Intersecting social-capital and perceived-efficacy perspectives to explain underperformance in community-based monitoring

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Abstract

While community-based monitoring (CBM) is becoming increasingly commonplace, evidence as to its functioning remains inconsistent. Based on Ugandan village network and survey data, this paper studies CBM from a social capital and perceived efficacy perspective. From a social capital perspective, the prospects for CBM look promising as there is a high social capital stock and an efficient information sharing network galvanizing information into a few key individuals. Also the dominant efficacy profiles are encouraging with an abundance of 'followers' (high belief in collective capabilities) and some 'leaders' for collective action (high belief in individual and collective capabilities). And yet, little CBM activities are undertaken. Our article shows that only the intersection of both theoretical lenses explains the underperformance in CBM, as those that are central in the information sharing network do not have a 'leadership' efficacy profile while those that are 'leaders' are not central in the village information network.

Keywords
Community-based monitoring, collective action, social capital, perceived efficacy, social network analysis, Uganda

Introduction

Since the turn of the century community-based monitoring (CBM) has become increasingly popular, particularly in settings where state-driven top-down M&E mechanisms are largely absent or dysfunctional. Bottom-up and citizen-led monitoring are propagated, starting from the assumption that they enhance local ownership, trigger transparency and accountability, foster local learning and contribute to improved local service delivery and natural resource management. While the popularity among practitioners has also recently led to an upsurge of academic research, there is still no unequivocal evidence on the impact of CBM. Some studies (Björkman and Svensson, 2009; Deiniger and Mpuga, 2005; Duflo et al., 2009) have documented positive effects on the quality and utilization of service delivery and development outcomes, while others (Golooba-Mutebi, 2005; Lassibille et al., 2010; Olkon, 2007) are more skeptical and hint at the limited enforceability of such bottom-up initiatives. From an evaluative point of view the diverging conclusions are not entirely surprising: different studies use different (impact) evaluation methods (ranging from RCT to more qualitative studies), dependent variables vary (e.g. service delivery in sectors with different degrees of 'publicness'), local settings differ on socio-political and cultural characteristics (Björkman and Svensson, 2010) and even if community initiatives appear highly similar at first glance, a closer look often unveils important differences, *inter alia* in the degree of inclusiveness of participants (Pritchett et al., 2010).

While citizen's participation in CBM initiatives is often assumed to exist automatically, it is increasingly acknowledged that this essential building block is not self-evident (see Molina, 2014; Olkon, 2007). However, as most impact evaluations fail to include detailed process evaluations, we often lack insight into the type and effective degree of citizen's participation and the factors that drive or restrain citizen's involvement in CBM. Drawing upon data from a Western Ugandan village where access to high quality water is a pressing community problem, this article investigates why citizens are limitedly involved in community monitoring for better water service delivery.

Our study adopts a theory-driven approach and conceptualises CBM as collective action which generally refers to actions undertaken by a group of people with the aim to achieve a common objective (see Olkon, 2007). Collective action does not arise automatically and its problematic nature has led to a stream of literature from various social science disciplines investigating factors that impede and/or trigger its occurrence. We draw upon two specific strands of collective action literature to derive a set of key features which are generally associated with a higher level of collective action. We confront these key features with empirical evidence from our Ugandan village setting and conclude that most of the key features are present for collective action to thrive. Yet, we simultaneously

observe little instances of community monitoring in reality which puts each of the distinct theoretical approaches into perspective. Our article demonstrates that it is only the intersection of both theoretical perspectives that furthers our understanding of the paucity of community-based monitoring.

The structure of the article is as follows. The next sections briefly introduce the two strands of collective action literature, the research setting and data collection. Section five describes in more detail villagers' lack of access to high quality water while the next two sections confront each of the two theories' key propositions with empirical evidence. The actual degree of community monitoring is described in section eight while section nine interprets findings through a combined theoretical lens. The last section concludes and discusses our findings.

Collective action: insights from social capital and perceived efficacy literature

Freeriding, social capital and social network analysis

A first important strand of collective action literature we focus on is related to Mancur Olson's 'The Logic of Collective Action' (Olson, 1965). Olson considers collective action to be problematic because of the free-rider problem. As it is difficult to exclude individuals who do not contribute to collective action from its benefits, it is rational for each of the individuals to free-ride on the efforts of others, which in the end undermines collective action. This also holds for CBM where it is difficult to exclude citizens who did not participate in monitoring exercises from the access and use of improved community services (such as higher quality water services) which incentivizes each citizen not to participate in CBM. One way to solve the free-rider problem is to use incentives that can be selectively allocated to potential participants. Besides financial and material 'selective incentives', social emotional incentives can also be particularly strong drivers of collective action (Olson, 1965). The latter is amongst others evidenced off in the large stream of social capital literature which has demonstrated that collective action is particularly stimulated in groups that share common norms and high levels of trust (Fukuyama, 1995; Ostrom, 1990).

Since the turn of the century, important advances have been made in empirical social capital research through the use of Social Network Analysis (SNA) which is particularly apt to study patterns of relationships among actors and entities. The use of formal network measures (such as 'density' that measures the degree of connection among network members) has particularly allowed to solve construct validity problems which generally affects social capital research (Lin, 1999).

Social network analysis in the field of collective action research has mainly pivoted on the importance of structural features of networks on the one hand and individual positions in networks on the other hand. While it is beyond the scope of this article to give a full account of the evidence, it has for instance been demonstrated that collective action is more likely in networks that are more dense, where people are more interconnected, where there is a stronger cohesion (bonding) and/or bridging among different sub-groups (Pretty, 2003; Sandström and Rova, 2010). However, as highlighted by Bodin and Crona (2009) in their extensive literature review on the topic, there is also compelling evidence for the proposition that networks that are too dense may also impede collective action, which leads them to conclude that more research is needed on the exact degrees of density, bonding and bridging.

Similarly, research regarding the effects of structural characteristics of individual actors on collective action is not unequivocal. While some highlight a positive effect of centrally positioned actors (degree centrality) who can easily coordinate collective action as they have many ties with other people (Isaac et al., 2007), others point out that such centrally located individuals may also misuse their power to block collective action if it is against their own interest. What proves particularly important in this regard is the behaviour of centrally located actors, something which is gradually receiving more attention in empirical research (Crona and Bodin, 2010) and which will also prove a key finding in our own empirical research.

Perceived efficacy

In contrast to Olson, 'the critical mass' sociology literature does not consider the free-rider problem as the main hindrance to collective action, but rather the 'low perceived effectiveness' that individuals have regarding the success of the action. If citizens do not believe that collective action can make a difference, they will rationally decide not to participate, certainly in cases where the costs of participation are perceived to be high. As perceived effectiveness is thought to increase when 'a critical mass' of individuals participate, collective action is considered more likely in large groups as compared to smaller groups, and in more heterogeneous groups where different members have access to different resources (Oliver et al., 1985).

