1601 East-West Road Honolulu, Hawai'i 96848 vkeener@asu.edu | keenerv@eastwestcenter.org Office: 808.944.7220 | Cell: 808.779.1727 www.PacificRISA.org | www.PIRCA.org

APPOINTMENTS

Research Professor 2021 – present

Arizona State University Global Institute of Sustainability and Innovation, Honolulu, HI.

- Serve as Co-Lead Principal Investigator of the Pacific RISA Phase IV (2021-2026) and manage a team of researchers, staff, students, and interns;
- Contribute to GFL and GIOSI priorities including development of a proposed climate solutions strategy.

City Commissioner (appointed)

2018 - 2024

City & County of Honolulu Climate Change Commission

- Elected Vice-Chair, 2022 23, 2023 24; Elected Chair, 2020 21
- Gather the latest science and data on projected climate impacts to the City & County of Honolulu and translate it into actionable information;
- Advise the City Office of Climate Change, Sustainability, & Resiliency, the Mayor, the City Council, and the executive departments on climate impacts and adaptation.

Senior Research Fellow 2011 – present

Environment Program, East-West Center

- Conduct policy relevant interdisciplinary and Pacific Islands focused climate adaptation research, secure independent research grant funding;
- Represent the East-West Center in regional and international briefings for various organizations such as U.S. Indo-Pacific Command, Asian Development Bank, and the United Nations, in sectors such as water resources and drought, climate change in Pacific Islands, wildlife conservation, and environmental security.

Affiliate Graduate Faculty

2013 – present

University of Hawai'i at Mānoa: Water Resources Research Center (WRRC)

- Serve on graduate committees as appropriate, review grant proposals, guest lecture in classes, collaborate with faculty, and participate in seminar series.

Affiliate Graduate Faculty

2021 – present

University of Hawai'i at Mānoa: Department of Urban and Regional Planning

- Serve on graduate committees as appropriate, review grant proposals, guest lecture, collaborate with faculty.

Post-Doctoral Researcher

2010 - 2011

Department of Biological and Agricultural Engineering, University of Florida

- Serve as link between the University of Florida Southeast Climate Consortium (SECC) and the Florida Water & Climate Alliance;
- Analyze and use downscaled climate projections for water resources planning.

EDUCATION

PhD	Agricultural & Biological Engineering, University of Florida	2010
	Earth & Environmental Engineering, Columbia University Visiting PhD Graduate Scholar Regional climate data analysis	2006
BSc	Bioengineering. Rice University	2002

PUBLICATIONS

- **Keener, V.W**. and Bryson, C. (2024, accepted). A summary of climate risks to the Pacific Islands region: Climate boundary organizations can accelerate regional adaptation, scientific research & policy networks. Asia-Pacific Journal of Ocean Law and Policy.
- Bryson, C. and **Keener, V.W**. (2024, accepted). Climate Finance in the Pacific: Opportunities and Challenges for Increasing Coordination and Collaboration in Green Climate Fund projects.

 Asia-Pacific Journal of Ocean Law and Policy.
- Frazier, AG, Lustig, AR, Chang, M, Elias, EH, McPherson, RA, **Keener, VW**; Grecni, ZN, Huntington, HP, Mecray, EL, Wood, KM, Dello, KD, Chardón-Maldonado, P, White, DD. (submitted, 2024).

