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## **Beyond the Short versus Long Accountability Route Dichotomy:**

### **Using Multi-track Accountability Pathways to Study Performance of Rural Water Services in Uganda**

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#### **Abstract**

Performance of social service delivery is often linked with effective accountability. Accountability studies increasingly acknowledge that studying one type of accountability relation at a time is too restrictive. Our study aims to correct for this and explores the effectiveness of combinations of different accountability mechanisms. We take the World Development Report's accountability triangle as a starting point and adapt it in three ways. First, we refine the long route to accountability into three tracks by differentiating between the three groups of demand side actors; political accountability (opposition), citizen-led and civil-society-led social accountability. Second, for each track we take into account the demand and supply side and the availability of supply-demand interfaces. Finally, we adopt a holistic approach through the simultaneous incorporation of both the short and long (with the different tracks) routes. To test its usefulness, we use our refined accountability framework to study the accountability constellations and their link to performance in Uganda's rural water sector. Building on QCA, our findings identify the long three track route (supply - interface – all three demand actors) and the citizen-led social accountability route as viable routes to high water service performance in Ugandan districts. Additionally, a set of new hybrid accountability arrangements are identified while – contrary to theoretical assumptions – the short route (clients to service providers) does not prove effective.

*Keywords: accountability, Qualitative Comparative Analysis (QCA), rural water services,  
Uganda*

## **Beyond the Short versus Long Accountability Route Dichotomy:**

### **Using Multi-track Accountability Pathways to study Performance of Rural Water Services in Uganda**

#### **1. Introduction**

Inequitable access to water, low functionality of existing water sources and insufficient quality of available water are key issues in the daily life of many citizens in developing countries (Bakker et al., 2008). Uganda, with only 64 percent of the rural population having access<sup>1</sup> to an improved water source (Ministry of Water and Environment, 2014), lags behind the world average and it is faced with large in-country differences. Some districts reach almost full coverage (95 percent in Butambala), others have as little as 25 percent access to safe water (in Kaabong) (Ministry of Water and Environment, 2014).

Accountability is often put forward as a remedy to address poor service delivery performance. The World Development Report (2004) introduced the accountability triangle which distinguishes a long and a short accountability route (see Figure 1). The long route - where citizens first need to influence policy makers (e.g. through elections), which in turn should influence the service providers- is plagued with numerous deficiencies (World Bank, 2004:6). The short route -where citizens as clients directly demand accountability from local service providers- is expected to yield better results, hence the report promotes investment in this short route so as to bypass the problems of the long route.

The accountability triangle has encountered some criticisms. First, the short route and the long route should not be studied in isolation from each other because they are intertwined, they interact and may thus produce complex sets of accountability pathways (Devarajan et al.,

2014; Halloran, 2016). Second, short route studies tend to overlook important actors such as civil society (Devarajan et al., 2014; Gaventa & Barrett, 2012). Added to this, we would argue, the strong emphasis on civil society and citizens also overlooks the potential power of political opposition to demand accountability which can support the endeavours and demands of other actors. Third, since the demand for and supply of accountability do not work in isolation from each other, Fox (2015) points at the need to study the interaction between both.

Gershberg et al. (2012) argue that these shortcomings should not lead to discarding the accountability triangle because the holistic model allows to accommodate the critiques. This article proposes a refined analytical grid to study accountability. This adapted grid allows to bring in more complexity in that it can research different accountability routes and how their interaction may explain service delivery performance. In this particular paper we look into rural water services in Ugandan districts.

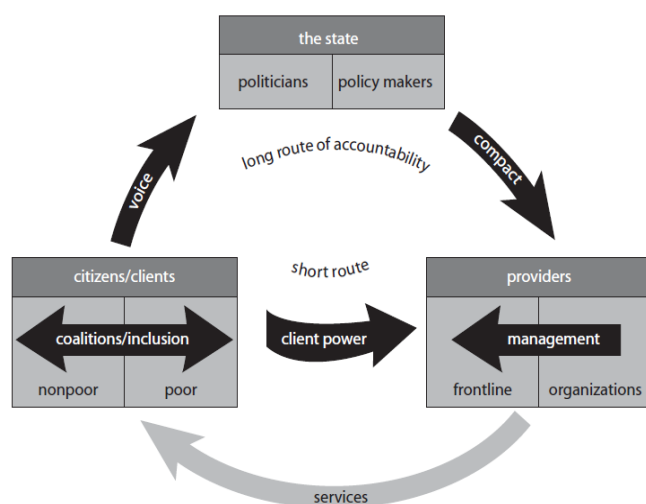
Using Qualitative Comparative Analysis (QCA) we find that our refined accountability framework has a clear added value. It allows to holistically map accountability constellations, providing a helicopter view of the accountability ecosystems in place which explain high or low performance. The QCA analysis confirms the theoretically expected 'full' track solution (in which all demand side actors, all interface and the supply side actors are present) hinted at by several scholars (i.e. Fox 2015; Halloran 2016), but our framework also shows that the citizen-led social accountability track can be a viable pathway to high performance. The framework allows for the identification of three new hybrid constellations combining elements from the political and social accountability (both citizen-led and CSO-led) track as leading to high performance. Finally, our framework shows that – in the case of rural water services in the Ugandan districts under review – the short route is no pathway to success.

This article first presents the adapted WDR Accountability triangle and then moves on to the empirical part. In the final section we draw some conclusions.

## 2. Critiques on the WDR Accountability triangle

The 2004 WDR framed the issue of access and quality of service delivery in a triangle of accountability relations (see Figure 1 below). The argument was very straightforward. If a poor person buys a product in the market, she can hold the provider directly accountable. Yet, if a poor person wants to use a service, she is not able to demand accountability directly from the provider. Citizens must first influence policy makers/politicians, and the policymakers in turn must influence the providers. This is the ‘long route’ to accountability, which is based on citizenship entitlement. The many weaknesses that overshadow the long route (e.g. the powerlessness of poor people, lack of information and knowledge, elite capture, clientelism)<sup>2</sup> partly explain the poor quality of services. The WDR put out a strong call to strengthen the ‘short route’ of accountability to increase clients’ voice and direct power over providers, because it was expected to improve access to and quality of social services. On the ground, this has taken the form of citizen monitoring of services, generally through a specific technique or methodology (e.g. citizen scorecards, social audits, user committees) (Björkman & Svensson, 2009). The underlying assumption is that transparency (access to information) combined with participation would lead to more accountability which in turn would improve service delivery (Halloran, 2016).

**Figure 1:** The accountability triangle in service delivery



Source: World Bank 2004, 49.

The above mentioned assumptions and pathways to improved accountability and service delivery have produced some critiques.

First, the short route should not be studied in isolation from the long route and more generally from the wider context. Halloran (2016) refers to accountability as an ecosystem in which different social actors, - formal and informal - institutions, processes, mechanisms are active at different levels and in different directions. Accountability should thus be seen as a complex, adaptive system (Halloran, 2016). As such, the long route may to a large extent set the stage for the short route. The level of state responsiveness (the supply side of accountability), and the political incentive structure (long route) in place will influence the disposition of local service providers to be accountable and to respond to local demands (short route) (Devarajan et al., 2014). The largest contribution to developmental outcomes has come about when multiple forms of engagements were used jointly, a finding which was also supported by qualitative evidence highlighting the need to combine several voice strategies at once (Gaventa & Barrett, 2012:2407; Halloran, 2016; Joshi 2017).

