



To: The House Committee on Higher Education (HED)
From: Sherry Pollack, Co-Founder, 350Hawaii.org
Date: Wednesday, February 12, 2025, 2pm

In support of HB1185 HD1

Aloha Chair Takuya, Vice Chair Amato, and Higher Education Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **supports HB1185 HD1** that establishes a Plant-based Building Materials Working Group to study and report on how best to grow plants and develop plant-based building materials in Hawaii.

HB1185 HD1 is an innovative and sustainable approach towards enhancing both Hawaii's agricultural and construction sectors. Hemp and bamboo are ideal for eco-friendly construction because they are sustainable, cost-effective, and have low environmental impact. This measure will help reduce greenhouse gases, which is critically needed in our fight against the climate crisis. Plant-based products such as industrial hempcrete and structural bamboo are excellent alternatives to replace carbon-intensive materials used today such as concrete and steel.

We need to target all emission sources, especially cost-effective low hanging fruit like this. Please pass HB1185 HD1.

Mahalo for the opportunity to testify.

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February 12, 2025

HEARING BEFORE THE
HOUSE COMMITTEE ON HIGHER EDUCATION

TESTIMONY ON HB 1185, HD1
RELATING TO AGRICULTURE

Conference Room 309 & Videoconference
2:00 PM

Aloha Chair Garrett, Vice-Chair Amato, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate, and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports HB 1185, HD1, which establishes a Plant-Based Building Materials Working Group to study and report on how best to grow plants and develop plant-based building materials in Hawai'i. This bill also appropriates funds to support the working group's efforts.

Hemp, bamboo, and other plant-based building materials are fast-growing, renewable resources with a lower environmental footprint compared to traditional construction materials like concrete and steel. These materials have the potential to reduce greenhouse gas emissions and waste while supporting Hawai'i's sustainability and climate resiliency goals.

Plant-based construction materials such as hempcrete, bamboo panels, and fiber-reinforced composites are lightweight, durable, and energy-efficient. Encouraging the development of these materials in Hawai'i would help reduce reliance on imported building supplies, lower shipping costs, and provide opportunities for local farmers to cultivate high-value crops that support both agriculture and the construction industry.

Establishing a working group to assess how best to grow and develop plant-based building materials is a critical step toward diversifying Hawai'i's agricultural sector, promoting innovation, and supporting the state's housing and sustainability goals.

We encourage the working group to:

- Ensure that farmers and agricultural stakeholders are included in discussions on crop selection, processing infrastructure, and economic viability.
- Evaluate potential barriers to commercial-scale production, including regulatory, processing, and market challenges.
- Coordinate with existing research institutions and industry experts to develop best practices for growing and processing plant-based building materials in Hawai'i's unique climate.

Thank you for the opportunity to testify on this important matter.



To: The Honorable Chair Andrew Takuya Garrett, the Honorable Vice Chair Terez Amato, and Members of the Committee on Higher Education.

From: Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i (by Ted Bohlen)

Re: **Hearing HB1185 HD1 RELATING TO AGRICULTURE.**

Hearing: Wednesday February 12, 2025, 2:00 p.m. Rm. 309

Aloha Chair Garrett, Vice Chair Amato, and Members of the Committee on Higher Education:

The Hawai'i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii's coral reefs and

ocean. The mission of the Climate Protectors Hawai'i is to educate and engage the local community in climate change action, to help Hawai'i show the world the way back to a safe and stable climate.

The Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i STRONGLY SUPPORT HB1185 HD1!

Hawaii can use **plants** to develop a **home-grown building materials industry**, with **agricultural** and production **green jobs**, while sequestering carbon to **mitigate climate warming!**

Most of Hawaii's building materials are shipped to Hawaii from the continents at great expense. Much of the money that is leaving Hawaii would stay if we could **produce building materials here instead of importing lumber, steel, and other building materials.**

Hawaii's climate, with a year-round growing season and ample rain in many areas, has advantages for growing various crops that can be processed into structural plant-based building materials. For example,

- There are types of **clumping bamboo** that can grow very rapidly with sufficient water. Bamboo is a grass; when cut, it simply regrows, whereas trees used for timber die and have to be replanted. Clumping bamboo can be processed into building materials that are more flexible and lighter than timber or steel and be made more fire- and termite-resistant than wood. Bamboo has a tensile strength by weight that exceeds steel. In addition, bamboo can be used to produce a wide range of construction material, from flooring and paneling to structural support and roofing.
- "**Hempcrete**", developed from industrial hemp, can substitute for concrete building blocks, with weather-resistant durable materials.
- "**Biocement**" is a calcium carbonate material produced by microbes that can substitute for Portland cement. It can be produced from cyanobacteria (blue-green algae or "pond scum").

Green jobs would be created for growing plants and producing building materials here in Hawaii.

Bamboo and other plant-based building materials would **help Hawaii meet its net negative greenhouse gas emissions goal** because they sequester carbon, whereas production of traditional building materials such as timber, steel, and cement emit very large amounts of greenhouse gases.

The purpose of this bill is to establish at the University of Hawaii at Manoa College of Tropical Agriculture and Human Resilience a working group to study and report on how best to grow plants and develop a plant-based building materials industry here in Hawaii. Funds would be appropriated to administer the working group.

Please pass this bill!

Mahalo!

Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i (by Ted Bohlen)