Facts, Hearsay, Unknowns & Values in Forest Resource Issues

The facts about forest issues can be very important in shaping opinions and decisions about laws and other policies that affect forestry, but other types of input also can be quite influential. Science and experts also can play a role in these attitudes and decisions, but these can span a wide range in quality. Forestry professionals can better judge and respond to information and decisions about issues and policies with an understanding of different types of input that are seen and heard, including that from scientists and other technical sources.

Facts, Hearsay, Unknowns & Values

Careful scrutiny and identification of facts, myths, unknowns and values in issues and input can be a powerful tool for evaluating the quality of decisions and the information used to make them. Some basic definitions:

- **FACTS** are statements of what is (i.e., something known to be certain). They are verifiable by independent observers.
- **HEARSAY (or Myth)** is a statement that is a falsehood, but is expressed or treated as a fact. The word myth is sometimes used with this meaning, and this usage is very different from spiritual or cultural myths that have unique ethical or moral dimensions.
- **UNKNOWNS** are statements that are ambiguous or characterized by great uncertainty. Unknowns are sometimes treated as facts. Uncertainty in statements is very common, but degrees of uncertainty vary widely and may be important in defining and resolving public issues.
- VALUES are statements or judgments of what situations or outcomes are preferred. Value statements very often differ among individuals or groups. Except for statements with a significant ethical or moral dimension, value statements cannot be considered right or wrong. Public issues are often settled through political compromises among groups or individuals with different values.

A key objective in understanding and resolving public issues is to clarify what is said or written about the issue. The categories above are not perfect, but they can help us wade through information and discussion about important issues, particularly those involving substantial conflict or controversy. It can be especially useful to:

- Identify and clarify key facts, myths/hearsay, values, and levels of uncertainty
- Challenge hearsay/myths and replace them with facts or clearly exposed uncertainties
- · Recognize and articulate our individual or group values and ethics
- Anticipate, accept, and work within value differences (e.g., compare values and focus on areas of agreement or where differences are small or manageable).

Science & Technical Experts in Policy & Decision Making

Society usually places considerable value and trust in science and technical experts in helping resolve important issues like policies affecting forestry. But these sources are not infallible and a critical eye can help identify important strengths and weaknesses. Some guidelines for critically evaluating such input:

- Be wary of unsolicited input & carefully consider possible motives (e.g., conflicts of interest) for such input
- Determine if the input reflects the perspective of a group or individual, and identify related biases or other limitations (e.g., narrow or inappropriate expertise)
- Analyze key statements in the information to determine the relative content of facts, values, unknowns and myths/hearsay
- Where publications or other technical materials/data are used, identify level and quality of professional peer review used to validate findings
- Determine if technical, economic, institutional and social feasibility of suggested policies or decisions were adequately considered. Where key questions or disagreements remain, seek out diverse information sources and try to identify areas of consistency or agreement

The Things that Scientists (and others who invoke science in their arguments) Say Publicly...

Category	Nature or Example	Peer Reviewed or Similarly Validated?
Universal Fact	laws of physics; very widely accepted & validated observation	yes
Local Fact	verified & statistically valid local observation	yes
Systematic Observation	observation with some control of bias & confounding variables	maybe
Conceptual Ideas & Models	ideas & models partly based on observation, with limited validation	maybe / partial
Casual Observation	observation that can be affected by observer or sample bias	no
Educated Guess/Opinion	comment based on relevant expertise or experience, but no direct facts	no
Guess/Opinion	comment with little or no basis in fact, relevant expertise or experience	no
Hearsay	unvalidated observation or comment repeated as if actually a fact	no
Value	expression of personal preference (i.e., how I would like things to be)	n/a

...may be in the Shades of Grey

Adapted from original handout by Paul W. Adams Forest Engineering Dept., Oregon State Univ. January 20, 1998