A highly similar concept is used in political science to explain citizens' participation in all types of political activities (Verba et al., 1995). The concept of 'perceived political efficacy' was initially conceptualized and studied alongside the internal/external dichotomy. While the former emphasizes beliefs about one's own competence to understand and engage in politics effectively, referring to a feeling of possessing the necessary skills, knowledge and ability to bring about changes, the latter reflects someone's beliefs about the system's responsiveness to their claims and demands (Craig et al., 1990). Relating to the observation that many political activities are performed in coordination and concert with others, scholars nowadays also distinguish between a collective and individual dimension (Manning et al., 2008; Lee, 2006).

Perceived collective efficacy then captures a citizen's belief in the capabilities of the public as a collective actor to achieve social and political outcomes (collective internal) and the system's responsiveness to the public's actions (collective external). Interestingly, perceived collective efficacy is thought to be particularly relevant in cases where a certain degree of interdependence is necessary to be successful. In his research on the effect of different types of perceived efficacy on a set of political attitudes and collective modes of participation, Lee (2006) demonstrated that behaviour or intentions that implied acting together were strongly related to perceived collective efficacy whereas this was not the case for intentions and behaviour where coordination with other actors was less important. For the latter types of actions, individual dimensions of perceived efficacy proved to be more important.

In sum, both theoretical lenses have different perspectives on how and when collective action will materialise. Whereas the social capital literature finds the underlying stock of social capital (materialised in social networks) and the structural characteristics of key actors crucial in understanding collective action, the perceived efficacy literature hypothesises that the effect of different types of perceived efficacy is crucial. Based on survey and network data from a Western Ugandan village, the next sections empirically investigate the perceived efficacy, the social network structure (social capital) and positioning of actors in the village to learn whether the villagers are likely to engage in collective types of action such as CBM. Prior to this we provide details on data collection and study setting.

Data collection

Data collection draws upon a combination of secondary and primary data collection. Survey data from 126 out of 131 citizens[1] was collected with respect to their socio-economic profile, participation in various types of water-related monitoring and their perceived efficacy. Moreover, social network data was gathered to probe into citizen's social support and water information sharing networks, capturing with whom social matters are discussed and water information is shared respectively. Data collection tools were pretested mid-October 2015 and fine-tuned before the main data collection took place in October-December 2015 by a team of 6 researchers[2].

Study setting

Our study location is a rural Western Ugandan village with a fairly homogeneous population in terms of language (Runyankole) and tribe (Banyankole). Uganda is a particularly useful setting for this type of research as it is one of the countries with a high level of decentralization where local governments have a fairly high degree of autonomy, which is, at least in principle, also thought to bolster citizens' participation. The local government consists of a complex five-tier structure in which local councils at village level (LC 1) are the lowest and districts (LC 5) the highest level. All levels are headed by an elected chairman and have administrative units while only the district and sub-county level (LC3) also have technical staff at their disposal (Francis and James, 2003). Top-down bureaucratic types of M&E, in which political and technical (if any) wings participate, are supposed to be present at all levels of the local government structure but in reality this system also tends to be affected by Uganda's well-known implementation gap (source omitted for blind review). At village and parish (LC2) level no standardized data collection or reporting formats are used, which makes the local monitoring by chairmen a highly informal exercise.

Local level citizen monitoring is provided for in various of Uganda's laws and policies (i.e. 1997 Local Government Act, 2005 Access to Information Act; 2010 National Development Plan) while the country has also been a laboratory for various innovative experiences of local level citizen monitoring (Björkman and Svensson, 2009; Cilliers et al., 2014). Since 2009, 'barazas' are annually organised at sub-county level (LC3), which gives citizens the opportunity to hold officials accountable for service delivery in the education, health, water, agriculture and road sectors (Republic of Uganda, 2011). In spite of this enabling environment, the findings of the 2009/2010 Local Government ouncil's Score-Card, which assessed the performance of local government councils in 20 districts demonstrated that effective participation is generally limited. The large majority of the (particularly uneducated) rural population is unaware of the rules and responsibilities of local councils and political leaders, their rights as citizens or the fact that leaders should report and be accountable to them (Tumushabe et al., 2011). Notwithstanding some exceptional cases[3] parents and communities have also become more passive over time in sectors such as education and health, where user fees have been abolished (Sekirime, 2012). Our study focuses on the water sector where the level of ownership might be slightly higher as communities should contribute to the capital cost and maintenance of water sources, notwithstanding the fact that many villagers are still of the opinion that the government should provide water for free.

Local water service delivery: a pressing community problem

Similar to many other rural villages in the area, the large majority of the villagers depend upon public water sources. Our survey findings highlight that almost all villagers rate local government's policy on water services very poorly (average score was 1.63 on a ten point scale with 1 being very bad and 10 being very good). The most pressing problems raised by citizens are the low accessibility of water sources (78.6% of the villagers highlight that water sources are too far away) and their poor quality (listed by 64.3% of the respondents). As the village is very hilly with steep slopes, a round trip to get water takes 54 minutes on average. For some of the villagers living at the outskirts of the village it can even take up to three hours to fetch water. Our participatory water point mapping exercise indicated that out of the seven sources, three were not functioning, or at least not during the dry season, and water was considered of low quality for three water sources. As a result many villagers use water from the nearby river for consumptive purposes. In our survey 45% of the villagers said to go without clean water on an (almost) daily basis, which makes lack of clean water an even more widespread problem among villagers than lacking food (38%) or fuel (40%) (almost) permanently.

In theory, water sources are supposed to be managed by water user committees (WUC). However, in our focus group discussions villagers indicated that the WUC were actually not actively functioning anymore. Our survey results confirmed the latter as only three citizens (2.4%) said they were a member of a WUC. Those three persons are the former WUC leaders and are still identified as 'responsible' for the water sources, even though in practice not much is done.

In brief, there are serious problems with regard to water services in our study village. Moreover, the problems affect a very large fraction of the population and have the potential to mobilise widespread support and collective action among citizens. Drawing upon the two distinct theoretical lenses introduced in section 2, the next two sections discuss what type of action is expected to arise.

What type of action would the 'perceived efficacy theory' predict?

In keeping with state-of-the-art research on perceived efficacy, our study distinguishes among the four efficacy dimensions discussed above. In making the different dimensions operational, we were inspired by Manning et al. (2008) while discussions with our local research team and pretesting with villagers allowed further customization towards more locally grounded 'Runyankole' interpretations. Table 1 synthetizes the statements to which our interviewees were asked to respond, using a four-point Likert scale (1= strongly disagree, 2= somewhat disagree, 3= somewhat agree, 4= strongly agree). Citizens' responses were regrouped (and the scale reversed for negatively formulated statements) into two categories (strongly disagree/somewhat disagree and somewhat agree/strongly agree) on the basis of which indices were calculated for each of the four perceived efficacy dimensions (high/low).

