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RESEARCH REPORT

A GRAND CHALLENGE
FOR DEVELOPMENT

What data do we want? Understanding demands for open data among civil society organisations in South Africa



Andrew Kaliati, Paskaliah Kachieng'a and Indra de Lanerolle

Authors

Andrew Kaliati is a project officer at the Centre for Municipal Research and Advice (CMRA) and is currently working on the Municipal Barometer Support Programme. The Municipal Barometer is an online open data tool developed by the South African Local Government Association (SALGA) that seeks to make local-level data available to municipal officials. It also aims to enhance engagement between citizens and government.

Paskaliah Kachieng'a is the project manager of the Municipal Barometer Support Programme at CMRA.

Indra de Lanerolle leads the South African Network Society Lab of the Journalism and Media Programme at the University of Witwatersrand, Johannesburg. He was a research consultant appointed to work with CMRA on this research project.

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Summary

Many governments, international agencies and civil society organisations (CSOs) support and promote open data. Most open government data initiatives have focused on supply – creating portals and publishing information. But much less attention has been given to demand – understanding data needs and nurturing engagement.

This research examines the demand for open data in South Africa, and asks under what conditions meeting this demand might influence accountability. Recognising that not all open data projects are developed for accountability reasons, it also examines barriers to using government data for accountability processes.

To explore these issues, the researchers identified and tested ‘use stories’ and ‘use cases’. How did a range of civil society groups with an established interest in holding local government accountable use – or imagine that they could use – data in their work? The researchers identified ten broad types of open data use, which they divided into two streams: ‘strategy and planning’ – in which CSOs used government data internally to guide their own actions; and ‘monitoring, mobilising and advocacy’ – in which CSOs used data in outward-facing activities.

The use stories show that there is demand for government data, and varied opportunities for using it. They suggest that local and national civil society organisations can be important intermediaries, utilising open data in accountability processes. As one participant expressed it: “I could use this information as ammunition, when challenging the municipalities”.

But there are also challenges and obstacles that organisations face in sourcing, understanding and using government data. These include: availability of, access to and trust in data; appropriate modes of communicating data; the role of data in accountability processes; and interpreting data.

The experiences of the participants suggest that a significant gap exists between open data supply and open data demand. Decisions about which data to make open need to be based on demand. In particular, local data needs to be available, and at the local level and needs to include much more data about government services and decision-making processes. The way data is presented also needs to take account of the ways users want to use it.

The researchers conclude that national-level open data portals are likely to be only one part of the solution. The demand for open data is part of a wider demand for effective and informed dialogue – open government may require more open government people, as well as more open data.

1. Introduction

1.1 An African data revolution?

According to the former President of Tanzania, Jakaya Mrisho Kikwete, open data is “an idea whose time has come”.¹ Many governments, international agencies and civil society organisations (CSOs) support and promote open data. Sixteen countries have adopted the Open Data Charter² and the Open Government Partnership (OGP) movement now has 74 member countries.³ South Africa, where the research in this report was conducted, was a founding member of the OGP and, while this report was being written, it took over as the Chair of the OGP.

The Open Government Declaration states that “people all around the world are demanding more openness in government”.⁴ But if this is the case, what kind of openness and what kind of open data are they demanding? This question led to this research. To date, many open government data initiatives have focused on supply: creating portals and publishing information (Khan and Foti 2015). Much less attention has been given to demand and to understanding data users’ needs, while “nurturing their engagement to drive value creation still does not appear to be a priority for many governments” (Ubaldi 2013: 42).

The African Union, among others, has acknowledged the importance of moving from publishing data to ensuring it is usable and used, placing “a particular emphasis on building a culture of usage” (Africa Data Consensus 2015). The African Development Bank (AfDB), which has created an Africa-wide open data portal, argues that “reliable data constitutes the single most convincing way of getting the people involved in what their leaders and institutions are doing” (AfDB 2017). This is clearly contingent upon ‘the people’ knowing about the data, accessing it, digesting it and acting on it.

This research report describes research that began by investigating the demand for open data in South Africa. It grew out of an initiative to make government

data available online through tools such as the Municipal Barometer,⁵ and the need to understand how this data might be useful for citizen groups.

1.2 Local government data: the Municipal Barometer

The Municipal Barometer is an online tool that openly publishes sets of economic, social and government performance data, which can be interrogated down to very local levels (e.g. the ward level). It was developed by the South African Local Government Association (SALGA) to address the lack of readily available data on these issues. Its primary aim was to assist local government officials in their planning processes, by providing easy access to relevant data and building their capacity to interpret and use this data for planning, budgeting and governance processes. However, it is open to anyone who wants to use it and there has been strong interest among some of the partners involved in its development in exploring its wider relevance for civil society.

