

Net-Map Case Study Series

Net-Map is an interview-based mapping tool that helps people understand, visualize, analyze, discuss, and improve situations in which many different actors influence outcomes. The tool was developed by Eva Schiffer at the International Food Policy Research Institute (IFPRI). This case study series collects experiences with the tool from around the world and is intended to explore different applications and adaptations of the tool, inspire future users and initiate discussion and methodological development. Users who would like to contribute their own case study and share their lessons learned, are encouraged to contact Eva Schiffer at IFPRI-NetMap@cgiar.org.

Case study 2: Research on Fisheries Management in Small Multipurpose Reservoirs

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Background of the Case Study:

This case study is drawn from the PhD research of Jennifer Hauck of the Center for Development Research (ZEF) In this case the research was focused on understanding networks on an individual actor level, to answer questions such as:

- Which actors were involved directly in fishing activities?
- Which actors within the community or from outside (apart from fishermen) did influence fisheries activities and profits from them?
- How relevant were these fishing activities for local livelihoods?
- Which actors were setting rules for fishing activities and who broke them?
- What were the reasons for breaking the rules)?
- What goals did actors have, that influenced the fishing activities (income generation, environmental protection, political goals, etc.)?
- Did fishermen and other water user built groups and organize themselves to reach these goals? Were people excluded from these groups and why?
- How important were fishing activities compared to other water uses and which conflicts or synergies arose from these activities?
- What kind of linkages and flows did exist in the network(s) (advice, money, gifts, instructions, disturbance,)?
- Which actors and links were involved in management and conflict solving mechanisms?
- Who could set rules and implement them successfully in the future?

Adjustments of tool for specific case:

The study was done using equipment similar to that provided in the toolbox. However, the equipment was purchased locally in northern Ghana. Thus the influence towers were built out of bicycle spare-parts (ball bearings). Also, to be

flexible to use the tool in localities where no tables were available, it proved useful to provide a mat to sit on and to use in lieu of a table.

To shorten the interviewing process, actors were visually grouped: A cluster of people where everyone was linked to everyone else with a specific link (for example a group where everyone helped everyone else) was indicating by drawing a circle around all actors involved in the color of this link. If one cluster as group was connected to another by a specific link, links were drawn, connecting two cycles instead of drawing individual links between all individuals in these clusters (see figure 4)

