

Lecture 26 overview

Science, Policy & Sustainability

1. Overview
2. CEQ review
3. Interpretations
4. NEPA, policy & ethics
5. Rewriting NEPA

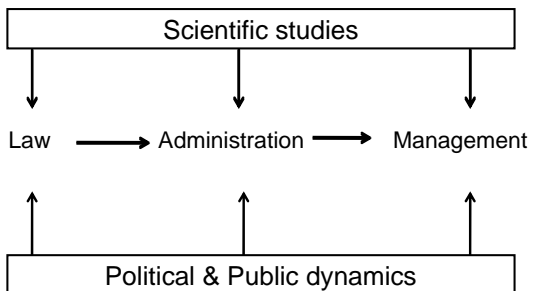
Environmental Ethics

Understanding → Decision → Action

Important Components: → Shape:

- | | |
|---|---|
| <ul style="list-style-type: none">• Personal experience• Psychological development• Cultural upbringing• Cultural evolutionary history | <ul style="list-style-type: none">• Values• Priorities• Decision-making process (self & governance) |
|---|---|

Actors in decision-making



Science & Policy

What is the difference between advocating for science and advocating for policy?

SCIENCE → POLICY

Domain:

Science

Science
Economics
Politics
Social science

Science & Policy

Do you feel comfortable as a scientist advocating for policy?



Science & Policy

Agardy, T., P. Bridgewater, et al. (2003). *Dangerous targets? Unresolved issues and ideological clashes around marine protected areas*. *Aquatic Conservation: Marine and Freshwater Ecosystems*. 13(4): 353.

1. MPAs often implemented without a firm understanding of the conservation science, both ecological and socio-economic
2. Advocacy of simplistic solutions to problems risks polarization of interests and ultimately threatens progress in conservation
3. Scientists have a professional and ethical duty to map out paths most likely to lead to improved resource management and understanding of the natural world

NEPA as Policy

Progressive legislation:

Forced all branches of the Federal government to:

1. Consider alternative actions
2. Take a hard look at environmental effects
3. Inform & involve the public

NEPA as Policy

Language of NEPA broad:

- Judicial review became important

CEQ:

- Co-founded with bill added strength
- Elevated concerns to Executive Office
- Used case law to aid in compliance

Driving force behind compliance:

- Lawsuits by NGOs and citizen groups
- Not knowing which judge would hear case added uncertainty

NEPA as Policy

Consequences:

Positive:

- Agencies learned how to comply
- Learned & discussed environmental issues

Negative:

- Adversarial system is win/lose
- *Win:* project started, NGO move on
- *Lose:* no project or delay

NEPA as Policy

Courts not best forum to resolve technical issues

Forced agencies to:

- Take a hard look at issues
- To hire or develop technical expertise
- Change their perspective on environmental issues

NEPA as Policy

This is Policy-Oriented Learning:

- The roots of successful adaptive management

However, *Win/Lose dynamic*:

- Cut short agency learning
- Knowledge not accumulated on EISs or mitigation measures

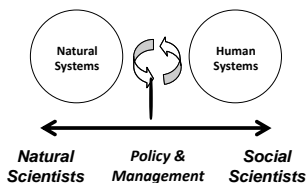
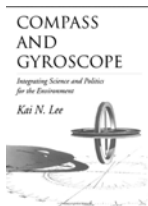
Science & Policy

Compass:

- Science

Gyroscope:

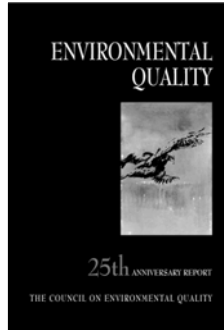
- Public process



CEQ Review

25th Anniversary
Review of NEPA

Discussed
Strengths &
Weaknesses



CEQ Review

REFLECTIONS ON 25 YEARS

"When something is complicated, you don't get a revolution overnight. When the Surgeon General first said smoking is hazardous to your health, not a single scientist in this country that I know of challenged it. This was a very simple proposition, not complicated like the environment. Still, it took us 25 years to stop smoking in airplanes and restaurants. There is no other issue like the environment that has the political, economic, technical, and cultural ramifications and that involves every discipline of science. If it took us 25 years to quit smoking in airplanes, do you expect that we would have solved all the problems in the environment? When you contrast that, it's revolutionary what has happened in the past 25 years."

