

# Updating the 2015 Statewide Agricultural Land Use Baseline

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University of Hawai'i at Hilo, HI



# Funding provided by the Hawaii Department of Agriculture





# STATEWIDE AGRICULTURAL LAND USE BASELINE 2015

*Prepared for*

**HAWAI'I DEPARTMENT  
OF AGRICULTURE**

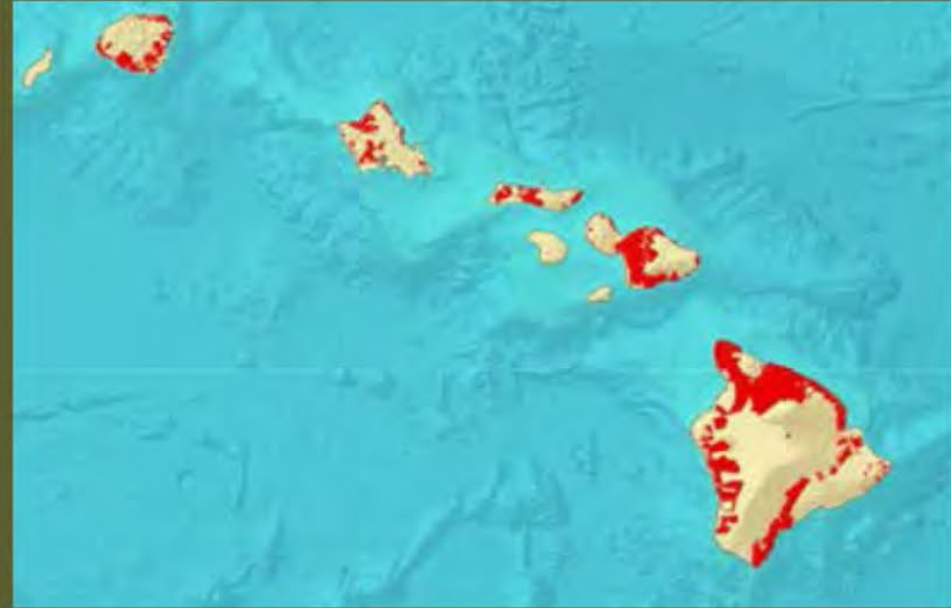


1951-2017

