Monitor compliance and report breaches to LNRMC
Logging operations must leave buffer strips beside rivers and streams: <ul style="list-style-type: none"> • 20m stream width: 30m buffer • 10-20m stream width: 20m buffer • 0-10m stream width: 10m buffer 	Bridges and stream crossings approved by Forest Department.	X ²¹		Monitor compliance with <i>Forest Harvesting Code of Practice</i> and notify Forest Department of breaches. Note: Stream width is measured from bank to bank. Buffer width is horizontal distance measured from stream bank.
Commercial logging operations must not be commenced without environmental impact assessment (EIA) and approval from the Department of Environment.		X ²²		Monitor new logging operations and report breaches to the Department of Environment and Forest Department.
Commercial logging operations must not be commenced without the consent of landowners and approval from the iTaukei Land Trust Board and Department of Forestry		X ²³		Monitor new logging operations and report breaches to the iTaukei Land Trust Board and Forest Department.
Logging operations must comply with logging licence conditions and the <i>Forest Harvesting Code of Practice</i>.		X ²⁴		Monitor compliance with <i>Forest Harvesting Code of Practice</i> and notify Forest Department of breaches.

²⁰ Adopted by the WRMC in Nakawakawa, February 2012, and approved by the Wainunu Hierarchy Council (Bose Vanua) in March 2012.

²¹ Forest Decree 1992, Fiji Forest Harvesting Code of Practice 2008.

²² Environment Management Act 2005, Schedule 2, Part 1.

²³ Native Lands Trust Act, Forest Decree 1992.

²⁴ Forest Decree 1992, Fiji Forest Harvesting Code of Practice 2008.

Rare or protected tree species must not be felled or taken.		X ²⁵		Monitor compliance with <i>Forest Harvesting Code of Practice</i> and notify Forest Department of breaches.
FARMING AND LIVESTOCK				
Clearing, burning and farming are prohibited within 10 m of river banks	None		X	Raise awareness of rule. Monitor compliance. Report breaches to the <i>bose vanua</i> .
Livestock and piggeries are prohibited within 30 m of river banks.	None		X	Raise awareness of rule. Monitor compliance. Report breaches to the <i>bose vanua</i> .
FISHING				
Introduction or farming of invasive fish species is prohibited.	Where tilapia are already kept in ponds that are sufficient distance from rivers/streams (outside the floodplain).		X	Raise awareness of rule. Monitor compliance. Report breaches to the <i>bose vanua</i> .
Destructive fishing methods are prohibited: - Chemicals and poisons - Nets with mesh less than 50mm - Night Fishing	Hand nets with a mesh of 40 mm can be used for freshwater prawns.	X ²⁶	X	Raise awareness of rule. Monitor compliance. Report breaches to the <i>bose vanua</i> .
DEVELOPMENT AND WASTE				
No extraction of gravel from rivers without appropriate consideration of the environmental impacts	Development that is beneficial to us all and has received approval from the Department of Lands.	X ²⁷		Department of Environment ensure EIAs in compliance with Environmental Management Act (EMA)
Dumping of rubbish is prohibited	None	X ²⁸	X	Report commercial/industrial breaches to Department of Environment. Report other breaches to RMC.
Industrial or commercial development must not be undertaken without Environmental Impact Assessment.	None	X ²⁹	X	Report breaches to Department of Environment.

²⁵ *Fiji Forest Harvesting Code of Practice 2008 (see Appendix 1 for list of protected species).*

²⁷ *Crown Lands Act [Cap 132], s.10* states that material on the streambed belongs to the government and its extraction requires approval from Department of Lands. The Environmental Management Act states that an Environmental Impact Assessment is required for gravel extraction (under Schedule 2, Part 1) when it involves dredging or excavating a river bed.

²⁸ *Litter Decree 1991, s8.*

²⁹ *Environment Management Act 2005.*

4.2.4 Best Practice Considerations for Terrestrial and Freshwater Ecosystems

To maintain and restore the health, productivity and resilience of freshwater and terrestrial ecosystems, the best practices outlined in Table 4.5 were adopted by local communities from Lekutu and Navakasiga Districts.

Table 4.5 Best practice recommendations for terrestrial and freshwater ecosystems.

RECOMMENDATION	REASON
FARMING	
Do not use fire to clear land for farming.	Burning reduces soil fertility, increases soil erosion and reduces downstream water quality.
Do not clear, burn or farm within 30 metres of stream and river banks.	Broad riparian buffers reduce soil erosion and improve downstream water quality.
Do not allow clearing, burning, farming or grazing in drinking water catchments.	Clearing, burning and grazing reduces the quality and quantity of drinking water.
Use fertilisers and pesticides only as necessary, and always follow manufacturer's instructions.	Fertilisers cause algal growth and eutrophication. Many pesticides are toxic to people and animals.
Do not farm steep slopes. Use terrace and contour planting to control soil erosion.	Farming steep slopes increases soil erosion and reduces downstream water quality.
FORESTS AND WATER CATCHMENTS	
Do not allow clearing, burning, logging or grazing in old growth forests.	Old growth forests are home to many unique species, and may take centuries to fully recover.
Do not allow clearing, burning, logging or grazing within 100 metres of old growth forests.	Logging and grazing near old growth forest increases the risk of invasive species.
Do not allow logging within 30 metres of a river or stream.	Broad riparian buffers reduce soil erosion and improve downstream water quality.
Do not allow logging in drinking water catchments.	Logging reduces the quality and quantity of drinking water.
Monitor logging operations and report breaches of logging code of practice or licence conditions.	Community monitoring ensures compliance with environmental protection rules.
Replant logged areas using local native species.	Restoring forests after logging helps to maintain water catchment health and biological diversity.
RIVERS AND RIPARIAN ZONES	
Restore degraded river banks and riparian zones by planting native trees and shrubs.	Riparian vegetation reduces erosion and provides food and shade for freshwater fauna.
Do not build crossings, weirs or other structures in a manner that prevents fish migration.	Migration up and down rivers is a vital part of the life cycle of many fishes, including food fish.
INVASIVE SPECIES	
Do not introduce invasive species.	Invasive species reduce agricultural productivity and threaten native plants and animals.

4.3 MANAGEMENT OF COASTAL AND ESTUARINE ECOSYSTEMS

4.3.1 Management Targets for Coastal and Estuarine Ecosystems

The following management targets were identified for coastal and estuarine ecosystems in Lekutu and Navakasiga:

- Maintain or increase total **area of mangroves**.
- Maintain or increase abundance and biomass of **fish and invertebrates**.

Participants also identified the following key threats to the health and productivity of estuarine and coastal ecosystems in Lekutu and Navakasiga District (Table 4.6).

Table 4.6. The management targets for coastal and marine ecosystems and their corresponding threats, contributing factors, and possible strategies to reduce these threats.

Targets	Threats	Contributing factors	Strategies
Increase total area of mangrove	Mangrove clearing for firewood Reclamation for coastal development	Lack of awareness on the importance of mangrove ecosystems	Increase awareness about importance of mangroves and management rules, Find alternative sites for development
Maintain or increase abundance and biomass of fish and invertebrates	Over-exploitation of mangrove and estuarine fisheries Commercial fishing Destructive fishing practices such as using compressors, night diving Poaching	Increased market demand Unlimited fishing licences issued Increased need for money (linked to growth in population and paid-for goods and services) Management rules not enforced	Increase awareness of fish and invertebrates harvest size limits, life cycle and maturity, enforce invertebrate management rules, implement coastal and marine protected areas

4.3.2 Management Rules for Coastal and Estuarine Ecosystems

The following management rules apply to all coastal and estuarine areas in Lekutu and Navakasiga Districts (Table 4.7).

Table 4.7. Coastal and estuarine management rules and actions.

Management Rule	Exception	National	District	Management Action ³⁰
FISHING AND CRABS				
Ban use of destructive fishing gears such as compressor and night diving.		X ³¹	X	Raise awareness of size limits (distribute tables and rulers). Monitoring by fish wardens.
Using a net in an estuary or within 100 m of the mouth of any river or stream is prohibited.	Fishing with a hand net, wading net or cast net.	X ³²		Monitoring by fish wardens. Report breaches to Department of Fisheries.
"Digging up" crabs and mud crabs (and destroying their holes) is prohibited.			X ³³	Raise awareness. ³⁴ Monitor. Report breaches to WRMC.
Harvesting undersized fish and crabs is prohibited.		X ³⁵		Raise awareness of size limits (distribute tables and rulers). Monitoring by fish wardens.
Taking any of the protected species listed in Appendix 1 is prohibited.		X ³⁶		Report breaches to the Department of Environment.
MANGROVE CUTTING				
Cutting and clearing of mangroves is prohibited.	Harvesting approved by the <i>bose vanua</i> , Department of Forestry and Department of Lands.	X ³⁷	X	Monitor and report breaches to Forestry and Department of Lands.
PIGS AND LIVESTOCK				
Livestock and piggery are prohibited within 50m of mangrove forest and coastal high tide mark.			X	Monitor. Report breaches to SRMC or directly to the Hierarchy Council

³⁰ See Section 5 for more detailed guidelines and protocols for monitoring and enforcement of management rules.

³¹ *Fisheries Regulations* rr. 18, 19, 21, 25B (See Appendix 3 for guidance on minimum catch sizes).

³² *Fisheries Regulations* r.7 (refer to Appendix 2 for definitions of net types).



³³ Adopted by the WRMC in Nakawakawa, February 2012, and approved by the Wainunu Hierarchy Council (Bose Vanua) in March 2012.

³⁴ Promoting sustainable methods of catching by hand, hooking from burrows and using baited hoop nets or pots.

³⁵ *Fisheries Regulations* rr. 18, 19, 21, 25B (See Appendix 3 for guidance on minimum catch sizes).

³⁶ *Fisheries Regulations, Endangered and Protected Species Act 2002*.

³⁷ Commercial use of mangroves is prohibited without a license: *Crown Lands Act* [Cap. 132], s.32. *Forest Decree 1992*, ss.9, 22. Customary rights to harvest timber for firewood and village construction are protected in *Forest Decree*.

WASTE DISPOSAL				
Dumping of rubbish in estuaries, mangroves and on foreshores is prohibited		 ³⁸		Report breaches by commercial or industrial facilities to Department of Environment. Report other breaches to boso vanua

4.3.3 Best Practice Considerations for Coastal and Estuarine Ecosystems

To maintain and restore the health, productivity and resilience of coastal and estuarine ecosystems, a number of best practices were adopted by the communities of Lekutu and Navakasiga districts (Table 4.8).

Table 4.8 Best practice recommendations for costal and estuarine ecosystems.

RECOMMENDATION	RATIONALE
Limit harvesting of mangroves to ensure no net loss in mangrove area.	Mangroves are valuable as a fish hatchery, nursery, feeding ground and habitat.
Restore degraded mangrove areas by planting native mangrove species.	Mangroves reduce coastal erosion and provide valuable protection from storm surges.
Industrial or commercial development must not be undertaken without environmental impact assessment. ³⁹	A wide range of environmental impacts may result from such development, for example coastal erosion or pollution and damage to natural ecosystems such as mangroves.
Do not take undersized crabs or female crabs	Releasing undersize crabs and female crabs increases the productivity of the population.

4.4 MANAGEMENT OF MARINE ECOSYSTEMS

4.4.1 Management Targets for Marine Ecosystems

The communities in the district of Lekutu and Navakasiga have noticed a decrease in fish abundance and biomass within their customary fishing area. They have also been collecting invertebrates at a smaller size, before they cannot complete their life cycle. Destructive fishing methodologies, which damage coral reefs and the overall health of the marine ecosystem, have also increased. In addition many mangroves have been removed for housing materials and firewood, contributing to coastal erosion and less habitat for coastal invertebrates such as mussels (*kaikoso*) or mud crabs, mud lobsters and others.

³⁸ Litter Decree 1991, s8.

³⁹ Environment Management Act, 2005

In response to these threats, the communities have identified three marine targets to focus their management efforts and replenish their customary fishing area:

1. Increase abundance and biomass of **food fish** and **endangered fish species** (including bumphead parrotfish, grouper, emperor and humphead wrasse);
2. Increase **invertebrate abundance and biomass**, including clams, mud crabs, lobseters and sea cucumbers; and
3. Maintain or improve abundance and diversity of **coral species** and enhance the health, productivity and resilience of coral reefs.

