



# State and Private Forestry Fact Sheet

## Guam 2021



### Investment in State's Cooperative Programs

Program	FY 2020 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$261,523
Forest Legacy	\$0
Forest Stewardship	\$100,999
Landscape Scale Restoration	\$0
State Fire Assistance	\$330,000
Urban and Community Forestry	\$60,000
Volunteer Fire Assistance	\$0
<b>Total</b>	<b>\$752,522</b>

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

Six priority issues were identified in Guam's Forest Action Plan: 1. Wildfire and public safety 2. Water quality and water supply 3. Population growth and urbanization 4. Deforestation of native species 5. Urban forest sustainability 6. Degraded lands. These six key issues remain our top priority in our effort to protect and enhance our natural resources. Seeking partnerships with NGO's and other Government agencies to leverage local resources will aid us in addressing these priority issues.

### Program Goals

- 1. Implement highest priority planting meeting multiple objectives
- 2. Protect, conserve and restore forest on state, private and other non military lands
- 3. Work with military to avoid deforestation and develop tree ordinance laws for new and old development zones
- 4. Improve fire prevention, control, suppression and prescribed fire activities
- 5. Implement tree planting and monitoring projects in developed areas, open spaces and parks and communities
- 6. Implement a forest health program.

### Key Issues

- 1. Wildfire and public safety
- 2. Water quality and water supply
- 3. Population growth and urbanization
- 4. Deforestation of native species
- 5. Urban forest sustainability
- 6. Degraded lands

## Forest Facts and Accomplishments

Selected Facts	Value	FY 2020 Accomplishments	Value
Population	154,805	Landowners Receiving Educational or Technical Assistance	24
Acres of Forest Land	69,851	Acres Covered by New or Revised Forest Stewardship Plans	14
Acres of Nonindustrial Private Forest Land	28,771	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	2
Number of NIPF Landowners	30,000	Volunteer Fire Departments Assisted	0
Acres of Federal Land Under State Fire Protection	0	State Fire Communities Assisted	63
Acres of Private Land Under State Fire Protection	81,000	Coop Forest Health Acres Protected	0
Number of Rural Fire Departments	12	Forest Legacy Project Acquisitions	0
Cities and Towns	19	Communities Provided Urban Forestry Program Assistance	28
Forest Based Employment	0	Population Living in Communities Provided Urban Forestry Program Assistance	134,672
Economic Impact of Forestry (by rank)	0	Urban Forestry Volunteer Assistance	1,860
State Forestry Budget (All Sources)	1,150,318		

## Program Highlights

### ***Biochar Trials for Reforestation***

A methodology for the biochar special initiative was drafted and submitted. Prior to the draft completion, areas for the biochar test plots were identified, mapped, measured and marked off. The plots will be located within the As Gadao, LSR project site. The draft is currently undergoing a final round of edits and will be ready in time for implementation during the 2021 planting season. An off-island contractor has been contacted and is interested in hosting a biochar education, creation, and field application workshop. The workshop is tentatively scheduled for the Spring of 2022 (date TBD due to COVID travel restrictions). Based on the designs provided by the off-island consultant, the fabrication of two low-tech kilns were completed. The kilns are designed to be transported via trailer throughout the island for on-site biochar production. Seed collection orders for *Pterocarpus indicus* and *Acacia auriculiformis* were submitted to the forestry team and will be propagated in early 2021. Finally, we are working in partnership with the University of Guam to begin documenting the biochar project, as well as surrounding LSR work, with aerial imagery captured via drones.

### ***Cooperative Fire Protection***

- 250 wildfires burned approximately 6,448-acres of land comprising private, Government of Guam and Federal lands (4.75% total area burned island-wide). This was a 2% decrease from the previous year which may have been a result of the onset of the COVID-19 pandemic and ensuing mandatory stay-at-home orders from the Governor.
- Wildland fire mitigation efforts: Approximately 12,000 linear feet by 25 ft. – 30 ft wide firebreaks were cut and maintained by forestry personnel and contracted services in management areas including the COTAL Conservation Area.
- Guam hosted the first international 'Wildland Fire Investigation Training' and certified 28 participants representing Guam Department of Agriculture's Conservation Officers, Forestry Division, Guam Fire Department, Guam Police Department and Department of Defense firefighters from the Navy and Air Force Fire Agencies. Instructors were NWCG certified wildland fire investigators from Australia and Canada, who provided a dynamic, engaging and outstanding training, the first of its kind on-island. This training brought together firefighters and law enforcement in ways they had never trained together before, setting a new bar for collaborative training exercises on Guam, and collaborative efforts did not stop with the training. Immediately after the week-long intensive training, the Fire Chiefs from all represented agencies attended a 1-day workshop to establish a Wildfire Investigation Committee, discuss and plan standard operating procedures, memorandums of agreements, and necessary logistical support for cohesive agency response for wildfire investigations. The training and workshop were applauded by partners and set in motion avenues for expanding our programs.

•One week after the investigation training, March 2020, the first day of Guam's COVID-19 government-wide shutdown, fire investigators responded to their first of five wildfire investigations for 2020.

### **Forest Health Protection**

Combating invasive species is the focus of the Forest Health Program • Work continued to eradicate little fire ant (LFA) from the COTAL Conservation Area, which borders residential homes requiring a combination of surveys and pesticide treatment. Monthly surveillance was conducted in targeted infested areas and quarterly surveillance of the ~25-acre portion of forest initially delineated and infested with LFA. Utilizing a combination of manual (6.5 ac.) and drone-assisted pesticide dispersal (7.2 ac), LFA was removed from all but approximately 2.1 acres on the west border of the forest.