Second, social accountability heavily emphasizes the idea of citizen-led engagement (Halloran 2016), while neglecting civil society-led engagement. Civil society-led engagement should not be overlooked, as citizen engagement through collectivities such as associations and social movements might be an important source of change (Halloran, 2016) or perform much needed “watchdog” functions (Houtzager & Joshi, 2012). Another reason for considering civil society is that they can influence political incentives (i.e. working within the long accountability route) (Devarajan et al., 2014). In terms of political accountability mechanisms, there is also - the often neglected - role of the political opposition in government bodies (which form part of the long route). Elected by citizens, but not in power, yet in a position to push for government accountability, these actors can play an important role in beefing up pressure on the government and this may interact (positively/negatively) with other accountability attempts.

Finally, Fox (2015) alludes to the implicit but often problematic assumption in many accountability interventions that demand automatically generates supply and vice versa. This seems to suggest that demand and supply will 'naturally' meet each other as if an 'invisible hand' is at work (Fox, 2015). In most environments however, multiple actors can demand and supply accountability, in varied ways, and, quite importantly, the interface spaces where supply and demand meet may or may not be functional. Hence, within each of these dimensions variation is possible: certain demand actors may or may not be very active, some suppliers may be more or less responsive, and if interface spaces are available they can bring together supply and demand actors. Systematically disregarding claims becomes more difficult if and when institutionalised channels exist between for example civil society organisations and the local governments exist. As such the demand side alone, even when provided with information and strengthened in terms of voice, may not achieve the desired results. Voice thus also need teeth (Fox, 2015).

In sum, what the above critiques all have in common is the call for a more holistic approach to studying accountability. The interplay of multiple accountability arrangements in the long and short route, the importance of looking at supply, demand and the interface, the inclusion of political actors, civil society alongside citizen-led forms of engagement should be taken into account.

### **3. An Adapted Accountability Framework**

We distinguish three accountability mechanisms in the long route. Political accountability refers to citizens exerting direct pressure on policy makers through formal representative mechanisms and procedures (i.e. elections, formal meetings) (Lindberg, 2013). Social accountability often operates outside these political representative mechanisms (Lindberg, 2013; Halloran 2016), and a distinction can be made between *citizen-led* social accountability and *civil society-led* social accountability initiatives. The latter refers to mediation of citizen



demands through a civil society organisation (e.g. NGO, local association, social movement), whereas the former allows for direct interaction between citizens and policy makers. The short route is different in that it does not target policy makers, but service providers, and citizens exert pressure as clients. Here we refer to structures such as user committees at the local level.

Thus we have now refined the long/short route model into a four track accountability model – three tracks along the long route and one along the short route (see Table 1). Each of these tracks contain a differentiated set of demand and supply actors, but – in line- with Fox (2015) his argument, we also identify an interface where demand and supply meet.

**Table 1:** Analytical framework identifying accountability demand, supply and interface for each of the four accountability tracks to strengthen service delivery performance

ACCOUNTABILITY LOCUS	FOUR ACCOUNTABILITY TRACKS			
	3 LONG ROUTES			1 SHORT ROUTE
	1. <u>Political</u> accountability track	2. <u>Social</u> accountability <u>citizen</u> track	3. <u>Social</u> accountability <u>CSO</u> track	<u>Client</u> accountability track
<b>Demand side</b>	Political Opposition on behalf of citizens	Citizens	CSOs	<b>Clients and user committees</b>
<b>Interface</b>	e.g. council meetings, parliament	e.g. participatory fora like town meetings	e.g. CSO consultations	
<b>Supply side</b>	policy makers	policy makers	policy makers	<b>service providers</b>
<b>ENTITLEMENT LOGIC</b>	citizen as voter	citizen as initiator of accountability initiative	citizen mediation through CSO	<b>citizen as client</b>

Source: authors

In Table 1, the first track, the political accountability track, exemplifies the ‘classic’ accountability relation. Political representatives (elected by the citizens as voters) in power are

on the supply side, while those not in power but in opposition, stand on the demand side. The interface between demand and supply is situated in meetings of elected bodies (district councils, Parliaments).

Track 2, the citizen-led social accountability track, is where citizens can voice complaints and demand accountability directly to the policy makers without representation by the elected councilors. The interface in this track consists of participatory fora, (informal) meetings, town meetings...

Track 3 refers to the civil society led-social accountability, where civil society organisations mediate between citizens and policy makers. The locus of interface could then consist of for example CSO consultations and policy meetings where civil society organisations are invited or lobbying occasions.

Track 4 links clients to the service delivery providers. In this track there is no mediation needed, as the accountability interventions that focus on this relation are set up to allow direct feedback from the client (e.g. parents) to the service providers (e.g. teachers/school).

#### **4. Research setting and Set-up**

##### **(a) Research setting**

Uganda provides an interesting case to test the usefulness of our refined accountability framework. Formally, it has many accountability channels in place with the 1995 constitution providing the Ugandan Parliament an independent role in holding government accountable and citizens the freedom of expression, speech and association (Moat & Abelson, 2011; Tripp, 2004). Another constitutional cornerstone is the 1997 Local Government Act which devolves the responsibility for service delivery to districts and municipalities while as well providing for

local level citizen participation and monitoring (Moat & Abelson, 2011). By bringing services closer to the people, Uganda's far-fetched decentralization process was taught to improve accountability and quality of local service delivery.

In reality however, parliament is hardly considered an effective watchdog (Wild & Domingo, 2010) while also civil society, is relatively weak with respect to voice and influence in national debates (Purcell, 2010). Compared to the SSA-average, Uganda (only) scores medium on 'voice and accountability' and particularly low on 'control of corruption', even displaying a declining tendency between 2005 and 2015 (World Governance Indicators 2016). Concerns have also been raised about re-centralized control over resources (Fisher, 2012) and upward accountability -from the district to the central level- crowding out downward accountability to citizens (authors deleted for blind review). At the same time however, Uganda has also been fertile ground for various types of local-level citizen and civil-society accountability initiatives that might to some extent fill the void, but on which the jury is still out (see e.g. Björkman & Svensson, 2009; Fox, 2015). This presence and complex interplay of different accountability actors at the decentralized level, in combination with Uganda's contested accountability record makes it a particularly interesting study case to test our framework.

Water provision is one of those services for which responsibility has been largely transferred to local authorities. In Uganda's five-tier decentralized system, district level authorities (LC 5) are responsible for planning, coordination, supervision and monitoring of water availability and accessibility, with the other levels (country, sub-county, parish, village) mainly having support functions. Citizens' needs are expected to be taken into account through bottom-up planning processes while they are also required to provide cash contributions and participate in construction of water sources. Communities also have to elect water user committees (WUC) which then become responsible for the operation and maintenance of water points at village level (LC1) (Golooba-Mutebi, 2012; Nicol & Odina, 2016).

In theory, Uganda's 1997 Water Act (Republic of Uganda, 1997) and 1999 Water Policy (Ministry of Water, Lands and Environment, 1999) are largely in line with international principles, yet implementation on the ground is mainly shaped by the existing institutional complexity and related governance and accountability deficiencies (Nicol & Odina, 2016; authors deleted for blind review). Studies have amongst others pointed at the poor local taxation basis with central government retaining control over local financial processes (Nicol & Odina, 2016), low citizen's ownership and reluctance to provide cash or in-kind contributions, deficient district-level monitoring and guidance, lack of accountability enforcement mechanisms, as well as poor functioning or even absence of water user committees (Golooba-Mutebi, 2012). As a result, water points are often non-functional or clean with less than 1/3 of the rural population having access to safe water in some Ugandan districts (Kaabong, Isingiro, Amudat) (Ministry of Water and Environment, 2014).

