

# Regional Engagement Workshop Summary Report: Hawai'i and U.S. Affiliated Pacific Islands Region

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## Introduction

The Fourth National Climate Assessment (NCA4), currently in development, will assess the science of climate change and its impacts across the United States. It will document climate change-related impacts and responses for various sectors and regions, with the goal of better informing public and private decision-making at all levels.

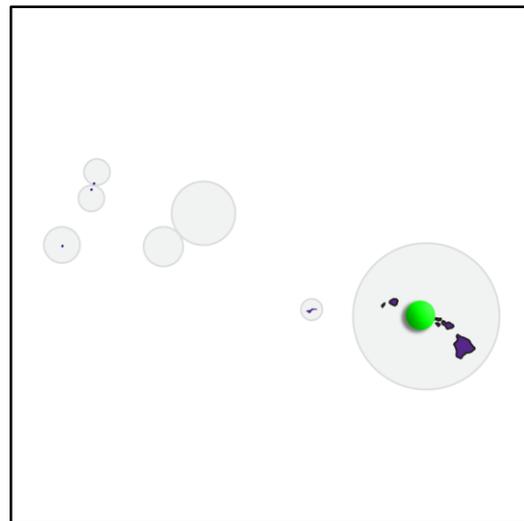
To ensure that the assessment is informed by and useful to stakeholders, engagement workshops were planned for each of the 10 NCA4 regions. These workshops provided stakeholders an opportunity to provide input to and exchange ideas with the chapter author team on key message formulation, share relevant resources, and give feedback on issues of importance to their region.

## The Hawai'i and U.S. Affiliated Pacific Islands Regional Engagement Process

In an effort to maximize participation while easing travel burden in such a vast region, organizers modified the 'Hub and Satellite' model deployed for other NCA4 Regional Engagement Workshops. The hub—or primary location—in Honolulu held several events on two Mondays that included stakeholders, the chapter author team, and staff from the U.S. Global Change Research Program (USGCRP). A two-hour evening event was designed to accommodate those who could not attend during normal work hours. Stakeholders from across the region were able to join by establishing remote connections to the hub. An event in Guam took place a week later to accommodate staff travel schedules.

On the evening of March 6, 2017, the NCA4 Hawai'i and U.S. Affiliated Pacific Islands chapter team held its Regional Engagement Workshop to gather input from a diverse array of stakeholders throughout Hawai'i and the U.S. Affiliated Pacific Islands to help inform the writing and development of NCA4, and to raise awareness of the process and timeline for NCA4. The East-West Center served as the hub location for an evening Town Hall event with 55 attendees. In addition, approximately 15 people watched live video of the event and participated remotely via web conferencing. The event attracted participants from across a wide range of professions including students, scientists, NGO staff, and local and state government staff.

In addition, Sectoral Workshops held on March 6 and 13, 2017, in Honolulu, convened 75 stakeholders (64 in-person and 11 virtual participants) from across the region. The workshops provided professionals the opportunity to share sector-specific perspectives with the regional chapter authors. Participants attended one or more sessions focused on five sectors: coastal



*Figure 1. Map of the Hawai'i and US Affiliated Pacific Islands REW hub. Satellite location in Guam is not pictured.*

systems; ecosystems, ecosystem services, and biodiversity; indigenous communities; oceans and marine resources; and water. A final session on the afternoon of Mar 13, 2017, open to all workshop participants, focused on adaptation to regional climate change threats.

To increase participation from the US Affiliated Pacific Islands jurisdictions that were underrepresented in NCA3, a satellite engagement workshop was held on March 20, 2017, in Tumon, Guam, in conjunction with the University of Guam’s Center for Island Sustainability (CIS) conference. Although open to all, 25 people from across Guam and Micronesia were specifically invited to take place in similar sectoral discussions.

