State and Private Forestry Fact Sheet

Palau 2025

Investment in State's Cooperative Programs

Program	FY 2024 Final
Community Forests and Open Space	$0
Cooperative Lands - Forest Health Management	$0
Forest Legacy	$0
Forest Stewardship	$90,000
Landscape Scale Restoration	$0
State Fire Assistance	$102,000
Urban and Community Forestry	$20,768
Volunteer Fire Assistance	$0
Total	**$212,768**

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 individual States Public Land Authorities (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 and state governments.

Key Issues

- Climate Change: Heavy rains associated with tropical storms cause landslides in several locations, making restoration to stabilize these areas a key priority: 1. Stabilize slopes and reforest priority landscape areas. 2. Assess the forest health impacts of extreme weather events. 3. Promote trees, shrubs, vegetation, and protect coastal forests and mangroves to stabilize slopes and 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 forests and agricultural lands 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
Population	19,129
Acres of Forest Land	102,130
Acres of Nonindustrial Private Forest Land	9,568
Number of NIPF Landowners	957
Acres of Federal Land Under State Fire Protection	0
Acres of Private Land Under State Fire Protection	0
Number of Rural Fire Departments	0
Cities and Towns	16
Forest Based Employment	0
Economic Impact of Forestry (by rank)	0
State Forestry Budget (All Sources)	213,619

FY 2024 Accomplishments	Value
Landowners Receiving Educational or Technical Assistance	163
Acres Covered by New or Revised Forest Stewardship Plans	0
Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	0
Volunteer Fire Departments Assisted	0
State Fire Communities Assisted	0
Coop Forest Health Acres Protected	0
Forest Legacy Project Acquisitions	0
Communities Provided Urban Forestry Program Assistance	1
Population Living in Communities Provided Urban Forestry Program Assistance	267
Urban Forestry Volunteer Assistance	0

Program Highlights

Forest Health Protection

USFS Forest Health Protection (FHP) has been working with Palau to understand and address a new disease affecting endemic Udeuid (Manilkara udoido) trees in the native forests of Babeldaob Island. Udeuid trees are wilting and dying in large numbers throughout their range and the dying trees are heavily infested with bark and ambrosia beetles. In 2023 a FHP Plant Pathologist was located in Palau and is working with Palau's Div. Forest, Land and Water Management (DFLW) and partners such as the Ebiil Society to identify the cause of Udeuid Wilt, measure impacts, establish monitoring, and begin managing the disease. DFLW technicians and foresters have been working with the FHP Pathologist to collect samples, document changes to the forest, and establish monitoring of selected trees. Ceratocystis manginecans, a relative of the Rapid Ohia Death (ROD) fungus in Hawaii, has been consistently isolated from dying trees and inoculation experiments are being carried out in the DFLW nursery to confirm C. manginecans is causing the tree deaths. Augusta Ilemelong, Forest Nursery Agent under the IIJA-FAP grant, is growing plants for inoculation experiments and experimenting with methods for propagating udeuid. The FHP Regional Plant Pathologist, FHP Entomologist for Hawaii, and a IPIF Pathologist all visited Palau during 2024 to help investigate this new threat to forests in the Western Pacific. DFLW has promoted awareness of Udeuid Wilt through displays and outreach at two MAFE led fairs, and presentations to numerous groups, including the Palau Conservation Conference.

Forest Stewardship

Palau's Forest Stewardship grant focuses on reforesting of barren and degraded areas in or near watersheds with native tree species. The project will 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 organized a collaborative effort with the state government, local partners, and students to plant native tree seedlings at one of the watershed reforestation sites in Babeldaob. This event marked one of DFLW's largest planting activities, with 88 students from a local high school gathering to plant 400 native seedlings across a three-acre reforestation site. Through these collective efforts, a total of 2,161 native tree seedlings were planted across three acres of barren, degraded land in the Aimeliik state watershed. The division launched a new reforestation project in the Ngerikiil Watershed in Airai, a priority area for mitigating the environmental impacts in southern Babeldaob. A total of 800 native tree seedlings have been planted in this watershed, advancing the goal of reforesting three acres of degraded land. The state government has also supported these reforestation efforts. DFLW plans to continue and expand these initiatives through increased community involvement in the coming year. DFLW raised awareness about watershed protection and planting native trees by giving out various promotional materials at Ministry led fairs and events. A total of 812 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 advance sustainable management of forests in Palau.

