

# Social Capital in the Upper East Region of Ghana

## Authors

*Based on research conducted by Ilja Van Kinderen, edited by Amy Sullivan*

## Scope: Questions and challenges

The sustainability of technological interventions in rural settings often depends on socio-environmental interactions among and between local stakeholders, in other words, their networks. This tool describes a way to assess and analyze social networks within a community to determine how cooperation in that community influences “who participates, and how” in the development of a collective good such as a small reservoir.

Building social capital is an important goal in many development programs, including community-driven development and self-empowerment. Because social capital may have wide ranging implications, it is important to know how it can be influenced. In principle, the concept of “social capital” makes it possible for relationships and networks to be quantitatively and qualitatively measured. The tool presented here was developed to quantify actors’ perceptions of qualitative characteristics of community networks. It was employed to answer the question of how social capital theory can explain differences in management and usage of small reservoirs in two rural farming communities in the Upper East Region of Ghana.

## Target group

This tool is targeted at several groups of users: researchers interested in social cohesion or disintegration within communities; planners and decision makers seeking to better understand how social dynamics may affect the success of interventions or infrastructure development; and front line development project staff who wish to assess social relationships and issues of power within communities and groups of resource users. Virtually any community development investment is likely to benefit from a better understanding of intra-community dynamics.

## Requirements for application

This tool is designed to be used by skilled social science researchers who are able and willing to spend enough time in communities so as to properly implement the methodology. Successful application of the tool also depends on the availability of adequate research resources, accurate translations as needed, and the willingness of community members to participate frankly and honestly. Qualitative and quantitative analysis of data requires that researchers have appropriate training and equipment.

The tool makes use of a standardized questionnaire from the World Bank that covers the following six themes (Grootaert et al, 2004):

1. Groups and networks
2. Trust and solidarity
3. Collective action and cooperation
4. Information and communication
5. Social cohesion and inclusion
6. Empowerment and political action



**Picture:** Market in Upper East Region in Ghana  
(Source: Van Kinderen. 2006).

## Description and application

According to Seregeldin, “Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded. Social capital is the glue that holds societies together” (in Grootaert and van Bastelaer, 2001). The notion of social capital can help explain, and sometimes even predict, certain aspects of society. According to Grootaert, “A range of social problems—crime, health, poverty, unemployment—have been linked empirically to a community’s endowment of social capital (or lack thereof)” (2004: 3). According to Helliwell and Putnam (2004), the amount of social capital in a community influences the efficiency of production, happiness, life satisfaction and wellbeing.

Social capital is often the most powerful and abundant sort of capital existing in developing country communities. “Social ties are now viewed as important assets, a form of capital on a par with natural, physical, financial, human, and political capital, and a potential instrument for building these other forms of capital” (Meinzen-Dick et al, 2004: 202). To better understand its impact, “. . . one standard deviation increase in village social capital increases household expenditures per person (a proxy for income) by at least 20 to 30 percent. This impact is as large as an equivalent increase in non-farming assets or tripling the level of education” (Narayan, 1997: 1).

This tool uses three kinds of analysis to assess, measure and compare the impact of social capital on the development of a collective good such as a small reservoir:

1. Contextual analysis
2. Measurement of social capital
3. Analysis of the lifecycle of the reservoir

### *Contextual analysis*

Contextual analysis is broadly defined to include detailed examination of a wide variety of community characteristics: livelihoods and their seasonality, social facets, religious systems, and other formal and informal institutions – in brief, the broader context within which networks

and communities exist. Context can be related to history, traditions, culture, value systems, water-related perceptions and other factors.

Frames of reference for contextual analysis are not predetermined, but rather are defined by what is important in local communities. Contextual elements can be so diverse that preset frameworks might exclude factors of local importance. Interviews with local community members and “common sense” are used to gain insights into these factors. The focus is on local knowledge as a platform for studying communities. Local shared knowledge is given significant weight in defining a locally-relevant frame of reference.

Local frames of reference for contextual analysis emerge from an understanding of how actors relate problems, ideas and issues to their respective situations. This understanding must be consistent, without internal contradictions. To understand local decision making in context—how information is acquired and used—it is necessary to know what information is stored. This is local knowledge.

While this approach has no concrete framework, systematic in-depth interviews with local populations can be used to build an inductive local reality. For analyzing social capital, this includes decision-making criteria related to seasonality, motivation for tactical livelihood decisions, and power and gender relations, among others.

### *Measurement of social capital*

Differences between communities in factors associated with social capital can give insights into how communities organize themselves, and how they manage small reservoirs. As it happens, these differences in social capital factors can be measured.

In the examples from Ghana, social capital factors were measured through a modified version of a standardized questionnaire developed by the World Bank (see Appendix). Some questions were altered to increase the focus on farming activities, their seasonality, and their link with water management. Data were analyzed to derive statistical differences at a 10% confidence interval. This interval was considered appropriate because the target group was relatively small and the scale for replies (1 to 5) limited. In these examples, the questionnaire was applied to reservoir users in two communities: Tanga and Tonde. The focus was on farming communities located downstream from reservoirs. These communities use reservoir water for small-scale irrigation and are responsible for maintenance of valves and canals, and for local water distribution.



**Picture:** Workers in the field Upper East Region in Ghana (Source: van Kinderen, 2006)

*Lifecycle of the reservoirs*

Once contextual analysis has been performed, and differences in social capital have been measured, it becomes possible to assess the relationships between context and social capital and how these affect the lifecycle of the reservoir. In this analysis, the contextual and social capital findings are compared to the actual operation and function of the small reservoir. The existence of social capital, or lack thereof, can be expected to affect initiation of the reservoirs and subsequent decisions regarding reservoir use, maintenance, irrigation setup, and current operations. In-depth interviews help track the histories of the reservoirs and how various community processes determine the status quo.

*Synthesis*

Inherent in this approach to understanding community dynamics is the belief that there is no single objective “reality” but rather a range of realities which are created from a corresponding range of social contexts. These realities are exchanged, developed, and negotiated, often creating opposing views. The focus of this analysis is on the interactions of actors in these creative processes. These creative processes determine structure of the networks, rather than the structure of the networks determining the interactions. Instead of focusing on the behavior, attitudes, and beliefs of individuals, this analysis focuses on social actors in association with one another, and on how these interactions create a structure that can be studied and analyzed.

**Lessons learned**

Applying the social capital framework provided insights into the networks found in Tonde and Tanga. It was concluded that one farming community had significantly more social capital than the other. This difference was significant in at least three of the six aspects of social capital measured in relation to implementation and use of the small reservoirs. The most significant differences were found in: *groups and networks*; *social cohesion and inclusion*; and *trust*. These differences had their roots in the histories of the communities and are reflected in differences between the lifecycles of the two reservoirs.

*Groups and networks* played an important role. The four villages managing the more ‘successful’ reservoir formed one cohesive, homogeneous group (by gender and ethnicity). This group created positive externalities for the community as a whole by providing the bridging (ties between networks) and bonding capital (ties within the network) needed for successful implementation of the reservoir. This fundamental factor was lacking in the other community, which featured multiple loosely-connected networks, each with its own objectives and (conflicting) perspectives.

*Social cohesion and inclusion* were large contributors to the differences between the two communities. One community had no history of violence or conflict. The other community, however, recounted several incidents of conflict between two community groups or networks. These incidents, partially based on ethnicity, pertained to farming activities and were seen as significant, given that both groups currently use the dam.

*Trust* between and within the groups in the less successful system was deemed less than that in the successful system. More farmers in the less successful system felt that other farmers in the

same reservoir were likely to take advantage of them or each other. The mistrust carries over into the community's officially recognized Water User Association.

The differences in social capital impacted differently on different phases (initiation, adoption, usage) of the reservoirs. Lower levels of social capital resulted in more limited maintenance, weak management, individual walls, and differences in water distribution.

### *Initiation*

Empowerment, an element of social capital, was considered the trigger that led to construction of the dam at Tonde. An existing, cohesive group lobbied together for the dam, creating a sense of common responsibility for the reservoir. In contrast, the trigger for the construction of the reservoir in Tanga was mainly a local assemblyman who lobbied for the dam. Respondents reported no local effort or initiative from within the networks that would later benefit from the dam. In addition to lack of initiative in the project, later seeds of mistrust were sown by uneven distribution of assets at the reservoir site. Groups gave up disproportionate assets while being expected to benefit equally from the reservoir. Existing mistrust further limited communication between the groups.

**Picture:** market scene Upper East Region in Ghana (Source: van Kinderen, 2006)



### *Adoption*

In one community, strong reservoir management was built on the foundation of the network that had promoted the dam's initiation. Central coordination of reservoir-related activities and common acceptance of decisions were possible due to the trust prevailing within the group. The common wall surrounding the scheme to prevent livestock intrusion, and the trench method for carrying water from main canals through neighbouring fields, are examples of collective actions that require coordination.