Issues around the need for local government data in South Africa go back further than the Municipal Barometer. The introduction of a constitutional democracy in 1994 saw the establishment of democratic local government. The aims of this process were to provide local communities with a platform for accountability, to ensure the provision of services, to promote a safe and healthy environment, and to encourage the involvement of communities and community organisations in matters of local government.

However, these constitutional mandates posed significant challenges to municipalities in terms of service delivery. Municipalities are expected to make informed and reliable decisions and effectively deliver on their mandates, but the local government authorities in South Africa raised concerns about the lack of local-level data needed to make such decisions.

¹ Speech given in September 2015 at the first Africa Open Data Conference, Dar es Salaam, Tanzania. See: www.worldbank.org/en/news/feature/2015/09/29/open-data-gaining-momentum-in-africa

² See: <http://opendatacharter.net/adopted-by-countries-and-cities>

³ As of December 2016.

⁴ See: www.opengovpartnership.org/about/open-government-declaration

⁵ See: www.municipalbarometer.net

In response, SALGA established the Local Data Programme. This brought together the major data agencies, including Statistics South Africa, the Municipal Demarcations Board, the Development Bank of Southern Africa, the South African Cities Network and CMRA, to make local-level data more easily accessible to municipalities through one central portal. In 2012, the Centre for Municipal Research and Advice (CMRA), in its capacity as SALGA's partner and as the daughter company of the Association of Dutch Municipalities, was tasked with creating an online tool that would be freely accessible, as data sets from existing providers were expensive. This process was inspired by the Dutch website Waarstaatjegemeente.nl⁶ and the end result was the Municipal Barometer.

The Municipal Barometer meets many of the requirements that have been suggested for open data initiatives. It is published on an open website; it does not require registration to access; and its data sets are machine-readable and downloadable in open formats, allowing end-users to benchmark, correlate, analyse and present graphics and tables in just a few clicks.

1.3 Background to the research

Our initial goal in this research was to examine how the Municipal Barometer could be used by citizens or citizen groups, in particular to hold local government to account. However, during the early stages of the research, two factors led us to broaden the focus.

Firstly, we recognised that the Municipal Barometer had obvious limitations as a tool for citizens and citizen groups. For example, it is not easily viewable on mobile phones – the devices most accessible to the majority of the population in South Africa that use the Internet. Also, drawing reports from it requires some familiarity with, or training in, querying databases (for example, producing cross tabs). Further, at present, the data sets available on it are limited largely to census data, and these are quite outdated; the most recent census was in 2011.⁷

Secondly, we realised through consultations with SALGA that while the Municipal Barometer was being further developed, due to financial

constraints and organisational priorities, much of the work needed to make it more usable for civil society was not likely to be undertaken in the short term. This meant the tool was unlikely to be widely used by CSOs in the near future.

For these reasons, we decided to adopt a more exploratory approach to help us gauge the interest that citizen groups have, or might have, in government data, and which barriers might stand in the way of government data being useful in accountability processes. For CMRA, as an organisation that works with the Municipal Barometer but also with local government and communities, this research represented an important step in improving our understanding of the role of information in engagements between government and citizens.

Reviewing the literature on open government data initiatives – including those from Kenya, which is a leader in Africa on open government data projects (e.g. Muigai 2014; Brown 2013; Weinstein and Goldstein 2012) – we found that they are developed for various reasons, not all of which are connected to accountability. Some are created to encourage business investment or to enable greater efficiency. Even the Municipal Barometer was designed primarily as a management tool, rather than a tool for accountability; the open data is provided to make it more accessible to local government officials.

However, there is a strong case for linking all open data initiatives to transparency and accountability. The OGP website states that it supports those committed to making their governments more open, accountable and responsive to citizens.⁸

We see accountability in this context as referring to 'vertical accountability', which is "the means through which citizens, mass media and civil society seek to enforce standards of good performance on officials" (Stapenhurst and O'Brien 2011: 2), or to 'social accountability', a form of "civic engagement, namely a situation whereby ordinary citizens and / or civil society organizations participate directly or indirectly in exacting accountability" (*Ibid.*: 3).

While this link is frequently made by advocates and practitioners of open data initiatives, many

⁶ See: www.waarstaatjegemeente.nl

⁷ The data currently available on the Municipal Barometer is drawn from the census, though the project's goal is to add other data sets from a range of government departments.

⁸ See: www.opengovpartnership.org

researchers over the past decade have pointed out that the link is often assumed, rather than explored, and that evidence for open data's positive role in accountability is ambiguous (e.g. Edwards 2013; Fox 2007, McGee and Gaventia 2013; Peixoto 2013; Ubaldi 2013; Yu and Robinson 2012). As McGee and Edwards state in their recent review of the literature on transparency and accountability initiatives, "open data is not equivalent to open government" (2016: 8).