Gaylord Nelson (U.S. Senate, Wisconsin, 1963-81)

NEPA as Policy

However, since NEPAs passage:

- Over 200 bills introduced to weaken or repeal NEPA
- None have passed
- What does this say about our political process?

Strength of the Status Quo

Political: *fragmentation of American politics*

- May be shielded by president, members of Congress, or agency that implements
- Very little movement: grazing & mining
- Some movement: forestry & fisheries
- Strong movement: endangered species, toxic cleanup, clean air & water

Legislative Policy Change

Dislodging the status quo is difficult:

- Build coalitions
- Effective leadership
- Using scientific information:
 - Predictions & assumptions & uncertainty
 - Values
- The Media
 - Getting attention
 - Scientists & solutions

Administrative Policy Change

Law & implementation not the same:

- Role of the courts
- Direct & indirect effects
- Adversarial vs. Cooperation:
 - Negotiated rulemaking
 - Mediation
 - Consensus building
 - Mutual understanding

Policymaking Process

The "Perfect Storm":

1. Compelling problem defined
2. Available solution
3. Supportive political climate

1970: NEPA

1970: Creation of EPA

1970: Clean Air Act

1972: Clean Water Act

1972: Marine Mammals Protection Act

1973: Endangered Species Act

1976: National Forest Management Act

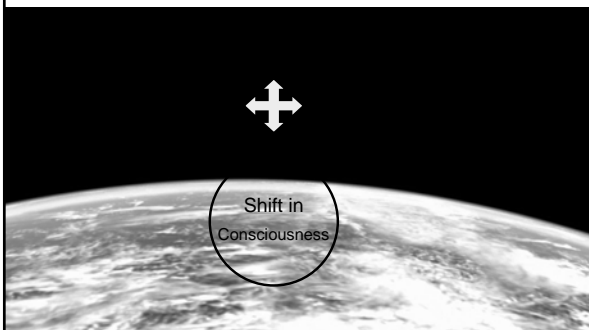
1976: Magnuson-Stevens Fishery Conservation Act

1980: CERCLA

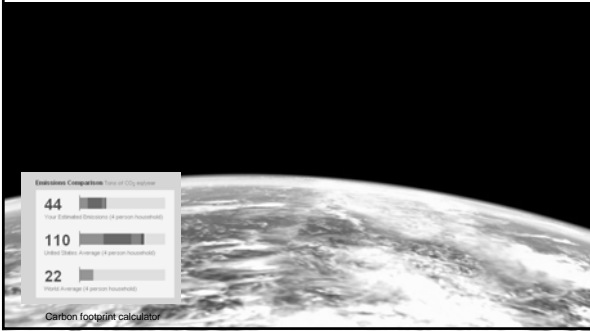
The Way Forward

- Americans' deeply divided over values
- Most supportive of the environment
- Environmentalism contradictory to our attitudes & beliefs
 - Commitment ambiguous
 - Need synthesis of goals & values

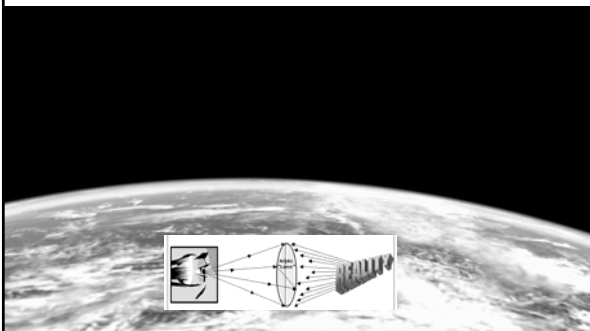
The Great Turning



The Great Turning



The Great Turning



The Great Turning

Deep ecology:

