



Climate Change, Water Impacts and Indigenous People: Cross-Regional Dialogue with Alaska, Pacific Islands and Arizona

Summary of November 2008 Video Conference

Introduction

On November 13, 2008 a video conference was held to bring together Indigenous decision makers and resource managers from Alaska, the US Southwest, and the Pacific Islands as well as climate scientists from these regions to discuss water concerns, including drought and other climate issues in these regions. This was the first of three cross-region dialogues whose goals are:

- to identify approaches, tools, and techniques to improve drought awareness, planning, preparedness, and response in each region and
- to improve the ability of scientists and federal agencies to address the information needs of underserved populations by strengthening communication, and prioritizing research and decision support needs.

A total of forty-eight people participated in the November meeting: 18 participants from Alaska, 19 from Arizona, and 11 from the Pacific Islands. The complete participant list is included at the end of this summary.

Two brief presentations preceded the main discussion and a short training on the national drought impact reporting system was also included. The primary component of the video conference, however, was the cross-regional dialogue about drought and climate change in Native communities in each region. Below is a brief summary of the discussion.

Discussion Summary

The dialogues allowed participants to hear about water stress and climate change in other regions and how others are responding and strategizing in response to these issues. Some climate impacts noted by participants include:

- **Alaska:** increased wildfires; in-migration of new insect-pests and forest mortality; declines in wildlife populations and changes in migration patterns; increases in fish parasites; cessation of barge transport of critical supplies (e.g. winter fuel oil) when streamflows are low, with attendant increased fuel prices; impacts on subsistence activities (hunting, fishing) and commercial fishing; and changes in vegetation.
- **US Southwest:** increased occurrence of Hanta virus and plague; water shortages; increased salt concentrations in water supplies and in plant root zones; decreased agriculture and rangeland production; dust pollution and dune migration; unusual weather patterns and changes in rainfall patterns (summer and winter); changes in small mammal populations; impacts on agriculture (higher water prices, less production); more forest fires; and higher management costs.



- **Pacific Islands:** critical water shortages and water rationing; severe drought affecting agriculture, including taro which is an important crop culturally; reduced agricultural irrigation allocations and decreased production; decreased cattle production; and wildfires, some intersecting w/urban areas and cutting off roadways; smaller islands experience salinity in groundwater; rainfall patterns shift from drought to severe flooding, with several rainfall anomalies (42 days rain).

Aside from these specific impacts related to climate, there were several environmental issues common to all the regions, including: poor sanitation, limited access to water, water contamination, access to technology (internet, computers) and therefore information, and poor economic conditions that exacerbate environmental conditions.

There was some consensus among the participants that it is not useful to distinguish between drought and climate change impacts. The group recommended an integrated approach to addressing drought, climate change, and environmental issues, and they emphasized that online decision support tools, data and information on these topics must be comprehensive and integrated in order to serve indigenous and Native American populations. They recommend these integrated approaches to all federal agencies, which suggests that their needs will best be met by integrated climate and environmental services, but with a much greater level of integration and cooperation between agencies. As one participant put it, “we need to get agencies to look beyond single issues.”

Participants also noted the confluence of climate and environmental concerns with current and legacy anthropogenic impacts of private sector mining, resource extraction activities, and public health – including sanitation, water quality, and health information. Participants encouraged the development of ongoing and improved communication through similar multi-region dialogues, as well as the creation of climate and environmental impacts databases tailored to Native American and indigenous environmental and cultural issues.

Among the firmest recommendations by participants across the regions was the need to foster networks amongst Indigenous people across the US as well as globally. There was a clearly articulate desire by participants to both continue the dialogue begun at this meeting, but more important, to carry forward with action related to climate and environmental issues in Indigenous communities.

About these video conferences

These video conferences are being hosted by the Alaska Center for Climate Assessment and Policy, the Climate Assessment for the Southwest (CLIMAS), and the Pacific Islands RISA, all three of which are part of the National Oceanic and Atmospheric Administration’s (NOAA) Regional Integrated Science and Assessment (RISA) program. The RISA program has an explicit mission to support research that addresses complex climate sensitive issues of concern to decision-makers and policy planners at a regional level. Funding for this project was provided by NOAA.