Landowner Assistance

Palau's Infrastructure Investment and Jobs Act (IIJA) Forest Action Plan Implementation Grant is to build stronger collaboration between the [Palauan] states and national [Palau] government by providing reforestation assistance and increasing local capacity. A total of 800 native tree seedlings have been planted in Ngeremlengui, and 812 seedlings have been planted in Ngatpang, with one acre dedicated to reforestation in each state. The Forestry division made collaborative planting efforts with the states, Protected Areas Network (PAN), community volunteers as well as interested nearby private landowners. In 2024, the division partnered with five states, including three outlying states and two located on Babeldaob, to promote agroforestry and food security. In collaboration with the Bureau of Agriculture, the division propagated 2,500 seedlings which were distributed to interested community members in each state. Thus far, 680 seedlings were successfully planted. The division is currently working with these states to assess their specific needs and address environmental challenges by providing appropriate seedlings and technical guidance to support agroforestry and food security initiatives. Additionally, 121 farmers and landowners were educated on the project's objectives, introduced to the tree species, and trained on the proper maintenance and care practices for seedling growth. DFLW continues to promote these projects through outreach events and social media platforms to raise public awareness about agroforestry and food security. Division staff visited approximately 10 landowners and gained valuable insights into seedling growth, maintenance, and other challenges landowners face. This allowed the

division to better understand the community's needs and provide technical assistance, sharing best practices to promote healthy growth. DFLW aims to expand its outreach, targeting more farmers and landowners to enhance their land management efforts.

Mangrove Monitoring

Palau's Division of Forestry, Land, and Water Management (DFLW) has been monitoring Palau's mangroves since 2010, when they created a national Mangrove Monitoring Network that consists of 120 permanent plots. Data revealed Palau's mangroves are removing 19.8 Mg CO2equivalent (CO2e) per hectare per year. DFLW also assisted the Office of Climate Change with their 3rd National Greenhouse Gas (GHG) Report, providing data from mangrove and forest monitoring efforts, which were used to offset Palau's GHG emissions. In 2022, Palau's total GHG emissions (excluding removals) amounted to 113.41 Gg CO2e. When forest and mangrove data were included, total GHG emissions decreased to -620.66 Gg CO2e. This was the first time a Pacific Island used country-specific emission data from forests and mangroves. DFLW collaborated with the US Forest Service (USFS), Japan International Cooperation Agency (JICA), and the Palau International Coral Reef Research Center (PICRC) to remeasure mangrove forest plots in Ngiwal and Airai. DFLW supported the USFS and the US Geological Survey in installing additional rod surface elevation tables (rSETS), which have measured the rise or fall of mangrove forest floors relative to sea level rise since 2012. DFLW staff also assisted a USFS Graduate Fellow from Palau on her research examining why nearly half of Palau's mangroves are stunted. Monitoring plots were established in paired tall and stunted Rhizophora apiculata mangroves and tree growth, leaf litterfall, root growth, and nitrogen and phosphorus efficiency were measured. This will also contribute to understanding mangrove productivity and carbon gains/losses. DFLW also helped the USFS map changes in mangrove cover using the Collect Earth program, tracking expansion and loss of mangrove areas from 2010-2020. DLFW also helped the USFS and the Coral Reef Research Foundation (CRRF) ground-truth mangrove maps created by CRRF.

Nursery Capacity

The Division of Forest, Land, and Water Management (DFLW) received a Infrastructure Investment and Jobs Act (IIJA) Revegetation grant aimed at enhancing the capacity of the national central Nekken Nursery. As the primary government agency responsible for reforestation, DFLW recognizes the importance of collaboration with state governments to rehabilitate and restore degraded, barren, and burned areas across the island. Through this grant, DFLW has acquired essential equipment to improve mulching and soil production, which are crucial for seedling propagation and ensuring healthy reforestation efforts at various sites. Additionally, the grant has improved transportation for equipment, seedlings, and personnel, significantly enhancing the efficiency and effectiveness of reforestation tasks. Looking ahead, DFLW plans to continue strengthening its infrastructure through the grant, with a focus on improving water and irrigation systems to better maintain seedlings and ensure high-quality plants are placed at reforestation sites. These improvements will greatly enhance DFLW's outreach and reforestation efforts throughout the Republic of Palau.

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 19 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 2024, Ebiil collected a total of 3084 plants, targeting six species of native hardwood trees and 5 strand forest species to support native forest reforestation. A total of 1851 trees were planted at two reforestation sites of old Japanese bauxite mining fields in Ngardmau and Helen Island in Hatohobei state. The trees were planted by students and youth, including 279 community volunteers. Over the year, a total of 503 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 published a book on Palau agroforestry, land care, food and relations. The book is available at lulu.com. This year Ebiil has incorporated tree maintenance work into our monitoring and evaluation strategy and is conducted every quarter to ensure successful tree growth.

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