Alanna Smith from Te Ipukarea Society counting tara (sooty tern, *Onychoprion fuscatus*) nests in Suwarrow Atoll national park, July 2021. © Te Ipukerua Society, Cook Islands

SEABIRD ACTION PLAN

GOAL: Conserve seabirds and their habitats, recognising the traditions and aspirations of the peoples of the Pacific Ocean and islands.

Introduction

Of approximately the 11,000 species of birds worldwide, remarkably, only 370 are 'seabirds' (i.e. birds that spend most of their lives at sea). Of those, 42 are known to breed within Oceania, with 17 unique to our region.

Seabirds are more threatened than any other comparable group of birds and their status continues to deteriorate globally. Across the Pacific, albatrosses, petrels, shearwaters, and storm-petrels (family Procellariidae and Oceanitidae) in particular, have experienced greater population declines than other bird families. The loss of Oceania's seabirds also represents a loss of cultural values for Oceanic peoples. Restoring healthy populations of seabirds will help build ecosystem resilience, support terrestrial and nearshore habitats as important carbon sinks, and rebuild and retain Pacific peoples' cultural connections with seabirds and the ocean.

Species distribution

Species breeding within the region

The modern distribution of seabirds in Oceania is imperfectly known. There are numerous islands scattered throughout Oceania for which we know very little, or in some cases absolutely nothing, because of difficulty of access due to remoteness or natural barriers. Table 1 lists the species that are known or suspected to breed in the Pacific).[28]

Seabird breeding habitats range in altitude from high inland to coastal fringes and atoll islands. They occur on:

- large mountainous islands (e.g. New Ireland (PNG), Bougainville (PNG), Kolambangara (SI), Vanua Lava (V), Grande Terre (NC), Taveuni (FI), Gau (FI), Tahiti (FP))
- medium and small-sized islands (e.g. Matthew and Hunter Islands (NC), Ata (Tonga), Rarotonga (CI), Ta'u (AS) and Rapa islets (FP))
- raised atoll islands (makatea) (e.g. Walpole Island (NC) and Henderson Island (PI))
- low-lying atoll islands (e.g. Marshall Islands, Kiritimati and Rawaki, Line Islands (K), Chesterfield Reef (NC), Oeno (PI), Ducie (PI))
- emergent reef Pocklington (PNG) and sand cays.

28 American Samoa (AS), Cook Islands (CI), Federated States of Micronesia (FSM), Guam (GU), Kiribati (KI), Marshall Islands (MI), Nauru (NU), New Caledonia (NC), Niue (NI), Commonwealth of the Northern Marianas Islands (NMI), Palau (PA), Papua New Guinea (PNG), Pitcairn Islands (PI), Samoa (SA), Solomon Islands (SI), Tokelau (TOK), Tonga (TO), Tuvalu (TU), Vanuatu (VA), Wallis and Futuna (WF).

TABLE 1. Species of seabirds breeding or potentially breeding within the region

SEABIRD SPECIES	IUCN Threat	PACIFIC ISLAND COUNTRY OR TERRITORY																						
		AS	CI	FSM	FI	FP	GU	KI	MI	NA	NC	NI	NMI	PA	PNG	PI	SA	SI	TOK	TO	TU	VA	WF
Murphy's petrel *Pterodroma ultima*	LC					■										■							
Kermadec petrel *Pterodroma neglecta*	LC					■										■							
Phoenix petrel *Pterodroma alba*	EN					■		■								■							
Herald petrel *Pterodroma heraldica*	LC	■	■			■										■							
Henderson petrel *Pterodroma atrata*	EN															■							
Vanuatu Petrel *Pterodroma occulta*	VU																					■	
Collared petrel *Pterodroma brevipes*	VU				■																	■	
Black-winged petrel *Pterodroma nigripennis*	LC		■			■										■							
White-winged (New Caledonian) Petrel *Pterodroma leucoptera*	VU					■					■												
Fiji petrel *Pseudobulweria macgillivrayi*	CR				■																		
Bulwer's petrel *Bulweria bulwerii*	LC					■		■															
Tahiti petrel *Pseudobulweria rostrata*	NT	■			■	■					■						■						
Beck's petrel *Pseudobulweria becki*	CR														■			■					
Wedge-tailed shearwater *Ardenna pacifica*	LC		■	■	■	■		■	■		■	■	■		■					■		■	
Christmas Island shearwater *Puffinus nativitatis*	LC	■				■		■								■				■			
Heinroth's shearwater *Puffinus heinrothi*	VU														■			■					
Tropical shearwater *Puffinus bailloni*	LC	■				■		■						■			■	■		■		■	
Rapa shearwater *Puffinus myrtae*	CR					■																	
White-bellied storm petrel *Fregetta grallaria*	(LC)					■																	
Coral Sea or New Caledonian Storm-petrel *Fregetta lineata*	NA										■												