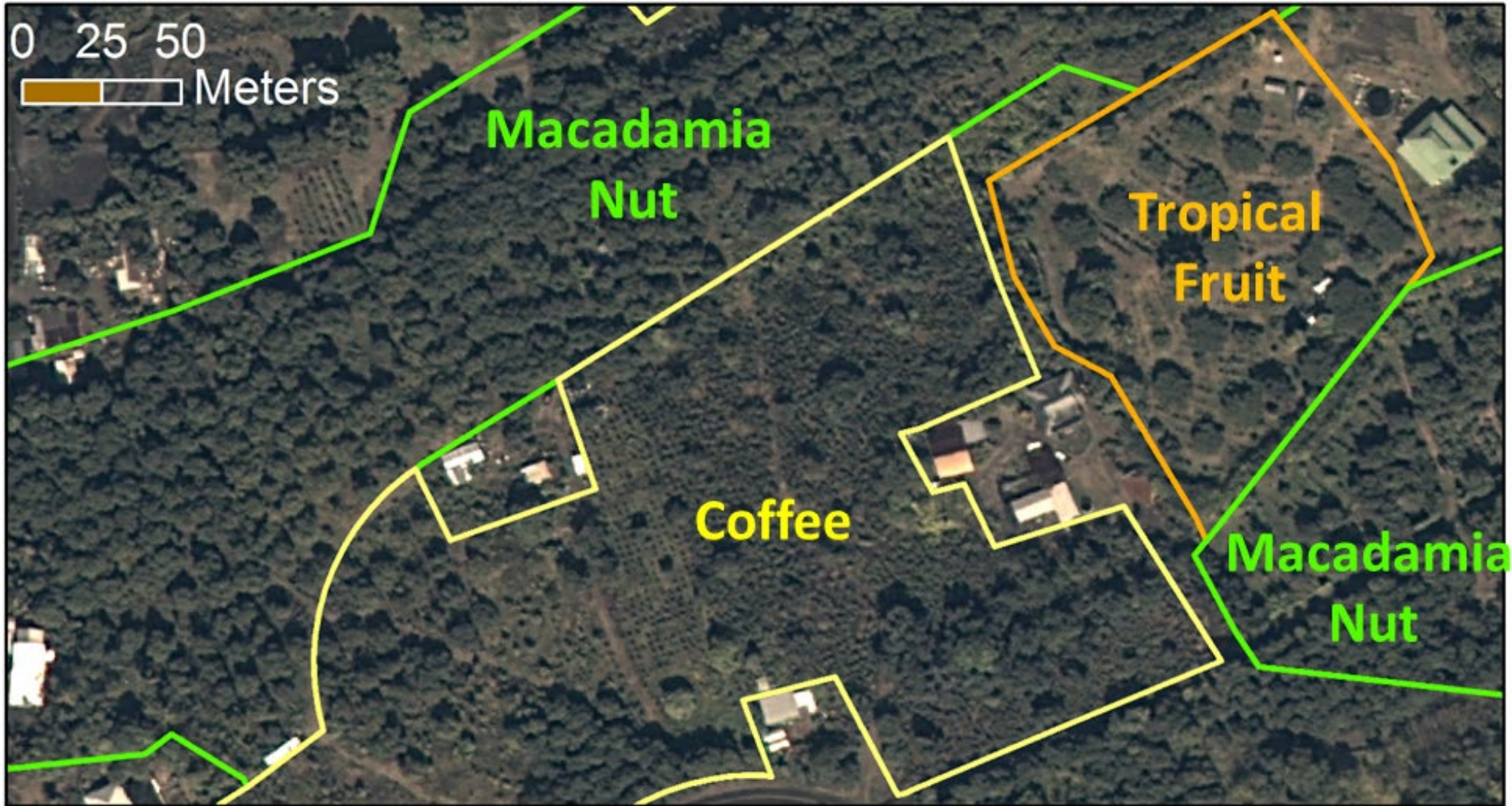
*Prepared by*

**UNIVERSITY OF HAWAI'I AT HILO  
SPATIAL DATA ANALYSIS &  
VISUALIZATION RESEARCH LAB**

**Jeffrey Melrose MURP  
Ryan Perroy PhD  
Sylvana Cares MA**

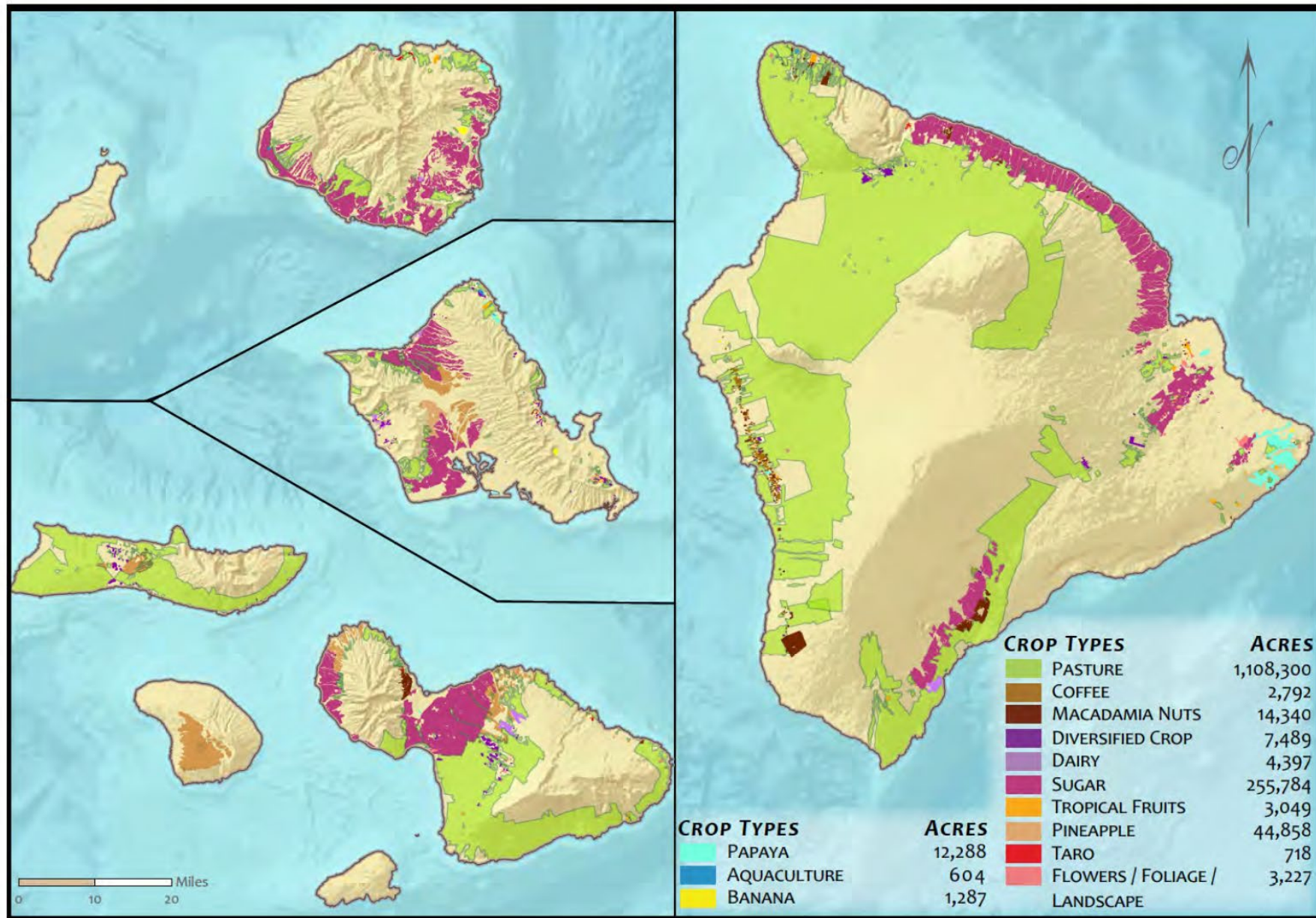








# 1980



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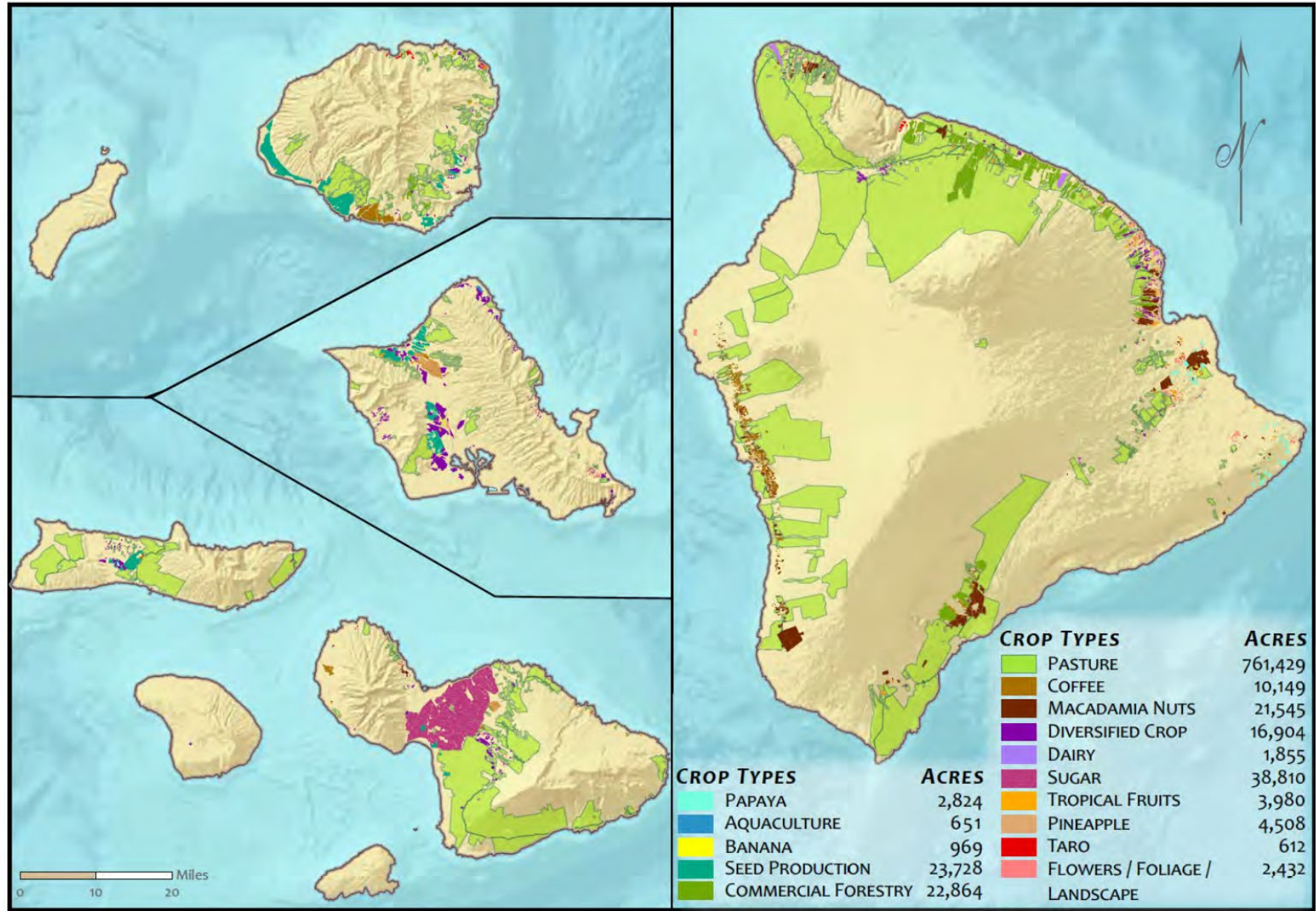
## HAWAII'S AGRICULTURAL LAND UTILIZATION (1980)

