



vs.



# **Adverse Impacts for Native Hawaiians from Renewable Geothermal Energy: Just Transition to Renewable Energy**

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# The Project

- **1989 Pele Defense Fund (PDF) Battle against geothermal cultural and ecological grounds---idea of PSIA**
- **2012 Requested proposal: PsychoSocial Impact on Native Hawaiians from Geothermal Energy Development**
- **2017 Funded: County of Hawaii Geothermal Energy Fund**
- **2018 Eruption: lava covered study area**
- **2019 Field study, thereafter pandemic = remote**

**Desired outcome: create a blueprint for PSIA to be included in future geothermal and other Hawaiian project reviews particularly as a tool for understanding adverse impacts to the Native Hawaiian population**

# Impact Frames

**Geothermal electricity production has adversely impacted Native Hawaiians in two ways:**

- 1. Cultural: Harm to Native Hawaiian belief and practice**
- 2. Industrial: Conversion of Puna into Contaminated Community affecting Native Hawaiians and others**

# **Psycho-Social Impact Assessment**

- **Understand how a project affects people's lives with a focus on avoiding or mitigate adverse impacts, including:**
  - **Lifescape---**How they understand their lives
  - **Lifestyle---**How they live their lives
  - **Lifestrain: How much stress they confront and the consequences**
  - **Simultaneity: Tension between modern and traditional lives**
  - **Eco-Historical Context and Trauma**

# Origins of Historical Trauma

Lost population,  
resources, religion,  
language, culture,  
control of land,  
kingdom,  
independence,  
protection of 'aina  
and socioeconomic  
status