Reviewing this literature brought us to exploring demand for open data in two ways. Firstly, in identifying what kind of data should be published and in what forms. Secondly, in identifying what uses and under what conditions meeting such demand might actually influence accountability processes. We focused on local governments and local citizen groups, as these are the focus of CMRA's work, although we also considered national citizen groups, specifically those that engaged local government.

2. Methodology

2.1 Research aims

This research aimed to provide insights into the demand for open government data, both of the kind included and planned to be included in the Municipal Barometer, and other initiatives by CSOs that are committed to playing a role in accountability at local, provincial and national levels.

The study specifically sought to identify and test 'use stories' and 'use cases' – examples of when and how CSOs did or might use government data in an accountability process – that could inform the future development of open government data platforms, including the Municipal Barometer. Gathering use stories is an approach that has been widely used in the software development industry to surface the needs of users (Jacobson, Spence and Bittner 2011). In our case, we were interested in how civil society groups with an established interest in holding local government accountable might use, or might seek to use, data in their work (see section 3, 'Analysis: how organisations use, and want to use, government data' for more details).

2.2 Research assumptions

This research is based on the assumption that organisations and citizen groups working to improve or extend the accountability of the government at local, provincial or national levels are important potential users of open government data. Based on their experiences of interacting with government, and of advocacy, they are likely to have insights into how accountability processes do work, can work and could be improved.

We worked from the premise that the range of uses of data may be open-ended and diverse, and may not easily fit into existing frameworks. We

also acknowledged that potential users may not have any demand or interest in the particular data provided by the Municipal Barometer. Further, we acknowledged that the participants in focus group discussions may not have had any experience of using government data, and so might not have any use stories to share.

2.3 Use stories

In developing a facilitation guide for the focus groups, we used a method developed in the 1990s to ensure that software design meets actual needs of, or creates 'value' for, users. Use stories (Jacobson *et al.* 2011) – sometimes called 'user stories' – are a systematic way of capturing specific interactions or anticipated actions between users (or potential users) of a system and the system itself. While it was first adopted in software development, it has since been used to capture the needs of users of many other systems.

It is consistent with a human-centred design approach to the development of new technologies and tools, which starts by trying to identify the needs and contexts of users, and then seeks to integrate technologies in ways that are appropriate and conducive to users' needs (Rouse 1991: 4). The method had a number of advantages in the context of this project. In particular, it did not require potential users to actually use the system, as it was developed specifically to deal with 'hypotheticals' in a practical way. This enables potential users and others to think through how and why they *might* make use of a particular system.

The research sought to collect use stories through focus group discussions. In preparation for these discussions, a set of use stories was developed

Many organisations in South Africa that engage with local government and are involved in transparency or accountability initiatives do not identify themselves as ‘transparency’ or ‘accountability’ organisations, or even use these terms in their work.

based on the data sets currently available on the Municipal Barometer database. For the local CSO focus groups, examples were drawn using local data. Examples of the data sets used include: the 20 wards with highest access to water inside the dwelling; the municipalities with the highest and lowest gross enrolment ratios⁹ nationally; the wards with the highest and lowest percentages of child-headed households; and the number of people receiving social grants in the local municipalities of a district municipality. These data sets were selected based on the issues that CSOs are seeking to address in the areas where they operate.

The development of use stories then followed the ‘bottom-up’ software development approach of Jacobson *et al.* (2011), where some stories were ‘brainstormed’, then grouped according to a theme, to identify the use case.

2.4 Focus group discussions

We facilitated focus group discussions with CSOs and community-based organisations (CBOs) to draw potential and actual use stories of open government data, while allowing space for participants to make it clear if they did not have any use stories (see Annex 1 for our facilitation guide to group discussions).

Six focus group discussions were held in total:

- Two were held with CSOs that work at the national and provincial level, with four and five participants at each discussion respectively. The participants were researchers, policy officers, programme coordinators, a public procurement specialist, and a government advisor who worked for various organisations

that dealt with advocacy, citizen engagement, local development in poor communities, good governance and the promotion of the right to information.

- Three were held with local CBOs: one in a large metropolitan township, one in an urban area and one in a rural area. Participants included the director of a community centre, project managers, fieldworkers and general workers. The organisations represented included a youth group concerned with environmental issues, organisations that provide assistance to disabled and vulnerable children, an old people’s home, an early childhood centre, a victim empowerment programme, and a vegetable garden cooperative.
- One was held with SALGA and CMRA staff who worked on the Municipal Barometer.

