



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Higher Education and Technology
Wednesday, February 16, 2022 at 2:00 p.m.

By
Darren T. Lerner, PhD
Director
University of Hawai'i Sea Grant College Program
And
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Provost
University of Hawai'i at Mānoa

HB 2302 HD1 – RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

Chair Takayama, Vice Chair Clark, and members of the committee:

The University of Hawai'i Sea Grant College Program (Hawai'i Sea Grant) supports HB 2302 HD1, provided that its passage does not replace the priorities as indicated in the University's Board of Regents Approved Budget.

This Bill is urgently needed because there is more hazard risk than people realize, particularly with regard to hurricanes. Note the following:

- 1) A Pacific Disaster Study conducted after the near hit of Hurricane Lane in 2018, estimated a Category 2 strike on O'ahu would result in 52,000 displaced households and 27 billion dollars in damage.
- 2) A 2019 Hurricane Behavioral Study by FEMA, the Army Corps of Engineers and the Hawai'i Emergency Management Agency found the average citizen was ill-prepared and had not properly gathered their supplies or readied their homes. The number one recommendation was increased education and outreach. The second was help in hardening homes. Both are important to make the State resilient.
- 3) A 2019 Communication Outreach and Education Study conducted by Hawai'i Sea Grant, at the request of the 2017 HI State Legislature, concluded that education and outreach should be significantly increased with traditional and non-traditional methods on a continuous long-term basis to inform and prepare citizens in the State. The report was submitted to the 2020 Legislature and is available online at the link below.
- 4) In 2020 Hurricane Daniel threatened the Hawaiian Islands and a Hurricane warning was called for Oahu for the first time in recent history. A 2021 presentation by the

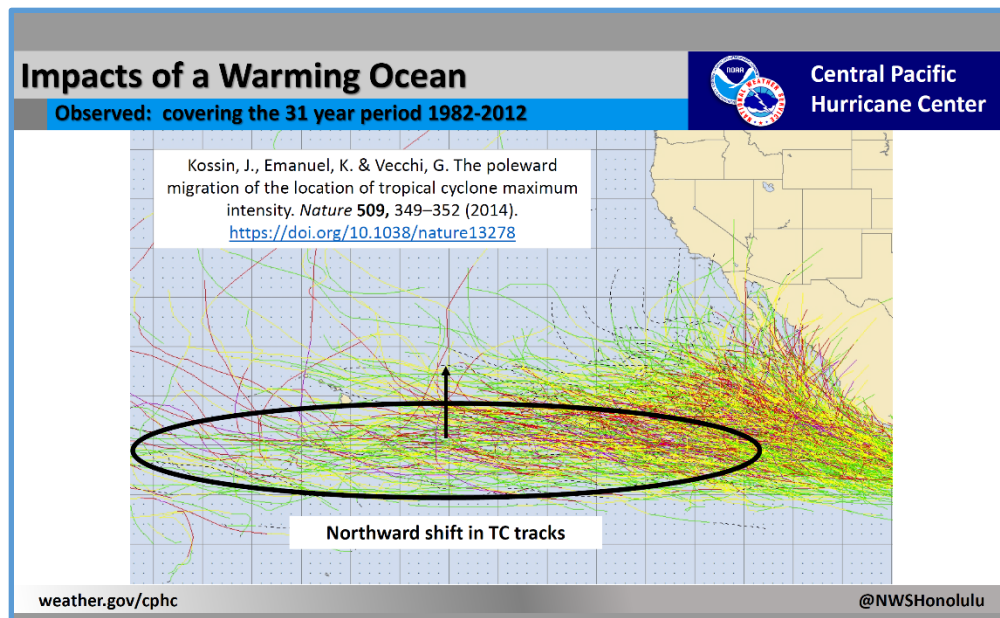
Central Pacific Hurricane Center indicates tropical cyclone tracks may shift north in the future attributed to warming waters and climate change. See graphic below. This would increase the risk of Hurricanes such as Daniel impacting the State.

