# A Summary of the Mapping Process from the Zambian Case Study

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#### **MAPPING**

One of the main objectives of this research is to produce hydropolitical maps of South Africa and Zambia. This section provides an introduction to the mapping process and some of the steps followed during it. The hydropolitical maps provide insights into the variety of actors and actants in the situation and their various interactions<sup>1</sup>. Three types of maps are used to build them: the situational map, positional maps and social arena maps. The situational maps, laying out all the actors and actants, begin the mapping process. They lay out the major human, non human, discursive and material elements in the research situation of concern and provoke analysis of relations among them. They are intended to capture and discuss the messy complexities of the situation in their dense relations and permutations<sup>2</sup>.

The positional maps are developed using the actors in the situational maps. They illustrate the positions taken on identified discursive elements. They also explore some of the silences in the situation<sup>3</sup>. They examine the major positions taken (and not taken) in the discourses. They are not identified with persons or groups but rather seek to represent the full range of positions on particular issues<sup>4</sup>. The social world maps identify the actors' perceptions of reality and allow the examination of intentionality. They are also based on the situational maps. They lay out the collective actors and their arenas of commitment framing meso-level interpretations of the situation. The interpretations engage collective action incorporating its social organisation and institutional and discursive dimensions<sup>5</sup>.

### Use of maps in situational analysis

The maps in situational analysis open up data - interrogating them in fresh ways. They are analytical tools, each contributing to the final analysis of the situation. The mapping is an interactive and on going process enabling us to continuously analyse data, refine emerging theories and track the analytical processes<sup>6</sup>.

Situational analysis resembles needs assessment but is broader in the sense that it identifies priority problems in a complex situation and also considers the underlying dynamics with a view towards identifying potential points of intervention<sup>7</sup>. It also focuses on capacities and identifies not only current policies and relevant services but current and potential stakeholders as well. From the analysis, the information gathered

<sup>&</sup>lt;sup>1</sup> An actor is usually understood to be a conscious being while an actant is all encompassing including different autonomous figures and elements in our world. Both terms refer to something that acts or to which an activity is granted based on what it does or its performance. (Callon 1991, Law 1992)

<sup>&</sup>lt;sup>2</sup> Clarke, A. E. 2003. Situational Analyses: Grounded theory Mapping after the Postmodern Turn. Symbolic Interaction, Volume 26, Number 4, pp 553-576

<sup>&</sup>lt;sup>3</sup> Silent relationships are relationships that are exposed through the relationship analysis of the situational map. The relationships are not likely to be recognised without the use of the situational map. <sup>4</sup> Ibid

<sup>&</sup>lt;sup>5</sup> Ibid

<sup>6</sup> Ib:4

<sup>°</sup> Ibid

<sup>&</sup>lt;sup>7</sup> Williamson, J et. Al. 2004. Conducting a Situation Analysis of Orphans and Vulnerable Children affected by HIV/AIDS - A Framework and Resource Guide. USAID (AFR/SD)

can be used to facilitate the process of planning systematic, strategic and collaborative responses that successfully address the issues<sup>8</sup>.

# Principles of situational analysis

The principles of situational analysis are as follows:<sup>9</sup>

- Ensure a collaborative process
- Enhance capacity
- Maintain joint ownership
- Use existing networks of resources
- Target priority areas
- Build on what is known
- Take a multi-dimensional, multi sectoral approach

The Second Order Water Scarcity Project maps are targeted at: various water users, policy makers, project implementers in the water sector and researchers. Multiple suitable maps are anticipated for various end users and for the different scales of use. Ideally the target audience should contribute to the format of the maps, determine their usefulness and their contents.

# **Situational Map**

A situational map giving all the human and non human actors in a situation can be quite detailed. It not only identifies the actors but looks at the relationships between them in the analysis stage. The actors, discursive elements and related issues are used to explore the underlying factors in decision making, interactions and power relations. The under lying factors come from; the responses given by the actors, conclusions from media and written reports and the analysis and understanding of the researcher in the given situation. The exploration of relationships makes the map more complex and sometimes messy. This is one of the hindrances in the applicability of situational maps. They appear more suitable for single case study research as opposed to multi site studies<sup>10</sup>. Some cases may be similar and generic terms can be used to make the map simpler and more applicable on a wider scale. A situational map can be used in a community to identify the actors and interactions among them regarding water access for various users in the community.

The situational map identifies the actors and the discursive elements but gives no indication of the influence of each actor. It requires further interrogation of the raw results. The situational mapping process introduces the positional maps and social maps using the discursive and related elements that are identified.

### **Positional Map**

Ideally the positional map should give the positions taken by different actors regarding different discursive elements but the position should not be directly linked or identified with any particular actor. It should also show what silences can be picked

<sup>&</sup>lt;sup>8</sup> Ibid

<sup>&</sup>lt;sup>9</sup> Ibid

<sup>&</sup>lt;sup>10</sup> This hindrance does not mean that situational maps cannot be used for multi-site research. There are linkages that can be established in multi-sited research. These linkages contribute to the richness of the research going beyond mere comparative studies. The translocal linkages should be established along with interconnections between them and other bundles of relationships that are part of the research. (Hannerz, 2003 and Marcus, 1995)

up from the positions taken. From the silences we can illustrate the issues that are being addressed and debated and the ones being overlooked. The positional map helps identify the actors that have more influence than others using the positions on the discursive elements. It is possible to point out what voices can be heard. The positions taken also help assess the impact that discourse has on the local level and in the situation. The maps have connotations of attempting to be objective in a rather subjective situation.

The positional maps have some draw backs in that some positions that are taken are personal positions and not necessarily the same as those of an organisation or institution<sup>11</sup>. Unless the positions are shown to be explicitly personal, it is not easy to differentiate the two in an interview scenario. Further the actors in an organisation may have different positions which are influenced by their location i.e. rural or urban. The positional maps are also influenced by the researcher's personal conclusions and opinions even though this may openly be kept to a minimum. Outside influence and rhetoric is also difficult to sift through. These draw backs do not mean the tool cannot be useful but show some limitations of its use and also point towards the benefits of using more than one type of map and a team effort in the final analysis.

# **Social World Maps**

The social world maps offer interpretations engaging collective action. They illustrate the social organisation and institutional and discursive dimensions in an arena. The interpretations may be personal to the actors but influenced by the situation and negotiations involving them. The actors situate themselves in the various arenas through their interpretations. Social world maps are based on an identified arena. The arena may emerge from the raw results from the fieldwork or can be pre selected for the analysis. Allowing the arenas to emerge presents some challenges in dealing with the numbers. A messy step of the mapping process may result, requiring the use of composite concepts especially for visual representation. This critical point of analysis is influenced by the interpretations of the researcher.

The further steps of analysis all depend on the interpretations of the researcher and persons conducting the analysis. After drawing out the initial perceptions of the actors using specific categories, the analysis can be redirected according to the desired end product. In this research the categories of analysis are the modes of resource appropriation investigated in the research project: representation, access modalities, transfer of access modalities, allocation and use. The interrogation of the raw results is guided by questions phrased around these modes. In the latter stages of analysis the questions are rephrased to enable further interrogation of the results to produce the social maps. Visual representation of the maps proves rather challenging for any situation.

The steps in social world mapping involve constant interrogation of the raw results collected during the fieldwork. It is important to remember the results of the various cycles of analysis can only be as good as the raw results. Methods used to collect material from the field must be well thought out and the material well documented. A good set of raw results potentially produces good end user tools.

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<sup>&</sup>lt;sup>11</sup> The positions may be personal to the interviewee and their thoughts and decision making processes may be difficult to locate in their particular organisation and situation