Table 4.9 Marine targets, threats, contributing factors and strategies to reduce threats.

Targets	Threats	Contributing factors	Strategies
Abundance of food fish	Night diving, poaching, Chiefs bribed for licenses	Market demand, Lack of enforcement of management rules, greediness	Empower RMCs to enforce management rules, establish more MPAs, create new legislation prohibiting chief bribery
Invertebrates abundance	Overfishing during normal and breeding seasons, commercial fishing, improved fishing techniques (compressor and scuba diving)	Unlimited fishing licenses issued, fast cash, Livelihood need	Increase awareness of harvest size restrictions, invertebrate life cycles, enforce compliance of harvesting invertebrates from RMC's, establish marine protected areas
Healthy coral reefs	Sedimentation, fragmentation/breakage of corals, coastal pollution, pig pens on mangrove and coastal areas	Destructive fishing techniques (includes gear types and invertebrate fishing), lack of awareness, deforestation, mining, road upgrades, development	Increase awareness of importance of coral, ban use of destructive fishing gear, proper EIA consultation so people are aware of development impacts

4.4.2 Threats to Marine Ecosystems

The key threats to the health and productivity of marine ecosystems in Lekutu and Navakasiga Districts are described in Table 4.9. The communities lack of alternative income sources were identified as an underlying driver of their intensive farming methods (linked to soil erosion and excessive chemical use) and over-exploitation of marine fisheries. Participants emphasised the need to develop small business proposals and to prioritise education for youth to improve their career prospects. These targets and threats are illustrated graphically in Appendix 4 and provided a reference when identifying protected areas and drafting management rules and activities.

4.4.3 Marine Protected Areas

Figure 4.1 below shows the marine protected areas (MPAs) with in the Lekutu and Navakasiga fishing grounds, with management rules and responsibilities for these areas outlined in Table 4.2.

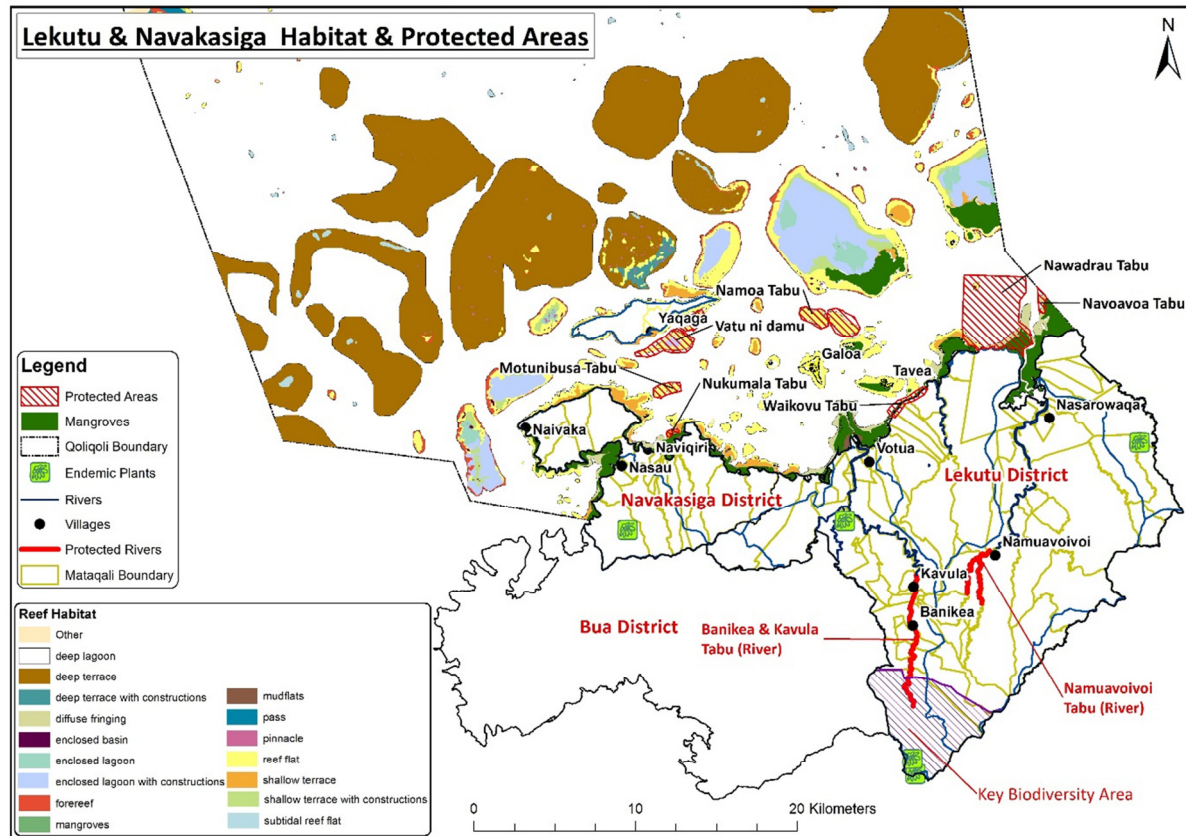


Figure 4.1 Map of community protected areas and fishing grounds in the district of Lekutu and Navakasiga Districts.

Table 4.10 National and district management rules for marine ecosystems and summary of management actions.

Management Rule	Exception	National	District ⁴⁰	Management Action ⁴¹
Night diving is prohibited	None		X	Monitoring by fish wardens. Report breaches to the <i>bose vanua</i> .
Leaving nets overnight (or for a period more than 1 tide) is prohibited	None		X	Monitoring by fish wardens. Report breaches to the <i>bose vanua</i> .
The use of dynamite is prohibited	None	X ⁴²		Monitoring by fish wardens. Report breaches to Fisheries Department.
Use of <i>derris</i> roots (fish poison) prohibited	None	X ⁴³		Monitoring by fish wardens. Report breaches to Fisheries Department.
Use of snorkel or SCUBA and compressor for fishing is prohibited	Except for scientific survey	X ⁴⁴		Monitoring by fish wardens. Report breaches to Fisheries Department.
Taking of undersized fish, smaller than their size limit is prohibited	None	X ⁴⁵		Monitoring by fish wardens. Report breaches to the <i>bose vanua</i> .
Nets with mesh size less than 50 mm are prohibited ⁴⁶	None	X ⁴⁷		Monitoring by fish wardens. Report breaches to the <i>bose vanua</i> .
Catching, eating or sale of humphead wrasse is prohibited	None	X ⁴⁸		Monitoring by fish wardens. Report breaches to Fisheries Department.
Catching turtles & collection of turtle eggs is prohibited	None	X ⁴⁹		Monitoring by fish wardens. Report breaches to Fisheries Department.

⁴⁰ District management rules were proposed at the *Ecosystem-Based Management Planning Workshop* (Tavea 4-6 February 2014), modified at the *Management Support Workshop* (Naiviqiri, Nasarowaqa and Kavula) and consulted on through the Lekutu hierarch council (*bose vanua* in July 2016).

⁴¹ See Section 5 for more detailed guidelines and protocols for monitoring and enforcement of management rules.

⁴² *Fisheries Act* (Cap 158) s 10(4). Fines up to FJD5,000 and mandatory jail term for all convictions

⁴³ *Fisheries Regulations* r8 bans use of any *derris* or *duva* extract for fishing in Fiji

⁴⁴ Fisheries (Restrictions on use of Breathing Apparatus) Regulations 1997 r 4: anyone using or owning underwater breathing apparatus to catch fish is liable to a fine of \$400 and/or imprisonment for six months

⁴⁵ Catching fish that have not yet reproduced reduces the productivity of the fishery (see Appendix 3 for guidance on fish catch size limits)

⁴⁶ *Fisheries Regulations* r16 (hand nets with a mesh of 40mm can be used for freshwater prawns and nets with a mesh of 15mm can be used for sardines) – see Appendix 2 for net size limits

⁴⁷ *Fisheries Regulations* r16

⁴⁸ Endangered and Protected Species Act 2002

⁴⁹ The moratorium on taking of killing turtles contained in *Fisheries (Moratorium on Molesting, Taking or Killing of Turtles) Regulations 1997, r 20A*, which expired on 31 December 2008, was extended until 31 December 2018.

Management Rule	Exception	National	District ⁴⁰	Management Action ⁴¹
Fishing for “trade or business” without a fishing licence is prohibited	None	X ⁵⁰		Monitoring by fish wardens. Report breaches to Fisheries Department.
Breaching the conditions of a fishing license is prohibited	None	X ⁵¹		Monitoring by fish wardens. Report breaches to Fisheries Department.
Taking any of the protected marine species listed in Appendix 1 is prohibited.	None	X ⁵²		Monitoring by fish wardens. Report breaches to Department of Environment.

4.4.4 Best practice for Marine Ecosystems

To maintain and restore the health, productivity and resilience of marine ecosystems, the practices outlined in Table 4.11 below are recommended.

Table 4.11 Best management practices for marine ecosystems.

RECOMMENDATION	RATIONALE
Do not take fish or invertebrates that are gravid (e.g. large stomach fish, berried crustaceans).	Protecting gravid fish and crustaceans increases the productivity of the fishery.
Do not take fish in migratory “bottlenecks” during peak migration seasons.	Targeting migrating fish in reef channels or estuaries reduces the productivity of the fishery.
Consider relocating giant clams to marine protected areas or <i>tabu</i> areas.	Protecting clams until they reach reproductive size will help local clam populations to recover.
Do not take sharks.	Sharks are apex predators at the top of the food chain and play a vital role in maintaining balanced marine ecosystems
Maintain spawning aggregations by protecting spawning sites, including reef channels.	Protecting spawning aggregation sites increases the productivity of the fishery.
Do not take fish or invertebrates smaller than the Recommended Catch Size Limits listed in Appendix 3.	Catching fish that have not yet reproduced reduces the productivity of the fishery.
If MPAs are opened, do not use nets with a mesh size less than 75 mm (except for small hand nets), limit take to amount likely to have accumulated during closure, leave the largest females to reseed the population, and shut down the harvest once the target has been reached.	Periodic harvesting can affect species abundance and diversity, wiping out any management gains through the <i>tabu</i> .

⁵⁰ Fisheries Act (Cap 158) s 5(3)

⁵¹ Fisheries Act (Cap 158) s 5(3)

⁵² Fisheries Regulations, Endangered and Protected Species Act 2002 (see Appendix 1 for protected species list).

4.5 ACTION PLAN

A list of management activities was identified by local communities to help guide the initial implementation of the Lekutu and Navakasiga Districts' Ecosystem-Based Management Plan (Table 4.12). Annual activity plans will be further developed with the Lekutu and Navakasiga Resource Management Committee to help guide implementation, to ensure they achieve the targets identified, and are adaptive to the needs of the people.

Table 4.12 Initial activities to progress implementation of the management plan.

ISSUE	ACTIVITY	IMPLEMENTATION	TO BE COMPLETED BY
Officially establish and bless the Tabu Areas and management plan	Arrange blessing/ launching ceremony	BYMST, WCS, LNRMC, BPO	26 Aug, 2016
Organise District committees to implement and monitor the management plan	Organise briefings at village meetings, where they will plan and organise the first meeting of Village Yaubula Committees and nominate LNRMC members. WCS will work with the committee to develop a detailed implementation plan.	LNRMC, BYMST	Oct – Dec 2016
Need to raise community awareness about the management plan	Distribute copies of the management plan and related poster/materials across Lekutu and Navakasiga Districts	LNRMC	Sept 2016
Lack of awareness of sustainable fishing practices, marine protected areas and marine management rules	Education/training workshop on sustainable fishing practices (plus distribution of fish posters, MPA maps and management rules), involving local fishers, fish wardens and LNRMC members	LNRMC, Department of Fisheries - Nakadrudru	Sept – Oct 2016
Lack of awareness of the impacts of logging and failure to comply with rules and laws	Education/training to build understanding and help apply principles of forest conservation Partner with C-Change and the Wakatu campaign to promote importance of Fiji's forests.	Department of Forestry & C-Change	2017
	Circulate copies of the Fiji Forest Harvesting Code of Practice to those monitoring forest areas	Department of Forestry, WCS	2017
Need effective monitoring and enforcement to implement the plan	Identify and put in place local mechanisms for monitoring terrestrial and freshwater rules, recording any breaches and feeding back to district hierarchy council	WCS, BYMST	2017
Need to change attitudes and practices in local communities	Undertake leadership training and community facilitator training in order to influence attitudes and changes in local practices. WCS will seek to identify funding for training and to support the LNRMC in its application	BYMST, GEF	2017

5 COMPLIANCE AND ENFORCEMENT

5.1 PROMOTING COMPLIANCE

The management rules set out in this management plan represent a synthesis of community rules and national laws relevant to ecosystem management. The community rules are based on extensive consultation and still need to be endorsed by the Tikina Lekutu and Navakasiga Hierarchy Council (*Bose Vanua*). The national laws were created by the national parliament, and are legally binding on all people throughout Fiji.

