Protection of Pacific spaces

Forest mangroves, Buena Vista Island, Solomon Islands. © Stuart Chape

Pacific protected areas

Pacific island countries and territories are well placed to lead in the protection of nature, with customary land tenure and vast expanses of ocean within their Exclusive Economic Zones (EEZs). Establishing protected areas has been used as a key mechanism for countries to conserve their biodiversity around the world and in the Pacific island countries and territories. Global targets were set for the percentages of land and ocean to be placed under protection as defined in Aichi Biodiversity Target 11 of the Convention on Biological Diversity (CBD) Strategic Plan 2011–2020: 17% of terrestrial and inland water, and 10% of coastal and marine areas. (Box 13.1). At the end of the decade for implementing the Aichi Targets, the Pacific islands region has achieved 6% coverage of terrestrial protection and 20% marine protection. The lower achievement for terrestrial protection can be attributed to the long time frames required to negotiate protected status in a region where land and resource ownership is predominately customary. By contrast, the region leads the world in the establishment of marine protected and managed areas in oceanic domains controlled by national governments. In addition to Aichi Target 11, the global Sustainable Development Goals (SDGs) also include percentage protection targets including SDG 14.5: by 2030, conserve at least 10% of coastal and marine areas. Within the region, Micronesia leaders declared the Micronesia Challenge to effectively conserve at least 30% of near-shore marine resources and 20% of terrestrial resources across Micronesia by 2020. That challenge has recently been renewed, with the aim to conserve 50% of marine resources and 30% of terrestrial resources by 2030. Commitments at national levels have also been significant. For example, both Fiji and Samoa have committed to conserving 30% of their EEZs, and the Cook Islands declared the Marae Moana Marine Park over its entire EEZ in 2017.

Context of protected areas in the Pacific islands region

Pacific people maintain strong ties to the environmental resources underpinning their cultures, livelihoods, and economies, part of the Blue Pacific identity endorsed by Pacific Leaders in 2017. Pacific leaders prioritise living with biodiversity, rather than creating or widening a gap between society and nature. These aims are referenced in regional frameworks including the Framework for Resilient Development in the Pacific (2016).

In general, due to land tenure arrangements and customary resource rights, co-managed protected areas between communities and states or non-governmental organisations (NGOs) and community conservation with government or NGO support is widely practised in the region and is likely the most appropriate governance models for protected areas in the Pacific islands region (SPREP 2013, Govan 2017). Certainly, protection of priority areas is a process that must involve concerned communities.

To ensure joint actions in Pacific countries remain Pacific-driven, the Pacific Islands Framework for Nature Conservation and Protected Areas 2014–2020 endorsed by SPREP Member countries and territories laid out key principles for nature conservation in the Pacific; the new Framework for Nature Conservation and Protected Areas 2021–2025 is to be submitted to the 10th Pacific Islands Conference on Nature Conservation and Protected Areas (Annex D). The Regional Indicator: Governance and equity of protected areas (see below) is designed to monitor the equitable, sustainable management of Pacific protected areas for the long-term benefit of Pacific people, ecosystems, and species.

Planning for protection

Defining protected areas through a spatial and social planning process that includes addressing conservation priorities such as Key Biodiversity Areas identifies the multiple, overlapping uses and users who rely on resources, services, and species from a defined place. This identification provides justification and direction for the amount and kind of protection, restoration, conservation, and engagement with the ecosystem.

When designating a protected area, decision-makers consider many factors, including information regarding the species and ecosystem services and their vulnerability to pressures, the presence of priority habitats and diversity of habitats, and socio-economic considerations such as the use of the area for subsistence, livelihoods and other economic activities, and cultural traditions. Accurately assessing and prioritising impacts requires inclusive approaches over time.

The quality of protection and of the area designated for priority habitats, species and uses must be considered alongside the size of the proposed protected area (Barnes et al. 2018). Assessments of protected area management effectiveness and long-term assessments of ecosystem health inside and outside of protected areas need to be combined with assessments of community wellbeing.

