

**DAVID Y. IGE**  
Governor

**JOSH GREEN**  
Lt. Governor



**DENISE ALBANO**  
Chairperson, Board of Agriculture

**PHYLLIS SHIMABUKURO-GEISER**  
Deputy to the Chairperson

State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

**TESTIMONY OF DENISE ALBANO  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE SENATE COMMITTEE ON AGRICULTURE & ENVIRONMENT**

**JANUARY 30, 2019  
1:15 P.M.  
CONFERENCE ROOM 224**

**SENATE BILL NO. 753  
RELATING TO AQUACULTURE**

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to present testimony on Senate Bill 753. This bill appropriates funding for operational expenses to revitalize the aquaculture development program and to expand the industry statewide. The Department of Agriculture supports this bill provided it does not impact the department's priorities listed in the Executive Budget.

The passage of SB 753 will be useful in supporting the expansion of the aquaculture industry in Hawaii. Aquaculture is poised to make a significant contribution to the Governor's goal of doubling food production, as it is the most efficient method of protein production. Dedicated funds will allow for investment in foundational infrastructure and research, including helping farmers use research-based knowledge, which will have long-term benefits for the entire industry. The Department would like to see this funding maintained in the department's budget past 2020 to ensure industry development can be supported in a consistent and reliable manner.

Thank you for the opportunity to testify on this measure.





January 28, 2019

Senator Mike Gabbard, Chair  
Senator Russell E. Ruderman, Vice Chair  
Committee on Agriculture and Environment

**Support of SB 753, Relating to Aquaculture (Appropriates funds for operational expenses for revitalizing the aquaculture development program within the Department of Agriculture).**

**Wednesday, January 30, 2019, at 1:15 p.m., in Conference Room 224**

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and a utility company. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express its **support of SB 753** and of the various agricultural stakeholder groups who defend the goals of viable agricultural operations and the conservation and protection of agriculture, including important agricultural lands (IAL) in Hawaii.

**SB 753.** This bill proposes to appropriate funds to be expended by the Department of Agriculture for operational expenses for the revitalization of the aquaculture development program.

**LURF's Position.** LURF members include farmers who own, maintain, and engage in agricultural enterprises, and who consider such assistance very helpful, if not critical to the agriculture industry and conduct of their operations, to help sustain their businesses, promote local food production, and increase the State's ability to achieve its food sustainability goals.

LURF appreciates the objective of SB 753, which is to support the revitalization and continued development of Hawaii's aquaculture industry, and believes that this bill is consistent with the underlying intent and objectives of the IAL laws (Hawaii Revised Statutes [HRS], Sections 205-41 to 52), which were enacted to fulfill the mandate in Article XI, Section 3, of the Hawaii State Constitution, "to conserve and protect

agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands.”

By recognizing the significance of, and need to assist the local aquaculture industry, and implement incentives which help to support the growth and maintenance of aquaculture in the State, this bill significantly helps to promote economically viable agriculture, food production, and food self-sufficiency in Hawaii.

For the reasons set forth above, LURF is **in support of SB 753**, and respectfully urges your favorable consideration of this bill.

Thank you for the opportunity to present testimony regarding this measure.

**SB-753**

Submitted on: 1/29/2019 10:13:47 AM

Testimony for AEN on 1/30/2019 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Warren Watanabe	Testifying for Maui County Farm Bureau	Support	No

Comments:



THE SENATE  
THE THIRTIETH LEGISLATURE  
REGULAR SESSION OF 2019

COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Senator Mike Gabbard, Chair  
Senator Russell E. Ruderman, Vice Chair

DATE: Wednesday, January 30, 2019  
TIME: 1:15 p.m.  
PLACE: Conference Room 224  
State Capitol  
415 South Beretania Street

Re: SB 753 Relating to Aquaculture

Dear Chair Gabbard, Vice Chair Ruderman, and Committee Members

The Hawaii Aquaculture & Aquaponics Association (HAAA) strongly supports the intent of SB 753, to appropriate funds for operational expenses to revitalize the aquaculture development program and to expand the industry statewide.

