

The Federated States of Micronesia
Chuuk State Biodiversity Strategy and Action Plan
2026–2030

Foreword



Chuuk Biodiversity Strategy and Action Plan

FOREWORD

Chuuk's rich biodiversity is vital to our well-being, culture, and resilience. From reefs to forests, healthy ecosystems directly support prosperity. Protecting resources via responsible management is crucial for current and future generations. Typhoon Sinlaku underscored their importance in building resilience against climate change. The revised Biodiversity Strategy and Action Plan (BSAP) provides a clear framework to guide these efforts.

This revised BSAP builds on previous plans, reflecting progress and ongoing challenges. It highlights strengthening community engagement, managing protected areas, and addressing Chuuk's current pressures, such as resource depletion, climate change, and the need to balance environmental and economic needs. Aligned with broader commitments, it aids efforts in Micronesia to conserve biodiversity and enhance resilience.

The development of this BSAP was made possible thanks to the valuable contributions of numerous individuals and organizations. Representatives from state and municipal governments, community leaders, non-governmental organizations, and technical partners all played a vital role in shaping this plan through consultations and validation processes. Their insights and dedication have ensured that this document accurately reflects local priorities and practical realities. I sincerely thank everyone who contributed their time, knowledge, and experience.

I also want to acknowledge the ongoing support of the FSM Department of Resources & Development, which has been vital in facilitating the development process. Continued collaboration between state and national institutions will be crucial for the effective implementation of this plan and for achieving its goals in the coming years.

The Chuuk BSAP 2026–2030 marks a significant advancement in enhancing our strategies for biodiversity conservation and sustainable management. Through ongoing commitment, collaboration, and shared responsibility, we can safeguard Chuuk's natural heritage and ensure its preservation for the benefit of all.

I hereby endorse the Chuuk State Biodiversity Strategy and Action Plan for 2026–2030.

Sincerely,

A handwritten signature in black ink, appearing to read "Alexander R. Narruhn".

ALEXANDER R. NARRUHN AIF®
Governor
Chuuk State

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The development of this plan was made possible through the generous financial support provided through the GEF Global Biodiversity Framework Early Action Support.

The Chuuk BSAP revision process was coordinated and facilitated by Island Insights, with many people from a great number of organizations, both governmental and non-governmental, and communities contributing to the consultation and validation workshops, and providing essential additional information. It is these people that have made the development of this Chuuk BSAP possible:

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The Chuuk BSAP document was prepared by the Islands Insights team comprising Dr Iain Hall, Anne McDonald, Dr Erika Salazar, Tamara Greenstone Alefaio, Vanessa Fread, Julia Bolton, and Oriana Fernandez.

Part 1: Introduction¹

Chuuk State is located at 07° 30' N, 150° 50' E. It is made up of sixteen high volcanic islands, one inhabited coral atoll in Chuuk Lagoon and twenty-four inhabited outer islands. Chuuk State consists of forty municipalities across the five congressional districts of Northern Namoneas, Southern Namoneas, Faichuk, Mortlocks, and the Northwest Islands.

Chuuk is the most populous state in the Federated States of Micronesia with a population of 33,885, approximately 45% of the entire FSM population (FSM Division of Statistics, 2023). With a land area of 49 square miles the population density of Chuuk remains the highest in the FSM at 692 per square mile. 43.5% of households in Chuuk have immediate family members residing abroad (FSM Office of Statistics, Budget, Overseas Development Assistance and Compact Management, n.d).

Average annual wage (real, i.e. adjusted for inflation) for the fiscal year 2022 was \$4,761, below the national average of \$5,594 (FSM Division of Statistics, 2023). Approximately 66% of households are engaged in at least one subsistence activity (agriculture and forestry, handicrafts and home production, livestock and aquaculture, or fishing, hunting and gathering), which is below the national average of 77% (FSM Office of Statistics, Budget, Overseas Development Assistance and Compact Management, 2014).

The FSM is a constitutional democracy, operating at national, state, municipal and traditional levels, with most power delegated to the four states by the national constitution. Chuuk State has a bicameral legislature, i.e. a Senate and a House of Representatives. There are ten members of the Senate, two representing each of the five regions, and 28 members of the House of Representatives, elected by their respective districts. There are thirteen districts, with the number of representatives for each based upon district size. The state government holds jurisdiction over coastal waters up to 12 nautical miles from land. Beyond this, the National government has jurisdiction over the remainder of the EEZ, i.e. from 12 nautical miles to 200 nautical miles from land.

Traditional culture and systems play an important role in the governance of the FSM. In Chuuk State, each habitable island has a Traditional Leader known as “Soupun” and/or “Makal”, equivalent to Chief of an island, who make up the Chuuk State council of traditional leaders. This council is a stronghold of customs and traditions and are the decision makers of such matters. Traditional governance is extremely important in relation to environmental matters, largely owing to the nature of land rights and ownership that govern the usage of natural resources. Systems of land ownership and tenure differ across the four states of the FSM. Land ownership in the FSM is limited to citizens of the FSM only, with land lease terms varying by state (US Department of State, 2017). In Chuuk, most land and near-shore marine areas are privately owned, with ownership being predominantly inherited or gifted. Purchase of land in Chuuk has become a possibility more recently.