It was challenging, both theoretically and practically, to identify and recruit suitable organisations and individuals for the sample, especially for local focus groups. Many organisations in South Africa that engage with local government and are involved in transparency or accountability initiatives do not identify themselves as ‘transparency’ or ‘accountability’ organisations, or even use these terms in their work. For national-level focus groups, we therefore decided to include organisations that identified themselves as working in or for ‘social justice’, which is a more commonly used and understood term in South Africa.

The sample of national CSOs was drawn from the Social Justice Initiative¹⁰ listing of around 100 organisations described as ‘social justice organisations’ in South Africa. This list included

⁹ Gross enrolment ratio, or gross enrolment index, is a statistical measure used to determine the number of students enrolled in schools at different grade levels (e.g. elementary, middle school, high school). UNESCO (2009: 9) describes the ratio as the total enrolment within a country “in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education”.

¹⁰ The Social Justice Initiative seeks to mobilise funds and provide support to projects and organisations that work in the social justice environment, to assist in their efficiency and effectiveness. The list of organisations is available at: <http://www.sji.org.za/who-we-work-with/>

many, if not all, of the organisations that, in our experience, are commonly cited in media reports in connection with accountability initiatives. For the CBOs, we first identified urban and rural locations through links established by CMRA and SALGA with municipalities. From there, we used the ‘snowballing approach’, asking contacts in identified localities to suggest other organisations to take part. This continued until the list of organisations no longer increased significantly through new referrals.

In total, 22 organisations were represented. The discussions were attended by two individuals per organisation on average, with the exception of one urban CBO from which an overwhelming 29 members attended. All focus group discussions were recorded and transcribed.

To avoid clouding the discussion with issues that had already been identified – such as interface design – the Municipal Barometer itself was not used as an example during the focus group discussions. Instead, data accessible through the Municipal Barometer was used.

To begin the discussion the participants were asked the following questions:

- In what ways does your organisation work to improve or extend accountability?
- Can you give some examples?
- Have you ever looked for national or local government data or information to help you in your work, which relates to accountability or good governance?
- Can you share some examples?
- How do you think government data or information ever helps you in this work?

We then gathered examples of any purposes or uses of data.

These questions set the tone for a brainstorming exercise that allowed the participants to generate ideas on the uses of data. Where necessary, previously developed data examples (see section 3.3, ‘Learn about an area or region’) were used to assist the group in generating possible use stories. During the course of the dialogue, we also created opportunities to discuss stories where participants felt the data was not useful or available.

This process was also used for the participants from SALGA and CMRA, but the questions used to begin the discussion differed, as both teams work

with the Municipal Barometer. Their questions included:

- Do you know of any experience of citizens using the data on the Municipal Barometer website?
- For what purpose were they using it?
- Have you thought of any way citizens or citizen groups might use the site?
- What data on the site do you think might be of use to citizens or citizen groups?
- How do you think they might use such data?
- Are there comparisons (i.e. cross tabs) on the site that you think citizens or citizen groups might want to make? And for what reason or purpose?

2.5 Data analysis

We noted each use story and captured the relevant data in a table which included: the narrative of the story; a supporting quote; where the data was accessed; the kind of data referred to in the use story; the context; the purpose of its use; and initial ideas of themes that might be relevant. Each story was coded according to the transcript, the story number and the individual(s) who narrated the story: transcript (tx), story (sx), individual (ix). These notations are used in this report. In addition, focus groups are identified as being made up of individuals from either metro, urban or rural CBOs, national CSOs or local government practitioners.

The stories were analysed and organised according to the use of data, and then grouped according to a use case (e.g. ‘using data to monitor public services’). The use case grouping took note of whether the stories were actual (reporting events that actually happened) or hypothetical (describing a narrative of a use proposed by a participant in the discussions).

The second stage was a thematic analysis (Aronson 1995) of the views and observations made by the participants. This involved reading the transcripts and identifying themes that appeared relevant to the research questions – for example, the challenges in using data. The material was then re-read, with this list of themes leading to further themes and sub-themes. Quotes relevant to this secondary set of themes were identified and compiled. A frequency analysis of these texts was then undertaken to identify further themes.

The following two sections provide the details of this analysis, looking at how organisations use, and want to use, data and the barriers to obtaining government data.

3. Analysis: how organisations use, and want to use, government data

In our analysis of the use stories (actual and hypothetical) provided during the focus group discussions, we identified ten distinct purposes of government data use. We categorised these into two broad groups. In the first group, we placed organisations using government data internally to guide their own actions. We labelled these as ‘strategy and planning’ uses. In the second group, we placed the diverse set of use stories for outward-looking uses, which we labelled ‘monitoring, mobilising and advocacy’.

The following sections describe some of the actual and hypothetical use cases provided by participants during the focus group discussions, organised into the ten distinct purposes for government data identified.