SEABIRD SPECIES	IUCN Threat	PACIFIC ISLAND COUNTRY OR TERRITORY																					
		AS	CI	FSM	FI	FP	GU	KI	MI	NA	NC	NI	NMI	PA	PNG	PI	SA	SI	TOK	TO	TU	VA	WF
Polynesian (White-throated) Storm Petrel *Nesofregetta fuliginosa*	EN				■	■		■			■					■	■						
Red-tailed tropicbird *Phaethon rubricauda*	LC	■	■	■		■		■	■		■		■			■				■			
White-tailed tropicbird *Phaethon lepturus*	LC	■	■	■	■	■		■	■	■	■	■	■	■	■		■	■	■	■		■	■
Brown booby *Sula leucogaster*	LC	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■		■	■
Masked booby *Sula dactylatra*	LC	■	■	■	■	■		■	■		■	■			■	■				■			
Red-footed booby *Sula sula*	LC	■	■	■	■	■		■	■		■		■	■	■	■	■	■		■	■		■
Great frigatebird *Fregata minor*	LC	■	■	■	■	■		■			■			■		■	■	■			■		
Lesser frigatebird *Fregata ariel*	LC	■	■	■	■	■		■			■				■			■		■			
Little white tern *Gygis microrhyncha*	LC					■																	
Silver gull *Chroicocephalus novaehollandiae*	LC										■												
Brown noddy *Anous stolidus*	LC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Black noddy *Anous minutus*	LC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Grey/Blue Noddy *Procelsterna albivitta/cerulea*	LC	■	■		■	■		■	■		■					■		■					
White tern *Gygis alba*	LC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
Sooty tern *Onychoprion fuscatus*	LC	■	■	■	■	■		■	■		■		■	■				■		■			
Grey-backed tern *Onychoprion lunatus*	LC	■		■		■		■			■			■									
Roseate tern *Sterna dougallii*	LC										■				■			■					
Bridled tern *Onychoprion anaethetus*	LC				■						■				■			■		■			■
Black-naped tern *Sterna sumatrana*	LC				■			■	■		■				■			■		■	■		■
Fairy tern *Sternula nereis*	VU										■												
Great crested tern *Thalasseus bergii*	LC			■	■	■		■	■		■			■	■			■					

■ Confirmed breeding

■ Resident/Suspected breeding (not confirmed)

Species breeding outside the region

Sixty species of seabirds, known to be breeding outside the region, have been recorded within PI states. These are species recorded by observers and either published in scientific papers, journals or citizen science internet sites, as well as data derived from species carrying tracking devices. Several species are annual trans-equatorial migrants, mainly species breeding on Aotearoa New Zealand and Australia that spend their non-breeding months north of the equator. Most notable are Mottled Petrel and Short-tailed Shearwater which head to the Bering Sea, and Sooty, Flesh-footed and Buller's Shearwaters, Cook's, Pycroft's and Black-winged Petrels which breed in the southern oceans and migrate to the North Pacific travelling between Japan and the North America's Pacific coast.

TABLE 2. Species that annually migrate across the Equator.[29]