The HAAA has worked closely with the State Legislature, State and County governments, to provide industry advocacy and support since 1975. The 2017 aquaculture industry farm gate value of \$76.4 million now places the industry third in diversified agriculture's contribution to the economy. Support is needed to achieve greater benefits to the Hawaii economy, provide healthy seafood for local markets and export, generate good jobs, complement tourism and maintain rural communities. Hawaii is recognized as a national leader in aquaculture research, planning and development. An important reason has been the proactive policy and financial support from the State government that made aquaculture a priority in the State's portfolio of economic development initiatives. Implementation was in large part through the establishment of an Aquaculture Development Program (ADP), as the industry advocate within State government. However, with declined support, ADP lost its critical advocacy role to assist industry's economic development focus. By 2018, ADP had been downsized and made a section under the Animal Industry Division of DOA and the new mission emphasized product marketing rather than broad spectrum industry development.

ADP needs to be restored to the program status in the Chairpersons' Office, Department of Agriculture (DOA) to provide the high-level visibility and stature to work across Departments on a variety of issues. Encouraging commercial aquaculture is consistent with long-term State goals to enhance food security, encourage sustainable industries, diversify the economy, and support rural development. We recommend reestablishment of aquaculture and aquaponics as State priorities and components of all economic development strategies and policies to reflect this

strong commitment. We recommend reestablishment of the Aquaculture Development Program to be an effective aquaculture industry facilitator and advocate within State government for statewide sustainable development and provide staffing and budget commensurate with the statewide responsibility of growing new aquaculture businesses to advance the foals described above.

The HAAA Board of Directors has carefully prepared the attached White Paper titled ***Restoring Aquaculture Industry Advocacy in Hawaii State Government*** to further expand on this important economic development opportunity. Based on our careful assessments, we respectfully request the Legislature's favorable consideration of an increase in annual operating budget of \$500,000 for increased staffing and associated operational expenses, to help restore the Aquaculture Development Program and provide: 1) increased information dissemination to industry, 2) assistance with siting and permitting, 3) enhance existing aquatic disease prevention services, and 4) cost share with the University of Hawaii on a statewide aquaculture extension position.

**The HAAA BOD would be happy to discuss the information in this White Paper and provide additional information in support of SB 753.**

Thank you for the opportunity to testify in support of this important measure.

Sincerely,  
Ronald P. Weidenbach  
HAAA President on behalf of the Board of Directors



January 28, 2019

## **Restoring Aquaculture Industry Advocacy in Hawaii State Government**

### **Executive Summary**

This White Paper presents the need for action to attain the significant benefits of restoring aquaculture development and advocacy as an economic development priority for Hawaii. The Hawaii Aquaculture and Aquaponics Association (HAAA) has worked closely with the State Legislature and State and County governments to provide industry advocacy and support since 1975. The 2017 aquaculture industry farm gate value of \$76.4 million dollars now places the industry third in diversified agriculture's contribution to the economy. Support is needed to achieve greater benefits to the Hawaii economy, provide healthy seafood for local markets and export, generate good jobs, complement tourism and maintain rural communities. Hawaii is recognized as a national leader in aquaculture research, planning and development. An important reason has been the proactive policy and financial support from the State government that made aquaculture a priority in the State's portfolio of economic development initiatives. Implementation was in large part through the establishment of an Aquaculture Development Program (ADP), as the industry advocate within State government. However, with declined support, ADP lost its critical advocacy role to assist industry's economic development focus. By 2018, ADP had been downsized and made a section under the Animal Industry Division of DOA and the new mission emphasized product marketing rather than broad spectrum industry development.

