Tongass Climate Change Vulnerability Assessment Workshop

Phase 1 - Resource Inventory and Prioritization

Purpose
Scenarios are useful tools for planning in the face of uncertainty. In order to better prepare the Tongass National Forest for what the (uncertain) future might hold in terms of climate change in Southeast Alaska, the Tongass and the University of Alaska Fairbanks have begun a process to establish what we want to focus our research efforts on. This process will specify certain resources (e.g., salmon, yellow cedar, hydropower capacity, etc.) and evaluate how vulnerable these resources might be to climate-related changes in Southeast given a range of climate scenarios (also called a “vulnerability assessment”). The purpose of this workshop is to take the first step: inventory and prioritize resources impacted by climate change.

Specific Workshop Goals
1. Identify social, ecological, and economic resources in and around the Tongass vulnerable to climate-related changes.
2. Using a set of climate scenarios, discuss how climate change may impact these resources (Fig. 1).
3. Prioritize a list of candidate resources for phase II & III of the vulnerability assessment.

Anticipated Outcome
This workshop will result in a prioritized list of resources that will serve as candidates for further analysis in a vulnerability assessment. In addition, workshop participants will have identified, as a group, relevant climate-related impacts, or “exposures”, to resources and the social, ecological, and economic consequences of these exposures on each resource. While the Tongass may find it is necessary to deviate from the prioritized list created in this workshop, the product will be the primary input as the Tongass NF moves ahead with making final decisions for assessment.

Pre-workshop tasks for participants
Please begin thinking about target resources considering the following questions:

- Is the resource within the management realm of the Tongass NF?
- Is the resource likely to be impacted by climate change?
- If the resource is impacted by climate change, how severe are the consequences (social, ecological, economic)?
- Are both short and long-term resource issues being considered?
- Are community, district, and regional needs being considered?
- Is there an appropriate balance among social, ecological, and economic resources?
- Does data exist to assess the vulnerability of the resource?
- Do methods exist to collect the data we need to assess the vulnerability of the resource?
Some useful definitions for this workshop:

Climate vulnerability assessment: process of identifying, quantifying and prioritizing the potential impact and consequences of climate change on resources. These assessments are written to help decision makers prioritize actions that are geared towards dealing with climate change (also known as “adaptation actions”) and to help stakeholders consider potential future conditions resulting from climate change.

Resource: Something the society perceives has value. These include natural and man-made resources.

Examples: yellow cedar, salmon habitat, hydropower dams, recreational trails

Exposure: the type of stress or pressure put upon a particular resource of interest because of climate change.

Examples: change in temperature, snowline, storm frequency, hydrology, species ranges and interactions

Scenario: a collective set of assumptions about possible futures, intended to give the decision-maker a strategy-planning framework.

Projection: a prediction, usually limited to part of an overall system that is based upon a particular scenario.

Matrix: a way to organize the list of resources and associated exposures in a table to provide a framework for prioritization and analysis.

Figure 1. Decadal means (2010-2019 & 2090-2099) of winter and summer temperature projections in and around the Tongass National Forest.

For more information, please contact: Dr. Todd Brinkman, Scenarios Network for Alaska and Arctic Planning, (907)474-7139, tjbrinkman@alaska.edu