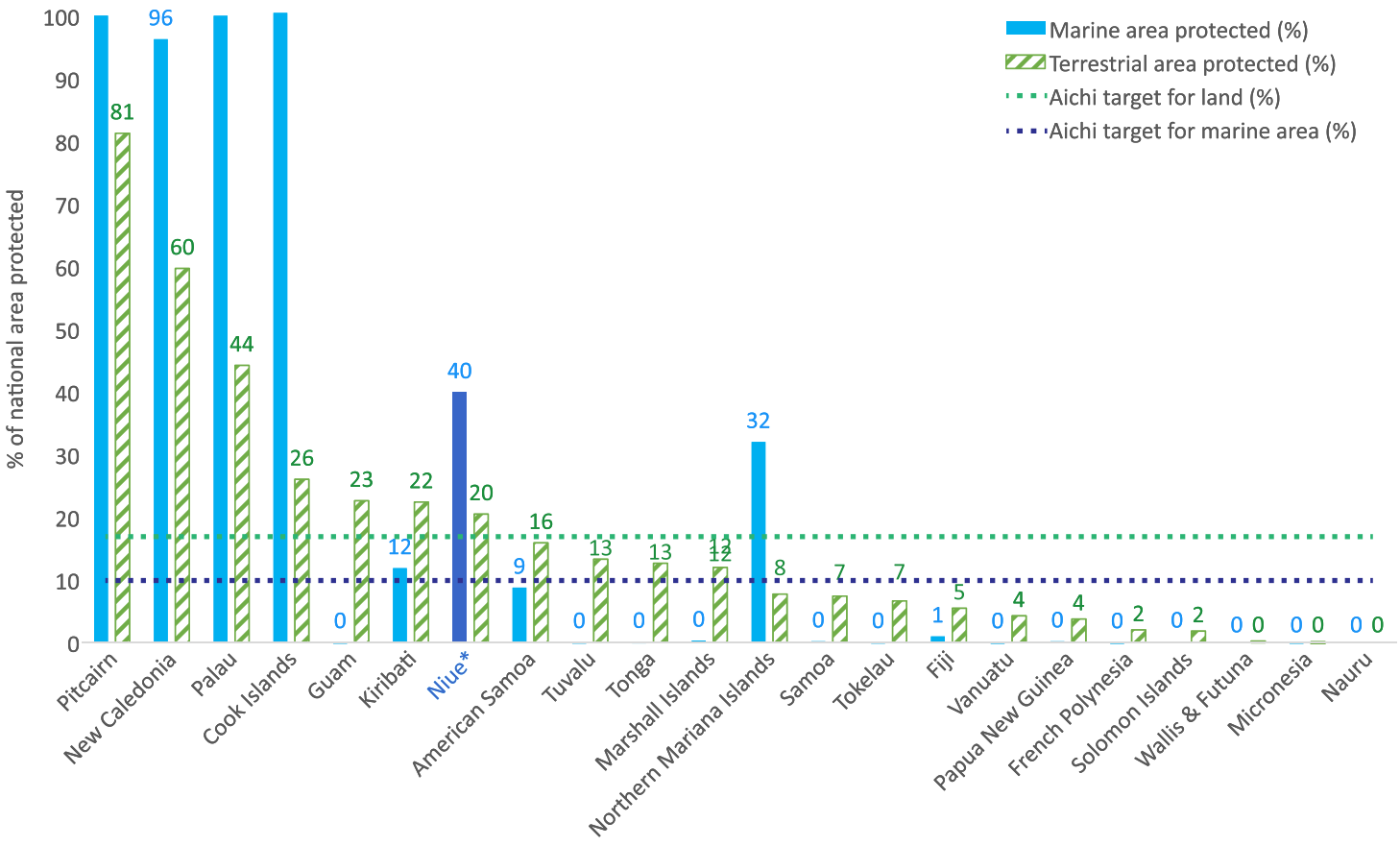


FIGURE 13.1. Percentage of terrestrial and marine areas protected by Pacific islands, arranged by protected area for land ecosystems. Approximately 40% of Niue's marine area will be protected under a new MPA established under the Niue Moana Mahu Marine Protected Area Regulations 2020; Niue is undertaking the process of formally updating its WDPA record. Source: World Database on Protected Areas (June 2020)

Measuring protection

For this assessment, official data supplied by governments and held in the World Database on Protected Areas (WDPA) were used. The WDPA is a joint project of the International Union for the Conservation of Nature (IUCN) and UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and is the most comprehensive global database on terrestrial and marine protected areas as defined using IUCN and CBD definitions.

The Pacific Islands Protected Areas Portal (PIPAP: https://pipap.sprep.org/) is the online data source for protected areas in the region, providing a network, management tools, and supporting information alongside nationally vetted datasets. Pacific data are now synchronised between the WDPA and the PIPAP.

However, there are information gaps for the Pacific as well as issues surrounding data quality, which temper conclusions about protected area coverage. Local management and protective measures used in the Pacific may not align with IUCN and CBD definitions, and therefore local conservation agreements or community management measures might not be counted in international datasets but still have meaningful benefits for local ecosystems (see Boxes 13.3 and 11.1) (Smallhorn-West & Govan 2018). Current efforts are underway to progressively address these information gaps.

The Biodiversity and Protected Areas Management (BIOPAMA) Programme is conducting separate analyses to create the forthcoming State of Protected and Conserved Areas in Oceania (SoPACA) report, funded by the European Union and the Organisation of African, Caribbean and Pacific States (Leverington et al. 2020). For more, see www.biopama.org

Most Pacific island countries and territories have updated their data in the WDPA within the last five years; only three have their most recent submission from 2010 or prior. Data for seven of the 14 Pacific island countries in the WDPA has been reviewed and updated up to 2020 through the SPREP partnership with UNEP-WCMC and with support from BIOPAMA. A key challenge is the wide-ranging classifications that each country uses for protected areas: a lack of standardization is a barrier to specific analyses on protected area types. Figure 13.1 presents the current state of data for marine and terrestrial protected area coverage for each country and territory.

UNEP-WCMC is now working with indigenous and local communities to self-report on territories and areas that are conserved by indigenous peoples and local communities. As of 2020, only 1% of the sites reported on the WDPA are reported as under such governance, which is known to be an underestimation. For more, see https://www.iccaregistry.org/.

TABLE 13.1: Formally designated protected areas (PAs) in the Pacific islands region. The total number of protected areas is regularly updated. The size (km²: square kilometres) of protected areas depends in part on the mapping system used; for this reason, slight variations in the reported coverage are to be expected. *Source: World Database of Protected Areas, October 2020; for EEZ: World Exclusive Economic Zones, version 11 (November 2019), Marineregions.org; for terrestrial area: United Nations Statistics Division; for Niue's marine protected area, Niue Moana Mahu Marine Protected Area Regulations 2020*

	NUMBER OF PAs	PAs WITH MANAGEMENT EVALUATIONS	TERRESTRIAL AREAS COVERED BY PROTECTED AREAS IN KM² (%):		MARINE AREAS COVERED BY PROTECTED AREAS IN KM² (%):		TOTAL EXTENT OF PAs IN KM² (%)		TERRESTRIAL AREA (KM²)	MARINE AREA[1] (KM2²)
American Samoa	14	0	33	(15.9)	35,458	(8.7)	35,491	(9)	199	405 830
Cook Islands	17	0	67	(26.0)	1,981,949	(100.5)	1,982,016	(100)	236	1 969 553
Northern Mariana Islands	27	2	38	(7.7)	247,322	(32.0)	247,360	(32)	464	763 626
Micronesia, Fed. States	5	1		(0.1)	475	(0.0)	475	(0)	702	3 010 644
Fiji	146	2	1,037	(5.4)	11,959	(0.9)	12,996	(1)	18 274	1 289 978
French Polynesia	10	1	74	(2.0)	207	(0.0)	281	(0)	4 000	4 766 689
Guam	10	0	15	(2.7)	37	(0.0)	52	(0)	549	208 234
Kiribati	13	2	231	(22.4)	408,797	(11.8)	409,028	(12)	726	3 440 220
Marshall Islands	16	0	34	(11.9)	5,388	(0.3)	5,422	(0)	181	2 001 566
Nauru	0	0		(0.0)		(0.0)		(0)	21	309 261
New Caledonia	115	1	11,419	(59.7)	1,320,501	(96.3)	1,331,920	(96)	18 575	1 175 971
Niue[2]	5	0	55	(20.4)	127,000	(40.0)	59	(0)	260	318 140
Palau	66	15	221	(44.2)	608,173	(100.0)	608,394	(100)	459	614 807
Papua New Guinea	57	41	17,248	(3.7)	3,344	(0.1)	20,592	(1)	462 840	2 399 638
Pitcairn	2	1	37	(81.2)	839,649	(100.0)	839,686	(100)	5	842 291
Samoa	99	0	238	(8.2)	191	(0.1)	429	(0)	2 831	130 480
Solomon Islands	92	1	530	(1.8)	1,879	(0.1)	2,409	(0)	28 896	1 605 325
Tokelau	3	0	1	(6.6)	10	(0.0)	11	(0)	12	320 548
Tonga	50	1	96	(12.6)	390	(0.1)	486	(0)	747	666 052
Tuvalu	9	0	6	(13.2)	214	(0.0)	220	(0)	26	753 133
Vanuatu	34	3	528	(4.2)	48	(0.0)	576	(0)	12 189	623 424
Wallis & Futuna	1	0		(0.2)		(0.0)		(0)	200	262 750
Total	**791**	**71**	**31,908**	**(5.7)**	**5,592,991**	**(20.3)**	**5,634,898**	**(20.1)**	**552 392**	**27,878,160**