Table 1. Operationalisation of 'perceived efficacy'.

EXTERNAL (regime responsiveness)	**Individual**	'Public officials don't care much about what people like me think'
	Collective	'If all community members worked together, we would be able to influence policy decisions'
INTERNAL (capacity)	**Individual**	'Sometimes politics and government seem so complicated that a person like me can't understand what is going on'
	Collective	'Together community members are a competent group of people who are able to accomplish positive change'

Source. Based on Manning et al. (2008).

External efficacy

To understand why certain types of actions are (not) undertaken, we first focus on the villagers' beliefs about the regime's responsiveness to their individual or collective claims and demands. Figure 1 clearly shows how different combinations (high/low) of individual and collective external efficacy lead to certain types of actions to be perceived as more effective. If both individual and collective external efficacy are low (Quadrant III), the villager perceives the political leaders to be unresponsive both to people like him/herself as well as to collective demands. As a result these citizens are likely not to believe in any kind of action to influence policy makers (NO ACTION). In the upper left-hand quadrant (II), where the individual external efficacy is high, yet the collective is low, we find villagers that think the political system will not respond much to their collective claims, but will listen to individuals like him/herself, and as a result are more likely to engage in INDIVIDUAL ACTION.

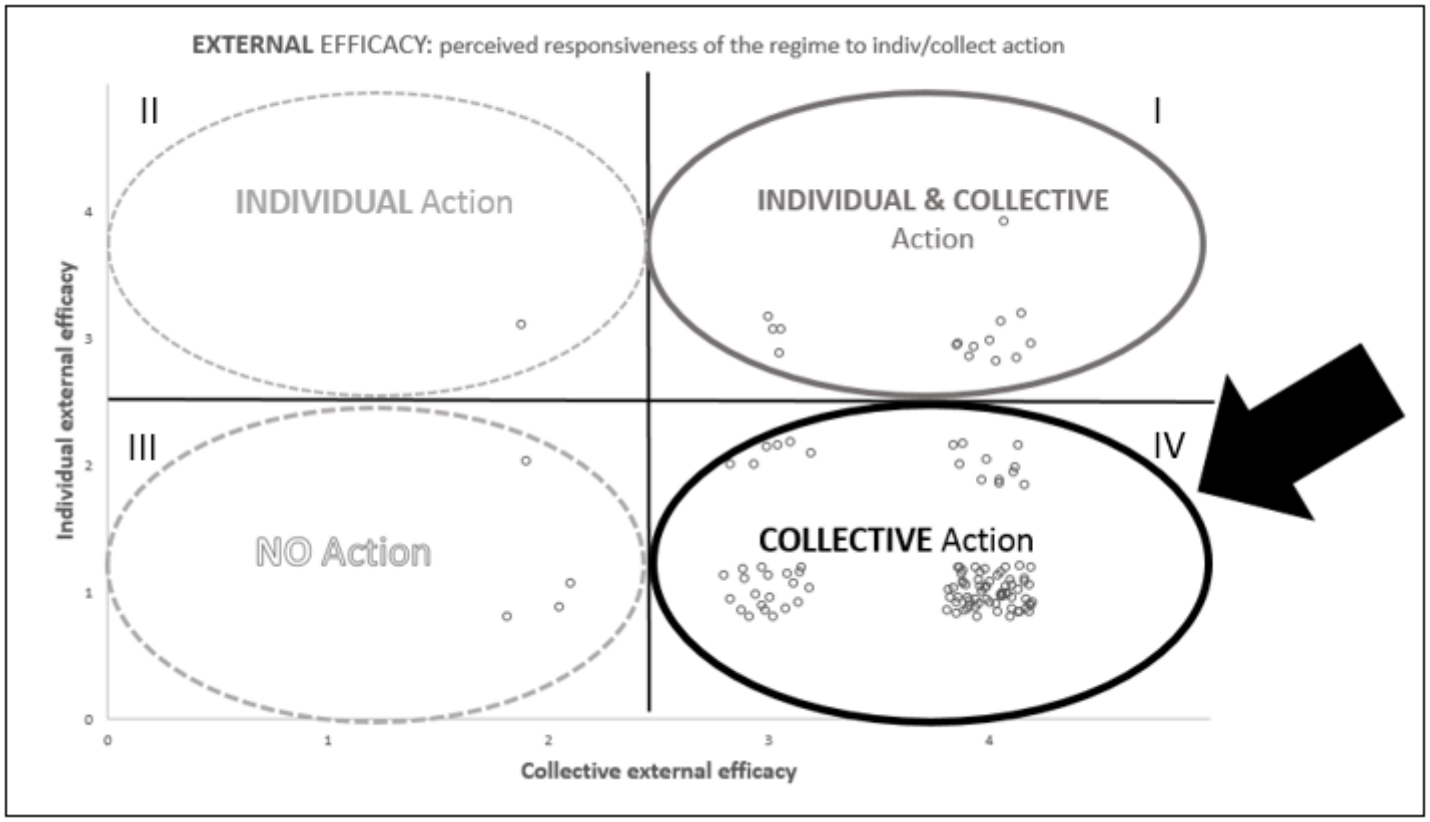

Figure 1. Scatter plot of villagers' individual and collective external perceived efficacy (jittered to visualise the number of citizens in each quadrant).

The inverse of the latter category is the fourth quadrant. Citizens in this quadrant believe that policy makers don't listen to individuals like themselves, yet if all citizens act collectively they assume that policy makers would be susceptible to their collective claims. If citizens believe in the responsiveness of the political system to collective demands, COLLECTIVE ACTION is expected to be the predominant mode of action. Finally, the upper right-hand side quadrant hosts villagers who perceive the political system to be responsive to both individual and collective claims and are therefore expected to engage in both types of actions (INDIVIDUAL and COLLECTIVE ACTION).

Looking at the distribution of the villagers over the four quadrants, we find that an astonishing 84% of all villagers are in the collective action quadrant (IV). Citizens in this village thus predominantly feel that the policy makers are only susceptible to collectively voiced concerns. Another 12% percent of the citizens are in the individual & collective action quadrant (I), though leaning more towards the collective side. Only 3% of the respondents is in the 'no action' quadrant (III) and less than 1% believes that individuals like themselves can influence policy on their own (II).

In sum, based on the predominant external perceived efficacy profile of the villagers, we would expect collective action to materialise as villagers almost unanimously perceive collective action to be effective (96% of the villagers are positioned in quadrants I and IV).