The FSM experiences a tropical climate, with consistently warm weather driven by the north-east trade winds. The average annual temperature in Chuuk between 1991 and 2020 was 82.2°F (NOAA NCEI, 2025). There is little variation throughout the year, with the high islands being generally hot and humid. Rainfall across the FSM is generally plentiful, with Chuuk receiving an annual average of approximately 142 inches based upon 1991–2020 records. (NOAA NCEI, 2025).

The FSM is strongly affected by the El Niño Southern Oscillation (ENSO), which has a particularly forceful influence on minimum air temperatures during the wet season (Australian Bureau of Meteorology and CSIRO, 2011). El Niño is also associated with reduced rainfall during the dry season. La Niña years are associated with extremely high tides in the FSM, which can lead to seawater inundation of crops and freshwater supplies (Fletcher & Richmond, 2010). The FSM is also vulnerable to extreme weather-related events, particularly typhoons, storm waves, flooding, landslides and drought.

Air and sea surface temperatures in the FSM are increasing, with waters around the FSM warming by approximately 0.11°C per decade in the eastern regions of the country and by 0.8°C per decade in the western regions since 1970 (Australian Bureau of Meteorology and CSIRO, 2011). Under a high emissions scenario, temperature increases greater than 2.5°C by 2090 are projected with high confidence for the FSM, with a similar temperature increase projected for the ocean surface (Australian Bureau of Meteorology and CSIRO, 2011).

Rainfall data show no significant changes over time in Chuuk. That being said, historical projections have suggested that annual rainfall may increase, somewhere in the range of >5% and >15% by 2090 depending upon the model used and the specific location within the FSM (Australian Bureau of Meteorology and CSIRO, 2011). Increasingly intense rainfall events, particularly when following drought conditions, are increasing sedimentation run-off and coastal erosion, which in turn impacts essential marine ecosystems, such as seagrass meadows, and in turn marine productivity (Houk et al, 2013).

Of particular importance to the FSM, owing to reliance on near-shore coastal fisheries and the low-lying nature of many of its islands, are ocean acidification and sea level rise. In the case of ocean acidification, this is projected to rise throughout the 21st century resulting in reductions in the available form of calcium carbonate necessary for coral growth (Australian Bureau of Meteorology and CSIRO, 2011). As regards sea level, models suggest a rise of approximately 2–6 inches by 2030, and of approximately 8–24 inches by 2090 under a high emissions scenario (Australian Bureau of Meteorology and CSIRO, 2011). A 2010 study using the Coastal Module of the

¹ Where recent, authoritative data were available through established national, regional, or global sources, these have been incorporated. Data sets lacking recent updates retain values from the previous Chuuk BSAP (2018) to avoid introducing unsupported estimates.

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integrated Climate Framework for Uncertainty, Negotiation and Distribution assessment model suggested that a 1-meter sea-level rise by 2100 would incur damage costs in excess of 5% of GDP in the FSM (Anthoff et al, 2010).

A number of sectors within the FSM economy are recognized as being vulnerable to climate change, including fisheries, agriculture and tourism (FSM Department of Finance and Administration, 2018). These three sectors are all dependent upon a healthy environment and thriving biodiversity, which are themselves also considered highly vulnerable to climate change (FSM Department of Finance and Administration, 2018).

Given the low-lying nature of many of the islands in Chuuk, and indeed the whole of the FSM, they are at great risk of the impacts of climate change. Part of that risk is the effect that a changing climate may have on the biodiversity found in all of the states, not least the reefs upon which the population so heavily relies.

Chuuk State Vital Statistics

Geography	
Location	07° 30' N, 150° 50' E
Number of islands	16 high islands + 25 inhabited atolls
Land area	49.2 sq. miles (31,488 acres)
Forest (including agroforest)	28.3 sq. miles (18,134 acres)
Non-forest vegetation	2.3 sq. miles (1,455 acres)
Cropland	0.3 sq. miles (147 acres)
Urban (including urban cultivated)	2.0 sq. miles (1,301 acres)
Other (including water)	1.14 sq. miles (732 acres)
Lagoon area	823.2 sq. miles (526,829 acres)
Climate	
Annual average temperature (1991–2020)	82.2°F
Annual average rainfall (1991–2020)	142 inches
Demographics	
Population	33,885
% of total FSM population	45%
Population density	692 per square mile
Economics	
Average annual wage (real)	\$4,761
% households involved in subsistence activity	66%
% contribution to national total household income	27.5%

Part 2: Biodiversity in Chuuk²

Biodiversity across the FSM is incredibly rich, with FSM recognized as part of the globally important Polynesia-Micronesia biodiversity hotspot (CEPF, 2007).