 Reflections on preparing regional chapters for NCA5, Climatic Change.
- Brewington, L., Bryson, C., Frazier, A., **Keener, V. W**., Marra, J. J., Matsutaro, E. X., Mochimaru, K., & Moehlenkamp, P. (2024). A Climate Services Dialog to Build Sector-Based Climate Early Warning Systems in the Republic of Palau. Bulletin of the American Meteorological Society (published online ahead of print 2024). https://doi.org/10.1175/BAMS-D-24-0157.1
- [Romine, B., Otsuka, K., **Keener, V.,** Alegado, R., Islam, M.] City and County of Honolulu Climate Change Commission, (Adopted: January 26, 2024). <u>Urban Heat Guidance</u>.
- Frazier, A.G., M.-V.V. Johnson, L. Berio Fortini, C.P. Giardina, Z.N. Grecni, H.H. Kane, **V.W. Keener**, R. King, R.A. MacKenzie, M. Nobrega-Olivera, K.L.L. Oleson, C.K. Shuler, A.K. Singeo, C.D. Storlazzi, R.J. Wallsgrove, and P.A. Woodworth-Jefcoats, 2023: Ch. 30. Hawai'i and US-Affiliated Pacific Islands. In: Fifth National Climate Assessment. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA. https://doi.org/10.7930/NCA5.2023.CH30
- [Romine, B., **Keener, V.,** Alegado, R., Islam, M., Otsuka, K.] City and County of Honolulu Climate Change Commission, (Adopted: March 31, 2023). Climate Change Brief 2023.
- Frazier, A.G.; Giardina, C.P.; Giambelluca, T.W.; Brewington, L.; Chen, Y.-L.; Chu, P.-S.; Berio Fortini, L.; Hall, D.; Helweg, D.A.; **Keener, V.W.**; Longman, R.J.; Lucas, M.P.; Mair, A.; Oki, D.S.; Reyes, J.J.; Yelenik, S.G.; Trauernicht, C. (2022). *A Century of Drought in Hawai'i: Geospatial Analysis and Synthesis across Hydrological, Ecological, and Socioeconomic Scales*. Sustainability, 14, 12023. https://doi.org/10.3390/su141912023
- [Keener, V., Islam, M., Alegado, R., Coffman, M., Fletcher, C.] City and County of Honolulu Climate Change Commission, (Adopted: July 29, 2022). Reducing greenhouse gas emissions from building operations guidance.
- **Keener, V.W.,** Grecni, Z.N., and Moser, S.C. (2022). *Accelerating climate change adaptive capacity through regional sustained assessment and evaluation in Hawai'i and the U.S. Affiliated Pacific Islands*. Frontiers in Climate. 4:869760. https://doi.org/10.3389/fclim.2022.869760
- Marra, J.J., Gooley, G., Johnson, M-V, Keener, V., Kruk, M.K., McGree, S., Potemra, J.T., and Warrick, O. (2022). Pacific Climate Change Monitor: 2021. Pacific Islands Regional Climate Centre Network (PI-RCC) Report to the Pacific Islands Climate Service (PICS) Panel and Pacific Meteorological Council (PMC). April 18, 2022. https://doi.org/10.5281/zenodo.6965143
- Oji, R., Hesam, M., **Keener, V.** (2022) *Using social network analysis to assess climate change professionals' communications in Iran*. Weather, Climate & Society. https://doi.org/10.1175/WCAS-D-21-0002.1
- Stewart-Ibarra, A.M., Hewitt, C., Winarto, Y.T., Walker, S., **Keener, V.W.**, Bayala, J., Christel, I., Bloomfield, H., Halsnæs, K., Jacob, D., Brasseur, G.P., Haigh, T., van den Hurk, B., 2021. *Resilience through climate services*. One Earth. 4(8): 1050-1054. https://doi.org/10.1016/j.oneear.2021.08.002
- [Coffman, M., Keener, V. Alegado, R., Fletcher, C., Mehnert, B.] City and County of Honolulu Climate

