



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail info@hfbf.org; www.hfbf.org

**LATE**

March 16, 2018

HEARING BEFORE THE  
SENATE COMMITTEE ON ECONOMIC DEVELOPMENT AND TOURISM  
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

**TESTIMONY ON HB 2041, HD2  
RELATING TO AQUACULTURE**

Room 414  
1:25 PM

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

I am Randy Cabral, President of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

**The Hawaii Farm Bureau supports HB 2041, HD2**, which appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority (NELHA) to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

The bill's preamble correctly notes the tremendous increase in aquaculture investment worldwide in recent years, and the opportunities for expansion of the industry locally if more of this investment can be attracted to Hawaii.

Aquaculture is a highly technical and capital-intensive industry. Entrepreneurs seeking to start an aquaculture business need access to land and water; capital to purchase tanks, pumps, feed, broodstock, and many other items; and often a period of research and development to refine the necessary technology. These requirements create an impediment to entry of individuals or companies that may have good ideas, but insufficient funding to develop their ideas independently. An incubator facility at NELHA could help mitigate this barrier to entry by providing space, water, and technical facilities to startup businesses at reasonable cost. NELHA is an exceptional facility which features an ideal climate, access to cold deep-ocean water and warm surface water, and the opportunity to interact with experts in aquaculture biology, engineering, and finance. Successful startups will help to grow Hawaii's aquaculture industry, bringing in investment, producing high-quality seafood, and increasing employment.

Hawaii has a long history of successful government investment to encourage aquaculture development, starting with the creation of the Aquaculture Development Program in the 1970's and continuing with the establishment of NELHA in the 1980's. These efforts have paid off in the form of an industry that generates more than \$75 million a year in wholesale value. We expect that an aquaculture incubator at NELHA will be another wise investment that will result in continued growth.

Thank you for this opportunity to provide our input on this measure.

**HB-2041-HD-2**

Submitted on: 3/15/2018 3:57:13 PM

Testimony for ETT on 3/16/2018 1:25:00 PM



| Submitted By  | Organization   | Testifier Position | Present at Hearing |
|---------------|--|--------------------|--------------------|
| Melodie Aduja | Testifying for OCC Legislative Priorities Committee, Democratic Party of Hawai'i | Support            | No                 |

Comments:

To the Honorable Glenn Wakai, Chair; the Honorable Brian T. Taniguchi, Vice-Chair and Members of the Senate Committee on Economic Development, Tourism and Technology:

To the Honorable Mike Gabbard, Chair; the Honorable Gil Riviere, Vice-Chair and Members of the Senate Committee on Agriculture and Environment:

Good morning, my name is Melodie Aduja. I serve as Chair of the Oahu County Committee on Legislative Priorities of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on **HB2041 HD2**, relating to an Aquaculture Incubator; Department of Business, Economic Development, and Tourism; and an appropriation.

The OCC Legislative Priorities Committee is in favor of **HB2041 HD2** and supports its passage.

**HB2041 HD2** is in alignment with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

Specifically, the DPH Platform states, "Agriculture in our state must be preserved and its future strengthened. Sufficient prime agricultural lands must be maintained for the health, economic well-being and sustenance of the people. We believe in an integrated approach to agricultural innovation and sustainability. We encourage the responsible development of ocean resources to achieve sustainability of our marine resources and ensure and improve the health of our reef and marine life.

This approach includes, but not limited to, the adoption of the native Hawaiian concept of ahupua'a, an integrated approach to land management. This could also include the development of economic, land and ocean use policies that foster sustainable corps both for local consumption and for export policies to foster agriculturerelated infrastructure at shipping points, and increased inspection to protect against invasive species and to encourage reduced holding times.

Recognizing the importance of the ocean as a life-sustaining resource, we must protect its ecological and alternative patterns of water treatment and consumption such as the use of recycled water for irrigation, water storage reservoirs, and the use of catchment systems by the public.

As an island state, securing affordable food for all is a priority. We support healthy, sustainable, and diversified local food production, and “Buy Local” strategies to assure greater food security and food safety. (Platform of the DPH, P. 2, Lines 76-86, 90-

Given that **HB2041 HD2** appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii’s aquaculture industry, it is the position of the OCC Legislative Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Tel.: (808) 258-8889



Testimony Before The  
Senate Committee on Economic Development, Tourism, and Technology and  
Senate Committee on Agriculture and Environment  
**COMMENTS & SUGGESTIONS ON HB 2041, HD2**  
Friday, March 16, 2018, 1:25pm, Room 414

My name is Kevin Chang and I am the Executive Director of Kua'āina Ulu 'Auamo (or KUA). KUA works to empower grassroots rural and Native Hawaiian mālama 'āina groups to celebrate their places and pass on their traditions to better Hawai'i and achieve 'āina momona— an abundant, productive ecological system that supports community well-being.

KUA without knowledge of the underlying context of this program would like to provide **comments and suggestions**. HB 2041, HD 2 would appropriate \$500,000 out of general revenue to establish an aquaculture incubator at National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawai'i's aquaculture industry.

We believe this bill could provide for the revitalization and further evolution of Hawai'i's tradition and mariculture legacy in loko i'a as an incremental step towards 'āina momona.

