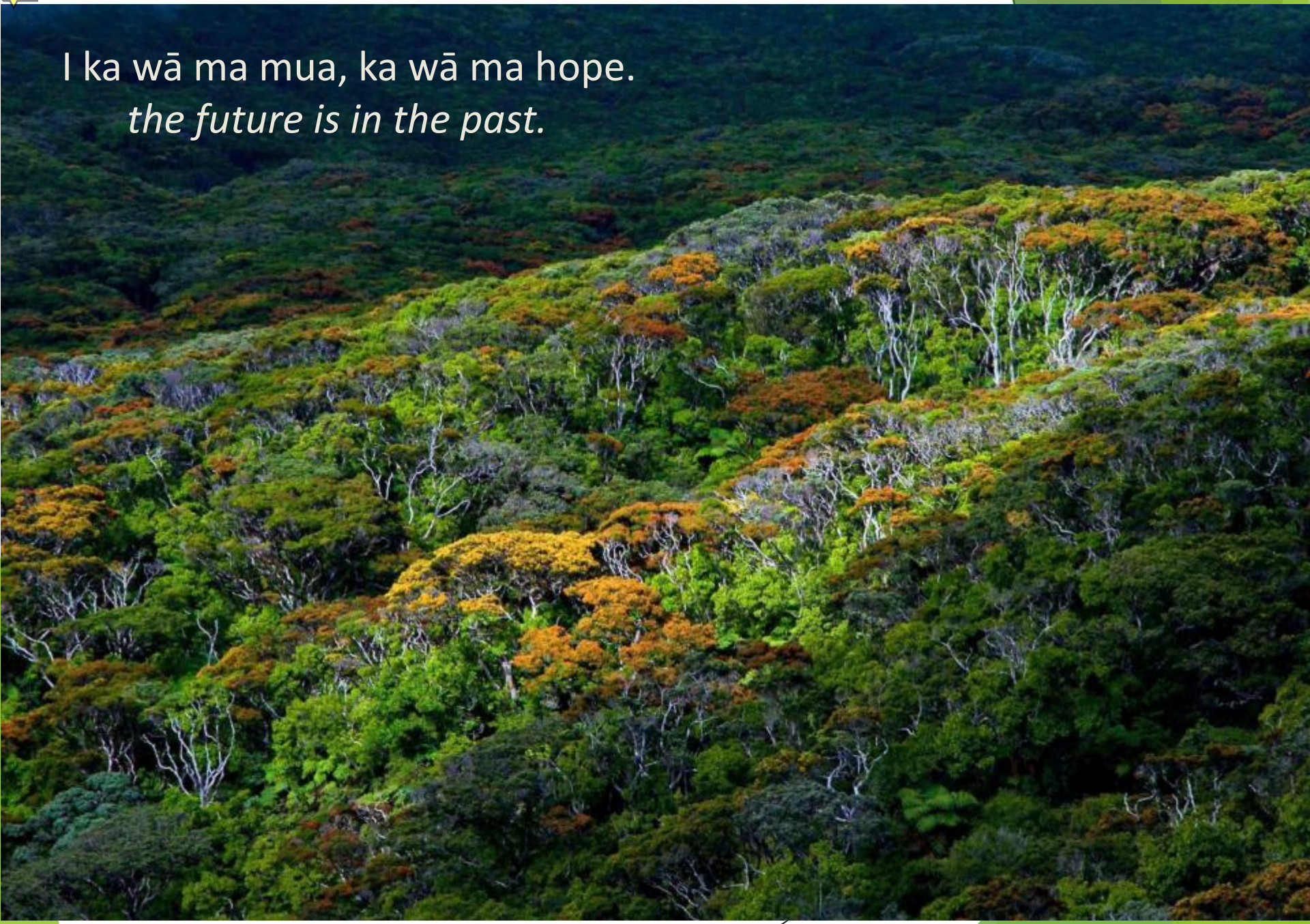
Ulalia Woodside
Executive Director

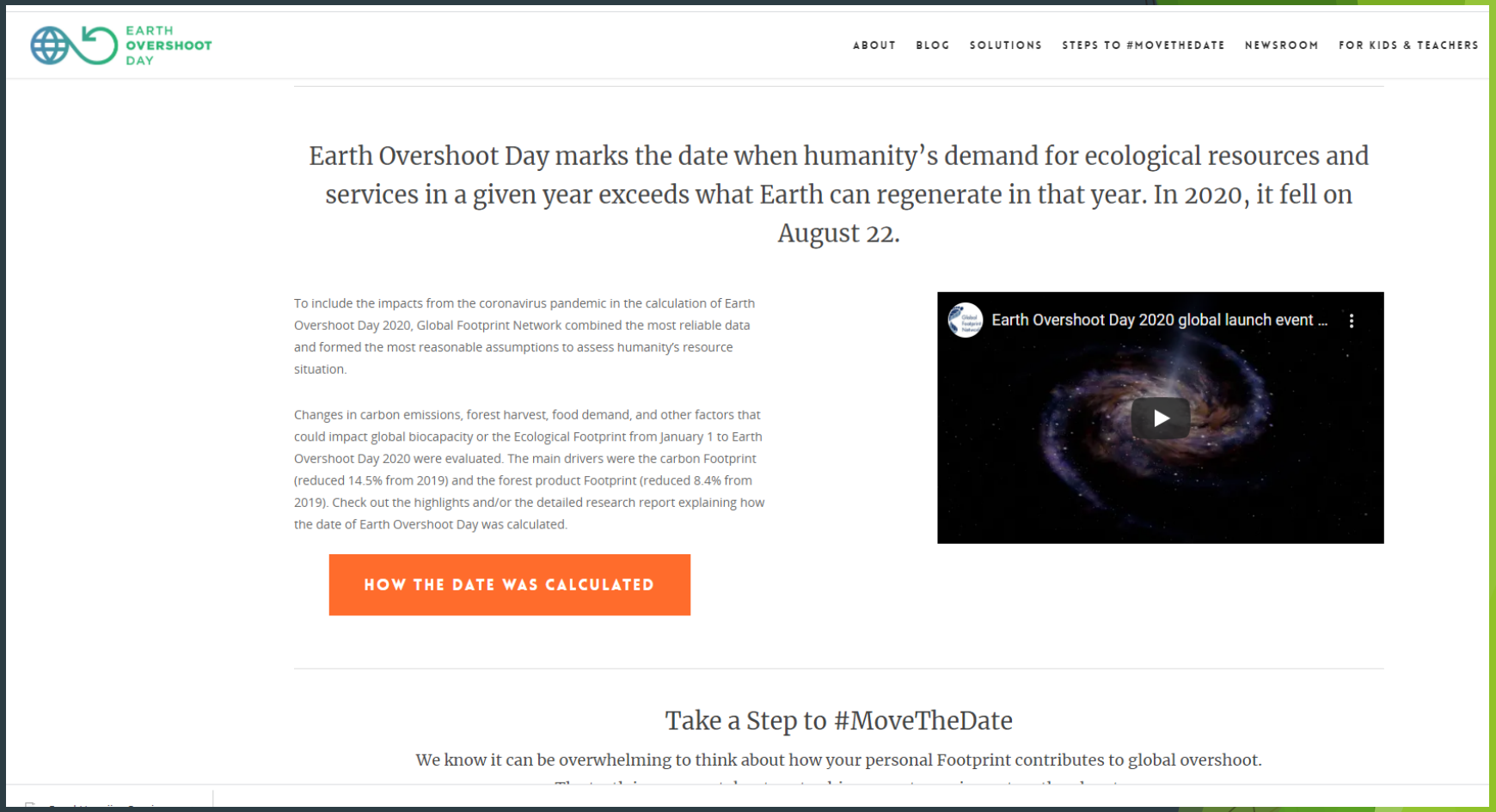
The Nature Conservancy
Hawai'i

# The Nature Conservancy's Hawai'i Forest Carbon Pilot

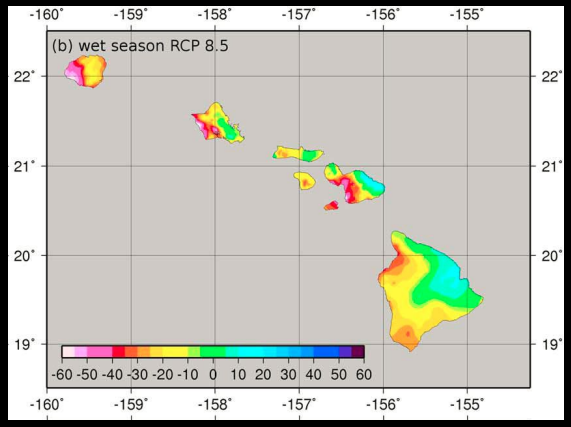
## Nature-based Solutions for Climate Action