The waters of the FSM are home to 1,221 species of fish. Of these, 1,070 are associated with the extensive reef system (Froese & Pauly, 2018). In fact, the wider Micronesia region is estimated to contain 4% of the world's coral reefs, with reefs a defining feature of the FSM. Chuuk is particularly blessed in this regard, having the largest single lagoon in the FSM at approximately 820 sq. miles (Namakin, 2008). The reefs in Chuuk Lagoon, throughout Chuuk State and across the FSM support an abundance of biodiversity, which is heavily relied upon by the population. The basis of the reefs, the corals themselves, are incredibly diverse in the waters of the FSM, with both soft and hard/stony corals extensively represented. The International Union for Conservation of Nature (IUCN) Red List of Threatened Species lists 436 species of coral in the FSM's waters, 153 of which are considered to be endangered and 26 vulnerable (IUCN, 2025).

The FSM also supports approximately 36.3 sq. miles of mangrove forest across the islands, approximately 5.0 sq. miles of which are in Chuuk (Donnegan et al, 2011). Indeed, much of the FSM is covered with forests, and Chuuk is no exception. It is estimated that a little over 28 sq. miles of Chuuk is forested, equating to almost 60% of land (Donnegan et al, 2011). Of this, upland forest covers 6.5 sq. miles, palm forest covers 0.3 sq. miles and agroforest covers 16.6 sq. miles (Donnegan et al, 2011). Cropland accounts for only approximately 0.2 sq. miles of land in Chuuk. Areas classified as 'urban cultivated' account for 0.8 sq. miles in Chuuk (Donnegan et al, 2011).

Chuuk, as with the entire FSM, demonstrates high levels of species endemism, being home to sixteen endemic plant species and three endemic bird species, the latter comprising the Truk white-eye (*Rukia ruki*), the Truk monarch (*Metabolus rugensis*) and the oceanic fly catcher (*Myiagra oceanica*). Both the Truk white-eye and the Truk monarch are considered to be endangered (IUCN, 2025). In addition, Chuuk hosts two endemic fruit bat species as well as endemic fly, dragon fly and gecko species (IREI, DOA & CCS, n.d.).

Of the many environmental threats facing many places on Earth today, including the State of Chuuk, perhaps none is more serious than the loss of biodiversity – the variety of species, ecosystems, and ecological processes that form the basis for continued life on Earth. The problem of biodiversity loss is so significant and urgent simply because of its irreversibility. Once a species is extinct, it is lost forever. Moreover, because humankind is so dependent on ecosystem services provided by biodiversity, the degradation or loss of habitat and species poses a serious risk to humans. Thus, the significance of nurturing the biodiversity of Chuuk State through maintaining its habitats and ecosystems is vital to ongoing social, economic and cultural development, and to sustaining its rich traditions.

As demand for a consumer lifestyle increases, there are growing pressures on the island's resources that must be managed sustainably for future generations. A coordinated approach to biodiversity conservation through an agreed upon plan can contribute to the overall environmental health of the island. The people of Chuuk therefore outline below the Chuuk Biodiversity Strategy and Action Plan (BSAP) that should be used in conjunction with the FSM National Biodiversity Strategy and Action Plan (NBSAP), the land use plan and other resource management strategies to address priorities for the conservation and sustainable use of its biological resources.

It is recognized that a number of threats to the biodiversity of Chuuk, and the entire FSM, exist. These threats, which have been identified at a national level and are relevant to Chuuk State, are broadly categorized as climate change, environmental conversion and degradation from unsustainable land use, over-exploitation of resources, pollution from solid waste and land-based sources, the proliferation of invasive alien species, and infrastructure development that often proceeds without adequate environmental impact assessments (Kingsford et al., 2009). In addition, Chuuk faces a very real threat of oil spills from the many rapidly degrading World War II shipwrecks in the lagoon.

In light of these threats, since the introduction of the first Chuuk BSAP in 2004, significant developments toward comprehensive biodiversity conservation in Chuuk and throughout the FSM have been undertaken, with a network of strong partnerships having been built between governments at all levels, academic and research institutions, international, regional, national and state-based non-governmental organizations and community-based organizations. The multitude of initiatives that has been undertaken demonstrates the recognition of the importance of biodiversity conservation.

Perhaps the most significant conservation initiative to come about since the initial Chuuk BSAP was drafted is the establishment of the Micronesia Challenge. In 2006 the FSM, along with the Republic of the Marshall Islands, the Republic of Palau, Guam, and the Commonwealth of the Northern Mariana Islands (CNMI), developed and committed to the Micronesia Challenge, which had the dual aims of conserving 30% of near-shore resources and 20% of forest resources across Micronesia by 2020. This initiative has now evolved into the more ambitious Micronesia Challenge 2030, with an expanded goal for the “*effective management of 50% of marine resources*

² Where recent, authoritative data were available through established national, regional, or global sources, these have been incorporated. Data sets lacking recent updates retain values from the previous Chuuk BSAP (2018) to avoid introducing unsupported estimates.

and 30% of terrestrial resources by 2030.” This goal encapsulates the initial conservation goals and sees the incorporation of additional goals related to sustainable livelihoods, fisheries management, and climate resilience (Micronesia Challenge, 2024).

Recently, the nation has operationalized the Protected Areas Network (NPANPF), which is designed to facilitate the national government's delivery of assistance to its states in the protection of significant areas of biodiversity, key habitats, and other valuable resources. The NPANPF is designed to augment efforts at the state, municipal, and community levels throughout the country to achieve conservation and climate change adaptation goals, which broadly reflect the country's participation in the Micronesia Challenge, the United Nations Convention on Biological Diversity, and the United Nations Framework Convention on Climate Change. Chuuk currently has six protected area sites in its Protected Areas Network.