			PACIFIC ISLAND COUNTRY OR TERRITORY																				
SEABIRD SPECIES	**IUCN RedList**	**Origin**	**AS**	**CI**	**FSM**	**FI**	**FP**	**GU**	**KI**	**MI**	**NA**	**NC**	**NI**	**NMI**	**PA**	**PNG**	**PI**	**SA**	**SI**	**TOK**	**TO**	**TU**	**VA**	**WF**
Arctic Jaeger *Stercorarius parasiticus*	LC	Ar		■		■	■					■				■			■				■	
Band-rumped Storm Petrel *Oceanodroma castro*	LC	Haw / Jap					■			■														
Black Petrel *Procellaria parkinsoni*	VU	NZ		■		■	■					■	■				■				■		■	
Black-bellied Storm Petrel *Fregetta tropica*	LC	NZ				■	■					■							■		■			
Black-footed Albatross *Phoebastria nigripes*	NT	Haw						■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■
Black-winged Petrel * *Pterodroma nigripennis*	LC	NZ/ Aus																						
Buller's Shearwater *Ardenna bulleri*	VU	NZ	■	■	■	■	■			■			■	■				■			■			■
Cook's Petrel *Pterodroma cookii*	VU	NZ	■	■		■	■				■	■							■	■	■		■	■
Flesh-footed Shearwater *Puffinus carneipes*	NT	NZ/ Aus		■	■	■	■			■	■	■	■			■		■	■		■		■	
Little Tern *Sternula albifrons*	LC	Ar			■			■	■	■		■		■	■	■		■	■					

29 Including Australia (Aus), Antarctic (Ant), Arctic (Ar), Chile (Ch), Hawaii (Haw), Japan (Jap), New Zealand (NZ)

SEABIRD SPECIES	IUCN RedList	Origin	PACIFIC ISLAND COUNTRY OR TERRITORY																				
			AS	CI	FSM	FI	FP	GU	KI	MI	NA	NC	NI	NMI	PA	PNG	PI	SA	SI	TOK	TO	TU	VA	WF
Long-tailed Jaeger *Stercorarius longicaudus*	LC	Ar			■							■		■	■	■			■				■	
Mottled Petrel *Pterodroma inexpectata*	NT	NZ	■	■		■	■		■	■		■	■					■			■		■	■
Pycroft's Petrel *Pterodroma pycrofti*	VU	NZ		■		■	■																■	■
Short-tailed Shearwater *Ardenna tenuirostris*		Aus	■	■		■	■		■			■	■				■	■		■	■		■	■
Sooty Shearwater *Ardenna grisea*	NT	NZ	■	■		■	■		■			■	■				■	■		■	■		■	■
Stejneger's Petrel *Pterodroma longirostris*	VU	Ch			■		■	■		■				■				■			■			
Streaked Shearwater *Calonectris leucomelas*	NT	Jap			■			■						■	■	■			■					
Wedge-tailed Shearwater * *Puffinus pacificus*	LC	NZ/ Aus																						
White-bellied Storm Petrel * *Fregetta grallaria*	LC	NZ/ Aus				■																		
White-necked Petrel *Pterodroma cervicalis*	VU	NZ	■	■	■	■	■	■				■	■	■				■			■		■	■
Wilson's Storm Petrel *Oceanites oceanicus*	LC	Ant			■	■				■		■							■					

■ Confirmed breeding ■ Resident/Suspected breeding (not confirmed)

* Same species breeding outside the region, but which may migrate or forage within the region (e.g. Wedge-tailed Shearwater and Black-winged Petrel from Aotearoa New Zealand and Australia).

Species status

Of the 42 species breeding within the region, three are listed as Critically Endangered (Fiji and Beck's petrel, Rapa shearwater), three Endangered (Phoenix and Henderson petrels, Polynesian storm petrel), five are Vulnerable (white-necked petrel, collared petrel, white-winged petrel, Heinroth's shearwater, and (New Caledonian) fairy tern), and one is Near Threatened (Tahiti petrel) (Table 1).

New Caledonian storm petrel at sea. © Hadoram Shirihai, Tubenoses Project

There is also taxonomic uncertainty over several taxa (tropical shearwater (Melanesian, Micronesian and Polynesian (tropical) shearwaters), white-necked petrel (white-necked and Vanuatu petrel), collared petrel (magnificent petrel and collared petrel), white-winged (Gould's) petrel (New Caledonian and Gould's petrel), white-bellied storm-petrel (titan storm-petrel), fairy tern).

In addition, there are at least three potentially undescribed streaked storm-petrel taxa ('Coral Sea' or 'New Caledonian' storm-petrel, 'Marquesas' storm-petrel, and 'Samoan' storm-petrel).