#### **(b) Method and data**

In order to study the accountability mechanisms in 23 districts in Uganda and identify the pathways to high performance, we used data from different sources: Afrobarometer (2012), the official Water Sector Performance Report (Ministry of Water and Environment 2012/13) and ACODE performance ratings (Tumushabe et al., 2013)<sup>3</sup>. The selection of the districts was based on data availability for all relevant indicators.

A methodology fit to study intermediate N and able to grasp complex causality is Qualitative Comparative Analysis (QCA) (Ragin, 2008; Berg Schlosser et al., 2008). QCA sets out to identify how certain (varied) combinations of conditions can lead to an outcome (Rihoux et al., 2011). The use of crisp set QCA<sup>4</sup> (csQCA) requires that we dichotomize (0-1) the data. Table 2 gives an overview of the variables used to operationalize the conditions as well as the cutoff points.

### **(c) Taking the Grid to Uganda: Ugandan supply, demand, interface and outcomes**

#### *The Long Routes*

##### Accountability Supply Side

The Local Government Act (Government of Uganda, 1997) mandates the local government at district level to provide water and to maintain facilities in coordination with the central Ministry of Water and Environment. Within the local government, a clear distinction exists between the elected office holders and the appointed civil servants. The locally elected executive (headed by the chair person), and a district council composed of elected district councilors set out the policy regarding water and sanitation. A technical unit, under the supervision of the Chief Administrative Officer (CAO), is populated with civil servants and they are in charge of implementing the policy choices and monitor progress. In principle the chairperson is supposed to supervise the CAO (Bogere et al., 2013; Francis & James, 2003). The supply side is thus constant over the three long route tracks.

In our analysis, we incorporate the *'overall performance of the district council'* as a measure for general performance of the supply side actor (ACODE composite indicator) representing the overall policy performance of the district council. The cutoff point is put at 65 percent to distinguish between high and 'not high' overall performance. Even though Schneider and Wagemann (2010) recommend using theoretical cut off points as calibration points, in this case no theoretical demarcation can be used. We have therefore taken the 'natural' gap in the data as demarcation between high and low performance. Moreover, in several 100 points performance scales, 65 is used as a cutoff point to identify those that have 'distinguished' themselves in a positive manner from the others (e.g. university scores).

##### Political Accountability Demand Side

The presence of political opposition in district councils is used as an indicator for the demand side in the political accountability track. Although local government councils are mostly dominated by the ruling National Resistance Movement (NRM) since the introduction of multi-

party politics in 2005 (Makara et al., 2009), many councils have some elected district councilors from the political opposition. This suggests that there might be some space for demanding accountability within the political structures of the district.

For our research we take the *percentage of district councilors belonging to a political opposition party* as a proxy for political accountability demand (Tumushabe et al., 2013). We stipulate that a minimum of 25% of seats is taken by the opposition so as to qualify for a minimal degree of critical mass among the political opposition, irrespective of which political party this is<sup>5</sup>. This condition can –if reversed- also check for a common alternative hypothesis, namely that the lack of political opposition or put differently the abundance of NRM councilors, could actually facilitate access to higher level NRM officials and could thus serve as a proxy for political clientelism. NRM dominated districts could then potentially get more resources which could be translated into better service delivery.

#### Political Accountability Interface

The district council meetings, where opposition and government meet, exist in all districts. Given that this interface exists everywhere, it cannot account for diverging performance. It is more likely that the latter can be explained by either the composition of the council (the strength of the demand side in terms of political opposition) and/or the capacity of the local government.

#### Citizen-led Social Accountability Demand Side

Bottom-up pressure outside the formal political institutions (i.e. elections) on local political leaders from active, well-informed, and politically interested citizens is assumed to lead to better quality service delivery and constitutes the citizen-led social accountability track (Björkman & Svensson, 2009). The stock of politically interested citizens who potentially hold their leaders accountable is in our model captured by '*the extent to which Ugandan citizens claim to be interested in public affairs*', aggregated by district (Afrobarometer, 2012). The cutoff point is placed at 1.6 on a 3 point scale to indicate the average citizen is more interested than

not interested<sup>6</sup>. As such we can consider this condition to capture the minimal level of interest of citizens in public affairs, which is a crude proxy for the citizens' potential for voicing their concerns and complaints through local government – citizen interfaces.

#### Citizen-led Social Accountability Interface

To measure the local government – citizen interface we have used the indicator '*the chair person's openness towards the electorate*'. The indicator is a composite indicator, developed by ACODE (Tumushabe et al., 2013) which takes into account the extent to which the chair has been organizing meetings with the electorate in a structured manner and whether issues raised by the electorate have been handled and feedback to the electorate has been provided. Seeing how most chairpersons score relatively high, we placed the cutoff point at the maximum score for contact with the electorate, which means that there is evidence of the chair organizing meetings with the electorate as well as evidence of feedback and follow-up on issues raised by the electorate. This operationalization of the local government – citizen interface captures whether there is indeed an open and responsive channel available for citizens to directly voice their concerns.

#### CSO-led Social Accountability Demand Side

Several NGOs working in the water sector are active at the local level in Uganda. A list of NGOs (Ministry of Water and Environment, 2012) was used to compile an indicator capturing *the number of NGOs working on water issues per district*. This indicator is used as an – admittedly somewhat blunt – proxy for demand from NGOs in the water sector. The cutoff point is set at six, so that above the median number of NGOs in the district is qualified as high presence of NGOs<sup>7</sup>. Again, like the operationalization of the citizens, this proxy captures more the 'stock' or the potential for active demand through CSOs than the actual behavior. This clearly is a limitation, especially since the space for CSO to advocate for certain policy issues is relatively restricted in Uganda. Nevertheless, there is still some maneuvering space available. Especially on a policy domain as water services, CSOs can even be very vocal and

instrumental in improving policy making in (seemingly) more technocratic manners through for example collecting local level data to confront policy makers with the actual condition of water services.

### CSO-led Social Accountability Interface

With regard to the interface between the local government and civil society, we have used the variable '*CSO Involvement*' from the performance assessment done by ACODE (Tumushabe et al., 2013). The variable is a composite indicator, capturing to what extent CSOs, CBOs and citizens have been involved in the budgeting process led by the District Council and/or whether information on policy issues has been disseminated to them. However, when looking at the data for the various districts, we found that there was no variation (all districts had the score 2 on a two point scale). As such, we find there is a certain degree of interface between local government and CSOs institutionalized but given the lack of variation in the availability of the interface the condition will not be included in the final QCA analysis.

### *The Short Route*

In the context of the Ugandan district level water sector, the short accountability route is expected to be taken up by the Water User Committees (WUCs). These committees were specifically set up to install a system of community based maintenance of water sources (Bogere et al., 2013). Involving citizens in the management and maintenance of water sources is assumed to increase the quality and sustainability of the water sources (World Bank, 2004). In terms of the interface, the WUCs hold a somewhat hybrid position, i.e. being both part of the demand side as well as being service provider. WUCs are believed to play an important role in improving service provision.

The degree of community management, i.e. '*percentage of water points with actively functioning water and sanitation committees*' nationally stands at 72 percent in Uganda (Ministry of Water and Environment, 2012). Therefore, we have used the latter as cutoff point<sup>8</sup>



to indicate that a district has a high degree of community management of its water sources. The concomitant short route hypothesis then posits that the higher the degree of community management is, the better the water provision services will be.

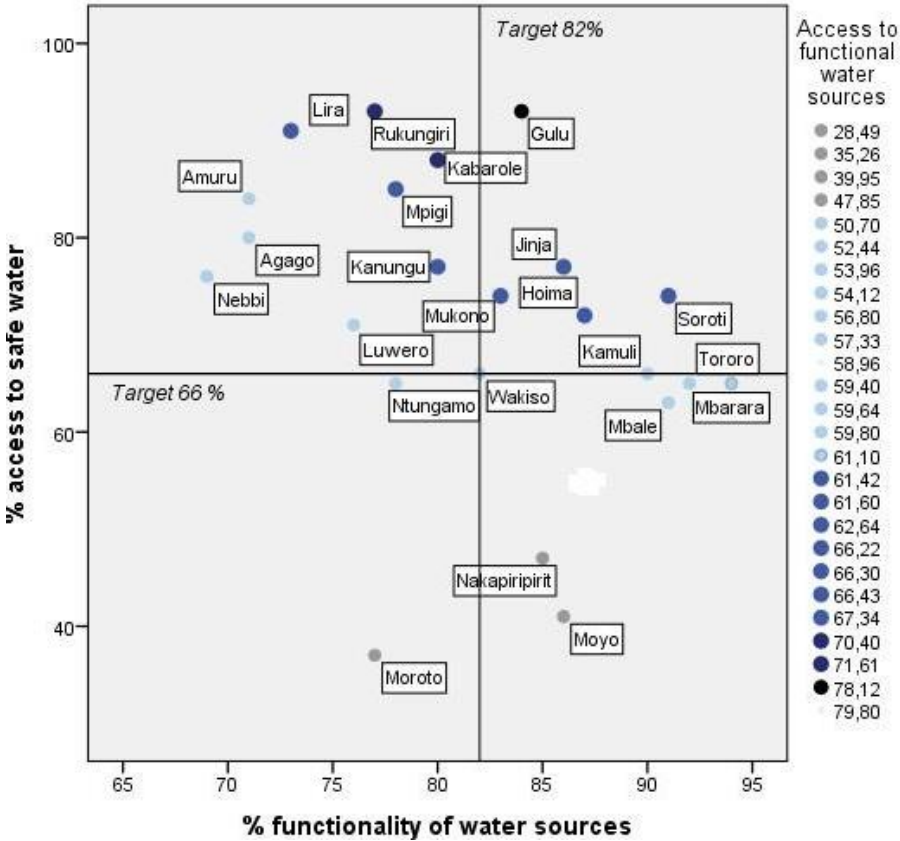
*The Outcome: Access and Functionality of Rural Water Services in Uganda*

Ideally, the outcome is operationalized in a holistic way, looking at the quality of water services, and taking into account the more recent concept of water security. The latter alludes to the ideas of sustainability of water access/quality, of the wider eco-system, and to the prevention of pollution (UN, 2013). However, the actual assessment of water security still remains elusive, due to limitations in availability or inadequacy of data/ indicators, combinations of different measurement scales... (Garfin et al., 2016: 86)<sup>9</sup>. Given these limitations we decided to draw on available data for two widely used indicators : 1) access to water and 2) the functionality of water sources.

In Figure 2 below, we plotted all districts in our sample on how they performed in 2012 on these two indicators (Ministry of Water and Environment, 2012). Whereas the first informs us of the percentage of people having access to an improved water source within 1 km (rural), the latter gives us an indication to what extent those improved water sources were actually *functioning* (% of improved water sources that are functional at time of spot-check (rural)). The rationale is that both dimensions are needed to secure a minimal level of *access to functional* water sources. The two aspects of water service quality capture different dimensions of the politics of service delivery. Batley and McLoughlin (2015) find that the politics of service delivery differs between goods depending on several factors (e.g. the nature of the good, the type of market failure). Water is a highly politically salient topic as it is (mostly) a rival and excludable good, which is very visible and measurable and which is consumed in a frequent and predictable way by a large group of people in a certain locality, making it easier for the demand side to organize collective action. However, Batley and McLoughlin (2015) indicate that the politics of service delivery can even differ within one public good (e.g. access to water

versus *functionality* of water sources). Improving access to water will require larger investments and will engender even more visible and substantive changes in the lives of the citizens (or more importantly voters) but suffers from a possible time lag between efforts and results. Functionality of sources on the other hand, while still being very visible and even more directly attributable to policy makers' efforts to improve service delivery, requires more continuous and day to day follow up from policy makers. By taking both high performance in access and in functionality into account for identifying the high performers, we want to qualify high and sustained performance.

**Figure 2:** Access to functional water sources



To dichotomize the data into high and low performance, we have used the targets put forward by the Ugandan administration as cut off points, namely above 66% for access to rural water and above 82 % for functionality of the improved sources. Using these two cut off points (access > 66 % AND functionality > 82 %) graphically translates into all cases in the upper right quadrant to be considered as high performing in terms of water services (Gulu, Mukono,

Soroti, Jinja & Hoima) (see Figure 2). This however leads to the problem that some districts even though they did not meet one of the targets, actually scored higher on “access to *functional* water sources” (access\* functionality) as indicated by the darkness of the markers (e.g. Rukungiri, Kabarole, Lira, Mpigi, Kanungu). Therefore we qualified the latter cases also as ‘high performance cases<sup>10</sup>’.

**Table 2:** Operationalization and calibration of analytical grid

	Condition	Operationalization	Calibration point
<b>Long Route: Supply side (same for three tracks)</b>			
Local level government	<b>DISTRICT COUNCIL (D)</b> High overall performance of the district council	ACODE composite indicator based on the scores of the district council's legislative role, its accountability to citizens, planning and budgeting and monitoring service delivery on NPPAs (Tumushabe et al., 2013).	1 = District council performance is above
<b>Long Route: Interface (only interface of the citizen-led social track is included in QCA analysis; no variation for interface the political and CSO-led social track)</b>			
Interface gov. with Political Opposition	<b>INTERFACE POLITICAL OPPOSITION (I2)</b> availability of district council meetings	District council meetings where elected councilors can participate (Tumushabe et al., 2013).	1 = district council meetings are organized
Interface gov. with citizens	<b>INTERFACE CITIZENS (I)</b> High performance chair on contact with the citizens	ACODE composite indicator based on performance rating taking into account meetings with the electorate and whether issues raised by the electorate were handled and fed back to them (Tumushabe et al., 2013).	1 = Maximum performance on contact with the electorate (= 10/10)
Interface gov. with civil society	<b>INTERFACE NGOs (I3)</b> High performance Chair on involvement of CSOs	Composite Indicator (Acode, 2013). Involvement of CSOs, CBOs Citizens by District Council taking into account whether there had been involvement of CSOs, CBOs, in the budgeting process and/ or disclosure and dissemination of the Development Plan (Tumushabe et al., 2013)	1= Having involvement of CSOs, CBOs and citizens in the budgeting process and dissemination of development plan (=4/4)
<b>Long Route: Demand side actors (three tracks)</b>			
Political Opposition (Political track)	<b>POLITICAL OPPOSITION (O)</b> A substantial political opposition present within	% of district councilors from the political opposition (Tumushabe et al., 2013)	1 = At least 25 % of councilors from political opposition parties
Civil Society (CSO-led social track)	<b>WATER NGOs (N)</b> High presence of NGOs working on water issues	Number of NGOs working on water issues (Ministry of Water and Environment, 2013)	1 = At least 6 NGOs working on water issues in the district
Citizens (Citizen-led social track)	<b>CITIZENS/ ELECTORATE (C)</b> High presence of citizens with a minimal level of	Afrobarometer indicator: "How interested would you say you are in public affairs?" (Afrobarometer, 2012)	1 = Minimal level of interest: at least 1.6 on a scale from 0 to 3
<b>Short Accountability Route</b>			
Clients	<b>WATER SOURCE USER COMMITTEES (U)</b> Sources being managed by a WUC	% of sources are being managed by a fully functional WUC (Ministry of Water and Environment, 2012)	1= At least 72 % of the sources is managed by functional WUC
<b>Outcome</b>	Access to functional rural water sources (W)	Access= % having access to an improved water source within 1 km (rural) Functionality= % of improved water sources that are functional at time of spot-check (rural) (Ministry of Water and Environment,2012)	1= 'Access' of more than 82 % and 'functionality' of more than 82 % OR 'access to functional sources' higher than 61.4 %

## 5. Results

QCA first looks for single necessary conditions without which high (*low*) performance is impossible. Subsequently, QCA compiles a Truth Table which regroups cases based on having identical causal paths to the same outcome. In a final step, the sufficiency analysis identifies multiple sufficient causal configurations, i.e. pathways, consisting of several accountability conditions leading to high<sup>11</sup> water services performance. Based on Boolean logic, those configurations are minimized to provide more parsimonious configurations (Schneider & Wagemann, 2010). Causal asymmetry entails the need for a separate analysis (necessity and sufficiency analysis) for high and low performance on water services (outcome= 1 and outcome= 0) as QCA does not just assume that the inverse of the configurations leading to outcome= 1 are necessarily the causal pathways to outcome= 0. In this section, we present the results from the QCA analysis.

### **(a) High Performance (Outcome= 1)**

#### *Necessity analysis for high performance on rural water services*

A necessary condition is usually not sufficient to lead to the outcome. According to Schneider and Wagemann, a condition is considered necessary if always when the outcome is present, the condition is present (Schneider & Wagemann, 2010: 3).

**Table 3:** Necessity analysis for high access to functional rural water sources

	Consistency	Coverage
<b>Supply side (long route)</b>		
<b>D</b> ( <i>District council performance</i> )	<b>0.600000</b>	<b>0.545455</b>
<b>Interface (long route)</b>		
<b>I</b> ( <i>Interface with citizens</i> )	<b>0.800000</b>	<b>0.533333</b>
<b>Demand side (long route)</b>		
<b>O</b> ( <i>Political opposition in district council</i> )	<b>0.700000</b>	<b>0.636364</b>
<b>C</b> ( <i>Citizens' interest in public affairs</i> )	<b>0.900000</b>	<b>0.500000</b>
<b>N</b> ( <i>Presence water NGOs</i> )	<b>0.700000</b>	<b>0.500000</b>
<b>Short Route</b>		
<b>U</b> ( <i>Water User Committees</i> )	<b>0.000000</b>	<b>0.000000</b>

The findings in Table 3 show that C (interest of citizens in public affairs) is the only necessary (but not sufficient) theorized condition for high access to functional water sources. Interest of citizens in public affairs is thus always<sup>12</sup> necessary for high water performance to occur, but it is not a sufficient condition to lead to high performance or high access to functional water sources. Put differently, in the case of high quality water services (outcome = 1), we always find high level of interest in public affairs among citizens. However, high levels of public interest do not guarantee high quality water services.

Interestingly, we find that community management through WUCs (i.e. the short route) is far from being a necessary condition for high access to functional water sources. In fact it is precisely the opposite. None of the districts with high water service performance has a high degree of community management of water sources. So, oddly enough, *not* having a high degree of community management is a necessary condition for high water service

performance. This result indicates that – at least in these districts- not taking the short route seems to be a necessary condition for having good water services.

### *Truth Table*

The next step in QCA is to generate the ‘truth table’ (Table 4) which regroups cases (i.e. districts) that follow similar pathways to the same outcome. For example, both Nakapiripirit and Moroto score low on access to functional water sources ( $W= 0$ ) while having the same configuration of conditions (i.e. explanatory variables) with regard to the accountability arrangements.

**Table 4:** Truth Table

Case	<i>SUPPL</i>	<i>INTERFAC</i>	<i>DEMAND</i>			<i>SHORT</i>	<i>OUTCOME</i>
	<b>D</b>	<b>I</b>	<b>O</b>	<b>C</b>	<b>N</b>	<b>U</b>	<b>W</b>
Gulu,Mukono	1	1	1	1	1	0	1
Rukungiri	1	0	1	1	1	0	1
Kabarole, Kanungu	0	1	0	1	1	0	1
Soroti	0	1	1	0	1	0	1
Lira	0	0	1	1	1	0	1
Mpigi, Jinja	1	1	1	1	0	0	1
Hoima	1	1	0	1	0	0	1
Mbarara, Tororo	0	0	0	1	1	0	0
Amuru	0	0	0	0	0	0	0
Kamuli	1	1	0	1	1	1	0
Mbale	1	0	1	1	0	0	0
Agago	0	0	1	0	0	1	0
Wakiso	1	1	1	0	1	0	0
Luwero	0	1	0	1	1	1	0
Nebbi	1	1	0	0	1	1	0
Ntungamo	1	1	0	1	1	0	0
Nakapiripirit, Moroto	0	1	0	1	0	0	0
Moyo	0	0	1	1	0	1	0

Our model with six conditions (D, I, O, C, N, U) generates  $2^6$  logically possible combinations of conditions (dichotomous). Of those 64 possible combinations, 18 were observed in reality (18 rows), of which 7 combinations (10 cases) had a positive outcome ( $W= 1$ ), whereas 11 conjunctural combinations (13 cases) were linked to non-occurrence of the outcome ( $W= 0$ )<sup>13</sup>.

Even without logical minimization, the truth table already indicates that the theoretical ‘full’ pathway ‘DIOCNU’ – combining the long *and* the short route to accountability – does not exist as there is no district with a high score (1) on all six conditions. However, two (Gulu and Mukono) out of ten cases with high access to functional water source follow the ‘full’ long accountability route to success, i.e.  $DIOCNU \rightarrow W$ , while none of the cases adhere to the short route. Amuru adheres to the negative complement, a configuration in which all accountability elements are absent (conditions= 0) leading to a low performance.

#### *Analysis of sufficiency for high performance on rural water service delivery*

The necessity analysis points us towards conditions that are crucial in explaining high performance<sup>14</sup>, yet these conditions by themselves do not suffice to achieve high performance. In contrast to the necessity analysis, the sufficiency analysis identifies *combinations* of accountability arrangements which suffice to achieve a high (*low*) outcome. In order to do so, we use Boolean algebra to minimize<sup>15</sup> the combinations specified in the truth table (Lewegie, 2013).

