



# VATU-I-RA CONSERVATION PARK MANAGEMENT PLAN



### **ACKNOWLEDGEMENTS**

We would like to firstly acknowledge all the contributions from local communities in the Nakorotubu District, and their unwavering commitment towards protecting and managing their natural resources. We are grateful for the inputs and support of the tourism sector, especially NAI'A Cruises Fiji, Volivoli Beach Resort and Wananavu Beach Resort. Special thanks to the Roko Tui Mosese Nakoroi and Conservation Officer Miri Qoro from the Ra Provincial Office, Assistant Roko (Nakorotubu) Timoci Ratu, and all communities in the district and *vanua* of Nakorotubu, Nagilogilo clan, and *mataqali* Navuani for your support and contributions. Thank you to Stuart Gow (Tourism Suncoast) and Helen Sykes (Resort Support) for technical inputs and guidance, throughout the consultation process. The Fiji Environmental Law Association (FELA) provided valuable legal advice and drafted the Trust Deed, and BirdLife International and NatureFiji-MareqetiViti provided guidance on terrestrial issues, especially the biosecurity protocol for the Vatu-i-Ra Island.

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Ra Provincial Office













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### **ACRONYMS**

EBM	Ecosystem-Based Management	NBSAP	National Biodiversity Strategy and Action Plan
FELA	Fiji Environmental Law Association	NEMS	National Environment Management Strategy
FLMMA	Fiji Locally-Managed Marine Areas	NGO	Non-Government Organisation
IBA	Important Bird and Biodiversity Areas	NRMC	Nagilogilo Resource Management Committee
ICM	Integrated Coastal Management	USP	University of the South Pacific
ICMC	Integrated Coastal Management Committee	ViRCP	Vatu-i-Ra Conservation Park
MCA	Marine Conservation Agreement	WCS	Wildlife Conservation Society
MPA	Marine Protected Area		

### **ENDORSEMENT**

We the undersigned endorse this management plan and its implementation. We urge the people of all communities, the tourism industry and stakeholders in Ra Province, and government and non-government partners to observe the plan and make every effort to ensure its effective implementation. We encourage and welcome other tourism operators to join this initiative to support the Vatu-i-Ra Conservation Park, and the communities from Nakorotubu District.

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## PART 1 INTRODUCTION

## 1.1 Background

The Vatu-i-Ra Conservation Park Management Plan establishes the vision, strategies and framework for sustainably managing Vatu Island (known also as Vatu-i-Ra Island), the surrounding customary fishing grounds i qoliqoli Cokovata Nakorotubu, and adjacent deeper waters. The management plan seeks to promote a holistic ecosystem-based management approach to managing terrestrial and marine ecosystems, and reflects both communities and private sector needs and aspirations for the area. Ecosystem-based management (EBM) is "an integrated approach to management that considers the entire ecosystem, including humans". The management plan puts in place strategies and actions to ensure that the ecosystems are and remain healthy, productive and resilient to future change, to ensure the resources are there for communities and local stakeholders today and in the future. The management plan incorporates data and information from previous studies and a resource management plan produced by BirdLife International and NatureFiji-MareqetiViti in 2010. This management plan focuses on the management of the Conservation Park, and complements a Trust Deed that has been established to administer the voluntary contributions from the tourism operators. The Vatu-i-Ra Conservation Park Trust Deed (Trust Deed) sets out the mission, purpose, and criteria, roles and responsibilities of the Board of Trustees and the Vatu-i-Ra Conservation Park Management Committee in both managing the Park and the education funds. The Trust Deed will be legally registered and will have systems in place to ensure full transparency and accountability on the use and distribution of funds.

### 1.2 Consultation

This Vatu-i-Ra Conservation Park Management Plan was developed with inputs from local communities in Nakorotubu District, Ra Provincial Office, tourism operators and local and international non-government organisations (NGOs). The objectives, rules and regulations for the Conservation Park reflect the outcomes of a management planning workshop facilitated by the Wildlife Conservation Society (WCS) at the Provincial Office on 27–28 January, 2015 and subsequent consultations with communities, local resorts with tourism operators and the staff of the Ra Provincial Office (Appendix 1). The workshop reviewed and built upon an earlier version of the management plan developed on the 10 July, 2010 by the Nagilogilo Resource Management Committee (NRMC), a community-based committee, with the guidance of the Ra Provincial Office. In between the main consultations, one-on-one meetings were held with the different stakeholders to ensure a widely consultative process.

<sup>&</sup>lt;sup>1</sup> Scientific Consensus Statement on Marine Ecosystem-Based Management, March 21, 2005.

### 1.3 Relevant Laws and Policies

The Fisheries Act 1942 is the primary piece of legislation governing the use of marine resources with management functions vested in the Ministry of Fisheries. The provisions of the Act cover the establishment and management of marine protected areas, and recognise the customary rights of 'iTaukei' to fish in *qoliqoli* areas as stipulated in Section 13. Specifically, Section 9 states "The Minister may make regulations: (a) prohibiting any practices or methods, or employment of equipment or devices or materials, which are likely to be injurious to the maintenance and development of a stock of fish; (b) prescribing areas and seasons within which the taking of fish is prohibited or restricted, either entirely or with reference to a named species; (g) regulating any other matter relating to the conservation, protection and maintenance of a stock of fish which may be deemed requisite."

The Environmental Management Act 2005 sets out the laws relating to the protection of natural resources, and provides the framework for national coordination and planning in relation to environmental matters, and grants broad new powers to government agencies to control environmentally harmful activities. The Act plays an important role in the fulfilment of Fiji's international commitments under the Convention on Biological Diversity, and promotes the objectives of key national strategies and policies, including the National Environment Management Strategy (NEMS) and Fiji National Biodiversity Strategy and Action Plan (NBSAP).

The NBSAP was drafted in 1999, reviewed in 2003 and 2006, and published in 2007. The NBSAP has recently been updated by the Ministry of Environment<sup>2</sup>. The goal of the NBSAP is "to conserve and sustainably use Fiji's terrestrial, freshwater and marine biodiversity, and to maintain the ecological processes and systems which are the foundation of national and local development." Furthermore, the strategy states that "the establishment of a comprehensive and representative system of reserves and conservation areas at the national and local levels is critical to successful biodiversity conservation."

The NBSAP recognises that control of local resources by traditional resource owners and users is critical to the success of biodiversity conservation and a key principle for the NBSAP stating "based on the premise that most natural resources in Fiji are owned and used by indigenous and local communities. Biodiversity conservation in Fiji is greatly dependent on the manner in which landowners and local user communities choose to manage their landholdings ownership and fishing rights." The Principle calls on national partners and stakeholders to actively recognise, respect and support:

- Community property rights including traditional rights over natural resources, indigenous intellectual property rights relating to natural resources and cultural knowledge;
- Community decision-making structures and practices, while ensuring gender inclusivity in decision-making;
- Active participation and ownership of resource owners of conservation and resource management;
- initiatives will ensure long term sustainability and success of biodiversity conservation;
- Biodiversity conservation initiatives should be implemented in a way that local communities men and women and youth are actively involved in their planning, implementation, monitoring and evaluation; and
- That although communal land ownership has played, and continues to play a positive role in biodiversity conservation, the increasing commercialisation of natural resource use is threatening this system and constitutes a major challenge to biodiversity conservation.

