

# SENATE COMMITTEES ON ECONOMIC DEVELOPMENT, TOURISM, & TECHNOLOGY AND AGRICULTURE & ENVIRONMENT Friday, March 17, 2017 — 1:15 p.m. — Room 414 In SUPPORT HB 1578 Relating to Climate Change

Dear Chair Wakai, Vice Chair Taniguchi, Chair Gabbard, Vice Chair Riviere, and Members of the Committees:

On behalf of Surfrider Foundation's Oahu Chapter, I am writing in strong support of HB1578, which creates a Carbon Farming Task Force in the state of Hawai'i.

Sustainable and healthy soils are a pertinent part of a future Hawai'i that reduces the impact that agriculture land is having on our oceans – the largest economic engine for our State. One of the most successful programs of Surfrider Oahu is its Ocean Friendly Gardens & Surfblitz program which teaches home owners, school children, and businesses how to create healthy soils that retain storm water runoff. Through organic soil enrichment, we can also take huge strides in creating land that fosters its ability to sequester carbon from our atmosphere. The combination of having soils that are healthy enough to be large sinks for pollution and to be sources of home grown food production, makes HB 1578 a key step forward in a sustainable Hawai'i that takes responsibility for its part in reducing the impact of climate change.

This bill will help to identify future possibilities in agriculture that lead to regenerative soils and increased abilities of our land to harness its true potential to mitigate the effects of climate change. The benefits of creating healthier soils for food growth also mean less reliance on fossil fuel based transportation to bring food to our islands. By harnessing the power of photosynthesis, plants convert carbon dioxide into energy and send as much as 40% of that carbon down through their roots to feed hungry microorganisms living in the soil.

The Food and Agriculture Organization of the United Nations (FAO) and the United States Natural Resources Conservation Service (NRCS) have both identified soil health and soil carbon as critical factors for climate resilience, food production, and climate change mitigation. Many of Hawai'i's soils are currently degraded, but we have the opportunity to reverse that trend.

There is great need to figure out ways that we can incentivize a Hawaii with regenerative soils through tax credits, composting programs, and the future of value added products from this industry. Taking initial steps in the form of a task force and information gathering is a prudent step towards this future. By using the collective knowledge of

stakeholders, farmers, scientists, community groups, and citizens concerned with this issue we will be able to formulate a program that creates a robust future for sustainable agriculture in Hawai'i.

Mahalo for taking the time to consider this testimony,

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Rafael Bergstrom Oahu Chapter Coordinator, Surfrider Foundation.



# Senate Committees on Economic Development, Tourism, & Technology and Agriculture & **Environment**

## Hawai'i Center for Food Safety strongly supports: HB1578 HD1

Dear Chair Wakai, Vice Chair Taniguchi, Chair Gabbard, Vice Chair Riviere and members of the committee:

My name is Dr. Ashley Lukens and I am the Director for the Hawai'i Center for Food Safety (CFS). CFS is a nationwide public interest, sustainable agriculture nonprofit organization whose mission centers on furthering the public's right to know how their food is produced, through labeling and other means. We have over 800,000 farmer and consumer members across the country, including nearing 11,000 in Hawai'i. On behalf of CFS and our members, I thank you for the opportunity to speak to you today regarding this important bill.

I am writing in strong support of HB1578 HD1, the Carbon Farming Task Force Bill. It is well established that agriculture contributes roughly 1/3 of greenhouse gas emissions globally<sup>1</sup>. However, unlike other sectors like energy and transportation, agriculture also has the potential to sequester carbon emissions in terrestrial ecosystems. As noted in HB1578 HD1, states around the country are creating different mechanisms to offset carbon emissions. Hawai'i has an opportunity to create a Carbon Farming Task Force that creates incentives for farmers and ranchers to improve the resilience of their land in the face of escalating climate uncertainty.

Many of Hawai'i's soils are currently degraded, but we have the opportunity to reverse that trend. Often taken for granted, healthy soils provide numerous benefits including: reduced sediment, erosion and dust; increased freshwater retention; improved water quality; reduced salinity; improved plant health and crop yields; a reduced need for synthetic inputs; and sequestered carbon dioxide.

CFS advises that the proposed Carbon Farming Task Force base their incentives on the suite of soil management practices recommended by the USDA's Natural Resources Conservation Service with the following nuance: much of the potential for carbon sequestration in tropical ecosystems lies in above-ground biomass. The Carbon Farming Task Force must recognize this and include methods that increase plant biomass and biodiversity in its incentive programs. Any proposed carbon measurements should reflect Hawai'i's unique climate and geography.

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It is worth noting that the discipline of soil science is changing rapidly and research is ongoing related to how quickly soils can sequester carbon. Therefore, CFS recommends the Task Force allow for innovative demonstration projects that currently fall outside of the generally recognized methods of soil management. For example, silvopasture—the integration of trees and shrubs in pastures with animals—can contribute to some of the highest sequestration rates in tropical ecosystems.<sup>2</sup>

The creation of a Carbon Farming Task Force is paramount to Hawai'i's food sovereignty, as well as our food and climate security.

Respectfully,

Ashley Lukens, PhD

Director, Hawai'i Center for Food Safety