



State and Private Forestry Fact Sheet

Palau 2024



Investment in State's Cooperative Programs

Program	FY 2023 Estimate
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$0
Forest Legacy	\$0
Forest Stewardship	\$100,000
Landscape Scale Restoration	\$0
State Fire Assistance	\$0
Urban and Community Forestry	\$100,000
Volunteer Fire Assistance	\$0
Total	\$200,000

NOTE: This funding is for all entities within the state, not just the State Forester's office.

The Republic of Palau consists of more than 340 volcanic and limestone islands, of which nine are inhabited. Palau is located approximately 500 miles equidistant from the Philippines and Papua New Guinea. The population of Palau was estimated at 17,661 in 2015, with two thirds of the population residing in Koror. Most of the land is owned by the State's Public Land Authority (71%), with the remaining land owned by individuals, corporations, and traditional indigenous clans (29%), many of which are disproportionately impacted by rising sea level and ocean acidification associated with climate change. The islands of Palau represent 160 square miles (415 km²) of land, and includes the forested limestone Rock Islands, an UNESCO World Heritage Site, and the largest intact native tropical lowland rainforest in the Pacific - the most diverse forest in Micronesia. Koror lies just south of Palau's second largest island, Babeldaob, which is dominated by native forests, with components of grasslands, wetlands, mangroves, beaches, and coral reef ecosystems. Forests in Palau are classified as lowland tropical rainforests, though they vary greatly from the coasts to the ridges and have a direct connection to the health of the ocean environment.

Following the re-organization of the Ministry of Agriculture, Fisheries, and the Environment – forestry programs have been realigned to the newly established Bureau of Environment. The Bureau of Environment

Division of Forest, Land, and Water Management (DFLW) will coordinate Palau's Forest Action Plan and promote its vision of a Palau enriched by healthy forests that sustain the culture and livelihoods, expand the

economy, and strengthen the resilience of the island ecosystems and communities. This vision is achieved

through partnerships with State Governments, non-government organizations, local Palau agencies, and the

USDA Forest Service to collaborate on projects that support the national priorities.

Program Goals

- Goal 1: Enhance public benefits from trees and forests by promoting the adoption of sustainable forest-based sources of livelihoods, including ecotourism, agroforestry, and sustainable harvesting.
- Goal 2: Protect forests from harm by addressing, developing, and implementing a fire hazard reduction program.
- Goal 3: Develop a Palauan Forest Monitoring Program that will increase knowledge and understanding of forest resource conditions, with the collaboration of the national government, state

Key Issues

- Climate Change: Heavy rains in the past year have caused several landslides, moving restoration to stabilize the area as a key priority.
 1. Stabilize slopes and reforest priority landscape areas.
 2. Assess impact of climate change on forest health from extreme weather events.
 3. Promote trees, shrubs, vegetation and protect coastal forests and mangroves to stabilize coastlines.
 4. Develop Best Management Guidelines for coastline stabilization and share with States.
- Population Growth and Urbanization:
 1. Provide support to develop and implement land use plans that incorporate forests into designs; build capacity for forest focused land use planning.
 2. Native tree propagation for homeowner use to promote native trees in urban environments.
- Water Quality and Quantity:
 1. Inventory forest and agriculture in watershed areas to assess impacts to water quality and quantity.
 2. Provide support and technical assistance to reforest priority areas that are upstream of drinking water intake areas (buffer zones).
- Wildfire Prevention:
 1. Build States' capacity to monitor changes in wildfire starts, scale and intensity.
 2. Promote educational opportunities on effects of wildfire on forests, coral reefs, and communities.
 3. Collaborate with the Division of Fire and Rescue to provide training in fire response and suppression.
 4. Develop and implement a fire hazard reduction program that focuses on reforestation.
- Conservation and Protection:
 1. Control Palau's top priority invasive species.
 2. Build capacity on ecosystem management (e.g. data analysis training for forestry inventories, rapid ecosystem assessments, etc.).
 3. Improve threatened and endangered species management.
- Sustainable Use of Forest Resources:
 1. Develop and implement a statewide policy framework for sustainable use of forest resources.
 2. Develop a best practices manual to be used as guidance.
 3. Raise awareness about the value of forests.
 4. Develop sustainable livelihood opportunities from forest resources through specific programs and capacity building projects.
 5. Conduct state level forest inventories to be the basis for developing state forest resource management regulations.
- Urban Forest Sustainability:
 1. Enhance and organize planting of trees in urban areas.
 2. Develop and promote a program to provide landscape advice services for land/homeowners in urban areas.
 3. Develop and disseminate education materials for forest resources management.
 4. Preserve traditional knowledge on plants and promote connection between plants and culture.

Forest Facts and Accomplishments

Selected Facts	Value	FY 2023 Accomplishments	Value
Population	19,129	Landowners Receiving Educational or Technical Assistance	80
Acres of Forest Land	102,130	Acres Covered by New or Revised Forest Stewardship Plans	0
Acres of Nonindustrial Private Forest Land	9,568	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	0
Number of NIPF Landowners	957	Volunteer Fire Departments Assisted	0
Acres of Federal Land Under State Fire Protection	0	State Fire Communities Assisted	10
Acres of Private Land Under State Fire Protection	0	Coop Forest Health Acres Protected	0
Number of Rural Fire Departments	0	Forest Legacy Project Acquisitions	0
Cities and Towns	16	Communities Provided Urban Forestry Program Assistance	0
Forest Based Employment	0	Population Living in Communities Provided Urban Forestry Program Assistance	0
Economic Impact of Forestry (by rank)	0	Urban Forestry Volunteer Assistance	0
State Forestry Budget (All Sources)	213,619		

Program Highlights

Forest Stewardship

Under the Ministry of Agriculture, Fisheries and the Environment (MAFE) the Division of Forest, Land and Water Management (DFLW) received a Forest Stewardship grant that focuses on reforestation of barren and degraded areas in or near watersheds with native tree species. The project would promote native tree growth while also addressing issues that pertain to barren areas such as erosion. There are 5 main goals of the project: Watershed Protection, Reforestation, Capacity Building, Landowner Assistance, and Furthering forest related activities in DFLW. The division also organized field trips where students would assist in planting native tree seedlings at the reforestation site - there have been a total of 3 organized trips. Overall, 950 native tree seedlings have been planted across close to 2 acres at the reforestation site. The Division has also made attempts to raise awareness about watershed protection and planting native trees by giving out various promotional materials at Ministry led fairs and events. A total of 5,447 seedlings have been distributed to private landowners and utilized in other out plantings supported by the division. DFLW also participates in the Wildfire Network, Forest and Mangrove Monitoring in its efforts to further forest related activities in the division.

Landowner Assistance

Under the Forest Stewardship Program the Division of Forest, Land and Water Management (DFLW) received a Bipartisan Infrastructure Law (BIL) Forest Action Plan Implementation Grant aiming on reforestation and promoting agroforestry and food security. In Palau's Forest Action Plan, a great emphasis was put on the collaboration between the national and state governments as well as NGOs to protect, improve and sustainably use our natural resources - forests included. The purpose of this project is to build stronger collaboration between the states and national government by providing reforestation assistance and increasing local capacity. A total of 2,495 seedlings have been planted in three states. The division conducted plantings with the states, Protected Areas Network (PAN), community volunteers as well as private landowners that had lands near the site and were interested to engage in activities. As a result, a little more than 800 seedlings were planted per state. Local capacity was also strengthened by hiring additional staff to assist with nursery work and management. The division also carried out community outreach in order to spread awareness for the general public to be made aware of DFLW itself and the work it encompasses. Additionally, the division also had a chance to work with various farmers and landowners to focus on agroforestry and food security as it is of critical importance and especially essential for Small Island Developing States (SIDS) such as Palau. In collaboration with the Bureau of Agriculture and state governments, the division is working with five states with a purpose to promote increased food security. The division is currently propagating and plans to begin distributing to farmers/landowners in June 2024. The division is also doing outreach via social media, radio and ministry-led events for the public to be made aware of agroforestry and food security and how it contributes to SIDS such as Palau.

Mangrove Monitoring

The Division of Forestry, Land, and Water (DFLW) worked with Japan International Cooperation Agency (JICA) and Palau International Coral Reef Center (PICRC) to install nine permanent mangrove monitoring plots in Ngiwal state and in Airai state for a total of 18 plots. We established three 10 m radius plots in the upper, mid, and lower mangrove forests. We then measured forest structure, biomass, above and belowground plant carbon, and soil carbon in 10 m radius plots following the Sustainable Wetland Adaptation and Mitigation Method (SWAMP). Nine additional plots will be created in Ngeremlengui state in 2024. Forest plot data is still being analyzed and soil cores are being processed by River Thomas at the US Forest Service's (USFS) Institute of Pacific Island Forestry in Hilo. Data will be integrated into a larger data set that DFLW has been collecting since in 2010 in more than 100 mangrove plots located around Babeldaob. DFLW also worked with USFS and United States Geological Survey (USGS) to install rod surface elevation plots (rSETS) in the upper and lower mangrove plots described above. rSETS measure how fast the mangrove forest floor is rising or falling relative to sea level rise. We were able to install rSETS in the upper and lower mangroves of Ngeremlengui and Airai states. We were only able to install in the upper mangrove of Ngiwal and will finish installation in 2024. We are also planning to measure the rSETS in March. This will include the remeasurement of the 12 rSETS that we installed in 2012.

Urban and Community Forestry

Ebiil Society Inc., a local non-profit community organization that has worked to educate about and restore Palau's forests for over 18 years, continued an awarded grant that begun in 2022 from the U.S. Forest Service Urban and Community Forestry (UCF) Program. Between January and December 2023, Ebiil collected a total of 5,000 plants, targeting six species of native hardwood trees and 5 strand forest species to support native forest reforestation. A total of 3,770 trees were planted in three separate reforestation sites of old Japanese bauxite mining fields in Ngardmau, Ngarkekla Nature park in Ngachelong, and in Helen Island in Hatohobei state. Over the year, a total of 504 students from local and international schools participated in the education programs that included tree planting activities in these three sites. This year, all fifth graders in Palau could participate in Ebiil's ecology field studies as part of their physical science curriculum. In another highlight of the education programs, Ebiil research students participated in blue carbon calculation exercise of mangroves at the new forestry/agroforestry education sites, Oratelruul in Ollei, Ngarchelong. Additionally, a total of 43 Protected Areas Network rangers and community members participated in Ebiil training for forest restoration, soil and water management, and watershed protection to better serve the forests. Next, Ebiil Society is developing an area (estimated 4 acres) for forest and agroforestry studies for schools and communities and was awarded competitive UCF Inflation Reduction Act funding of \$740,000 to expand their program's reach to farther islands in Palau once the grant is executed in 2024.

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