ADP needs to be restored to the program in the Chairpersons' Office, Department of Agriculture (DOA) to provide the high-level visibility and stature to work across Departments on a variety of issues. Encouraging commercial aquaculture is consistent with long-term State goals to enhance food security, encourage sustainable industries, diversify the economy, and support rural development. We recommend reestablishment of aquaculture and aquaponics as State priorities and components of all economic development strategies and policies to reflect this strong commitment. We recommend reestablishment of the Aquaculture Development Program to be an effective aquaculture industry facilitator and advocate within State government for statewide sustainable development and provide staffing and budget commensurate with the statewide responsibility of growing new aquaculture businesses to advance the foals described above. The HAAA Board of Directors would be pleased to provide discuss aquaculture information, and details related to implementation of these goals.

## 1.0 Background, Aquaculture's Role in the Economy

The Hawaii Aquaculture and Aquaponics Association (HAAA) and its predecessor organizations have provided industry advocacy and support since 1975. Over the years, HAAA has worked closely with the State Legislature, State and County governments, the University of Hawaii (UH) and private partners like the Oceanic Institute (OI), on a shared mission to foster the sustainable statewide expansion of commercial aquaculture and more recently aquaponics. We understand that further development and expanding the diversity of species and technologies can achieve greater benefits to the Hawaii economy, provide healthy seafood for the local market and export, generate good jobs, complement tourism and help maintain rural spaces, life styles and communities.

**Past success is underscored by the 2017 aquaculture industry farm gate value of \$76.4 million dollars, that places the industry as high as 3<sup>rd</sup> in Diversified Agriculture's contribution to the economy, behind seed crops and livestock.** To highlight a few bright spots: the diversity of species grown at the Natural Energy Laboratory of Hawaii Authority (NELHA), establishment of the Pacific Aquaculture and Coastal Resources Center in Hilo, internationally impactful marine shrimp and fish research at UH and OI, establishment of the Center for Tropical and Subtropical Aquaculture that serves Hawaii and the U.S. Flag Islands, the emergence of aquaponics, a resurgence of interest in restoring ancient Hawaiian fishponds, and the recent State funding for an Aquaculture Business Incubator at NELHA to foster entrepreneurship **(HAAA would be happy to provide more industry details and organize facility visits).**

## 2.0 Status of Government Support

Recently, the Board of Directors (BOD) of HAAA reviewed current industry support available from State government and UH and compared it to previous years, circa 2000 to the present. We note there has been virtually no growth in industry value since 2014. In recent years, the State has made significant investments in aquaculture research, planning and infrastructure, recognizing the growing global need for aquatic protein and the opportunities for sale of seafood products, technology and technical services, as well as offering educational opportunities.

State funds also leveraged large amounts of Federal and private research funding that have widespread benefit to the economy. The islands sub-tropical climate, geographic isolation, and natural resources provide production advantages to certain types of aquaculture. The BOD review concluded that tangible State support of development has been reduced significantly in recent years, particularly with respect to direct, hands on assistance to existing and prospective business investment.

Historically, Hawaii was recognized as a national leader in aquaculture research, planning and development, particularly in marine (salt water) aquaculture or mariculture. One important reason was the proactive expansion policy and significant financial support from the Legislature and State government, that made aquaculture a priority in the State's portfolio of economic



development initiatives. Implementation was in large part through the establishment of an Aquaculture Development Program (ADP), as the lead program and industry advocate within State government. However, support has shrunk significantly since 2000 and HAAA believes the Program has lost its economic development focus. ADP has had to drastically curtailed its critical advocacy role and capacity to assist industry by virtue of major changes in organization, staffing, and budget.

- **Change in Organizational Placement-** ADP at the beginning of the 21<sup>st</sup> Century was a program in the Chairpersons' Office, Department of Agriculture (DOA) – essentially at Division level. Reporting to the Chair of DOA provided the high-level visibility and stature to work across Departments on a variety of issues, as well as represent the State at national and international forums.

By 2018, ADP had been downsized and made a Section under the Animal Industry Division, DOA (see Staffing discussion). In addition, the responsibilities of the Program were changed by adding support for the Livestock Industry (e.g., cattle and pigs) to its role and it was renamed Aquaculture and Livestock Support Services (ALSS). Importantly, the new placement and mission emphasized product marketing rather than broad spectrum industry development.