Protected Area Strategy 3.4 in the NBSAP specifically states the need to "ensure meaningful participation and provide equitable incentives and remuneration to resource owners for protected area establishment and management."

<sup>&</sup>lt;sup>2</sup> Government of Fiji (2017) National Biodiversity Strategy and Action Plan 2017–2020. Government of Fiji, Suva, Fiji.

### PART 2 SITE DESCRIPTION

## 2.1 Conservation Park Boundary

The Vatu-i-Ra Conservation Park encompasses an existing conservation area established by communities since 2011, within the Nakorotubu District and covers an area of 110.5 km² (Fig. 1). The boundary of the Conservation Park is defined by the global positioning system (GPS) coordinates provided in Table 1. The northern boundary lies 500 m north of the boundary of the Nakorotubu District, and the southern boundary follows the boundary of the Burewai and Kavula Subdistrict. The eastern boundary extends 500 m east of the Nokorotubu District boundary.

TABLE 1. The GPS	coordinates for the	ne outer bound	aries of the	Vatu-i-Ra Cons	ervation Park
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	LOCATION	GPS				
Α	North Eastern Point	-17.273321°S	178.494905°E			
В	South Eastern Point	-17.392150°S	178.392150°E			
С	South Western Point	-17.429743°S	178.484128°E			
D	Mid-Western Point 1	-17.349274°S	178.419012°E			
Е	Mid-Western Point 2	-17.343736°S	178.418719°E			
F	North Western Point	-17.273570°S	178.461057°E			

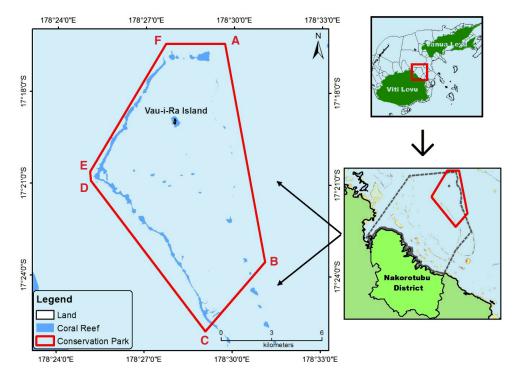


FIGURE 1. Location and boundaries of the Vatu-i-Ra Conservation Park. Source: WCS

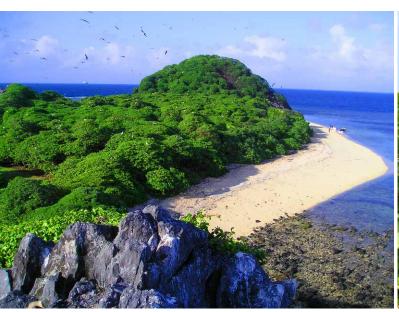
## 2.2 Vatu (i-Ra) Island - Habitats and Species

Vatu Island, more commonly known as Vatu-i-Ra Island, is a small uninhabited island with an area of 0.023 km² (2.3 ha), located in the Vatu-i-Ra channel between Vanua Levu and Viti Levu, about 15 km from the coast of Ra (Fig. 2). It is also known as "Bird Island" because of the large breeding colonies of seabirds on the island. Vatu-i-Ra Island is listed as a "Site of National Significance" in the NBSAP, and is one of the 28 internationally important bird areas recognized by BirdLife International for Fiji.

Vatu-i-Ra Island is approximately 300 m long and 100 m wide, with the higher northeast side and each end of the island composed of volcanic rock. The rest of the island is flat, and composed of coral sand. Historically, the vegetation was dominated by the tree *Pisonia grandis* which had a canopy of 5 to 10 m on the flat land but less than 2 m on the hill side of the island. There are also other littoral trees and bushes. The island is also used by nesting hawksbill turtles (*Eretmochelys imbricata*) and the Fiji endemic pygmy snake-eyed skink (*Cryptoblecephalus eximius*)<sup>3</sup>.

BirdLife International conducted habitat and species assessments on the island in 2003 and 2004, and the results confirmed the island was an Important Bird and Biodiversity Area (IBA), due to the large number of seabird species that inhabit the island. Vatu-i-Ra Island supports nine species of breeding seabirds, which are all listed as 'least concern' on the IUCN Red List (Table 2). Of the nine species recorded, black noddies (*Anous tenuirostris*) had the largest population on the island with more than 20,000 pairs present, making it globally important for this congregating breeding species and therefore registered as an IBA.

The 2004 survey documented the presence of the Pacific rat (*Rattus exulans*) in high densities. BirdLife International implemented an operation in 2006 to eradicate Pacific rats from the island, which can have a major impact on small ground nesting seabird species. The European or black rat (*Rattus rattus*) and Norway rat (*Rattus norvegicus*) have not been recorded on the island but are widely distributed on the main island of Viti Levu. After two years of conducting intensive post-eradication monitoring, the island was successfully declared rodent free in 2008 and has remained rat-free since. In 2011, BirdLife International established an acoustic attraction and artificial nesting boxes on the island and has been maintaining the system since. This was done to specifically attract and recruit threatened seabirds that are known to fly across the Vatu-i-Ra passage. Land birds such as barn owls (*Tyto alba*), peregrine falcons (*Falco peregrinus*) and the invasive mynahs (*Acridotheres tristis*) have been observed on the island but are not considered residents.





A red-footed booby (right) on Vatu-i-Ra Island (left). © BirdLife International

Johns K, Chappell R, Masibalavu V, Seniloli E (2006) Protecting the Internationally Important Seabird Colony of Vatu-i-Ra Island, Fiji. Feasibility Study. BirdLife International. Suva.

TABLE 2. Resident seabird species and their estimated population numbers, and status on the IUCN Red List.

Numbers are derived from the maximum count over a 10 year period (2005–2015) by BirdLife International. The exception is white-tailed tropicbird which was last observed breeding on Vatu-i-Ra Island in 1975. In recent years, tropicbirds have been observed foraging within the vicinity of the island but not recorded as breeding. Source: World Bird Database

COMMON NAMES	SCIENTIFIC NAMES	FIJIAN NAME	NUMBERS	UNITS
Black noddy	Anous tenuirostris	Gogo	28,000	Breeding pairs
Red-footed booby	Sula sula	Toro (yava damu)	600	Individuals
Lesser frigatebird	Fregata ariel	Manumanunicagi	500	Individuals
Brown noddy	Anous stolidus	Gogo	80	Individuals
Black-naped tern	Sterna sumatrana	Ereqia	115	Individuals
Bridled tern	Onychoprion anaethetus	Yaraqia	500	Individuals
Brown Booby	Sula leucogaster	Toro	150	Individuals
Greater crested tern	Thalasseus bergii	Ico, Idre	250	Breeding pairs
White-tailed tropicbird	Phaethon lepturus	Lawedua	1	Breeding pairs





Black noddies (left) and a juvenile lesser friggatebird (right) on Vatu-i-Ra Island. © BirdLife International

## 2.3 Marine Habitats and Species

The surrounding waters of Vatu-i-Ra Island support a rich diversity of marine life. The people of Nasau have seen dolphins and whales in the vicinity of the island, and divers have seen both hawksbill and green (*Chelonia mydas*) turtles. The main habitats within the Conservation Park are fringing coral reefs, lagoons, reef flat, pinnacles and shallow and deep terraces. A survey of the reef systems around Vatu-i-Ra by WCS in 2013 documented at least 121 species of fish, 47 genera of coral, and healthy coral communities with an average hard coral cover of 39.5% inside the old *tabu* area (closed since 2012), 16.5% in the extended *tabu* area (closed since 2015), and 9.8% in areas that have remained open to fishing<sup>4</sup>. These suggest that the 4 year *tabu* area has been effective in protecting and maintaining healthy coral communities.