SOURCE: DEPARTMENT OF AGRICULTURE AND STATE OFFICE OF PLANNING





# 2015



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## HAWAII AGRICULTURAL LAND UTILIZATION (2015)



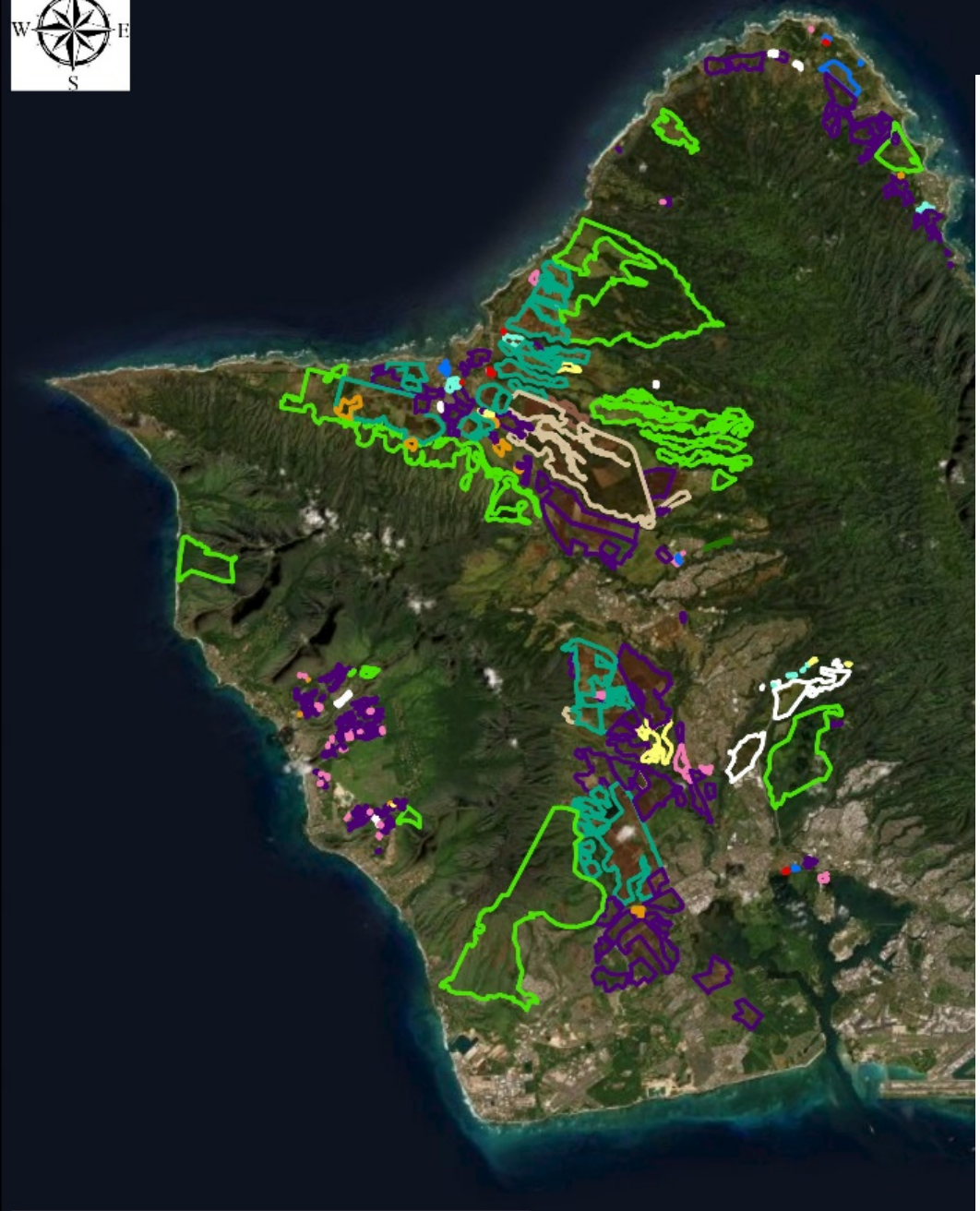


2020 Update

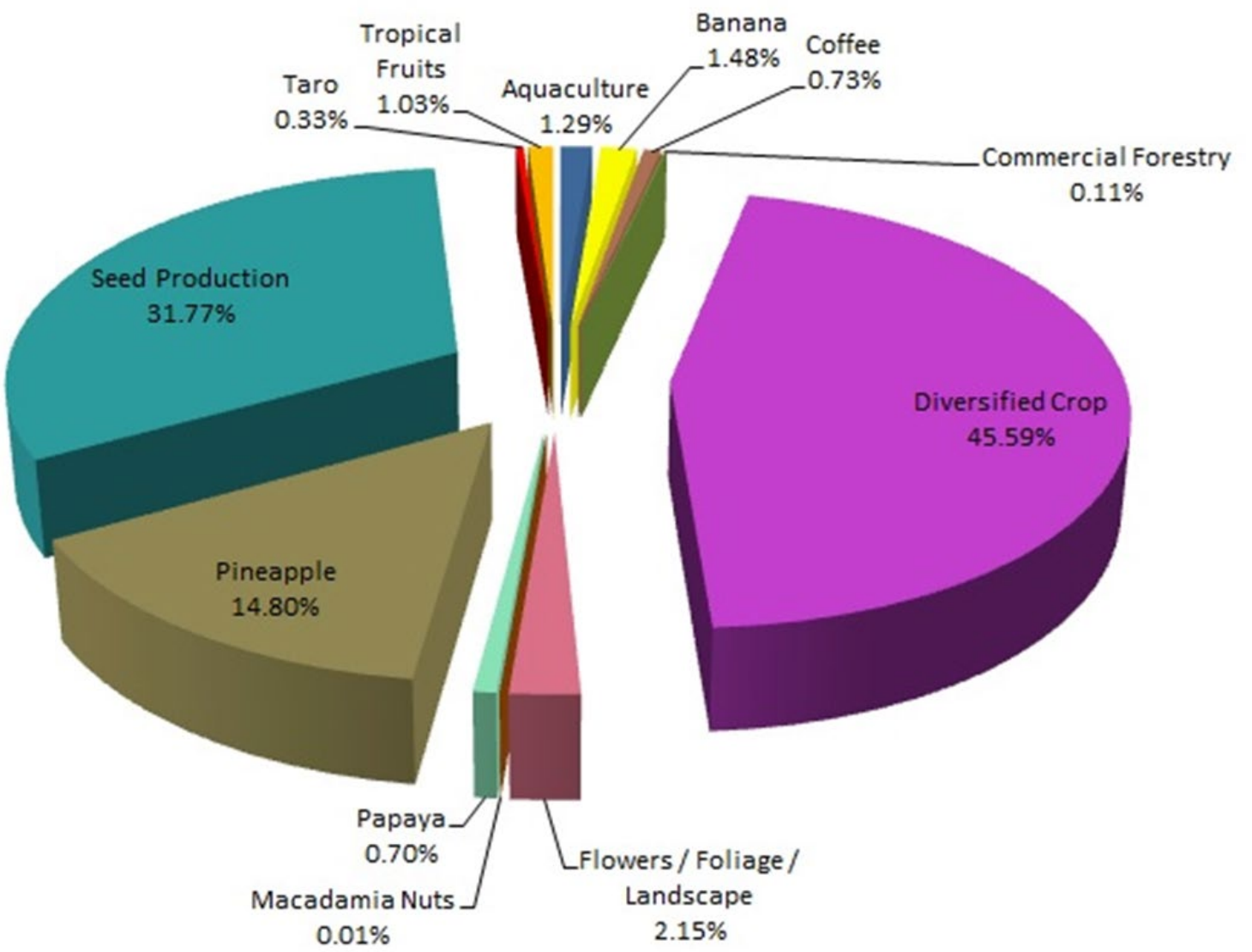