The Lekutu and Navakasiga Resource Management Committee (LNRMC) is responsible for coordinating activities to **raise awareness** of these management rules, and to **promote voluntary compliance** with the rules. The LNRMC is also aware of the need to **develop awareness and understanding** within local communities through their work. In particular, the LNRMC is responsible for:

- distributing one copy of this **management plan** to **every village** in the district.
- distributing copies of the **management rules** to **every household** in the district.
- organising **meetings** to explain the management rules in **every village** in the district.
- organising **meetings** in **neighbouring districts** to explain the management rules.
- producing **flyers** and other materials to **raise awareness** of the management rules.

The Lekutu and LNRMC will emphasise the benefits of the rules, and highlight the communities' common interest in sustainable management of natural resources and ecosystems in the district. The LNRMC will work with chiefs, church leaders, government officers and other stakeholders to promote awareness of, and respect for, the management rules. The LNRMC Communications Sub-committee will take a leading role on delivering these tasks.⁵³

5.2 MONITORING AND SURVEILLANCE

Lekutu and Navakasiga Resource Management Plan committee is responsible for coordinating monitoring and surveillance activities to identify breaches of the rules set out in this management plan. This task will be delegated to the Enforcement sub-committee⁵⁴, which will be specifically responsible for:

- ensuring adequate training of community fish wardens;
- securing adequate resources and equipment for marine patrols;
- establishing a monitoring and surveillance program to identify breaches of management rules for terrestrial, freshwater and estuarine ecosystems; and
- ensuring adequate recording and reporting of breaches.

⁵³ See section 6.2.1 for an outline of LNRMC sub-committee, roles and functions.

⁵⁴ See section 6.2.1 for an outline of NRMC sub-committee, roles and functions.

5.3 ENFORCEMENT

The options available for enforcement of management rules will depend on whether the rule is a community rule and/or a national law. The management rule tables in this management plan indicate whether each rule is a national law or a district community rule. For example, in the extract below (Table 5.1):

- diving at night is prohibited by a community rule; and
- dynamite fishing is prohibited by a national law.

The footnotes to the table identify the source of the management rule.

Table 5.1. Extract from the marine rules table (Table 4.9), illustrating how rules are referenced by their source.

Management Rule	Exception	National	District	Management Action
Night diving prohibited			X ⁵⁵	Monitoring by fish wardens. Report breaches to LNRMC.
Leaving nets overnight (or for a period more than 1 tide) is prohibited			X ⁵⁶	Monitoring by fish wardens. Report breaches to LNRMC.
Fishing for shark is prohibited			X ⁵⁷	Monitoring by fish wardens. Report breaches to LNRMC.
The use of dynamite is prohibited		X ⁵⁸		Monitoring by fish wardens. Report breaches to Fisheries Department.
Nets with mesh size less than 50 mm are prohibited ⁵⁹		X ⁶⁰		Monitoring by fish wardens. Report breaches to LNRMC.
Catching, eating or sale of hump head wrasse is prohibited		X ⁶¹		Monitoring by fish wardens. Report breaches to Fisheries Department.

⁵⁸ Fisheries Act (Cap 158) s 10(4). Fines up to FJ\$5,000 and mandatory jail term for all convictions.

⁵⁹ Fisheries Regulations r16 (hand nets with a mesh of 40mm can be used for freshwater prawns and nets with a mesh of 15mm can be used for sardines) – see Appendix 2 for net size limits.

⁶⁰ Fisheries Regulations r16.

⁶¹ Endangered and Protected Species Act 2002.

5.3.1 Enforcement of National Laws

The LNRMC Enforcement Sub-committee will play a leading role in enforcing the rules within this management plan. Government officers and police are responsible for enforcing national laws. Courts may impose penalties for breaches of national laws, including fines and prison sentences, and may make other orders, including cancellation of certain types of licence.⁶² In some cases, government agencies have the power to suspend or cancel licences⁶³ or issue binding orders and notices.⁶⁴ Members of the public, including resource owners, can improve law enforcement by monitoring and reporting breaches, and advocating for stricter enforcement by government.

COMMUNITY FISH WARDENS

Community fish wardens play a special role in enforcement of the *Fisheries Act*. Fish wardens who have been appointed by the Permanent Secretary for Fisheries and Forestry have the legal power to:

- order a person to display their fishing licence, gear or catch;
- board and search fishing vessels; and
- if they reasonably suspect that an offence has been committed, take the offender, the vessel, gear and catch to the nearest police station or port.

Obstructing a fish warden from boarding and searching a vessel is a criminal offence.²

It is important to note that fish wardens only have the power to enforce the *Fisheries Act*. They do **not** have the legal power to enforce other legislation or community rules.

Fisheries Act, s.7(1).

² *Fisheries Act*, s.7(2).

Detaining or assaulting a person or taking their things without legal authority is a criminal offence. This means, for example, that it is illegal to seize a fishing vessel only because it was found fishing in a *tabu* area. If a community rule has been breached, it may be useful to investigate whether a national law has also been breached. For example, if a vessel is found fishing in a *tabu* area, investigate whether the vessel has been fishing for trade or business without a licence, using a prohibited fishing method (e.g. poison, dynamite, undersized nets) or taking legally protected fish (e.g. undersized fish).

⁶² For example, fishing licences may be cancelled if the court finds the licence holder guilty of a fisheries offence: *Fisheries Act*, s 8.

⁶³ For example, the Conservator for Forests may revoke a logging licence if a breach has occurred or is likely to occur: *Forest Decree*, s 19.

⁶⁴ For example, the Director of Environment may issue a prohibition notice to prevent an immediate threat or risk to the environment: *Environment Management Act 2005*, s 21.

If you believe that a national law has been breached, the following **enforcement protocol** should be followed:

1. Report the incident to the LNRMC, providing as much detail as possible including:
 - description of the incident
 - location of the incident
 - time and date of the incident
 - name and contact details of the alleged offender
 - registration number of the offender's vessel or vehicle
 - names and contact details of any witnesses
 - photographs, video and/or physical evidence.
2. If LNRMC believes that a law has been breached, LNRMC may report the breach to the police and/or relevant government agency. Relevant government agencies are identified in Appendix 10.
3. The LNRMC must record the details of any report that it makes to the police and/or government agency, including the name and contact details of the officer who received the report.
4. The LNRMC must record the details of any action taken by the police or government agency (e.g. investigation, verbal warning, cancellation of licence, prosecution).
5. If LNRMC is dissatisfied with the response of the police or government agency, it may:
 - contact the relevant officer's supervisor;
 - report the lack of action to the *Bose Vanua*; and/or
 - report the lack of action to partner organisations.

In any case, LNRMC may also initiate the community-based enforcement protocol described in the following section 5.3.2.

5.3.2 Enforcement of Community Rules

Community-based rules must be enforced in a manner that does not breach national laws. It is a criminal offence to assault or detain a person or take their property without legal authority. This means, for example, that it is illegal to seize a vessel only because it was found fishing in a *tabu* area. The members of the Bose Vanua has agreed during their meeting in Votua Village on the 29 July, 2016 that when its time to open their Protected areas, they will need to inform the Bose Vanua so they are aware of it. If a community rule has been breached, the following **enforcement protocol** should be followed:

1. Report the breach to the LNRMC, providing as much detail as possible, including:
 - description of the incident
 - location of the incident
 - time and date of the incident
 - name and contact details of the alleged offender
 - registration number of the offender's vessel or vehicle
 - names and contact details of any witnesses
 - photographs, video and/or physical evidence.
2. The LNRMC must attempt to contact the person alleged to have breached the rule, to inform them of the alleged breach and to ask them to explain their side of the story.
3. If the LNRMC believes that a community rule has been breached, it must inform the *Bose Vanua* of the breach, and may recommend an enforcement response.
4. If the *Bose Vanua* believes that a community rule has been breached, it may order such enforcement action(s) as it considers appropriate within the bounds of the law, including, but not limited to:
 - a verbal or written warning
 - taking the offender to task in a village meeting
 - ordering the offender to perform a community service
 - in the case of a licensed fishing vessel, placing the offender on notice that the Buli Lekutu and Buli Navakasiga will not issue a letter of consent for them or their vessel for a fixed period.

Note: This enforcement protocol may also be used for breaches of national laws, especially in cases where LNRMC considers the response of the police or relevant government agency to be inadequate.

6 MANAGEMENT INSTITUTIONS

6.1 LEKUTU AND NAVAKASIGA HIERARCHY COUNCIL

The Lekutu and Navakasiga Hierarchy Council (*Bose Vanua*) consists of the paramount chief (Buli Lekutu and Buli Navakasiga) and clan chiefs (*turaga ni yavusa*) of both districts. The communities of Lekutu and Navakasiga recognise the traditional authority of the *Bose Vanua* to make decisions in relation to a wide range of matters affecting community life, including the use and management of natural resources.

6.2 LEKUTU AND NAVAKASIGA RESOURCE MANAGEMENT COMMITTEE

The Lekutu and Navakasiga Resource Management Committee (LNRMC) is composed of at least one representative from each village, nominated by their village and appointed by the *Bose Vanua*. The LNRMC representatives may be appointed for a 3 year term, with the option of reappointment for a further 3 years. The position of chair of the LNRMC is a 6 year term. All terms begin from April 2015, when the *Bose Vanua* approved the first draft Lekutu and Navakasiga Ecosystem-based Management Plan. No representative may serve on the committee for more than six years.

The purpose of the committee is to promote and support sustainable management of natural resources in Lekutu and Navakasiga district. The functions of the committee are:

- to coordinate **implementation** of the management activities identified in this management plan;
- to **raise awareness** of the management rules and activities set out in this management plan;
- to coordinate **enforcement** of the management rules set out in this management plan;
- to assess proposed **resource use and development activities**, to ensure they are consistent with this management plan, national laws and ecosystem-based management principles;
- to provide **information and advice** on resource management and alternative livelihoods;
- to **organise training** on sustainable resource management and alternative livelihoods;
- to **liaise with stakeholders**, including resource users, conservation partners and donors;
- to transparently **manage and distribute funds** for resource management and other activities; and
- to **monitor and report** to resource owners and stakeholders on implementation of this plan.

The Lekutu and Navakasiga districts have an existing committee already in place, the Komiti ni Qoliqoli. The main purpose of this committee is to manage funds collected from the fishers who request to fish within the qoliqoli boundaries. The funds are shared amongst the two districts and then further divided to the main chiefs and the Turaga ni Yavusa, so each gets a small share. The LNRMC members are listed in Table 6.1 below:

Table 6.1. Lekutu and Navakasiga Resource Management Committee, membership and office bearers.

<i>Names</i>	<i>Village</i>	<i>Position in Village</i>	<i>Ph.</i>
Senitiki Catanasiga	Votua	chairman – LNRMC	8768782
Ovini Baleinamau	Votua	Mata ni yaubula ni Tikina	9222186
Jone Ledua	Kavula	Turaga ni koro	6030135
Ratu Ilisoni Sanadali	Namuavoivoi		9484625
Jone Kidia	Nasarowaqa		8420898
Emosi Toka	Tavea		8380195
Watisoni Taukei	Galoa	Turaga ni koro	9595119
Usaia Bilo	Yaqaga	Turaga ni koro	
Epineri Ravatu	Nasau		6030758
Semi Navatu	Nasau	Turaga ni koro	6030758
Etuate Roqica	Naiviqiri		
Alivereti Ratematema	Naiviqiri		
Viliame Jiuta	Baravi		
Apenisa Tari	Naivaka		
Paula Turaga	Naivaka		

7 MANAGEMENT ROLES AND PROCESSES

7.1 IMPLEMENTATION OF THE MANAGEMENT PLAN

The LNRMC and both districts' Hierachy Council (*Bose Vanua*) have identified the instutlional structure for effectively implementing the plan, in collaboration with local communities (*vanua*), village leaders, government agencies, NGOs and the private sector (Figure 7.1).