3.1 Identify areas for intervention

One researcher (s25) who worked at a donor organisation described how they had received several complaints about corruption in schools. They used data from a partner organisation that collects information on reported cases of corruption, as well as a provincial government anti-corruption forum, to develop an intervention to address corruption in schools. As part of the preparation process, they engaged with schools’ governing bodies, school principals and finance officers to collect more information to assist in the design of the intervention.

In the process, the organisation identified other cases of corruption – for example, officials being told who to vote for in a school governing body election by their principal. The cases led to some principals being charged or suspended. Data could also be used to prioritise geographic areas for interventions, and in draft strategies and project plans to ensure that services and interventions were directed to those in most need. In another use story (s1), the director of an organisation that provides support to disabled people in a large township suggested that government data on the number of children with disabilities in each ward could assist their

organisation in directing resources and improving the services they provide to children and families in the area.

“It would be useful to know how many children with disabilities are found in those wards, then we can give them better service and refer them to other structures that can help them ... This kind of information is very important ... if you don’t have a baseline, how will you know if you are making progress? ... If we have reached 100, there [may be] 1,000 that still need help.”
(Metro CBO individual, s1)

Another example (s30) was provided by a policy advisor who promotes citizen engagement and formulates policy. He indicated that statistics on enrolment could prompt further research, but could also be used to prioritise action in areas with the lowest enrolment ratios.

3.2 Compare community-sourced data with government data

Participants from the national CSO and urban CBO focus groups discussed how social audits and other community-sourced information could be used to challenge or address poor-quality government data.

A participant from a local environmental non-governmental organisation (NGO) described how he could use municipal contracts and expenditure records to question the integrity of the information published by local government.

“I could use this information as ammunition, when challenging the municipalities, because I don’t believe that it is real information. It’s not what is happening in reality. It is just a formal thing that they just did to pass and make people not revolt against them. To make people relax and think that they are doing something and a good job when they are not.”
(Urban CBO individual, s38)

A further example was provided by a programme coordinator in an organisation that promotes participatory democracy. She explained how her

*We can show that our activism is improving something ...
For our members that's magic: when you show them that
we went from ... 100 children sharing a toilet to 20 –
that the work led to something.*

organisation could use community-sourced data to verify statements made by government officials about housing provision. She suggested that they could compare the figures reported by the official to other data sets to question and verify the statements, and demonstrate that the figures presented by the official are incorrect.

“They are very good at saying [how many houses they have built], but don't know sometimes the number of houses that have been built.”
(Metro national CSO individual, s31)

3.3 Learn about an area or region

A member of a local environmental organisation described how they wanted to clean and take ownership of a piece of land that was being used as an illegal dumping site. They contacted the local planning office and found out that the land belonged to the government. With this information, they sought more guidance on how to 'adopt' the land; this process is currently still ongoing.

“We got the information that we needed, which was the ownership of the space ... It is an open space and people dump there. We went there and [initially] they didn't tell us that the space belonged to them, the government. Then they gave us information on how to adopt this space.”
(Urban CBO individual, s36)

Another member of the same organisation (s11) described, in a hypothetical example, how the youths in a small town could access government data to look for economic opportunities by identifying which sectors in their town are economically active. The youths could look at economic and human development indicators, as well as social development data. The data could be used firstly to help them understand their environment, and then to think of how to respond to a social need. For instance, he suggested that youths could establish a group, a business, a start-up or CBO and apply for funds to address pertinent health issues in their area, such as HIV / AIDS.

3.4 Evaluate the effectiveness of an organisation's actions or interventions

Some participants offered examples of using data to demonstrate the effectiveness and impact of a programme or intervention, particularly when comparing the situation before and after an intervention. A researcher for a national social justice organisation (s8) gave an example of how his organisation made use of government data and community-sourced data in a project to ensure that school infrastructure (e.g. toilet facilities) matched the standards set by government policy. Through the repeated auditing of schools in Gauteng, the organisation was able to show the community how access to toilets had improved over a five-month period, and demonstrate to their members how their work had led to an actual improvement in the situation.

“We can show that our activism is improving something ... We have stats from May showing very awful toilet situations, and have stats that we just got [in September], showing improved toilet situations ... For our members that's magic: when you show them that we went from ... 100 children sharing a toilet to 20 – that the work led to something.” (Metro national CSO individual, s8)

A policy officer working for an NGO involved in strengthening citizen action indicated that he could use data on a project's positive impact to lobby for additional resources to be directed to the project. He could use the data to apply for an extension of funding, for example, and as an indicator to shift a project's focus (i.e. a shift from HIV / AIDS to education).