## 22 Pepeluali 2021


I ka wā ma mua, ka wā ma hope.
*the future is in the past.*




# Earth Overshoot Day - 08/22/2020


(b) wet season RCP 8.5
-160°
-159°
-158°
-157°
-156°
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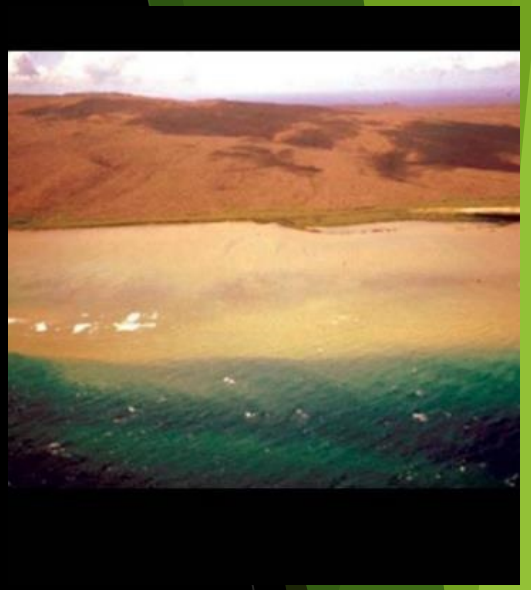
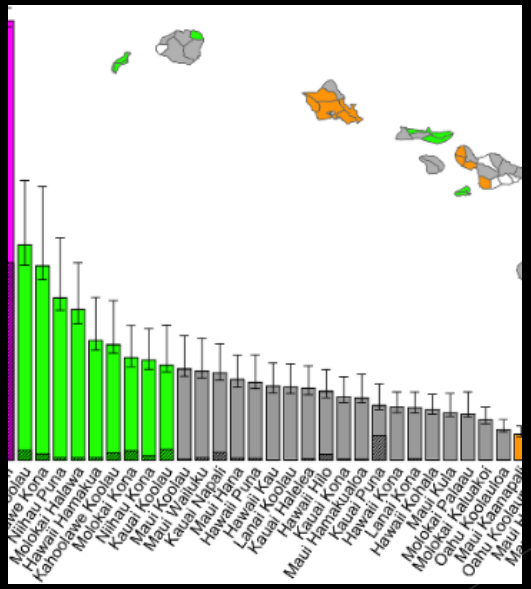
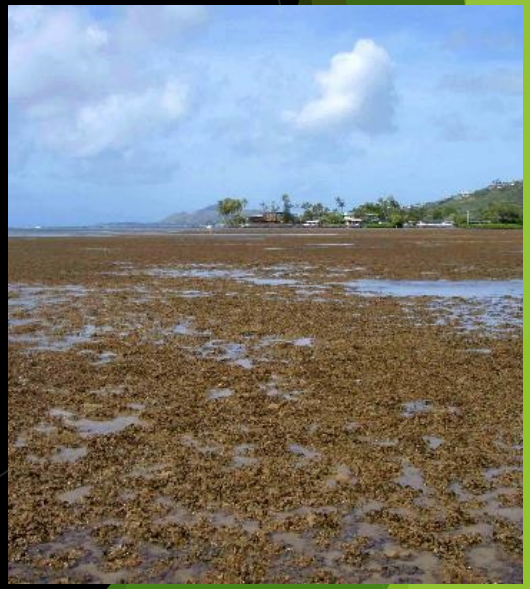
22°
21°
20°
19°
-60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60


Kaneohe
Honolulu
Hilo




Molokai Puna
Hawaii Hamakua
Kahoolawe Koolau
Molokai Kona
Niihau Kona
Kauai Koolau
Maui Koolau
Maui Wailuku
Kauai Napali
Maui Hana
Hawaii Puna
Hawaii Kau
Lanai Koolau
Kauai Halelea
Hawaii Hilo
Kauai Kona
Maui Hamakualoa
Kauai Puna
Hawaii Kona
Lanai Kona
Hawaii Kohala
Maui Kula
Molokai Palaau
Oahu Kaluakoi
Maui Koolauloa
Oahu Koolaupoko



