

Climate-fueled wildfires take toll on tropical Pacific isles

August 13 2021, by Caleb Jones and Victoria Milko



A Big Island firefighter puts out a blaze near Waimea, Hawaii, on Thursday, Aug. 5, 2021. The area was scorched by the state's largest ever wildfire. Experts say wildfires in the Pacific islands are becoming larger and more common as drought conditions increase along with climate change. Credit: AP Photo/Caleb Jones

A metal roof sits atop the burned remains of a homestead on the once-lush slopes of Hawaii's Mauna Kea—a dormant volcano and the state's tallest peak—charred cars and motorcycles strewn about as wind-whipped sand and ash blast the scorched landscape.

Generations of Kumu Micah Kamohoalii's family have lived on these lands reserved for Native Hawaiians, and his cousin owns this house destroyed by the state's largest-ever wildfire.

"I've never seen a [fire](#) this big," Kamohoalii said. "Waimea has had fires, many of them before and some maybe a few hundred acres, but not this size."

The fire has burned more than 70 square miles (181 square kilometers) in the two weeks it has been going. But it wasn't the first time this area has burned, and won't be the last. Like many [islands](#) in the Pacific, Hawaii's dry seasons are getting more extreme with climate change.

"Everyone knows Waimea to be the pasturelands and to be all the green rolling hills. And so when I was young, all of this was always green," Kamohoalii said. "In the last 10 to 15 years, it has been really, really dry."

Huge wildfires highlight the dangers of climate change-related heat and drought for many communities throughout the U.S. West and other hotspots around the world. But experts say relatively small fires on typically wet, tropical islands in the Pacific are also on the rise, creating a cycle of ecological damage that affects vital and limited resources for millions of residents.



Kumu Micah Kamohoalii drives toward smoke from a wildfire near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest-ever wildfire. Fires on many islands in the Pacific burn large areas of land and are causing environmental damage from the mountaintops to the coral reefs. Credit: AP Photo/Caleb Jones

From Micronesia to Hawaii, wildfires have been a growing problem for decades. With scarce funding to prevent and suppress these fires, island communities have struggled to address the problem.

"On tropical islands, fires have a unique set of impacts," said Clay Trauernicht, an ecosystems and wildfire researcher at the University of Hawaii. "First and foremost, fires were very rare prior to human arrival on any Pacific island. The vegetation, the native ecosystems, really

evolved in the absence of frequent fires. And so when you do get these fires, they tend to kind of wreak havoc."

But it's not just burnt land that is affected. Fires on islands harm environments from the top of mountains to below the ocean's surface.

"Once a fire occurs, what you're doing is removing vegetation," Trauernicht said. "And we often get heavy rainfall events. All of that exposed [soil gets carried downstream](#) and we have these direct impacts of erosion, sedimentation on our marine ecosystems. So it really hammers our coral reefs as well."



Wildfires burn on the slopes of Mauna Kea near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones

Pacific island reefs support local food production, create barriers to large storm surges and are a critical part of tourism that keeps many islands running.

The wet season on tropical islands also causes fire-adapted grasses to grow tall and thick, building fuel for the next summer's wildfires.

"Guinea grass grows six inches a day in optimal conditions and a six-foot tall patch of grass can throw 20-foot flame lengths," said Michael Walker, Hawaii's state fire protection forester. "So what we have here are really fast-moving, very hot, very dangerous fires."

Walker said such non-native grasses that have proliferated in Hawaii are adapted to fire, but native species and shrubs are not.

"While (these wildfires) may not compare to the size and duration of what folks have in the western United States, we burn a significant portion of our lands every year because of these grass fires, and they're altering our natural ecosystems and converting forests to grass," he said.



Miki Brand's house is shown on Native Hawaiian homestead land near Waimea, Hawaii, Wednesday, Aug. 4, 2021. Brand's property narrowly escaped flames from the state's largest-ever wildfire that scorched the area. Credit: AP Photo/Caleb Jones

The latest wildfire on Hawaii's Big Island burned about 1% of the state's total land, and other islands in the Pacific such as Palau, Saipan and Guam burn even more—up to 10% in severe fire years.

On average, Guam has nearly 700 wildfires a year, Palau about 175 and Saipan about 20, according to [data](#) from 2018.

Guam, like many other places, has long used fire as a tool. Farmers sometimes use it to clear fields and hunters have been known to burn

areas while poaching.

The U.S. territory's forestry chief Christine Camacho Fejeran said fires on the island are mostly caused by arson. "So all of Guam's wildfires are human-caused issues, whether it's an intentional or an escaped backyard fire or another (cause)," she said.

On average, Fejeran said, 6,000 to 7,000 acres (2,430 to 2,830 hectares) of the island burns each year, amounting to about 5% of its land.