The solution of the QCA sufficiency analysis is presented below. The solution identifies five different sufficient pathways to a positive outcome (=complex solution)<sup>16</sup>, or in other words five combinations of accountability elements that suffice to lead to high water service performance

$$DIOC_u + iOCNu + DICnu + dIoCNu + dIOcNu \rightarrow W^{17}$$

(Gulu, Mukono+Mpigi,Jinja)(Rukungiri+Lira)(Mpigi,Jinja+Hoima)(Kabarole, Kanungu)(Soroti)



The solution above shows the five sufficient causal configurations (DIOCu & iOCNu & DICnu & dIoCnu & dIOcNu), while the '+' indicates that each of those combinations separately is a causal configuration equally leading to W (high performance on water services). All of the 10 high performing districts, follow (at least) one of these paths to high performance. We have listed the names of the districts that adhere to the path below the solution between brackets. So for example Gulu, Mukono, Mpigi & Jinja follow the DIOCu path, while Soroti follows the dIOcNu pathway. To correctly interpret this solution, it reads: There are five different configurations leading to high performance. The first path DIOCu is a combination of a well performing district council 'D', and active interface towards the citizens 'I', a presence of political opposition 'O', at least a minimal level of interest in public affairs among citizens 'C' and a low degree of water user committees management 'u'. This path is followed by four districts namely Gulu, Mukono, Mpigi and Jinja.

*Interpreting the results*

Table 5 gives an overview of the five sufficient configurations and their coverage and consistency scores<sup>18</sup>, while at the same time also identifying the theoretical pathway the configuration most closely resembles.

**Table 5:** Results QCA sufficiency Analysis (W)

N Cases adhering to this path (districts)	Causal configuration	Closest <u>Theoretical</u> pathway	Raw coverage	Unique coverage	Consistency
Gulu, Mukono, Mpigi, Jinja	<b>DIOCu</b>	<i>DIOCN (long route three track)</i>	0.400	0.000	1.00
Mpigi, Jinja+Hoima	<b>DICnu</b>	<i>DIC (citizen-led social accountability)</i>	0.300	0.100	1.00
Rukungiri+Lira	<b>iOCNu</b>	<i>Hybrid (full demand side track)</i>	0.200	0.200	1.00

Kabarole, Kanungu	<b>dIoC<u>Nu</u></b>	<i>Hybrid (citizen-led &amp; CSO-led)</i>	0.200	0.200	1.00
Soroti	<b>dIOc<u>Nu</u></b>	<i>Hybrid (political &amp; CSO-led)</i>	0.100	0.100	1.00

Solution coverage= 1,00; Solution consistency= 1,00

To start with, the QCA analysis identifies 5 accountability pathways, thereby supporting the need for multi-track analysis. Furthermore, all three demand side actors, (the often overlooked) political opposition (O), citizenry (C) and civil society (N) play an important role in several of the identified solutions.

Secondly, the short route does not seem to work in the districts under study. If anything, the reverse is true: a low degree of community management by the WUC is a necessary condition for high performance (the lack of community management (u) is present in all five pathways).

$$DIOCu + iOCNu + DICnu + dIoCNu + dIOcNu \rightarrow W$$

Third, our analysis confirms the 'full' long route and citizen-led social accountability route. Looking at the truth table we already identified the 'full' long route – the combination of good performing policy actors on the supply side (D) with a well-established demand-supply interface (I) and all three demand agents being present (i.e. presence of political opposition 'O' and citizens' interest in public affairs 'C' and high presence of active Water NGOs 'N') (DIOCNu) as a viable pathway to high performance as was the case in Gulu and Mukono. However, in the final solution the full long route (DIOCNu) was combined with the path adhered to by Mpigi and Jinja (DIOCnu) to generate an even more logically condensed configuration of DIOCu, i.e. irrespective of whether or not there is strong NGO presence (N). The theoretical pathway that most closely resembles this configuration is still the full long route.

The second causal combination (DICnu) confirms the citizen-led social accountability pathway. This pathway, adhered to by Mpigi, Jinja and Hoima, requires the presence of a high

performing supply actor, i.e. district council (D) and its interface toward the citizens (I), though combined with a publicly oriented citizenry (C) – even with only few water NGOs (n) and irrespective of political opposition being active.

The analysis also identified three hybrid solutions, combining elements of two or more different accountability tracks. The third causal configuration (iOCN) combines elements of all three tracks (political, citizen-led and civil society-led) and is probably the least likely to have been predicted theoretically as it does not require a performant supply side, does not have an interface, yet builds on having a ‘perfect demand side’ (iOCN). In this configuration, which is prevalent in Rukungiri and Lira, the full potential of the demand side has materialized (i.e. there is some political opposition (O), there is at least a minimal interest in public affairs among its citizenry (C) and there are a high number of water NGOs (N) present in the district) and leads to success even without a fully optimal interface (i) towards the electorate and irrespective of the overall performance of the supply side.

The fourth configuration dIocN is also a hybrid solution, displaying features of the social accountability route, albeit both citizens and civil society led, but again without the supply side. More specifically, Kabarole and Kanungu manage to perform relatively well despite having a low overall performance by the district council and without having a political opposition present in its district council. This pathway comes into mind when thinking about many of the NGO-led or citizen-led initiatives, where a poorly performing supply side is confronted with an active civil society and citizenry (not political opposition) and has gradually (been forced to?) opened up interface space (see also e.g. Gildemyn, 2014).

Finally, Soroti (dIOcN) despite its low interest in public affairs (c) and a lack of high performance of the district council (d), still manages to perform well in terms of water accessibility and functionality, based on a combination of accountability claims from the political opposition (O) and NGOs (N) and a fully operational interface (I).

Table 6 now starts from the theoretical configurations identified and interprets how the theoretical configurations are refuted or confirmed by the causal configurations that we have empirically identified. The QCA analysis did not find any evidence for the 'full' accountability route (DIOCNU), in which long (DIOCN) and short route (U) work together towards high water services performance. The main reason is because in the districts under review the short route does not seem to lead to high performance. In fact all high performing districts had a relatively low degree of community management (u). Hence, the QCA analysis in this research setting refuted the effectiveness of the short route.

The results also showcase that the long three track route to accountability, including political and social (citizen and civil society) accountability, was in place in Gulu and Mukono while the citizen-led social accountability route was materialized in Mpigi, Jinja and Hoima.

Table 6: Theoretical and empirical accountability configurations

	Theoretical accountability configurations	Empirical accountability configurations			
		<u>confirming theory</u>	<u>contradicting theory</u>	<u>New / hybrid pathways</u>	
'Full' accountability route (long + short)	$DIOCNU \rightarrow W$				
Short route accountability	$U \rightarrow W$		$u \rightarrow W$ (all cases)		
Long three track accountability	$DIOCn \rightarrow W$	$DIOC \rightarrow W$ (Gulu, Mukono)			
'political' accountability	$DO \rightarrow W$			$dIOcN \rightarrow W$ (Soroti)	$iOCN \rightarrow W$ (Rukungiri, Lira)
'civil society-led' social accountability	$DN \rightarrow W$				
'citizen-led' social accountability	$DIC \rightarrow W$	$DICn \rightarrow W$ (Mpigi, Jinja, Hoima)			

Additionally, our analysis has discovered three new, hybrid accountability constellations, combining several elements of different tracks. The hybrid constellations seem to compensate a suboptimal supply side by diverging configurations of demand side actors. As a functional supply side was considered part and parcel of all theoretical options leading to high performance, none of these pathways were theoretically predicted ex-ante. The first two hybrids regrouping Kabarole, Kanungu (dIoCN) and Soroti (dIOcN) compensate a low performing supply side by an active interface and high NGO presence with one additional demand agent, respectively citizens or the political opposition, thereby constituting imperfect

citizen-CSO led social accountability and imperfect political-CSO led accountability routes. They are labelled 'imperfect' as they underperform on the supply/interface side, yet they seem to compensate by building on other strengths such as having NGOs present. The final hybrid pathway, the perfect demand side pathway (iOCN), has materialised in Rukungiri and Lira. It more specifically states that a perfect demand side (OCN) can contribute to service delivery even without a fully operational interface and irrespective of the supply performance.