- Training workshops and direct assistance was provided for neighboring residents on LFA recognition, prevention of infestations, and treatment. This project taught residents how to treat LFA on their property and 13 of 14 households along are actively utilizing pesticides and allowing access to survey and monitor LFA control.
- Coconut rhinoceros beetle management is ongoing as funds and capacity permits. U of G completed 2 roadside video surveys for CRB-damaged palms (around 20% of the palms were damaged) and developed an interactive web map to display results; CRB Scientists at University Of Guam, in Hawaii, and in other countries are working together to find an effective biological control for the CRB-G strain.
- University of Guam staff provided training to forest health workers on Feb. 11-12 regarding detection, survey and control of little fire ants and coconut rhinoceros beetles. University of Guam also hired a forest health/agroforestry specialist with USFS funds to provide additional technical assistance to all Micronesian islands; assist with updating Forest Action Plans; develop an extension publication on invasive vines on Guam; prepare a manuscript on mahogany trees and prepare a grower's guide for gardeners and farmers interested in growing breadfruit (in press).

### **Forest Stewardship**

- Three new cooperators were enrolled into the Stewardship program. •Technical assistance was provided to UOG SeaGrant GROW project site manager regarding reforestation efforts at their planting site in the village of Malojoj. •Six acres of the COTAL Conservation Reserve were planted during the following events: 10/26/19 – 727 assorted native trees were planted by 218 volunteers for Guam Forestry's annual "Trick or Trees" planting event. Volunteers were encouraged to plant trees in their favorite costume. 11/8/19 – Forestry planted 80 assorted natives in areas cleared of dead/charred Acacia trees. 12/7/19 – 600 native trees were planted with the help of 60 AmeriCorps volunteers. 12/12/19 – 360 native trees planted by Guam Forestry. 12/17/19 – 225 native trees planted by Guam Forestry 12/23/19 – Forestry staff plant 110 native trees along eastern firebreak. •Continued felling of dead/charred Acacia trees in the burned footprint of the COTAL conservation that includes the public trail to Tarzan Falls.
- From Nov.-Jan., Forestry staff maintained existing firebreaks in the COTAL Conservation and Masso Reservoir.
- 10/3/19 – Static display at the Marine Conservation Plan meeting held at the Inarajan Community Center. 25 residents attended. 5 landowners were educated. •10/19/19 – Static display at the Fiestan Tasi event held in the village of Umatac. Minimum 200 in attendance. •10/29/19 – Arbor Day celebration at the Dededo Sports Complex. Guam Forestry and partners had displays for the community to see and learn. A minimum of 200 people were in attendance, including elementary students who helped plant trees.
- Guam's Important Forest Resource Area (IFRA) was updated with the help of the Bureau of Statistics and Plans and the University of Guam.

The best highlight is that despite the pandemic our field staff showed their commitment and dedication to get the job done.

### **Landscape Scale Restoration**

MANELL-GEUS WATERSHED LANDSCAPE RESTORATION: Continuing from last year, an average of 12 community residents were paid stipends to assist Forestry staff. They were instructed on site preparation and maintenance practices. Through this work they gain a sense of ownership of the project site. They in turn convey the important work they are doing to their family and friends, serving as outreach speakers for their village. Many enjoy the work and have expressed interest in employment with Guam Forestry.

The ongoing pandemic has brought uncertainty and concern for one's own well-being. However, Forestry field staff have risen above these challenges and once again shown their commitment and pride for the work they do by planting 4,420 trees in 13 Acres during this period.

### **Urban and Community Forestry**

•Guam Arbor Day was held at the Guam Sports Complex in the northern village of Dededo. In attendance were approximately 120 students from J.M. Guerrero Elementary School, volunteers to assist with planting trees, various Guam Forestry partners, and the Lt. Governor and the Mayor of Dededo where a resolution was signed to commemorate Guam's Arbor Day. Partners staged engaging displays for participants and volunteers. Additional tree plantings were coordinated throughout the month in northern and southern Guam in honor of Arbor Day. Representatives from the Guam Legislature, leadership from across the island, and community residents all participated in the planned events.

•Ongoing U&CF projects included issuance of tree cutting permits and necessary site visits; care and maintenance of the native plant nursery; tree maintenance and outreach within community parks and the Guam Department of Education schools. The onset of the COVID-19 pandemic resulted in a halt on face-to-face community engagement and produced a focus toward the @GuamForestry social media accounts (Facebook, Instagram and Twitter) to foster awareness through challenging times. Engagements online increased and interactive games, puzzles and information were shared across the available virtual platforms.

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### **Contact Information**



#### **Guam Forestry & Soil Resources Division**

Christine Fejeran  
*Chief Forester*  
192 Dairy Road  
Mangilao, GU 96923  
671-300-7975  
[Christine.Fejeran@doag.guam.gov](mailto:Christine.Fejeran@doag.guam.gov)

#### **US Forest Service Pacific Southwest Region**

Kathleen Stearns Friday  
*Forest Legacy/Stewardship Program Manager*  
USDA Forest Service  
1323 Club Drive  
Vallejo, CA 94592  
808-785-5197  
[kathleen.friday@usda.gov](mailto:kathleen.friday@usda.gov)

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