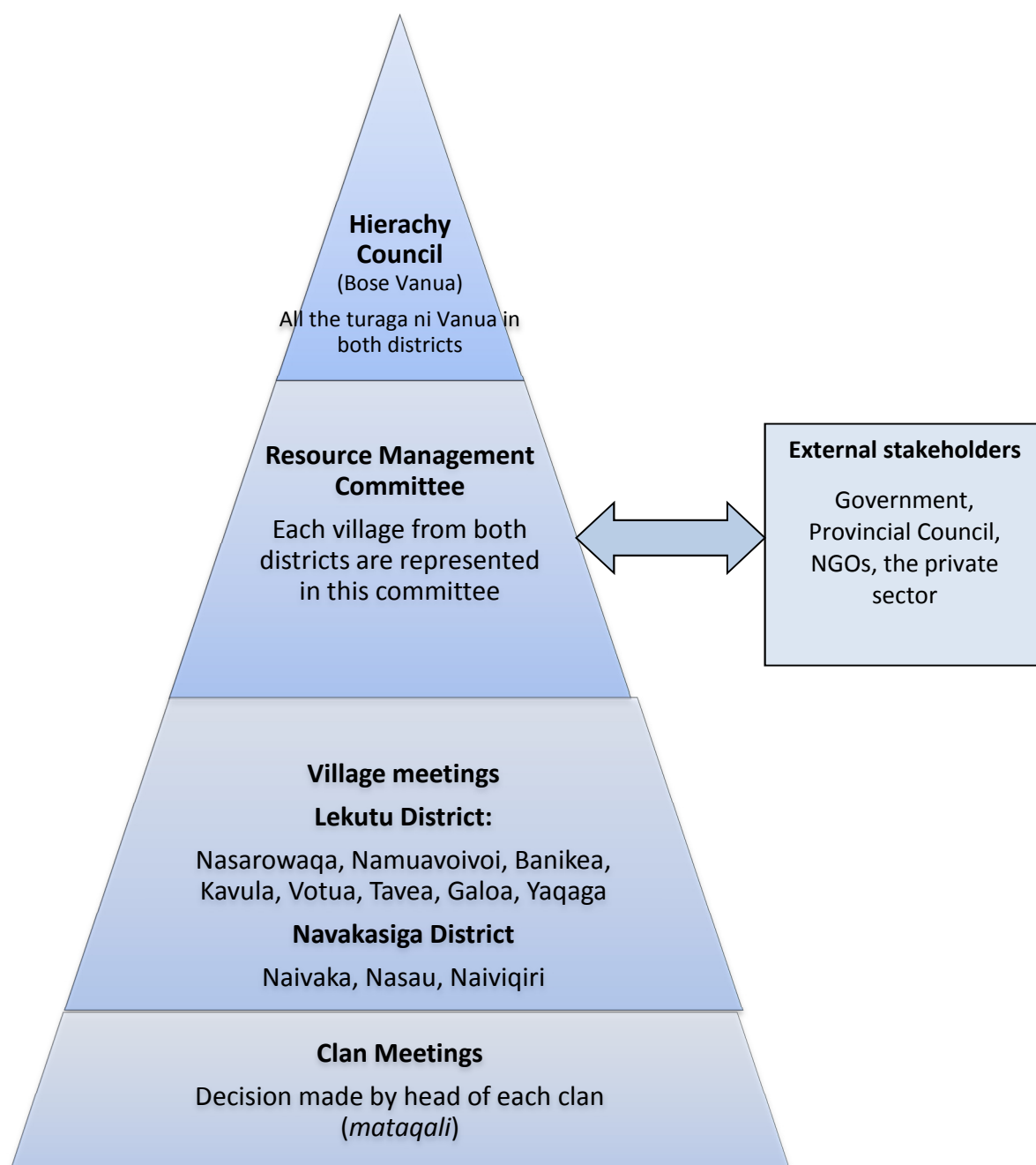


Figure 7.1. These is the final structure for relationships between the Lekutu and Navakasiga Resource Management Committee, the district Hierachy Council, villages and clans, also this will be how decisions are made from a bottom up and top down approach regarding their natural resources.

7.2 MANAGEMENT RULES

The Lekutu and Navakasiga District Hierarchy Council have confirmed the LNRMC's roles and responsibilities, and what they will be tasked to do if communities do not comply with the rules in place within the districts. The management rules provide for certain decisions to be made by persons other than the LNRMC. For example, certain village marine protected areas (*tabus*) may be opened by the relevant local Chiefs (*turaga-ni-yavusa*). In such cases, decision must be communicated to the LNRMC as soon as practicable to ensure they are able to effectively monitor overall implementation of the management plan. Fish Wardens, who are also members of the LNRMC, must work closely with committee and the Fisheries Office to ensure fishermen and other users comply to the Fisheries Act and respect the management efforts in the two districts.

7.2.1 Management Activities

The LNRMC is responsible for liaising with the responsible stakeholder(s) identified for each management activity to ensure it is completed in a timely and effective manner.

7.2.2 Sustainable Financing

This management plan aims to support long-term sustainable development in Lekutu and Navakasiga by maintaining the health and productivity of the districts' ecosystems. It acknowledges that most village households rely on those ecosystems as their primary source of food and income. Communities' commitment to the process will depend to a large degree on how they perceive it to be affecting their income and quality of life. As such, the LNRMC aspires to develop new sources of income generation linked to ecosystem-based management activities to support local sustainable development initiatives, such as:

- scholarships for tertiary education;
- small grants and loans for sustainable microenterprise initiatives; and
- management and restoration of terrestrial, freshwater and marine ecosystems.

Professional, transparent accounting and reporting is needed to ensure efficient and equitable use of funds, and to support sustainable resource management and community development. Scoping is required to identify appropriate activities with income generating potential and business planning will be essential to realise any opportunities arising.

7.3 AMENDMENT OF THE MANAGEMENT PLAN

The process for amending The Lekutu and Navakasiga District's ecosystem-based anagement plan varies depending on the nature of the amendment, and is detailed below.

7.3.1 District-level Management Rules

For amendments to **district-level management rules** – that is, rules that apply throughout the district and to the District protected areas:

1. The proposed amendment must be **submitted in writing** to the LNRMC.

2. The LNRMC Chair must **present** the proposed amendment to the *Bose Vanua*.
3. The *Bose Vanua* may instruct the LNRMC to **consult** with resource owners and/or external stakeholders in relation to the amendment.
4. If the *Bose Vanua* instructs the LNRMC to consult with **resource owners**, the LNRMC must raise the proposed amendment at **village meetings** in every village in the district.
5. If the *Bose Vanua* instructs the LNRMC to consult with **stakeholders**, the LNRMC must provide **written notice** to all relevant stakeholders, and allow a reasonable period for comment.
6. The LNRMC Chair must report to the *Bose Vanua* on **consultation outcomes**.
7. The *Bose Vanua* may **reject** or **approve** the amendment.
8. If the *Bose Vanua* **rejects** the amendment, the LNRMC must:
 - a. post a **written notice** in the village hall in each village in the district; and
 - b. provide **written notice** to all relevant external stakeholders.
9. If the *Bose Vanua* **approves** the amendment, the LNRMC must:
 - a. explain the amendment in a **village meeting** in each village in the district.
 - b. post a **written notice** in the village hall in each village in the district;
 - c. provide **written notice** to all relevant external stakeholders; and
 - d. insert a copy of the written notice in each copy of this **management plan**.

7.3.2 Village-level Management Rules

For amendments to **village-level management rules** – that is, rules that only apply to a particular village, or to designated village *tabu* areas:

1. The proposed amendment must be **approved** by the village chief (*turaga ni yavusa*).
2. If the rules only apply to the land of a particular clan (*mataqali*) – a proposed amendment must be approved by head of that clan. The head of the clan must provide written notice of the amendment to the village chief.
3. The village chief must provide written notice of any amendment to the *Bose Vanua*.
4. The LNRMC must:
 - a. explain the amendment in a **village meeting** in each village in the district.
 - b. post a **written notice** in the village hall in each village in the district;
 - c. provide **written notice** to all relevant external stakeholders; and
 - d. insert a copy of the written notice in each copy of this **management plan**.

7.3.3 Other Amendments

Other amendments may be made as necessary by the LNRMC, with the approval of the *Bose Vanua*. The LNRMC must provide written notice to external stakeholders of any changes to the management plan, and insert a copy of the notice in each copy of the management plan, including the copy kept by each village.

7.4 REVIEW OF THE MANAGEMENT PLAN

This management plan will be reviewed, and amended as necessary, every 5 years. However, if a need arises to amend the plan before this time, then the early amendment can take place with the approval of the LNRMC. The review process must provide an opportunity for village representatives and other relevant stakeholders to comment on the content and implementation of the management plan. The proposed amendments must be endorsed by the LNRMC and the *Bose Vanua*. Copies of the amended management plan must be distributed to each village in the district and all members of the stakeholder consultative group.

8 EXTERNAL STAKEHOLDERS

A wide range of stakeholders can affect, or can be affected by, the use, conservation and management of land and natural resources in Lekutu and Navakasiga Districts. This section outlines those stakeholders engaged in the management planning process to date. With a strong commitment to partnership approaches, LNRMC will engage more stakeholders across public, private and non-governmental sectors as it develops further and in the course of implementation.

Bua Provincial Council

Bua Provincial Council assisted the organisation and facilitation of community engagement in the processes of developing this management plan. Their continued support will be important to ensure future engagement of relevant stakeholders and synchronisation with other activities in the province.

Department of Fisheries

The Department of Fisheries is responsible for promoting the sustainable use and management of fisheries resources. The Department bears statutory responsibility for administering and enforcing the *Fisheries Act*, including issuing fishing licences, declaring restricted fishing areas and responding to illegal fishing activities. The Department also provides fisheries extension and training services.

Department of Forestry

The Department of Forestry is responsible for promoting the sustainable use and management of forest resources. The Department bears statutory responsibility for administering and enforcing the *Forest Decree*, including issuing logging licences, declaring forest reserves and responding to illegal logging activities. The Department also provides forestry extension and training services.

Department of Agriculture and Land-Use Planning

The Department of Agriculture seeks to promote a productive and sustainable agricultural sector. The Department provides extension services and advice in relation to farm management, soil and water conservation, sustainable farming methods, alternative livelihoods and rural microfinance.

Department of Environment

The Department of Environment is responsible for promoting environmental protection and sustainable natural resource use. The Department is responsible for administering and enforcing the *Environment Management Act 2005*, including provisions dealing with environmental impact assessment of development proposals (e.g. tourist resorts, forestry, and mining) and pollution control. The Department is also responsible for formulation and implementation of national environmental policies, including the National Biodiversity Strategy and Action Plan and Climate Change Policy.

Itaukei Lands and Fisheries Commission

The iTaukei Lands and Fisheries Commission was established to register ownership of *iTaukei* lands and customary fishing grounds. The commission is empowered under the *iTaukei Lands Act* (formerly *Native Lands Act*) and *Fisheries Act* to resolve disputes in relation to *iTaukei* land and fishing rights, and is the custodian of the *iTaukei* land register and the register of customary fishing rights.

I-taukei affairs board

The *iTaukei* Affairs Board was established by the *iTaukei Affairs Act* and is responsible for the aspirations of *iTaukei* (indigenous Fijians) and acts as a repository for information pertaining to their good governance and wellbeing. The board develops, implements and monitors policies and programs to ensure the good governance and well being of the *iTaukei*.

Itaukei lands trust board

The iTaukei Lands Trust Board (TLTB, formerly Native Lands Trust Board) is empowered to grant leases over *iTaukei* land under the *iTaukei Lands Trust Act*. The TLTB must exercise its powers for the benefit of the landowners, and may issue *iTaukei* land leases subject to conditions. TLTB is responsible for ensuring compliance with lease conditions, and may cancel any land lease if the conditions of the lease are breached.

Wildlife Conservation Society

The Wildlife Conservation Society (WCS) is committed to the conservation of wild animals and wild places around the world the communities they support. The WCS approach emphasises scientific research, capacity-building, strong partnerships and local engagement. The WCS Fiji Country Program works closely with communities in Lekutu and Navakasiga district to promote and support

ecosystem-based management, by conducting scientific and social research and facilitating community-based management planning processes.