Internal efficacy

To complete the picture and understand who is more likely to undertake certain actions, we should also look at internal efficacy as it represents beliefs in one's own (individual) or the group's (collective) competence. Figure 2 maps the internal efficacy along its individual and collective dimension. Among the villagers about 20% do not perceive themselves nor the collective to be able to influence policy making (quadrant III) and as such are expected to be less likely to undertake or participate in any action (NO PARTICIPATION). Again, the majority of the population (62%) is located in the fourth quadrant, meaning that while they perceive a group to be capable to instigate some change, they have little belief in their own (individual) ability to affect policy makers. They are thus more likely to

join in collective action initiatives without playing a leading role (FOLLOWERS COLLECTIVE ACTION). Only 5% of the villagers perceive their own individual ability to influence policy making high, while attributing little capability to the collective. The latter would be more inclined towards SOLO actions. Finally, the upper right quadrant (I), displaying high beliefs in both their own individual and the collective capabilities constitutes about 13% of the villagers. Having both faith in the ability of the group but also perceiving themselves as capable, they are more likely to take up leading roles in collective action (LEADERS).

Figure 2. Scatter plot of villagers' individual and collective internal perceived efficacy (jittered to visualise the number of citizens in each quadrant).

Again, it is remarkable how poorly villagers rate the individual capabilities, with only 18% attributing themselves some level of capabilities (quadrant I & II), as opposed to the abundance of faith they have in collective capabilities (75% in quadrant I & IV). If meaningful collective action is to materialise, we need many persons in the third quadrant (followers) and several persons in the leader quadrant. This seems to be the case, even though there are relatively few in the leader quadrant.

In sum, the external efficacy profile showed that collective action was almost unanimously perceived as an effective way to influence policy making, while the internal efficacy profiles identified a large group of 'followers in collective action' and a small group of leaders to be present. Based on these efficacy profiles, this village is seemingly a particularly good 'breeding ground' for collective action to materialise.

What type of action to expect according to the social capital theory?

In order to gain insight into the social structure and interaction in the village, we collected full-network data. Being specifically interested in networks related to social support and water information sharing, we asked citizens to list all the other people in the village with whom they discussed important social matters (social support network) as well as people they shared water-related information with (information sharing network)(see Table 2). Responses from 126 villagers were analysed using UCINET software (Borgatti et al., 2002) to calculate a number of network measures that are relevant in the context of our study. Netdraw was used for the visualization of the network data (Borgatti, 2002).

Table 2. Operationalisation of social support and information sharing ties

Social support	From time to time, people discuss important matters with other people. Looking back over the last year, I'd like to know the people you talked to about matters that are important to you.
Information sharing	During the last year, with whom did you share information on water in your community (e.g. availability, quality of water, functionality, time needed to collect water, cleanness of the well).

As mentioned above, the village under study is a fairly homogeneous population both with regard to ethnicity and language. From the 126 persons in our network, 60% has not finished primary education and there is an overrepresentation of women (62%) due to men's work-related absence on a semi-permanent basis. There is some religious diversity, but this was not perceived as a source of conflict in the village. Overall, respondents seem to describe their village as peaceful and harmonious and did not allude to many (overt) internal struggles or conflicts.

There is some associational life in the village. The large majority of citizens (80%) is member of an organisation, almost exclusively community based organisations (e.g. farmer association, savings groups).

Social Capital Stock

The density of the social support network gives us an indication of how much villagers depend on each other for social support and is often used as a proxy for the available social capital (stock) in a village (Bodin and Crona, 2008; Ostrom, 2005; Pretty, 2003). Similarly, the density of the information sharing network is indicative of how much information exchange with regard to the quality and availability of water services actually takes place within the village. Density is measured as '*the proportion of possible ties that are actually present*' (Wasserman and Faust, 1994: 101). The overall density of the information sharing network is 0.013, which means that of all information sharing ties that are theoretically possible, 1.3 % actually exists. The density of the information sharing network is not significantly higher or lower than that of the social support network (0.014), which hints at the fact that sharing of water-related information is a common feature of daily social life in the village.

On average villagers have 2 persons to discuss important matters with (of whom 1.8 inside the village) and there is no one who does not have anyone else in their social support network. Villagers share information about water also with two other persons (1.64 in the village) on average. Thirteen citizens are information 'isolates'; they do not share any water-related information with any other citizen in the network, and none of the other citizens listed them as someone whom they shared such information with[4]. Apart from the isolates, there are another two citizens who are only connected to each other, through one reciprocated tie, while not being connected to the large village information sharing network. Both the social support and information sharing networks can be considered relatively dense[5] while they are also positively correlated[6], meaning that villagers are more likely to share water-related information with villagers on whom they also rely for social support.

Key actors in the information sharing network

As we are also interested in identifying central actors in the social support and knowledge sharing networks, we calculated the centrality of the individual actors and the centralization of the network as a whole. As it is a directed network, we further distinguish between in-degree (number of incoming ties) and out-degree (number of outgoing ties) centrality/centralization (Wasserman and Faust, 1994:175). While in-degree refers to the number of links sent to a certain node, out-degree measures the number of links sent by a given node (Ward et al., 2011).

The overall network centralization index captures the extent to which centralities of the nodes (i.e. different villagers) differ among each other, thus measuring the variability of actors' centralities (Wasserman and Faust: 176). The measure can vary from 0 (*each node is connected to every other node*) to 100 (*all nodes are connected to only 1 node*). A high degree of centralization of information sharing network thus means that relatively few people are responsible for much of the information being exchanged, while many others are less intensively involved in the information exchange. While a high degree of centralization proves efficient in solving simple problems, allowing few persons to efficiently manage communication, a more diverse structure is needed to address more complex and wicked issues (Leavitt, 1951). Collective action has also been shown to be positively related to a higher level of centralization as it enables leaders to coordinate and prioritize actions, while it is potentially also riddled with a set of problems such as a lower ownership and the misuse of power by centrally located individuals (Sandström and Carlsson, 2008).