# 2020 Agricultural Layer



## Oahu Crop Types 2020



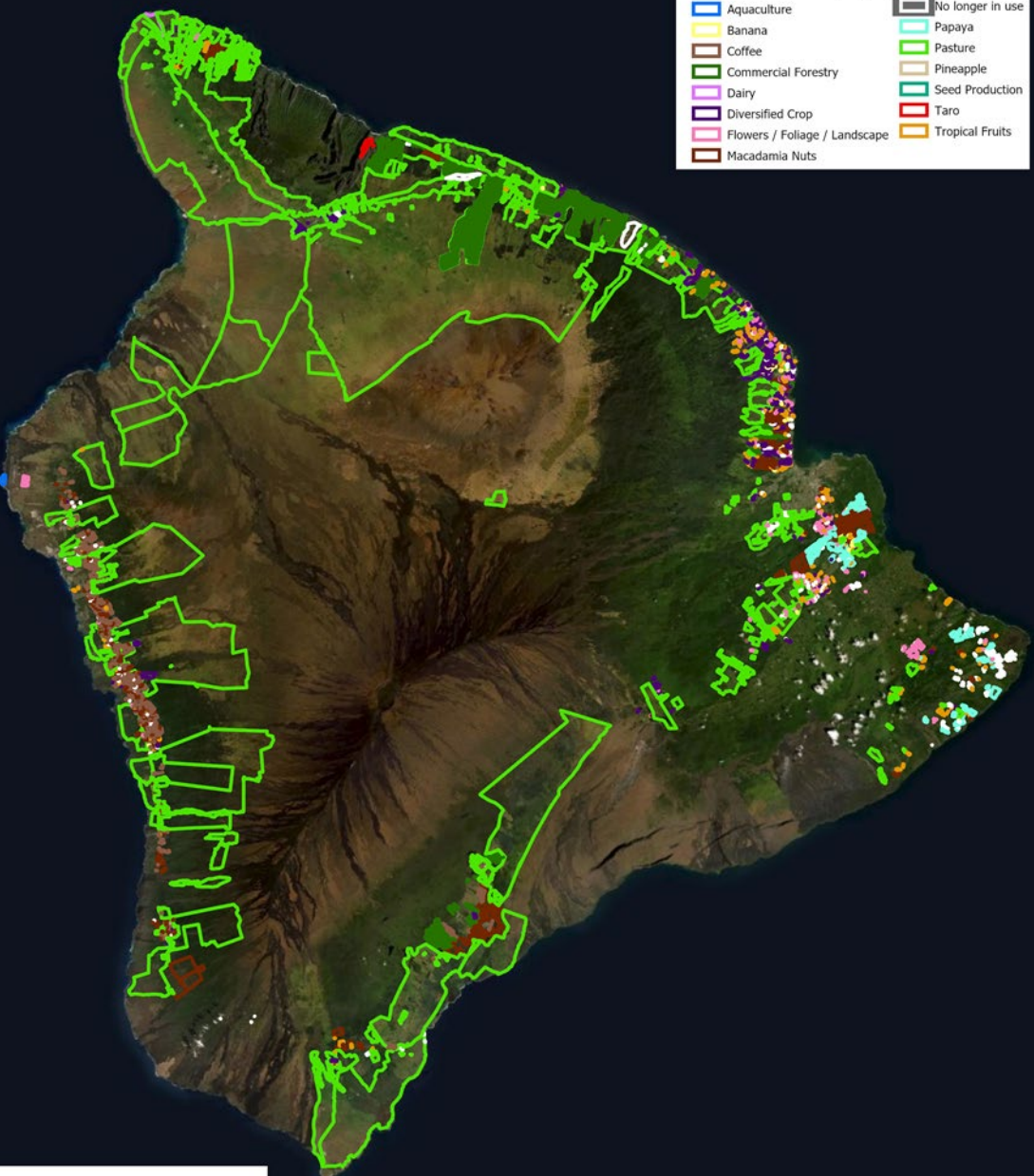
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



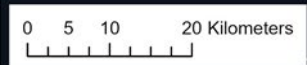
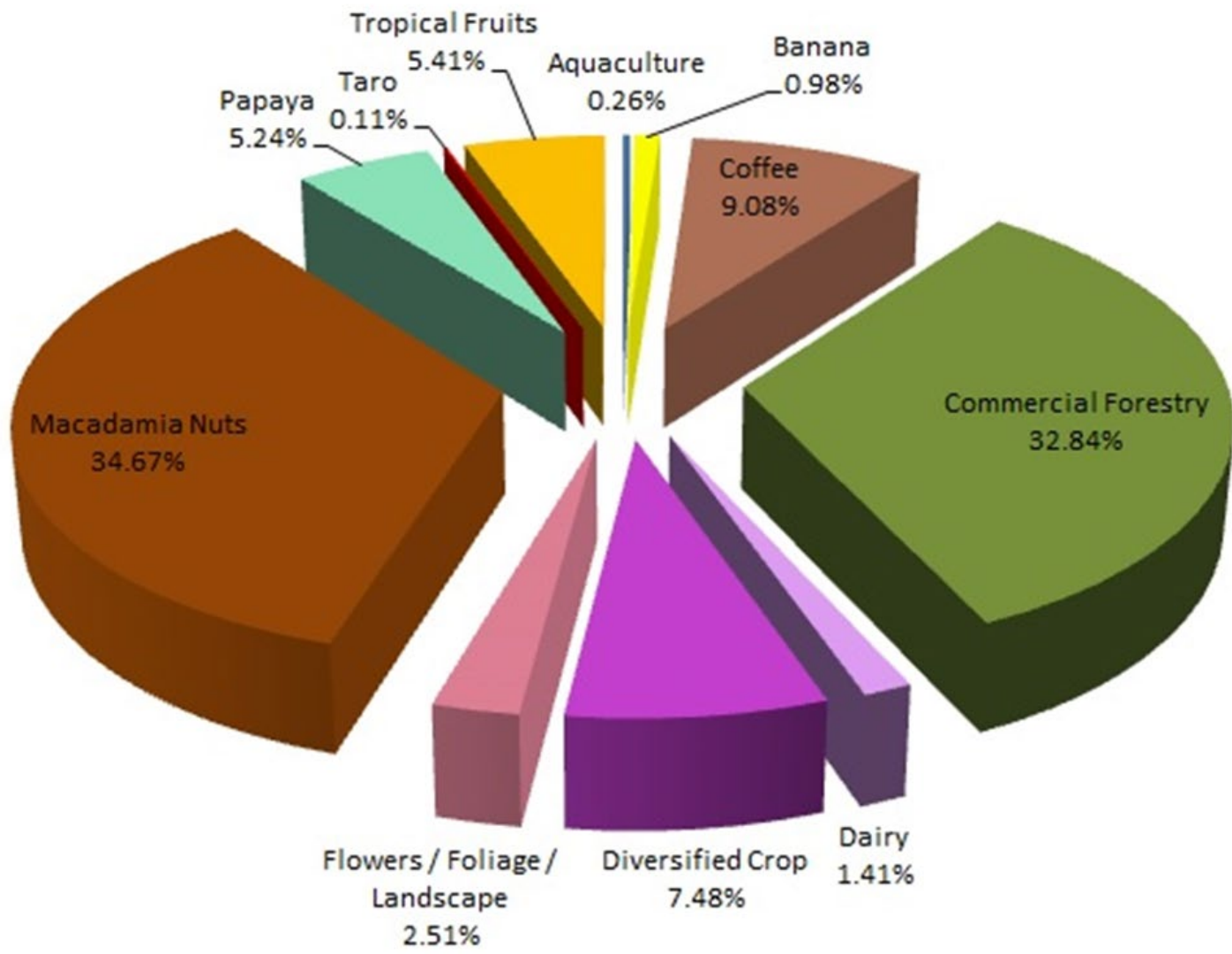
# 2020 Agricultural Layer



