

MINUTES

BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION MEETING

JUNE 1, 2023

I. CALL TO ORDER

Chair Eugene Bal called the meeting to order at 12:37 p.m. on Thursday, June 1, 2023, at the University of Hawai'i (UH) at Mānoa, Information Technology Building, 1st Floor Conference Room 105A/B, 2520 Correa Road, Honolulu, Hawai'i 96822, with Regents participating from various locations.

Committee members in attendance: Chair Eugene Bal; Vice-Chair William Haning; Regent Laurie Tochiki; and Regent Ernest Wilson.

Committee members excused: Regent Abigail Mawae.

Others in attendance: Board Chair Randy Moore; Regent Wayne Higaki; and Regent Laurel Loo (ex officio committee members); President David Lassner; Vice President (VP) for Academic Strategy Debora Halbert; VP for Legal Affairs/University General Counsel Carrie Okinaga; VP for Research and Innovation Vassilis Syrmos; VP for Information Technology/Chief Information Officer Garret Yoshimi; Interim VP for Community Colleges Della Teraoka; UH Hilo Chancellor Bonnie Irwin; UH West O'ahu Chancellor Maenette Benham; Executive Administrator and Secretary of the Board of Regents (Board Secretary) Yvonne Lau; and others as noted.

II. APPROVAL OF MINUTES

Chair Bal inquired if there were any corrections to the minutes of the February 2, 2023, committee meeting which had been distributed. Hearing none, the minutes were approved.

III. PUBLIC COMMENT PERIOD

Board Secretary Lau announced that the Board Office did not receive any written testimony, and no individuals signed up to provide oral testimony.

IV. AGENDA ITEMS

A. Research Project Briefing: “Modeling Future Sea Level Rise (SLR) Impacts in Hawai'i with the Climate Resilience Collaborative (CRC)” Presentation by Dr. Charles (Chip) Fletcher, Interim Dean and Professor, School of Ocean Earth Science and Technology (SOEST), University of Hawai'i at Mānoa

VP Syrmos introduced and globally renowned expert on climate change as it relates to SLR, who will be providing the research project briefing. He noted that impactful research in the realm of climate change is occurring at the university under the leadership and guidance of Dr. Fletcher and pointed out that Dr. Fletcher's advice on this

issue is often sought out by public and private entities around the world, particularly from those located in coastal areas where SLR will have the greatest impacts.

Dr. Fletcher delivered a presentation on work being done by the CRC, a two-year old Office of Naval Research and National Oceanic and Atmospheric Administration funded research program at SOEST, to model future SLR impacts in Hawai'i. He provided a general overview of SLR going over some of the methods by which SLR is determined; went over 30-year trend data on both regional SLR and global mean SLR stating that there has been an acceleration of SLR over the last decade; talked about the various causes of SLR including the melting of Earth's glaciers and ice caps, thermal expansion of the world's oceans as a result of elevated temperatures associated with global warming, and groundwater depletion related to human activity; and discussed forecasts for the future of SLR emphasizing that current data indicates with a high degree of confidence that sea levels will continue to rise for millennia and is an unstoppable reality.

Although uncertainty remains about the actual amount of SLR that will occur in the coming decades, Dr. Fletcher remarked that mathematically modeled scenarios using tide-gauge data have been developed for planning purposes with respect to SLR. He reviewed some of these scenarios stating that potential courses of action to address the impacts of SLR are predicated on the amount by which water levels rise with most estimates predicting between a four to six feet increase by the end of this century. He also spoke about the impacts of SLR which include flooding, coastal erosion and land loss, groundwater pollution, and storm drain failure, providing examples for each of these issues; offered insights into the work of the CRC, highlighting that the primary objective of this program is to gain a better understanding of challenges related to climate change through the lens of SLR; delved into some of the coastal erosion, flooding, and groundwater impact models developed by the CRC for varying amounts of SLR; and demonstrated the use of the SLR viewer, an interactive website created by CRC that visually displays the impacts of a variety of SLR scenarios via map overlays.

Board Chair Moore asked whether the efforts of the CRC, and the models it has generated, are being used to formulate public policy with respect to planning for SLR. Dr. Fletcher replied in the affirmative highlighting several building code and shoreline setback policies that were developed utilizing data and modeling from the CRC. He also stated that convincing individuals about the impacts of SLR has not been difficult. Rather, the challenge lies in getting people to understand the urgency of the situation.

Referencing the various activities being conducted by the CRC, Board Chair Moore questioned whether work was being done to develop hurricane storm surge flooding scenarios relative to SLR. Dr. Fletcher stated that the wave flooding impact models created by the CRC have not yet factored in hurricane storm surge. However, the CRC is planning to collaborate with Dr. Kwok Fai Cheung, a professor in SOEST's Ocean Engineering and Resources Department and foremost authority on hurricane storm surge modeling, to incorporate hurricane storm surge information into flooding impact models.

Regent Haning asked Dr. Fletcher if he has ever been invited to present this information to the Legislature or other organizations with responsibility over public health and safety issues. Dr. Fletcher replied he has given numerous presentations on climate change and sea level rise to a multitude of entities including the Legislature, government agencies, engineering companies, architectural firms, consulting companies, and schools.

Regent Wilson inquired about the installation of groins fronting the Sheraton Waikīkī Hotel and whether this was part of an effort to mitigate the impacts of SLR. He also asked about actions being taken with respect to protecting Hawai'i's coastal highways. Dr. Fletcher responded that the State Department of Land and Natural Resources was planning on placing T-head groins along the coast fronting the Sheraton Waikīkī Hotel to stabilize the beach which is being affected by SLR. With respect to coastal highways, state and county departments of transportation are scrutinizing several actions that can be taken to lessen the impacts of SLR on Hawai'i's transportation system including the moving of highways inland where possible. He also noted the importance of community engagement on these matters and spoke about efforts to do so via funds received through a federal grant.

B. Fiscal Year 2023 (FY23) Extramural Awards Update

1. FY23 Monthly Report of Extramural Awards (as of April 30, 2023)

VP Syrmos reported that the university received approximately \$440 million in extramural awards as of April 30, 2023, which was approximately 1.8 percent lower than the same period last fiscal year. However, as of June 1, 2023, the university has received roughly \$467 million in extramural awards, which was a 1.5 percent increase over the same period last fiscal year. He provided a breakdown of trends, significant awards, and award amounts by campus; summarized data pertaining to various research and innovation metrics; and indicated that, if the current trend continues, the university anticipates receiving in excess of \$500 million in extramural research funding by the end of FY23.

Chair Bal remarked that the trend in the university's receipt of extramural research funds over the last several years was a remarkable achievement and indicative of a healthy research enterprise system. He stated that this also served as a testament to the hard work of VP Syrmos and his staff, as well as the research offices, units, and faculty of the university, and congratulated everyone for a job well done.

C. Committee Annual Review

Chair Bal referenced the committee annual review matrix provided in the materials packet stating that it sets forth the goals and objectives for the committee, as well as the actions carried out by the committee throughout the year.

VP Syrmos expressed his gratitude to Chair Bal for his steadfast service and commitment to the university, particularly in the realm of research and innovation, his exemplary work as a member of the board, and his outstanding leadership in the technology sector for both the university and the state. He also praised the work of

Board Chair Moore, as well as his commitment and dedication to the university and the community.

V. ADJOURNMENT

There being no further business, Chair Bal adjourned the meeting at 1:24 p.m.

Respectfully Submitted,

/S/

Yvonne Lau
Executive Administrator and Secretary
of the Board of Regents