The multiple loosely-connected networks existing in the second community lacked coordination. Each of the several networks had its own objectives and perspectives. Mistrust and exclusion resulted in a lack of incentive for initiating or restoring collective action. In general, communication was lacking. This suboptimal functioning in the community created a window of opportunity for individual actions to overrule coordinated action. Effects of decisions made to achieve individual objectives can still be seen when examining the individual walls between plots, activities of upstream farmers, and hand dug wells within the scheme. Individual runs for plots led to uncoordinated distribution of land. Land was frequently claimed on past property rights.

### Usage

Results from the above research culminate in an assessment of reservoir use. In Tanga, farming activities are seen as individual actions. Any type of communal management suffers from limited support. Many farmers limit their contributions to reservoir operation and maintenance. Others opt to farm upstream, exacerbating the problem and further limiting contributions. Scheme maintenance lags behind and channels fall into disrepair, causing farmers to perceive management as weak, further undermining the incentive for users to pay fees.

The more socially cohesive reservoir is run by a community that supports and respects the local Water User's Association (WUA). The WUA is based on the cohesive network that initiated the establishment of the reservoir. Unacceptable behaviour, such as failure to pay the WUA fees or wasting water, can result in farmers being expelled from the scheme. As the WUA has the support of its members (the farmers), enough funds for maintenance are received and distribution of land is controlled.

### Conclusion

Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people, and the institutions in which they are embedded. Social capital is the glue that holds societies together. The main focus of the framework is on the *perception* of network characteristics.

In the cases presented here, it can be argued that actors' perceptions of their networks had a significant impact on the functioning of these networks. Examples can be found in:

- The perception of differences within networks. In the one reservoir, different ethnic groups used the reservoir simultaneously. It can be argued that the *perception* of the difference in ethnic background and not the ethnic difference itself affected reservoir functioning. Perceived differences form a basis from which conflicts and arguments may emerge. These conflicts influence the effectiveness of the local network.
- The perception of the importance of trust in the networks. *Trust* was found to be very influential in the functioning of networks in the farming communities. WUAs have formal responsibility and authority over the reservoirs, yet they did not prove to be very influential in the actual functioning of networks in either case. In one case, many farmers perceive the WUA as untrustworthy and therefore limit their cooperation. In the other case, farmers perceive an outside group as having more influence on their farming activities, and perceive the associated network as strong.

The empirical research suggests that perceptions about networks do matter. Therefore this tool can be a useful addition to network analysis. In this study, the social capital framework provided a platform upon which two sites in Ghana were compared. The tool covered a wide range of network characteristic and quantified differences between community networks for various factors associated with social capital. These differences allowed qualitative analyses to focus more closely on understanding the causes of the differences.

## Recommendations

1. Consider using this tool in a variety of sites both before and after an intervention, especially when a project is reasonably large. Then use study outputs to develop a more streamlined instrument that can be used in future studies.
2. Use a technique that is almost guaranteed to generate useful results, whether your initial hypothesis is correct or not. For this, participatory approaches that also provide useful outputs for the community or inputs into a further decision-making process are good.



**Picture:** Women watering in the Upper East Region in Ghana (Source: van Kinderen, 2006)

## Limitations

While this tool has identified techniques for both qualitative and quantitative analysis of the perception of human networks, accuracy ultimately depends upon the reliability of data. Because many of their findings are subjective, the use of these tools should be considered only part of a larger process of understanding and managing social dynamics.

## References

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- Grootaert, C. and T. van Bastelaer. 2001. Understanding and measuring social capital: A synthesis of findings and recommendations from the social capital initiative. Social Capital Initiative Working Paper No. 24.
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- Narayan, D., Pritchett, and Lant. 1997. Cents and sociability: Household income and social capital in rural Tanzania. World Bank, policy research working paper.

## Contacts and links

[www1.worldbank.org/prem/poverty/scapital/home.htm](http://www1.worldbank.org/prem/poverty/scapital/home.htm)

## APPENDIX

### Final questionnaire

#### Derived from World Bank Questionnaire

- To which tribe do you belong to or do you consider yourself?
- What is your religion?
- (Write down gender of person being interviewed)

I would like to start by asking you about the groups or organizations, networks, associations to which you or any member of your household belong. These could be formally organized groups or just groups of people who get together *regularly* to do an activity or talk about things.