In working to achieve the Micronesia Challenge marine and terrestrial targets, government and non-government partners across the FSM have championed the creation of new terrestrial and marine protected areas to support resilient ecosystems, better able to withstand the impacts of climate change and marine protected areas have proven to be one of the best ways to protect diverse and healthy marine ecosystems and coral reef communities. As of January 2022, these efforts have ensured that 6,684 km² (30%) of the marine environment and 96 km² (15%) of the terrestrial environment are under effective management (Micronesia Challenge, 2024). Chuuk has placed 34% of its marine resources and 11% of its terrestrial resources under effective management (Micronesia Challenge, 2024).

The FSM National and State governments and their numerous partners are also working towards sustainable financing for protected areas. This includes the FSM's Micronesia Challenge Endowment Fund, administered by the MCT and valued at \$6.42M as of January 2024 (Micronesia Challenge, 2024).

Part 3: Background to the Chuuk Biodiversity Strategy and Action Plan

Development Process for the Revised Chuuk BSAP

The Chuuk BSAP revision process consisted of extensive desk research, in-person consultations, and a subsequent validation process, as described below.

Initial, extensive research was undertaken to provide latest-possible data and information regarding the status of biodiversity within the FSM as a whole, and Chuuk State, and the pressures it is under.

The Objectives and Actions as defined in the prior Chuuk BSAP were taken out to consultation, and a multi-stakeholder group was engaged in a three-day workshop to review the BSAP for ongoing relevance, identifying what progress had been made, where additional efforts were needed under current Objectives and Actions, where new actions were required, and what costs might be associated with implementation of individual Actions. These groups include officials from State and Municipal governments, regional, state and community NGO representatives, technical experts, scientists, researchers and educators.

In addition to these consultations, a specific women's focus group was held to ensure that the different interactions with and observations of biodiversity experienced by women in Chuuk were understood and incorporated into the revised BSAP.

Following this process, all feedback was collated and combined into a revised document. This document was circulated to a select group from the original consultations, who then convened for a further two-day validation workshop.

This process was part of a wider set of consultations undertaken as part of the revision of the FSM National Biodiversity Strategy and Action Plan (NBSAP). The revision of the NBSAP took account of each of the states' revised BSAPs, as well as being consulted upon separately. By following this process, it is intended that the NBSAP and individual state BSAPs are mutually supportive and reflect each other.

Part 4: The Chuuk State Biodiversity Strategy and Action Plan

Vision

The people of Chuuk will live in a clean and beautiful environment where biodiversity is resourceful and preserved, and where traditional knowledge and practices plus other modern knowledge and practices are utilized for the sake of sustainable development.

Goal

The Chuuk State BSAP strives for successful actions to conserve, protect, preserve, and sustain Chuuk State biodiversity for the benefit of the people of Chuuk today and in the future.

Information presented in this BSAP

The Chuuk Biodiversity Strategy and Action Plan is structured around four Objectives:

- Objective 1: People Related
 - The establishment of various activities to engage the people of Chuuk in biodiversity-related education and activities, and the identification of marine and terrestrial areas to be protected.
- Objective 2: Assistance Related
 - Increasing government funding for conservation programs, identifying sources of technical assistance, improving sources of funding, and establishing a system of resource user's fee.
- Objective 3: Management Related
 - The demarcation and registration of areas of biodiversity significance, the creation of legislation to support traditional conservation practices and protect biodiversity, establishing marine and terrestrial protected areas, and updating an inventory of marine and terrestrial plants and animals present in Chuuk.
- Objective 4: Control Related
 - The establishment of strict control of alien species and ensuring specific requirements are met prior to initiating activities that may affect biodiversity.

Indicators for each Action under these Objectives are identified to support implementation.

Estimated annual costs are provided to achieve each Action. These are based upon the selection of annual funding brackets for each Action through the consultation process. These funding brackets were:

- <\$5,000
- \$5,000–\$25,000
- \$25,000–\$50,000
- \$50,000–\$100,000
- >\$100,000

Costs are defined as 'minimum' as it is understood that many Actions may require funding that far exceeds the \$100,000 value included in the upper cost bracket.

Each cost is identified as requiring 'new' funds, use 'existing' funds, or a 'mix' of new and existing funds.

While specific constraints are noted under each Action, it is acknowledged that limited technical capacity and insufficient or short-term funding remain overarching constraints affecting implementation across all Objectives within the Chuuk BSAP.

Implementation and Monitoring

Monitoring the implementation of the Chuuk BSAP is an essential part of ensuring ongoing activity and progress towards its Goals and Objectives. This must be balanced with resource capacity to undertake full-scale monitoring across the entirety of the suite of State BSAPs and NBSAP.

It is the intention that the Chuuk BSAP will undergo a mid-term review. This will be coordinated by the Chuuk State Environmental Working Group. It is anticipated that updates regarding the Action-specific Indicators will be provided by the relevant entities (stakeholder mapping will be undertaken to enable this), and that overall Implementing Action information will be channelled through the Environmental Protection Agency.