9 APPENDICES

APPENDIX 1 – PROTECTED SPECIES

APPENDIX 2 – NET SIZE LIMITS

APPENDIX 3 – RECOMMENDED FISH CATCH SIZE LIMITS

APPENDIX 4 – TERRESTRIAL THREAT DIAGRAM

APPENDIX 5 – FRESHWATER THREAT DIAGRAM

APPENDIX 6 – COASTAL AND MARINE THREAT DIAGRAM

APPENDIX 7 – LEGAL MECHANISMS FOR ESTABLISHING PROTECTED AREAS

APPENDIX 8 – RESOURCE USE CALENDAR

APPENDIX 9- USEFUL CONTACTS

APPENDIX 1 – PROTECTED SPECIES

SCIENTIFIC NAME	COMMON NAME	FIJIAN NAME	LEGISLATION
FISH SPECIES			
<i>Bryaninops dianneae</i>	Species of goby		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Ecsenius fijiensis</i>	Species of blenny		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Mesopristes kneri</i>		Reve	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Plagiotremus laudandus flavus</i>	Species of blenny		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Plectranthias fijiensis</i>	Species of sea bass		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Rotuma lewisi</i>	Species of common wriggler		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Thamnaconus fijiensis</i>	Species of filefish		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Cheilinus undulatus</i>	Humphead wrasse		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Epinephelus lanceolatus</i>	Giant Grouper		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Bathygobius petrophilus</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Hippocampus kuda</i>	Spotted seahorse		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lairdina hopletopus</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Meiacanthus bundoon</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Parmops echinatus</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Redigobius leveri</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Redigobius sp</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Siganus uspi</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
MARINE REPTILES			
<i>Cheloniidae spp.</i>	Green turtle		<i>Endangered and Protected Species Act 2002, s.3(a)</i>
<i>Dermochelys coriacea</i>	Leatherback turtle		<i>Endangered and Protected Species Act 2002, s.3(a)</i>
<i>Eretmochelys imbricate</i>	Hawksbill turtle		
<i>Caretta caretta</i>	Loggerhead turtle		
<i>Natator depressus</i>	Flatback turtle		
<i>Lepidochelys olivacea</i>	Olive Ridley turtle		

The following species are legally protected throughout Fiji. Possessing, selling or exporting these species without a permit is a criminal offence.

PART 1 – PROTECTED MARINE AND FRESHWATER FAUNA

MARINE MAMMALS			
<i>Phocaena spp.</i>	Dolphin		<i>Fisheries Regulations, r.25</i>
<i>Delphis spp.</i>	Porpoise		<i>Fisheries Regulations, r.25</i>
MARINE INVERTEBRATES			
<i>Charonia tritonis</i>	Davui shell		<i>Fisheries Regulations, r.22</i>
<i>Cassis cornuta</i>	Giant helmet shell		<i>Fisheries Regulations, r.23</i>
CORALS			
<i>Antipatharia spp.</i>	Black corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
<i>Helioporidae spp.</i>	Blue corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
<i>Scleractinia spp.</i>	Stony corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
<i>Tubiporidae spp.</i>	Organ pipe corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
<i>Milleporidae spp.</i>	Fire corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
<i>Stylasteridae spp.</i>	Lace corals		<i>Endangered and Protected Species Act 2002, s.3(b)</i>
SEABIRDS			
<i>Fregata ariel</i>	Lesser frigatebird	Manumanunicagi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Nesofregatta albigularis</i>	Polynesian storm-petrel		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Phethon lepturus</i>	White-tailed tropicbird	Lawedua	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Procelsterna cernula</i>	Blue noddy		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Pseudobulweria macgillivrayi</i>	Fiji petrel	Kacau ni Gau	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Pseudobulweria rostrata</i>	Tahiti petrel	Kacau ni Taiti	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Puffinus inherminieri</i>	Audubon's shearwater		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sula dactylatra</i>	Masked booby	Toro	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sula leucogaster</i>	Brown booby	Toro	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sterna anaethetus</i>	Bridled tern		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sterna bergii</i>	Crested tern	Idre	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sterna fuscata</i>	Sooty tern		<i>Endangered and Protected Species Act 2002, s.3(d)</i>

PART 2 – PROTECTED TERRESTRIAL FAUNA

SCIENTIFIC NAME	COMMON NAME	FIJIAN NAME	LEGISLATION
MAMMALS			
<i>Emballonura semicaudata</i>	Polynesian sheath tailed bat		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Notopterus macdonaldi</i>	Fijian blossom bat		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Pteralopex acrodonta</i>	Taveuni flying fox		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Chaerophon bregullae</i>	Fijian mastiff bat		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
BIRDS			
<i>Clytorhynchus nigrogularis</i>	Black-faced shrikebill	Kiro	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Dendrocygna arcuata</i>	Wandering whistling-duck	Gadamu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Erythrura kleinschmidti</i>	Pink-billed parrotfinch	Sitibatitabua	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gallicolumba stairii</i>	Friendly ground-dove	Qilu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Lamprolia victoria</i>	Silktail	Sisi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Mayornis versicolor</i>	Ogea monarch		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Myzomela chermesina</i>	Rotuma myzomela	Armea	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Nesoclopeus poecilopterus</i>	Barred-wing rail	Saca	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Poliolimnas cinereus</i>	White-browed crane		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Porzana tabuensis</i>	Spotless crane	Mo	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Trichocichla rufa</i>	Long-legged warbler	Manu Kalou	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Aerodramus spodiopygia</i>	White rumped swiftlet	Kakabacea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Anas superciliosa</i>	Pacific black duck	Ganiviti	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Aplonis tabuensis</i>	Polynesian starling	Vocea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ardea novaehollandiae</i>	White faced heron	Belomatavula	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Artamus mentalis</i>	Fiji woodswallow	Kiro	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Butorides striatus</i>	Mangrove heron	Gadamu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cacomantis pyrophanus</i>	Fan tailed cuckoo	Sitibatitabua	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cettia ruficapilla</i>	Fiji bush warbler	Qilu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Clytorhynchus vitiensis</i>	Lesser shrikebill	Sisi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Columba vitiensis</i>	White throated pigeon		<i>Endangered and Protected Species Act 2002, s.3(e)</i>

<i>Ducala latrans</i>	Barking pigeon	Armea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cucula pacifica</i>	Pacific pigeon	Saca	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Egretta sacra</i>	Reef heron		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Erythrura pealii</i>	Fiji parrotfinch	Mo	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Foulehaio carunculata</i>	Wattled honeyeater	Manu Kalou	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gallirallus philippensis</i>	Banded rail	Kakabacea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gymnomyza viridis</i>	Giant forest honeyeater	Ganiviti	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Halcyon chloris</i>	White collared kingfisher	Vocea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Hirundo tahitica</i>	Pacific swallow	Belomatavula	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lalage maculosa</i>	Polynesian triller	Kiro	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Mayrornis lessoni</i>	Slaty monarch	Gadamu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Myiagra azureocapilla</i>	Blue crested broadbill	Batidamu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Myiagra vanikorensis</i>	Vanikoro broadbill	Matayalo	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Myzomela jugularis</i>	Orange breasted myzomela	Delakula	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Pachycephala pectoralis</i>	Golden whistler	Ketedromo	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Petroica multicolor</i>	Scarlet robin	Diriqwala	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Phigys solitarius</i>	Collared lorry	Kula	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ptilinopus layardi</i>	Whistling dove	Soqeda	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ptilinopus luteovirens</i>	Golden dove	Bunako	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ptilinopus perousii</i>	Many coloured fruit dove	Kuluvotu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ptilinopus porphyraceus</i>	Crimson crowned fruit dove	Kuluvotu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ptilinopus victor</i>	Orange dove	Bune	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Rhipidura personata</i>	Kadavu fantail		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Rhipidura spilodera</i>	Streaked fantail	Sasaira	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Turdus poliocephalus</i>	Island thrush	Tola	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Xanthotis provocator</i>	Kadavu honeyeater	Kikou	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Zosterops exploratory</i>	Fiji white eyes	Qiqi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Zosterops lateralis</i>	Silvereye	Qiqi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
REPTILES			

<i>Hemiphyllodacrylus typus</i>	Indo pacific tree gecko		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Emoia Campbelli</i>	Montane tree skink		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Emoia mokosariniveikau</i>	Turquoise tree skink		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Emoia nigra</i>	Pacific black skink		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Leiopisma alazon</i>	Lauan ground skink		<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gehyra mutilata</i>	Stumped toed gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gehyra oceanica</i>	Oceanic gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gehyra vorax</i>	Giant forest gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Hemidactylus frenatus</i>	House gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Hemidactylus garnotii</i>	Fox gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lepidodactylus gardineri</i>	Rotuman gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lepidodactylus lugubris</i>	Mourning gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lepidodactylus manni</i>	Mann's forest gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Nactus pelagicus</i>	Pacific slender toed gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cyrtoblepharus eximius</i>	Pacific snake eyed gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia caeruleocauda</i>	Blue tailed gecko		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia concolor</i>	Green tree skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia cyanura</i>	Browntail copper striped skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia impar</i>	Bluetail copper striped skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia parkeri</i>	Fijian copper headed skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Emoia trossula</i>	Dandy skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lipinia noctua</i>	Moth skink		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ramphotyphlops flaviventer</i>	Flowerpot snake		<i>Endangered and Protected Species Act 2002, s.3(e)</i>
AMPHIBIANS			
<i>Platymantis vitiensis</i>	Fiji tree frog		<i>Endangered and Protected Species Act 2002, s.3(e)</i>

PART 3 – PROTECTED PLANTS

SCIENTIFIC NAME	COMMON NAME	FIJIAN NAME	LEGISLATION
PLANTS			
<i>Polyalthia angustifolia</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Agathis vitiensis</i>		Dakua / Dakua Makadre	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Kingiodendron platycarpum</i>		Moivi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Storckiella vitiensis</i>		Vesida	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Garcinia pseudoguttifera</i>		Bulu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Garcinia myrtiflora</i>		Laubu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Terminalia vitiensis</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Geissois ternate</i> var 2		Vuga	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Vupaniopsis leptobotrys</i>		Malawaci	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Weinmannia spiraeoides</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Weinmannia vitiensis</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Debeneria vitiensis</i>		Masiratu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Bischofia javanica</i>		Koka	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gonystylus punctatus</i>		Mavota	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Endiandra elaeocarpa</i>		Damabi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Hibiscus storckii</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Medinilla kandavuensis</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Astronidium floribundum</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Astronidium kasiense</i>		Rusila	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Acacia richii</i>		Qumu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Mimosaceae spec.div</i>		Vavai-loa	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Mimosaceae spec.div</i>		Vavai-vula	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Veitchia vitiensis</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Veitchia filifera</i>			<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Acmopyle sahniana</i>		Drautabua	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Dacrycarpus imbricatus</i>		Amunu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>

<i>Decussicarpus vitiensis</i>		Dakua salusalu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Podocarpus neriifolius</i>		Kuasi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Dacrydium nidulum</i>		Yaka	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Turrillia ferruginea</i>		Kauceuti	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Turrillia vitiensis</i>		Kauceuti	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Alphitonia zizyphoides</i>		Doi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gardenia vitiensis</i>		Ndrega, Meilango	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Mastixiodendron robustum</i>		Duvula	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gardenia vitiensis</i>		Ndrega meilago	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Santatum yasi</i>		Yasi	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Manikara spec.div</i>		Bausagali-damu	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Manikara spec.div.</i>		Bausagali-vula	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Planchonella garberi</i>		Sarosaro	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Planchonella umbonata</i>		Bauloa	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Sterculia vitiensis</i>		Waciwaci	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Gmelina vitiensis</i>		Rosawa	<i>Endangered and Protected Species Act 2002, s.3(d)</i>
<i>Barringtonia asiatica</i>		Vutu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Boodia brackenridgei</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cordia subcordata</i>		Nawanawa	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Canarium harveyi</i> var 1		Kaunicina	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cynometra insularis</i>		Cibicibi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Intsia bijuga</i>		Vesi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gymnostoma vitiensis</i>		Velau	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Parinari insularum</i>		Sa	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Calophyllum inophyllum</i>		Dilo	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Calophyllum vitiensis</i>		Damanu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Lumnitzera littorea</i>		Sagali	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Terminalia capitanea</i>		Tiviloa	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Terminalia luteola</i>		Mbausomi tivi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>