Hawai'i Sea Grant is well positioned to continue and increase its education and outreach of hurricane risk and preparation around the State. The *Homeowner's Handbook to Prepare for Natural Hazards – 4th Edition* (link below) provides useful tips regarding readiness for natural hazards such as tsunami, earthquakes, floods and hurricanes. The handbook lists local civil defense and emergency management agency information, provides guidance on emergency supplies, evacuation planning, and explains various measures to reduce property damage through home retrofit. This publication has gone through ten print runs with over 100,000 copies and has been modified for thirteen U.S. states and other countries based off the Hawaii book. The 4th Edition, released in late 2019, was a major update with more options on home retrofit, as well as evacuation planning guidance and sections on volcanoes and climate change.

In the last three years, Sea Grant has participated in over 100 outreach events, and given almost 30,000 Homeowner's Handbooks. We have provided free books to individual homeowners as well as large organizations such as: (Catholic Charities – 280), (AARP – 63), (Be Ready Manoa - 80), (Zephyr Insurance – 200), (Kahala Emergency Fair – 80), (Cross Island Resilience Network consisting of 21 Communities on O'ahu – 2,800), Hawai'i Public Library System – 480 with another 600 requested for all 51 public libraries around the State). All Emergency Management and Civil Defense Agencies have received an initial allotment of 1,000 books. Maui Emergency Management Agency has requested another 500. It is estimated about 7,000 homes have been retrofitted since 2007, through the education and outreach of many organizations, including Hawai'i Sea Grant. Many homeowners who retrofit plan on using their locations to shelter their families and/or friends, so there is a multiplier in the relief on hurricane shelter demand.

Hawai'i Sea Grant is committed to continued partnership with all emergency management and civil defense agencies at the State and county level in order to make our communities more resilient and foster a greater culture of preparedness in Hawai'i.

Thank you for the opportunity to testify on this measure.

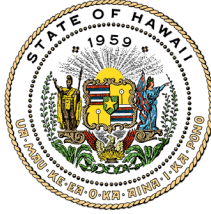


Homeowners Handbook to Prepare for Natural Hazards – 4th Edition

<http://seagrantsoest.hawaii.edu/homeowners-handbook-to-prepare-for-natural-hazards/>

Communication Plan and Outreach Strategy Submitted to the 2020 Legislature

<https://seagrantsoest.hawaii.edu/wp-content/uploads/2020/09/Communication-Strategy-Outreach-Plan-V.1.pdf>



STATE OF HAWAII
DEPARTMENT OF DEFENSE
HAWAII EMERGENCY MANAGEMENT AGENCY

TESTIMONY ON HOUSE BILL 2302, HD1
RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

BEFORE THE HOUSE COMMITTEE ON
HIGHER EDUCATION & TECHNOLOGY
BY

Luke P. Meyers
Administrator, Hawai'i Emergency Management Agency (HI-EMA)

FEBRUARY 16, 2022

Aloha Chair Takayama, Vice-Chair Clark, and Members of the Committee:

Thank you for the opportunity to submit testimony in **SUPPORT** of HB2302, HD1

House Bill 2302, HD1 appropriates moneys for the continued operation and disaster preparedness outreach efforts of the University of Hawaii Sea Grant College Program.

The University of Hawaii College Sea Grant Program has been and continues to be an important partner with the Hawai'i Emergency Management Agency (HI-EMA) in preparing readiness materials for the people of Hawai'i. Past projects include the "Homeowner's Handbook to Prepare for Natural Disasters," which was, in part, funded by grants administered by the HI-EMA; as well as other emergency preparedness public outreach avenues.

These continued education measures to help Hawai'i residents be prepared for, mitigate against, and recover from disasters are vital to the safety and resiliency of the state.

The HI-EMA supports this bill provided that the appropriation does not conflict with the Governor's budget priorities.