During the mid-term review, updates on the Implementation Actions will be provided and the status of each will be recorded in line with CBD reporting standards (i.e. Achieved / On track to achieve / Progress made but at an insufficient rate / No significant

progress / Not applicable / Unknown). Brief progress notes will be generated and any challenges faced will be recorded. Additional data for assessing indicators will be provided by the Director of the Department of Resources and Development and the Chiefs of Divisions.

There is currently no system for the storage of the monitoring data that will be generated in relation to the Chuuk BSAP. It is, however, anticipated that monitoring data will be stored by the National Government, with data updates being provided by the Environmental Protection Agency with additional support from a consultant as needed.

A full review and revision of the BSAP will be undertaken after five years, in 2030. This will follow a similar process of consultations and validation that have been utilised in the current revision. This review will provide an opportunity for major progress, changes or developments to be recorded and considered for inclusion in the next revision of the BSAP and will ensure that all Objectives and Actions remain relevant and reflect the challenges and unmet needs of Chuuk's biodiversity at that time.

Objective 1. People Related

The establishment of various activities to engage the people of Chuuk in biodiversity-related education and activities, and the identification of marine and terrestrial areas to be protected.

Progress to date

Progress under Objective 1 has been uneven, with efforts under the previous BSAP having focused primarily on community-based conservation, protected area development, and conservation awareness, with variable levels of implementation across actions.

Work under the Protected Area Network has continued, with six protected area sites identified and support provided to outer islands to develop and submit PAN proposals. A PAN-related committee was established around 2020–2021, supporting coordination around protected area planning. Community-based initiatives have been established in more than ten locations, though several of these initiatives require revitalization. Training, meetings, and learning exchanges have taken place at the site level, with approximately three sessions conducted per site, although the number and frequency vary between locations.

Awareness and education activities have included environmental clubs in schools supported by the Environmental Protection Agency, the Water for Life program linked to Social Studies curricula, and learning exchanges involving three non-governmental organizations under GEF-5 and CSA. Activities addressing coastal habitat and pollution have been undertaken through the PROPER project, alongside the development of a Coastal Management Plan that incorporates traditional closure practices. Traditional knowledge related to resource management has been maintained at the individual community level.

Overall, progress under Objective 1 reflects active engagement in protected area development, community initiatives, and awareness-building, alongside ongoing challenges in sustaining initiatives and ensuring consistent advancement across all actions.

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Support existing community-based environmental organizations and support the establishment of one new organization per year through capacity building activities? Prioritize invasive species as an area of focus	- Number of organizations supported per year, with supporting evidence - Number of people engaged in community-based environmental organizations per year - Number of training sessions undertaken per year - Number of people getting certified for successfully completing training sessions per year	>\$100,000 (new)	- Reporting compliance - Grant proposal writing capacity
Support and expand the seedling project to ensure sustainability of this activity and to promote agrobiodiversity across all lagoon and outer island communities	- Number of communities in the project per year - Number of species planted per year - Percentage of food that is locally grown food vs imported	\$50,000–\$100,000 (new)	- Transportation costs and logistics - Coordination

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
			Recruiting adequate manpower
Identify and access available sources of sustainable finance for community-based environmental organizations with a view to amending existing policies and developing new policies	Amount of finance attained per year	\$50,000–\$100,000 (mix)	- Organizational proactivity - Capacity of communities and other groups
Continue consulting with existing community-based environmental organizations to identify priorities and align these with state and national plans	- Number of consultations with specified outcomes conducted per year - At least one documented instance of alignment between community priorities and state/national plans	>\$100,000 (new)	- Transportation costs and logistics - Funding availability and donor requirements
Continue consultations with traditional and/or outer island communities and groups to identify what activities and work are being undertaken and documented	Number of communities consulted with per year with consultation reports in place	>\$100,000 (new)	Transportation costs and logistics
National support from CNI and other relevant agencies to register and strengthen co-operatives at the state-level	- Support received within the BSAP lifecycle - Number of co-operatives registered per year	\$5,000–\$25,000 (new)	- Political will - Legislation
Work with the Department of Education to incorporate biodiversity conservation, climate change, and traditional knowledge into elementary and high school curricula, ensuring that they reflect the local context	- Curriculum modules developed and adopted within the BSAP lifecycle - Number of schools implementing modules per year	>\$100,000 (new)	- Prioritization - Policy development process
Continue to support and improve the current environmentally focused programs available to students to encourage the pursuit of environmentally focused careers	- Number of student programs conducted annually - Number of students pursuing environment-related higher education or careers	>\$100,000 (new)	- Requirement for national accreditation - Scholarship eligibility requires Bachelor's degree
Increase the number of elementary school and high school environmental clubs by at least one per year	- Number of clubs in place per year - Number of new clubs established per year - Number of students engaged per year	\$50,000–\$100,000 (new)	Prioritization within schools
Share best practices and education about basic environmental concepts with resource owners to support the appropriate control of resources and biodiversity conservation	- Number of community workshops held per year - Number of resource owners and community members reporting improved understanding following workshops	>\$100,000 (new)	Funding