The area also boasts a diversity of colourful soft corals and gorgonian sea fans. At the time of surveys, the average fish biomass was 659.8 kg/ha in 2013, suggesting that there was some fishing pressure on the reefs. Fish biomass greater than 500 kg/ha is needed for the ecosystem to function, and a biomass >1000 kg/ha indicates a fish community is very healthy<sup>5</sup>. Surveys conducted in April–May 2016, post-Cyclone Winston, found coral cover had declined by 13.9% and fish biomass by 46.7%, particularly along the western reef edge. Despite the damage from Cyclone Winston, the majority of sites important to the dive tourism industry located towards the north of the Conservation Park, sustained little damage. Areas popular with the dive industry like Black Magic Mountain, Mellow Yellow and Instant replay have coral cover range from 35–55%<sup>4</sup>. These healthy undamaged reefs will be critical in the recovery of cyclone-damaged reefs in the Conservation Park and wider Nakorotubu *igoligoli* area.





Soft corals at "Mellow Yellow" (left) and sea anemones at dive site "Instant Replay" (right). © James Begeman

<sup>&</sup>lt;sup>4</sup> Nand Y, Loganimoce EM, Mangubhai S, Fox M, Uluiburotu L, Naisilisili W, Dulunaqio S, Lalavanua W, Gurney G, Teneva L (2017) Baseline ecological and socioeconomic surveys of the Vatu-i-Ra Conservation Park. Wildlife Conservation Society. Report No. 02/16. Suva, Fiji. 52 pp.

MacNeil MA, Graham NAJ, Cinner JE, Wilson SK, William ID, Maina J, Newman S, Friedlander AM, Jupiter S, Polunin NVC, McClanahan TR (2015) Recovery potential of the world's coral reef fishes. Nature 520:341-344

## 2.4 People, Tenure and Resources

The mataqali Navuani of the Nagilogilo clan (*yavusa*), who are traditional owners of the island, reside in the two villages of Nasau and Navuniivi in the Navitilevu District (*tikina*), within the larger traditional Nakorotubu District in the Ra Province (Fig. 2). The traditional Nakorotubu district refers to a historic boundary, which has since been broken up into seven smaller districts. Nasau village has 16 households with a population of around 50 people while Navuniivi has 49 households with a total population of 212. The Nagilogilo clan has strong cultural and historical ties to the island, as it was believed to be an old village site. The Navitilevu region, of which Vatu-i-Ra Island is a part, has a diversity of habitats including fresh water systems and their associated natural resources. People in this region heavily depend on their natural environment for sustenance and income, given their distance from urban centers. The main resources people sell are fish, sea cucumbers, and other invertebrates. Traditionally, fisherman from villages along the coast have stopped on Vatu-i-Ra Island and opportunistically harvested both eggs and chicks.

The customary right to this fishing ground (*qoliqoli*) is communally owned by the *vanua* Nakorotubu (Fig. 1), which includes 47 clans within the 7 districts. The area, which is referred to as *qoliqoli* Cokovata Nakorotubu, is shared by all 27 villages that are spread across amalgamated Nakorotubu District (Fig. 2). Decisions relating to *qoliqoli* Nakorotubu are made at the traditional forum known locally as the *Bose Vanua* Cokovata Nakorotubu (Fig. 3).



FIGURE 2. Villages in the each of seven districts within the larger traditional Nakorotubu District in Ra Province. Source: Department of Lands, WCS

### 2.5 Tourism

The Vatu-i-Ra Conservation Park boasts some of the most spectacular diving in Fiji, drawing divers from all over the world. Many of the bommies and pinnacles are covered in vibrant soft corals and gorgonian sea fans, making the sites popular amongst dive photographers<sup>6</sup>. Strong currents in the Conservation Park bring large schools of fish, particularly around bommies and pinnacles. Tourism is highly dependent on the aesthetics of land and surrounding seascapes, and rich biodiversity of marine species<sup>6</sup>. At least four tourism operators, NAI'A Cruises Fiji, Volivoli Beach Resort, Wananavu Beach Resort and Safari Lodge frequent the Vatu-i-Ra Conservation Park and there is growing interest from the yachting industry. Boutique or luxury resorts, generating 50% of gross tourism revenue in 2013, reinforce the reputation of Fiji for world-class coral reef-related tourism. The Conservation Park is within the larger Vatu-i-Ra Seascape, and which generates a gross revenue of FJ\$47,240,700, including FJ\$5,919,700 in VAT and FJ\$2,160,500 in Service Turnover Tax (STT)<sup>7</sup>. Net revenue (producer surplus) for 2014 was calculated at approximately FJ\$5,644,100.

### 2.6 Threats

### **Terrestrial Threats**

A Community Resource Management Action Planning workshop for the villages within the Navitilevu District, including Vatu-i-Ra Island was conducted by the BirdLife International and University of the South Pacific's (USP) Institute of Applied Science in 2010<sup>8</sup>. The key environmental threats identified to Vatu-i-Ra Island were:

- Invasion of predatory mammals, cats and mongoose, from the mainland;
- Re-invasion of rats:
- Invasion of ants;
- Killing of seabirds on the island by fisherman;
- Fire caused by fisherman;
- Litter from fisherman; and
- Human intrusions and disturbance (e.g. fisherman and tourists).

Invasive species such as rats, mongoose, and cats are the highest threats to terrestrial species. If introduced accidently, these invasive species can breed and spread quickly if prevention measures are not implemented. These invasive species will kill breeding seabirds and other native species such as the pygmy snake-eyed skink. The Vatu-i-Ra Island Biosecurity Plan specifies the biosecurity protocols and procedures that are mandatory and are needed to be followed at all times by any visitor to Vatu-i-Ra Island, to avoid the introduction of invasive species<sup>9</sup>.

Obura DO, Mangubhai S (2002) Coral Reef Biodiversity in the Vatu-i-Ra Seascape in Fiji. World Wide Fund for Nature – South Pacific Programme, Suva, Fiji. 74 pp.

Kastl B, Gow S (2014) Economic valuation of tourism and fisheries in the Vatu-i-Ra Seascape, Republic of Fiji. Report for the Wildlife Conservation Society, Suva. 19 pp.

<sup>&</sup>lt;sup>8</sup> Fong K, Koroiwaqa I, Radikedike P (2010) Vatu-i-Ra Community Resource Management Action Plan Community 29th June to 1st July, 2010, Nasau Village. Institute of Applied Science, Suva.

<sup>9</sup> BirdLife International (2017) Vatu-i-Ra Island Biosecurity Plan: Conserving our Seabird Island. BirdLife International, Suva. 22pp.

