The Influence of Group Discussion on Information Use:

Farmers' Groups, Climate Forecast Dissemination and Agricultural Planning in Uganda

Ben Orlove (UC Davis)
Carla Roncoli (U of Georgia), David H. Krantz (Columbia U)
Mark Grote (UC Davis), Merit Kabugo (Makerere University)

Society for Judgment and Decision Making
Annual Meeting, Long Beach, CA 17 Nov 2007

Center for Research on
Environmental Decisions

Research questions

1. How do farmers perceive, understand, and utilize forecasts?
2. How does receiving and discussing forecasts in a group context alter perception, understanding and use of forecasts?

Research activities

- Identification of sites and groups
- Translation of forecast in local language
- Dissemination of forecast to farmers' groups and to individual farmers in non-group contexts
- Video-audio recording of group meetings (discussions, recommendations)
- Follow-up interviews with farmers who did and did not participate in the groups

Calendar of activities

Sept 2005	First meetings of 6 farmers groups	Background interviews
Mar 2006	Second meetings of 6 farmers groups First meetings of 3 farmers groups	Interviews with members and non-members
Sept 2006		Interviews with members

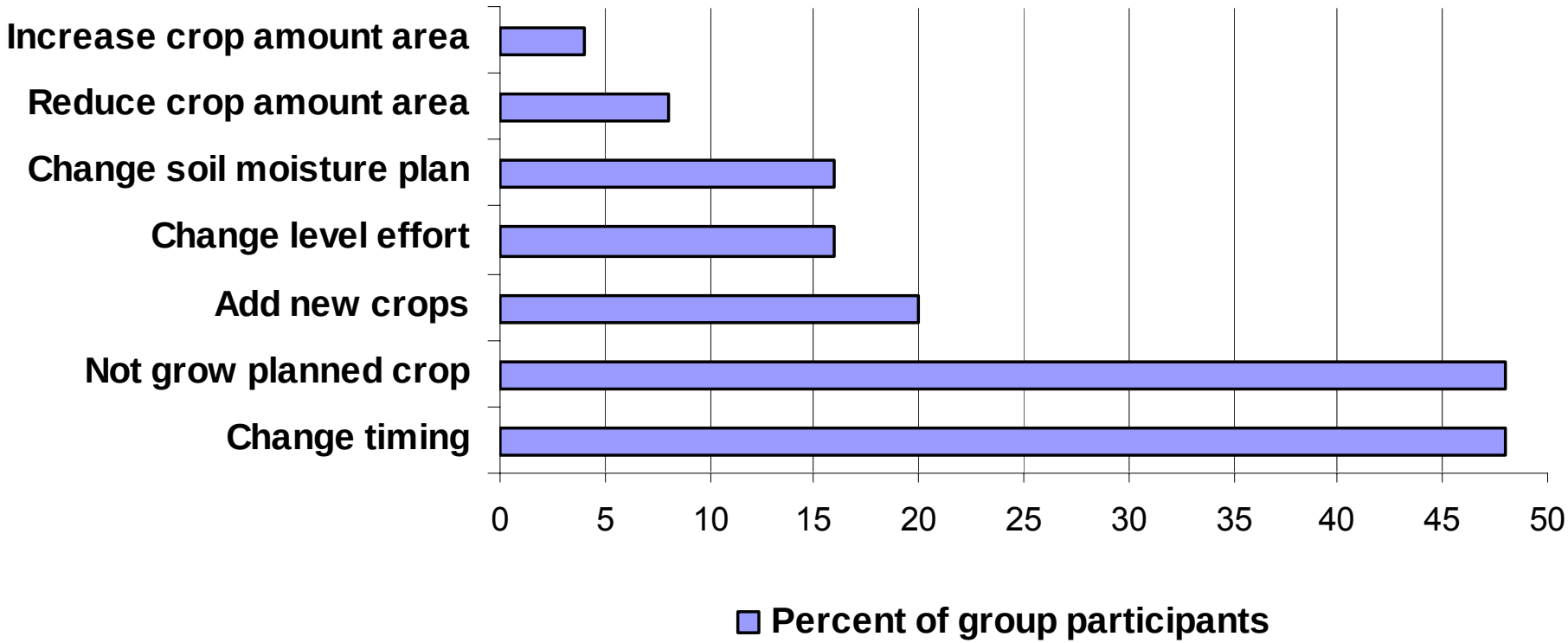
Use of forecast

About half of the group members said that they changed their agricultural plans because of the forecast

Characteristics of changes in plans:

- Options that the farmers are familiar with
- Closely linked to forecast of season
- Conducted at household level, not group level
- Consonant with farmer concerns

Forecast response strategies mentioned by group participants



Do meetings influence decision-making?

If the agricultural plans are

- familiar
- at the household level
- closely linked to the forecasts

why would meetings be needed to improve forecast use?

Note that the meetings have a cost in terms of time

Do meetings influence decision-making?

Contrast of group participants and non-participants in reported forecast-based plans *(retrospective to anticipatory)*

	Same expect	Yes	Not follow forecast	Total
Members	10	25	5	40
Non-members	2	2	10	14
Total	12	27	15	54

Do meetings influence decision-making?

Contrast of group participants and non-participants in reported forecast-based plans
(retrospective to anticipatory)

	Same expect	Yes	Not follow forecast	Total
Members	10	25	5	30
Non-members	2	2	10	12
Total	12	27	15	42

significant $p < .005$

Do meetings influence decision-making?

Contrast of group participants and non-participants in reported forecast-based plans *(anticipatory to anticipatory)*

	Same expect	Yes	Not follow forecast	Total
Members	4	6	3	9
Non-members	2	2	10	12
Total	6	8	13	21

Do meetings influence decision-making?

Contrast of group participants and non-participants in reported forecast-based plans
(anticipatory to anticipatory)

	Same expect	Yes	Not follow forecast	Total
Members	4	6	3	9
Non-members	2	2	10	12
Total	6	8	13	21

significant $p < .05$

Do meetings influence decision-making?

Self-reported influence of group on decision-making

Yes	No	No resp	Total
19	13	18	50

Spontaneous requests by groups to receive forecasts in the future

Yes	No	Total
7	2	9

Do meetings influence decision-making?

Comments about meetings:

- During discussion, forecasts “sink in” (*kusenesena*)
- Discussion reduces “confusion” (*kubuzabuza*)
- Discussion increases “trust” (*kwesiga*)
- Discussion increases commitment of “energy” to plans (*amaanyi*)

Do meetings influence decision-making?

Contrast of first and second meetings of groups to assess group processes

Individuals by number of reported forecast-based strategies, by first or second meeting

	0	1	2	3	4	Total
First meeting μ=1.18	2	5	4	0	0	11
Second meeting μ=1.42	3	9	4	2	1	19
Total	5	14	8	2	1	30

suggestive but not significant at $p < 0.10$

How does participation in meetings contribute to forecast use?

- Sense of confidence in forecast
- Level of commitment to forecast
- Ability to integrate forecast and traditional knowledge
- Ability to link forecast, agricultural strategies and agricultural outcomes