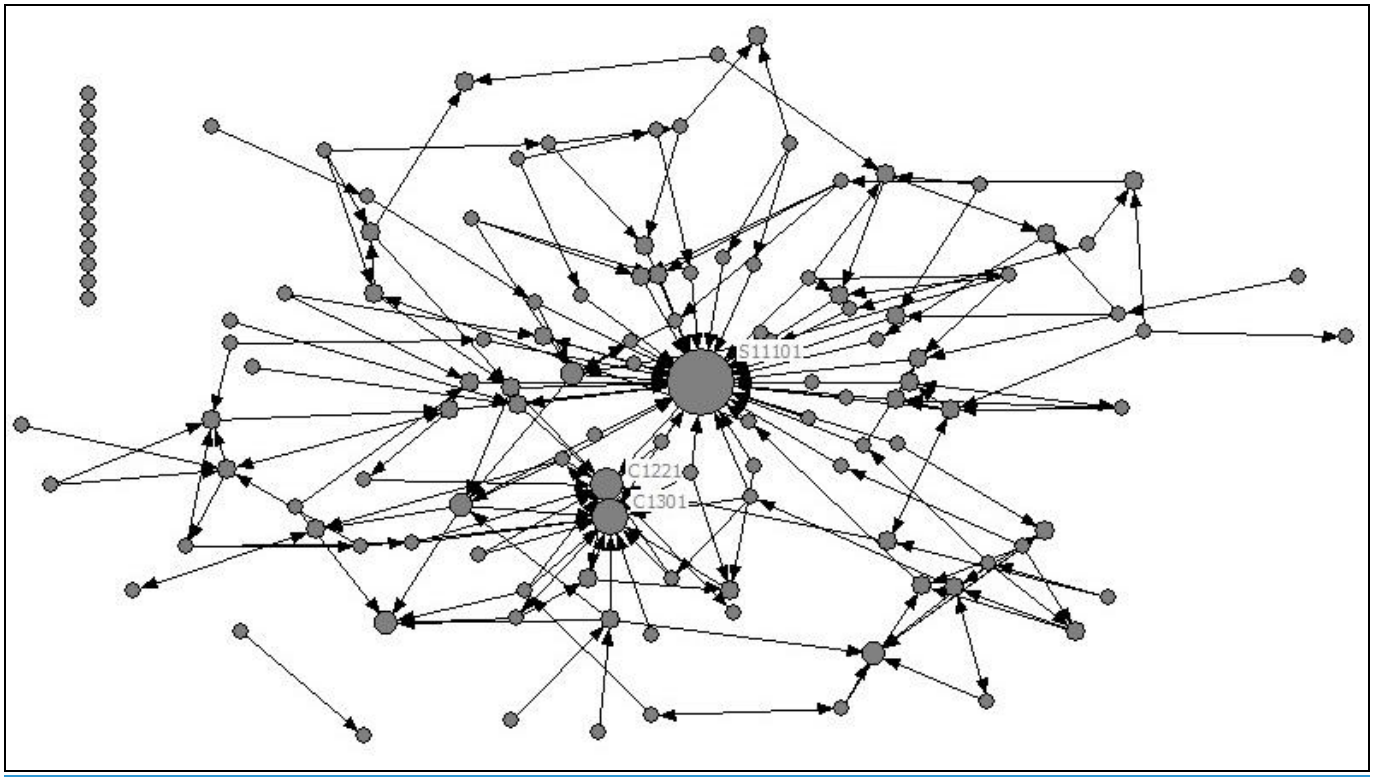

Figure 3. Centrality in information sharing network (receiving information) among villagers. **Legend.** Each circle represents a 'node' (i.e. villager). The arrows depict information sharing ties between villagers. The size of the node is according to the number of incoming ties or put differently the number of people they receive information from (indegree centrality).

The results from our social network analysis show that the village information sharing network is highly centralized, at least with regard to incoming ties, which implies that only a few citizens receive much of the information. Or put differently, many villagers share information with the same person, who then becomes central in the information sharing network. From Figure 3, where the node size depicts the in-degree centrality of sharing information, it is clear that node S1101 is the key person in the information sharing network as he is at the receiving end of many of the ties. More specifically, while the average citizen receives water-related information from one to two individuals, he receives information from 41. This high score does not really come as a surprise as S1101 is the LC I chairman of the village. Our findings also converge with earlier evidence from Francis and James (2003: 329) who demonstrated in their study on citizen participation in Uganda that citizens particularly seek support from and share information with the LC1 whom they trust and consider "one of them" while simultaneously being the first point of contact within the local government structure. This definitely seems to be the case in this village: the village chairman is actively known by all villagers (99%), is very popular and is perceived to be someone committed to the wellbeing of the citizens. To illustrate, when asked to name anyone they feel is genuinely committed to improving service delivery in the village in a fair and equitable manner, 30 % of the villager spontaneously named the village chairman. Besides the LC 1, there are only two other citizens who have relatively high in-degree centrality scores, but who are however far less central than the LC I chairman[7] namely C1301, the vice chairman, and C1221, the Parish Internal Security Officer (PISO) who deals with issues of security at Parish level.

Interestingly, comparing the overall centralization in-degree and out-degree indices (0.317 and 0.027 respectively) marks important differences: while few citizens receive most of the information, many different citizens share water-related information. Compared to the highest in-degree (i.e. receiving information) score of 41, the most important senders of information have out-degree scores of 5 (C1401) and 4 (C1022, C1182, C1152, C1581). Hence, the information concentration among the information 'receivers' is more substantial than among the 'senders', which lends further support to the fact that few citizens receive much information, while many different citizens share water-related information.

In sum, while there remains a lot of ambiguity and uncertainty about what type of network characteristics foster efficient information exchange, one could argue that the basic features of our village information sharing network are in principle conducive to effective and efficient collective monitoring. More specifically, our village is fairly homogeneous with a relatively dense social support network (social capital stock). Additionally, information comes from all over the village and is sent to a few key individuals which should allow them to efficiently report water-related problems in an aggregate and representative manner to politicians and/or civil servants who can potentially remedy the issue. Interestingly, this observation corroborates the earlier predictions derived from the perceived efficacy theory. In the next section, we explore what type of monitoring activities villagers, and key actors in particular, effectively undertake.

What monitoring activities does the village effectively engage in?

We adopted a fairly broad perspective on local water-related monitoring as to capture any type of monitoring-related activity in which local citizens are (potentially) involved, ranging from very low threshold activities that focus more on information uptake (e.g. reading information on public notice board or put up on trees) to activities that need more effort such as responding to citizen report card exercises, contacting journalists or NGOs to voice concerns as well as participating in meetings where citizens share and discuss issues regarding (the quality of) water provision.

Findings displayed in Figure 4 illustrate that monitoring activities are quite skewed in terms of the number of participating villagers while there are also clearly important differences in terms of the frequency of different types of activities. About 70% of the citizens engage in some type of *information uptake* activity, either through reading information from the notice board at least once a year (50%) or listening to a radio show where both technical and political duty bearers are frequently interviewed regarding water and other social service related issues (54%). While information uptake cannot really be labelled as a monitoring activity in itself, it is indicative of citizens' interest in the quality and quantity of services, which might potentially trigger involvement in its follow-up. The interest in the topic is, however, in sharp contrast to citizen's effective engagement in monitoring-related exercises that demand more effort. This is evident from the fact that once a higher degree of activity and effort is required the percentage of active citizens plummets.