# Natural Climate Solutions

The Nature Conservancy
Hawai'i

**Our Mission**:

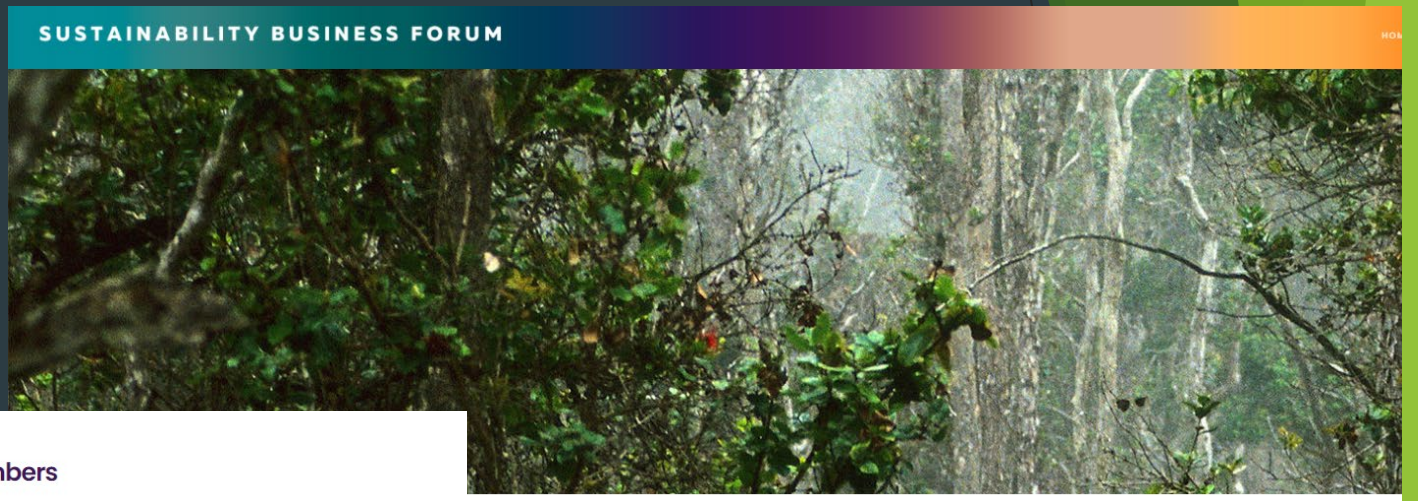
To conserve the lands and waters on which all life depends.

**In Hawai'i and Palmyra**:

We strengthen the resilience of our natural environment from mauka to makai, safeguarding native forested watersheds and ocean resources that sustain our communities' environment, economy and health.

We do this through innovative and collaborative solutions.

# Hawai‘i’s Forest Carbon Pilot
# TNCH, SBF, + many supporters




## Members

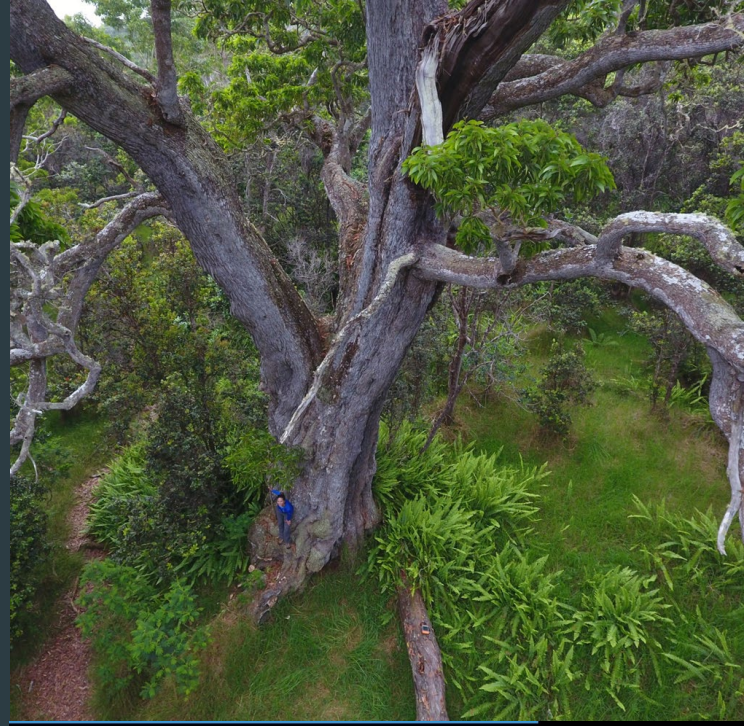
Hawaiian Electric
ulupono INITIATIVE
Kamehameha Schools
Harold K.L. Castle Foundation
Pineapple Tweed
Hawai'i Gas
Alexander & Baldwin
ahl.
Hawaiian Airlines
Hawai'i Community Foundation
Amplify the Power of Giving
Hawai'i Pacific University
Pūlama Lānaʻi
The MacNaughton Group
First Hawaiian Bank
Kualoa Private Nature Reserve
resorttrust
Bank of Hawaii
Hawaiian Telcom
Zephyr Insurance Company, Inc.

## Carbon Offset Initiative

Market-based mechanisms can be a powerful tool to leverage private investment in the natural ecosystems that make Hawai'i special with on-going stewardship serving as the foundation for a healthy economy. Inspired by high-level dialogues at the IUCN World Conservation Congress, SBF members agreed to focus on accelerating market-based mechanisms in Hawai'i, including a carbon offset initiative and Payment for Ecosystems Services.