[1] Exclusive Economic Zone (EEZ), part of the waters governed by a country. The disputed area of Matthew and Hunter Islands with 187,184 km² is not included in either New Caledonia or Vanuatu data here but is included in the sum of regional EEZs. Note that the EEZ area used by the WDPA to calculate the percentage of national territory protected differs slightly due to variations in map projections. The Pacific islands region also contains 31,116,075 square kilometres of High Seas, the open waters outside of the national jurisdiction of any country also known as International Waters or Areas Beyond National Jurisdiction.

[2] In 2020, Niue designated 127,000 km² of its EEZ as a new MPA, under the *Niue Moana Mahu Marine Protected Area Regulations 2020*. Niue is working with PIPAP (SPREP) to update its data in the WDPA.

BOX 13.1: PROTECTION DOES NOT STOP AT A PERCENTAGE

Although easy to quantify, the spatial extent of a protected area gives little information about its quality (of the area or of the protection provided) and the resulting impact on biodiversity. Equally, the achievement of designated protection of a defined area does not end the process of support to sustain effective management.

Effective protection of biodiversity, inside and out of protected areas, requires healthy natural resources and management resources. Just as the policy framework and societal engagement are essential for effective biodiversity conservation, so too are the ecological framework of the surrounding ecosystems and the ability of species to use connections among habitats. These connections ensure genetic diversity and replenishment from other populations of the species in and near the protected area. Healthy, connected Pacific landscapes and seascapes are essential for Pacific biodiversity.

Global environmental change, with its transboundary impacts and disproportionate burdens, makes the preservation of natural spaces even more essential, but more challenging. Cooperative national and international efforts to mitigate transboundary pressures, such as climate change and pollution, are increasingly important for Pacific islands.

Protected areas can be natural experiments to test management measures and progress toward the management objectives for which the protected area was established. Identification of these special areas must be followed by identification of the most appropriate and sustainable management actions, accompanied by evaluations of these management actions to increase our understanding of the drivers of ecosystem services and biodiversity loss or gain. In the Asia-Pacific region, spatial protection has not slowed the rate of species loss (IPBES 2018).

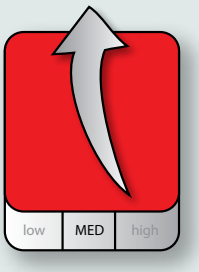
Reprieve from extraction, as in a no-take protected area, is not always enough to boost biodiversity. Growing evidence suggests that sustainable interactions of humans and biodiversity, often following customary law and traditional knowledge, are effective for reaching biodiversity goals (IPBES 2018).

Active, responsive, and adaptive management of natural areas, in alignment with Pacific traditions, can help support the resilience of people and the natural world.

THEME **Conservation and Protection**

INDICATOR **Terrestrial Protected Areas**

DEFINITION	% of land area formally protected for conservation
PURPOSE	Protected areas are established to protect biodiversity and ecosystem services from resource extraction and unsustainable harvesting
DESIRED OUTCOME	Positive trend in area protected; or all terrestrial ecosystems are adequately represented in the protected areas network; or ≥17% of land area is protected (Aichi Target 11)



Status
Poor

Trend
Improving

Data confidence
Medium

YUS Conservation Area. © Paul van Nimwegen

PRESENT STATUS

The Pacific islands have a total land area of approximately 546,220 square kilometres. Protected terrestrial areas cover 31,979 square kilometres of this land, nearly 6% of the total land across the region (Table 13.1).

Seven countries and territories have reached the terrestrial protection target of 17% set out under CBD Aichi Target 11: Pitcairn, New Caledonia, Palau, Cook Islands, Guam, Kiribati, and Niue (Figure 13.1). In addition, American Samoa, Tuvalu, Tonga, and Marshall Islands are approaching the target. Five countries and territories have a negligible proportion (less than 2%) of their land protected. This marks improvement since 2013 when only four countries had reached Aichi Target 11 and 5% of the total land in the region was within protected areas (SOCO 2017).

There is a *positive* trend in the designation of land area as protected, and there is *medium* confidence in the amount of available data on the spatial extent of areas labelled as protected. However, more commitment is required in the larger Melanesian countries to ensure adequate protection of terrestrial ecosystems.

Enforcing meaningful protection of those areas and monitoring the results remain challenging. Less than 1% of the protected land in the Pacific islands region has undergone the Protected Area Management Effectiveness (PAME) evaluation (see below; Table 13.1; WDPA 2020).

The amount of protected land increased for eight Pacific island countries and territories since 2013 (SOCO 2017).

It is relatively easy to measure the percentage of an area designated as protected. However, not all areas are equal: species populations, essential habitats, human uses, and human impacts are typically concentrated in certain areas (see also Regional Indicator: Key Biodiversity Areas). Climate change and invasive species remain the greatest threats to the biodiversity and habitats within terrestrial Pacific protected areas. Pacific managers are using protected status as a key criteria in the definition of priority sites for invasive species management (see Regional Indicators: Invasive species).

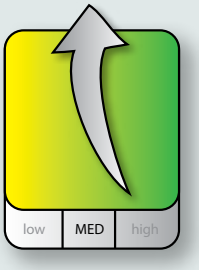
Connections among protected areas are essential for their survival, to maintain genetic diversity and 'restock' populations after a disaster, such as a bleaching or disease event. Globally, there has been a small but positive increase in the percentage of protected connected land from 6.5% in 2010 to 7.7% in 2018 (Saura et al. 2019). Regionally, Oceania showed the largest increase in the connectivity of protected land from 2010 to 2018, with the greatest changes in Australia and New Zealand but the largest proportion of connected land in Micronesia.