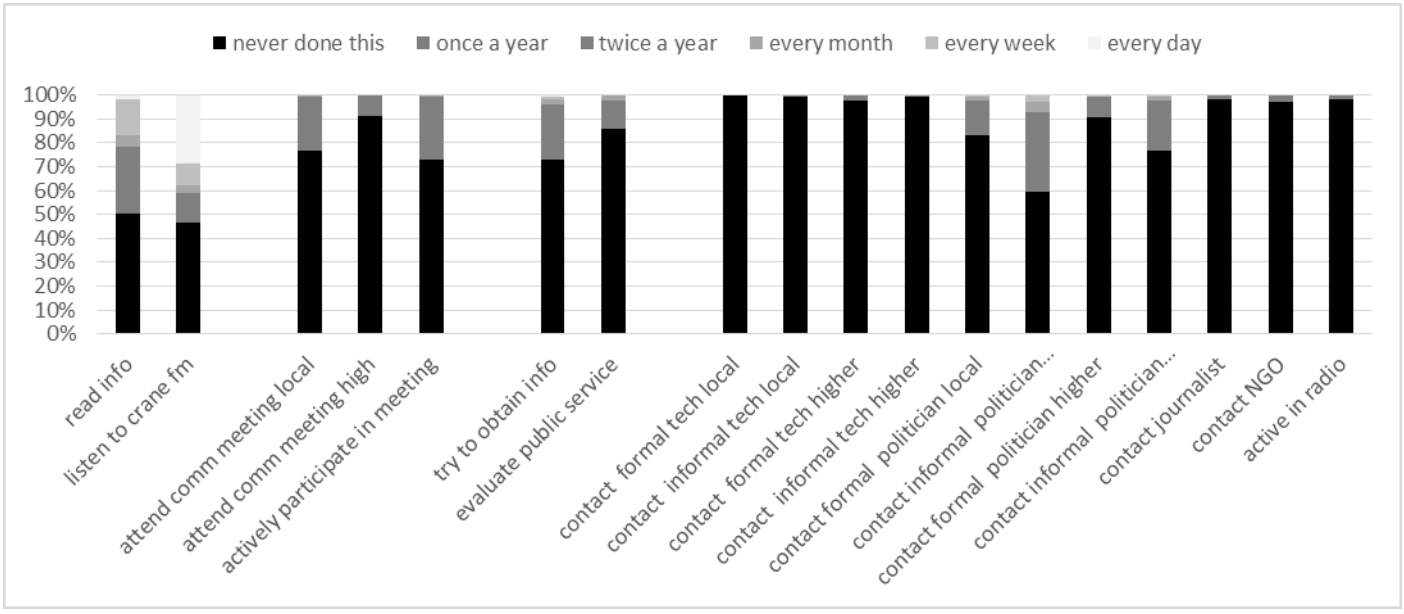

Figure 4. Frequency of local citizens' engagement in different monitoring activities.

The first category of activities, which is, relatively speaking, most frequently practised (by almost 30% at least once a year) is (active) *participation in a community meeting* (either at village or higher level) where issues related to water

are shared and discussed. Next, approximately 30% and 15% of the citizens respectively have actively tried to obtain information with the aim of monitoring and/or have participated in evaluative exercises such as citizen report cards at least once during the past year. With regard to *reporting issues of service delivery to different types of stakeholders*, the degree of activity undertaken becomes even more skewed. Virtually no one has contacted civil servants either formally or informally to report issues related to water services. In a similar vein, citizens did not raise water-related issues with civil society actors or journalists, regardless of the fact that those actors often act as local accountability actors drawing upon the information they receive from the local citizenry. Echoing the latter, hardly anyone (1%) voiced concerns during the well-known local radio show which is regularly listened to by almost 40% of the population and where the audience is explicitly invited to call in or send text messages. The only form of contacting other stakeholders, is that some citizens (24%) have informally contacted a higher level politician at least once, while about 10% contacted them in a formal manner.

What about the key actors?

Given the central role that some key individuals play in the information sharing network, we would expect them to be particularly active in M&E activities. Zooming into the frequency of involvement in monitoring activities of the three most central persons (i.e. the village chair, the vice chair and the PISO) completes and (largely) corroborates the above pattern (see Figure 5).

With regard to the *information uptake* results show that while two out of the three central actors never read information on the village notice board, they do (regularly) listen to the radio show where service delivery is often discussed. Two out of the three collect data with the aim of monitoring, but the degree of involvement is less frequent than in information uptake. As regards the active *participation in a meeting* and *contacting politicians* (higher and lower level) the centrally located individuals seem to outperform our average citizens. Finally, there are a set of activities which the central actors hardly undertake at all, including contacting civil servants (except for one person, once a year), media or NGOs and actively taking part by voicing their concerns in the radio show. As they crystallize a lot of information from other citizens, it is particularly the latter types of activities which involve aggregation of information and contacting of either supply side or other accountability actors, that we would expect them to be most engaged in.

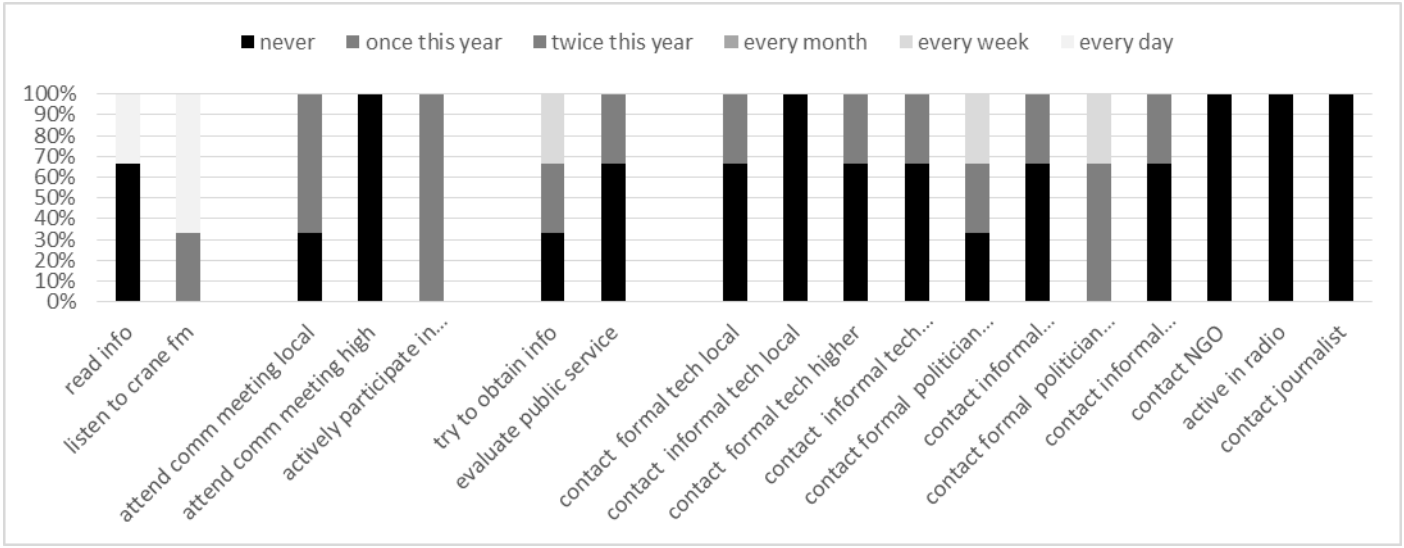

Figure 5. Frequency of the central persons' engagement in different monitoring activities.