“This helps as well, in extending developmental initiatives, because in cases where budgets are constrained or in cases where international donors must come in, I use the data to see if we are doing well in this area and if we lack resources to do well in another area. It's like an incentive for more resources ... It's not just lip service, these are statistics.” (Metro national CSO individual, s32)

The community became ... empowered to say 'OK, so it means we can take you to task as the service provider and you as government'.

3.5 Monitor public services

Eight participants described using data to monitor public services. In some cases, they used this data to compare the level of service agreed to the actual service provided. A project coordinator who conducts social audits described a situation where she worked with a community to improve refuse collection. Together with community members, she approached the municipality for information and received data on the service provider and the standards of service that were agreed. The community noted that the service provider was in breach of the agreement, because despite the availability of refuse collection trucks, their refuse was either not collected or, when collected, was dumped nearby instead of being disposed of properly.

“The community became ... empowered to say ‘OK, so it means we can take you to task as the service provider and you as government’. We ended up saying ‘OK, can we see their service reports? Can we see the invoices that you have been paying them?’” (Metro national CSO individual, s27)

3.6 Track public budgets and spending

An expert in procurement described how he used budget and contract data to monitor the delivery of infrastructure programmes. He monitored the National Treasury website and other government websites to collate procurement notices and monitor contract values, contract completion dates and the subjects awarded the contracts. He did this to assist CSOs and the government to improve service delivery and reduce corruption.

“Communities want to know why certain roads were not built, why the clinic was half-built and so on. That all comes back to the procurement process.” (Metro national CSO individual, s2)

He suggested that open government data could be used to track investments or developments in an area, or monitor the equitable allocation¹¹ of resources across municipalities.

Another project coordinator suggested that data could be used to address developmental issues by conducting budget analysis and tracking the budgets of a city over three to four years. He would do this to identify whether investments in a suburb were increasing or decreasing, and to explain why certain suburbs have no access to some services (e.g. access to water). A lack of these services could mean that investment in the area has decreased.

“Then, we can make an argument to say in terms of the budget trend, the analysis says there has been a decline in investment.” (Metro national CSO individual, s29)

A data analyst (s15) explained how the private sector, when considering investing in a municipality, could access open data tools like the Municipal Barometer to look at a municipality’s state of finances, examining factors such as the audit status, the state of irregular or wasteful expenditure, and so on. The municipal finance information would then be used to inform investment decisions.

3.7 Mobilise communities

A member of an urban CBO, who lived in an informal settlement that had no access to water, used research and his own experience as a member of an environmental organisation to get other community members to speak to the municipality about changing their informal status. They approached the municipality to ask whether formalising their informal settlement had been included in the municipality’s strategic plans. When they found that it had not, they demanded a revision of the plan to facilitate their access to services. At the time of the focus group discussion, his community had still not been formalised.

¹¹ The share of revenue collected nationally that local government is entitled to, to provide basic services and perform the functions allocated to it under the terms in Section 227 of the Constitution (SALGA 2012).

“Several times we went to the municipality to talk with the mayor and the municipal manager about our community, and when we are going to formalise our area.” (Urban CBO individual, s37)

Two participants in the national focus group discussions felt that data could be useful in mobilising community members by comparing the situation in one area with other areas, or a ward with surrounding wards in a municipality. For example, one could inform a community that they “are the area with the least water access in Johannesburg, or 40% worse than the average in the city” (s7). Such a factual statement could suggest an imbalance in the distribution of services by local government, providing evidence of unequal or unfair distribution of government resources. Such data could also be used by the media to apply political pressure.

“Not only is that great in mobilising within the community, because it’s a tangible measure of the kind of neglect that they are experiencing ... [but] when you go to the media, or engage with officials, it’s a very strong message. It’s a very strong line you can use.” (Metro national CSO individual, s7)

3.8 Lobby or advocate for change or action

Some participants described how published data can, at times, constitute a campaign for accountability. For example, a project officer from a national advocacy CSO described her organisation’s campaign to access and then publish a list of the national key points.¹² She explained how they had campaigned for two years to get the list published and made public, especially as various actors were negatively affected by concealment of the list. The campaign was successful and the list was eventually published and made public.

“Airport workers went on strike ... and because the airport was a national key point, they were all arrested, even though it was a legal strike. There’s no way the workers would have known that they were at a national key point because the list was classified.” (Metro national CSO individual, s5)

Participants also discussed how data could be used to lobby for the allocation of resources – for example, through inter-departmental collaboration to address a challenge or extend an existing programme.

A research officer belonging to a national CSO gave a hypothetical use story of how a school governing body could use gross enrolment ratio statistics. He suggested that local parents could use the data to find out how their school or district compared with others in the area. If they measured poorly, they could approach the principal and teachers at the school to identify the reasons for the low ratio and find out what needs to be done to improve it. The school’s governing body would then be able to lobby for more resources, as well as request the municipality’s assistance in lobbying on their behalf for more funding from the Department of Education.