## THE FIRST CONQUEST: THE TAHITIAN INVASION

### THE SECOND CONQUEST:

1778 COOK, TRADE, ILLNESS, CONVERSION,  
LOSS OF LANGUAGE AND CULTURE

### THE THIRD CONQUEST THE GREAT MAHALE: 1848

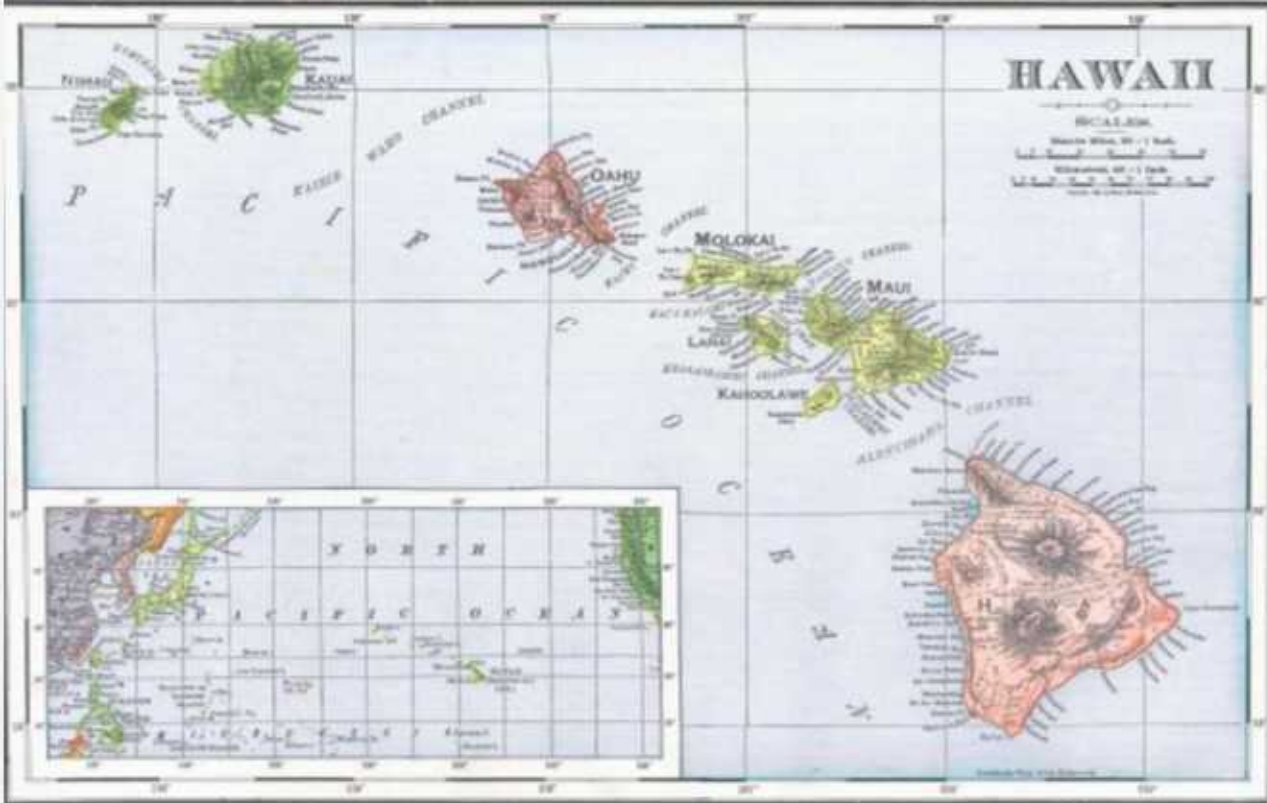
Land Alienation

THE FOURTH CONQUEST: OVERTHROW 1893,  
ANNEXATION 1898 AND STATEHOOD 1959

THE FIFTH CONQUEST: EXPLOITATION AND  
TRANSFORMATION OF THE LAND: Plantations, tourism....