Native Hawaiian Mikiala Brand stands on her homestead property near Waimea, Hawaii, Wednesday, Aug. 4, 2021. Brand's home narrowly escaped the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones

While no homes have been lost to recent wildfires on Guam, Fejeran believes that trend will come to an end—unless more is done to combat the fires.

The island has made some changes in fire legislation, management, education and enforcement. Arson has become a chargeable offense, but Fejeran says enforcement remains an obstacle in the tight-knit community.

Back in Hawaii, last week's blaze destroyed three homes, but the fire threatened many more.

Mikiala Brand, who has lived for two decades on a 50-acre homestead, watched as flames came within a few hundred yards (meters) of her house.

As the fire grew closer, she saw firefighters, neighbors and the National Guard racing into her rural neighborhood to fight it. She had to evacuate her beloved home twice in less than 24 hours.

"Of course it was scary," she said. "But I had faith that the strong, the brave and the talented, and along with nature and Akua, which is our name for the universal spirit, would take care."



Kumu Micah Kamohoalii looks out at smoke from a wildfire near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones

Demonstrating the tenacity of many Native Hawaiians in her farming and ranching community, Brand said, "I only worry about what I have control over."

Down the mountain in Waikoloa Village, a community of about 7,000, Linda Hunt was also forced to evacuate. She works at a horse stable and scrambled to save the animals as flames whipped closer.

"We only have one and a half roads to get out—you have the main road and then you have the emergency access," Hunt said of a narrow dirt

road. "Everybody was trying to evacuate, there was a lot of confusion."

The fire was eventually put out just short of the densely populated neighborhood, but had flames reached the homes, it could have been disastrous on the parched landscape.

"When you have high winds like we get here, it's difficult no matter how big your fire break is, it's going to blow right through," Hunt said.



A truck destroyed by fire sits on Joshua Kihe's property near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



A truck destroyed by fire sits on Joshua Kihe's property near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



The burnt remains of Joshua Kihe's home is shown near Waimea, Hawaii, on Wednesday, Aug. 4, 2021. The home was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



Vehicles destroyed by a wildfire sit on Joshua Kihe's property near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



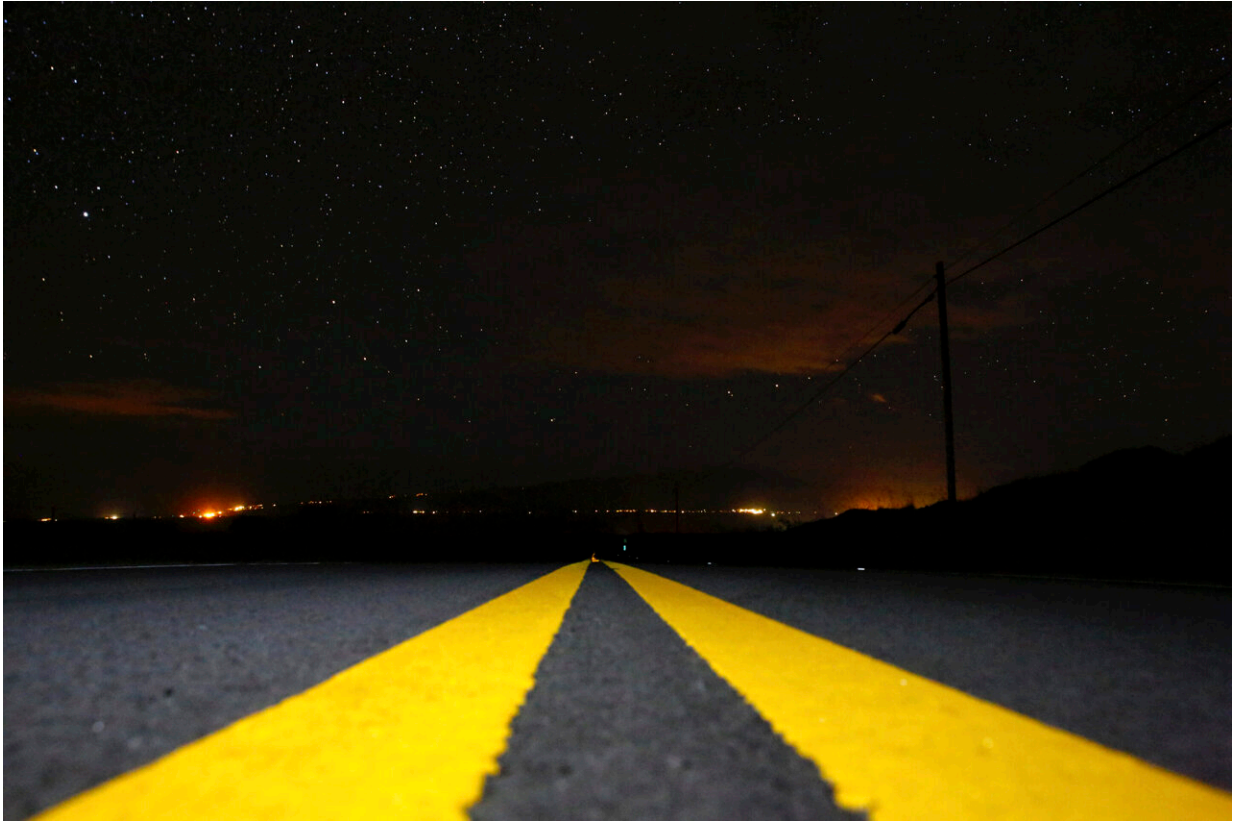
Motorcycles and an ATV destroyed by wildfire sit on Joshua Kihe's property near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A car drives past a fire hazard sign in Waimea, Hawaii, on Thursday, Aug. 5, 2021. The region was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