# Why are we pursuing a forest carbon project?

- Reforestation and forest management sequester carbon while improving watersheds and habitat.
- Carbon sequestration can provide an ecologically sustainable revenue stream to landowners.
- Demonstrate the feasibility and viability of carbon sequestration projects in Hawai‘i.
- Raise awareness in the broader local community and especially in the business sector about ways to contribute to state and business sustainability targets.
- Contribute to Hawai‘i’s ambitious climate goal to become carbon neutral by 2045.





# The Nature Conservancy's Kona Hema Preserve

- 8,072 acres – former native forest

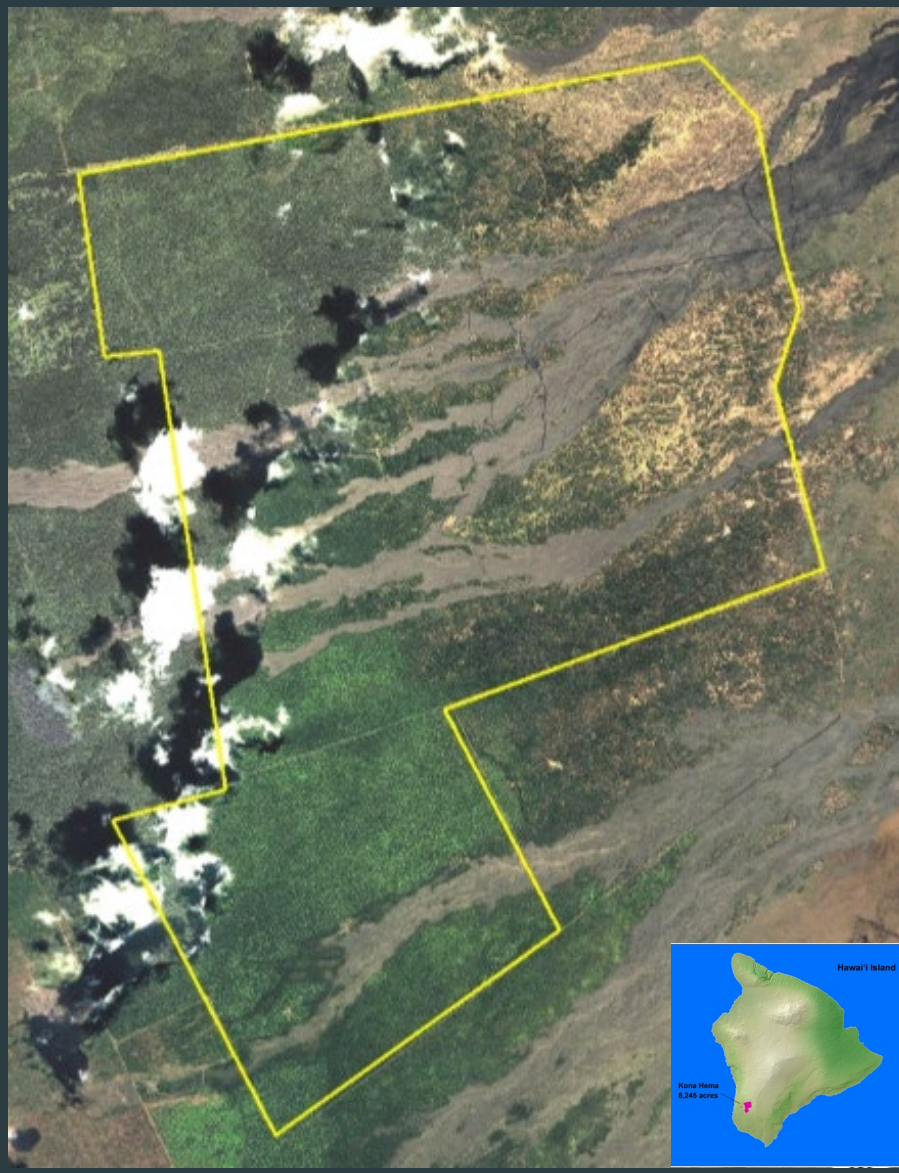
- Impacted by over 100 years of logging, grazing and feral ungulates

**TNC's Preserve Objectives:**

- protect watershed values

- promote the recovery of native plants, animals, and natural communities

- explore and demonstrate the potential of these lands to support compatible economic activities such as sustainable forestry



# Rare and Endangered Species of Kona Hema Preserve

Native Biodiversity:

- 109 endemic plants
- 6 endangered plants
- Endemic animals: ‘amakihi, apāpāne, i‘iwi, Hawai‘i creeper, and ‘ōma‘o, and Hawaiian hoary bat.
- Potential ‘alalā reintroduction

i‘iwi (*Vestiaria coccinea*)

‘alalā *(Corvus hawaiiensis)*

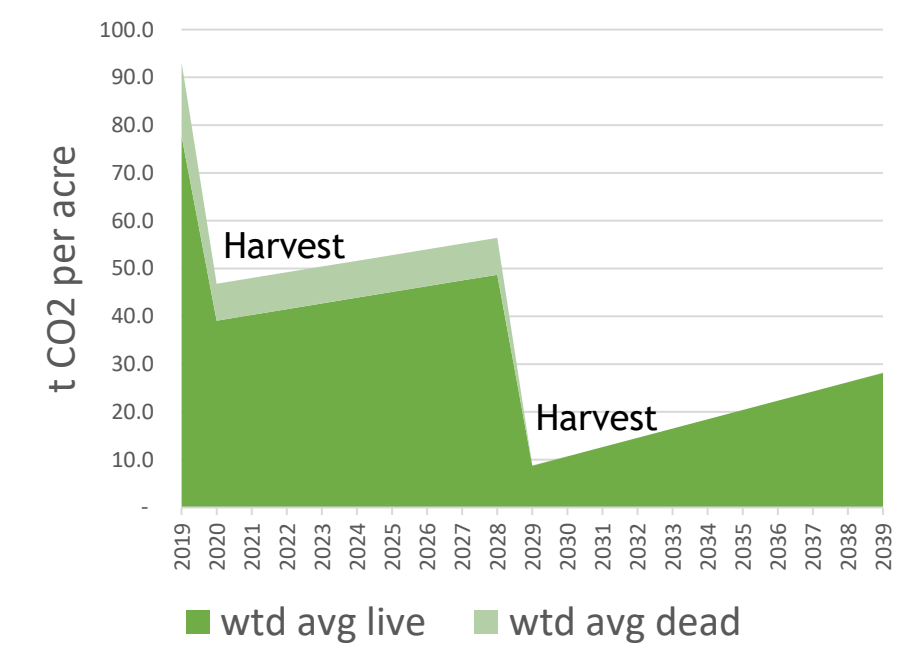
*Phylostegia floribunda*

‘ōpe‘ape‘a ((*Lasiurus cinereus semotus)*

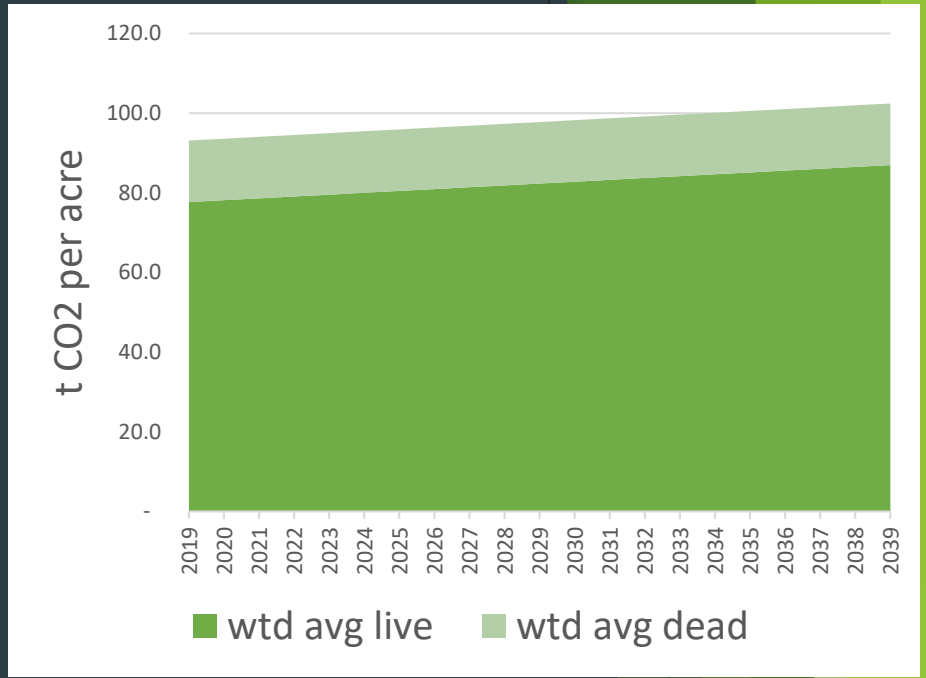
hāhā (*Cyanea stictophylla*)

