



Center for Research on
Environmental Decisions

Forms of Participation in Forecast Dissemination and Use

Nicole Peterson¹

Kenneth Broad^{2,1}

Ben Orlove^{3,1}, Alex Pfaff^{4,1},

Carla Roncoli^{5,1}, and Renzo Taddei^{4,1}

¹Center for Research on Environmental Decisions (CRED)
Columbia University

²University of Miami, ³UC Davis, ⁴Columbia University,

⁵University of Georgia

History of forecast dissemination

- Distribution to Media/Met services
- Diffusion from there
- Increasing concern with end users
- Participatory processes

What is participation?

- A range of definitions of participation
- Getting local people involved in how they receive and use information
- Different domains of participation
 - Economic development
 - Participatory democracy
 - Natural resource management

Problems with participatory model

- Forecast characteristics as constant challenge
- Criticisms of participation
 - Definitions
 - Whose ideas
 - Outcomes
- Our approach:
 - Case studies
 - Literature review

Case study: Ceará, Brazil

- Variety of participants
- Annual water allocation meetings
- Reservoir release rate scenarios
- Outcome by consensus unless no agreement, then vote



Participation: Outside the meeting

- Pre-meetings
 - Coalition-forming
 - Bargaining and negotiation
- Power relationships
- Contexts change over time



Expectations of participation in Ceará

Ideal	Ceará
Homogeneous participants	Diversity
Equal influence, inclusion	Pre-meeting alliances and deals
Open motives	Strategies
Unchanging, unimportant context	Important power relations

Case study: Uganda

- Agriculturalists in several different locations
- Farmers meet to discuss forecast
- Discussion includes plans for planting and related topics



Participation: Non-verbal

- Locations at meeting
- Clapping and laughter
- Glances
- Stance



Expectations about participation in Uganda

Ideal	Uganda
Behavior such as talking	A matter of presence
Empowerment of individuals	Reaffirming connection to group
Airing diverse opinions	Positive contributions only
Decision outcome	Consensus outcome

Criticisms of participation from literature review

- Assumes local homogeneity
- Context is often left out
- Outcomes are poorly defined
- Even the definition of participation varies from project to project
- Our cases support these and introduce other important factors

Participation and forecasts

- Forecast is only one piece of decision
 - Spreading risk
 - Experience-based knowledge
- Forecast adds information uncertainty
- Participation can actually exclude users
 - Social norms of sharing opinions
 - By invitation only (or the ability to go)
- Groups will have other goals

Conclusions

- Participation has been studied in other domains, and there is much to be learned from them
 - Broad definition of participation
 - Local definitions of participation
 - Importance of local (changing) context
- Not a guaranteed solution -- complex



Center for Research on
Environmental Decisions

Nicole Peterson
np2184@columbia.edu

<http://cred.columbia.edu>