- Crop Type**
- Aquaculture
  - Banana
  - Coffee
  - Commercial Forestry
  - Dairy
  - Diversified Crop
  - Flowers / Foliage / Landscape
  - Macadamia Nuts
  - No longer in use
  - Papaya
  - Pasture
  - Pineapple
  - Seed Production
  - Taro
  - Tropical Fruits



# Big Island Crop Types 2020

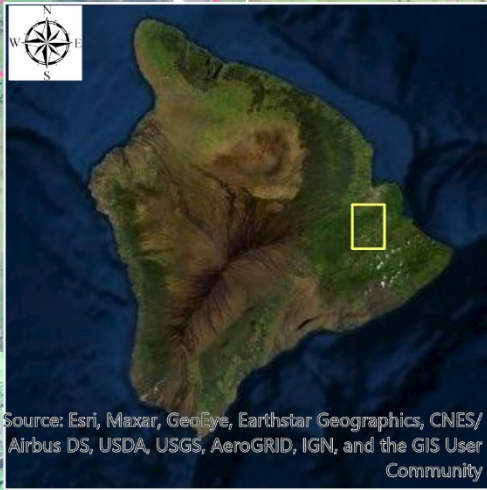
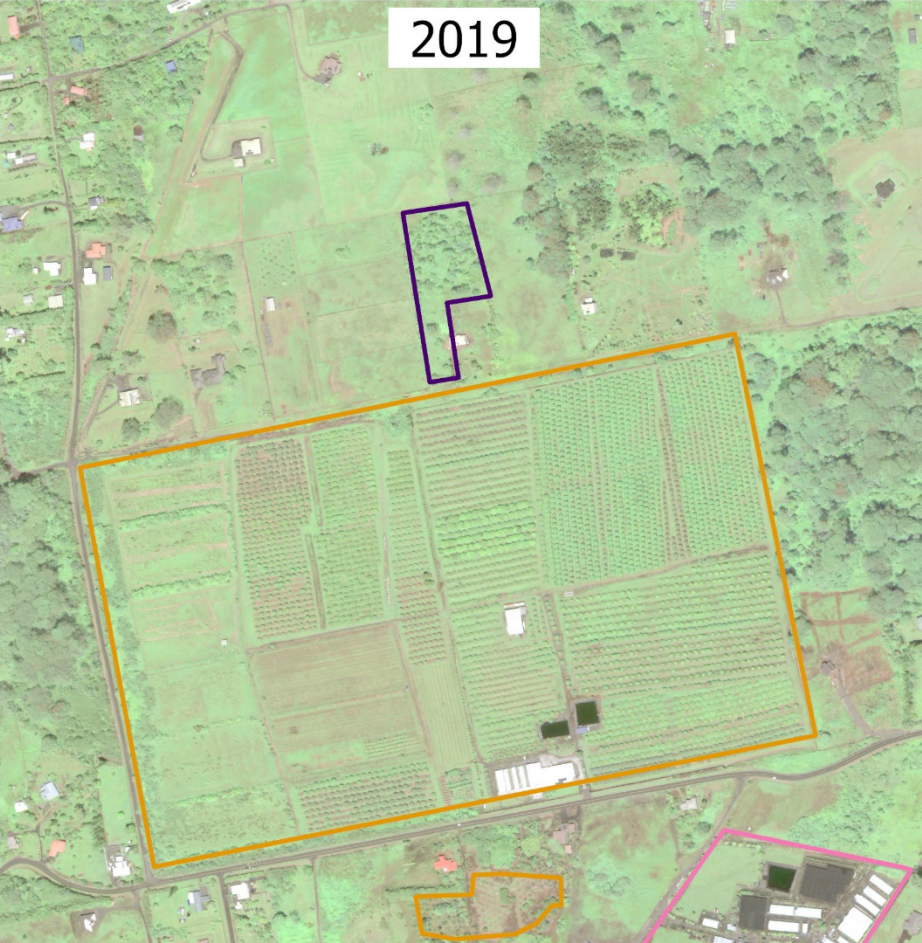
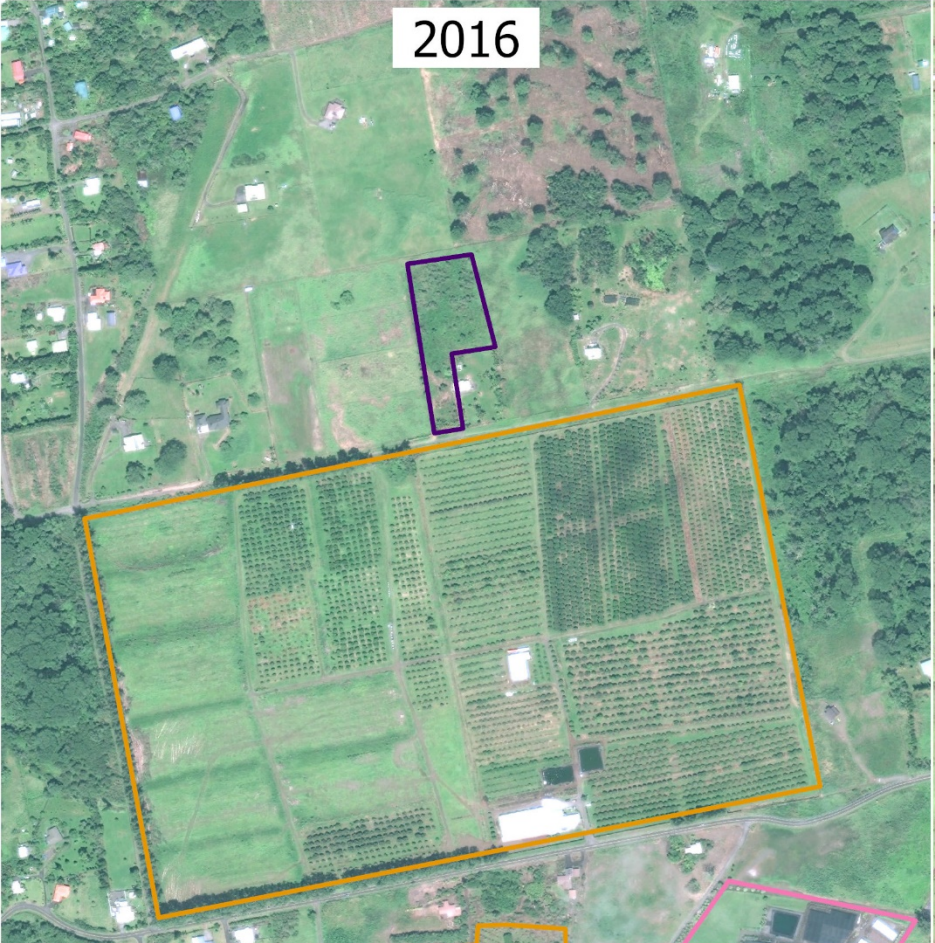