THE SIXTH CONQUEST: SOCIO-ECONOMIC VULNERABILITY  
AND VICTIMIZATION

250 years

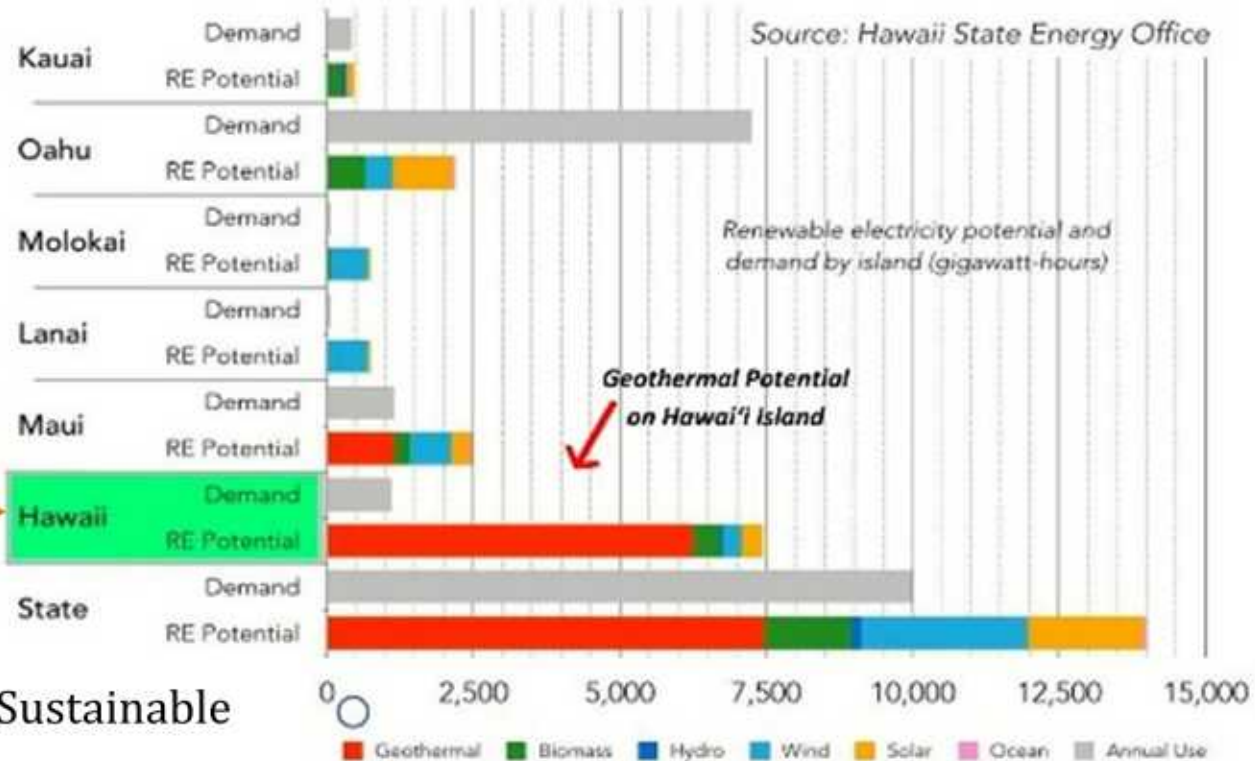


Chromolithograph map of the Hawaiian Islands, 1899

# Hawaiian Archipelago Volcanic Islands

- 1970s**
- Dependence imported fuel**
- Geothermal Renewable**
- Substantial Resource**
- USDOE Actively promote**

## RENEWABLE ENERGY POTENTIAL



4/18/2024

Renewable Energy Potential in Hawaii from Sustainable Energy Hawaii (2022).