Traditional knowledge and customs

Seabirds are highly important to the heritage, folklore, totemism, and subsistence of many Pacific peoples. Seabirds played a critical role in the settlement and navigation of the Pacific, including the long-distance voyages that are known to follow the paths of migrating seabirds. Some seafaring peoples used shore-sighting birds, such as tropicbirds and white terns, to indicate when they were close to land. Seabird behaviour assists people to this day in finding fish at sea (tuna birds) and providing information on oceanic weather patterns.

Annual harvesting of chicks, adults, and eggs continue to be important traditional activities for a number of Pacific cultures and communities.

Seabird researcher discussing seabird identification with villagers, Silur Bay, New Ireland Province, Papua New Guinea. Photo: Bill Morris

Income-generating opportunities

Seabirds play a major role in shaping the ecology of terrestrial communities. They act as links between the land and sea by depositing marine-derived nutrients into terrestrial communities. Runoff from seabird colonies can provide nutrients to nearshore marine environments supporting marine food chains, including enhancing coral reef productivity. For example, fish biomass in coral reefs adjacent to a seabird colony increased by 48% when introduced predator species were removed from the colony and seabird activity subsequently increased.[30] Evidence indicates that rebuilding healthy seabird populations increases ecosystem resilience and supports livelihoods through fishing.

To witness the spectacle of seabirds massing over Kiritimati and Rawaki (Kiribati), Chesterfield Reefs (New Caledonia), Morotiri (French Polynesia), and Oeno and Henderson Islands (Pitcairn Islands) is to appreciate how seabirds serve as a conduit linking marine and terrestrial ecosystems. Like whale watching, seabirds can provide ecotourism opportunities for 'birders' from around the world to see the unique and rare seabird species of the Pacific.

Threats

Seabirds are exposed to threats both on land where they breed, and at sea where they feed and spend their time during migration and non-breeding periods. These threats vary in intensity across space and time. For the most part, the threats at sea are common to all marine groups covered by these action plans (whales and dolphins, dugong, sharks and rays, and marine turtles), whereas those on land relate more directly to seabirds.

Key land-based threats

- Invasive predator species
- Habitat loss, degradation, and modification
- Unsustainable harvesting of eggs, chicks, and adults
- Light pollution (causing disorientation and collisions)
- Climate change
- Disease

Key marine-based threats

- Incidental by-catch in fisheries
- Disruption to foraging opportunities induced by fisheries
- Pollution (plastic, oil spills, deep sea mining, and light)
- Climate change

30 Graham NA, Wilson SK, Carr P, Hoey AS et al. 2018 Jul 11. Seabirds enhance coral reef productivity and functioning in the absence of invasive rats. Nature. 559:250–253; [accessed 2022 Mar 11]. https://doi.org/10.1038/s41586-018-0202-3

Themes and objectives

THEMES	OBJECTIVES
1. **Research and monitoring**	1. Collect and centralise data on seabirds and make it accessible. 2. Improve knowledge of seabird species, breeding, population, trends, diet, and foraging distributions, ecosystem impacts, and threats.
3. **Climate change**	1. Protect vulnerable seabird breeding sites. 2. Incorporate seabird conservation into nature-based solutions to build ecosystem resilience.
3. **Ecosystems and habitat protection**	1. Protect critical habitat and migratory pathways for seabirds. 2. Prioritise marine areas for protection to align with seabird foraging and migration hotspots.
4. **Threat reduction**	1. Reduce direct and indirect land-based threats to seabirds. 2. Reduce marine-based threats to seabirds, including in areas beyond national jurisdiction (ABNJ).
5. **Cultural significance and value**	1. Incorporate traditional knowledge, stories, and customs about seabirds and their place in the cultural landscape in policies, plans, and public awareness materials, where culturally appropriate. 2. Ensure traditional knowledge informs management systems.
6. **Legislation, policy, and management**	1. Include measurable outcomes for seabird conservation in legislation, policy, and management plans.
7. **Ecotourism and livelihoods**	1. Support seabird-related marine-based ecotourism that contributes to the local economy. 2. Restore seabird colonies to improve local fisheries.
8. **Capacity building and collaboration**	1. Increase capacity for monitoring and managing seabird populations at community and national levels. 2. Enhance national, regional, and international collaboration.