- Change Commission, (Adopted: May 17, 2021). Social Cost of Carbon Guidance.
- **Keener, V.**, Grecni, Z., Shuler, C., Anderson Tagarino, K., Miles, W., 2021: *Climate Change in American Samoa: Indicators and Considerations for Key Sectors.* Report for the Pacific Islands Regional Climate Assessment. Honolulu, HI: East-West Center. https://eastwestcenter.org/PIRCA-AmericanSamoa, doi: 10.5281/zenodo.4663397
- Grecni, Z., Miles, W., Greene, R., Derrington, E., **Keener, V.** 2021: Climate Change in the Commonwealth of the Northern Marianas Islands: Indicators and Considerations for Key Sectors. Report for the Pacific Islands Regional Climate Assessment. Honolulu, HI: East-West Center, https://eastwestcenter.org/PIRCA-CNMI, doi: 10.5281/zenodo.4426942.
- [Keener, V. Alegado, R., Coffman, M., Fletcher, C., Mehnert, B.] City and County of Honolulu Climate Change Commission, (Adopted: December 8, 2020; updated 2022). Climate Change and Social Equity Guidance.
- Grecni, Z., Miles, W., King, R., Frazier, A., and **Keener, V**. 2020: *Climate Change in Guam: Indicators and Considerations for Key Sectors*. Report for the Pacific Islands Regional Climate Assessment. Honolulu, HI: East-West Center, https://eastwestcenter.org/PIRCA-Guam, doi: 10.58281/zenodo.4037481
- Miles, W., Grecni, Z., Matsutaro, P., Colin, P., **Keener, V.** and Golbuu, Y. 2020: *Climate Change in Palau: Indicators and Considerations for Key Sectors*. Report for the Pacific Islands Regional Climate Assessment. Honolulu, HI: East-West Center, https://eastwestcenter.org/PIRCA-Palau, doi: 10.5281/zenodo.4124259.
- [Coffman, M., **Keener**, V., Alegado, R., Fletcher, C., Mehnert, B.] City and County of Honolulu Climate Change Commission, (Adopted: July 14, 2020). Climate Change and Financial Risk Guidance.
- [Fletcher, C., Alegado, R., Coffman, M., **Keener, V.**, Mehnert, B.] City and County of Honolulu Climate Change Commission, (Adopted: December 23, 2019). Shoreline Setback Guidance.
- Brewington, L.; **Keener, V**.; Mair, A. (2019) *Simulating Land Cover Change Impacts on Groundwater Recharge under Selected Climate Projections, Maui, Hawai'i*. Remote Sens. 11, 3048. https://doi.org/10.3390/rs11243048.
- Gingerich, S.B., Johnson, A.G., Rosa, S.N., Marineau, M.D., Wright, S.A., Hay, L.E., Widlansky, M.J., Jenson, J.W., Wong, C.I., Banner, J.L., **Keener, V.W.,** and Finucane, M.L. (2019). *Water resources on Guam—Potential impacts of and adaptive response to climate change.* U.S. Geological Survey Scientific Investigations Report 2019–5095, 55 p., https://doi.org/10.3133/sir20195095.
- **Keener, V.W.,** Gingerich, S.B., and Finucane, M.L. (2019a). *Guam's water resources*. Honolulu, Hawai'i, East-West Center. https://www.pacificrisa.org/wp-content/uploads/2019/10/Pacific-RISA-Guam-water-resources-handout_Sept-2019.pdf
- **Keener, V.W.,** Gingerich, S.B., and Finucane, M.L. (2019b). *Freshwater availability in Guam with projected changes in climate*. Honolulu, Hawai'i, East-West Center. https://www.pacificrisa.org/wp-content/uploads/2019/10/Pacific-RISA-Guam-climate-summary_Sept-2019.pdf
- Frazier, A.G. [Editor], Deenik J.L., Fujii N.D., Funderburk G.R., Giambelluca T.W., Giardina C.P., Helweg D.A., **Keener V.W.**, Mair A., Marra J.J., McDaniel S., Ohye L.N., Oki D.S., Parsons E.W., Strauch A.M., and Trauernicht C. (2019). Managing Effects of Drought in Hawai'i and U.S.-Affiliated Pacific Islands. In: Vose, J.M.; Peterson D.L.; Luce C.H.; Patel-Weynand T., eds. Effects of Drought on Forests and Rangelands in the United States: Translating Science into Management Responses. Gen. Tech. Rep. WO-98. Washington, DC: U.S. Department of Agriculture Forest Service, Washington Office. 95-121. Chapter 5. https://www.fs.usda.gov/treesearch/pubs/59164
- Keener, V.W., Helweg, D.A., Asam, S., Balwani, S., Burkett, M., Fletcher, C., Giambelluca, T., Grecni, Z.,