# Centered in Kilauea East Rift Zone

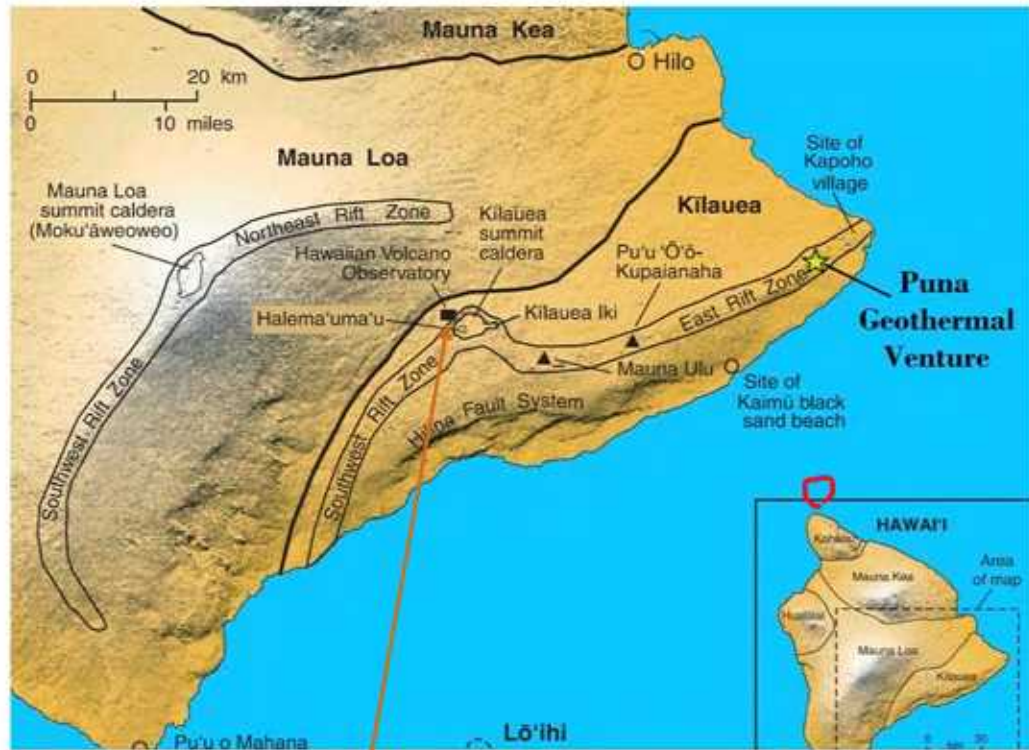


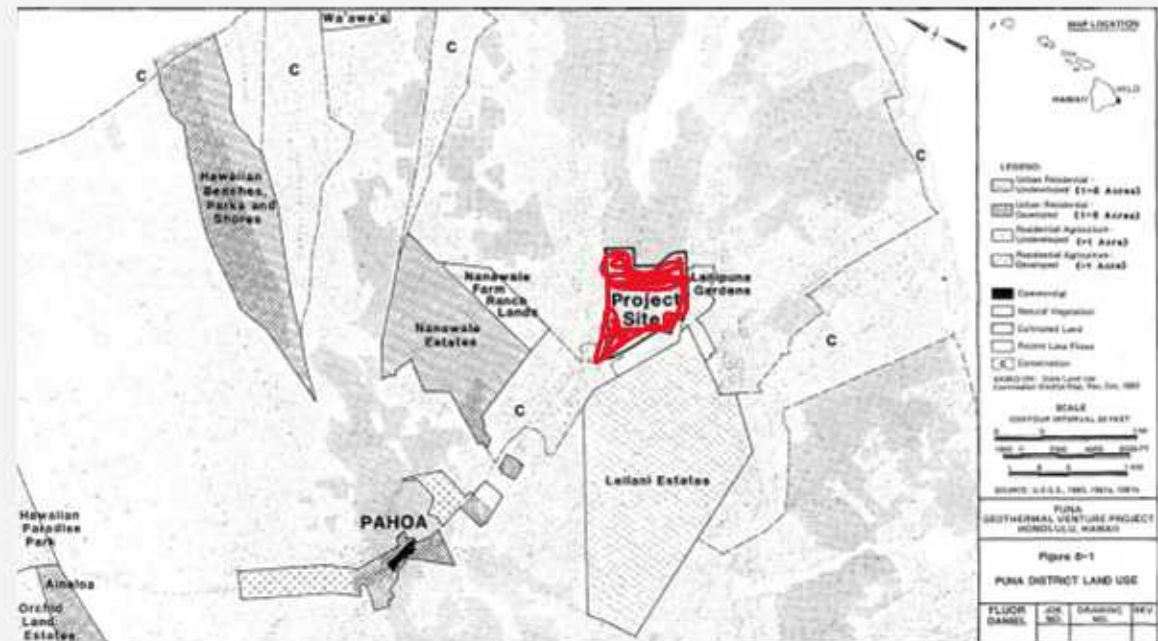
Figure 1.9: Shaded relief of the KERZ showing principle volcanic features and the location of Ormat's Puna Geothermal Venture (Tilling *et al.*, 2010).