Spotting seabirds offshore, Silur Bay, southern New Ireland, Papua New Guinea. Photo: Bill Morris

THEME 1: RESEARCH AND MONITORING

OBJECTIVE 1: Collect and centralise data on seabirds and make it accessible

NUMBER	ACTIONS	RESPONSIBILITY
1.1.1	Identify existing datasets on Pacific seabirds, update and expand the Regional Seabird Colony and Tracking Database and ensure access through SPREP's Pacific Environment Portal[31] or the Pacific Biodiversity Information Facility[32] (PBIF). Note other national and international databases and potential for interoperability. (i)	SPREP, Members, Partners
1.1.2	Develop a seabird node through the Pacific Environment Portal[31] or PBIF,[32] facilitating access to the database for all Members and partners. (ii)	SPREP
1.1.3	Promote access and data submission to the portal to Members and partners. (iii)	SPREP, Partners

INDICATORS	TIMEFRAME
i. Online regional colony and tracking database created, maintained, updated, and used by Members.	2022
ii. Links to relevant online seabird databases established and maintained (e.g. Threatened Island Biodiversity Database, BirdLife International's Seabird Tracking Database, Seabird Restoration Database).	2023
iii. Increased engagement with the colony database and tracking data is uploaded to BirdLife International's Seabird Tracking Database.	

Surveying within the sooty tern colony on Rawaki, Kiribati. © Ray Pierce

31 SPREP. Pacific environment data portal: environmental information for decision making [Internet]. SPREP; [accessed 2022 Feb 3]. https://pacific-data.sprep.org/

32 PBIF. Pacific Biodiversity Information Facility presents all of the Pacific biodiversity data available on GBIF [Internet]. SPREP; [accessed 2022 Feb 28]. https://pbif.sprep.org/g/

THEME 1: RESEARCH AND MONITORING

OBJECTIVE 2: Improve knowledge on seabird species, breeding, population, trends, diet and foraging distributions, ecosystem impacts, and threats

1.2.1	Develop partnerships between stakeholders, survey known colonies for population estimates, and confirm colony status of suspected breeding sites. (i)	SPREP, Members, Partners
1.2.2	Develop projects to locate breeding locations for species (including identification of cryptic species, e.g. Vanuatu petrel) where currently unknown, to assess threats and develop management and population monitoring plans. (ii)	SPREP, Members, Partners
1.2.3	Identify priority species for tracking projects to determine at-sea foraging distribution and migration using bird-borne tracking technologies. (iii)	SPREP, Members, Partners
1.2.4	Identify priority species and sites for demographic and diet studies. (iii) (iv)	SPREP, Members, Partners
1.2.5	Assess threats to breeding seabirds at different scales, including species, island, and colony scales. (v)	SPREP, Members, Partners
1.2.6	Develop and publish a guide on standardised research and monitoring methodology. (vi)	SPREP, Partners
1.2.7	Encourage Pacific island nationals to undertake postgraduate studies on seabird conservation / management. (vii)	Members

INDICATORS	TIMEFRAME
i. Partnerships between stakeholders have been developed for surveying and confirming known and new seabird colonies; population size estimates are being obtained.	Ongoing
ii. Breeding locations have been found and confirmed for highly threatened, cryptic, or data deficient species.	Ongoing
iii. Tracking and diet studies have been initiated.	2024
iv. Peer-reviewed articles and reports have been published on distribution, diet, and demography.	2026
v. Long-term monitoring programmes are established for threatened species.	2026
vi. Pacific Regional Research and Monitoring Guide has been published.	2023
vii. Students from Pacific island range states are enrolled in postgraduate studies on seabirds and island ecosystems.	2026

THEME 2: CLIMATE CHANGE

OBJECTIVE 1: Protect vulnerable seabird breeding sites

NUMBER	ACTION	RESPONSIBILITY
2.1.1	Investigate options for protecting and / or mitigating risks to species breeding on low-lying islands at risk from rising sea level and storm events.	SPREP, Members, Partners

INDICATOR	TIMEFRAME
▪ Species at risk from climate change impacts identified and sites for protection or translocation investigated.	2023

OBJECTIVE 2: Incorporate seabird conservation into nature-based solutions to build ecosystem resilience

2.2.1	Develop management plans incorporating seabird conservation to build ecosystem resilience in both terrestrial and near-shore / coral reef environments.	SPREP, Members

INDICATOR	TIMEFRAME
▪ Conservation management plans developed to take advantage of the benefits obtained by conserving seabirds in providing nature-based solutions to climate change.	2025