The Nagilogilo clan have been monitoring terrestrial species and implementing invasive species management on Vatu-i-Ra Island since 2007, with support from BirdLife International and NatureFiji-MareqetiViti. With the help of the Fiji Naval Forces, members of the Nagilogilo clan have attempted to implement the control of visitor numbers to the island. Due to its isolation from the mainland and being uninhabited, policing of the island has proved to be less successful. Visitors to the island include local fishermen from other districts in Ra and from Tailevu who do not follow Biosecurity Protocol and do not obtain prior approval from the clan.

### Marine Threats

The marine threats to the reefs and waters surrounding Vatu-i-Ra Island are less documented. However, the fish biomass recorded during reef surveys, and reports from local communities and tourism operators suggest that outside fishers are fishing in the Conservation Park. Since 2012, the Fiji Locally Managed Marine Area (FLMMA) network has been working with the local communities to manage the *qoliqoli* Cokovata Nakorotubu. However, the Vatu-i-Ra Conservation Park is about 15 km away from the mainland and therefore vulnerable to poaching from outsiders from neighbouring districts in Ra and from Tailevu Province.

### Climate Change Threats and Natural Disasters

Climate change related disturbances are increasingly recognized as critical threats to biodiversity and fisheries, and causing unprecedented changes to coral reef ecosystems. Coral bleaching was documented in Fiji in 2000, 2002<sup>10</sup> and more recently in 2016<sup>11</sup>, as a result of elevated sea surface temperatures associated with the El Niño-La Niña cycle<sup>12</sup>. While Fiji's reefs recovered fairly rapidly after the 2000 and 2002 bleaching events indicating a level of resiliency of Fiji's coral reef systems, the impact of repeated events such as the one documented in 2016, is not yet known.

The more recent catastrophic natural disaster to impact the Vatu-i-Ra Conservation Park was Tropical Cyclone Winston that hit Fiji on 20 February, 2016. Category 5 Cyclone Winston was one of the largest recorded in the Southern Hemisphere with winds up to 185 mph and gusts of 225 mph, that left a leaving a trail of destruction through the Ra Province<sup>11,13,14</sup>. A rapid assessment of coral reefs in in March 2016 documented significant damage to coral reefs up to 20–30 m below the surface, particularly to soft corals and sea fans<sup>15</sup>. The level of destruction was highly variable and patchy between reefs, with extensive coral breakage, coral abrasion, dislodgement of large coral colonies and structural damage to the reef framework. However, many of the sites popular amongst the dive industry within the Conservation Park were relatively untouched, or sustained little damage compared to reefs further north in Bligh waters<sup>16</sup>. Recovery is likely given these areas are further from human habitation than coastal reefs, and communities commitments to protect the area by prohibiting fishing or any other types of extractive exploitation.

Lovell ER, Cummings RL (2008) Rapid recovery from bleaching events – Fiji coral reef monitoring network assessment of hard coral cover from 1999-2007. 11th International Coral Reef Symposium, Fort Lauderdale, 7-11 July 2008, pp. 830-834

Mangubhai S (2016) Impact of Tropical Cyclone Winston on Coral Reefs in the Vatu-i-Ra Seascape. Report No. 01/16. Wildlife Conservation Society, Suva, Fiji. 27 pp.

<sup>&</sup>lt;sup>12</sup> Mangubhai S, Sykes E, Lovell E, Brodie G, Jupiter S, Lal R, Lee S, Loganimoce EM, Morris C, Nand Y, Qauqau I, Rashni B (in press) Coastal and marine ecosystems in Fiji. In C. Sheppard (ed.) World Seas. Elsevier.

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Mangubhai S (2016) Impact of Tropical Cyclone Winston on Coral Reefs in the Vatu-i-Ra Seascape. Report No. 01/16. Wildlife Conservation Society, Suva, Fiji. 27 pp.

Nand Y, Loganimoce EM, Mangubhai S, Fox M, Uluiburotu L, Naisilisili W, Dulunaqio S, Lalavanua W, Gurney G, Teneva L (2017) Baseline ecological and socioeconomic surveys of the Vatu-i-Ra Conservation Park. Wildlife Conservation Society. Report No. 02/16. Suva, Fiji. 52 pp.



# PART 3 MANAGEMENT OF VATU-I-RA CONSERVATION PARK

The Vatu-i-Ra Conservation Park Management Plan establishes the objectives, zoning and other management strategies for the Vatu-i-Ra Island, and the *qoliqoli* Cokovata Nakorotubu and their associated terrestrial and marine resources. The Management Plan also prohibits any form of destructive and extractive activities that will pose a serious threat to the Conservation Park. The Vatu-i-Ra Conservation Parks sits under the larger umbrella of the Ra Province Integrated Coastal Management (ICM) Plan<sup>17</sup>, overseen by the Ra Integrated Coastal Management Committee (ICMC), chaired by the Ra Provincial Office.

## 3.1 Objectives of the Vatu-i-Ra Conservation Park

The objectives of the Vatu-i-Ra Conservation Park are to:

- Protect the unique biodiversity of the island and the surrounding reefs;
- Protect the unique cultural history of the area;
- Protect critical breeding grounds for fish so that the 'spillover' from this Conservation Park supports
  community fisheries in the adjacent *qoliqoli* Cokovata Nakorotubu;
- To establish a voluntary mechanism through sustainable tourism, that will ensure the sustainable financing of the Conservation Park while supporting the sustainable development of resource owners; and
- To establish the Vatu-i-Ra as the leading Conservation Park for the Fiji and the wider South Pacific.

## 3.2 Term and Review of Management Plan

The Vatu-i-Ra Conservation Park Management Plan will be monitored and reviewed periodically by the Ra Provincial Office and the Vatu-i-Ra Conservation Park Management Committee (the "Management Committee")<sup>18</sup> to ensure management is responsive to issues, and takes into account changing management priorities. The Management Plan will have a full review at a minimum, every 5 years, and will be overseen by the Management Committee in consultation with the Ra Provincial Office and Ra ICMC. The review process must provide an opportunity for village representatives and other relevant stakeholders to comment on the content and implementation of the plan, and endorse any changes proposed.

The amended management plan will be endorsed by the Management Committee, Ra Provincial Office and the Ra ICMC. Any proposed amendments to the plan prior to the 5 year review will have to be submitted in writing to the Management Committee and endorsed by the Committee, Ra Provincial Office and the Ra ICMC. Copies of the amended management plan must be distributed to each of the villages in the district and to all members of the stakeholder consultative group.

<sup>&</sup>lt;sup>17</sup> Ra Provincial Office (2015) Integrated Coastal Management Plan for Ra Province. Management Plan 2015-2020.

<sup>&</sup>lt;sup>18</sup> The roles and responsibilities of the Management Committee are defined in Trust Deed.

