

Who should decide? Science and policy in decision making

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Policy makers should decide

- Who are the policy makers?
- Who are they beholden to?
- How do they decide?
- How should they decide?

What is the role of science in decisions?

- A cudgel to beat your opponents with
- None
- Information for decision makers
- The whole basis for decision making

What *should* science's role in decision making be?

- Where you stand on this question depends on where you sit, but in my judgment, the best answer is that science has a unique role in providing objective information to decision makers. It cannot be the only factor, but science is not “just another voice at the table.”
- Is that how the real world works?

How the real world works

- If I really knew that, I'd have made my fortune in the stock market and might not be here.
- But I do have some real-world experiences about the working of the real world of science and decision making, as many of you in this room do.
- Mine come mainly from working at the National Research Council.

The National Research Council

- Established in 1916 as the operating arm of the National Academy of Sciences
- Responds to requests for (primarily) science advice from (primarily) the federal government.
- Private, non-profit, nongovernmental organization (we are not part of the government!)
- <http://nas.edu/>

National Research Council Committees

- Volunteer experts (several from Canadian institutions; some in this room? {thank you!})
- Volunteers comprise balanced committees
- Bias and conflict procedures
- Consensus reports
- Extensive peer review (several from Canadian institutions; some in this room? {thank you!})
- Reports are *advisory*, sometimes quite effective
- Professional staff

Examples

- Klamath Basin Ecosystem (2002, 2004, 2008)
- Wind Energy (2007)
- California Bay Delta (2010, 2011, next month)
- Atlantic Salmon in Maine (2004)
- Science and the Endangered Species Act (1995)
- All available at nap.edu

Atlantic Salmon in Maine

- Many threats. Which are the most important? Dams.
- What can and should be done about dams?
- To what degree can science answer this question? What are its limitations?

Science and Policy and Atlantic Salmon in Maine

- Science can to some degree assess threats and their significance.
- Science can evaluate options for reducing or mitigating threats.
- Science cannot make value judgments, e.g., who will be affected by solutions, who should pay, how should we proceed, and so on. These are policy questions.

Science and Policy and Atlantic Salmon in Maine

- The report discussed ways of evaluating options.
- It worked through examples, pointing out that all the value judgments had to be made and provided by stakeholders (governments, residents, farmers, fishers, anglers, NGOs, blueberry farmers, others).
- USFWS held a workshop to understand this process and disseminate the information

What should we tell Nina Federoff?

- President of AAAS says she's "scared to death," "we are sliding back into a dark area," and "they are actually being effective."
- Who are "they"? Scientific naysayers. 60% of US population do not believe in evolution or "have no opinion". No opinion? What % of the population does not believe in gravity?
- Acceptance of human-caused climate change is frighteningly low in the US and is associated with political ideology
- The role of science advocacy?
- I am scared as well, and have no idea what to tell Dr. Federoff. I hope someone can figure it out.

Science Fellowships in Washington D.C.

- At the National Research Council:
- <http://nationalacademies.org/grantprograms.html>
- At the American Association for the Advancement of Science:
- http://fellowships.aaas.org/02_Areas/02_index.shtml