



State and Private Forestry Fact Sheet Marshall Islands 2018



Investment in State's Cooperative Programs

Program	FY 2017 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$0
Forest Legacy	\$0
Forest Stewardship	\$0
Landscape Scale Restoration	\$0
State Fire Assistance	\$0
Urban and Community Forestry	\$0
Volunteer Fire Assistance	\$0
Total	\$0

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

Agro-forestry is an important resource in the Republic of the Marshall Islands. The responsibility of forestry lies with the Ministry of Natural Resources and Commerce (MNRC), formerly Ministry of Resources and Development. The following goals were established under the Ministry Strategic Plan 2005 -2010.

Program Goals

- The Ministry promotes and assists forestry activities in a sustainable and productive manner, through activities which foster sustainable food production, provide alternative energy resources and income-generating opportunities for the people of the Marshall Islands.
- Modern development and urbanization co-exists with the environment and the traditional lifestyles of the Marshallese population
- Our beautiful islands are safeguarded from pests and disease
 Our traditions are alive and we are economically self-reliant

Key Issues

- Biodiversity: Conservation of biodiversity in the Marshalls concerns terrestrial native species, especially endemic species and including migratory birds; traditional cultivars; and sustainable land management to protect the biodiversity and productivity of the species-rich marine environment. Concern from this issue is rooted in efforts to reconnect with traditional culture; interest of external scientists; and international commitments including the Micronesia Challenge.
- 2. Food Security and sustainable livelihood: Agro-forests are a source of subsistence goods and commercial products. Many Marshallese suffer from malnutrition and diabetes that could partially be addressed with increased agro-forest production. Marshallese family incomes are low; agro-forest production can reduce the need for purchases and bring in cash income.
- 3.Coastal reinforcement: Coastal forests are those on the beach crest above high tide mark. Their root systems reinforce the beach “berm” or crest. To an extent, they can resist coastal erosion, maintain berm height, and therefore minimize the occurrence of “overtopping” (surge of high seawater into depressed interior areas). However, extreme events can always wash away forest, berms and even entire sections of sandy islands.
- Coastal forests have been thinned and removed in many urban and rural areas, so their restoration and maintenance in their natural state is a “no-regrets strategy” and a first line of defense against the effects of sea level rise.
- Urbanization: Urbanization is a result of migration and the adoption of Western patterns of living. A large proportion of the Marshalls’ population is now concentrated on a few urban islands, with resulting reductions in forest cover and separation of people from the tangible and cultural benefits of forests.

- The following cross cutting considerations are recognized as threats constraints and limitations that affect more than one of the key issues listed above.

Climate Change

Freshwater resources

Capacity building

Invasive plant species, pests and diseases

Forest Facts and Accomplishments

Selected Facts	Value	FY 2017 Accomplishments	Value
Population	67,182	Landowners Receiving Educational or Technical Assistance	20
Acres of Forest Land	44,460	Acres Covered by New or Revised Forest Stewardship Plans	0
Acres of Nonindustrial Private Forest Land	0	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	0
Number of NIPF Landowners	0	Volunteer Fire Departments Assisted	0
Acres of Federal Land Under State Fire Protection	0	State Fire Communities Assisted	0
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	33	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)	0		

Program Highlights

Forest Stewardship

The Republic of the Marshall Islands benefitted from successful implementation of the Forest Stewardship Project. Collaboration with the land owners, Community College, National government and several private and public schools led to this success. The project promotes food productivity and security by planting various fruit trees on different urban locations. The overall goal is to maintain and improve diversity, more consumption of locally produced products and to increase the awareness level regarding the importance of agroforestry in the island. This project established two nurseries, 10 school garden sites, distributed more than 1000 fruit trees on different atolls, and training more than 100 people on tree planting and soil management.

Also, a new agroforestry monitoring pilot project using small unmanned aerial systems (sUAS) was planned during 2017 for implementation during 2018. The project is a collaboration between the Marshalls' Ministry of Natural Resources and Commerce, the Marshall Islands Conservation Society, and the University of Hawaii at Hilo Spatial Data Analysis & Visualization (SDAV) Laboratory, which will conduct the sUAS flights and analyze the resulting imagery and data products. The project will generate detailed forest inventory data within a 100-hectare study area on Arno Atoll, and compare sUAS-derived forest inventory metrics against field data collected from subplots within the study area. Metrics include individual tree counts and locations, species ID, tree heights, and crown diameters. Particular emphasis will be on coconut and pandanus trees (which provide food and fiber). We anticipate that sUAS-derived forest metric performance will be equivalent to field-based measures under open and semi-open canopy conditions, but will decline under closed canopy conditions.

Landscape Scale Restoration

The Marshalls Ministry of Natural Resources and Commerce is partnering with the USDA Forest Service, Forest Inventory & Analysis (FIA) program and the Micronesia Conservation Trust (MCT), funded by an LSR grant, to collect data on the status and trends of the forests in the Marshalls. This monitoring will be using the FIA protocol which has been expanded to help meet Micronesia Challenge's terrestrial monitoring goals including addressing food security, climate research and inventorying coconut and pandanus resources. The Marshalls were first inventoried using FIA field methods in 2008 and at that time, 44 FIA grid plots were installed. In the 2018 inventory, all the FIA plots will be revisited to observe change across the landscape, and up to 40 new plots will be installed to meet target monitoring goals in the Marshalls. The FIA plots are laid out in a grid pattern and fall on 13 atolls. The FIA protocol is a standardized, reliable and repeatable method for collecting forest inventory data that, once collected, can be used by policymakers, scientists, resource managers, and the general public. The data collection crew will include a combination of foresters from the Ministry of Resources and Commerce, the USDA Forest Service, and Foresters from Alaska, Guam, Pohnpei, and Yap (Federated States of Micronesia). Work in 2017 included identification of conservation areas within which the new plots would be sited (drier atolls not previously sampled), and identification of additional data to be gathered, particularly functional groups of coconut and pandanus cultivars.

Contact Information



Marshall Islands Ministry of Natural Resources and Commerce

Lajkit Rufus
State Forester
Coconut Street
P.O. Box 1727
Majuro, MH 96960
011-692-625-3206
lrufus@hawaii.edu

US Forest Service Pacific Southwest Region

Kathleen Stearns Friday
Forest Legacy/Stewardship Program Manager
USDA Forest Service
1323 Club Drive
Vallejo, CA 94592
808-854-2620
kfriday@fs.fed.us