<i>Terminalia psilantha</i>		Mbausomi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Terminalia pterocarpa</i>		Tivi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Terminalia simulans</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Terminalia strigillosa.</i>		Tivi losi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Acsmithia vitiense</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geissois imthurnii</i>		Vure	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geissois stipularis</i>		Vure	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geissois superba</i>		Vure	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geissois ternate</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Spiraeanthemum graeffei</i>		Katakata, Kutukutu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Spiraeanthemum serratum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Weinmannia exigua</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cyathea micropelidota</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cyathea plagiostegia</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cycas seemannii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Degeneria roseiflora</i>		Karawa yaranggele	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Endospermum robbianum</i>		Kauvula	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Ischaemum byrone</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Calophyllum amblyphyllum</i>		Ndamanu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Calophyllum leueocarpum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Garcinia adinantha</i>		Raumba, mbulumanga	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geniostoma calcicola</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geniostoma clavigerum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Geniostoma stipulare</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Neuburgia macroloba</i>		Vathea	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Astronidium degeneri</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Astronidium inflatum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Astronidium lepidotum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Astronidium palladiflorum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>

<i>Astronidium saulae</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Astronidium sessile</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Medinilla deeora</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Medinilla kambikambi</i>		Kambikambi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Medinilla spectabilis</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Medinilla waterhousei</i>		Tangimauthia	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Vavaea amiorunt</i>		Cevua	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Xylocarpus granatum</i>		Dabi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Samanea saman</i>		Raintree	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Myristica castaneifolia</i>		Kaudamu	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cleistocalyx decussatus</i>		Yasimoli	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cleistocalyx eugenioides</i>		Yasiyasi	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Alsmiltia longipes</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Balaka longirostris</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Balaka macrocarpa</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Balaka microcarpa</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Balaka seemannii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Calamus vitiensis</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Clincistigma exorrhizum</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cyphosperma tangs</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Cyphosperma trichospatdix</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gulubia microcarpa</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Neuveitchia storckii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Physokentia rosea</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Physeikentia thurstunii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Pritchardia thurstanii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Veitchia joannis</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Veitchia pedionoma</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Veitchia petiolata</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>

<i>Veitchia simulans</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Dacrydium nausoriense</i>		<i>Yaka, tangitangi</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Podocarpus affinis</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gardenia anapetes</i>		<i>Tirikiloki</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gardenia candida</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gardenia grieveri</i>		<i>Ndelandrega</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Gardenia hillii</i>			<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Guetcarda speciosa</i>		<i>Buabua</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Bruguiera gymnorhiza</i>		<i>Dogo</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Pometia pinnata</i>		<i>Dawa</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Palayuium hornei</i>		<i>Sacau</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Palayuium purphyreum</i>		<i>Bauvudi</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>
<i>Trichospermum richii</i>		<i>Mako</i>	<i>Endangered and Protected Species Act 2002, s.3(e)</i>

APPENDIX 2 – NET SIZE LIMITS

NET TYPE	DEFINITION	NATIONAL
Hand net	‘Hand net’ means a net fixed on a frame or on two poles, which can be moved in all directions by one person, with a maximum width of 1.5 metres. ⁶⁵	No minimum mesh size ⁶⁶
Cast net	‘Cast net’ means a round net with weights around its edges, which is used by being cast over fish in such a way that it sinks to the bottom. ⁶⁷	30mm ⁶⁸
Whitebait or sardine net	Must only be used for taking whitebait or sardines, and must not be more than 10.5 metres wide or 1.5 metres high. It is prohibited to join two such nets together.	30mm ⁶⁹
Wading net	‘Wading net’ means a net fixed on a frame or on two poles which can be moved in all directions by two persons, with a maximum width 4.3 metres. ⁷⁰	50mm ⁷¹
<i>Lawa-ni-busa</i>	‘ <i>Lawa-ni-busa</i> ’ means a wading net used for taking needlefish (<i>busa</i>). The net must only be used for taking <i>busa</i> and must not be more than 4.3 metres wide. It is prohibited to join two such nets together.	-
Other nets	Any net that does not fall within the above definitions, including nets that exceed the listed size limits.	50mm ⁷²

Mesh measurement method: Measure the distance between two diagonally opposite corners of the mesh, when the net is wet and stretched.⁷³

⁶⁵ Fisheries Act, s.2.

⁶⁶ Fisheries Regulations, r.13.

⁶⁷ Fisheries Act, s.2.

⁶⁸ Fisheries Regulations, r.14.

⁶⁹ Fisheries Regulations, r.15.

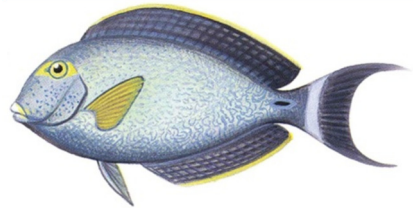
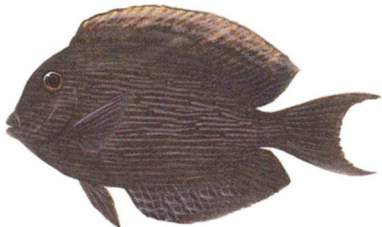

⁷⁰ Fisheries Act, s.2.


⁷¹ Fisheries Regulations, r.16.


⁷² Fisheries Regulations, r.16.

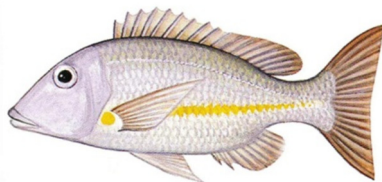

⁷³ Fisheries Regulations, r.12.



APPENDIX 3: FISH SIZE LIMITS


Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Acanthuridae	Surgeonfish, Tang	Balagi	25cm	2	 <p><i>Acanthurus xanthopterus</i> – Yellowfin Surgeonfish</p>
	except Lined Bristletooth (<i>Ctenochaetus striatus</i>)	Dridri	20cm	Modified from 2	 <p><i>Ctenochaetus striatus</i> – Lined Bristletooth</p>
	Unicornfish	Ta	30cm	1	 <p><i>Naso unicornis</i> – Bluespine Unicornfish</p>

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Belonidae, Hemiramphidae	Garfish, Needlefish, Halfbeaks	Saku	30cm	1	<i>Tylosurus crocodilus</i> – Hound Needlefish
		Busa	30cm	1	<i>Hemiramphus far</i> – Black-barred Halfbeak <i>Belone</i>
Caragidae	Trevally	Saqa	30cm	1	 <i>Caranx melampygus</i> – Bluefin Trevally
	<i>except Blue Trevally (Carangoides ferdau)</i>	Vilu saqa		1	
Carcharhinidae, Sphyrnidae	Sharks, including Hammerhead Sharks	Qio	150cm	2	
Chanidae	Milkfish	Yawa	30cm	1	<i>Chanos chanos</i>

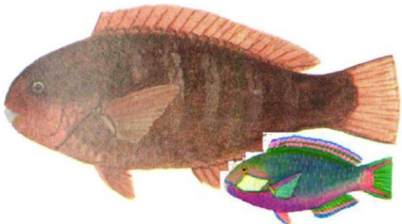

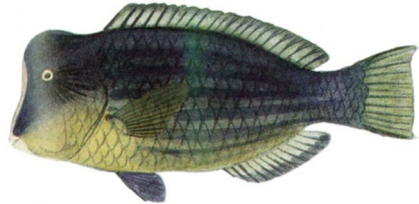
Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Haemulidae	Sweetlips	Sevaseva	25cm	2	 <p><i>Plectorhinchus chaetodonoides</i> – Many-spotted Sweetlips</p>
Labridae	Wrasse <i>except</i> Tuskfish (<i>Choerodon</i> spp.) <i>except</i> Humphead Wrasse (<i>Cheilinus undulatus</i>)	 Labe Varivoce	25cm 30cm No take	2 2 4	<i>Chelinus chlorourus</i> – Floral Wrasse <i>Chelinus oxycephalus</i> – Snooty Wrasse


Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Lethrinidae	Emperors, Bream	Sabutu	25cm	2	 <p><i>Lethrinus obsoletus</i> – Orange-striped Emperor</p>  <p><i>Lethrinus harak</i> – Thumbprint Emperor</p>
		Kabatia	25cm	2	
		Doknivudi	38cm	2	
		Belenidawa	38cm	2	
	except Longface Emperor (<i>Lethrinus olivaceus</i>)	Kawago	45cm	2	
	except Sweetlip Emperor (<i>Lethrinus miniatus</i>)				
	except Spangled Emperor (<i>Lethrinus nebulosus</i>)				

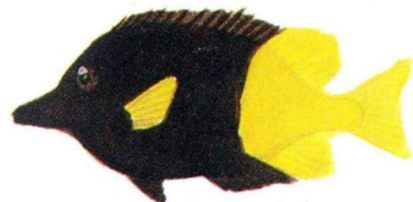


Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Lutjanidae	Snapper	Damu, Kake	30cm	1	 <p><i>Lutjanus argentimaculatus</i> – Mangrove Red Snapper</p>  <p><i>Lutjanus ehrenbergii</i> – Blackspot Snapper</p>
	except Yellowtail Blue Snapper (<i>Paracaesio xanthura</i>)		38cm	2	
	except Red Snapper (<i>Lutjanus bohar</i>)	Bati	No take	2	
	except Humpback Snapper (<i>Lutjanus gibbus</i>)	Sabutu damu	No take	2	
	except Chinamanfish (<i>Symphorus nematophorus</i>)	Tevulu	No take	2	

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
	Jobfish	Utouto	38cm	2	<i>Aprion virescens</i> – Green Jobfish <i>Aphareus furca</i> – Smalltooth Jobfish
Gerreidae	Mojarra	Matu	10cm	1	<i>Gerres oyena</i> – Blacktip Silver Biddy
Leiognathidae	Ponyfish	Kaikai	10cm	1	 <i>Leiognathus equulus</i> – Common Ponyfish <i>Photopecotralis bindus</i> – Orangefin Ponyfish <i>Gazza minuta</i> – Toothpony
Mugilidae	Mullet	Kanace	30cm	2	

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Mullidae	Goatfish	Ki	15cm	1	 <p><i>Upeneus vittatus</i> – Yellowstriped Goatfish</p> <p><i>Parupeneus barberinus</i> – Dash-and-dot Goatfish</p>
		Ose	15cm	1	

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Scaridae	Parrotfish	Ulavi	25cm	2	 <p><i>Chlorurus bleekeri</i> – Bleeker's Parrotfish</p>  <p><i>Chlorurus sordidus</i> – Bullethead Parrotfish</p>  <p><i>Bolbometopon muricatum</i> – Bumphead Parrotfish</p>
	except Bumphead Parrotfish (<i>Bolbometopon muricatum</i>)	Kalia	No take	5	

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Scombridae	Spanish Mackerel	Walu	75cm	2	<i>Scomberomorus commerson</i>
	Wahoo	Wau	75cm	2	<i>Acanthocybium solandri</i>
	Indian Mackerel	Salala	20cm	1	<i>Rastrelliger kanagurta</i>
Serranidae	Groupers	Kawakawa	38cm	2	 <p><i>Plectropomus leopardus</i> – Leopard Coral Grouper</p>
	<i>except</i> Malabar Grouper (<i>Epinephelus malabaricus</i>)	Kasala	38cm	2, 3	
	<i>except</i> Orange Spotted Grouper (<i>Epinephelus coioides</i>)	Kasalanitoga	38cm	2, 3	
	<i>except</i> Blacksaddle Coral Grouper (<i>Plectropomus laevis</i>)	Batisai	50cm	2	
	<i>except</i> Brown-Marbled Grouper (<i>Epinephelus fuscoguttatus</i>)	Delabulewa	50cm	2	
	<i>except</i> Camouflage Grouper (<i>Epinephelus polyphekadion</i>)	Kawakawa	50cm	2	
	<i>except</i> Giant Grouper (<i>Epinephelus lanceolatus</i>)	Kavu	No take	4	

Family	Common Name(s)	Fijian Name	Minimum	Source	Example(s)
Siganidae	Rabbitfish	Nuqa	20cm	1	 <p><i>Siganus uspi</i> – Foxface Rabbitfish</p>
	<i>except</i> Foxface Rabbitfish (<i>Siganus uspi</i>)		No take	4	
Sphyraenidae	Barracuda	Ogo	30cm	2	 <p><i>Sphyraena barracuda</i> – Great Barracuda</p>
		Silasila	30cm	2	 <p><i>Sphyraena forsteni</i> – Bigeye Barracuda</p>
Portunidae	Swimming Crab (<i>Scylla serrata</i>)	Qari dina	14cm	3	
Trochidae	Trochus Shell (<i>Trochus niloticus</i>)	Sici	9cm (max. 12cm)	3	

	Beche-de-mer <i>except Black Teatfish (Holothuria whitmaei)</i> <i>except White Teatfish (Holothuria fuscogilva)</i> <i>except Golden Sandfish (Holothuria scabra var versicolor)</i> <i>except Blackfish (Actinopyga miliaris)</i> <i>except Surf Redfish (Actinopyga mauritiana)</i> <i>except Curryfish (Stichopus hermanni)</i> <i>except Redfish (Thelenota ananas)</i>	Sucuwalu, Dri	20cm 30cm 35cm 30cm 25cm 25cm 35cm 45cm	3 3 3 3 3 3 3 3	
Pteriidae	Pearl Oyster Shell (<i>Pinctada margaritifera</i>)	Civa	10cm	1	

Measurement method: (1) Fish: measure from the point of the snout to the middle of the tailfin when the fish is laid flat. (2) Swimming crab: measure across the widest part of the carapace (3) Trochus: measure across the whorl. (4) Beche-de-mer: measure live not dried (4) Pearl Oyster Shell: measure from the butt or hinge to the opposite lip.