Seabirds over Nukutolu Islets, Northern Lau Group, Fiji. © Karen Baird

THEME 3: ECOSYSTEMS AND HABITAT PROTECTION

OBJECTIVE 1: Protect critical habitat and migratory pathways for seabirds

NUMBER	ACTIONS	RESPONSIBILITY
3.1.1	Identify and / or restore suitable alternative seabird colony sites to mitigate urban and agricultural impacts and climate change (see 2.1.1). (i)	SPREP, Members, Partners
3.1.2	Identify and prioritise critical habitats (e.g. breeding sites, foraging areas, migratory pathways) as nationally protected areas and / or KBAs, and target for protection through national planning processes (e.g. NBSAPs). (ii)	SPREP, Members, Partners
3.1.3	Develop capacity within local communities to undertake and monitor conservation management and restoration work. (iii)	SPREP, Members, Partners
3.1.4	Ensure that EIA processes take account of seabird breeding sites and flyways to avoid or mitigate adverse effects from rural and urban development (including lighting), conversion to plantations, agricultural expansion, mining, and logging. (iv)	SPREP, Members, Partners
3.1.5	Encourage and support Pacific range states to action principles of the CMS for seabirds and their habitats. (v)	SPREP, Members

INDICATORS	TIMEFRAME
i. Alternative seabird colonies are established as mitigation.	2026
ii. KBAs that include seabirds are protected through national planning processes.	2024
iii. Capacity building to monitor seabirds is being carried out.	2024
iv. EIA processes take account of threats to seabird breeding sites and flyways.	2024
v. Critical habitats for seabirds are both recognised (e.g. through KBAs) and protected through national planning processes.	2026

OBJECTIVE 2: Prioritise marine areas for protection to align with seabird foraging and migration hotspots

3.2.1	Identify priority marine areas for protection using information from seabird tracking projects (see 1.2.2). (i)	SPREP, CMS Secretariat, Members, Partners
3.2.2	Develop a network of dynamic marine protection zones for key seabird foraging periods (e.g. investigate feasibility of short temporal fishing closures in key areas). (ii)	SPREP, Members, Partners

INDICATORS	TIMEFRAME
i. Marine areas covering seabird foraging hotspots are defined and gazetted for temporal and / or spatial protection.	2026
ii. Key seabird foraging areas are protected by dynamic MPAs.	2026

THEME 4: THREAT REDUCTION

OBJECTIVE 1: Reduce direct and indirect land-based threats to seabirds

NUMBER	ACTIONS	RESPONSIBILITY
4.1.1	Eradicate or control invasive alien species (animal and plant) at targeted and priority seabird breeding sites and monitor and maintain biosecurity at these sites. **(i)**	SPREP, Members, Partners
4.1.2	Set seabird and egg harvest levels under appropriate traditional or legislative frameworks to promote recovery of depleted and declining populations. **(ii)**	SPREP, Members, Partners
4.1.3	Avoid or mitigate, as appropriate, infrastructure and industry development to take account of seabird attraction to lights and potential for collisions with power lines and other infrastructure at height (refer to CMS Light Pollution Guidelines).[33] **(iii)**.	SPREP, Members, Partners
4.1.4	Investigate potential stressors on seabird populations that can contribute to outbreaks of disease. **(iv)**	SPREP, Members, Partners

INDICATORS		TIMEFRAME
i.	Eradication or control programmes established for critical habitats for seabirds.	2024
ii.	Sustainable harvest management plan in place where traditional harvest takes place.	2024
iii.	Avoidance or mitigation implemented that reduces light pollution impacts and potential collisions with power lines.	2023
iv.	Stress factors that can lead to seabird disease outbreaks investigated.	2026

Brown booby, Fiji Islands. © Karen Baird

33 Government of Australia. 2020. National light pollution guidelines for wildlife including marine turtles, seabirds and migratory shorebirds [Internet]. CMS; [accessed 2022 Feb 3]. https://www.cms.int/sites/default/files/document/cms_cop13_doc.26.4.9.1_rev.1_australia-light-guidelines_e.pdf

THEME 4: THREAT REDUCTION

OBJECTIVE 2: Reduce marine-based threats to seabirds, including in areas beyond national jurisdiction (ABNJ)