### Authors, Locations, and Staff

<u>Authors</u>	<u>Satellite &amp; Hub Hosts</u>	<u>USGCRP Staff in Attendance</u>
<ul style="list-style-type: none"> <li>• Victoria Keener (East-West Center)</li> <li>• David Helweg (US Geological Survey)</li> <li>• Susan Asam (ICF)</li> <li>• Seema Balwani (National Oceanic and Atmospheric Administration)</li> <li>• Chip Fletcher (University of Hawai’i)</li> <li>• Tom Giambelluca (University of Hawai’i)</li> <li>• Jeff Polovina (National Oceanic and Atmospheric Administration)</li> <li>• Gordon Tribble (U.S. Geological Survey)</li> <li>• Maxine Burkett (University of Hawai’i)</li> <li>• Malia Nobrega-Olivera (University of Hawai’i)</li> </ul>	<ul style="list-style-type: none"> <li>• Honolulu, HI (Hub)</li> <li>• Tumon, Guam (Satellite, held March 20, 2017)</li> </ul>	<ul style="list-style-type: none"> <li>• Fred Lipschultz</li> </ul>

### Overview and Topics of Discussion

The evening Town Hall began with remarks by the President of the East-West Center and by a representative of the Polynesian Voyaging Society. Fred Lipschultz, USGCRP Senior Scientist, presented the overview of the NCA process, including the Key Messages from NCA3 for the region, followed by the Chapter Lead, Dr. Victoria Keener, who described the NCA4 draft focal areas. In an open question-and-answer session, stakeholders were invited to provide comments to the author team on the report development process, as well as the substance of the NCA4 Hawai’i and U.S. Affiliated Pacific Islands chapter. Stakeholders were also given the opportunity to share thoughts on areas that were not covered by the previously-identified focal areas.

The two sectoral workshops started with an introduction to the NCA process and the chapter authors by Dr. Keener followed by 3-hour breakouts between sector-focused stakeholders and the relevant chapter authors to discuss topics to cover in the chapters and to identify specific case studies. Each sectoral team participated in an exercise to identify and rank the impacts from climate change or variability within their sector, focusing on impacts with low likelihood and high consequence (see Appendix C). The teams then considered possible interventions or adaptation actions to address those impacts, ranking them by achievability and effectiveness. After the March 13 sectoral session, an Adaptation and Solutions Session was conducted as a panel discussion with participants from both sectoral workshops and other stakeholders from across the region.

## Key Takeaways

Stakeholders identified areas of opportunity and concern, case studies, and relevant regional information associated with each of the focal areas. This feedback was later distilled into key thematic takeaways for the chapter author team. These takeaways are summarized below.

- Sea-level rise combined with extreme events (including heavy rains and flooding, extreme tides, and tropical storms) threaten the ability of low-lying atoll communities and some communities on high islands to persist. Sea-level rise projections have been continuously revised upward. Protecting built and natural infrastructure from sea-level rise will be very costly. Implementation of measures that make the built environment climate resilient is urgently needed.
- Pacific Island economies, livelihoods, and cultural heritage depend on coral reef ecosystems. These systems are experiencing decline and could see widespread bleaching, disease, and mortality in the next 20-30 years.
- Pacific Island food and water security could be highly impacted by changes in climate, including sea-level rise, changing extreme events, changing precipitation amounts and timing, and ocean warming and acidification.
- Local and indigenous Pacific Island communities are taking action to prepare, and to build resilience, and are tired of being cast as “victims.”

## Results

The feedback provided from these workshops serves as valuable input to the development of not only the Hawai'i and U.S. Affiliated Pacific Islands chapter of NCA4, but of all chapters. This summary report is being shared with all NCA4 authors to inform the development of their chapters. It will also be made publicly available on the NCA4 website ([www.globalchange.gov/nca4](http://www.globalchange.gov/nca4)). The nearly 150 stakeholders who participated in the workshops provided the authors with a great deal of useful feedback – from concerns they face, to resources they use, and specific case studies where communities are working to address the risks they face as a result of climate change. Responses from both authors and participants indicated that the workshops were not only positively received in and of themselves, but also served to cultivate new relationships, research ideas, and future collaborations across the Hawai'i and U.S. Affiliated Pacific Islands.

## About the NCA

The National Climate Assessment is the U.S. Government's premier resource for articulating the risks posed to the Nation by climate change, as well as what is being and can be done to minimize those risks. It is an inter-agency effort, bringing together experts from the 13 Federal agencies of USGCRP, the broader Federal government, as well as hundreds of experts in the academic, non-profit, and private sectors.

