

PRESS RELEASE

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UOG experts contribute insight on building resilience in US climate-change report

Pacific island ecosystems, cultural resources, infrastructure, human health, and livelihood are all at risk of degradation because of climate change, but Pacific Island communities can build resilience through actions driven by local and Indigenous knowledge.

This assessment is part of the recently released [Fifth U.S. National Climate Assessment \(NCA 5\)](#) — a comprehensive report on climate change risks, impacts, and responses delivered to Congress and the U.S. president every four years. It is authored and reviewed by scientists, scholars, and public servants across the nation, including University of Guam faculty, who were among the 16 authors and 41 technical contributors who produced a [chapter on Hawai'i and U.S.-Affiliated Pacific Islands](#).

“It is becoming increasingly evident that overall human well-being is threatened by climate change,” said Dr. Romina King, UOG Associate Professor of geography and one of the authors for the regional chapter. “As island communities, we must always be prepared to face these unfortunate new realities, and it starts with staying informed. We hope the information we have curated for this report will be an effective resource in the decision-making process.”

King serves as the UOG lead for the Pacific Islands Climate Adaptation Science Center, which has also provided support for the chapter. Other UOG personnel who provided technical contributions to the chapter include Dr. Laurie Raymundo, Director of the UOG Marine Laboratory, Dr. Myeong-ho Yeo, associate professor of surface water hydrology, and PI-CASC Guam communications coordinator John I. Borja.

The regional chapter emphasizes that:

- **Climate change impairs access to healthy food and water.** Increasing temperatures, altered rainfall, flooding, pollution, and fisheries decline will further affect food and water availability.
- **Climate change undermines human health.** Climate shocks and stressors compromise health care and worsen long-standing social and economic inequities that contribute to illness, but community strengths and adaptation measures can boost resilience.
- **Rising sea levels harm infrastructure and island economies.** Sea level rise intensifies loss of territory and disrupts livelihoods. Governments and communities are innovating through renewable energy, green infrastructure, and sustainable economic growth.
- **Responses help to safeguard tropical ecosystems and biodiversity.** Increased fire risk, severe droughts, and ocean changes have broad negative impacts on native plants and wildlife, and ocean ecosystems. Effective adaptation strategies include ecosystem protection and restoration, invasive species measures, and fire prevention.
- **Indigenous Peoples and their knowledge systems are central to the resilience of island communities amidst the changing climate.**

The assessment demonstrates that efforts to reduce greenhouse gas emissions and limit climate change impacts are underway in every U.S. region, including the Pacific islands.

A key addition to the National Climate Assessment since its last edition in 2018 is the chapter's key message on human health and its emphasis on food security, integration of Indigenous knowledge, and recognition of data inequities for the Pacific islands and U.S. Caribbean.

The full National Climate Assessment is published as an interactive website at nca2023.globalchange.gov and Chapter 30: Hawai'i and U.S.-Affiliated Pacific Islands at nca2023.globalchange.gov/chapter/30.

Additionally, an informational webinar on the Hawai'i and U.S.-Affiliated Pacific Islands chapter will be held at 9 a.m. ChST on Feb. 14. Register to attend free of charge at <https://url.uog.edu/ethtJo>.

About the Fifth National Climate Assessment

Mandated in the Global Change Research Act of 1990, the National Climate Assessment provides authoritative scientific information about climate change risks, impacts, and responses in the United States. The assessment reflects the scientific consensus and is widely used for decision-making but does not include policy recommendations nor advocate for any specific policy.

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Image captions:



Romina King

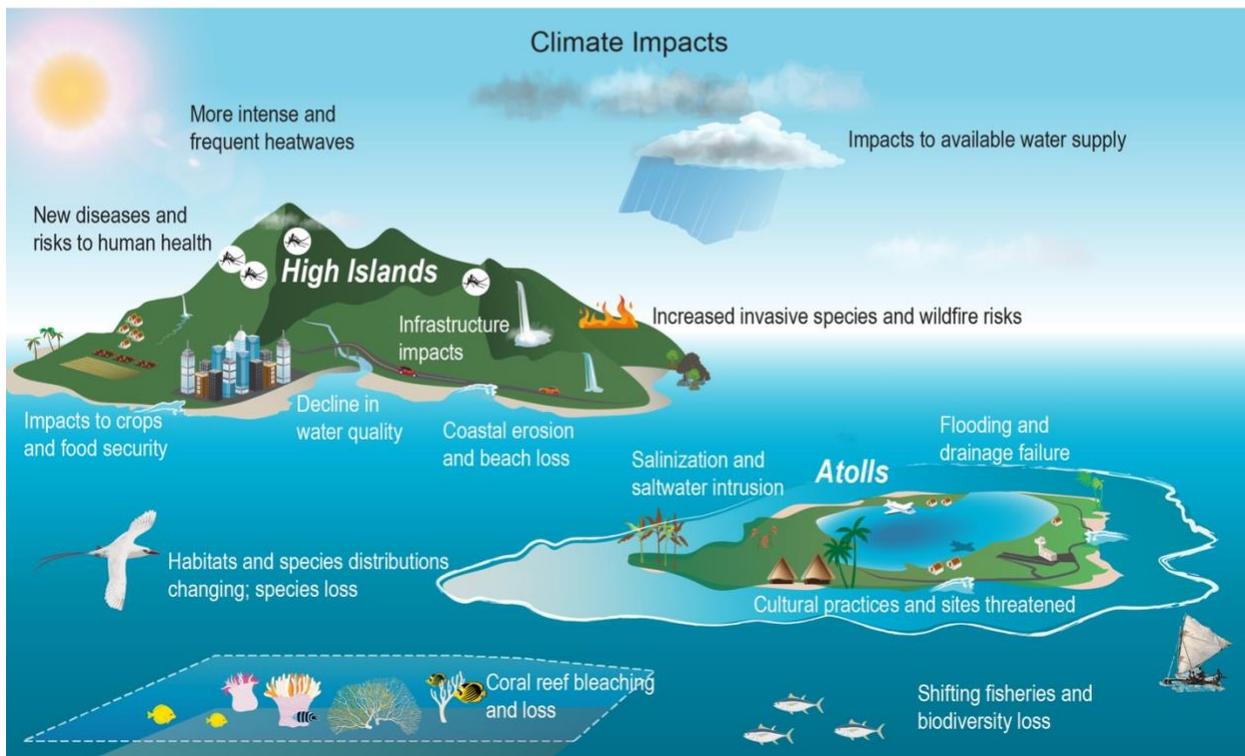
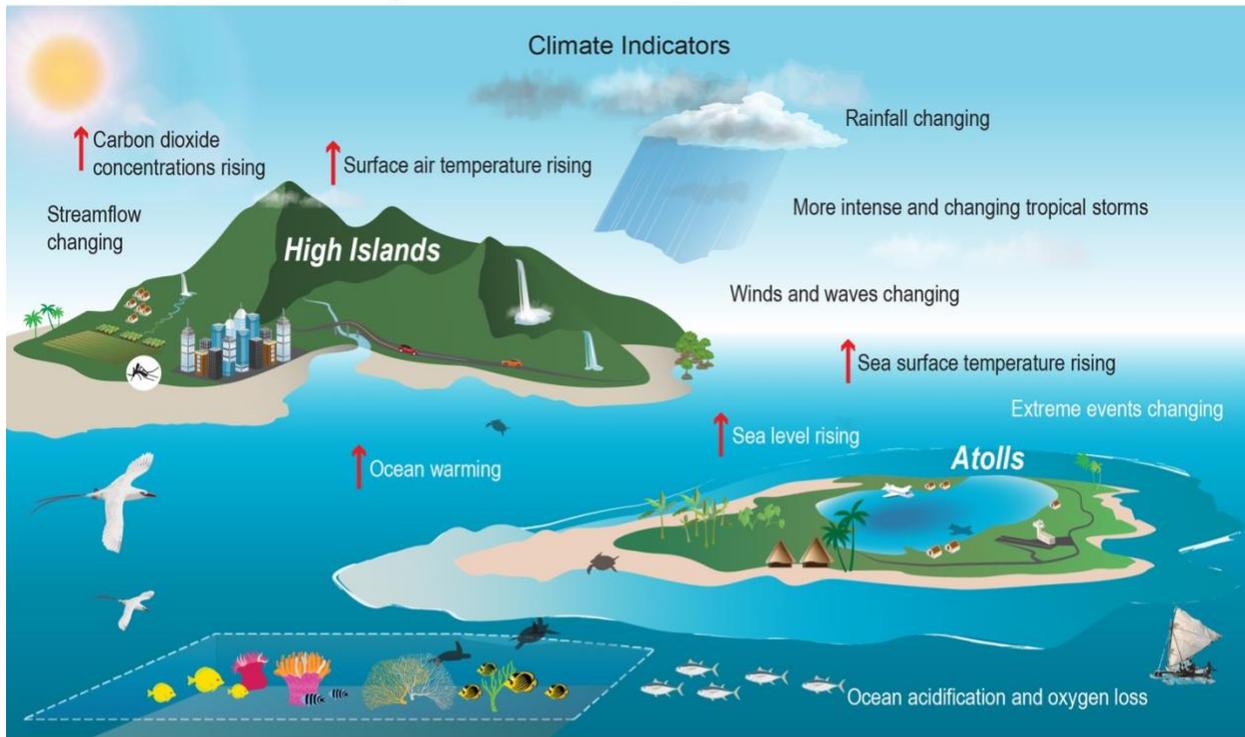


Laurie Raymundo



Myeong-ho Yeo

Climate Change Indicators and Impacts in the Pacific Islands



Changes in climate (top panel), including sea level rise, ocean warming, changes in extreme weather, and increased tropical cyclone intensity, result in impacts and risks (lower panel) for Pacific Island environments and communities.

Courtesy of the Fifth National Climate Assessment