

Listening Session Summary: Adaptation Response Chapter

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 activities were planned for many of the 17 National Chapters. These activities 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 individual feedback on issues of importance to the chapter topic.

Adaptation Listening Session

On May 8, 2017, the NCA4 Adaptation chapter team held a public listening session at the National Adaptation Forum in St. Paul, MN. The objectives of the listening session were to gather input from stakeholders to help inform the writing and development of NCA4, and to raise awareness of the process and timeline for NCA4.

Chapter Author Team

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Overview and Topics of Discussion

Tess Carter opened the listening session and introduced USGCRP staff, providing an overview of USGCRP, the structure of NCA4, timeline for completion, and opportunities for engagement.

Rob Lempert then presented a draft NCA4 Adaptation chapter outline with requests for comments and direction. The proposed outline of the chapter (subject to change as the chapter is developed) was presented as follows:

- Section 1: Introduction
- Section 2: Nature of adaptation challenge
- Section 3: Benefits of adaptation actions often exceeds costs
- Section 4: Emerging best practices can make adaptation work

- Actions designed to address current variability & proactive actions designed to address future change
- Co-benefits
- Need for evaluation
- Federal and other resources available for state and local actors and private sector
- Technical inputs, USGCRP products, and resources for authors

R. Lempert then presented on the Adaptation chapter draft Key Messages:

1. Since NC3, more adaptation planning and implementation is taking place across the US by organizations, communities, firms, etc., but implementation is not yet common practice
 - Existing examples are often special cases: reactive, require special leadership, external funds
2. Adaptation has significant benefits that often outweigh the costs
 - Financial/economic
 - Ecosystem protection
 - Well-being and equity, including the well-being and participation of marginalized groups
3. The benefits of adaptation can often be derived by integrating climate considerations into organizations' current best-practice activities (mainstreaming), but in the longer term may require more significant change (e.g. regarding potential thresholds and surprises)
4. Emerging best (and smart) practices offer guidance for making adaptation work, but evaluation is needed to further improve the process

Lastly, Lempert described a possible yet-to-be-created draft figure for the Adaptation chapter, which depicts example adaptation actions in which benefits may exceed costs. The figure divides adaptation actions into those focused on current variability and those in preparation for future climate changes, and categorizes these actions by activities that help to reduce exposure to climate changes, those that reduce vulnerability, and those that increase adaptive capacity (e.g., sandbags vs. wetland restoration).

Lastly, Sarah Zerbonne facilitated a discussion with participants regarding the following guiding topics:

- Specific examples of adaptation actions whose benefits exceed the costs
 - Over different timeframes (near-, mid-, long-term)
 - Methodological assessments in which these benefits have been more broadly defined, i.e. including but not limited to economics
- Best practice guides for adaptation in a sector or region

Key Takeaways

Participants provided comments regarding some examples of regional adaptation actions and best practice guides for adaptation. Key takeaways from each of these are listed below.

Adaptation Actions

- San Francisco Bay Area
 - Wetland restoration projects and shoreline restoration projects
 - Possibly moving the California Great Highway inland and restoring the previous wetlands along the coast

- Bay Area Ecosystems Climate Change Consortium (BAECCC) - consortium of different levels of government, non-profits, and researchers
- San Francisco Estuary Institute and Bay Conservation Development Commission (BCDC) are focused on this work – BCDC is also one of ten communities participating in Resilience Dialogues in 2017
- Alaska
 - Adaptation actions in rural communities (tribal community examples)
 - Key contact - E. Barrett Ristorph (University of Hawaii)

Best Practice Guides for Adaptation

- The Lead authors for the NCA4 Transportation chapter have noted that hydrology and transportation managers are thinking about how to incorporate adaptation into design
 - Recently released Hydraulic Engineering Circular (HEC) 17, "Highways in the River Environment: Extreme Events, Risk and Resilience"
 - Key contact - Jennifer Jacobs (University of New Hampshire)
- In terms of NOAA, important to contact individual RISAs who are working with folks on the ground (particularly if there is a region where there are information gaps)