# Preliminary Analysis - Results

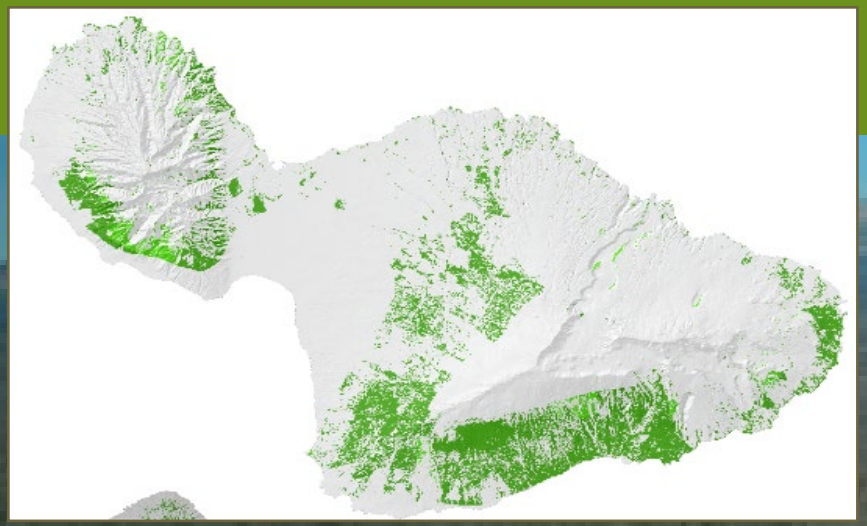
## Business-as-usual Harvest Scenario

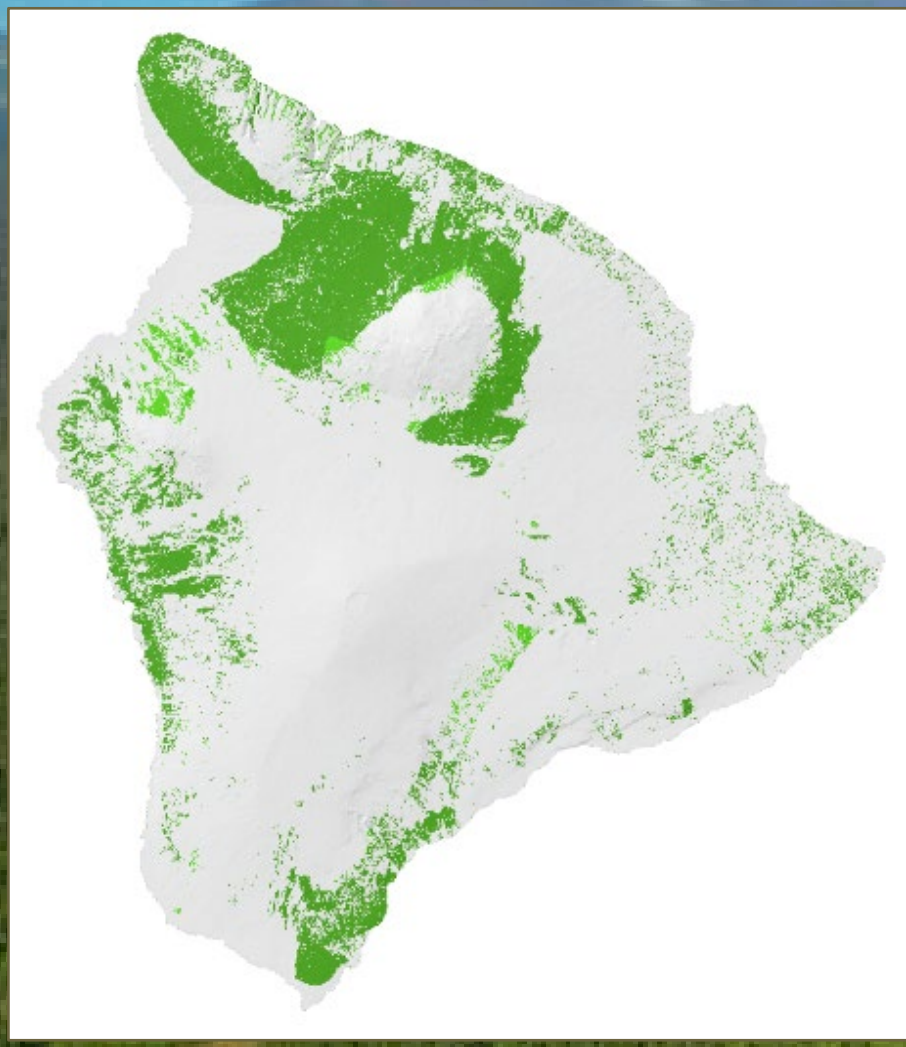



## Carbon IFM Project Scenario

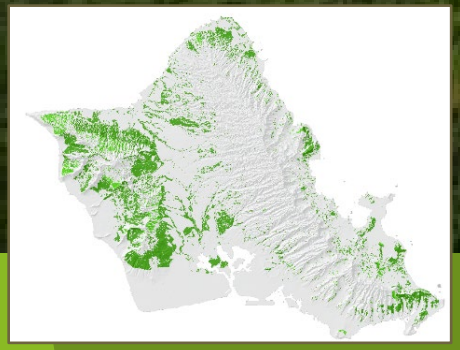


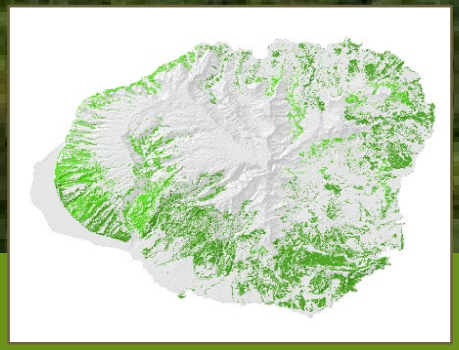

- Total acres of native forest cover = 6,729
- Total acres of koa-dominated forest available for carbon credits = 3,364
- Total tonnage of Carbon Dioxide Equivalent (TCO2) generated in first 10 years = 120,000
- Total tonnage of Carbon Dioxide Equivalent (TCO2) generated over 20 years = approx. 130,000.
- Estimated total-project revenue = $1.5M - $2.0M





Former koa forest range
(1,160,900 acres)





From the Pacific Business News:
https://www.bizjournals.com/pacific/news/2019/09/23/hawaii-companies-invest-in-

# Hawaii companies invest in local carbon of

Sep 23, 2019, 2:51pm HST

Members of Hawaii's Sustainability Business Forum join other officials from around the state at the United Nations' Climate Action Summit in New York this week and 10 of the forum's members have jointly invested in a carbon offset offset project that will work with The Nature Conservancy of Hawaii to improve an 8,000-acre forest.

EUGENE TANNER

Ten members of Hawaii's
Forum are investing $150,
the Kona Hema forest on Ha
launch in 2020 and is expec
carbon offset credits in the fi
sold on the global market.

The 10 companies and organizations — Alexander & Baldwin, the Harold K.L. Castle Foundation, Hawaiian Airlines, the Hawaii Community Foundation, Hawaii Gas, Hawaiian Electric Co., Kamehameha Schools, The MacNaughton Group, Pulama Lanai and Ulupono Initiative — are investing $150,000 on the pilot project in the Kona Hema forest on Hawaii Island that will launch in 2020 and is expected to generate 120,000 in carbon offset credits in the first 10 years that can be sold on the global market.

