MtnSEON Stakeholder Forum on

Socio-ecological Research Needs in the Blue Mountains

Tuesday, January 27, 2015

Hoke 339, Eastern Oregon University

La Grande, Oregon

On January 27, 2015, a group of stakeholders from Oregon, Idaho, and Montana gathered at Eastern Oregon University in La Grande, OR to identify socio-ecological research needs in the Blue Mountains. The workshop was hosted by the Blue Mountains Ecoregion Working Group, which is one of nine in the Mountain Social Ecological Observatory Network (MtnSEON). Funded by the National Science Foundation, MtnSEON seeks to facilitate, coordinate, integrate, and synthesize existing programs and studies that focus on socioecological systems in complex mountain environments of the American West, design collaborative research, and create partnerships among governmental and non-governmental constituents to promote socioecological resilience and sustainability in the context of environmental change. Its geographic focus is the northern Rocky Mountains, with recent expansion to the Blue Mountains of eastern Oregon.

Stakeholders in attendance at the La Grande workshop represented a wide range of groups including federal and state agencies, Native American tribes, local landowners, ranchers, timber industry, NGOs, and universities. The workshop began with a series of presentations on past and present socio-ecological research projects in the Blue Mountains, followed by an opportunity for around-the-table input from stakeholders that included their reactions to previous research and thoughts on priority research needs. The working group presented attendees with a series of eight potential research topics identified through past stakeholder interaction, and two additional topics were added based on stakeholder input (topics listed below). In the afternoon, participants gathered in three pre-assigned breakout groups and each stakeholder was asked to identify topics from the list that he/she felt were important to address in new research. Working group facilitators led breakout groups through discussions of all of the research topics, and stakeholders developed research questions associated with each topic. Attendees were generally in agreement that the topics are inter-related and several could be addressed together. Below is a summary of the group discussions.

1. **Rural Community Sustainability**
   Groups discussed the interdependence of communities and natural resources; emerging economic opportunities for local communities; and local socioeconomic impacts of forest

management decisions. Below is a sampling of research questions developed by the breakout groups:

a) What do the new natural resource economies look like in the Blue Mountains (new industries such as biofuel, leveraging existing opportunities)?
b) How dependent are our rural communities on urban centers in terms of movement of goods and services between the two?
c) What is a socially acceptable level of fire risk?
d) How can people be made more aware of social-ecological interdependencies?
e) What are the socio-economic implications/tradeoffs associated with different public lands management policies and practices (grazing, water, timber, recreation)?
f) What are the desired future conditions in our communities and what role can the Forest Service play in getting there?

2. **Management of Wildland Disturbances: Fire, Insects, Disease, Invasive Species and Herbivory**
Analyzing the impacts of invasives on the local resource base; managing invasives across ownerships; wildlife population dynamics; the effects of wildfire on other management objectives.

a) How do fire and other disturbances affect ungulate nutrition?
b) How does fuels reduction affect wildlife population dynamics?
c) How do we redistribute wildlife back onto public lands?
d) What are the impacts of invasive species on socioeconomic factors and biodiversity at the local community scale? What is the role of socioeconomic factors in transmission?
e) How to treat invasive plant populations at landscape levels, across management boundaries?
f) Will increasing fuels treatment budgets actually control the frequency and intensity of fire?
g) How should we be managing forests along the boundaries of public and private lands to prevent the transmission of wildland disturbances and associated negative impacts from one to the other?

3. **Commercial Timber Management and Production on Public Lands**
Understanding the positive economic and ecological impacts of timber harvesting; identifying the best timber management practices based on historical data documenting practices and impacts; looking at how local infrastructural changes influence local economies.

a) How can we quantify the role of timber production in promoting local jobs, biofuel and other services?
    a. What factors are not being considered?
    b. What is the minimum required to sustain a timber economy? Volume and predictability of timber resources? How can forest collaboratives influence these?
b) How can we use historical databases to inform best timber management practices?
    a. Create a decision support framework for managers (public and private).

c) What are the institutional barriers to utilizing excess materials such as biofuels?
d) Can we use retrospective analyses of effective silvicultural practices to inform future research, given historical datasets to guide best practices for future management? Tie to climate projections to anticipate future effects of forest management.

4. Management of Tribal First Foods

Reconsidering the biological-cultural divide for fisheries and other resources; looking at the associations among tribal first foods and other resource uses.

a) What is the balance between tribal first foods, agriculture/dams, and other users regarding water?
b) How to incorporate first food priorities into sustainable livestock management?
c) How will climate change affect root crops that are important first foods?