- Nobrega-Olivera, M., Polovina, J., Tribble, G. (2018). *Ch. 27: Hawai'i and U.S. Affiliated Pacific Islands: The Fourth National Climate Assessment*. U.S. Global Change Research Program, Washington, DC. https://nca2018.globalchange.gov/chapter/hawaii-pacific/
- [Fletcher, C., Coffman, M., Alegado, R., **Keener, V.**, Mehnert, B.] City and County of Honolulu Climate Change Commission, (Adopted: June 2018). *Sea Level Rise Guidance*. Resilient Oahu, https://www.resilientoahu.org/s/Sea-Level-Rise-Guidance-483k.pdf
- Helweg, D.A. & Keener, V.W. (2017). Applications of Climate Downscaling in the Main Hawaiian Islands: Balancing Climate Modelers' Products and Impact Modelers' Expectations. Report on a Workshop held April 11-12, 2017. East-West Center, Honolulu, HI. https://doi.org/10.21429/C9CW4R
- Brewington, L., **Keener, V.W.**., Finucane, M., & Eaton, P. (2017). *Participatory Scenario Planning for Climate Change Adaptation Using Remote Sensing and GIS*. In S. Walsh (Ed), Remote Sensing for Societal Benefits. Amsterdam: Elsevier.
- Hawai'i Climate Change and Health Working Group (2016). Report to the 28th Legislature, State of Hawai'i: 2016 Preliminary Report and Recommendations from the Hawai'i Climate Change & Health Working Groups. Access at: http://www.hawaiipublichealth.org/resources/HCR108% 20SLH2015%20Climate%20Change%20and%20Health%20Working%20Group%20122715.pdf
- Helweg, D.A., **Keener, V.W.**, & Burgett, J.M. (2016). *Climate downscaling and its application in high Hawaiian Islands*. September 16–17, 2015: U.S. Geological Survey Open-File Report 2016–1102, 25 p., https://www.sciencebase.gov/catalog/item/59a84436e4b0421949a84200
- Ferguson, D.B., Finucane, M.L., **Keener, V.W.**, Owen, G. (2016). *Evaluation to Advance Science Policy: Lessons from Pacific RISA and CLIMAS*. In Garfin, G. & Parris, A. Climate in Context. West Sussex, England: Wiley.
- Annamalai, H., **Keener, V.W**., Widlansky, M.J., Hafner, J. (2015) *El Niño Strengthens in the Pacific: Preparing for the Impacts of Drought*. AsiaPacific Issues, No. 122, December 2015.
- Corlew, L.K., **Keener V.W.**, Finucane, M.L., Brewington, L., Nunn, R. (2015) *Using Social Network Analysis to Assess Communications and Develop Networking Tools Among Climate Change Professionals Across the Pacific Islands Region*. Psychosocial Intervention, 24, pp 133-146.
- Finucane, M.L, **Keener**, V.W. (2015). *Understanding the climate sensitive decisions and information needs of island communities.* Journal of the Indian Ocean Region, DOI: 10.1080/19480881.2015.1021181
- Finucane, M.L., Miller, R., Corlew, K., **Keener, V.W**., Burkett, M., Grecni, Z. (2013). *Understanding the climate-sensitive decisions and information needs of fresh water resource managers in Hawai'*i. Climate, Weather and Society, 5(4): 293-308.
- **Keener, V.W.,** K. Hamilton, S.K. Izuka, K.E. Kunkel, L.E. Stevens, L. Sun. (2013) *Regional Climate Trends and Scenarios for the U.S. National Climate Assessment: Part 8. Climate of the Pacific Islands*. NOAA Technical Report, NESDIS, 142-8, Washington, DC.
- Keener, V.W., S.K. Izuka, & Anthony, S. (2012). Freshwater and Drought on Pacific Islands. In: V.W. Keener, Marra, J. J., Finucane, M. L., Spooner, D., & Smith, M. H. (Eds.), Climate Change and Pacific Islands: Indicators and Impacts. Report for the 2012 Pacific Islands Regional Climate Assessment (PIRCA). Washington, DC: Island Press.
- **Keener**, **V.W.**, Marra, J. J., Finucane, M. L., Spooner, D., & Smith, M. H. (Eds.). (2012). *Climate Change and Pacific Islands: Indicators and Impacts*. Report for The 2012 Pacific Islands Regional Climate Assessment. Washington, DC: Island Press.
- **Keener, V.W.,** G.W. Feyereisen, U. Lall, J.W. Jones, D.D. Bosch, R. Lowrance. (2010). *El-Niño/Southern Oscillation (ENSO) influences on monthly NO₃ load and concentration, stream flow and precipitation in the Little River Watershed, Tifton, GA*. J. Hydrology. 381: 352–363.