## 3.3 Implementation Plan of the Conservation Management Plan

The Management Committee in close coordination with Board of Trustees and partnership with the NRMC will be responsible for the implementation of the conservation management plan on behalf of communities and local tourism operators, and with the support of the Ra Provincial Office, Ra ICMC and NGOs (see Part 4). The Management Committee will be accountable to the *Bose Vanua* Cokovata Nakorotubu for the timely implementation of the plan in consultation and collaboration with the local communities, village leaders, provincial council office, civil society partners and the private sector including tourism. The Management Committee is responsible for liaising with the responsible stakeholder(s) to ensure that activities are completed and reported in a timely and effective manner. The roles and responsibilities of the Board of Trustees and the Management Committee are defined in the Trust Deed agreement.

## 3.4 Zoning Plan

### Zoning

There are three zones designated for the Vatu-i-Ra Conservation Park that cover both marine and terrestrial environments (Fig. 3). The majority of the Conservation Park is a no-take marine zone (79.21%) that aims to protect the unique marine biodiversity of the area, while allowing for dive tourism and non-destructive research. The Vatu-i-Ra Island in its entirety to the low water mark is a no-take terrestrial zone (0.02%) that aims to protect the unique terrestrial biodiversity of the area, while allowing for limited and controlled tourism and research, and traditional non-extractive activities. There is also a sustainable fishing 'catch and release' zone (20.77%) that aims to support low impact, non-extractive fishing, through a catch-and-release system. Each zone stipulates what activities are allowed, what activities are prohibited, and the activities that require a permit (Table 3). Zones also place restrictions on how some activities are conducted.

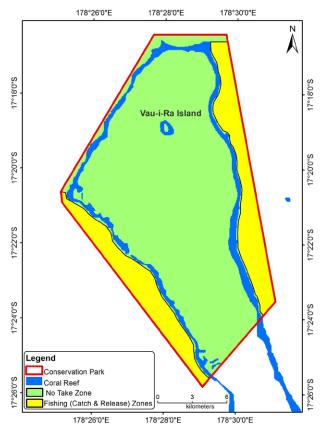


FIGURE 3. Zoning Plan for the Vatu-i-Ra Conservation Park. Source: WCS

### No-Take Marine Zone

The No-Take Marine Zone is a no-take area that covers 87.55 km<sup>2</sup> of the Vatu-i-Ra Conservation Park (Fig. 3). The objective of this zone is to protect biodiversity while promoting environmentally-friendly tourism. Within this zone, no extractive activities can occur, including fishing or collecting of any living or non-living matter (Table 3).

### No-Take Terrestrial Zone

No-Take Terrestrial Zone is a no-take area that extends to the low water mark and covers approximately 0.023 km² of the Vatu-i-Ra Conservation Park (Fig. 3). The objective of this zone is to protect biodiversity while promoting eco-friendly tourism. Within this zone, with the exception of low impact research, no extractive activities can occur, including the collecting of any living or non-living materials (Table 3). Disturbance of birds in prohibited and the Biosecurity Protocol must be strictly adhered to, to prevent the introduction of invasive species onto the island. Access onto the island is only permitted with the approval of the Management Committee and traditional owners of the island.

### Sustainable Fishing 'Catch and Release' Zone

The Sustainable Fishing 'Catch and Release' Zone allows recreational fishing, where any fish caught is subsequently released back into the wild, taking care not to cause unnecessary damage or stress to the fish (Fig. 3, Table 3). The objective of this zone is to protect biodiversity while promoting eco-friendly tourism. Catch and release fishing is an increasingly popular practice amongst recreational fishers who are environmentally conscious. Fishers used methods and rigs that ensure the mouth is hooked rather than the gut. For example, these may include the use of artificial lures, and non-offset circle hooks when using bait. The Sustainable Fishing "Catch and Release" Zone makes up 22.95 km² of the Vatu-i-Ra Island Conservation Park.





Spectacular marine life in the Park draws divers in from around the world. © James Begeman

TABLE 3. The management rules for the Vatu-i-Ra Conservation Park (ViRCP) along with specific indication of whether they are derived from national laws or are specific to the Conservation Park. The table includes activities which are strictly prohibited, limited exceptions to the rules, and activities that can only be done with the explicit permission of the Vatu-i-Ra Conservation Park Management Committee ("Management Committee"). The role and responsibilities of the Management Committee are detailed in Part 4, and the Trust Deed.

RULE	EXCEPTIONS	NATIONAL	VIRCP	MANAGEMENT ACTIONS
MARINE				
Collecting any living or non-living resources (including dead coral, sand, rock, rubble) is strictly prohibited.	Removal of harmful organisms (alien invasive species, algae, crown-of- thorns starfish, etc.) on a case by case basis.		·	<ul> <li>The removal of harmful organisms will be approved by the Management Committee in consultation with technical experts and relevant Government Ministries.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee.</li> </ul>
All forms of fishing are strictly prohibited.	Catch and release fishing in the sustainable fishing catch and release zone.		·	<ul> <li>Catch and release should be done in a manner that does not cause unnecessary damage or death to the fish, following international best practices.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee.</li> </ul>
Diving, snorkeling and photography are permitted.		<b>√</b> 19	ŕ	<ul> <li>Dive operations and their divers should apply best practices for snorkelling, diving and photography to minimise any impact to coral reefs (Appendix 2).</li> <li>All commercial photographers and film producers are required to get permission from the relevant Government Ministries.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any operations causing unreasonable or unnecessary damage to coral reefs should be reported to the Management Committee and relevant Government Ministries.</li> </ul>
Conducting scientific research (extractive or non-extractive) within the Vatu-i-Ra Conservation Park is prohibited.	With permission of the Management Committee, provided the research contributes to the management of the Conservation Park. All applications for research should be made in writing to the Management Committee.	<b>✓</b>	·	<ul> <li>All foreign researchers or research institutions are required to get permission from the relevant Government Ministries.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee.</li> </ul>
Anchoring in areas of living coral reef is strictly prohibited.	Setting and use of permanent moorings to anchors.	<b>√</b>		<ul> <li>All new mooring should comply with Maritime and Safety Authority of Fiji</li> <li>Any new moorings should be done in consultation and with the permission of the Management Committee. Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee and relevant Government authorities.</li> </ul>
Touching, feeding or harassment of fish, sharks, turtles, cetaceans or any other marine creatures.		<b>√</b> 20	·	<ul> <li>Dive operations and their divers should apply the Pacific Islands Regional Guidelines for Whale and Dolphin Watching.<sup>21</sup></li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee and relevant Government authorities.</li> </ul>

<sup>&</sup>lt;sup>19</sup> Surfing Decree 2010, Part 3, Section 6.

<sup>&</sup>lt;sup>20</sup> Fisheries Regulations, Endangered and Protected Species Act 2002.

FAW (2009) Pacific Islands Regional Guidelines for Whale and Dolphin Watching. IFAW Asia Pacific, Surrey Hills, Australia. 18 pp.

