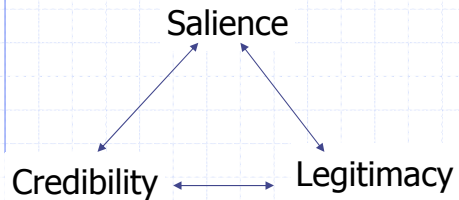


The Role of the Scientist

- Science is becoming more important to public policy.
- Science and politics have grown up as separate institutions.
- What roles then can scientists play in policy-related work?

The Dilemma of the Scientist

- Cash *et al.*



- Values and Science
- Jasanoff
 - Research science
 - Regulatory science

Salience is usefulness to decision maker – political/administrative standards

Credibility is scientific validity – scientific standards

Legitimacy is trust in info – political standards

Research science looks for info for info's sake

Regulatory science looks for info to support immediately available applications.

Timescale

Scientists at USGS

- One of few research science organizations in Federal Government.
 - "This is just like grad school!"
-Herman Karl
 - Commitment to objectivity
- Budget threats in Late 1990s – Relevancy?
- Research Science → Regulatory Science
How to gain salience without losing credibility?
- Commitment to collaborative land management.

Commitment to objectivity seen as essential

Science Impact

4 Cs.

Because science is becoming more relevant to general public, general public must participate in generation of scientific activity.

Collaboration in Science

- Benefits include:
 - Good for the soul
 - Increases Legitimacy
 - Opening the black box
 - Increasing sense of ownership
 - Increases credibility
 - Inform professional inquiry
 - Increase salience
 - Clarify social values impacted by policy choices

Cost is that scientists don't really know how to do this and many are not any good at it.

Data Collector

- USGS Streamflow Gaging System
 - Advantages
 - Foundation Science
 - Trend Spotter
 - Disadvantages
 - Boooooorrrrrriiiiiinnnnnngggggg!

Consultant/Expert

- Other People's Science (OPS)
- Advantages
 - Common way to apply science in collaborative processes
 - Source of much funding
- Disadvantages
 - Objectivity and OPS.
 - Professional development and OPS.

Most common role in collaborative processes.

Hypothesis-Driven Scientist

- Basic Research Science
- Advantages
 - Ideally,
"Produces results that are so right and so true that they make it into text books and then they change the fundamental framework of the next generation of decisions."
- Disadvantages
 - Or... 'hobby science'
 - Question framing
 - Budget Constraints

Science Communicator

- Translates science
- Advantages
 - Amplify legitimacy, increase access
 - Creativity: Art in Science
- Difficulties
 - Different skill set
 - Minimal support

Convenor/Mediator

- Gathers parties to the table
- Boundary Organization
- Advantages
 - Scientists already seen as objective
- Disadvantages
 - Different skill set

Really requires involvement with non-scientific institutions.
Project INCLUDE and MO REAP

Stakeholder

- Embraces value content of science
- Paul Younger
- Advantages
 - Greater freedom of action
 - Duty to humanity
- Disadvantages
 - Decreased legitimacy

Acts outside of scientific activity.

Advocacy does not mean dishonesty.