**(b) Low Access to Functional Rural Water Sources (Outcome= 0)**

Because QCA does not assume that the inverse of the configurations leading to high performance automatically lead to low performance (causal asymmetry), we also analyze in a separate analysis pathways to low access to functional water sources (outcome= 0). The results of the necessity analysis for the zero outcome show that no single condition is considered a necessary condition for low performance. These findings thus underscore the lack of perfect symmetric causality as having a high degree of citizens' interest in public affairs (C) is a necessary condition for having high access to functional water sources (W), while the reverse, a low level of citizens' interest (c) is not a necessary condition for low performance (w).

While the truth table (Table 4) shows that only Amuru follows the 'full' low performance pathway ('dioncu', i.e. low performance on all accountability arrangements) to low access to functional water sources, our sufficiency analysis again distills other pathways than those theoretically identified ex-ante. The complex solution presents nine sufficient causal configurations for low access to functional water sources.

**dloCnu + diOnU+ dioCNu + diocnu + DiOCnu+ loCNU+DIoNU+DIoCN +DIOcNu →w** <sup>19</sup>  
 (Nakapiripirit,Moroto)(Agago+Moyo)(Mbarara,Tororo)(Amuru)(Mbale)(Kamuli+Luwero)(Kamuli+Nebbi)(Kamuli+Ntungamo)(Wakiso)

The first configuration 'dloCnu' is among the three most prominent ones (in terms of unique coverage: 2 districts) constituting a combination of deficient supply performance with low water NGO presence (n), limited political opposition (o), and low community management (u) that even with public interest (C) and an interface (l) with the electorate still leads to low performance in Nakapiripirit and Moroto. The second, partly overlapping, pathway (diOnU) combines deficient supply side performance (d) and low water NGO presence (n) with low interface towards the electorate (i) irrespective of public interest and despite the presence of political opposition (O) and high prevalence of functional WUCs (U) (Agago, Moyo). These two configurations include Moroto, Moyo and Nakapiripirit which are the worst performing districts on both water access and functionality (see Figure 2). The two configurations (4 districts) are in the parsimonious solution grouped together and further logically minimized to 'dn', i.e. low performance of the district council and the low presence of water NGOs.

Interestingly though, there are several cases (Kamuli, Nebbi, Ntungamo, Wakiso) among the low performing districts that have the 'perfect' supply and interface combined with the presence of water NGOs (DIN), though complemented with respectively the lack of public interest but political opposition (Oc) or the opposite (oC) or no political opposition but community management (oU). Kamuli and Ntungamo (DloCN) and Wakiso (DIOcNu) thus come close to the positive long route configuration, though with respectively political opposition (o) or citizens' interest missing (c). Looking at Wakiso and Kamuli's performance on water services (Figure 2), it should not come as a surprise that they follow relatively 'successful' pathways as both of them are actually on the demarcation line for the positive outcome without however actually surpassing it. Finally, Nebbi also displays perfect supply and interface features, with only one of the long route demand actors being present, even though the short route is also active (DlocNU). In fact, none of the low performing districts has the perfect demand side (OCN) which hints at the fact that in low performing districts there is always at least one demand actor underperforming or put differently, cases with a perfect demand side (OCN) are always successful. In sum, there are even more routes to low performance, than to high performance.

Discussing each of the routes in-depth is not feasible. Yet in broad lines, the results show that the worst performing districts seem to have in common a lack of high performing district authorities and limited NGO presence (Moroto, Moyo and Nakapiripirit), while the borderline cases (Moroto, Moyo and Nakapiripirit) on the threshold between high and low performing cases, are very close to the full long route, though with different demand actors missing.

## **6. Conclusion**

Ideally, accountability should be studied from a holistic perspective. This means that - in reference to the WDR accountability triangle - the complexity of the (interaction between/combination of) long and short routes should be taken into account in order to understand and explain service delivery performance. The question is how this can be done. We believe that our framework – as presented in this paper – shows that such a holistic approach is not only possible, it is also feasible.

To start with, our amplified WDR framework allows for the accommodation of different accountability tracks. The long route, we showed, is not just one track but can consist of three different tracks: the political accountability track, the social accountability citizen track, and the social accountability civil society track. Furthermore, each track has its own demand actors: the often overlooked political opposition, citizens, and, CSOs. Each track can also have its specific interface spaces to interact with the supply side. The fact that different sets of actors and different types of interface spaces can be identified allows for context-specific mapping and analysis. Finally, the framework components (the tracks, the actors on supply and demand side and the interfaces) and how they interact/relate and influence service delivery allows for the holistic, comprehensive and context specific study of the link between accountability and service delivery performance. In terms of policy relevance, future accountability interventions should thus not fall into the trap of isolating interventions or actors, but rather study and then tap into the accountability ecosystem in place, in order to support and strengthen them. This is thus a call to bring complexity and context back in.



In terms of understanding the performance of our specific Ugandan rural water service delivery, we see that all the different identified tracks and actors matter for service delivery performance. In our case, the results pointed towards the long three track route (supply-interface – all three demand actors) and the citizen-led social accountability route as viable routes to high performance. These findings are in line with Fox's (2015) claim that working on both supply and demand side (both voice and teeth) are necessary to fully optimize the accountability potential. We can add to this that particularly the role of political opposition implies that the political side of the accountability demand should not be overlooked. Our research also showed that various hybrid accountability configurations exist and can be successful. In the context of Uganda and rural water services we identified three hybrid constellations which compensated a suboptimal supply side and interface with different constellations of demand side actors. More specifically, the hybrid citizen-CSO led accountability configuration which regroups two districts, substitutes for the absence of a highly performing district council by an active interface, a high NGO presence and a more than averagely interested citizenry.

On the other hand, another district follows a hybrid political-CSO accountability route characterized by a similar set-up compensating the flawed supply and by the combination of political opposition and CSOs. The most pure form of the demand side compensating for flaws on the supply-interface side is identified in two districts where a combination of political opposition, a vocal civil society and politically interested citizens contributes to high performance even without a fully operational interface and irrespective of the supply performance. Interestingly, the latter three configurations do not contain an operational supply side and this thus suggests that low district council performance might be accommodated for by an active and broad demand side.

How to make sense of this puzzling finding? Though this research did not look into the why and how, there has been some in-depth research by other scholars which might hint at some possible explanations.

First of all, issue saliency. Issue salience influences agenda setting and policy choices (Epstein & Segal, 2000). Applied to our case, if water is a pressing and salient issue put on the agenda by several demand side actors, the supply side might redirect and dedicate more efforts toward solving water issues than toward other policy domains.

Secondly (and related to the first), Joshi (2017) argues that public accountability failures are not accidental because they are embedded in power structures and political processes. He further argues that cross cutting countervailing power is needed. It could be the case that the existence of multiple demand actors function as a strong countervailing power (in this case around water issues). Hybrid constellations enable cross linkages between the opposition, citizen and NGOs which can form a powerful alliance, or can be perceived as a powerful counterweight by the public authorities.

All these explanations point at one important and crucial element: accountability actions are part of a broader and longer process of engagement between actors and the state (Joshi, 2017). Strengthening the demand side and stimulating alliances between them is thus important and this essentially nuances Fox' (2015) sandwich strategy.