In sum, the reasonably broad information uptake from the local media and public information does not really materialize into much citizen's involvement in monitoring activities. Although there is some level of engagement in information gathering (try to obtain) and evaluative exercises (evaluate), as well as some active participation in community meetings and informal contacting of higher level politicians, hardly any concerns or complaints are raised

with supply side or other accountability actors. Moreover, we find that despite their potential as a driving force in M&E activities, the key persons in the village networks do not significantly outperform other citizens in that respect.

Combining both a perceived efficacy perspective and social network perspective

Despite the potential attributed to the village based on both the social capital and perceived efficacy perspectives, we find the actual M&E activities on the ground to be less than could be expected. The observation that the community as a whole and those key actors seemingly best positioned for an active role in local community-based monitoring and in using that information to improve service delivery, do not fully materialise their potential to do so, is an interesting question that deserves more in-depth analysis.

Interestingly, in their 2008 study on resource management in a rural Kenyan fishing community, Bodin and Crona (2008) found similar evidence of centrally located individuals who did not engage in collective action, in spite of the social capital stock available. More specifically, they demonstrated how villagers who were centrally located in both the knowledge and (fishing) gear-dependency networks became opinion leaders and were hindering the adoption of sustainable resource management because this was against their own short-term interest. Unlike Bodin and Crona, we do not identify the 'elite capture' line of explanation to be correct in this instance. While our central actors could similarly be considered opinion leaders (as they are also centrally located in different networks), there is, at first glance, no compelling evidence to believe that they have an interest in blocking local level monitoring. As none of the central actors is directly responsible for water provision, the risk of being sanctioned themselves for malfunctioning services is relatively low. On the contrary, as taking up a more active role in the follow-up of water-related problems would probably increase the village chairman's already high popularity, one would somehow expect him to be more pro-active in this regard.

Figure 6 highlights how intersecting the perceived efficacy and social capital theory might give us insight into why monitoring activities did not fully materialise even though they were expected to take place according to each of the distinct theoretical lenses. More specifically, Figure 6 brings together both perspectives by plotting perceived internal efficacy profiles (previously displayed in Figure 2) as well as the centrality in the information sharing network (previously displayed in Figure 3). The external efficacy profile is not represented in the network graph as citizens almost unanimously perceived collective action to be effective in influencing policy makers. The colour of the nodes denotes the citizen's belief in their own individual and collective capabilities: the black nodes have little faith in neither their individual nor the collective capabilities (NO PARTICIPATION); the dark grey nodes only believe in their individual capabilities (SOLO ACTION), the light grey nodes on the other hand only believe in the collective capabilities (FOLLOWERS IN COLLECTIVE ACTION) and finally the white nodes represent those villagers with both high perceived individual and collective capabilities (LEADERS). The size of the nodes on the other hand depicts how much information they receive from other villagers (i.e. indegree centrality).

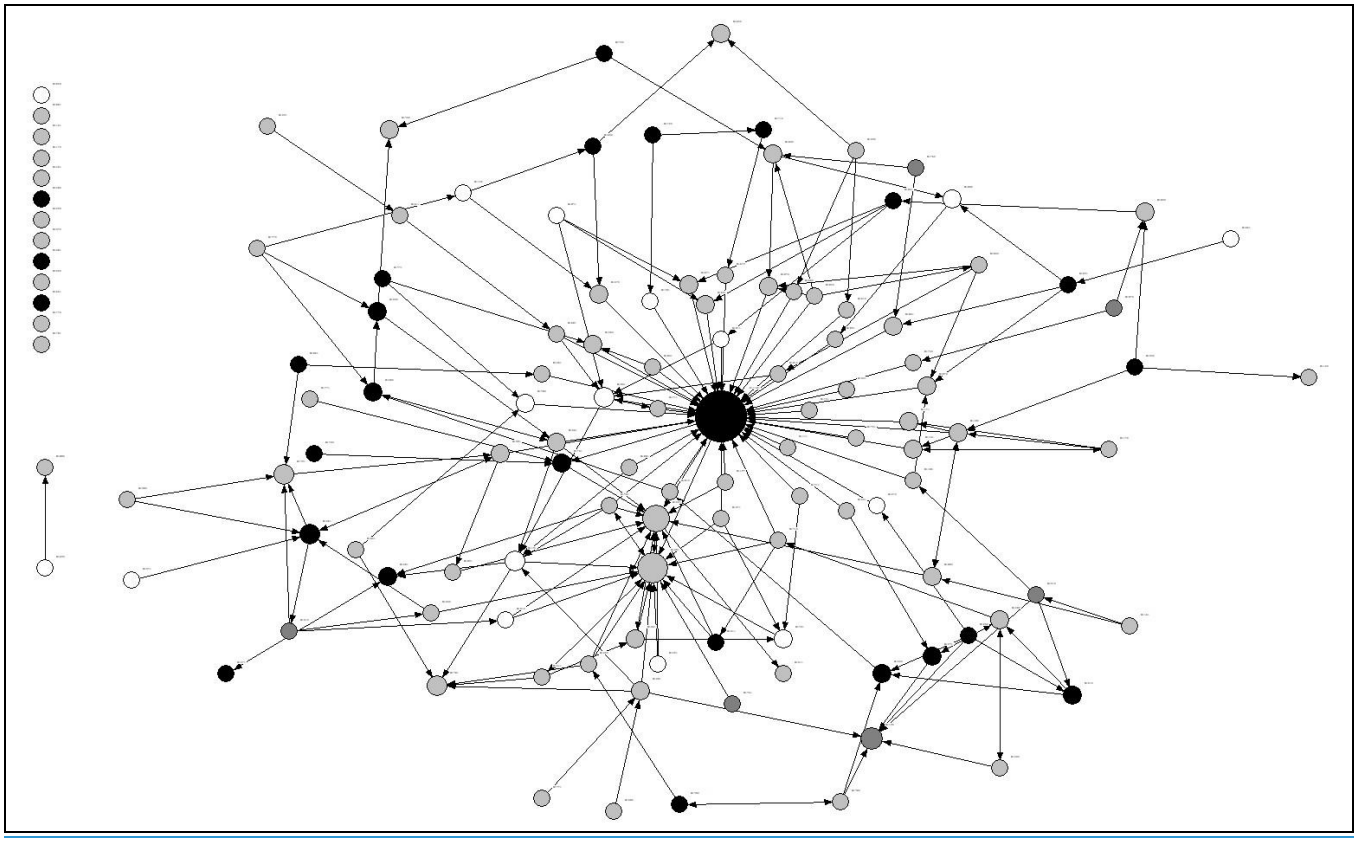

Figure 6. Internal efficacy profiles and (indegree) centrality. **Legend.** Size of the node = centrality in the information sharing network (incoming ties), i.e. receiving information; colour: internal efficacy profiles: black = no participation (low individual and low collective efficacy); dark grey= solo action (high individual + low collective); light grey = followers in collective action (low individual + high collective); white = leaders (high individual + high collective).