Pacific people are receptive to the protection of natural spaces and biodiversity. Over 80% of residents of Ngardmau State, Palau, reported positive livelihood, economic, and environmental benefits of the local system of protected areas (Marino & Uchel 2019). Over 20% of residents reported their perception of a positive change in the terrestrial environment under protection. In Tonga, the number of Special Management Areas more than doubled between 2016 and 2019 as communities sought to adopt this management approach (Smallhorn-West et al. 2020).

THEME **Conservation and Protection**

INDICATOR **Marine Protected Areas**

DEFINITION	% of EEZ formally protected for conservation
PURPOSE	Protected areas are established to protect biodiversity and ecosystem services from resource extraction and unsustainable harvesting
DESIRED OUTCOME	Positive trend in area protected; or ≥10% of EEZ is protected (Aichi Target 11)



Status
Fair to good

Trend
Improving

Data confidence
Medium


Funafuti Conservation Area, Tuvalu. © V. Jungblut

PRESENT STATUS

The Pacific islands region (including Pitcairn) has an area of ocean of approximately 58,994,235 square kilometres, which includes international waters and approximately 27,878,160 square kilometres of national exclusive economic zones (EEZs), 20% of the global EEZs. Protected marine areas cover 5,602,919 square kilometres[1] of this area, approximately 20% of Pacific EEZs. Less than 4% of the marine protected area of the Pacific islands region has undergone the Protected Area Management Effectiveness (PAME) evaluation (see Table 13.1; WDPA 2020).

Cook Islands, Commonwealth of the Northern Mariana Islands, Kiribati, New Caledonia, Palau, and Pitcairn have exceeded the marine target set out under CBD Aichi Target 11, with more than 10% of their waters protected (Figure 13.1). (Note that reports to CBD will combine a territory and its partner country.) In April 2020, Niue joined this group by passing the *Niue Moana Mahu Marine Protected Area Regulations 2020*, giving legal protection to 40% of Niue's EEZ. Most countries and territories (15 of 22) have less than 2% of their national waters protected. In 2017, the Cook Islands declared its entire EEZ as the multiple use Marae Moana Marine Park. In 2020, Palau's no-take national marine sanctuary took effect, covering 80% of the exclusive economic zone and augmenting the 40% of coastal habitats under protection or management.

Pacific marine protected areas account for over 48% of the protected marine area in the Asia-Pacific region but only 9% of the total marine area in the Asia-Pacific region. Globally, 11.4% of the ocean under national governance is within designated marine protected areas.

Types of protection vary. Restrictions, closures or mandated behaviours can be defined across space, seasons or other time periods, or species-specific. Locally managed marine areas (LMMAs) that build on participatory management and account for local needs, traditions, and self-governance have been a particularly effective Pacific innovation (Govan 2017; Box 11.1). Sanctuaries established for species or groups of species, such as whales or sharks, have been an effective conservation tool used in the Pacific islands region (see Regional Indicator: Migratory species of concern).

BOX 13.2: COMMUNITIES IN PALAU SUPPORT MARINE PROTECTION

The Palau International Coral Reef Center quantified the knowledge, perceptions, and support of communities living alongside protected areas. Using surveys, the managers could identify how people learned about the protected areas and how they felt affected. Among their findings:

	NGARCHELONG STATE	NGARDMAU STATE
People showed 'high' or 'extensive' levels of support for the state conservation areas	over 50%	over 60%
People saw some or great increase in the overall quality of the marine environment and the abundance of fish	over 40%	over 30%
People agreed that the conservation area was beneficial to their community	over 50%	over 80%

Source: Marino et al. (2019), Marino & Uchel (2019)

1 This value includes the 127,000 km² of Niue's newly designated MPA that is not yet formally registered in the WDPA; without this value, the marine area under protection is 5,475,828 square kilometres.

TRENDS IN MARINE PROTECTION

Large increases in marine protected areas have been established in the last five years in the Pacific islands region. However, assessment, monitoring, and enforcement remain challenges for these vast areas. The digital revolution may transform monitoring through the use of remote and long-distance sensing, but comprehensive enforcement and response measures, including enforcement capacity and legal actions, require long-term resourcing.

Comprehensive marine habitat mapping is still a developing science in the Pacific islands region. Although communities have rich traditional knowledge of species abundances, fishing techniques, and management practices, the information regarding seabed characteristics and habitat change is more limited and requires technological input.

Historically, the greatest pressures have been on pelagic marine species in the open ocean and on nearshore habitats. Emerging industries such as deep-sea mining now require leaders to consider the marine seabed as part of the connected seascape of Pacific oceanic and coastal ecosystems and habitats, including potentially as part of regional and national systems of protected areas.

Ensuring the sustainability of effective marine biodiversity protection is an ongoing process important for the Pacific progress toward the Sustainable Development Goals, ensuring that no one is left behind, particularly as there are differences among genders or other social groups in the access to marine spaces and use of marine resources in many Pacific cultures (Michalena et al. 2020).

BOX 13.3: PROTECTING THE HIGH SEAS

Approximately two-thirds of the world's ocean is outside of national waters, but only 1% of the high seas are protected from industry.

In 2015, the United Nations General Assembly adopted a resolution to develop an internationally binding legal instrument under United Nations Convention on the Law of the Sea for the conservation and sustainable use of biodiversity in areas beyond national jurisdiction. The draft text of the agreement is under negotiation, with the fourth substantive session of the intergovernmental conference scheduled for 2020 presently postponed.
See: www.un.org/bbnj/

Pacific leaders have called for protection of the high seas pockets between Pacific EEZs since the Noumea Convention (Govan 2017). Without designated high-seas MPAs, Pacific leaders have created protective measures through fishing regulations of fishing practices and gear, including the closure of these high seas pockets to purse seine fishing.

Indigenous peoples and local communities will disproportionately bear the burden of loss of biodiversity or ecosystem services from the global ocean commons, as can be seen from case studies of highly migratory species (Vierros et al. 2020; see Regional Indicator: Migratory species of concern).

CRITICAL CONNECTIONS

Global environmental change and human pressures have cascading impacts that are difficult or impossible to predict with our present knowledge. Simultaneously, the protection of biodiversity and use of ecosystem-based approaches have cascading co-benefits for our people and our islands.

Spatial protection of land and water areas are mutually beneficial. Ridge-to-reef approaches that weave together the management of land, invasive species, waste, agriculture, infrastructure, tourism, and other terrestrial activities can benefit the land and ocean ecosystems that support communities.

Long-term economic benefits may be supported by large, established systems of managed natural areas. Boosting biodiversity benefits everyone, as long as inclusive planning and monitoring approaches take into account the priorities of the diverse users. Effective management of protected areas is closely linked with the budget, resourcing, and staffing of skilled experts.