Keener, V.W. (2010). *Hydro-Climatic Influences of El-Niño/Southern Oscillation on Nutrient Loads in the Southeast United States*. PhD Dissertation, Department of Agricultural and Biological Engineering, University of Florida.

Keener, **V.W.**, K.T. Ingram, B. Jacobson, J.W. Jones. (2007). *Effects of El Niño/Southern Oscillation on simulated phosphorus loading in south Florida*. Tr. ASABE. 50(6): 2081-89.

ACADEMIC GRANTS

Dates of award	Title	Amount and Award Number
2024 - 2027	Co-Investigator (ASU), NOAA Climate Program Office, "Supporting WMO Region V and the Pacific Islands Regional Climate Assessment through Climate Indicators Monitoring, Early Warning Systems Development, and Capacity Building"	\$1,860,000
2024 – 2026	Co-Investigator (ASU), NOAA Adaptation Sciences Program, "Collaborative Mapping of Physical and Socio-Economic Impacts of Sea Level Rise in the Federated States of Micronesia (FSM)"	\$299,798
2024 – 2026	Co-Investigator (ASU), NOAA Bipartisan Infrastructure Law Funding, "Stories of Science: Integrating Lived Experience and Community Knowledge into Actionable Adaptation Science"	\$500,000 NA23OAR4310501
2023 - 2028	Co-Investigator (ASU), Environmental Protection Agency (EPA), "EPA Region 9 TCTAC: SDSU's Center for Community Energy and Environmental Justice"	\$10,000,000
2022 – 2023	Lead Investigator (ASU), Climate Resilience Fund (CRF), "Coordination and Collaboration in the Hawaii and Pacific Islands Resilience Ecosystem"	\$10,000
2021 – 2026	Co-Lead Investigator (ASU), NOAA Climate Adaptation Partnerships (CAP/RISA), "The Pacific RISA Phase IV: Building equitable and just climate solutions for Pacific Island resilience to compounding disasters and extreme events"	\$7,010,696 NA21OAR4310308
2022 – 2024	Co-Investigator (EWC), University of Hawaii at Manoa Sea Grant. "Economic impacts of severe weather events"	\$170,000
2022 – 2027	Co-Investigator (EWC), UNEP Green Climate Fund (GCF), "Enhancing Climate Information and Knowledge Services for Resilience in 5 Island Countries of the Pacific Ocean"	\$1,818,141 FP147
2021	Co-Investigator, AARP Community Challenge, " 'Alana Ke Alana in partnership with The ARTS at Marks Garage"	\$6,500
2020 – 2022	Co-Lead Investigator, NOAA Regional Integrated Sciences and Assessments Program (RISA). "Pacific RISA: Building International Adaptation and Resilience to a Changing Climate in the Pacific Islands"	\$700,000 NA20OAR4310146A
2020 – 2022	Lead Investigator, State Department, Bureau of Oceans and International and Scientific Affairs, "Foreign Assistance for Pacific Islands"	\$529,000 NA20OAR4310146A
2018 –2021	Co-Investigator, NOAA International Research and Applications Project (IRAP). "Climate, Health, and Human Migration in the Pacific Islands"	\$477,079 NOAA 2018-2005445
2015 – 2021	Lead Investigator, NOAA Regional Integrated Sciences and Assessments Program (RISA). "The Pacific RISA: Supporting Integrated Decision Making Under Climatic Variability and Change in Hawai'i and the US-Affiliated Pacific Islands"	\$4,069,800 NA15OAR4310146
2017	Lead Investigator, DOI Pacific Islands Climate Adaptation Science Center (PI-CASC). "Pacific Islands Regional Climate Assessment Sustained Assessment Specialist"	\$79,463
2016	Co-Investigator, DOI Pacific Islands Climate Adaptation Science Center (PI-CASC). "Analyzing Correlations and Effects of Human Migration of	\$267,720

	Marshallese Islanders"	
2015	Co-Investigator, Water Resources Foundation. "Impacts of Climate Change on Honolulu Board of Water Supply and Planning Strategies for Mitigation"	\$25,686 WRF 4637
2015	Lead Investigator, DOI Pacific Islands Climate Adaptation Science Center (PI-CASC). "The Pacific Islands Regional Climate Assessment Sustained Assessment Specialist"	\$96,990 G15AC00509
2013	Co-Investigator, Department of Defense Strategic Environmental Research Development Program (SERDP). "Water Resources on Guam: Potential Impacts and Adaptive Response to Climate Change for Department of Defense Installations"	\$2,279,191 RC-2340
2012	Lead Investigator, NOAA Climate Program Office. "Mapping the Flow of Climate and Water Resource Information in the Pacific Islands"	\$150,785 NOAA-OAR-CPO- 2012-2003304
2012	Lead Investigator, USGS. "The Pacific Islands Regional Climate Assessment Forum"	\$25,000 G12AS20008

SELECTED NON-REFEREED PUBLICATIONS & COMMUNICATIONS

Fletcher, C., Alegado, R., **Keener, V.W.**, "Climate change is being felt in Hawaii". Star Advertiser Editorial, October 15, 2023.

Keener, V.W. "Climate Change: Redraw policies to adapt" Star Advertiser Editorial, Sunday, December 2, 2018.

Keener, V.W., Finucane, M.L., Brewington, L. (2011-2016). "Climate Matters" Video documoments, available online at http://www.pacificrisa.org/education-outreach/documoments.

- Climate Matters for Pacific Island Ecosystems
- Climate Matters for Island Environments
- Climate Matters for Waikiki Beach
- Climate Matters for Ranchers in Hawai'i
- Climate Matters for Pacific Island Decision Makers

Keener, V.W., Gingerich, S.B., Finucane, M.L. April, 2015. Climate Trends and Projections for Guam. East-West Center information sheet, Honolulu, HI.

Pacific Islands Regional Climate Assessment (PIRCA), Pacific Islands Climate Science Center (PICSC) and Pacific RISA. (2016). Expert Consensus on Downscaled Climate Projections for the Main Hawaiian Islands. PIRCA Information Sheet, Honolulu, HI. http://bit.ly/2yoY0II.

Science Writer for: *The Where, the Why and the How: 75 Artists Illustrate Wondrous Mysteries Of Science* (2012). Editors, M. Lamothe, J. Rothman, J. Volvoski. Chronicle Books, San Francisco, California.

SELECTED TECHNICAL AND PUBLIC PRESENTATIONS

- V.W. Keener. Invited Panel Presentation for the Resilient America Project. "Motivating Local Action to Mitigate Climate Threats and Build Resilience: Climate and data science for hazard mitigation at the local level", The National Academies of Sciences, Engineering, and Medicine. May 25, 2021.
- V.W. Keener. *Invited Webinar*. The role of science boundary organizations in informing regional decision making and policy. University of Maryland Global Climate Crisis: Seeking Solutions Conference, *virtual only*. April 14th, 2020
- **V.W. Keener.** *Invited Lecture.* Climate Impacts & Environmental Security in Hawai'i and the US-Affiliated Pacific Islands. Wilson Center for Public Policy Environment and Security in the Pacific Islands Meeting. Washington, D.C. November 13, 2019.
- **V.W. Keener.** *Invited Webinar.* Climate Impacts on Tourism & Recreation in the 4th National Climate Assessment. NOAA One Seminar Series. August 13, 2019.