- Sources:**
1. *Fisheries Act, Fisheries Regulations.*
 2. *Fish Size and Bag Limits for Queensland*, Department of Primary Industries and Fisheries, Queensland, Australia (March 2009).
 3. *Environmental Code*, South Province, New Caledonia (2009).
 4. *Endangered and Protected Species Act* (2002).
 5. *Draft Inshore Fisheries Regulations.*

Family	Common Name	Fijian Name	Minimum	Maximum	Source
Lutjanidae	Snapper <i>except</i> Smalltooth Jobfish (<i>Aphareus furca</i>) <i>except</i> Green Jobfish (<i>Aprion virescens</i>) <i>except</i> Yellowtail Blue Snapper (<i>Paracaesio xanthura</i>) <i>except</i> Red Snapper (<i>Lutjanus bohar</i>) <i>except</i> Humpback Snapper (<i>Lutjanus gibbus</i>) <i>except</i> Chinamanfish (<i>Symphorus nematophorus</i>)	Damu	30cm 38cm 38cm 38cm No take No take No take		1 2 2 2 2 2 2
	Jobfish		38cm		2
Mugilidae	Mullet	Kanace	30cm		2
Scaridae	Parrotfish	Ulavi	25cm		2
Scombridae	Spanish Mackerel	Walu	75cm		2
	Wahoo		75cm		2

Serranidae	Groupers <i>except</i> Malabar Grouper (<i>Epinephelus malabaricus</i>) <i>except</i> Orange Spotted Grouper (<i>Epinephelus coioides</i>) <i>except</i> Blacksaddle Coral Grouper (<i>Plectropomus laevis</i>) <i>except</i> Brown-Marbled Grouper (<i>Epinephelus fuscoguttatus</i>) <i>except</i> Camouflage Grouper (<i>Epinephelus polyphekadion</i>) <i>except</i> Giant Grouper (<i>Epinephelus lanceolatus</i>)	Kawakawa	38cm 38cm 38cm 50cm 50cm 50cm No take	- 100cm 100cm 80cm 70cm 70cm -	2 2, 3 2, 3 2 2 2 2
Sphyraenidae	Barracuda	Ogo	30cm		2
Sphyrnidae	Hammerheads		150cm	-	2
	Swimming Crab (<i>Scylla serrata</i>)	Qari dina	14cm	-	3
	Trocas Shell (<i>Trochus niloticus</i>)	Sici	9cm	12cm	3
	Pearl Oyster Shell (<i>Pinctade margaritifera</i>)	Civa	10cm	-	1

- Sources:**
1. Fisheries Act, Fisheries Regulations.
 2. Fish Size and Bag Limits for Queensland, Department of Primary Industries and Fisheries, Queensland, Australia (March 2009).
 3. Environmental Code, South Province, New Caledonia (2009).

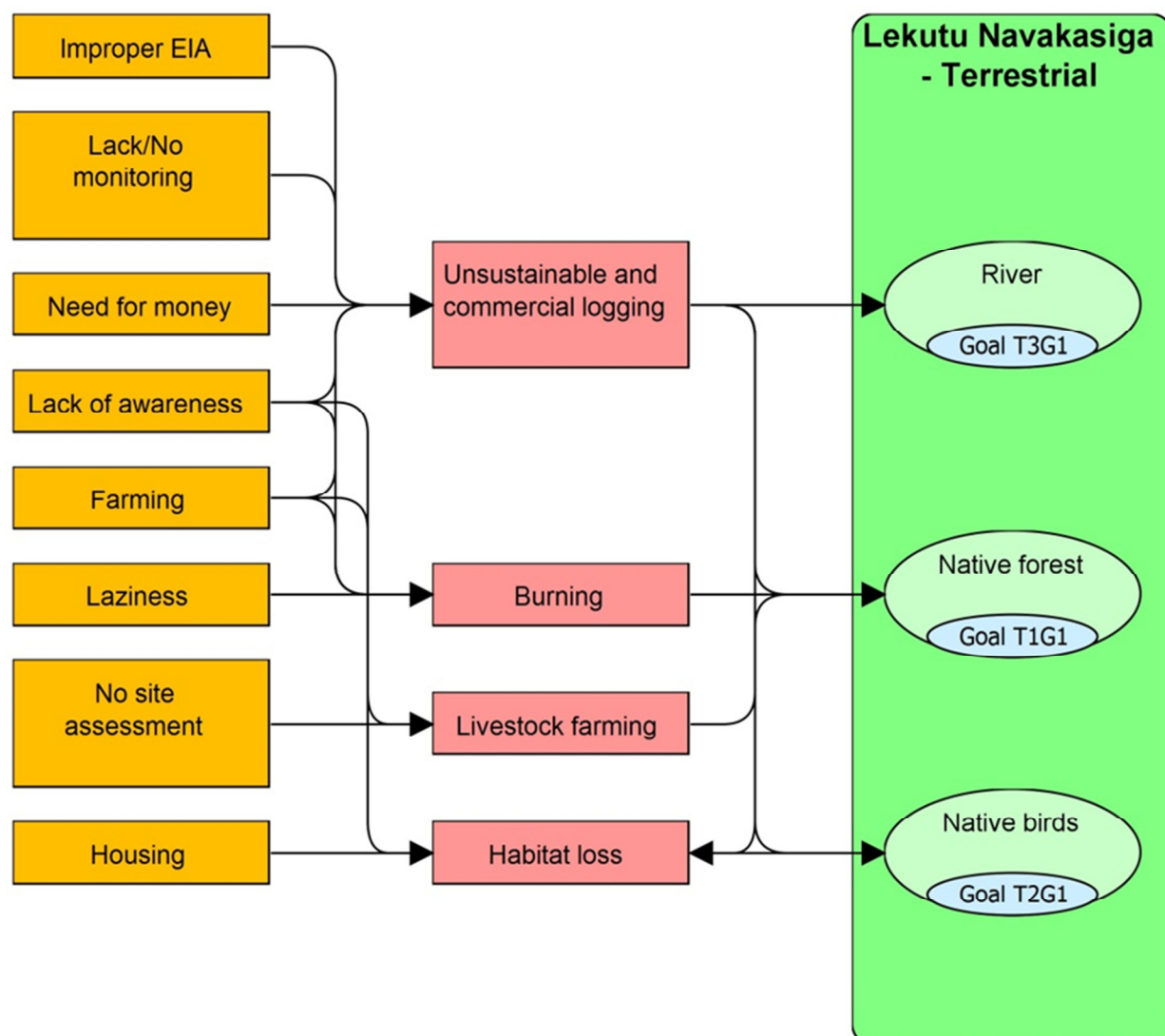
It is an offence under the *Fisheries Regulations* to kill, take, sell or display for sale any of the following species if they are less than the minimum length listed below.⁷⁴

Fijian Name	Common Name	Genus	Minimum Length
Ogo	Barracuda	<i>Sphyrna</i>	300 mm
Saqa (excluding vilu saqa)	Crevally, Trevally, Pompano	<i>Caranx</i>	300 mm
Kanace	Grey Mullet	<i>Mugil</i>	200 mm
Ika Droka	Glassperch, Aholehole	<i>Dules</i>	150 mm
Nuqa	Ketang, Spinefoot Rabbitfish	<i>Siganus</i>	200 mm
Salala	Long-jawed Mackerel	<i>Rastrelliger</i>	200 mm
Saku Busa	Longtom, Garfish, Greengar	<i>Belone</i>	300 mm
Yawa	Milk Fish	<i>Chaos</i>	300 mm
Matu	Mojarra	<i>Gerres</i>	100 mm
Ulavi	Parrotfish	<i>Scarichthys</i>	250 mm
Kaikai	Pouter, Slimy, Soapy, Peperek	<i>Gazza</i>	100 mm
Donu, Kawakawa, Kavu	Rock Cod, Grouper, Salmon Cod	<i>Serranus</i>	250 mm
Kawago, Dokonivudi, Musubi	Sea Bream, Pig-faced Bream	<i>Lethrinus</i>	250 mm
Kabatia, Kake	Small Sea Bream	<i>Lethrinus</i>	150 mm
Sabutu	Small Sea Bream	<i>Lethrinus</i>	200 mm
Balagi	Surgeon Fish	<i>Hepatus</i>	200 mm
Ki, Ose	Surmullet, Goatfish, Whiskercod	<i>Mulloidichthys, Pseudopenaeus, Upeneus</i>	150 mm
Damu	Snapper	<i>Lutjanus</i>	300 mm
Ta	Unicorn-Fish, Leather jacket	<i>Naso</i>	300 mm
Qari dina	Swimming Crab	<i>Scylla serrata</i>	125 mm
Sici	Trocas shell	<i>Trochus niloticus</i>	90 mm
Civa	Pearl Oyster Shell	<i>Pinctade margaritifera</i>	100 mm
Sucuwalu, Dri	Beche-de-mer	<i>Holothuria scabra</i>	76 mm

Measurement method: (1) Fish: measure from the point of the snout to the middle of the tailfin when the fish is laid flat. (2) Trochus: measure across the whorl. (3) Pearl Oyster Shell: measure from the butt or hinge to the opposite lip.

⁷⁴ *Fisheries Regulations*, rr.18, 19, 21, 25B.