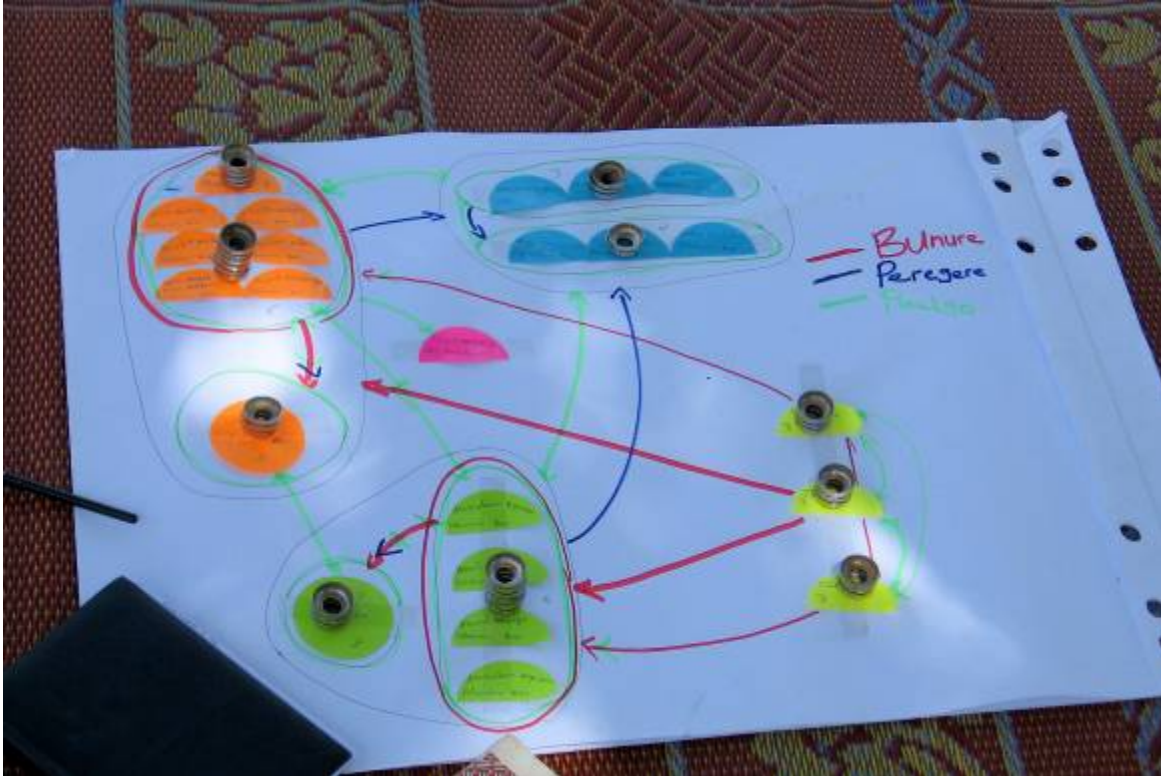


Photo 2: Individual Net-Map with bicycle-bearings for influence towers (source Hauck 2007)

How tool was applied:

The interviews were shortened in the course of the research in order to respect time limitations of farmers in the beginning of the rain fed farming season.

Preparation:

- Question defined: “Who influenced the fisheries activities in the last 5 years?”
- Links defined: giving/receiving advice, help/support, instructions and disturbance.
- Target group defined: fishermen, fish traders, extension agents, livestock owners, gardeners, Water User Association executives, local politicians, and traditional leaders.

- Interview partners selected from four reservoir communities: 24 interviews, partly with groups, partly with individuals.

Steps taken during the interview:

1. Discussion of the terms influence, advice, help/support, instructions and disturbance.
2. Writing the actors (individual names) who influenced the fisheries activities on colored post-its. Putting the post-its on A1 paper so that individual actors could be grouped together (e.g. fishermen got the color green, fish traders got the color blue, extension agents were put on red paper).
3. Drawing of a legend in the local Kasem language which explains which color belongs to which kind of link on the same paper and adding the links according to the interview partner.
4. Building of influence towers with bicycle spare parts according to the amount of influence assigned to the respective actor.

Lesson learned and recommendations

- In social sciences it proved to be useful to “cross-examine” results in order to avoid intrinsic bias. This can be done asking a wide variety of people on their perspective of the network (see Krackhardt 1987 for procedures of assembling cognitive social structures out of individual social networks). In addition other methods of data collection, such as observation, secondary data, questionnaires or group discussions can be used to validate the findings from the network maps.
- On the village level it seemed to make more sense to interview-partners to talk about individuals as actors as opposed to groups. However, when working with individual actor names, the information generated during the exercise can be highly sensitive, especially when there are individuals and groups with conflicting interests involved, which is often the case in natural resources management. In the purely academic application, harm can be avoided by thoroughly disguising the data (e.g., removing names and other identifying attributes) so that interview partners cannot take action against each other (Borgatti and Molina, 2003).
- Concerning the more logistical issues related to data-collection, it is recommended to arrange that the venue of the interview provides as much privacy as possible (sometimes difficult in a village level setting) and that the interview partner has a fair idea about the amount of time needed. It is easier to undertake the activity with a team of two interviewers, so that one can basically observe and take notes while the other one is more active. If an interpreter is needed, it is recommended to pre-test the method with the interpreter so as to make sure that he/she understands it well before going to the field.



Photo 3: Interview with a group of women who are making a living trading fish (Source: Hauck, 2007).

The data collection, in the context of the ongoing PhD research of Jennifer Hauck, based ZEF (www.ZEF.de) took place during July and August 2007. The data will be processed and analyzed using *VisuaLyzer*TM. For further information and follow up please contact Jennifer.Hauck@uni-bonn.de.