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



2016






2019



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 125 250 500 Meters

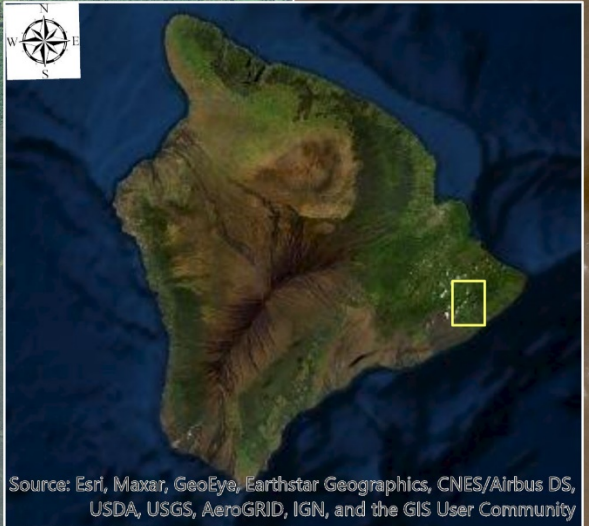
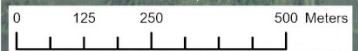
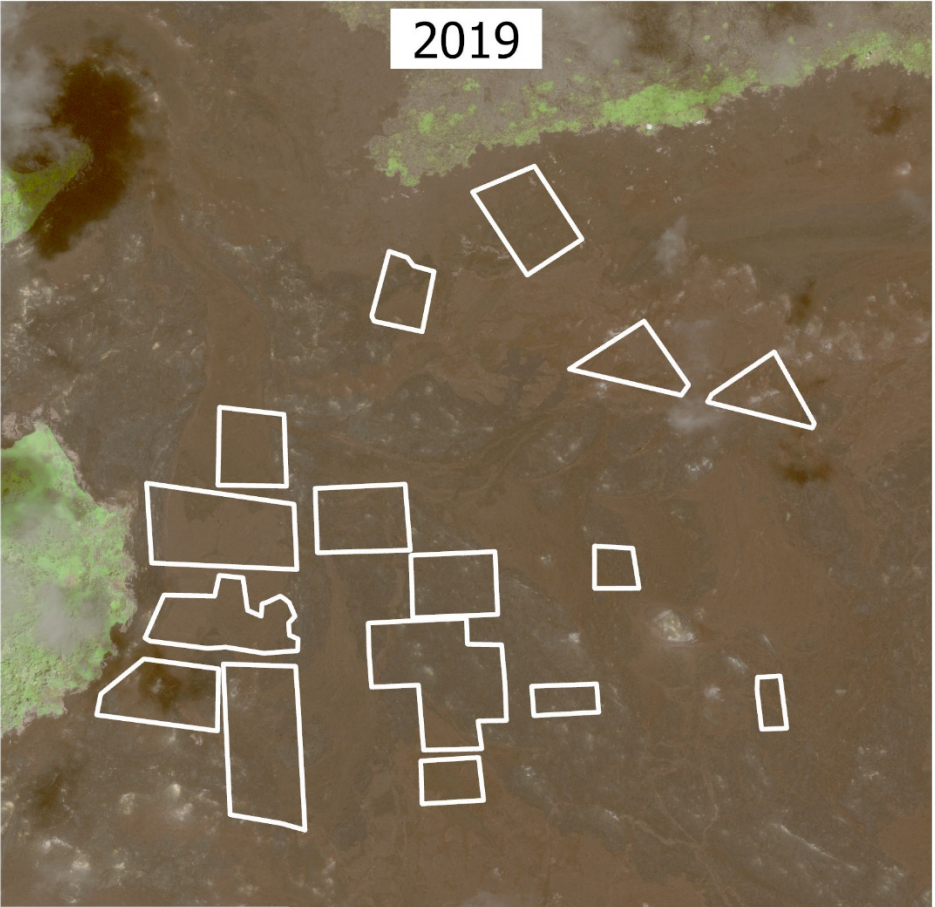
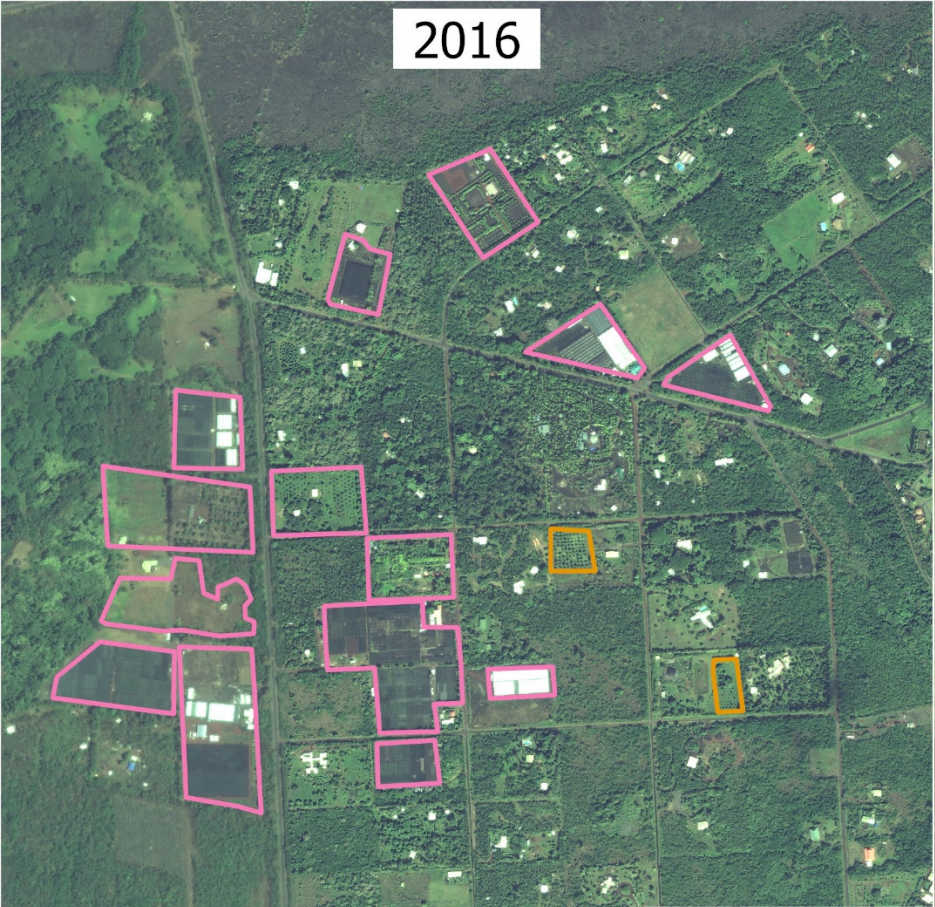
**Crop Type**

-  Banana
-  Diversified Crop
-  Tropical Fruits
-  Flowers / Foliage / Landscape
-  No longer in use

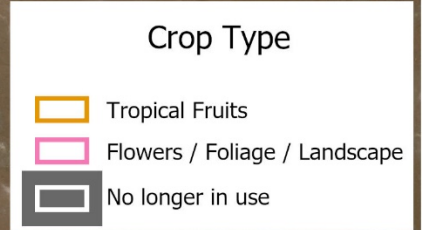


2016

2019



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





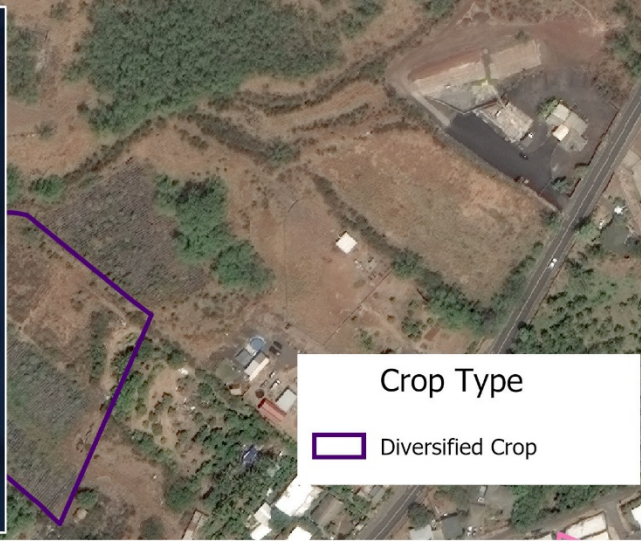
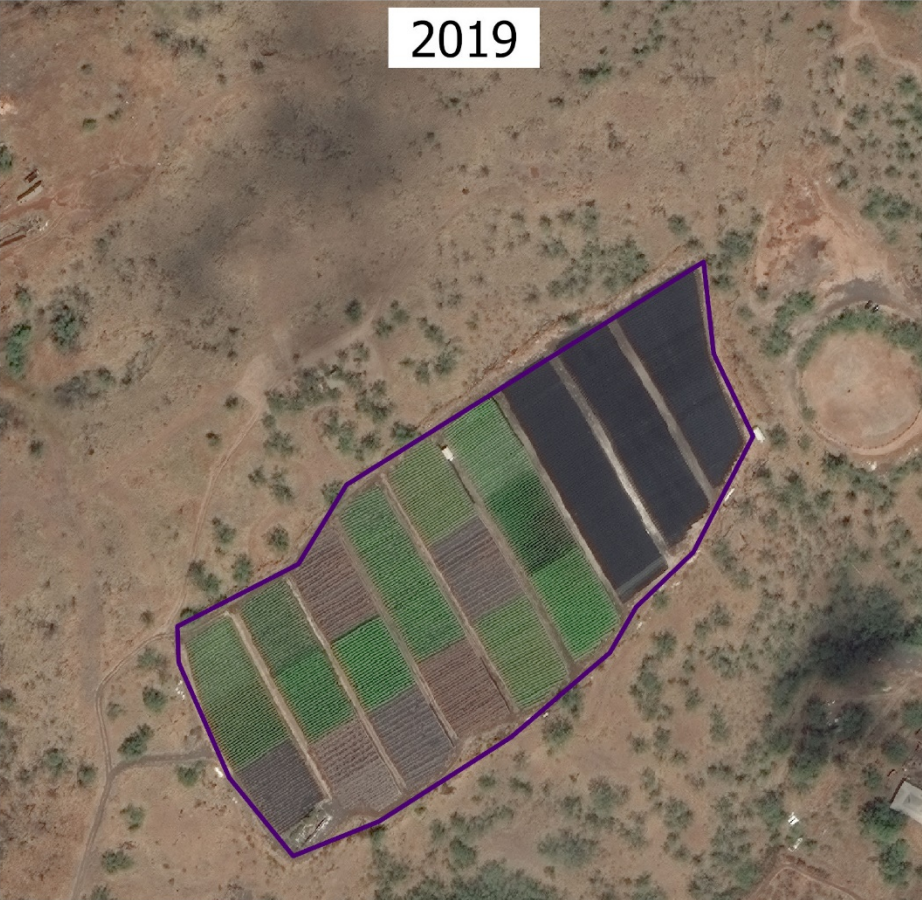


**SDAV**  
**UHHILO**



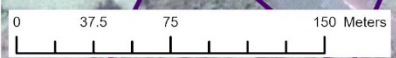
2016

2019



**Crop Type**

- Diversified Crop



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



# DRAFT RESULTS (MAY CHANGE)

OAHU	Total Acreage			Change	
Crop Type	2015	2020		Acres	%
Aquaculture	274	300		26	9%
Banana	345	343		(2)	-1%
Coffee	168	169		1	1%
Commercial Forestry	26	27		0	1%
Diversified Crop	9,865	10,584		719	7%
Flowers / Foliage / Landscape	484	498		14	3%
Macadamia Nuts	-	2		2	100%
Papaya	166	164		(2)	-2%
Pasture	18,464	18,026		(438)	-2%
Pineapple	3,414	3,437		23	1%
Seed Production	7,333	7,376		43	1%
Taro	51	77		26	34%
Tropical Fruits	227	240		13	5%
<b>Total</b>	40,565	41,242		677	2%