- **Reduction in Staff-** In 2000 ADP had a staff of seven. The seven positions were: Manager, Secretary, Aquaculture Specialist, Marketing Specialist, Aquaculture Veterinarian, and two veterinary technicians (Prior to 1997 the Program also had an Information Specialist and a Clerk Typist). This Staff handled: planning and policy; industry support services and direct assistance (i.e., finding sites, facilitating permits, providing information, marketing of products and technical services and disease prevention and management); and a small research and extension budget to match a yearly UH Sea Grant research and extension program.

Today the Program consists of a Manager, Aquaculture Specialist, and Economic Development Specialist. The Veterinarian and one technician remained in the Animal Industry Division supervised by the Division Head and focused on managing one important industry segment the disease-free shrimp certification program that helps private farms and OI export certified Specific Pathogen Free (SPF) shrimp broodstock to the mainland, South America and Southeast Asia. The unit no longer focuses on general disease diagnosis and prevention services to aquafarmers statewide. Amplifying the impact of this loss of ADP staff assistance was the loss of three key statewide technical extension positions in the UH Sea Grant Program, which were co-funded by ADP.

- **Reduced ADP Budget-** As with all State program budgets, after staff salaries are covered, there must be sufficient operating funds to provide for needed equipment,

supplies, travel, etc. to do the work; accomplish the industry expansion mission. In 2000, ADP was in the DOA and consisted of 7 positions previously described. The overall annual budget was \$502, 050, including salaries and operating funds.

In 2018 there were 3 positions and an overall budget of \$437, 913, a reduction of \$64,137. The combined staff and funds reduction have severely reduced the scope of Program activities and its ability to work with its partners and leverage additional resources.

### **3.0 Why a New Aquaculture Focus**

#### **3.1 Fits Long-term State Goals**

Encouraging commercial land based and ocean farming is consistent with long-term State goals for the future, as defined by the Governor and the Legislature.

- **Enhance Food Security**- Hawaii imports around 90 % of its food overall and 70 % of the seafood consumed. The Governor wants to increase Island food production and self-sufficiency so that we would be less impacted by the interruption of imports. Considering Hawaii's per capita seafood consumption is nearly 3 times the U.S. mainland (46 lbs. per person), with a large and growing tourist market component, expanding commercial aquaculture makes sense as a component of a food security strategy.
- **Encourage Sustainable Industries**- Hawaii must continue to grow and diversify its economy and generate good jobs for its citizens. However, business development should fit with conservation of our natural resources and community desires for sustainable industries, that help preserve a quality environment and quality of life for future generations. Modern aquaculture technologies offer a variety of valuable fresh, brackish and saltwater species for culture and likewise a variety of land-based and ocean farming systems that have been demonstrated sustainable. While finding sites for farms can be challenging on land and in the ocean, suitable locations do exist on all islands.
- **Support Rural Development**- In economic development terms, Hawaii's urban centers offer the preponderance of jobs. Rural communities around the state have more limited options to grow and maintain needed commerce, e.g., various tourist destination models and agriculture farming by families and corporations. Aquaculture adds another farming option for job generation in rural areas that can preserve preferred life styles and open space.

#### **3.2 A New National Aquaculture Initiative**

With the change in Administrations in Washington DC and a Congress interested in growing the economy and job generation, aquaculture development has gotten increased attention. Congress is very concerned that 90 % of U.S. seafood is imported, largely from Third World

countries, and domestic seafood production must be increased. HAAA believes it is very timely for the State to strengthen its commitment to expanding the Island industry.

A number of recent actions by the Administration and Congress illustrate this new momentum. There have been significant increases in research funding for aquaculture in the National Sea Grant Program, Department of Commerce and the Regional Aquaculture Center Program, Department of Agriculture. The Office of Aquaculture in NOAA Fisheries has funding for a National Marine Aquaculture Initiatives for fish and shellfish and there is a new announcement for Saltonstall-Kennedy funding targeting aquaculture topics. The Department of Energy has a large research/demonstration grant program focused on growing seaweeds in the ocean for energy generation – a Hawaii company got one of the grants. These R&D efforts are being complemented by nationwide efforts to streamline the federal government regulatory process for commercial aquaculture.

The most exciting recent occurrence deals with the introduction in 2017 of the Advancing the Quality and Understanding of American Aquaculture Act (AQUAA), S 3138, by Senator Roger Wicker of Mississippi. The bill would among other things establish a lead agency for marine aquaculture in NOAA that could issue permits for siting commercial farms in U.S. Federal waters, the Exclusive Economic Zone, and assist state-level development. More important to Hawaii aquaculture interests, the bill authorizes \$350 million dollars over 5 years to implement the legislation. Suitable areas to farm in the EEZ would be identified and subject to a Programmatic Environmental Impact Statement and research would target high leverage technical bottlenecks and demonstration of applied technologies.

Hawaii with its experienced University and private sector marine aquaculture research community and infrastructure could greatly benefit from the bill. Particularly relevant is the state's track record in commercial, open ocean aquaculture - Hawaii currently has the only open ocean fish farm in the U.S. – and the growing opportunity to attract additional private investment, which is on the rise all around the world.

#### **4.0 Conclusions and Recommendations**

HAAA agrees with the United Nations and strongly believes in clearly evident national and global trends that increases in seafood supply must come from aquaculture and the next frontier for development is the open ocean. The U.S. is beginning to embrace these ideas and recent actions by the Administration and Congress underscore that conclusion. The Hawaii aquaculture community can realize many future benefits from the increasing national commitment to freshwater and marine aquaculture and HAAA has two recommendations to position the state to realize these benefits:

- 1) Re-establish aquaculture and aquaponics as State priorities and a component of all economic development strategies, policies and plans, so State and County governments, the University of Hawaii and private universities, the private investment and technology sectors, and the general public understand this strong commitment.**

- 2) Rebuild the Aquaculture Development Program as an effective aquaculture industry facilitator and advocate within State government for statewide sustainable development. Give the Program Division status within DOA and provide staffing and a budget commensurate with the statewide responsibility of siting and growing new aquaculture businesses.**

**The HAAA BOD would be happy to discuss the information in this White Paper and provide additional information.**

**SB-753**

Submitted on: 1/29/2019 12:46:15 PM

Testimony for AEN on 1/30/2019 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melodie Aduja	Testifying for O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:



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

January 30, 2019

HEARING BEFORE THE  
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

**TESTIMONY ON SB 753**  
RELATING TO AQUACULTURE

Room 224  
1:15 PM

Aloha Chair Gabbard, Vice Chair Ruderman, and Members of the Committee:

I am Brian Miyamoto, Executive Director 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 strongly supports SB 753**, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Hawaii had an innovative aquaculture development program (ADP) during the 1980's and 1990's, initially under DBEDT, then DLNR, and finally DOA. ADP assisted prospective farmers and investors in many ways, including technical assistance, help with site selection and permitting, and perhaps most importantly, providing a strong voice within government in support of aquaculture as a desirable and appropriate industry for Hawaii. ADP played a large part in creating an industry that, starting from almost zero in the 1970's, now generates more than \$70 million annually and is one of the largest sectors of Hawaii's diversified agriculture. Unfortunately, despite its success, ADP has been reduced in staff and function, ultimately being folded into the Animal Industries division of DOA and continues to be downsized. It is no coincidence that Hawaii's aquaculture revenues have leveled off in recent years. In order to restore ADP's ability to help develop aquaculture as a beneficial and sustainable industry for Hawaii, we believe that the following provisions are necessary: 1) increased information dissemination to industry, 2) assistance with siting and permitting, 3) enhance existing aquatic disease prevention services, and 4) increase in staffing.

Thank you for this opportunity to testify on this important measure.