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Improve coordination between departments to provide an integrated environmental campaign and other public awareness activities within one year	- Coordinated awareness campaign launched by end 2026 - Number of participating departments - Number of community members engaged with the public awareness campaign	>\$100,000 (new)	- Engagement - Access to media channels - Targeting of messages
Continue to engage private resource owners to support the designation of new protected area sites	Number of private resource owners engaged through consultations or outreach activities regarding the designation of new protected area sites per year	>\$100,000 (new)	- Transportation costs and logistics - Negotiations
Improve and enhance monitoring of all protected areas, building capacity of communities and officers for monitoring and enforcement	- Monitoring protocols developed and in use during the BSAP lifecycle - Number of monitoring visits conducted per year - Number of trained enforcement officers	>\$100,000 (new)	- Funding stability - Momentum - Technical capacity
Continue to strengthen and support traditional management practices for the conservation and sustainable use of biodiversity	Traditional practices documented in management plans	\$50,000–\$100,000 (new)	- Community engagement - Consent or intellectual property
Support the integration of traditional knowledge with new scientific information related to the conservation and sustainable use of biodiversity	- Number of initiatives (e.g. management plans) documenting the application of traditional knowledge and scientific information per year - Number of, and evidence of, engagements (e.g. stakeholder meetings) between traditional knowledge holders and technical practitioners per year	\$5,000–\$25,000 (new)	- Limitation on documenting traditional knowledge - Coordination

Objective 2. Assistance Related

Increasing government funding for conservation programs, identifying sources of technical assistance, improving sources of funding, and establishing a system of resource user's fee.

Progress to date

Progress under Objective 2 in Chuuk has been mixed, with efforts having focused on strengthening technical coordination mechanisms, securing financial resources, and improving access to funding and support mechanisms relevant to environmental management and conservation.

Coordination and technical support mechanisms have shown notable progress. A state-level technical group has been re-established, involving the Chuuk State Technical Advisory Committee and the State Environmental Protection Agency. The Environmental Protection Agency also participates in the State Budget Review Committee, helping ensure environmental considerations are included in funding discussions.

Progress has also been made in expanding access to financial resources. Multiple funding sources have been accessed or pursued, including Compact funding, Green Climate Fund, Global Environment Facility phases 5, 6 and 7, and other external programs. Exploration of water fund mechanisms and broader financing options has progressed, with activities supported through Compact funding, the Adaptation Fund, and other external grants. A GEF-7 project has been initiated to establish community engagement mechanisms linked to financial support, although progress remains insufficient at this stage. Work to strengthen and expand networks of experts has begun through the Blue Prosperity initiative, which has undertaken assessments of resources and systems. Efforts to establish a funding mechanism to support community engagement are underway but have not yet reached full implementation.

Overall, progress under Objective 2 demonstrates clear advances in coordination structures and access to funding, alongside ongoing challenges in fully operationalizing financing mechanisms, expert networks, and fee-based systems across Chuuk State.

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Continue to strengthen and expand the network of local experts available to support biodiversity conservation activities	• Number of technical training sessions lead by local experts per year • Number of locals getting certificate in related technical training • Directory for local experts	>\$100,000 (new)	• Prioritization • Human resources
Continue to expand access to appropriate sources of funding for conservation activities, including State Protected Area Network	• Number of successful funding proposals submitted per year • Total funds secured for conservation projects per year • Amount of funding channelled through PAN endowment	\$50,000–\$100,000 (new)	• Technical capacity • Dispersal of funds • Transparency • Human capacity

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
	Number of designed protected areas receiving PAN funds per year		
Explore and develop options for green fees	- Updated green fee mechanism in place during the BSAP lifecycle - Annual revenue collected and allocated to conservation	\$25,000–\$50,000 (new)	Financial mechanism utilized
Identify and establish a funding mechanism (e.g. water funds) to secure freshwater supplies and support management of watershed	- Funding mechanism designed and endorsed within the BSAP lifecycle - Number of resource owners receiving financial support for watershed conservation per year - Feasibility study on water funds completed during the BSAP lifecycle - Water fund pilot project initiated during the BSAP lifecycle	>\$100,000 (existing)	- Manpower - Donor criteria
Secure funding for technical staffing/advisory support for BSAP implementation	Amount of funding secured per year	>\$100,000 (new)	Funding proposal writing capacity

Objective 3. Management Related

The demarcation and registration of areas of biodiversity significance, the creation of legislation to support traditional conservation practices and protect biodiversity, establishing marine and terrestrial protected areas, and updating an inventory of marine and terrestrial plants and animals present in Chuuk.

Progress to date

Progress under Objective 3 in Chuuk shows active engagement across a range of management-related actions, with implementation advancing unevenly. Efforts have focused on protected area registration, management planning, learning exchanges, species management measures, and changes to fishing practices.

Six protected areas have been registered, and improvements have been made to demarcation and the development of management plans. Management efforts have concentrated primarily on lagoon areas, with limited attention to areas outside the lagoon. Learning exchanges have taken place between protected areas, contributing to relationship-building and shared experience among sites. Several proposals related to management and protection have been developed but have not yet been finalized or implemented. These include proposals addressing spawning areas, turtle conservation, and parrotfish and grouper management, and grey ducks. Efforts have also been made to restrict the commercialization of mangroves, alongside planning and management measures to support this objective. Experience-sharing and learning missions have continued, and changes to fishing practices have been pursued, including efforts to replace dynamite fishing with net fishing.