Thank you for the opportunity to provide testimony on House Bill 2302, HD1.

Luke P. Meyers: Luke.P.Meyers@hawaii.gov; 808-733-4300



STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY
ON
HOUSE BILL NO. 2302, H.D. 1

February 16, 2022
2:00 p.m.
Room 309 and Videoconference

RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill No. 2302, H.D. 1, appropriates an unspecified amount of general funds for FY 23 for the continued operation and disaster preparedness outreach efforts of the University of Hawai'i Sea Grant College Program.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.

HB-2302-HD-1

Submitted on: 2/14/2022 9:34:27 AM

Testimony for HET on 2/16/2022 2:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Wesley Oda	Be Ready Manoa, an approved not for profit disaster preparedness organization	Support	No

Comments:

The UH Sea Grant program provides an important public service to the residents of this State by publishing and maintaining the Homeowners Handbook - which they make available free of charge to local residents. Be Ready Manoa has provided this reference book to many residents of Manoa valley as part of our mission, which is to educate and prepare as many of our residents to being disaster prepared. Dennis Hwang is always willing/able to conduct free in-person (pre-pandemic) and virtual (during the pandemic) workshops on the importance of hardening your home to allow as many residents to shelter in place during an emergency like a hurricane. He has also been willing to participate in many community fairs - the most recent of which was the Aina Haina Prepared fair that was held in January in the Kahala Mall - to provide further education about hardening your home and to distribute the Homeowners Handbook. It is not a matter of 'if' but 'when' a natural disaster will happen - and we must have support from programs like the UH Sea Grant to educate residents on the importance of being disaster prepared. Thank you - in advance - for your serious consideration and support of this bill. Wesley Oda, President, Be Ready Manoa.

Testimony for HB 2302

I am Dr. Kioni Dudley. I organized a major meeting on “our great unpreparedness for hurricanes” for our Makakilo-Kapolei-Honokai Hale Neighborhood Board in December. We brought in experts to talk on the facts I will discuss below.

First of all, if we have a major hurricane, local emergency management agencies tell us that as many as 300,000 of our people will seek shelters, but we have only 38 shelters altogether on O’ahu. And we have no shelters whatsoever on O’ahu for a Category 3 or above. There is simply no safe place to go in a Category 3, 4, or 5.

So people will stay in their homes. But 184,000 homes are extremely unsafe. That’s what this bill is all about. If we get a Category 5 hurricane, hundreds of thousands may die in their homes. If they don’t die, HI-EMA tells us that 300,000 to 700,000 may become homeless. We need massive programs of retrofitting homes and building safe rooms. And we need them now. This bill addresses retrofitting. But we also need many millions for safe rooms.

We only have one week’s supply of food on the island. All that food will be bought up before the hurricane strikes. With damage to ports and airports, we anticipate having no food come in for weeks. Once food comes in, we may have no way to get it to people. All of our distributors are down in the Sand Island Rd. – Nimitz Blvd. area, at roughly only 12 feet above sea level. Storm surge may have wiped them out. To prepare for this, we need 15 million Meals Ready to Eat (MRE) and we need to construct safe buildings in various parts of the island in which to store them.

We will have no electricity, no elevators working in high rises, and no water. No water. For some places there will be no access for ambulances or fire engines. We are facing disaster.

Why are we suddenly asking for all this hurricane preparation? Climate change has caused more spawning of hurricanes in the Central Pacific, rather than over below Baja California. And with warmer seas farther north, their paths have come north. Twice as many are now aimed at us as in previous years. Climate change has also made hurricanes much broader, much stronger, and faster to develop. And there’s another great problem: As hurricanes move north, there have always been tradewinds which tear them apart. But we have lost two trade wind days a year for fifty years; we now have tradewinds on a hundred less days than we did fifty years ago; we now have no trade winds on just over half of the days of the year. Should a hurricane move toward us during half the days of the year, there now will be nothing to stop it.