5. Recreation, Hunting, and Access Management on Public Lands

Quantifying the value of recreation on public land; the politics of access management policies; examining the effects of road closures on wildlife and other natural resources.

a) What is the true value of recreation in the Blue Mountains? How is it distributed? Is the value aligned with the funding/focus?
b) What recreation/travel access management actions are supported by the public and stakeholder groups? What are the barriers to coming to social agreement around travel and access management, and how can we overcome them?
c) Does political power among groups in the access management debate correlate with user group percentages?

6. Forest, Rangeland, and Riparian Restoration

Economic cost vs. value of restoration projects; the current vs. potential scale of restoration projects; emerging tools for restoration planning.

a) How successful have restoration projects been in terms of their original investments?
b) What are the scales of forest restoration needed to practice “good silviculture” that meets multi-resource forest restoration goals but also yields a marketable product?
c) Can riparian plantations withstand herbivory by any or all ungulates, or under what conditions can riparian planting succeed?
d) How can we get the tools, methods, and public support needed to undertake restoration at large landscape scales?
e) Historic range of variability studies focus on forest structure; how have other metrics like wildlife populations and water varied historically, and how can that inform restoration activities today?

7. Sustaining Biodiversity and Recovering Threatened and Endangered Species

Increased utilization of historic range of variability data; impacts of resource uses on threatened and endangered species.

a) How often and in what conditions does disease transmission occur between domestic and wild sheep in a fragmented ownership?

b) What is the impact of mining on water quality, restoration, and threatened and endangered species?
c) How do changes in infrastructure affect threatened and endangered species?

8. Sustainable Livestock Grazing, Production, and Predator Management on Public Lands

Sustaining livestock grazing in the presence of predators; the changing economics of public lands grazing; grazing management strategies; balancing grazing permittee needs with other ecological objectives.

a) How do we sustain predator-prey-livestock forage as a system?
    a. Look at distributions of prey and predators
    b. How do disturbance events affect predator and prey populations?
b) Can we conduct effectiveness monitoring of different grazing/management strategies to better understand impacts of grazing on treaty-reserved rights and resources of Tribes?
c) What is the potential role of grazing in managing disturbances like wildland fire and invasive plants?
d) How do you get best practices buy-in from permittees?
    a. Models from private industry: successes and failures?
    b. Does tenure of managers affect policy, buy-in, and public trust?
    c. Does a shift in responsibility for infrastructure and improvements from agencies to permittees affect rangeland and riparian health?

9. *Water Resources (added based on stakeholder input)*

Tradeoffs associated with water uses for different purposes; balancing existing and future user needs with available water resources; the use of incentives for water conservation; addressing future water shortages through management; the role of USFS management in conserving water.

a) What would happen to water systems/resources if we continue current practices?
b) Are there opportunities for water storage and water conservation to meet multiple needs?
c) How can we best manage our water resources? Balance best practices (upland water development), needs, and implementation. Focus on springs/water at the source.
d) What incentives can be implemented to improve management of water resources on federal lands (incentives are used a lot on private land)?
e) What are the social and ecological implications of change in irrigation methods on our water table?
f) What are the social and economic implications/trade-offs of the water protection legislation?
g) What is the consequence of an increase in forest canopy on the interception of moisture in the watershed?

10. *Governance, Collaboration, and Public Engagement (added based on stakeholder input)*

Social barriers to using established research findings to make science-based management decisions; the role of collaboratives in connecting agencies with communities and translating science; building trust between agencies and communities.

a) How can we engage a larger cross-section of our community in natural resource management (incentivize or educate)?
b) Why is science not being used or applied effectively in management decisions?
    a. How can research findings be interpreted to and for the public?
    b. What is the potential role for collaboratives in this process?
c) How can we facilitate trust-building between the Forest Service and the public?
    a. What are the barriers to trust?
    b. What is needed to turn policies into on-the-ground successes?
    c. How does the tenure of USFS managers affect policy, buy-in, and public trust?

****Network analysis of all of the above (added based on stakeholder input)***

The working group will continue discussing these research topics and questions with other scientists and stakeholders at an upcoming MtnSEON workshop, which will be held in Portland, OR in March 2015.

MtnSEON Working Group:

Socioecological Patterns and Processes in the Blue Mountains Ecoregion of the Pacific Northwest

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For more information about MtnSEON: http://webpages.uidaho.edu/mtnseon/