Cockerill et al. (2009): A fresh look at a policy sciences methodology: collaborative modeling for more effective policy

In this paper Cockerill et al. brings together many different aspects of collaborative modeling. Collaborative modeling normally uses System Dynamics and a multidisciplinary group to explore complex dynamic systems. The authors elaborate how this approach can integrate "core ideals in the policy sciences" to improve decision making. To these core ideals belong integration of scientific information, local knowledge and values. One goal is to enable improved "on-the ground" decisions. To reach this goal an interdisciplinary understanding in the group must be reached. Especially the facilitation process is essential to identify the root of the problem and reach agreement on it. In the following the main points of the paper are summarized.

Introduction

- Rational positivist approach: "Breaking down barriers that separate scholars from one another, and to leveling-up methodological competence everywhere."
  → Early policy sciences are seen as "intellectual border-crossers".
- Overcome rational model for policy making.
  → Employ holistic perspective rather than reductionist approach ("context is key").
- Post positivist idea (complex social issues are resistant to empirical review)
  → Contemporary policy sciences (not offering empirically evidence)
- Policy requires collaboration among the public, technical experts, and decision makers.

Collaborative modeling

- Group modeling: Involves working directly with a client.
- Mediated modeling: Largely applied in complex ecological problems.
- Companion modeling: Utilizes role playing games.
- Participatory modeling: Used to cross different approaches.

} Different collaborative modeling approaches

- Shared vision modeling: Establish a shared vision.
  → Collaborative (or cooperative) modeling "means any method that brings together a multidisciplinary group and employs a model".

System Dynamics

- Textbook attempt using SD: 1. List variables. 2. Create reference mode or time graphs. 3. Build causal loop diagrams. 4. Develop dynamic hypotheses. 5. Build computer model.
- Most well-known use of SD: *Limits to Growth* (no predictions, but trends).
  → Criticism reflected reductionist attitudes

Applying collaborative modeling in policy

- Simplest form of collaborative modeling = academic approach → multidisciplinary group of experts → no integration into actual policy decisions (lack of attention is ignorance).
- Models as political tools in partisan debates → decision makers are unlikely to accept a model, if the results violate preconceived notions or if they are politically unpalatable.
- Work with decision maker → combine research-based information with value-based politics ("speak truth to power" = Combine the power of intellect with the power of social interaction)
  - Identify data sources, which have not readily been available to the modeler.
  - Clearly defining the problem and the complexities surrounding it.

    - Decision makers can direct their concern, anger and distrust.

Policy implications

- Argumentative policy analysis → "making sense together".
- Models as most effective tools to show what not to do.
- Key to better policy is in the question, not in the solution.

Thoughts about consensus:

- False consensus: Think to agree, when views are different.
- False conflict: Believing to disagree, when views are the same.
- In modeling: Drift towards consensus, even if consensus answer is not the optimal answer. → Structured conflict to achieve decision consensus (productive use of conflict).
- Getting everyone on the same page ≠ getting to a decision everyone can live with.