Overall, progress under Objective 3 reflects concrete action across protected area management, species-focused measures, and fishing practices, while also indicating that several initiatives remain partial or focused on specific areas rather than implemented comprehensively across the state.

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Continue to strengthen the management of protected areas through community planning, demarcation and designation of at least one new protected area under the Chuuk Protected Areas Network law by the end of 2030	- Number of community-led management plans approved - Number of protected area sites designated under Chuuk State PAN law - Number of areas with boundary markers installed per year - Number of Protected Areas Network (PAN) sites registered under the National PAN Framework	>\$100,000 (new)	Transportation costs and logistics
Continue to establish marine and terrestrial protected areas, some of which being listed as areas of biological significance, ensuring they are appropriately designated	- Number of new sites established by BSAP lifecycle - Diversity of ecosystems included within the protected areas over time	>\$100,000 (new)	- Awareness - Comprehensive engagement

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Improve the design and connectivity of the protected area network in Chuuk State based on management experience, lessons learned, and ongoing implementation	- Connectivity maps produced during the BSAP lifecycle - Size (square miles) of the ecological corridors identified - Size (square miles) of the ecological corridor protected during the BSAP lifecycle	>\$100,000 (new)	- Community engagement - Technical capacity
Develop proposals to enhance the protection of endemic, endangered and rare species	- Assessment on endangered species list - Number of feasibility studies completed during the BSAP lifecycle - Number of pilot programs initiated during the BSAP lifecycle	\$50,000–\$100,000 (new)	Community and resource owner engagement and motivation
Expand current legislation to ensure the protection, and prevent the exploitation, of all endemic, endangered and rare species in Chuuk State by the end of 2030	- Assessment on law and regulations protecting endangered species - New/amended regulations or laws drafted during the BSAP lifecycle - Updated list of species legally protected developed during the BSAP lifecycle	>\$100,000 (new)	Political will
Improve mangrove management and protection	- Draft of a State Mangrove Management Plan - Law enacted during the BSAP lifecycle - Number of mangrove species legally protected during the BSAP lifecycle	\$25,000–\$50,000 (existing)	Political will
Propose amending the Chuuk Fisheries Management Act to include sustainable measures (e.g. size limit, seasonal bans, total allowable catch) regulations on fish and other marine resources by end 2030	- Revised Act adopted by end of the BSAP lifecycle - Compliance monitoring reports produced annually - Feasibility study for limits on exports completed during the BSAP lifecycle - Policy recommendations for fish exports submitted during the BSAP lifecycle	>\$100,000 (new)	- Political will - Community buy-in - Lack of alternatives
Improve turtle conservation through regulations, awareness and sustainable management practices.	Assessment of current regulations on turtle harvesting by end 2030	\$50,000–\$100,000 (new)	- Cultural exemptions - Lack of alternatives

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
	- Number of turtle conservation awareness activities - Number of nesting sites designated by end 2028 - Enforcement effectiveness reporting per year		
Promote voluntary compliance towards biodiversity-related regulations	Documented recommendations or proposed program designs developed during the BSAP lifecycle	>\$100,000 (new)	Technical capacity
Establish and implement legislation enabling appropriate agencies and departments to work with communities to patrol areas under traditional land and marine based conservation practices	- Legislation enacted during the BSAP lifecycle - Number of joint patrols carried out per year	>\$100,000 (new)	- Establishment of enforcement units - Legislative support
Establish and implement legislation to regulate, monitor, and protect the use of our natural marine and terrestrial resources from over-exploitation by all people, local or otherwise	- Comprehensive resource management law enacted during the BSAP lifecycle - Enforcement cases reported per year	>\$100,000 (new)	- Monitoring capacity - Awareness - Legislative support
Continue to implement the Onei water conservation and security measures model across at least one community per year	- Number of new communities engaged per year - Number of communities implementing model per year	\$50,000–\$100,000 (new)	- Cultural constraints - Awareness - User rights
Develop memoranda of understanding with resource owners to ensure continued provision of seedlings to support farmers groups, gene banks, and nurseries to support agrobiodiversity	- Number of memoranda of understanding signed by the end of 2030 - Number of famers' groups, gene banks, and nurseries supported by the end of 2030	\$50,000–\$100,000 (new)	- Seedling availability - Community engagement - Geographic dispersal of communities
Continue to implement the Chuuk Invasive Species Taskforce strategic action plan	Number of eradication/control actions undertaken per year	>\$100,000 (new)	Technical capacity
Ensure the Environmental Protection Agency strategic action plan for waste management is updated, implemented, and funded	- Strategic Action Plan updated during the BSAP lifecycle - Amount of funding secured during the BSAP lifecycle - Documented evidence of the number of municipalities following the Strategic Action Plan per year	>\$100,000 (new)	- Technical capacity - Equipment

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Continue to ensure ongoing monitoring of all biodiversity in Chuuk State and maintain marine and terrestrial biodiversity inventories	• Updated marine and terrestrial biodiversity inventory produced during the BSAP lifecycle • Monitoring reports published annually	>\$100,000 (new)	• Technical capacity • Research institute collaboration
Develop legislation to ensure sustainable funding to implement and enforce environmental laws and policies, including the Chuuk BSAP	• Legislation endorsed during the BSAP lifecycle	\$50,000–\$100,000 (new)	• Political will

Objective 4. Control Related

The establishment of strict control of alien species and ensuring specific requirements are met prior to initiating activities that may affect biodiversity.