The short route –contrary to the theoretical assumptions- did not contribute to high performance at all, in fact not having a high level of community management was a necessary condition for high performance in the Ugandan case. However, dismissing the short route as a possible venue for improving rural water services based on these findings might be erroneous as the data might not reflect the reality of actually being active water management user committees. Terry et al (2015) found only about ten percent of the WUCs met regularly, which is significantly less than the 71 percent put forward by the MWE report (2011). This discrepancy between the statistics and the reality of the WUC functioning was also confirmed

by district officials (Terry et al., 2015). Whichever of the two hypotheses, either the data not accurately representing the reality of WUCs, or the WUCs not contributing to improved water services, the functioning of WUCs and their contribution to improving water services warrants more in-depth research, not in the least since they are considered the cornerstone of water services management and maintenance.

While this article shows the usefulness of applying more holistic frameworks and multi-track accountability research (for which QCA is a perfect fit), the medium N research and the available district level data limits the richness of the indicators used and 'thickness' of the case studies as to what the causal mechanisms between the different accountability blocks were and how they function exactly. We could only hint at some explanations referring to existing research carried out by other scholars. Further research is needed to provide more detailed accounts on how exactly these multi-tracks strengthen/inhibit each other, how interfaces between demand and supply can further be optimized and be tailor made to the needs of the different actors using them.

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## ENDNOTES

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<sup>1</sup>Access, or coverage refers to the percentage of people that collect water from an improved water source. The indicator for access to rural water supplies is defined as “*percentage of people within 1km (rural) of an improved water source*” (Ministry of Water and Environment, 2014).

<sup>2</sup> For a good overview of flaws see WDR, 2004:6-12.

<sup>3</sup> ACODE ‘*Advocates coalition for Development and Environment*’ (Acode), is a Ugandan think tank which performs annual performance rating of different district level (supply) actors since 2011. They cover 26 districts, the selection of which has been based on several criteria (from all regions, the number of years the district exists, variation in perceived performance, perceived marginalized and influential districts within the region) to capture the variation present within Uganda. For all the conditions specified in our model, we eventually had full data available for 23 cases (i.e. districts), namely Gulu, Mukono, Rukungiri, Kabarole, Kanungu, Soroti, Lira, Mpigi, Jinja, Hoima, Mbarara, Tororo, Amuru, Kamuli, Mbale, Agago, Wakiso, Luwero, Nebbi, Ntungamo, Nakapiripirit, Moroto, Moyo.

<sup>4</sup> We have opted to use Crisp QCA and to focus mostly on the complex solution (rather than the parsimonious solution) because we preferred to show as transparently as possible what happened to the data, to avoid creating the black box of QCA. Also given that previous studies have not concurred in their empirical findings, it is difficult to make assumptions about the outcomes of hypothetical cases.

<sup>5</sup>There is no theoretical cutoff point available, as party fragmentation is mostly used as a continuous scale (Eckhardt, 2008). The median value (25 percent) is used since having one in four representatives from political opposition seems reasonable as a threshold for a critical mass demanding some political accountability.

<sup>6</sup> The question is: ‘How interested would you say you are in public affairs?’ Score used for weighted average: 0= not at all interested, 1= not very interested, 2= somewhat interested, 3= very interested. Given the low average interest in public affairs (average 1.8), the cutoff point is put at above the numerical mean threshold (1.5) rather than the content based ‘somewhat interested’ (2).

<sup>7</sup> Even though using measures of center as a cutoff point is not recommended for QCA (Schneider & Wagemann, 2010), as no theoretical cutoff points for critical mass of NGOs in local level districts are available, nor ‘natural’ cutoff points present themselves, we used the median as a cutoff point.



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<sup>8</sup> Since the national target (80 percent) was only attained by one district, we preferred to use the average as cutoff point, also coinciding with a natural gap in the data (64-74%).

<sup>9</sup> Apart from technical and conceptual issues in assessing water security and adaptive governance, Nkhata and Breen (2016) also contend that especially in the context of Sub-Saharan countries, most instruments are not that useful as they do not account for the specific political-economic context in which decisions are being made. In light of the former, our article, analyzing only access and functionality of water sources, does not claim to study 'the quality of water services', much less *water security* in rural Uganda, as it does not take into account issue such as the quality, sustainability, equity of water services, nor its effect on ecological or livelihood systems. On the other hand, as suggested by Nkhata and Breen (2016), our study does attempt to take on board the political context in which decisions are made in two ways: first by taking into account the political nature of the public good as well as by explicitly taking the political context and all crucial stakeholders into consideration in the various accountability configurations.

<sup>10</sup> The criterion for being included as successful cases is thus: surpassing BOTH national targets of water access and water source functionality OR scoring higher than 61.4 percent on access to functional water sources. The latter cutoff point is the lowest score on access to functional water sources (access\* functionality) of all the high performance cases. As such only cases that scored higher or equally high as the top right side quadrant on access to functional water sources are added to the list of high performing districts.

<sup>11</sup> For reasons of readability, we will refer to the outcome as high and low performance in water services performance rather than performance on combined access and functionality of water sources.

<sup>12</sup> There is one exception, i.e. Soroti. Nevertheless the consistency threshold of 0.90 equals the suggested threshold by Schneider and Wagemann (2010) to qualify a condition as necessary.

<sup>13</sup> Using 6 conditions to analyze water performance in 23 districts (cases) yields a proportion of conditions to cases of 0.26, less than the upper limit (ratio= 0.33) for conducting meaningful QCA analysis (Marx, 2010).

<sup>14</sup> The budget available to the districts is another important explanatory factor. However, as budgetary data was only available for 16 out of the 23 cases, we could not include the budget as a condition in our analysis. Using the available data, we did not find any correlation between the size of the budget at

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district level and any of the three water service performance indicators (access, functionality, access\*functionality).

<sup>15</sup> Logical minimization is based on a minimization algorithm to reduce logically redundant factors – i.e. factors that do not add to explaining the outcome.

<sup>16</sup> Sufficiency analysis produces two logically equivalent solutions:

*DOCNu+ iOCNu + DICnu+ dloCNu+ dIOcNu*

*(Gulu,Mukono+Rukungiri)(Rukungiri+Lira)(Mpigi,Jinja+Hoima)(Kabarole,Kanungu)(Soroti)*

*DIOCu +iOCNu +DICnu +dloCNu+dIOcNu*

*(Gulu,Mukono+Mpigi,Jinja)(Rukungiri+Lira)(Mpigi,Jinja+Hoima)(Kabarole,Kanungu)(Soroti)*

The only difference between both solutions is that the long route pathway (DIOCNu), followed by Gulu and Mukono, is in the first solution combined with DiOCNu (adhered to by Rukungiri) while in the second it is combined with DIOCnu (adhered to by Mpigi and Jinja), both of which are already covered by another configuration in the solution. Given the high similarity between the two logically equivalent solutions, we eventually have opted for the second solution as it incorporates the supply/ interface/ demand side in the configuration.

<sup>17</sup> The parsimonious solution is: *DIn+OCN+dINu*.

<sup>18</sup>“Consistency assesses the degree to which the cases sharing a given condition or combination of conditions agree in displaying the outcome in question. By contrast, set-theoretic coverage assesses the degree to which a cause or causal combination ‘accounts for’ instances of an outcome” (Ragin, 2006: 292). ‘Raw coverage’ indicates which share of the outcome is explained by a certain path while ‘unique coverage’ specifies the share *exclusively* explained by that path (Lewegie, 2013).

<sup>19</sup> The concomitant parsimonious solution is: *dn + io + in + Dc + DoN +U → w*.