APPENDIX 4 – TERRESTRIAL THREAT DIAGRAM

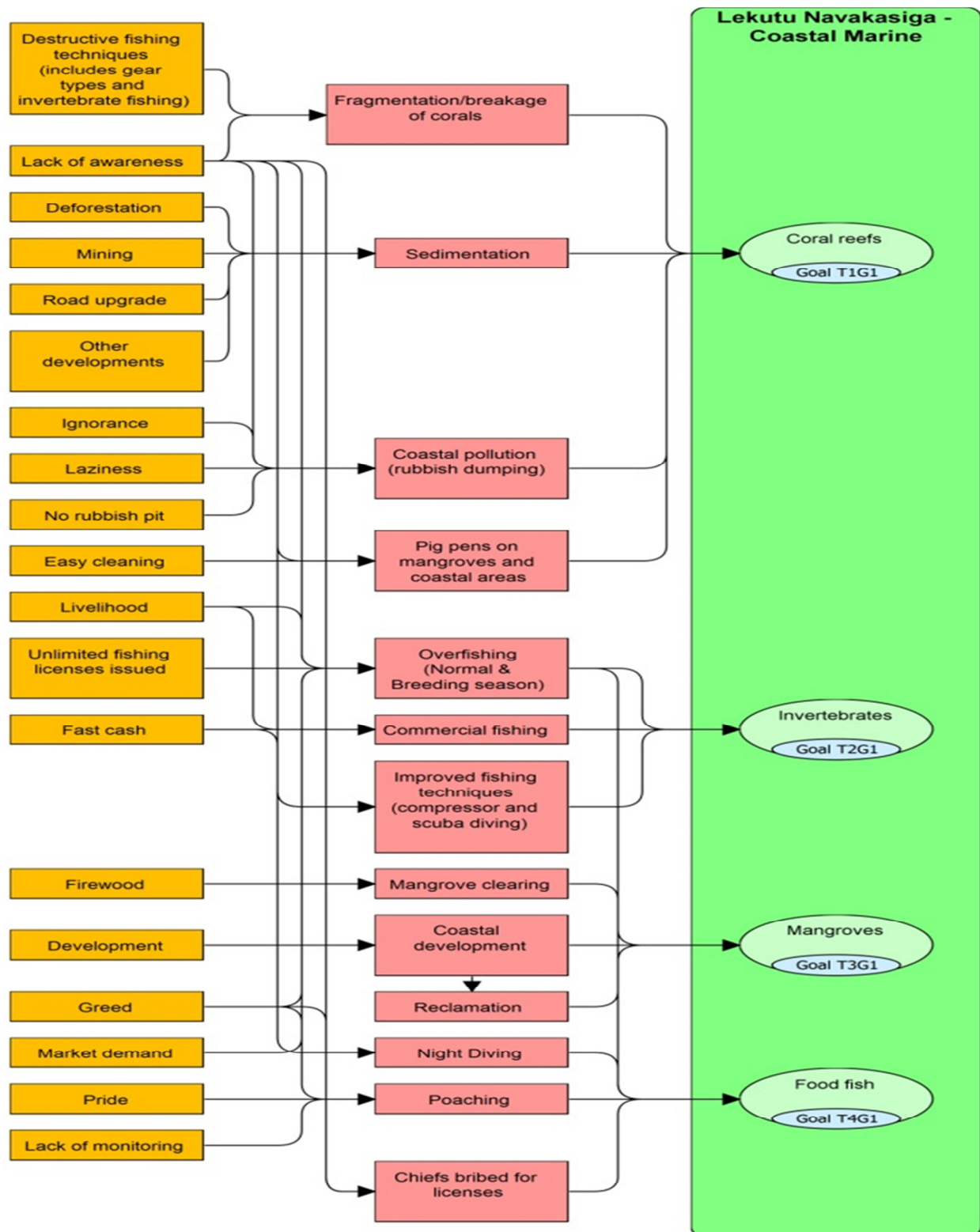


The conceptual models above and below were developed by communities during the workshop. The communities were divided into the 3 thematic areas - terrestrial, freshwater, coastal and marine. The main purpose of the exercise was to identify the natural resources within the thematic areas that need to be restored or replenished (management targets in green). They also identified the various threats (pink) and root causes (orange) that are major barriers to achieving their management targets. Strategies to address the threats and root causes were also developed. It is hoped that by implementing these strategies the communities will be able to achieve their management targets for their benefit and also the benefit of their future generations.

APPENDIX 5 – FRESHWATER THREAT DIAGRAM



APPENDIX 6– COASTAL AND MARINE THREAT DIAGRAM



APPENDIX 7: LEGAL MECHANISMS FOR ESTABLISHING PROTECTED AREAS

1.0. LEGAL PROCESS FOR ESTABLISHING MARINE PROTECTED AREAS

There are two mechanisms available for legally protecting marine areas under the *Fisheries Act*:

1. restricted areas
2. fishing licence conditions.

The key features of these mechanisms, and the process for using them, are described below.

1.1. Restricted Areas

Key Features

The Minister for Fisheries can declare 'restricted areas', commonly known as marine reserves. Fishing in a restricted area without a permit is an offence. The penalty for fishing in a restricted area with a permit is \$500 and/or three months imprisonment.

Process

The Minister may create a restricted area by either (a) creating regulations specifically for the new restricted area; or (b) amending the existing list of restricted areas in the *Fisheries Regulations*.

In either case, the Minister must take the proposed regulations (or amendment) to Cabinet for approval. The members of Cabinet are the Prime Minister and Ministers. Cabinet meets regularly to make decisions on matters of national policy. If Cabinet approves the regulations (or amendment) the Minister will then publish the regulations in the Government Gazette.

Before the Cabinet meeting, an officer of the Department of Fisheries will prepare a written submission to be presented to Cabinet by the Minister. The Cabinet submission will include a brief description of the proposal, background, discussion and recommendations.

If resource owners want the Minister for Fisheries to declare a restricted area in their *qoliqoli*, the *turaga ni yavusa* should discuss the proposal with the Fisheries Department, and then submit a written proposal to the Minister, highlighting the conservation significance of the area, and providing evidence that establishment of the restricted area is supported by the *vanua*.

Only the Minister for Fisheries may remove or modify a restricted area. To remove or modify a restricted area, the Minister must revoke or amend the relevant regulations, following the same process for creating a restricted area.

1.2. Fishing Licence Conditions

Key Features

Any person who wants to fish for ‘trade or business’ must apply for a fishing licence (unless they are only fishing with a line from the shore or with a spear).

Fishing licences can include legally binding conditions. Licence conditions can be used to prohibit fishing in particular areas, including *tabu* areas.

Breaching licence conditions is an offence. The penalty for breaching a licence condition is \$500 and/or three months imprisonment.

Process

Fishing licences are issued by Fisheries Department licensing officers. Before issuing a fishing licence, the Fisheries Department will request a letter of consent from the *turaga ni yavusa*.

The *turaga ni yavusa* can use the letter of consent to ensure that *tabu* areas are included in the licence conditions. It is important to clearly define the rules of the *tabu* area(s) in the letter of consent, and attach a map that clearly and accurately illustrates the *tabu* boundaries.

Licences expire on 31 December each year. This means that a new letter of consent will be required each year, and provides an opportunity to modify the rules or boundaries of the *tabu* area(s).

2.0. LEGAL PROCESS FOR ESTABLISHING TERRESTRIAL PROTECTED AREAS

There are a number of mechanisms available for legally protecting terrestrial areas, including:

1. nature reserves
2. protected catchment areas
3. conservation leases.

The key features of these mechanisms, and the process for using them, are described below.

2.1. Nature Reserves

Key Features

The Minister for Forests may declare nature reserves. It is an offence to log, clear, burn, build, plant, graze, hunt or fish in a nature reserve (maximum penalty: \$10,000 fine or 2 years imprisonment).

Logging licences must not be issued in a declared nature reserve. Mining leases must not be issued in a declared nature reserve without the approval of the Conservator for Forests.

Process

The Minister for Forests may only declare a nature reserve on the recommendation of the Forestry Board. The Forestry Board is an advisory board, chaired by the Conservator for Forests. In the case of *iTaukei* land, the Minister must also obtain the consent of landowners and the iTaukei Land Trust Board (TLTB) before establishing a nature reserve.

If landowners want the Minister to declare a nature reserve on their land, the *turaga ni mataqali* should discuss the proposal with the NLTB and the Forest Department, and then prepare a written proposal to the Conservator for Forests, highlighting the conservation significance of the area, and providing evidence of support from NLTB and the *mataqali*.

Only the Minister for Forests may remove or modify a nature reserve. The Minister may only remove or modify a nature reserve on the recommendation of the Forestry Board.

2.2. Protected Catchment Areas

Key Features

The Minister for Water may declare any area of land or water to be a water supply catchment area. It is an offence to commit any act which causes pollution of water within a declared catchment area (maximum penalty: \$100).

Logging licences must not be issued in a declared catchment area. Mining leases must not be issued in a declared catchment area without the approval of the Commissioner for Water Supply.

Process

The Minister must publish notice of his/her intention to declare a protected catchment area in the Gazette. The notice must describe the proposed catchment area, and allow at least two months for any owner, lessee or licensee of the area to object in writing to the proposed declaration. The Minister must consider any such objections before making a decision about declaration of the area.

If landowners want the Minister to declare a water supply catchment area on their land, the *turaga ni mataqali* should discuss the proposal with NLTB and the Department of Water, and then prepare a written proposal to the Minister, highlighting the conservation significance of the area, and providing evidence of support from NLTB and the *mataqali*.

Only the Minister for Water may remove a declared catchment area.

2.3. Conservation Leases

Key Features

The iTaukei Land Trust Board (TLTB) may issue leases over *iTaukei* land. Since development leases (for example, for logging or tourism development) cannot be issued over land that is already leased, leases can be used for conservation purposes if there is a lessee who is willing to pay to conserve a particular area (for example, Moody's Resort on Namenalala Island).

Process

The terms and conditions of *iTaukei* land leases are negotiated by TLTB on behalf of landowners. The consent of more than 50% of the relevant *mataqali* is required before TLTB will issue a lease. Lease payments are negotiated by NLTB based on standard payment criteria.

If landowners have identified a lessee who is willing to enter into a conservation lease over part of their land, the *turaga ni mataqali* and the lessee should discuss the proposal with TLTB, highlighting the conservation significance of the area, and providing evidence of support from the *mataqali*.

If the lessee fails to make lease payments, or breaches the conditions of the lease, TLTB may terminate the lease.

APPENDIX 8 – RESOURCE USE CALENDAR

The following information is based on focus groups, facilitated within the stated communities in the course of wider consultation in the neighbouring district of Wainunu.⁷⁵ The data is not comprehensive at district level and conclusions in the body of this report, as well as the table on the following page, are based on a wider dataset incorporating the neighbouring district of Wailevu. This calendar is applicable to Lekutu and Navasiga districts due to their close proximity.

Key:	
Cogea, Navakasali, Nadua	
Daria	
Dawara	

Resource / Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Plant dalo												
Plant yam												
Harvest												
Rabbitfish												
Mullet												
Grouper spawning												
Mullet spawning												
Mud crab												
Land crab												
Mud lobster												

⁷⁵ WCS (2011) *Socioeconomic Survey: Wainunu district*

River prawns												
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Seasonal calendar indicating community perceptions of breeding seasons for their key edible resources:⁷⁶

Resource / Month	Warmer, Wetter					Cooler, Drier						
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Land crab												
Rabbitfish												
Mud crab												
Mud lobster												
Root crop												
Mullet/mackerel												
Grouper												
Balolo (sea worms)												

⁷⁶ WCS (2011) *Socioeconomic Surveys: Wainunu and Wailevu districts*

APPENDIX 9 – USEFUL CONTACTS

LEKUTU- NAVASIGA RESOURCE MANAGEMENT COMMITTEE

LNRMC Chairman, Senitiki Catanasiga
Ph. 8768782

GOVERNMENT AGENCIES

iTaukei Lands Trust Board

Deputy General Manager – Operations
Mr Solomon Nata
Ph: 3312733
Email: snata@tltb.com.fj

iTaukei Lands and Fisheries Commission

Chairman, Ratu Vananalagi Vesikula
Ph: 3301001
Email: vananalagi.vesikula@govnet.fj

Bua Provincial Office

Roko Tui Bua
Ph: 8836027

Fisheries Officer Bua, Tomasi Cama
Ph: 9966907

Department of Fisheries

Chief Research Officer, Mr Aisake Batibasaga
Ph: 3361122, 9228973
Email: abatibasaga@gmail.com

Divisional Fisheries Officer Northern
Ph: 8812833

Department of Forestry

Conservator of Forest
Mr Elik Senivasa
Ph: 3301611

Forestry Officer Bua (Dreketi)
Ph: 8518277

Department of Environment

Director Environment.
Ph: 3311699
Email: aminiasi.qareqare@environment.gov.fj

Ministry of Agriculture

Principal Agriculture Officer Northern, Mr John Cox
Ph: 8812244
Email: jwcoxboss@yahoo.com

Acting Director, Land and Water Resources
Management Division, Mr Colin Simmons
Ph: 3383155/9904547
Email: csimmons@agriculture.gov.fj

Department of Tourism

Principal Tourism Officer, Mr Donald Mitchell
Ph: 3312788
Email: dmitchell.motfiji@gmail.com

National Trust of Fiji

Director, Ms Elizabeth Erasito
Ph: 3301807
Email: eerasito@nationaltrust.org

NON-GOVERNMENT

ORGANISATIONS

Wildlife Conservation Society

Fiji Country Program
Director, Dr Sangeeta Mangubhai
Ph: 3315174
Email: smangubhai@wcs.org

Fij Locally Managed Marine Area Network

Amelia Raratabu Pei
Ph: 3314593
Email: ameliapei26@gmail.com

Partners in Community Development Fiji

Executive Director
Mr Tevita Ravumaidamu
Ph: 3300392
Email: travumaidama@pcdf.org.fj