The tourism industry can be a key partner in the management of protected areas, built on a foundation of information sharing to ensure suitable habitats and sustainable access.

Protected areas are natural museums and laboratories, with educational and research possibilities. By preserving habitats and species, young generations can connect with their cultural history and learn about processes of change. Engagement is an essential ingredient for effective and efficient action in protected areas. Aligning the plan for uses of the space with societal needs, traditions, and cultural practice is one component; the cultural engagement of the management staff and decisionmakers is another.

Protection of natural land and forests is essential for preserving and restoring our most effective natural carbon sinks. Protection of biodiversity has acknowledged co-benefits for sustainable development, climate, and public health (Smith et al. 2018).

Acknowledging the advantages of connections among ecosystems and across management sectors can help us manage biodiversity and ecosystem services in the face of transboundary pressures on Pacific environments, including climate change, ocean acidification and warming, and pollution.

THEME **Conservation and Protection**

INDICATOR **Protected Area Management Effectiveness**

DEFINITION	% of formal protected areas (PA) and other area-based approaches where PA management effectiveness assessments (PAME) have been completed
PURPOSE	PAME evaluations can be defined as: "the assessment of how well protected areas are being managed – primarily the extent to which management is protecting values and achieving goals and objectives" (Hockings et al. 2006)
DESIRED OUTCOME	Increase in percentage of effectively managed protected areas and other area-based approaches

Status
Poor

Trend
Unknown

Data confidence
Medium


PAME assessment consultations, PNG. © Ann Peterson

PRESENT STATUS

Pacific island countries and territories are in the early stages of using Protected Area Management Effectiveness (PAME) assessment tools in the formally protected areas in the region.

In the Pacific islands region in mid-2020:

- Nine countries and territories have PAME assessments within part of their marine protected areas
- Eleven countries and territories have PAME assessments within part of their terrestrial protected areas
- Less than 4% of the protected marine area of the region has undergone PAME assessment
- Less than 1% of the protected land area of the region has undergone PAME assessment

Countries that have done PAME assessments have used different and adapted tools, such as RAPPAM in Samoa, the adapted Management Effectiveness Tracking Tool (METT) in PNG, or R-METT tool for Ramsar sites (Leverington et al. 2017). As observed in the PNG METT experience, tailoring the tool to specific contexts allows the assessment to be more relevant in that it adds value to the process, increases ownership of the process/results, and generates more information than direct application of a generic tool. The best tools are those that are simple, easy to use, targeted at relevant issues and the way that local management works, and incorporate local languages and terminology. In addition to or in replacement of formal tools from outside the region, local measures of management effectiveness might be identified for accurate and sustainable monitoring.

IMET (the Integrated Management Effectiveness Tool) was developed in the context of the BIOPAMA (Biodiversity and Protected Areas Management) programme to contribute to improving protected area management effectiveness and meeting conservation targets. This tool concerns the planning, monitoring, and evaluation of protected areas, and it directly supports managers in the field and in national agencies. The IMET tool is not yet widely used in the Pacific islands region.

Assessment is not an end result but rather a key step in protected area management. Regardless of the share of positive or 'negative' findings in an assessment, an effectiveness assessment can strengthen the protected area by equipping managers to adjust and redirect efforts. The effectiveness of community-managed PA systems is not well studied. At the regional and global level, we need more information to support communities to manage their own resources and to identify best practices. Pacific research can contribute to this body of knowledge.

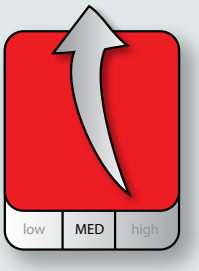
It is easier to identify where assessments have been done than it is to obtain and interpret assessment results. Information sharing and a coherent regional record of assessments is needed to assess the level of effectiveness of Pacific conservation and spatial protection.

With the present assessments, there are insufficient results to draw conclusions region-wide. It is expected that more than five countries within the region will conduct national PAME assessment processes by 2025. This includes several countries that have applied for funds through a small grant programme (IUCN Fiji pers. comm.).

THEME **Conservation and Protection**

INDICATOR **Key biodiversity areas protected**

DEFINITION	Percentage of land and marine areas identified as Key Biodiversity Areas that is covered by protected area
PURPOSE	KBAs represent the most important sites for biodiversity conservation worldwide and are identified nationally using globally standardised criteria and thresholds
DESIRED OUTCOME	Increase in protected areas or; all Key Biodiversity Areas are adequately represented in protected areas networks



Status
Poor

Trend
Improving

Data confidence
Medium


Savaii Upland Forest Samoa. © Stuart Chape

PRESENT STATUS

In the Pacific, KBAs have been identified in three biodiversity hotspots: Polynesia-Micronesia, East Melanesia Islands, and New Caledonia. These hotspots collectively include all Pacific island countries and territories (Table 13.2). At 25% or less, the overall proportion of KBAs even partially covered by protected areas in the Pacific islands region remains alarmingly low despite the significant increase in the coverage of IBAs and AZEs over the last several decades (Leverington et al. 2020; IPBES 2018).

IBAs have been identified across the Pacific islands region (Table 13.2), six of which are listed as IBAs in Danger (BirdLife International Datazone, October 2020). In 2017, 27% of IBAs in Oceania were under protected area coverage, considered alarmingly low (IPBES 2018).

In the Pacific islands, 26 EBSAs have been identified by Parties to the CBD and international and national NGOs (Figure 13.2). The majority of EBSAs overlap with more than one country and with international waters, with a combined area within the region of almost 13.8 million square kilometres.

Thirty-nine terrestrial ecoregions lie partially or fully within the Oceania region. Six of these have more than 17% of their extent within protected areas, while seven have less than 1% (Figure 3.5 in Leverington et al. 2020). Twenty-nine marine ecoregions and pelagic provinces lie partially or fully within the region. Thirteen of these have 10% or more of their extent within protected areas (Leverington et al. 2020).

WHAT IS A KEY BIODIVERSITY AREA (KBA)?

Sites contributing significantly to the global persistence of biodiversity, KBAs represent the most important sites for biodiversity worldwide and are identified nationally using globally standardised criteria and thresholds. KBAs include Important Bird and Biodiversity Areas (IBAs) identified by BirdLife International and Alliance for Zero Extinction (AZE) sites holding the last remaining population of one or more Critically Endangered or Endangered species, among other important sites identified for different taxonomic, ecological, and thematic subsets of biodiversity.