1. Of how many such groups are you or any one in your household (wife, kids) a member?
2. Of all these groups to which you or members of your household belong, which one is the most important to your household in the dry season for the farming activities?
3. Thinking about the members of this group, are most of them of the same....
  - A. Religion (1 Yes 2 No):
  - B. Gender (1 Yes 2 No):
  - C. Ethnic or linguistic background/ race/tribe (1 Yes 2 No)
4. Do members mostly have the same...
  - A. Occupation (1 Yes 2 No):
  - B. Educational background or level (1 Yes 2 No):
5. Does this group work with or interact with groups *outside* the village (or reservoir)?
  1. No
  2. Yes, occasionally wet and dry!
  3. Yes, frequently
6. About how many *close friends* do you have these days? These are people you feel at ease with, can talk to about private matters, or call on for help.
7. If you suddenly needed to borrow a small amount of money [enough to pay for expenses for your household for one week], are there people beyond your immediate household and close relatives to whom you could turn and who would be willing and able to provide this money?
  1. Definitely
  2. Probably

3. Unsure
  4. Probably not
  5. Definitely not
8. Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?
1. People can be trusted
  2. You can't be too careful
9. In general, do you agree or disagree with the following statements?
- A. Most people in this village are willing to help if you need it in the dry season?
1. Agree strongly
  2. Agree somewhat
  3. Neither agree or disagree
  4. Disagree somewhat
  5. Disagree strongly
- B. In this village, one has to be alert or someone is likely to take advantage of you in the dry season. And in the wet season?
1. Agree strongly
  2. Agree somewhat
  3. Neither agree or disagree
  4. Disagree somewhat
  5. Disagree strongly
10. How much do you trust....
- A. Local district officials
- B. Assembly man
- C. Water user associations
1. To a very great extent
  2. To a great extent
  3. Neither great nor small extent
  4. To a small extent
  5. To a very small extent

11. In the past 12 months did you or any one in your household participate in any communal activities, in which people came together to do some work for the benefit of the community?
  1. Yes
  2. No (skip to question 14)
12. How many times in the past 12 months? And which was the most important one?
13. Did you or would you contribute time or money to that project?
  - A. Time
    1. Will not contribute time
    2. Will contribute time
  - B. Money
    1. Will not contribute money
    2. Will contribute money
14. If there was a water supply problem, such as in the reservoir, in this community, how likely is it that people will cooperate to try to solve the problem?
  1. Very likely
  2. Somewhat likely
  3. Neither likely or unlikely
  4. Somewhat unlikely
  5. Very unlikely
15. In the past month, how many times have you made or received a phone call?
16. What are your three main sources of information about what the government is doing (such as agricultural extension, etc.)?
17. How many times in the past month have you asked advice to a group or friend regarding farming questions? And were they from the same reservoir?
18. [IF NOT ZERO] Were any of these people....
  - A. Of different ethnic or linguistic background/ race/caste/tribe? (1 Yes, 2 No)
  - B. Of different economic status? (1 Yes 2 No)
  - C. Of different social status? (1 Yes 2 No)
  - D. Of different religious groups? (1 Yes 2 No)
19. In general, how safe from crime and violence do you feel when you are alone at home?

1. Very safe
  2. Moderately safe
  3. Neither safe nor unsafe
  4. Moderately unsafe
  5. Very unsafe
20. In general, how happy do you consider yourself to be (now)?
1. Very happy
  2. Moderately happy
  3. Neither happy nor unhappy
  4. Moderately unhappy
  5. Very unhappy
21. Do you feel that you have the power to make important decisions that change the course of your life? Rate yourself on a 1 to 5 scale, where 1 means being totally unable to change your life, and 5 means having full control over your life.
1. Totally unable to change life
  2. Mostly unable to change life
  3. Neither able nor unable
  4. Mostly able to change life
  5. Totally able to change life
22. In the past 12 months, how often have people in this village got together to jointly petition government officials or political leaders for something benefiting the community?
1. Never
  2. Once
  3. A few times (<5)
  4. Many times (>5)
23. Lots of people find it difficult to get out and vote. Did you vote on the last presidential election?
1. Yes
  2. No
24. If you could improve something about or in the reservoir, what would it be?
25. And to who would you go to?

26. Why did you start dry season farming?
27. What do you see as the biggest difference between Tonde and Tanga?
28. Did your life improve after the coming of the small reservoirs? Any comments or additives that could help the project?