Progress to date

Progress under Objective 4 in Chuuk has been uneven, with regulatory and approval processes largely in place, while actions related to quarantine capacity, invasive species prevention, and science-based decision-making remain constrained by limited resources and incomplete implementation.

Environmental approval systems are functioning, supported by the Chuuk State Technical Advisor Committee. Quarantine-related progress has been mixed. Existing laws requiring inspection of incoming vessels and aircraft are being enforced, though airport scanning equipment requires repair and there is no X-ray capability at the seaport. Expansion of quarantine activities to outer islands has not occurred, with no stationed quarantine officers and ongoing understaffing. Regional collaboration to prevent invasive species at points of departure is underway through Micronesia-wide cooperation and Global Environment Facility-supported initiatives to improve access to equipment.

Progress on sustainable use and science-based management has been limited. While the 2016 Coastal Management Act is in place, no significant progress has been made in establishing multi-agency approval requirements for commercialization of natural resources. Exploration of value-added products, including aquaculture and aquaponics, has begun but requires ongoing attention, while clams from Kosrae and Yap have been brought to Chuuk to help replenish local wild populations.

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Establish legislation requiring approval from all appropriate agencies prior to the commercialization of any natural marine and/or terrestrial resources for exportation by 2030	- Legislation endorsed during the BSAP lifecycle - Number of commercialization permits issued and approved per year	\$50,000–\$100,000 (new)	Legal expertise
Continue to establish a process for the joint inspection of all potential dredging, earth moving and landfill activities by June 2030	- Joint inspection protocol adopted during the BSAP lifecycle - Number of joint inspections undertaken per year	\$25,000–\$50,000 (existing)	- Prioritization - Pressure on resources
Implement continuous training in coordination with consultants and the US Environmental Protection Agency to enable the effective undertaking of environmental impact assessments and the effective reviewing of environmental impact statements	- Number of staff trained per year - Number of environmental impact assessments undertaken and environmental impact statements reviewed per year	\$50,000–\$100,000 (new)	Staff turnover
All government departments and agencies to consider the biodiversity significance of an area in their planned activities (e.g. infrastructure) and balance with other aspects (e.g. economic development)	- Number of departments including biodiversity considerations in their annual plans - Number of cross-sector meetings on biodiversity per year	>\$100,000 (new)	Ongoing assessment costs and capacity

Implementation Actions	Action-specific indicators	Estimated annual cost (and type)	Constraints
Ensure state legislation to monitor and control the introduction of alien species, and to monitor their impacts on the biodiversity of Chuuk State, is endorsed by the end of 2030	• Legislation endorsed by end 2030 • Number of monitoring assessments undertaken during the BSAP lifecycle	\$50,000–\$100,000 (new)	• Awareness • Legislative expertise • Political will
Expand quarantine activities by stationing quarantine officers in all registered port areas, and reinstate state agriculture agents in the outer islands	• Number of islands with state agriculture agents deployed per year • Number of inspections conducted per port per year	>\$100,000 (new)	• Funding • Technical capacity
Continue to work with other quarantine services to prevent invasive species at point of departure to Chuuk	• Number of cooperation agreements signed per year • Number of intercepted invasive species at departure points per year	\$50,000–\$100,000 (new)	• Technical expertise • Equipment
Establish policies and secure technical capacity to continue enforcing quarantine laws requiring all incoming vessels and aircrafts to be inspected for invasive species	• Percentage of vessels/aircraft inspected per year • Number of violations detected per year	\$50,000–\$100,000 (new)	• Equipment • Quarantine facilities • Animal containment facilities
Continue to explore and promote value-added products that support the sustainable use of Chuuk State's biodiversity	• Number of value-added biodiversity products developed per year • Revenue generated from such products per year	>\$100,000 (new)	• Technical capacity
Ensure all biodiversity and natural resource-related legislation remains relevant, and that any new information is used appropriately to support implementation of activities	• Legislative review conducted at least once during the BSAP lifecycle • Number of amendments proposed based upon scientific evidence during the BSAP lifecycle	\$50,000–\$100,000 (new)	• Legal expertise
Establish a research program to scientifically support future legislation to protect biodiversity against the release or spread of non-native species	• Establishment of research program during the BSAP lifecycle	>\$100,000 (new)	• Legal expertise
Establish mechanisms to control any aquaculture/mariculture activities to prevent negative impacts on surrounding ecosystems by the end of 2030	• Aquaculture/mariculture management plan developed • Aquaculture/mariculture regulations proposed by end 2030 • Number of farms inspected annually	\$50,000–\$100,000 (new)	• Technical capacity

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