A coffee mug sits among the burnt remains of Joshua Kihe's home near Waimea, Hawaii, Wednesday, Aug. 4, 2021. The home was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



Lights from Waimea, Hawaii, shine in the distance as wildfires burn in the area on Thursday, Aug. 5, 2021. The region was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



A car drives by a burnt roadside sign that says, "Please Prevent Fires, Mahalo," on Thursday, Aug. 5, 2021, in Waimea, Hawaii. The region was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



A dry creek bed is shown as wildfires burn in Waimea, Hawaii, on Thursday, Aug. 5, 2021. The region was scorched by the state's largest-ever wildfire.
Credit: AP Photo/Caleb Jones



A truck drives into Waikoloa Village as wildfires burn in the distance on Friday, Aug. 6, 2021, near Waimea, Hawaii. The region was scorched by the state's largest-ever wildfire and the village of about 7,000 people narrowly escaped the blaze. Credit: AP Photo/Caleb Jones



A field of dry grass is shown near Waimea, Hawaii, on Friday, Aug. 6, 2021. The region was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



A U.S Army firefighter sprays water on a hot spot near Waimea, Hawaii, on Wednesday, Aug. 4, 2021. The region was scorched by the state's largest-ever wildfire. Credit: AP Photo/Caleb Jones



Waikoloa Village is shown on Friday, Aug. 6, 2021, near Waimea, Hawaii. The region was scorched by the state's largest-ever wildfire and the village of about 7,000 people narrowly escaped the blaze. Credit: AP Photo/Caleb Jones



Linda Hunt, who works at a stable in Waikoloa Village, carries horse feed out of a corral on Friday, Aug. 6, 2021, near Waimea, Hawaii. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A Big Island firefighter puts out a blaze near Waimea, Hawaii, on Thursday, Aug. 5, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A Big Island firefighter puts out a blaze near Waimea, Hawaii, on Thursday, Aug. 5, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



Dried grass is shown near Waimea, Hawaii, on Thursday, Aug. 5, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A charred goat skull lays amid ashes from a wildfire on Thursday, Aug. 5, 2021, near Waimea, Hawaii. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A U.S Army fire official walks along a section of burned grassland near Waimea, Hawaii, on Wednesday, Aug. 4, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



Wild goats stand amid ashes from a wildfire on Thursday, Aug. 5, 2021, near Waimea, Hawaii. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A fire official drives through a dry field after a wildfire on Thursday, Aug. 5, 2021, near Waimea, Hawaii. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



Hawaii's Mauna Kea, where a large wildfire burned last week, is shown on Friday, Aug. 6, 2021. The area was scorched by the state's largest ever wildfire. Credit: AP Photo/Caleb Jones



A couple walks on a beach near Waimea, Hawaii, on Friday, Aug. 6, 2021. The area was scorched by the state's largest ever wildfire. Wildfires in the Pacific Islands are becoming more common as drought conditions increase along with climate change. Fires on many islands in the Pacific burn a proportion of land equal to fires in U.S. Western states and the blazes are causing a cascading effect of environmental damage that impacts island communities that rely on the local ecosystems. Credit: AP Photo/Caleb Jones

While fires are becoming more difficult to fight because of dry and hot conditions associated with climate change, experts say the Pacific islands still can help prevent these blazes from causing ecological damage and property losses.

"Fire presents a pretty interesting component of kind of all these [climate](#)

change impacts that we're dealing with in the sense that they are manageable," said Trauernicht, the University of Hawaii wildfire expert.

In addition to education and arson prevention, he said, land use—such as grazing practices and reforestation that reduce volatile grasses—could help.

"It's within our control, potentially, to reduce the impacts that we're seeing with fires," Trauernicht said. "Both in terms of forest loss as well as the impacts on coral reefs."

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