Hurricane Lane, a Category 5, passed south of the Big Island and headed directly toward O'ahu before turning away 2017. It's only a matter of time. We need so much. Billions rather than millions, in order to be ready. This is a good bill. A good start. Can you do more?

HB-2302-HD-1

Submitted on: 2/11/2022 9:27:33 PM

Testimony for HET on 2/16/2022 2:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Alice Saul	Individual	Support	No

Comments:

Testimony on HB2302 HD1 Relating to the University of Hawaii Sea Grant College Program

Please support passage of the provision in HD2302 HD1 which aims to facilitate the distribution of The Homeowners Handbook to Prepare for Natural Hazards. This is the single most informative, practical, and productive publication available on disaster preparation as it addresses directly the hazards specific to Hawaii.

I am personally engaged in seeing that anyone in my community of over 200 families who might not be able to readily access the information digitally can have this important reference source available to them. The University of Hawaii Sea Grant program has been very helpful in this regard.

Thank you.

Aloha

Alice Saul
Kuapa Isle, Hawaii Kai
Honolulu

TESTIMONY PRESENTED BEFORE THE
HOUSE COMMITTEE ON HIGHER EDUCATION AND TECHNOLOGY
February 16, 2022 2:00 PM

By

Dennis Hwang
HB2302 – RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT
COLLEGE PROGRAM

Chair Rep. Gregg Takayama, Vice Chair Rep. Linda Clark and members of the committee:

I am Dennis Hwang, Faculty at the UH Sea Grant College Program. Since 2007, I have helped Sea Grant with hazard education and outreach related to the Homeowners Handbook to Prepare for Natural Hazards. In 2020, we also sent to the Legislature an Education and Outreach Plan to Prepare Hawaii for Natural Hazards. The Plan was based on Lessons Learned from conducting over 300 outreach/education events and concepts of Social Science. The links for both the Handbook and Communication Plan are found below.

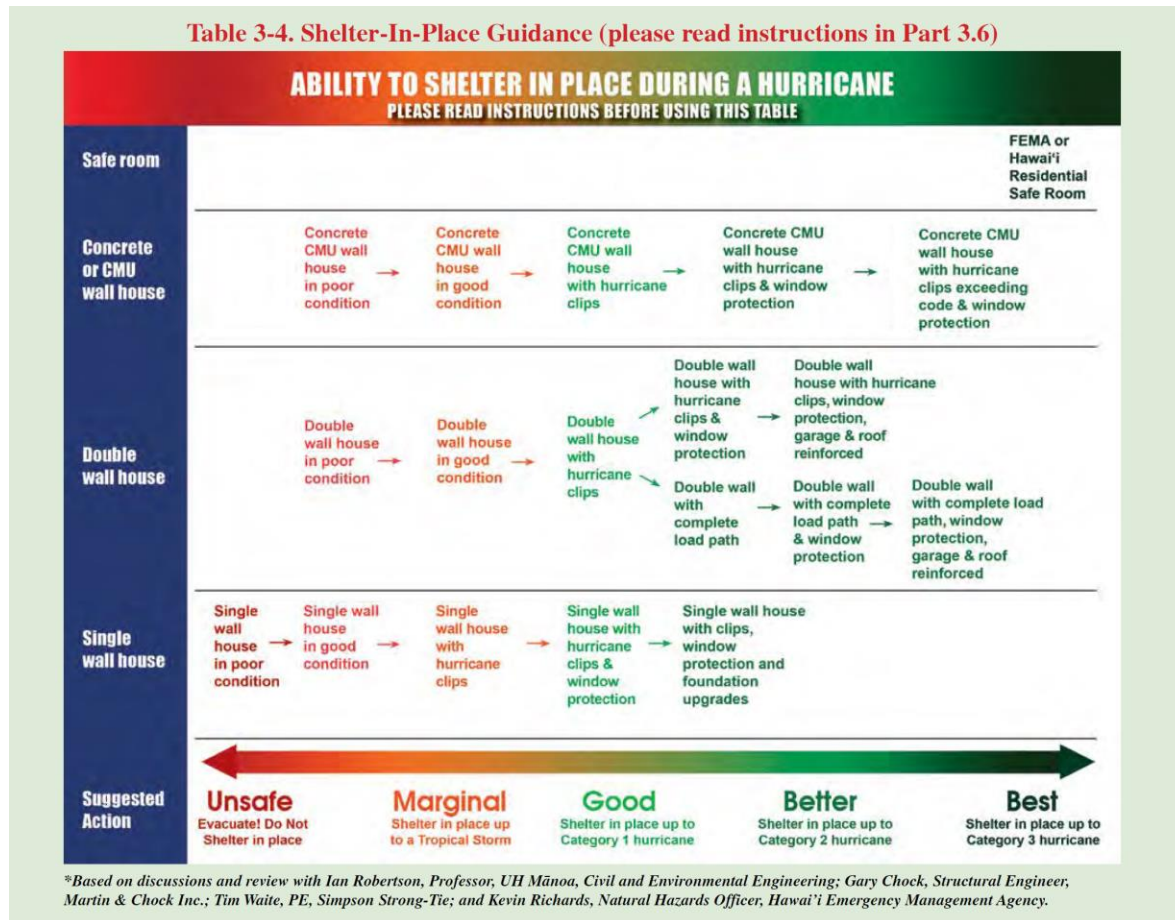
Today I am speaking as a private citizen. I support HB2302 as there is more risk than the general public realizes. To make our community more resilient, it will take a concentrated effort using traditional education/outreach methods and Social Science Concepts. Sea Grant is well suited to carry out this mission as shown by the resources provided below.