4.2.1	Build on existing compliance systems in-country to enforce regulations around seabird by-catch in RFMOs, e.g. Western Central Pacific Fisheries Commission. (i)	Members, Partners
4.2.2	Undertake port-based outreach with fishing vessels providing information and education on required conservation and management measures for mitigation of seabird by-catch and safe handling and release guidelines. (ii)	SPREP, Members, Partners
4.2.3	Continuously monitor the effectiveness of provisions within RFMOs to reduce seabird by-catch and allow impacted populations to recover. (iii)	Members, Partners
4.2.4	Investigate potential indirect effects from fisheries on seabird populations and using seabirds to further our understanding of predator–prey dynamics and the health of marine ecosystems. (iv)	SPREP, Members, Partners
4.2.5	Establish a region-wide programme using several INDICATOR species to monitor the nature and incidence of plastic ingestion in seabirds. (v)	SPREP, Members, Partners
4.2.6	Identify areas where marine structures or lighting on vessels at night are problematic for seabirds, and develop methods of mitigation (refer to CMS Light Pollution Guidelines).[33] (iv)	SPREP, Members, Partners

INDICATORS	TIMEFRAME
i. Enforcement of national by-catch mitigation requirements on fishing vessels is occurring.	Ongoing
ii. Port-based outreach extension programmes have been established to improve awareness and compliance of seabird by-catch mitigation measures.	2023
iii. Seabird by-catch mitigation requirements and enforcement in RFMOs is allowing impacted seabird populations to recover.	2025
iv. Research on the indirect effects of fisheries on seabird populations is being supported.	Ongoing
v. Seabird indicator species for plastic pollution (ingestion) have been identified.	2024
vi. Promotional material on the impact of light on seabirds at sea has been developed and shared and, if appropriate, mitigation options produced and circulated.	2025

Feeding brown and red-footed boobies, Samoa. © Juney Ward, SPREP

THEME 5: CULTURAL SIGNIFICANCE AND VALUE

OBJECTIVE 1: Incorporate traditional knowledge, stories, and customs about seabirds and their place in the cultural landscape in policies, plans and public awareness materials, where culturally appropriate

NUMBER	ACTIONS	RESPONSIBILITY
5.1.1	Work with traditional knowledge holders to understand historical and current distribution of seabirds, long-term trends, and potential for restoration. (i)	SPREP, Members
5.1.2	Preserve and protect the traditional knowledge and values associated with seabirds in artforms, video, audio and publications. (ii)	SPREP, Members, Partners
5.1.3	Encourage contemporary artists and artisans within the region to incorporate the significance of Pacific seabirds into their work. (ii)	SPREP, Members

INDICATORS	TIMEFRAME
▪ Traditional knowledge holders contribute to knowledge of seabird distribution, trends, and potential for restoration.	Ongoing
▪ Projects to support traditional knowledge and values in art are supported.	Ongoing

OBJECTIVE 2: Ensure traditional knowledge informs management systems

5.2.1	Integrate cultural practices, values, and knowledge associated with seabirds into management plans, national policies, and legislation. (i)	SPREP, Members

INDICATOR	TIMEFRAME
i. Traditional values, knowledge, and cultural practices are recorded and included in management plans, national policies, and legislation.	2025

THEME 6: LEGISLATION, POLICY AND MANAGEMENT

OBJECTIVE 1: Include measurable outcomes for seabird conservation in legislation, policy, and management plans

NUMBER	ACTIONS	RESPONSIBILITY
6.1.1	Review legislative mechanisms to assess where seabird conservation actions can be applied within existing frameworks and identify gaps. (i)	SPREP, Members
6.1.2	Integrate seabird conservation into regional and international initiatives, including the CMS, e.g. nominating threatened regional seabird species to Appendix I or II. Also consider joining the CMS daughter agreement: ACAP.[34] (ii)	SPREP, Members, Partners

INDICATORS	TIMEFRAME
i. Report of the outcomes of the legislative review and recommendations for changes published.	2024
ii. Seabirds explicitly included in national plans of action (NPOAs) and advocated for at international fora.	Ongoing

34 ACAP. 2004. Agreement on the conservation of albatrosses and petrels [Internet]. ACAP; [accessed 2022 Feb 3]. https://www.acap.aq/