**Pele's Home**

The two Geothermal Plants to date are located on the Kilauea East Rift Zone

A. Substantial Native Hawaiian population

B. Highly developed area



**1989-91 True Geothermal Wao Kele O Puna**

**---Largest remaining lowland rainforest**

**---Foraging site**

**---Assault on Pele, Goddess of fire,  
volcanism and transformation**

**---Most alive deity**

**---Literal Ancestor**

**---Land Creator**

**---Agent of Recovery**

**---Essential Natural Process**

**---Sacred**



**EPIC Battle**

**PDF demonstrate/litigate**

**Jerry Mander**

**advertisements**

**Pua Kanehele testimony**

**1<sup>st</sup> Amendment---Supreme**

**Court**

**PSIA alterative**

**True never built**







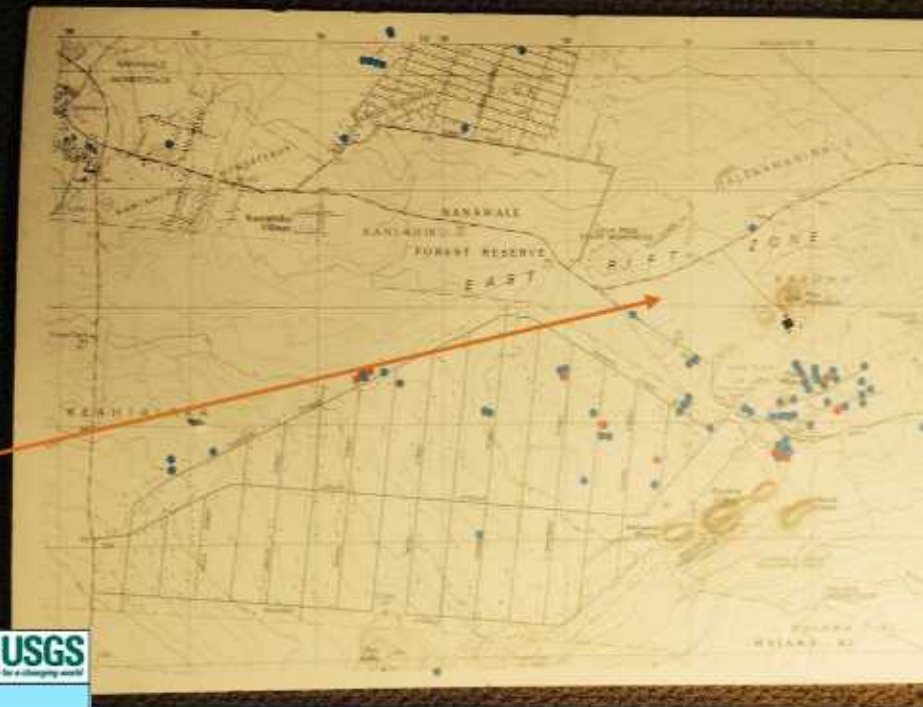
# HGP-A



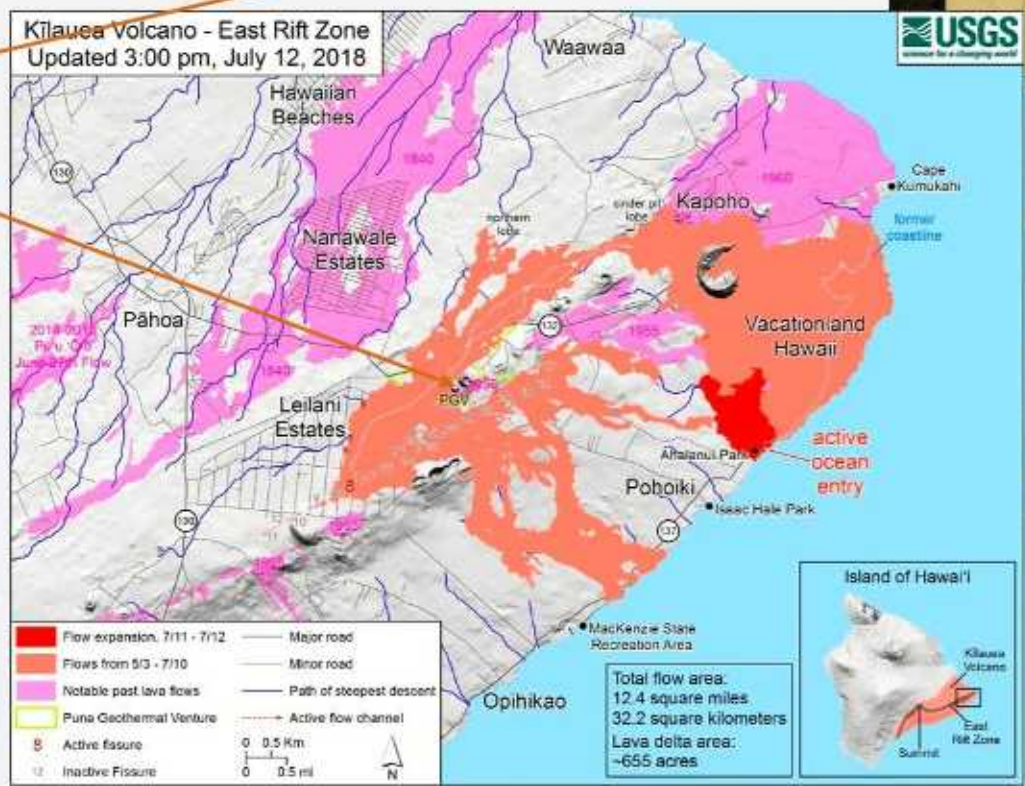
**H<sub>2</sub>S**  
**Noise**

+

**PGV**



1991 KS-8 Well Blowout  
2014 Hurricane Iselle Release  
2018 Kilauea Eruption



# Sample of Psycho-Social Impacts

## CULTURAL IMPACTS

- **Multiplied historical trauma**
- **Threat to Pele Practice**
- **Prevent lokahi (harmony)**
- **Cumulative Impacts: TMT, IVI, etc.**

## INDUSTRIAL IMPACTS

- **Chronic psycho-social harm**
- **Acute, episodic incidents**
- **Failed regulation, ERP & risk recognition**
- **Pervasive public dread**

**PGV---Current FEIS for  
renewal and expansion  
Ignore PSIA**

**NEW GEOTHERMAL  
-Native project, property  
and benefit**

**WITHOUT PSIA IS A  
JUST TRANSITION  
POSSIBLE?**