The research officer also noted that there were national and provincial NGOs that would be interested in monitoring the achievement of the fourth Sustainable Development Goal (SDG) on education. The NGOs could use the gross enrolment ratio statistics to lobby and advocate for micro-interventions in the municipality, as low gross enrolment ratios affect the national scorecard for the SDG (s18). The NGOs could also use the data to organise engagements and cooperation with the municipality and sector departments, ensuring the better alignment, coordination and use of resources in addressing the issue.

3.9 Benchmarking

A local government professional suggested that an important use for open government data was peer learning among local government professionals. He indicated that it could be used as a benchmarking tool to facilitate peer learning in areas that needed improvement, by comparing the performance of municipalities. He imagined a use story of a municipal official, working on the economic development unit of a municipality, using a tool like the Municipal Barometer to gauge the performance of other economic development units across the country, and then going on to contact better-performing municipalities to get advice on good practices (s16).

3.10 Improve public participation / awareness-raising of municipal processes

Participants suggested that data could be used by citizens not only to engage with local authorities (i.e. create dialogue), but also to raise awareness among communities to improve public participation in local government planning processes.

¹² A list of locations which, under South African law, have specific restrictions associated with them – for example, the right to protest at them or to film them.

A project coordinator who works with local municipalities and communities explained how she would use data to improve the engagement between the municipality and the community, by informing the municipality that it could potentially prevent community protests by keeping citizens informed about integrated development plans, operational plans and the areas of service (e.g. informing the community when the water to their taps will be turned off).

If the community is aware of this, they will not protest.

“This data needs to be out there, it needs to be public, it’s to make it easy for communities. If you are a community that is informed ... you would have realised the type of service that we get from our municipality ... so you won’t even feel obliged to go on the streets and *toi-toi*¹³ about that.” (Metro national CSO individual, s26)

4. Analysis: challenges to using government data

The use stories provided in the focus group discussions suggest that there is considerable demand for government data, and significant opportunities for using it in ways that could enhance transparency and accountability. However, the participants also generated substantial evidence of the challenges and obstacles that organisations face in sourcing, understanding and using such data. This suggests that there are additional issues, such as trust and modes of communication, which those wanting to provide open data need to consider.

This section sets out our analysis of seven broad themes that were extracted from the comments made by individuals at the focus group discussions. These are:

- availability of data
- access to data
- trust in available data
- beyond data: the demand for dialogue
- appropriate modes of communicating data
- the roles of data in accountability processes
- interpreting data.

4.1 Data: what it means and where it comes from

‘Data’ is not a straightforward term. Participants in the focus group discussions from local organisations and CBOs do not commonly use the term, and it was not always understood. By contrast, participants

in the national focus group discussions were all comfortable with the term ‘data’, and familiar with the concept of ‘open data portals’; some also saw benefits in these. In the focus group discussions, we usually used the term ‘government information’, which seemed to be more widely understood.

The focus group discussions with local groups clearly demonstrated that people are often the most important, reliable and timely source of information, rather than the media or data portals. Where online platforms were mentioned as a source, they were often local media or municipalities’ websites.

“We do get information from the Internet, but also through interacting with other people.” (Metro CBO, i1)

“We get all the information we need from our chairperson or the councillor.” (Metro local CSO, i1)

Two participants from urban CBOs detailed how they gathered municipality-related service information from individuals (e.g. councillors) and committees in their respective wards. They claimed that protests were avoided by people being adequately informed on issues such as the delivery of electricity.

“If it is electricity, you know who to call ... Also, within our ward, we have our street committees now. The leaders within our streets that hold those street community meetings and update us ... that is the method being used before there can be any *toi-toi*.” (Metro CBO, i1)

¹³ This is a local term for chanting and dancing at political protests.

‘Data’ is not a straightforward term. Participants in the focus group discussions from local organisations and CBOs do not commonly use the term, and it was not always understood.

For two individuals working for an old people’s home, however, accessing information from people who do not work for the municipality was a last resort if they had failed to access the information from municipalities.

In other instances, when asked where and how they gathered and checked information, one project coordinator at a rural CBO pointed out that they deal directly with various relevant organisations to verify information.

“I always go to schools and check [what the government officials say].” (Rural CBO i11)

Comparing data: one source is not enough

Three participants from the urban CBO focus groups suggested that data should be verified by getting it from more than one source – something that journalists and researchers are taught. For example, one member of an environmental CBO immediately questions the validity of the information presented to them when realising that it comes from a single source, even if that source was the national statistical office.