**We suggest this bill's spirit and preamble – on Hawai'i's unique positioning for aquaculture development and investment – contain language that acknowledges the ground breaking legacy of mariculture and aquaculture as developed by the Native Hawaiian people as part and parcel to the foundation of our community's position and uniqueness for this effort**

KUA employs a community-driven approach that currently supports a network of more than 31 mālama 'āina community groups collectively referred to as E Alu Pū (moving forward together), 40 fishpond projects and practitioners called the Hui Mālama Loko I'a, and a new and growing hui of Limu practitioners all from across our state. Members and communities of these networks focus on improving natural resource management and restoration of native food and ecological systems, values and ethics more sensitive to the needs of their wahi (their places).

Loko i'a (traditional Hawaiian fishponds) as developed by the ancestral people of Hawai'i are ingenious and unique methods of fish farming and are undisputedly part of traditional and customary Hawaiian practices. Loko i'a are critical resources for the Hawaiian community and all in Hawai'i and provided primary sources of protein for an estimated prehistoric population upwards of one million people described by early explorers as healthy and robust despite living without large land mammals.

A study in 1989-90 found approximately 488 loko i'a in the islands of which ninety-nine were actively in production at the time of an inventory in the 1900s. Today, the restoration and reuse of loko i'a perpetuates Native Hawaiian cultural practices and creates an opportunity to increase supplies of certain fish which will make Hawai'i more food-secure and increase sustainable economic development opportunities for rural communities.

Hui Mālama Loko I'a is a network of kia'i loko (fishpond guardians) of nearly 40 ponds and pond complexes who have gathered opportunistically since 2004 in an effort to support and collaborate to advance the restoration and perpetuation of loko i'a culture throughout Hawai'i. These kia'i loko are committed to ensuring the long-term reactivation of loko i'a because our kūpuna depended on them for generations and we believe they can help our communities thrive today and into the future.

More broadly, we believe our environment - our economy - is about long term investment and vision. We believe the vision and pathway toward 'āina momona that our communities hold includes the development of new sustainable trades and jobs for a growing movement in Hawai'i's youth to make our oceans more productive and healthy through a collaborative strategy of investment in new aquaculture innovations and a successful tradition of Hawaiian aquaculture and mariculture practices. This program, should it move forward, should not forsake our heritage and the capacity that exists in the people and culture of our islands.

Mahalo for this opportunity to testify.

Aloha 'Āina Momona.

A handwritten signature in black ink, appearing to read 'K. Chang', with a long horizontal flourish extending to the right.

Kevin K.J. Chang  
Executive Director

Senate Committees on Economic Development, Tourism, and Technology and Agriculture and Environment

Friday, March 16, 2018, 1:25 PM, Room 414



Re: HB 2041, HD 2 Relating to Aquaculture

Chair Wakai and Vice Chair Taniguchi and Chair Gabbard and Vice Chair Riviera, my name is John Corbin. I am submitting testimony in strong support of HB 2041, HD 2 to establish an aquaculture incubator at the Natural Energy Laboratory of Hawaii Authority (NELHA).

While serving as Manager of the State Aquaculture Development Program, I was a member of the Board of Directors of NELHA (formerly the Natural Energy Laboratory of Hawaii) almost continuously from 1980 until 2006. During that time period NELHA, with Federal, State and private investments, became the preeminent state aquaculture site and known around the world as successful research and commercial park. NELHA's competitive advantages include: access to warm, surface and cold, deep ocean water; abundant sunshine; a highly controlled biosecurity regime; and comprehensive management of the site by the State. NELHA and its Hawaii Ocean Science and Technology Park (HOST Park) are unique, world class facilities focused on developing 21 st Century technologies to help feed and light the world.

I believe Hawaii can gain even greater economic and societal benefits from NELHA, if an aquaculture incubator, as described in the bill, were established there. The drivers in today's world for expanding the global aquaculture industry are well stated in the bill and statewide benefits for the Islands include: more locally grown, healthy seafood from sustainable technologies; reduction of seafood imports and greater state food self-sufficiency; attraction of investors and entrepreneurs that are passionate about commercial aquaculture technology; and creation of good jobs in a long-term, growth industry seeking innovation. In addition, establishing this activity at NELHA could act as a catalyst for business development on other islands.

Moreover, I believe the State, the University, and the Hawaii High Tech community have had a great deal of success in setting up and running incubator facilities for today's fast-moving, market-driven technologies. This extensive experience could translate readily to an incubator facility focused on further advancement of aquaculture utilizing the resources at NELHA. Additional State investment at NELHA makes great sense given the past State infrastructure investment, the facility's established track record, U.S. policy to support expanded seafood production and the projected rapid expansion of the global aquaculture industry.

Thank you for the opportunity to submit these comments.

John S. Corbin MS, CFP, AICP  
President  
Aquaculture Planning & Advocacy LLC  
Kaneohe, Hawaii  
Phone: 808 239-8316  
e-mail: jscorbin@aol.com

**LATE**

**HB-2041-HD-2**

Submitted on: 3/16/2018 7:51:57 AM  
Testimony for ETT on 3/16/2018 1:25:00 PM

| <b>Submitted By</b> | <b>Organization</b>  | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|---------------------|--|---------------------------|---------------------------|
| Ronald Weidenbach   | Testifying for Hawaii Aquaculture & Aquaponics Association | Support                   | No                        |

Comments:

The HAAA supports the measure to establish an aquaculture incubator at NELHA where much of the current Hawaii aquaculture industry is located. NELHA has long provided laboratory space to support start-up R&D and the proposed incubator would be the next logical step to supporting innovative new aquaculture companies and their emerging technologies to help foster and grow this important food production sector.