RULE	EXCEPTIONS	NATIONAL	VIRCP	MANAGEMENT ACTIONS
Littering and rubbish disposal is strictly prohibited.		<b>√</b>	<b>√</b>	<ul> <li>All rubbish such as food scraps, cigarette butts, plastic, and paper should be taken back to the mainland and disposed of properly.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee and relevant Government authorities.</li> </ul>
Emptying of bilge, use of detergents, disposal of any oil or fuel or any other chemicals.		✓	✓	<ul> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee and relevant Government authorities.</li> </ul>
All forms of mineral, oil, and gas exploration and mining are prohibited.			<b>✓</b>	<ul> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the Management Committee and relevant Government authorities.</li> </ul>
TERRESTRIAL				
Access or camping on Vatu-i-Ra Islands is prohibited.	Permission may be granted by the traditional landowners of the island and the Management Committee.		✓	<ul> <li>Number of visitors allowed to the island at any one time to be determined by traditional owners of the island.</li> <li>Biosecurity Protocol<sup>22</sup> must be strictly followed by all persons visiting the island.</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the traditional landowners, Management Committee and relevant Government authorities.</li> </ul>
Collecting any living or non-living resource (including dead coral, sand, rock, rubble, shells, seeds, or other natural souvenirs) is strictly prohibited.	Removal of harmful organisms such as alien invasive species.	<b>√</b> 23	✓	<ul> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the traditional landowners and Management Committee.</li> </ul>
Cutting of trees and all types of vegetation is strictly prohibited.	Removal of harmful organisms such as alien invasive species.	<b>√</b>	✓	<ul> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the traditional landowners and Management Committee.</li> </ul>
Feeding, disturbance, harassment or collecting of seabirds, turtles or eggs is strictly prohibited.			✓	<ul> <li>All interactions with whales and dolphins should</li> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the traditional landowners, Management Committee and relevant Government authorities.</li> </ul>
Burning or lighting of fires is strictly prohibited.			✓	<ul> <li>Monitoring will be conducted by fish wardens.</li> <li>Any breaches should be reported to the traditional landowners, Management Committee and relevant Government authorities.</li> </ul>
Littering and rubbish disposal is strictly prohibited.			✓	<ul> <li>All rubbish such as food scraps, cigarette butts, plastic, and paper should be taken back to the mainland and disposed of properly.</li> <li>Any breaches should be reported to the traditional landowners, Management Committee and relevant Government authorities.</li> </ul>

<sup>&</sup>lt;sup>22</sup> BirdLife International (2017) Vatu-i-Ra Island Biosecurity Plan: Conserving our Seabird Island. BirdLife International, Suva. 22 pp.

<sup>&</sup>lt;sup>23</sup> Certain tree species are protected under the Endangered and Protected Species Act 2002.

## 3.5 Other Regulations and Guidelines

### **Biosecurity Protocol**

The difference between Vatu-i-Ra Island and many other islands in Fiji is it is free of all invasive vertebrate predators. Rodents, cats, mongoose, dogs and other introduced mammals widely present elsewhere have altered Fiji's native biodiversity, our wildlife populations and ecosystems. Many other invasive weeds, invertebrates, reptiles and diseases present throughout Fiji are currently absent from Vatu-i-Ra Island. This absence of invasive species threats enables the islands wildlife to survive and flourish. By complying with and enforcing the Biosecurity Protocol, we can prevent the harmful introduction of non-native (exotic) species. The biosecurity plan developed for the island sets out the preventative actions to be taken by all visitors to the island, whether they are from Fiji or outside of Fiji. The plan addresses both marine and terrestrial threats and is a requirement that all visitors strictly adhere to the Biosecurity Protocol<sup>19</sup>.

### Diving and snorkeling best practice guidelines

Diving and snorkeling are some of the best ways to enjoy the spectacular underwater biodiversity that the Vatu-i-Ra Conservation Park has to offer. There are times when some divers and snorkelers can get a little too close and may stress the marine life or crush and break corals. Most damage occurs as a result of those who are unable to maintain good control in the water (for example, through fighting a current, or trying to get a closer look, or taking photographs). Damaging, collecting or otherwise taking coral, including dead coral, and protected shell species is prohibited. All tourists and operators visiting the area should implement best practice guidelines for divers and snorkelers to minimize damage to delicate corals and other benthic life (Appendix 2).





Vatu-i-Ra Island is a nationally significant roosting site for seabirds. © BirdLife International

<sup>19</sup> BirdLife International (2017) Vatu-i-Ra Island Biosecurity Plan: Conserving our Seabird Island. BirdLife International, Suva. 22 pp.

# PART 4 MANAGEMENT INSTITUTIONS AND GOVERNANCE

### 4.1 Bose Vanua Cokovata Nakorotubu

The *Bose Vanua* Cokovata Nakorotubu consists of chiefs of the villages Vanua Cokovata Nakorotubu (Fig. 4). The communities of *Vanua* Cokovata Nakorotubu recognize the traditional authority of the *Bose Vanua* Cokovata Nakorotubu to make decisions in relation to natural resource management. The Management Committee will keep the *Bose Vanua* Cokovata Nakorotubu informed of the status of the Vatu-i-Ra Conservation Park.

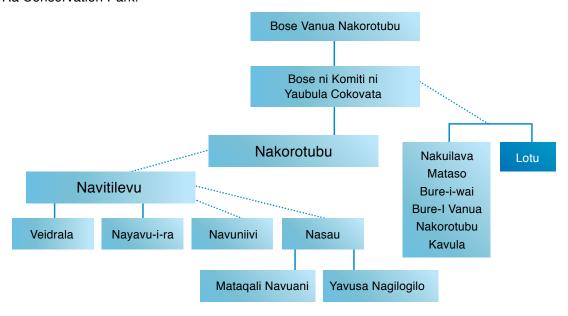


FIGURE 4. Traditional governance structure in Nakorotubu District.

## 4.2 Ra Integrated Coastal Management Committee

The Ra Integrated Coastal Management Committee (Ra ICMC) is a multi-stakeholder committee formed at the provincial level in 2012, to guide and oversee the Ra Province ICM Plan.<sup>20</sup> The members comprise representatives from the government agencies, agencies, NGOs, civil society organisation and private sector. The Ra ICMC is responsible for the following actions in Ra Province:

- Finalising the Vision and Mission Statement for ICM Ra;
- Reviewing Action Plan;
- Identifying high priority areas for action;
- Identifying Annual Work Plan;

<sup>&</sup>lt;sup>20</sup> Integrated Coastal Management Plan for Ra Province. Management Plan 2015–2020, Suva.

- Reviewing existing coastal projects and seek to improve effectiveness;
  - Bringing up any user conflicts likely to impact coastal zone.
  - Liaising with national ICMC on legal/governance issues; and
  - Developing the full Ra ICM Plan

The Ra ICMC will provide advice and assistance to the Management Committee on the following:

- scientific and technical information and advice;
- awareness training and capacity support; and
- monitoring and reporting breaches of management rules of the Vatu-i-Ra Conservation Park.

### 4.3 Ra Provincial Office

The Ra Provincial office oversees and monitors all conservation and environment work within the province. It will ensure that draft management plans follow the consultation processes with communities and stakeholders before being adopted. It also plays advisory roles to the Management Committee on issues relating the draft management plan. It will also ensure the Vatu-i-Ra Conservation Park is integrated and recognized within the Ra ICM Plan.