# DRAFT RESULTS (MAY CHANGE)

BIG ISLAND	Total Acreage		Change	
Crop Type	2015	2020	Acres	%
Aquaculture	165	162	(3)	-2%
Banana	536	599	63	11%
Coffee	5,525	5,555	30	1%
Commercial Forestry	21,061	20,088	(973)	-5%
Dairy	1,855	865	(990)	-114%
Diversified Crop	3,266	4,573	1,307	29%
Flowers / Foliage / Landscape	1,612	1,535	(77)	-5%
Macadamia Nuts	21,359	21,203	(156)	-1%
Papaya	2,566	3,207	641	20%
Pasture	554,324	549,170	(5,154)	-1%
Taro	61	67	6	10%
Tropical Fruits	3,144	3,310	166	5%
<b>Total</b>	<b>613,717</b>	<b>610,334</b>	<b>(5,140)</b>	<b>-0.8%</b>



















# Webmap for Stakeholder Comments


SDAV UH HILO Ag Baseline 2020 Draft Data Layer created by SDAV Lab, UH Hilo Hawaii State Department of Agriculture Spatial Data Analysis and Visualization Lab


**SDAV UH HILO WELCOME! UNIVERSITY OF HAWAII HILO**

The Spatial Data Analysis and Visualization Lab at UH Hilo is partnering with the State of Hawai'i Department of Agriculture to update the [2015 Agricultural Baseline](#) for the islands of O'ahu and Hawai'i. Our goal is to create an updated geospatial data layer that reflects the current footprint of agricultural land in our state (minimum plot size of 3 acres). Like the 2015 Agricultural Baseline, this updated layer will be freely available to the public for use in research, education, and advocacy. This web portal map is a tool for providing feedback for our analysts to make sure we produce the best possible layer. Local knowledge of the land is incredibly valuable for this project; please assist us by examining the draft agricultural layer shown in this map and dropping pins to add comments and corrections based on your knowledge and experience in these areas. You are also welcome to drop pins in areas outside of the established plots if you know that commercial farming (> 3 acres) is occurring in areas we may have missed. We are especially interested to know whether plots are currently being used or not, and what type of agriculture is being done. **Note:** The background imagery shown in this web portal is older than what was used to generate the draft 2020 layer.

The crop categories can be viewed by clicking on the legend icon  in the upper right:

 Aquaculture	 None
 Banana	 Papaya
 Coffee	 Pasture
 Commercial Forestry	 Pineapple
 Dairy	 Seed Production
 Diversified Crop	 Taro
 Flowers / Foliage / Landscape	 Tropical Fruits
 Macadamia Nuts	

Layers can turned on and off from the layer menu, which can be accessed by clicking on the layers icon  in the upper right.

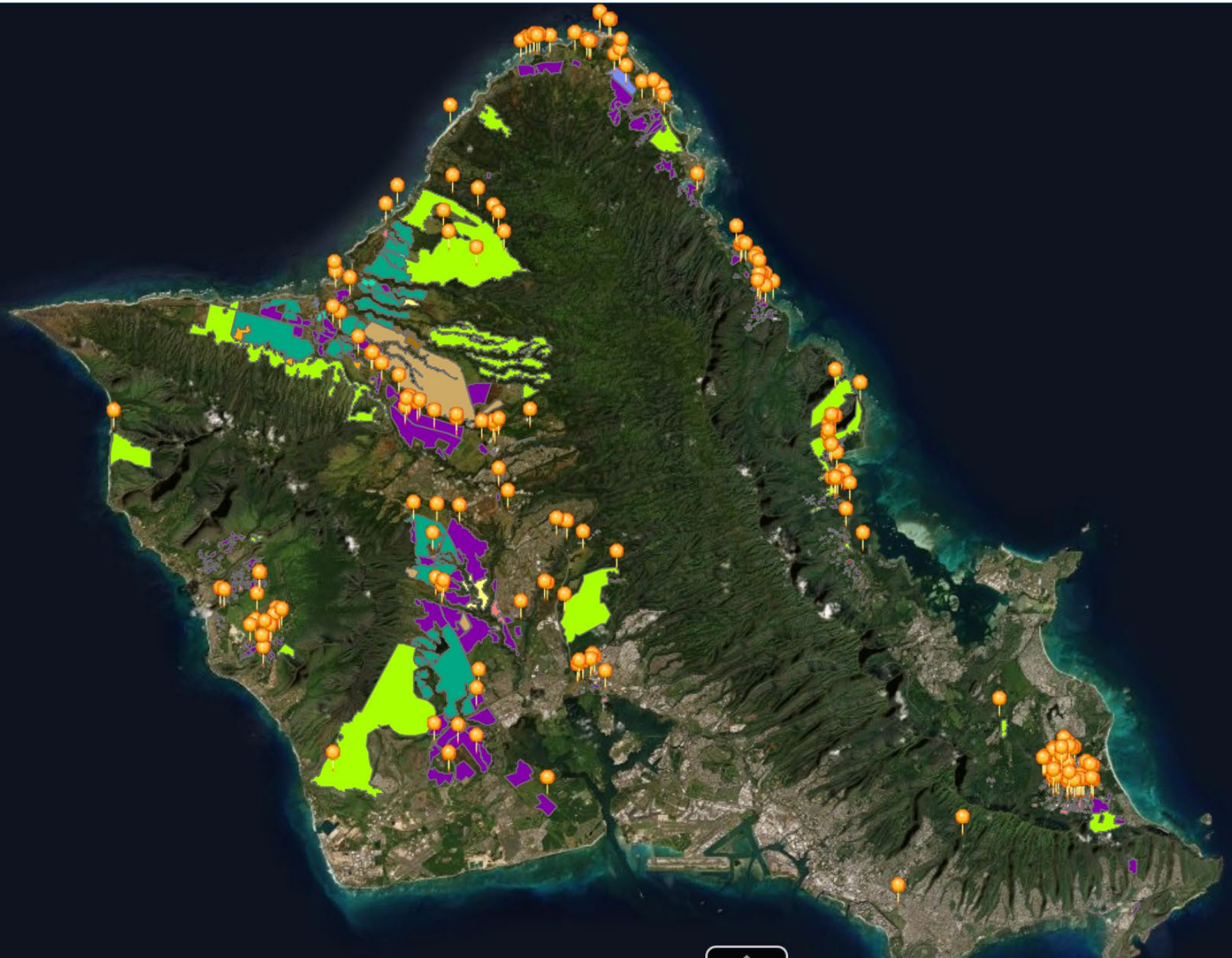
To drop a pin, click on the edit icon  in the upper right, select the blue pin, and click on the map to drop the pin. Please be sure to include your name and contact information your first nin (no need to re-enter for other nins).

Do not show this splash screen again.

OK

<https://uhh.maps.arcgis.com/apps/webappviewer/index.html?id=46715ba2962e41a9828d3443089552ff>







An aerial photograph of a lush banana plantation. The rows of banana plants are densely packed, with their large, vibrant green leaves creating a textured pattern. The ground between the plants is a mix of green grass and brown soil. The lighting is bright, casting soft shadows and highlighting the natural colors of the scene. Centered over the image is the word "Mahalo!" in a large, white, serif font, with a prominent exclamation point at the end.

Mahalo!