THEME 7: ECOTOURISM AND LIVELIHOODS

OBJECTIVE 1: Support seabird-related marine-based ecotourism that contributes to the local economy

NUMBER	ACTIONS	RESPONSIBILITY
7.1.1	Review marine-based tourism including economic benefits / value and level of interest in the region's seabirds. (i)	SPREP, Members
7.1.2	Identify opportunities to support wildlife tourism for seabirds at the community level. (ii)	SPREP, Members, Partners
7.1.3	Encourage marine tour operators to include information about seabirds as part of marine tour operations and prioritise training and employment of Pacific island nationals as nature guides and boat drivers. (iii)	SPREP, Members
7.1.4	Encourage and support Pacific island nationals to start and run appropriate marine wildlife ventures. (iv)	SPREP, Members

INDICATORS		TIMEFRAME
i.	A review of potential for seabird inclusion in marine-based tourism has been completed.	2026
ii.	Seabirds are included in local wildlife tourism ventures.	2026
iii.	Pacific island nationals are employed in wildlife tourism.	2024
iv.	Wildlife ventures are owned and operated by Pacific island nationals.	2025

OBJECTIVE 2: Restore seabird colonies to improve local fisheries

7.2.1	Collaborate with fishers to develop adaptive fishing practices where seabird restoration is occurring, to demonstrate the benefits to nearshore and reef fish productivity. (i)	SPREP, Members, Partners

INDICATOR		TIMEFRAME
i.	Adaptive fishing practices have been established collaboratively with fishers and are demonstrating the benefits of seabird restoration to nearshore and reef fish productivity.	2026

Fiji Petrel, Fiji. © Hadoram Shirihai, Tubenoses Project

THEME 8: CAPACITY BUILDING AND COLLABORATION

OBJECTIVE 1: Increase capacity for monitoring and managing seabird populations at community and national levels

NUMBER	ACTIONS	RESPONSIBILITY
8.1.1	Help communities to build skills and knowledge in mapping, recording, and monitoring seabird populations, and to participate in conservation programmes (e.g. access to expertise and resources, including possible exchange programmes with countries that have greater expertise). (i)	SPREP, Members
8.1.2	Develop practical training modules and / or workshops for survey methods based on regional priorities, including searches for breeding sites, data collection, and monitoring colonies. (ii)	SPREP, Members, Partners
8.1.3	Investigate options for providing tertiary scholarships in both marine and social sciences relating to Pacific seabird ecology. Support internship and training on seabirds through research centres, universities, and other agencies throughout the region, and with major partners (e.g. Aotearoa New Zealand, Australia, France, UK, and USA). (iii)	SPREP, Members, Partners
8.1.4	Develop workshop programmes for effective research, conservation, and management of seabirds, drawing on regional expertise. (iv)	SPREP, Members, Partners
8.1.5	Develop in-country capacity to monitor existing seabird harvesting to ensure sustainability. (v)	SPREP, Members, Partners

INDICATORS	TIMEFRAME
i. Communities supported to build knowledge and skills to manage conservation of seabird colonies, e.g. exchange programmes.	2025
ii. Regional workshops for survey methods and colony monitoring undertaken.	2025
iii. A scholarship for tertiary students on Pacific seabird ecology has been awarded.	2024
iv. Workshops are available for Pacifica on research, conservation, and management of seabirds.	2025
v. In-country capacity has been developed to monitor sustainability of harvesting.	2026

OBJECTIVE 2: Enhance national, regional, and international collaboration

8.2.1	Encourage the transfer of seabird knowledge and expertise between projects through exchange opportunities for conservation workers. (i)	SPREP, Members, Partners
8.2.2	Establish a Pacific seabird expert advisory group that can help provide advice through SPREP and negotiate and advocate for regional policies at international fora. (ii)	SPREP, Members, Partners
8.2.3	Encourage international cooperation for the protection of Pacific seabirds through the CMS and ACAP. (iii)	SPREP, CMS Secretariat, Members, Partners

INDICATORS	TIMEFRAME
▪ Exchange opportunities are provided for conservation workers.	2024
▪ Seabird expert advisory group is in place.	2022
▪ Participation in CMS / ACAP discussions and priority settings is promoting the consideration of the requirements of Pacific seabirds.	Ongoing