## Appendix A: Workshop Agendas

### **Monday, March 6, 2017**

**11:30 AM-12:45 PM – John A. Burns Hall (JAB), rm. 3012** - Author meeting and working lunch with Fred Lipschultz (lunch provided)

**1:00-1:20 PM – JAB 3015/3019 - Welcome and Introduction**

**1:30-5:00 PM –Concurrent Sectoral Sessions**

- Coastal Systems, JAB 3015/3019
- Ecosystems, JAB 3118
- Water, JAB 3012

**6:00 PM – 8:00 PM – Imin Conference Center - 4<sup>th</sup> National Climate Assessment Town Hall for Hawai'i and the Pacific Islands**

- 6:00 - Welcome from Dr. Victoria Keener, NCA Regional Chapter Lead
- 6:05 - Welcome and Introduction from Dr. Richard Vuylsteke, President of the East-West Center
- 6:10 - 6:25 - Remarks from Kalisi Mausio, Polynesian Voyaging Society
- 6:25-6:45 - Background on the NCA4, Dr. Fred Lipschultz, US Global Change Research Program Regional Coordinator (from Washington DC)
- 6:45 – 7:00 - The HI and USAPI Regional Chapter Process, Dr. Victoria Keener, EWC Research Fellow and Chapter Lead Author
- 7:00 – 8:00 - Discussion and Q&A with expert panel of authors and audience (Susan Asam, Seema Balwani, Chip Fletcher, Dave Helweg, Tom Giambellca, Jeff Polovina, Gordon Tribble)

### **Monday, March 13, 2017**

**8:15-8:45 AM - John A. Burns Hall (JAB) 3015/3019 – Welcome and Introduction**

**9:00 AM - 1:00 PM – Concurrent Sectoral Sessions**

- JAB 3015/3019
- JAB 3012

**1:15-5:00 PM – JAB 3015/3019 - Adaptation and Solutions Session**

## Appendix B: List of Hawai'i and U.S. Affiliated Pacific Islands Regional Chapter Authors

Coordinating Lead Author: David Helweg, U.S. Geological Survey

Chapter Lead: Victoria Keener, East-West Center

### Authors:

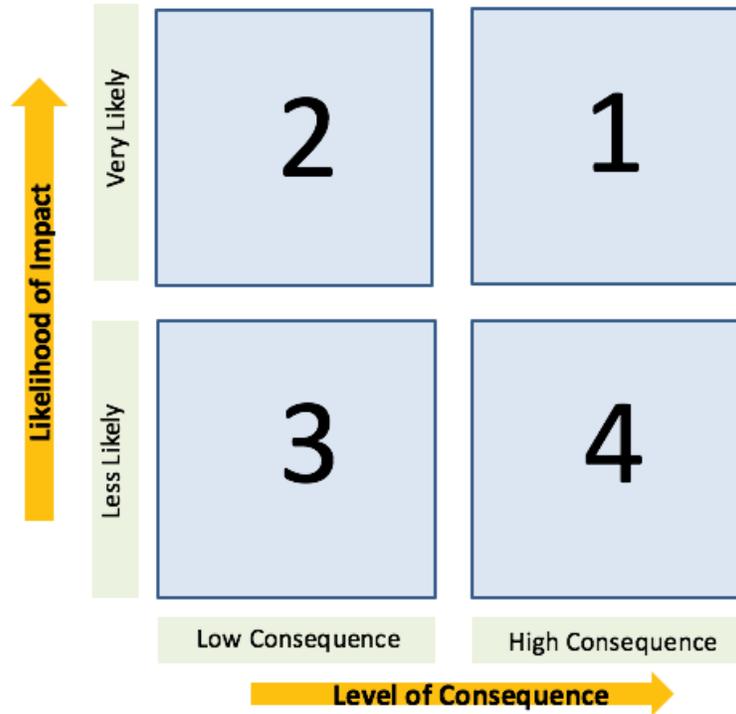
- Susan Asam, ICF
- Seema Balwani, National Oceanic and Atmospheric Administration
- Maxine Burkett, University of Hawai'i
- Chip Fletcher, University of Hawai'i
- Tom Giambelluca, University of Hawai'i
- Jeff Polovina, National Oceanic and Atmospheric Administration
- Gordon Tribble, U.S. Geological Survey
- Malia Nobrega-Olivera, University of Hawai'i

### USGCRP staff:

- Fred Lipschultz, NCA Senior Scientist & Regional Coordinator
- Mark Shimamoto, NCA Health Lead

## Appendix C: Sectoral Impact and Adaptation Matrices

### Climate Impact



### Type of Intervention or Adaptation