The overall dominance of the 'Followers' (light grey) is again visible from Figure 6. However, zooming in more specifically on the key central nodes in the information sharing network (bigger size) highlights that they are black (no action) or light grey (followers) which means all three of them have low perceived individual internal efficacy. Interestingly, the most centrally placed actor, the village chairman, even has a low perceived collective internal efficacy, which is somehow counter to the general tendency in the village. It is particularly the low perceived internal efficacy level of all three key nodes that might be explanatory of their low leadership role in monitoring activities, in spite of their favourable position in the information sharing (and social support) network.

The intersection of the two theoretical perspectives essentially points out that the 'leaders' are not central in the social support and information network and that the central nodes in these network are not leaders. Precisely the lack of belief in their own individual capabilities might be what is crucially lacking to initiate and sustain successful collective action. There is an oversupply of followers who lack the individual (perceived) empowerment to lead and the few 'leaders' are not central enough in the social support and information network to make collective action happen. In other words, monitoring activities would be more likely to occur, if the central nodes of the information sharing networks were also 'leaders' (having a high individual & collective internal efficacy) who can mobilize a critical mass of followers.

Conclusion

While it is widely acknowledged that community-based monitoring holds great potential as an instrument to improve underperforming local level service delivery, the analysis as to why it does (not) work shows deficiencies. Our study contributes to this underexplored field of research by studying community-based monitoring in a rural Ugandan village that is confronted with unsatisfactory community water accessibility and quality. We mainly draw

upon two strands of collective action literature, namely the perceived efficacy and social capital literature, and argue that it is actually the intersection of both theoretical perspectives that is best placed to explain the paucity of community based monitoring activities being undertaken in our study village.

The perceived efficacy lens shows us a village where almost all citizens perceive the political system to be responsive to collective claims yet very little responsive to action from citizens like themselves (high collective external efficacy, low individual external efficacy). Not only is collective action perceived as the most effective type of action to influence policy, overall the most prevalent 'internal' efficacy profile are the 'followers in collective action' who believe that citizens as a collective are a capable group, yet do not perceive themselves to be capable individuals. Additionally, the village also houses a limited number of 'leaders' who believe in both the collective and individual capabilities to instigate change. Both the perceived external and internal efficacy profile thus suggest the village to have high potential for collective action.

Turning to a social capital perspective highlights that the rural village is a relatively homogeneous community with a fairly dense social support and information sharing network. The information sharing network is highly centralized with a limited number of key central persons who crystallize much of the water-related information coming from all over the village. Drawing upon social network literature our village clearly displays a number of network characteristics that are thought to be conducive towards collective action such as CBM.

Despite the two optimistic projections from both the perceived efficacy and the social capital perspectives, our survey data on citizens' effective engagement in monitoring-related activities highlights that, even though there is a relatively broad uptake of information by about half of the citizens, participation in monitoring-related activities is relatively low. Apart from trying to obtain some information, attending a community meeting once or twice and informally contacting politicians, not much activity is undertaken. The key actors within the network do not differ that much from the average citizens, as they do not reach out much either to supply side actors such as technical staff and higher level politicians or to other social accountability actors such as NGOs or media (journalists and radio).

To further our understanding of why a community that has potential in terms of social capital and perceived efficacy does not undertake more initiatives to exercise voice, we had to intersect both theoretical lenses. Cross-reading among both perspectives reveals that those that are central in the information sharing networks do not have the 'leadership' efficacy profile (high belief in own and collective capabilities), and those that are 'leaders', are not central in the village information network. The village has an abundance of followers, yet a relative paucity of leaders. The latter is due to the overall very low individual internal efficacy – the belief in one's own capability in instigating change – which proves to be particularly important in explaining the low degree of action actually undertaken. Our findings generate compelling evidence for the proposition that if one suffers from low self-esteem or doubts about one's own capacity to undertake actions (i.e. the difference between followers and leaders of collective action), collective action might still not materialize in spite of a pronounced sense of 'yes we can'.

In sum, for collective action to materialize it is not enough to have a stock of social capital and that collective action is perceived as an effective means to influence policy, but also to know who the key nodes in the village network are and not only to work on a sense of collective empowerment, but also on the individual sense of efficacy of those key nodes, allowing them to become genuine 'leaders'.

Acknowledgements

The authors are grateful to all respondents and M. Kuppens, C. Atuhaire, S. Karungi, N. Mwine and R. Nuwagaba for participation in data collection. We also would like to thank the two anonymous reviewers for useful comments. All remaining errors are the authors' responsibility.

Funding

This work was supported by the Flemish Research Fund (FWO) [grant number G050613N].

Notes

1. The initial mapping of the population in the village resulted in 166 persons (living in the village and aged above 25). Thirty-five individuals were still removed from the population as they turned out to be either too young or not able to fully comprehend the questions. People who lived/worked outside the village most of the time, were also excluded from the list as they were presumed not to be able to play an active role in daily community life as regards the type of networks and activities under study. Only 5 persons did not want to participate in the survey or were never at home when visited by the research team. The response ratio sensu stricto (respondents/ population mapped) is 76%, whereas the response rate sensu lato (respondents/potentially active population living most of the time in the village) is 96%.
2. Field research was led by M. Kuppens and S. Dewachter and local data collection was supported by C. Atuhaire, S. Karungi, N. Mwine and R. Nuwagaba.
3. In 2011 patients went on strike in Mulago hospital to raise their concerns over a lack of medical attention (see http://unhco.or.ug/2011/02/the-strike-of-patients-in-mulago-referal-hospital).
4. It is important to note that these citizens listed people they shared info with, but the latter did not belong to our population (e.g. they were either living in another village or too young).
5. To the best of our knowledge no generally excepted rules of thumb exist to qualify network density as high or low, most likely because it is highly dependent on the type of network under study as well as the data collection method. We qualified our network as relatively dense based on Bodin and Crona (2008). In their study in a fishing community in rural Kenya, they considered a similar social support network with an average of 1.3 social support ties (not including household members) per node as relatively dense based on comparison with other similar networks in the literature. The average number of ties per person in our study was 2, and 1.8 if only counting the ties among citizens of the village.
6. The QAP correlation coefficient between the social support and information sharing networks is 0.126 (p= 0.000).
7. Besides degree centrality, we also calculated other types of centrality measures such as betweenness (Freeman, 1979) and Eigenvector centrality (Bonacich, 1972) measures. Betweenness centrality captures the extent to which a node lies between other nodes. Eigenvector centrality, on the other hand, remedies for the centrality of the nodes one is connected to (Ward et al., 2011). In other words, if you are connected to five marginal nodes within the network, the eigenvector centrality will be lower than if you are connected to five of the central nodes. While degree centrality represents a local form of measuring centrality, only taking into account the directly adjacent nodes, both betweenness and Eigenvector centrality build on the broader network to calculate centrality measures.

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