

Engagement Session Report: Transportation National 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 held for many of the 17 NCA4 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.

Transportation Engagement Session

On January 10, 2017, the NCA4 Transportation chapter team held two engagement sessions at the Transportation Research Board's 96th Annual Meeting in Washington, DC. The first session consisted of a brief presentation at the Climate Change and Energy Task Force and the second session was a broader discussion with the Aviation Climate Change Subcommittee. Approximately 100 stakeholders participated. The objectives of the sessions were to gather input from stakeholders to help inform the writing and development of the NCA4 Transportation Chapter, and to raise awareness of the process and timeline for NCA4.

Chapter Author Team

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Overview and Topics of Discussion

Kristin Lewis, NCA Senior Scientist at USGCRP, opened each session by providing an overview of USGCRP, the structure of NCA4, the timeline for its completion, and ways to engage in the process. Jennifer Jacobs then presented general information on the Transportation Chapter, as well as draft key

focal areas that the chapter team had identified as particularly important. Participants were then asked to provide comments and direction on the draft key focal areas and overall structure of the chapter.

Key Takeaways

Participants raised questions and provided individual comments regarding societal impacts, research, case studies, and adaptation challenges. Key takeaways from each of these are listed below. (NOTE: Due to the time constraints of each session, the majority of the comments are from the discussion taking place during the meeting of the Aviation Climate Change Subcommittee.)

Societal Impacts

- Transportation was discussed as a core societal service as more than day-to-day movement of goods and people
 - For example, airports also play a critical role in emergency response and as a staging area in a crisis; the need for airports to have their own energy supply for this and other reasons was also emphasized
 - Similarly, hospitals play an important role in disaster response, and communities need to ensure that the road system to a hospital is as resilient as the hospital itself
- Impacts on transportation have a ripple effect on other parts of the transportation system (e.g., propagating weather delays at airports) and on other factors, such as the delivery of cargo and goods as well as the movement of people

Ideas for Research and Case Studies

- A case study on heat and its impact on runway length, efficiency, performance margins, and subsequent costs for runway extension was of interest
- There was discussion on the need to have a stronger communication and/or link between aviation and the insurance community
- A focus on economic aspects to show the actual cost of climate change on the transportation sector would be helpful
- Assessments focused on coordination between civil and military airports would be useful

Adaptation Challenges

- In the short run, airports have built-in resiliency to fluctuating temperature but this is not sustainable if this change increases over time
- The variability of climate change impacts presents challenges to long-term adaptation efforts in the transportation sector, especially because implementing adaptation measures for large infrastructure takes more time
- Private sector and public interests can sometimes be in conflict in adaptation efforts
- Funding for adaptation efforts is a challenge