"We are excited to join other Hawaii businesses to explore a possible new, green industry for Hawaii that supports both the economic and environmental sustainability of our state," Peter Ingr
president and CEO of Hawaiian Airlines, said in a statement.

The project will involve fencing the existing forest, to protect it from pigs, and improving the soil so that trees gr
better, said Julius Fischer of the Hawaii Green Growth Initiative, which coordinates the Sustainability Business For
last year was designated as a Local 2030 Hub by the UN.

"It's a forest improvement project," Ingram said. "They're going from a degraded forest to an improved forest."

The group noted that when the IUCN World Conservation Congress met in Hawaii in 2016, the organization purchased carbon offset credits from projects in Peru and India to offset some 30,000 tons of emissions generated by the conference because there were no local projects at the time.

"A carbon offset program in Hawaii will allow businesses, residents, and visitors to offset their carbon emissions by investing in protecting Hawaii's koa and ohia forests, as well as improving groundwater recharge," Ulalia Woodside, executive director of The Nature Conservancy of Hawaii, said in a statement. "We are delighted to partner with the SBF to create a market-based mechanism that can accelerate investment in these natural resources and ecosystem functions."

The Sustainability Business Forum was established in 2017 by the 17 companies and organizations. In addition to the 10 investors in the carbon offset program, members include AHL, Bank of Hawaii, First Hawaiian Bank, Hawaii Pacific University, Kualoa Ranch, ResortTrust Hawaii and Pineapple Tweed PR & Marketing.

The Nature Conservancy
Hawai'i

# May The Forest Be With You

Please join us. www.nature.org/hawaii