

POLICY – POSTER #9

Climate change and forest management in the U.S. northern Rockies: Implications and barriers for application and mitigation

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Rapid biophysical changes occurring in western U.S. forests highlight a need for understanding and adapting to climate change. Land managers, policy makers, and community officials lack local-scale climate change science and are urgently calling for research to inform management decisions. Nevertheless, a substantial disconnect remains between emerging scientific information and its application in management decisions.

We focus on the development and exchange of current climate change research across research-management-policy boundaries. We sought to understand how information transfer influences willingness to integrate climate change research into management actions and what barriers limit the usefulness of climate science in forest management decisions. We conducted four climate change workshops in the U.S. northern Rockies to present current science, integrated across disciplines and scales. A variety of workshop activities allowed 109 U.S. Forest Service personnel, scientists, and stakeholders to participate in open and reasoned discussions.

During the workshops, participants were asked to reflect on two open-ended questions: (1) what are the management implications of the information presented, and (2) what gaps exist in current understanding of climate change? Group discussions were synthesized into the most salient concerns. Pre- and post-workshop data from questionnaires and semi-structured interviews also allowed us to evaluate changes in individual behavior related to using climate change science in land management decisions.

While many managers feel the best available information may help them make adaptive management decisions, many are still resistant to using climate models to guide decisions. Participants reported a substantial increase in their perceptions of the effectiveness of management activities for climate change adaptation, but few specific management actions were verbalized. Funding, time, and support from supervisors were cited as barriers to mitigation. Additional public outreach regarding climate-related forest changes was broadly supported, suggesting that litigation by public interest groups may play a role in eventual management action.