**SB-753**

Submitted on: 1/25/2019 4:18:41 PM

Testimony for AEN on 1/30/2019 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Javier Mendez-Alvarez	Individual	Oppose	No

Comments:

**From:** [Christine Brammer](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 12:39:00 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,



**From:** [Megan Kono](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 12:02:38 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Justin Teixeira](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 11:55:21 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Randy Cabral](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 11:33:57 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [William Steiner](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 9:07:57 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Mark Phillipson](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 8:41:14 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Jari Sugano](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 7:54:07 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

2029 Nuuanu Ave. #1510  
Honolulu, Hawai'i 96817  
January 28, 2019

Senator Mike Gabbard, Chair  
Senator Russell E. Ruderman, Vice Chair  
Senate Committee on Agriculture and Environment  
Hawaii State Capitol, 415 S. Beretania St.  
Honolulu, Hawai'i 96813

Dear Chair Gabbard, Vice Chair Ruderman, and Members of the Committee:

I am sending this testimony to express my **strong support for the intent of SB 753**, "Relating to Aquaculture," which would appropriate funds to revitalize Hawai'i's aquaculture development program. Hawai'i had an excellent aquaculture development program during the 1980's and 1990's – good enough that other states modeled their programs after Hawai'i's. Hawai'i's original Aquaculture Development Program (ADP) played a large part in creating an industry that generates more than \$70 million in annual revenues, and is now one of the pillars of Hawai'i's diversified agriculture.

I have been involved in aquaculture production and consulting since 1979. In 1983, with a partner, I started a farm (Hawaiian Marine Enterprises) to produce *ogo* (edible seaweed), which at that time was becoming scarce due to overharvesting and other factors. ADP staff helped us find a suitable farm site and provided a small proof-of-concept grant which helped us get established. We operated the farm profitably for 27 years, until our lease expired and the land was sold.

Although our farm prospered during its existence, ADP was not so fortunate. Due to budget cuts, the program was reduced and eventually folded into the Animal Industries division of DOA. The expertise of its current small staff is primarily in marketing, while its original, larger staff had expertise in biology, production technology, economics, and outreach as well as marketing. Its former status as a program directly under the department chair's office has also been diminished, reducing its influence within Hawai'i's government. I do not believe that these problems will be solved simply by providing a short-term increase in operating funds as proposed by SB 753. In order to restore ADP's ability to help develop aquaculture as a beneficial and sustainable industry for Hawai'i, I believe that the following provisions are necessary:

- Increased staffing with broader expertise than currently exists in Animal Industries.
- Sustained multi-year funding for both staff and operations, as was the case in the 1980's and 1990's.
- Restoration of ADP's status as a program under the HDOA chair, or possibly as a separate division.

I hope that SB 753 can be amended to include the above provisions. I hope, further, that the “institutional knowledge” of former ADP staff will be sought in the effort to re-establish the program going forward.

With abundant sunlight and seawater, and continuing demand for seafood products, aquaculture has great potential for further growth in Hawai‘i. Recognizing this potential, last year’s Legislature appropriated funds for an aquaculture incubator at NELHA. Eventually the companies founded at the incubator will need to find suitable sites, obtain permits, raise capital, and transform pilot-scale operations into full-scale production facilities. An ADP that can assist them in this difficult transition will make it more likely that they will choose to locate their production facilities – and the associated jobs and revenues – within Hawai‘i.

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

Sincerely,

A handwritten signature in cursive script that reads "Frederick M. Mencher".

Frederick M. Mencher



**SB-753**

Submitted on: 1/29/2019 9:47:46 AM

Testimony for AEN on 1/30/2019 1:15:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
J Ashman	Individual	Support	No

Comments:

**From:** [melvin kunitake](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Tuesday, January 29, 2019 12:03:22 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

THE SENATE THE THIRTIETH LEGISLATURE REGULAR  
SESSION OF 2019

COMMITTEE ON AGRICULTURE AND ENVIRONMENT Senator Mike  
Gabbard, Chair Senator Russell E. Ruderman, Vice Chair

DATE: Wednesday, January 30, 2019 TIME: 1:15 p.m. PLACE:  
Conference Room 224 State Capitol 415 South Beretania Street

**Re: SB 753 Relating to  
Aquaculture**

Dear Chair Gabbard, Vice Chair Ruderman, and Committee  
Members

I write in support of **SB 753**, to appropriate funds for operational expenses to revitalize the aquaculture development program and to expand the industry statewide.

