Recent Decision Support Efforts Within the UBC CEDM Node

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Decision support

- For us, *decision support* means helping groups structure and think through complex choices involving technical information and value tradeoffs.

- This perspective is in keeping with the NRC 1996 report titled *Understanding Risk* when it called for integrating analysis and discourse.

- The issue is*: how to structure and accomplish this integration when working on complex problems involving many stakeholders and interests, with no really good alternatives, and complex tradeoffs.*

Structured decision making

- A term several of us in British Columbia use in reference to decision analytic approaches applied in stakeholder processes that involve civil society groups (with the best possible technical input) to provide recommendations on wise policy choices
- Basically a combination of DA methods with ways to make things work in extended group processes for important decisions by management agencies
- Several publications since 1996 with this theme, many of which have been supported by NSF through the CMU centers.

Evolution of this approach

- 1995-1996: Water Use Planning for fish/power tradeoffs
  - First major stakeholder process with stakeholders to use decision analysis concepts to achieve a consensus decision (paper supported by CISHDGC)
- 2007: Development of structureddecisionmaking.org website
- 2008: Development of climate-decisions.org website (both supported by CDMC)

New book

- Title: “Structured decision making: a practical guide for environmental management”
- Publisher: Wiley/Blackwell (Nov. 2011)
- Authors: Robin Gregory, L. Failing, M. Harstone, G. Long, T. McDaniels, D. Ohlson
- Audience: Graduate courses, managers in agencies, those concerned with practical “how to do it” perspective
- A coherent text, not an edited volume

Basic Structure

- 10 chapters
- Introduce basic idea
- provide some concepts
- “Decision sketches” (quick analysis)
- Strong reliance on BDM literature for guidance in using DA methods
- Objectives, alternatives, consequences, tradeoffs, learning over time, etc
- Dedicated to Keeney and Slovic (which signals where we are oriented)

Case studies

- No single case study
- Sometimes a couple of cases discussed in one chapter
- Virtually all are environmental management: water use, fisheries management, forestry, water supply, Athabasca River and so forth
- Concepts and methods applicable for technology-related issues also

Climate adaptation?

- Orientation is environmental decisions by managers; could be climate
- Combined with the climate-decisions.org web site, it is a complete package for addressing all the basics
- Not a cook-book approach, but a guide to concepts and process
- My input was CDMC-CEDM supported

Next Steps

- This summer we have a computer scientist working with us to develop an interface to link all the various decision support tools (calculators, elicitors, spreadsheets) developed within the CDMC and CEDM

- I have been approached by the EPA Office of R and D to advise them on approaches to pursuing a new sustainability R and D program (involving hundreds of EPA scientists). The tools from the web sites, the book and others will be important for the EPA.