## 4.4 Vatu-i-Ra Conservation Park Management Committee

The Vatu-i-Ra Conservation Park (Management Committee) oversees the sustainable management of biodiversity and other natural resources in the Vatu i-Ra Conservation Park, in close coordination with the Board of Trustees. The criteria for section, the roles and responsibilities of the Management Committee and the Board of Trustees in defined in the Trust Deed for the Conservation Park. The Management Committee is made up of the seven members: four representatives from the community comprising two from yavusa Nagilogilo and two from the *qoliqoli* Cokovata Nakorotubu; one representative each from the Ra Provincial Office, non-government organization and tourism operator. These members are approved by the Board of Trustees and the *Bose Vanua* Cokovata Nakorotubu.

The Management Committee shall be the main policy making, management, technical, disciplinary and regulatory body and their role, responsibilities and appointment are detailed in the Trust Deed. The main responsibilities in relation to the day-to-day management of the Vatu-i-Ra Conservation Park are summarised below:

- administration of the affairs, property and funds of the Trust as per the Board of Trustees directions;
- liaise with tourism operators, resource users, conservation partners and other stakeholders;
- review all threats, strategies and actions detailed in the management plan, and coordinate the implementation of the management plan;
- coordinate implementation of the biosecurity protocols appended in the management plan;
- manage wisely and distribute funds to resource management and activities as stipulated in the Trust Deed;
- report progress of activities to the matagali Navuani;

- monitor and report any breach of the management plan rules and guidelines including the biosecurity protocol;
- record and distribute user tags to tourism operators;
- issuance of any fishing licences for the qoliqoli Cokovata Nakorotubu recognises the rules and regulations of the Conservation Park; and
- approve permits in accordance with the rules and regulations of the management plan (see Table 3).

## 4.5 Wildlife Conservation Society

The Wildlife Conservation Society (WCS) is a not-for-profit NGO with its headquarters in New York, USA. In Fiji WCS has worked with communities and the Fiji Government to protect biodiversity and natural resources through sound management practices since 2001. With unique expertise in land-sea management, Marine Protected Areas (MPAs) and Marine Conservation Agreements (MCAs), WCS has worked in Ra Province for 6 years supporting natural resource management. In close coordination with the Ra Provincial Office has helped facilitate the partnership between local communities and local tourism operators.

### 4.6 BirdLife International

BirdLife International is a global partnership of NGOs that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. BirdLife International is widely recognised as the world leader in bird conservation, and supported the rat eradication and development and implementation of the Biosecurity Protocol for the Vatu-i-Ra Island.

## 4.7 NatureFiji-MareqetiViti

NatureFiji-MareqetiViti is a local NGO whose vision of Fiji is of a healthy environment maintaining its diversity of species and habitats, its ecological integrity and resilience, parts of which are in pristine condition. NatureFiji-MareqetiViti works in close partnership with BirdLife International to support the rat eradication and the development and implementation of the Biosecurity Protocol for the Vatu-i-Ra Island.





Photos: © James Begeman



# PART 5 MONITORING, SURVEILLANCE AND COMPLIANCE

Illegal fishing, poaching in the Conservation Park, including landing on Vatu-i-Ra Island without. proper approval and biosecurity clearance is a serious concern raised by the people of Nakorotubu and tourism operators. Education and awareness will need to be conducted throughout Ra Province, to ensure both communities from Nakorotubu District as well as outside the district and province are aware of the Conservation Park, and comply with the management rules. This can be done through the distribution and socialization of the Management Plan with individual villages, as well as with fishers encountered during patrols. Flyers and other awareness materials should be produced and distributed widely. Tourism operators can include details about the Conservation Park and the management rules during dive briefings, to ensure voluntary compliance of visitors to the Park. The Ra Provincial office can assist in socialising the Vatu-i-Ra Conservation Park Management Plan during the implementation and socialisation of the Ra Province ICM Plan.

The Management Committee is responsible for coordinating all monitoring and surveillance activities within the Vatu-i-Ra Conservation Park, and ensuring compliance with the rules and regulations outlined in this management plan. In particular, the Management Committee is responsible for:

- ensuring adequate and appropriate training of community fish wardens;
- facilitating and securing of resources and equipment for patrol;
- ensuring there is a mechanism for tourism operators to report on breaches of the management plan;
- establishing a monitoring and providing surveillance protocol
- ensuring proper recording and reporting of breaches;
- coordinating with enforcement agencies; and
- ensuring all biosecurity protocols are strictly adhered to.

During consultations for the Management Plan, communities agreed that monitoring and surveillance (i.e. patrols) of the Vatu-i-Ra Conservation Park will be primarily the responsibility of the people of Nasau village. 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 license. Patrols teams and Management Committee will need to coordinate closely with enforcement agencies such as Ministry of Fisheries, navy, and the police.



### PART 6 SUSTAINABLE FINANCING

This Vatu-i-Ra Conservation Park Management Plan aims to support long-term sustainable development in Nakorotubu by maintaining the health and productivity of the district's ecosystems. To promote the conservation of this unique area, the local communities in the district of Nakorotubu have formed a partnership with the local tourism operators to establish a **voluntary contribution to conservation scheme**, to support the long-term management of the Conservation Park and generates income for local communities. All income generated is managed by the Board of Trustees responsible for implementing the Trust Deed agreement.

## 6.1 Use of funding

All funds generated through a voluntary contribution to conservation system will be used to support activities endorsed by the Vatu-i-Ra Conservation Park Management Committee and Board of Trustees. Funding will be used for the following:

- Education grants for students within Yavusa Nagilogilo (40%);
- Education grants for students from Qoliqoli Cokovata Nakorotubu (30%); and
- Management of Vatu-i-Ra Conservation Park (30%);

Professional, transparent accounting and reporting is needed to ensure efficient and equitable use of funds, and to support sustainable resource management and community development.







Aerial view of Vatu-i-Ra island. Photos: © Birdlife International



## PART 7 APPENDICES

## **APPENDIX 1** Consultations held with stakeholders in Ra Province

DATE	CONSULTATIONS	STAKEHOLDERS
16 Apr, 2014	Introductory meeting between community representatives and tourism operators to identify way forward	Ra Provincial Office, Tourism Operators, Community Representatives, FELA, USP, WCS
22 Jan, 2015	Meeting with tourism operators to identify their needs, roles and responsibilities	NAI'A Cruises Fiji, Wananavu Beach Resort, Volivoli Beach Resort, Resort Support, Tourism Suncoast
27-28 Jan, 2015	Awareness/inception workshop	Nakorotubu District, Ra Provincial Office, WCS
11 Feb, 2015	Develop first draft of management plan	Nakorotubu District, Ra Provincial Office, WCS
1 Jun, 2015	Discuss revised draft management plan	Nakorotubu District, Ra Provincial Office, WCS
4 Dec, 2015	Meeting with the landowning unit to discuss draft management plan	Nasau Village, WCS, Ra Provincial Office
11 Dec, 2015	Meeting with tourism operators to review management plan and get preliminary inputs	Wananavu Beach Resort, Volivoli Beach Resort
8 Feb, 2016	Meeting with community representatives and tourism operators to finalise management plan	Ra Provincial Office, Tourism Operators, Community Representatives, WCS, BirdLife International, NatureFiji-MareqetiViti, Resort Support, Tourism Suncoast
25 May, 2016	Meeting with community representatives from Navitilevu District at Nasau to discuss management plan and financial mechanisms	Ra Provincial Office, WCS and Representatives from the other 3 villages – Navuniivi, Veidrala, Nayavuira
26 Oct, 2016	Meeting with tourism operators, community representatives, NGOs to finalise management plan, financial mechanisms	Ra Provincial Office, WCS, Tourism Operators, BirdLife International, Community Representatives
22 Sept, 2016	Meeting with representatives and leaders from all villages, districts, government and non-government representatives to present the Vatu-i-Ra Conservation Park as part of the consultation and awareness process	All stakeholders working in the province of Ra from government, non-government, education institutions, WCS
15 Nov, 2016	Meeting with all representatives from the 49 villages in the Nakorotubu district where the Conservation Park was presented to members and attendees as part of the awareness and consultation process	WCS and all Community Leaders and Community Representatives including women and youths
14 Dec, 2016	Roadshow to socialize the Vatu-i-Ra Conservation Park with traditional landowners in Nakorotubu District.	Ra Provincial Office, WCS and all Community Leaders and Community Representatives including women and youths in Dawasamu, Bureivanua
18-20 Jan, 2017	Roadshow to socialize the Vatu-i-Ra Conservation Park with traditional landowners in Nakorotubu District.	Ra Provincial Office, WCS and all Community Leaders and Community Representatives including women and youths in the districts of Bureiwai, Kavula, Nakorotubu, Mataso, Navitilevu

## APPENDIX 2 Best Practice Snorkeling and Dive Guidelines

### GOOD ENVIRONMENTAL PRACTICES • DIVING

Divers are some of the strongest and most effective advocates for coral reef conservation. Please follow these simple guidelines to become a "coral friendly" diver.

#### **AS A RESPONSIBLE TOURIST**

- For your vacation, choose an environmentally friendly resort or hotel; one that practices energy conservation, recycles, and treats sewage and solid waste in responsible ways.
- Choose coral friendly dive operations that practice reef conservation by:
  - Giving environmental briefings.
  - Holding buoyancy control workshops.
  - Using available moorings.
  - Using available wastewater pump-out facilities.
  - Actively supporting local conservation parks.
  - Participating in local conservation projects.
  - Pay user fees or make a donation when visiting conservation parks and other marine conservation
- Avoid purchasing souvenirs made from coral, turtles or other marine life—this is often illegal, and it's never environmentally wise.
- Learn all you can about coral reefs—they are fascinating and fragile environments.

### IN THE WATER

- Never touch corals; even a slight contact can harm them and some corals can sting or cut you.
- Carefully select points of entry and exit to avoid reef areas.
- Make sure all your equipment is well-secured.
- Make sure you are neutrally buoyant at all times.
- Maintain a comfortable distance from the reef.
- Practice good finning and body control to avoid accidental contact with the reef or stirring up the sediment.
- Stay off the bottom and never stand or rest on corals.
- Avoid using gloves and kneepads in coral environments.
- Take nothing living or dead out of the water, except recent garbage.

### MINIMIZE CONTACT WITH MARINE LIFE

- Never chase, harass or try to ride marine life.
- Do not touch, handle or feed marine life except under expert guidance and following established guidelines.

### PHOTOGRAPHY & VIDEOGRAPHY

Divers need advanced diving skills to take pictures and video underwater. Photographic and video equipment is cumbersome and affects a diver's buoyancy and mobility in the water. It is all too easy to touch and damage marine life when concentrating on "the perfect shot."

#### ON DIVE BOATS

- Choose dive operations whose boats make use of available moorings—anchors and chains destroy fragile corals.
- Make sure garbage is well stowed, especially light plastic items.
- Be sure to take away everything you brought on board, such as packaging, used batteries and bottles.

### **SHORESIDE**

- Support conservation parks and other conservation projects:
  - Visit established conservation parks and pay applicable user fees that support marine conservation.
  - Encourage and support the use of dive moorings.
  - Participate in local initiatives to monitor the marine environment.
  - Participate in cleanups.
  - Make a donation or volunteer your skills to support a conservation park. For example, you can participate in a reef survey, conduct outreach, or help educate others about coral reef conservation.
  - Donate used equipment such as cameras, dive gear or reef identification books.
- Speak up. Make sure your dive buddies understand these simple but important conservation practices.

Good divers know that the best way to enjoy a reef is to slow down, relax and watch as reef creatures go about their daily lives undisturbed. Be sure to find out about local laws and regulations as they may differ from these general guidelines.

### GOOD ENVIRONMENTAL PRACTICES • SNORKELING

Coral reefs are among the world's most spectacular ecosystems and snorkeling is an excellent way to explore them. As coral reefs face an increasingly uncertain future, snorkelers and other coral reef visitors can play an important role in helping protect these fragile habitats. Please follow these simple guidelines to become a "coral friendly" snorkeler.

### **BEFORE SETTING OUT TO EXPLORE REEFS**

- For your vacation, choose an environmentally friendly resort or hotel; one that practices energy conservation, recycles, and treats sewage and solid waste in responsible ways.
- Pay user fees or make a donation when visiting conservation parks and other marine conservation areas.
- Get the best possible snorkeling instruction you can.
- Practice snorkeling skills away from the reef.
- Make sure your equipment fits properly before you snorkel near corals—it can be very difficult to adjust in the water.
- If you feel uncertain, or are an inexperienced snorkeler, consider wearing a snorkel vest for added buoyancy.
- Learn all you can about coral reefs—they are fascinating and fragile environments.

### IN THE WATER

- Never touch corals; even slight contact can harm them.
   Some corals can sting or cut you.
- Select points of entry and exit to avoid walking on corals
- Maintain a comfortable distance from the reef, so as to avoid contact.
- Know where your fins are at all times and don't kick up sand.
- Stay horizontal in the water while you're near or above the reef.
- Learn to swim without using your arms.
- Move slowly and deliberately in the water—relax as you swim and take your time.
- Remember, look but don't touch.

### MINIMIZE CONTACT WITH MARINE LIFE

- Take nothing living or dead out of the water except recent garbage which does not have living organisms on it.
- Never chase or try to ride marine life.
- Never touch, handle or feed marine life except under expert guidance and following locally-established guidelines.
- Avoid using gloves in coral environments.

### **ON BOATS**

- Choose snorkel operations whose boats make use of available moorings —anchors and chains destroy fragile corals.
- Make sure garbage is well stowed, especially light plastic items.
- Be sure to take away everything you brought on board, such as packaging, used batteries and bottles.

#### **SHORESIDE**

- Support conservation parks and other conservation projects:
  - Visit established conservation parks and pay applicable user fees that support marine conservation.
  - Encourage and support the use of boat moorings.
  - Participate in local initiatives to monitor the marine environment.
  - Participate in cleanups.
  - Make a donation or volunteer your skills to support a conservation park. For example, you can participate in a reef survey, conduct outreach, or help educate others about reef conservation.
  - Donate used equipment such as cameras, dive gear or reef identification books.
  - Avoid purchasing souvenirs made from coral, turtles or other marine life—this is often illegal, and it's never environmentally wise.
- Speak up. Make sure your snorkeling buddies understand these simple but important conservation practices.

Good snorkelers know that the best way to enjoy a reef is to slow down, relax and watch as reef creatures go about their daily lives undisturbed. Be sure to find out about local laws and regulations as they may differ from these general guidelines.

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