Another way of prioritising areas is provided by Ecologically or Biologically Significant Marine Areas (EBSAs): marine areas in need of protection in open-ocean waters and deep-sea habitats. EBSAs are targeted at a range of taxa and cover a wider area than IBAs, which are predominantly concerned with bird species.

The CBD uses these scientific criteria to identify an EBSA in need of protection: Uniqueness or Rarity; Special importance for life-history stages of species; Importance for threatened, endangered or declining species and/or habitats; Vulnerability, Fragility, Sensitivity or Slow recovery; Biological Productivity; Biological Diversity; and Naturalness.

FIGURE 13.2: Areas in the Western South Pacific that have Ecologically or Biologically Significant Marine Areas (EBSA) meeting Convention on Biological Diversity standards (https://www.cbd.int/ebsa/).

TABLE 13.2: Priority areas in the Pacific islands region, indicating the number and extent in square kilometres of key biodiversity areas (KBAs) and important bird areas (IBAs). Source: for KBAs, www.keybiodiversityareas.org; for IBAs, BirdLife Data Zone, http://datazone.birdlife.org

COUNTRY OR TERRITORY	NUMBER IDENTIFIED KBAS	AREA IDENTIFIED KBAS (KM²)	NUMBER IDENTIFIED IBAS	AREA IDENTIFIED IBAS (KM²)
American Samoa	7	18,217	7	1,821,817
Cook Islands	10	70,024	9	6,318,771
Federated States of Micronesia	58	150,101	15	14,850,304
Fiji	53	60,970	28	5,883,983
French Polynesia	70	215,218	57	21,905,489
Guam	3	46	3	4,663
Kiribati	29	1,092,084	25	34,131,963
Marshall Islands	15	107,407	10	10,725,104
Nauru	1	1	1	35
New Caledonia	62	183,766	54	16,673,485
Niue	1	41	1	5,400
Northern Mariana Islands	13	32,028	13	3,203,473
Palau	16	13,434	11	1,215,459
Papua New Guinea	132	328,766	5	25,198,632
Pitcairn	4	74	4	7,456
Samoa	8	1,103	6	101,072
Solomon Islands	37	19,608	11	905,298
Tonga	12	17,327	11	3,723,999
Tokelau	4	37,795	3	3,777,681
Tuvalu	0		0	0
Vanuatu	29	8,637	12	680,458
Wallis & Futuna	2	5,738	2	575,582
Total, Pacific islands region	**566**	**2,362,385**	**288**	**151,710,124**

THEME **Conservation and Protection**

INDICATOR **Governance and equity of protected areas**

DEFINITION	Who holds power, authority and responsibility and who is, or should be, held accountable
PURPOSE	Land management costs and benefits are shared fairly across governance types, e.g. community, government, and shared management
DESIRED OUTCOME	Governance and management of conservation areas equitably reflects land and resource ownership and responsibilities

Status
Unknown

Trend
Unknown

Data confidence
Low

Community consultations, Fiji. © V. Jungblut

PRESENT STATUS

At present, there is no consistent regional reporting toward this indicator. At the national level, this indicator is used to assess the distribution of measurable benefits and the needs of vulnerable groups. For regional comparisons, the priority groups or factors to be measured for this indicator could be more clearly defined.

The majority of Pacific sites that are established or under consideration as protected areas or community managed areas are community-owned, with defined systems of control and management supported by the government but driven by the local communities.

Globally, there is growing awareness of the need for justice and equity in sustainable protected area management, and there is a growing body of research demonstrating the benefits of participatory management, the greater health of ecosystems under traditional and indigenous management, and appropriate methods for inclusive spatial planning. The Theme on Indigenous Peoples, Local Communities, Equity and Protected Areas (TILCEPA) is an inter-Commission body of IUCN addressing social policy aspects of protected areas.

Under Aichi Target 11, signatories to the Convention on Biological Diversity were required to incorporate social equity into protected area management by 2020. In a 2016 survey, over half of respondents believed there were significant challenges in achieving this goal (Zafra-Calvo et al. 2019).

As IUCN notes, “achieving increased coverage, representativeness, effectiveness and equity through formally designated protected areas alone will, in many cases, be virtually impossible” (Borrini-Feyerabend et al. 2013). Co-creation and co-management of priority areas and related research can support more equitable governance for a broader group of stakeholders, and the traditional Pacific approach meshes well with this place-based, community-centred management. Ensuring that this broader approach to management does conserve biodiversity and ecosystem services, evidenced by long-term measurements, is a key challenge for this more inclusive but often more complex governance framework. It should also be noted that good governance, engagement, and equity for communities is a key component of the five-yearly *Framework for Nature Conservation and Protected Areas*.

THEME **Conservation and Protection**

INDICATOR

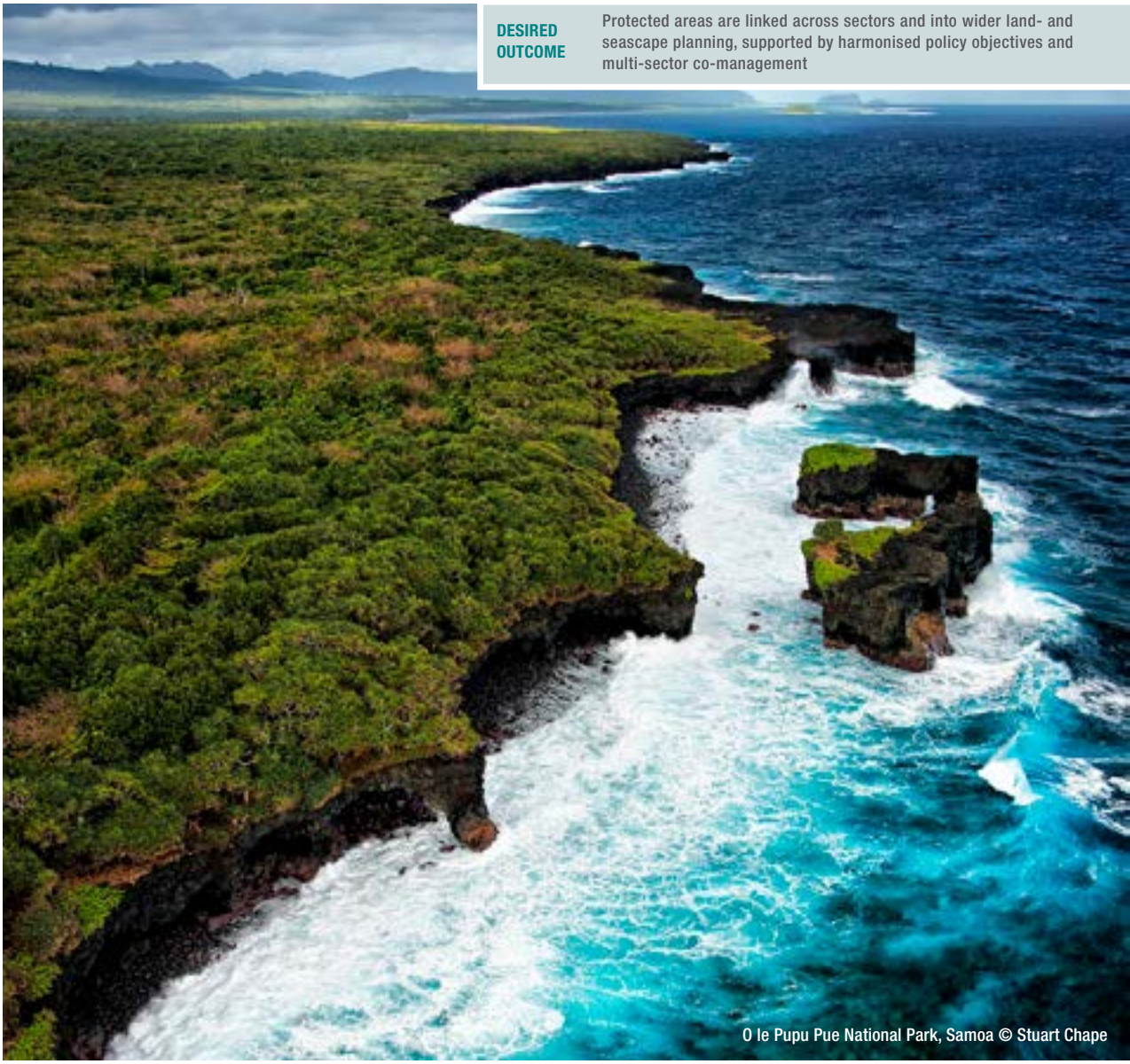
Integration of protected areas into wider land and seascapes

DEFINITION	Integration of protected areas into the wider landscapes and seascapes as well as into broader sectoral plans and policies, such as National Sustainable Development Plans or equivalent
PURPOSE	Greater benefits to people and nature from protected areas through efficient, holistic management with clear jurisdiction. Integrated landscape and seascape planning should take advantage of positive 'spillover' of benefits from protected areas and help reduce negative 'spills' of transboundary pressures into protected areas.
DESIRED OUTCOME	Protected areas are linked across sectors and into wider land- and seascape planning, supported by harmonised policy objectives and multi-sector co-management

Status
Poor to fair

Trend
Unknown

Data confidence
Low



O le Pupu Pue National Park, Samoa © Stuart Chape

PRESENT STATUS

All of the Pacific island countries have adopted the Sustainable Development Goals, which include targets for protecting 10% of national marine territory and protecting key terrestrial areas. The number of identified priority sites and designated protected areas is improving across the region while the countries are also moving toward coherent regional and national frameworks that address environmental management, such as the *Framework for Nature Conservation and Protected Areas*, *Framework for Resilient Development in the Pacific* and National Invasive Species Action Plans, among others.

National protected areas benefit from a range of environmental legislation in the Pacific, including the growing use of environmental impact assessment, controls on the import and use of specific pollution hazards such as plastics and agricultural chemicals, and traditional and modern measures to manage harvest from terrestrial and marine spaces.

Habitat mapping for integration into sectoral plans and long-term monitoring is still limited in many Pacific islands. For more about connectivity, an understudied aspect of Pacific protected areas, see the Regional Indicators for marine and terrestrial protected areas, above.

Many Pacific islands use sector-based management. Landscape- and seascape-scale management requires coordination among sector budgets and workplans, visions, and policy and legal frameworks. At the regional scale, Pacific Leaders have committed to this integrated approach through mechanisms such as the *Framework for a Pacific Oceanscape* (2010), *Framework for Resilient Development in the Pacific* (2016), and the Blue Pacific identity (2017).

PRESSURES AND OPPORTUNITIES

The 2018 global IPBES report highlighted the ongoing loss of the planet's biodiversity as a result of climate change, population growth, poverty, human consumption of natural resources, land degradation, deforestation, invasive alien species, illegal trade in wildlife and non-timber forest products, rapid urbanisation, coastal pollution, poor governance of natural resources, and the impact of altered fire regimes. Most of these drivers of negative change also impact Pacific island countries and territories. Establishment and effective management of marine and terrestrial protected and other conserved areas is one of the mechanisms that can reduce biodiversity loss in the region. For the wider Asia-Pacific region, the IPBES report noted that although protected area coverage has increased substantially, existing protection still does not effectively target areas of important biodiversity, and progress is needed towards better overall management effectiveness.

Large-scale marine protected areas and species-specific conservation areas established by several Pacific island countries and territories, especially combined with comprehensive marine spatial planning and national ocean policies, are a significant contribution to the protection and sustainable management of marine environments. However, management effectiveness including the provision of adequate resources for monitoring and surveillance will be critical for ensuring the sustainability of these areas. In addition to existing threats, deep-sea mining is a looming threat to marine biodiversity and the effectiveness of protected marine areas across the region. The inadequate level of knowledge of deep-sea marine ecosystems, their species, and connectivity to other marine ecosystems should be a major concern to countries in contemplating DSM activities, especially in view of the poor environmental and social track record and high impacts of terrestrial mining in the region.

The low overall coverage of terrestrial protected areas and other conservation mechanisms, and therefore protection of terrestrial biodiversity, is a major concern in the region. Establishment of terrestrial conservation areas requires participatory engagement by traditional and resource owners, which can often be a necessarily long, complex process that addresses a range of conservation, social, and development issues. However, the process of engaging with communities, and the timescales required, to secure and maintain conservation commitments is struggling to keep pace with the need to address biodiversity loss. The major drivers of such losses have been deforestation and land degradation, invasive species, mining, increasing urbanisation, and destruction of mangroves and other shoreline coastal ecosystems that must be included in terrestrial conservation considerations. To these must be added the increasing impacts of climate change.

However, the imperative to address climate change impacts through adaptation and mitigation also provides an opportunity—and imperative—to protect ecosystems and the services that they provide. For example, forested catchments that provide freshwater resources, timber, and non-timber forest products for communities also provide habitat to a range of biodiversity, including endemic and threatened species. Healthy coral reefs and mangroves support coastal fisheries for income and food security and economic benefits through tourism. Maintaining these and other critical ecosystems for a longer time improves the prospects for community resilience in response to climate change. Formal establishment of protected and other conserved areas through community agreements and/or national legislative and regulatory mechanisms can provide the framework for long-term protection.