Please note:

- 1) Through research, field work and partnerships – the Handbook provides the most up to date mitigation measures to reduce hurricane damage to homes. We work with structural engineers and architects, as well as agencies such as the FEMA Building Science Branch and Institute of Building and Home Safety. We have participated in field assessments after Hurricane Harvey hit Texas in 2017 and Hurricane Ida struck Louisiana in 2021. The Handbook provides guidance measures that are hazard resilient, environmentally sustainable and adaptive to a changing climate.
- 2) There is strong demand for the book. Maui Emergency Management Agency asked for 600 after receiving an initial 1,000. The Hawaii Public Library System, which distributes to all 51 of their libraries around the State on all islands recently asked for 600 more after receiving an initial 480. The Cross Island Resilience Network which consists of over 20 resilience organizations around Oahu (e.g., Aina Haina, Hauula, Kaaawa, Kailua, Kaneohe, Manoa, Wahiawa, Waianae, Waimanalo, and Foster Village) requested and picked up 2,800 books. Catholic Charities and the Lanakila Multi-Purpose Senior Center asked for 300 books.
- 3) A major vulnerability for Hawaii is shelter space for a hurricane. Through education with our partners approximately 7,000 homes have been retrofitted. While more

needs to be done, this is significant since many of these homeowners plan to shelter relatives during severe weather. This will relieve demand on shelter space.

- 4) In general, Hawaii residents need to be better educated on where to go during a hurricane. In the Handbook, there is a shelter in place table which provides scientific and engineering based guidance on when people can shelter in their homes (see below). During a hurricane, many people may shelter in homes that are not sufficiently strong. Systematic and sustained education/outreach which HB2302 provides can help homeowner's create sound evacuation/emergency plans.



For the reasons above, I support HB2302 - Thank you for the opportunity to testify.

Dennis Hwang
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Homeowners Handbook to Prepare for Natural Hazards – 4th Edition

<http://seagrant.soest.hawaii.edu/homeowners-handbook-to-prepare-for-natural-hazards/>

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