People want fresh, wholesome seafood. People want locally produced products. The State wants to expand local production and economic revenues. In 2017 aquaculture industry farm gate value (\$76.4 million) places the industry third in diversified agriculture's contribution to the economy. This was accomplished with little governmental support, but reflects the statewide demand for aquaculture products.

Support is needed to enhance these benefits to the Hawaii populace, the State economy, and generate good jobs for our young people particularly in rural communities. Hawaii has long been recognized as a national leader in aquaculture research, planning and development. An important reason has been the proactive policy and financial support from the State government that made aquaculture a priority in the State's portfolio of economic development initiatives such as the Aquaculture Development Program (ADP), as the industry advocate within State government. However, with declined support, ADP lost its critical advocacy role to assist industry's economic development focus.

ADP should be restored to the program status in the Chairpersons' Office, Department of Agriculture (DOA) to provide the high-level visibility and stature to work across Departments on a variety of issues. Encouraging commercial aquaculture is consistent with long-term State goals to enhance food security, encourage sustainable industries, diversify the economy, and support rural development. We recommend reestablishment of aquaculture and aquaponics as State priorities and components of all economic development strategies and policies to reflect this. Aquaculture present substantial growth potential.

Thank you for the opportunity to testify in support of this important measure.

Sincerely,

Paul Bienfang, Ph.D.  
President, Analytical Services LLC  
P.O.Box 62311  
Honolulu, HI 96839

**From:** [Joanna Nobriga](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 5:56:19 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Lorie Obra](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 6:26:07 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Alvin Tsuruda](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 6:27:59 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Roy Asao](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 6:35:24 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,



**From:** [Diane Chuensanguansat](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 6:36:25 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Jill Coryell](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 6:40:25 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Patty GOODWIN](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 7:21:22 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [David Makaiwi](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 7:41:35 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Melvin Matsuda](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 7:41:59 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [donald sommer](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 12:51:11 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Rhonda Anduha](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 1:03:23 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Stephanie Whalen](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 7:45:52 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

More and more entrepreneurs are moving into aquaculture. It is a path to a low or no input system: avoiding the pathogens in soil, significantly reducing water use (a critical resource in our world today)and avoiding or significantly reducing the introduction of other inputs.

Thank you for the opportunity to testify on this measure.

Sincerely,



**From:** [Helena Miguel](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 8:01:14 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Kenneth Kaneshiro](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 8:07:04 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Dan Springer](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 8:58:31 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Kylie Matsuda-Lum](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 9:03:23 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [GLENN TOYAMA](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 9:49:25 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Jason T. Okuhama](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 9:55:38 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Barry Kim](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 10:07:54 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Stefanie Delmont](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 11:12:22 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,



**From:** [Young Tarring](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 11:19:23 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Elton Hara](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 12:55:34 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Linda Shum](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 2:31:22 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [kenneth kawakami](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 2:34:05 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Alan Gottlieb](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 4:11:01 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Annette Niles](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 9:31:11 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Erin James](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Tuesday, January 29, 2019 8:33:40 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [LUJANA BECK](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Tuesday, January 29, 2019 4:37:14 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,



**From:** [Sharon Iwasaki](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Tuesday, January 29, 2019 7:39:36 PM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,

**From:** [Laila Jayyousi](#)  
**To:** [AEN Testimony](#)  
**Subject:** I Support SB753  
**Date:** Monday, January 28, 2019 5:52:33 AM

---

Dear Chair Gabbard, Vice Chair Ruderman, & members of the committee:

I strongly support SB 753 - Relating to Aquaculture, which appropriates funds for operational expenses for revitalizing the aquaculture development program within the department of agriculture.

Thank you for the opportunity to testify on this measure.

Sincerely,