- V.W. Keener. *Invited Lecture.* Hawai'i in the 4th US National Climate Assessment: Impacts on Kauai & Policy Responses. Kauai Leadership talk at the Pacific Missile Facility (PRMF), Kauai, HI. March 8, 2019.
- V.W. Keener. *Invited Lecture*. "Projected Climate Impacts in Hawai'i and the US-Affiliated Islands". Presentation at the First Annual Hawai'i State Climate Change Conference, Honolulu, HI. January 14, 2019.
- V.W. Keener. Invited Lecture. "Emphasis on regional risks increases relevance for local decision makers" U24A: Highlights from the Fourth National Climate Assessment: Impacts, Risks, and Adaptation in the United States. Presentation and panel discussion at the Fall Meeting of the American Geophysical Union (AGU), Washington, DC. December 11, 2018

OTHER PROFESSIONAL ACTIVITIES & AWARDS

2024	 Appointed to the Aspen Global Change Institute Advisory Board Appointed to the One Water Honolulu Plan Technical Advisory Committee
2023	 Appointed to the Hawaii Green Growth Voluntary Local Review Task Force Re-elected Vice-Chair of the Honolulu Climate Change Commission Editorial Committee, Asia-Pacific Issues
2022	Elected Vice-Chair of the Honolulu Climate Change Commission
2021	 Appointed Chapter Author for the Hawai'i and Pacific Islands regional chapter of the Fifth U.S. National Climate Assessment, U.S. Global Change Research Program Appointed to the INDOPACOM Climate Change Impact Focus Group Appointed to the National Marine Sanctuary of American Samoa (NMSAS) Climate Change Working Group
	 Appointed to Advisory Group: University of Hawai'i Sea Grant Extension Appointed as Affiliate Graduate Faculty: University of Hawai'i Department of Urban and Regional Planning Elected Chair of the Honolulu Climate Change Commission
2020	 IPCC Working Group II Reviewer for "Chapter 12: Climate Change Information for Regional Impact and for Risk Assessment": The 6th Intergovernmental Panel on Climate Change (IPCC) report
2018	 Appointed to the City & County of Honolulu Climate Change Commission Advise the City Office of Climate Change, Sustainability, & Resiliency, the Mayor, the City Council, and the executive departments. Appointed Commission Chair (2020)
2016	 Appointed Lead Author for the Hawai'i and Pacific Islands regional chapter of the Fourth U.S. National Climate Assessment, U.S. Global Change Research Program Select and coordinate an 11-author team; Write and edit the regional chapter for the NCA4; Pacific Risk Management Ohana (PRiMO) – Senior Advisor
2013	 Appointed as Affiliate Faculty, University of Hawai'i at Manoa, Water Resources Research Center and Department of Geology and Geophysics
2013-2016	Pacific Risk Management Ohana (PRiMO) – Navigator's Councilmember
2013	 IPCC Working Group II Reviewer for "Islands" and "Australoasia" regional chapters: The 5th Intergovernmental Panel on Climate Change (IPCC) report
2012	 Appointed Lead Author for the 2012 technical input for the 2014 U.S. National Climate Assessment

2011

Honorable Mention in the Universities Council on Water Resources National Ph.D.
 Dissertation Award competition in the category of 'Natural Sciences and
 Engineering'. http://www.ucowr.org/Awards/2011_UCOWR_Award_
 Winners_files/2011_UCOWR_Award_ Winners.pdf

ongoing

Reviewer: Regional Environmental Change, AGU Perspectives, Water, Climatic Change, Bulletin of the American Meteorological Society, Asia Pacific Perspectives, Journal of Climate Risk Management, Earth Sciences Research Journal, Elsevier Publishing, Journal of Environmental Management, Frontiers in Ecology and the Environment, Weather, Climate and Society, Transactions of the American Society of Agricultural & Biological Engineering.