The growth in the number and extent of protected and other conserved areas suggests that the coverage of taxonomic groups, important biodiversity areas, and ecoregions should also increase alongside increases in the benefits from protection to a range of human users. However, these trends have not been adequately quantified. The state of coverage, representativeness, and connection of protected areas in the Pacific islands was analysed by Leverington et al. (2020).

According to IUCN best practice, governance arrangements for protected areas should be "tailored to the specifics of [their] context and effective in delivering lasting conservation results, livelihood benefits and the respect of rights" (Borrini-Feyerabend et al. 2013). The Pacific Islands region has a growing protected area system in the formal sense, building on centuries of traditional resource management, some of which had spatial components (SPREP 2013). The approaches now being developed at national levels are built on the feature of customary tenure and resource access, making use of existing community strengths in traditional knowledge and governance. Biodiversity protection is grounded in awareness by local users and communities of the need for action. Participatory management planning and community involvement during all phases, including planning and monitoring, have led to impressive improvements in ecosystems, such as marine biodiversity in and near locally managed marine areas (Box 8.3).

Around the world, vulnerable communities bear the burden of environmental degradation in disproportion to their impact. Protected areas are one tool to mitigate environmental degradation, and the equity of protected area management depends on the perspectives and priorities included during spatial planning.

INDICATOR IN ACTION

SDGs 6.6, 12.2, 14.2, 14.5, 15.1, 15.2, 15.4, 15.5, 15.9; for governance and equity: 5, 16 • UNCCD • Underwater Cultural Heritage Convention • Ramsar Convention • SAMOA Pathway (30, 58–59, 89–90) • Noumea Convention • Pacific Regional Environment Objectives 2.1, 2.2, 2.3 • Pacific Islands Framework for Nature Conservation Objectives 2, 3, 4, 6

FOR MORE INFORMATION

Pacific Islands Protected Area Portal at pipap.sprep.org

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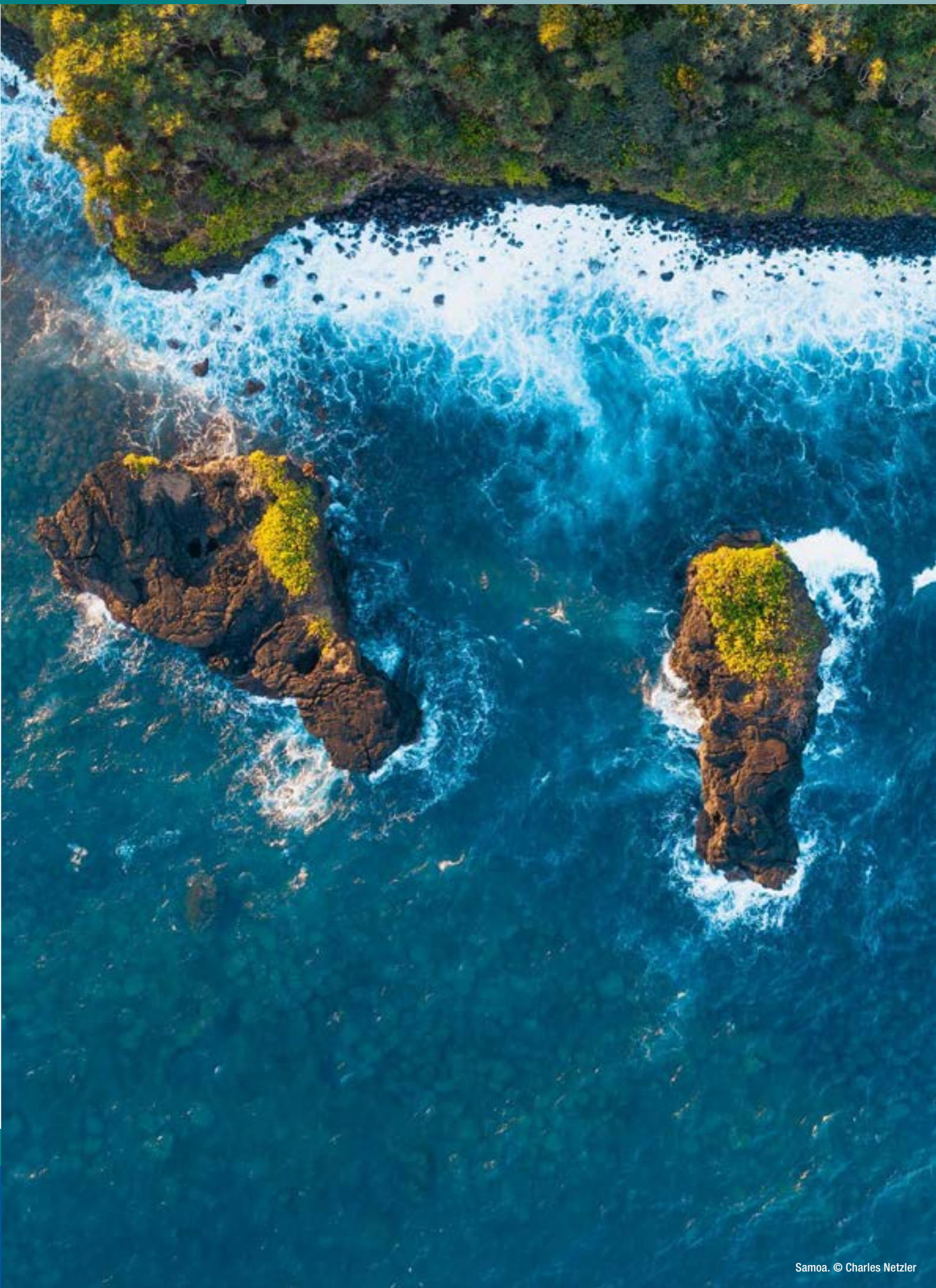
SPREP PROE

The Secretariat of the Pacific Regional Environment Programme (SPREP) supports 14 countries and 7 territories in the Pacific to better manage the environment. SPREP member countries and members of the Pacific Roundtable on Nature Conservation (PIRT) have contributed valuable input to the production of this indicator. www.sprep.org

National and regional environment datasets supporting the analysis above can be accessed through the Pacific Environment Portal. pacific-data.sprep.org

For protected areas information, please see the Pacific Islands Protected Area Portal. pipap.sprep.org



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