Data leads to further research and debate

Upon seeing an example of the data selected from the Municipal Barometer, a researcher at one of the national focus group discussions saw data not only as answering questions, but also raising more questions.

“It offers clues and brings about a whole bunch of new questions.” (Metro national CSO, i3)

4.2 Problems with accessing data and information

In all the focus group discussions, the participants described some of the challenges in trying to access government information. The information they wanted from municipalities was wide ranging,

including information on municipal budgets, service reports, contracts, strategic plans (such as integrated development plans)¹⁴ and statistics about service delivery.

“It is very difficult to get information, it’s not easy. We have tried several times and we are still pushing.” (Urban CBO, i1)

A programme coordinator at the national CSO focus group discussion stated that it is often assumed that municipalities have data readily available, but this was not always the case.

“[The] assumption is that you go to the municipality, you will apply for your PAIA¹⁵ or whatever, and you get information. And we say no, information is not readily available.” (Metro national CSO, i2)

He elaborated on this by arguing that, at times, government officials do not even have information on the services they provide.

“Government does not have information on the houses built ... where there has been corruption. Nobody knows exactly how many houses have been built. So that’s the reason why I am saying information is not readily available.” (Metro national CSO, i2)

Two members of an old people’s organisation expressed frustration with officials that they felt were often unhelpful and resistant to giving out information.

“You won’t get even a cover page to show that we do have this implementation plan in hand. Even if you go and ask.” (Urban CBO, i6)

“Nobody wants to sign for that document if there is not a specific name on that document letter.” (Rural CBO, i1)

¹⁴ Each municipality develops an integrated development plan as an overall framework for coordinating the work of local and other spheres of government. Each looks at economic and social development for the area as a whole, and sets a framework for land use, infrastructure and services, and environmental protection. See: www.etu.org.za/toolbox/docs/localgov/webidp.html

¹⁵ The Public Access to Information Act. Under this Act, individuals can request that government information is published.

Sometimes this was attributable to the lack of capacity within the municipality.

“It was hard for them to provide us with the statistics or the mapping of the area.”
(Urban CBO, i6)

“There is nobody ... that is really competent answering any query.” (Rural CBO, i1)

“Hardly anyone that knows or can guide you towards where you can [get the] necessary information.” (Rural CBO, i2)

“They are not well trained to take care of the duties that they are supposed to do.”
(Urban CBO, i6)

“No equipped or ... professional person that [is] capable of giving me the correct directions or necessary ... information.” (Rural CBO, i6)

Groups complained that, at times, upon visiting or calling the municipality, there would be nobody in the office to assist.

“How do you communicate with somebody who is not available and that’s not competent in answering the question?” (Rural CBO, i1)

Another indirect obstacle to gathering information was that citizens were not aware of their right to request information and, as a result, they did not try to access information.

“They are lacking certain information ... They don’t know their rights in terms of the constitution.”
(Urban CBO, i1)

Political barriers to accessing data

Seven participants at the focus groups of local government practitioners (three individuals), national CSOs (one individual) and urban CBOs (three individuals) believed that the barriers to accessing data went beyond bureaucratic issues, suggesting that political incentives were often set against open data.

“Politicians said the data exposes [the] current government.” (Local government practitioners, i6)

“They said if stats are shared, it will expose their municipalities, it exposes their accountability in municipalities.”
(Local government practitioners, i7)

“They made sure the information was useless.”
(Metro national CSO, i2)

Does the data exist?

Members of an old people’s organisation at the rural CBO focus group discussion shared their experiences in trying to access government data, which had led them to conclude that sometimes the problem was not access, but whether the data existed at all. A programme coordinator taking part in the national CSO focus group discussion was of the same opinion.

“I don’t think government knows how many houses it has built. Government does not have information on the houses built ... when you read different documents of government, it’s 2.8 million or 3 million, but they are counting houses that are not finished etc., where there has been corruption.” (Metro national CSO, i2)

Keeping data fresh

A concern was raised in many of the focus group discussions that data should be current. Data from the last census in 2011/12, for example, was regarded as outdated.¹⁶ Government officials were also accused of presenting and handing out ‘old’ data intentionally.

“Even when you go to the municipality or statistics place, they always give you outdated data, they will ... stand in front of you and present two-year-old statistics.” (Urban CBO, i5)

“When you go and look at it, they won’t give you the recent one, they give you the outdated one.”
(Urban CBO, i5)

“Even if they give you [data], they give the oldest and outdated ones, they know there’s nothing you can use them for.” (Urban CBO, i1)

Language and access

Participants pointed out that sometimes government officials or CSOs display their data without considering the population they are catering to; for example, not all people understand English. The result is that the message behind the data might be lost in translation or not be understood at all. The style of language used was also an issue.

¹⁶ The National Census, conducted by the national statistical office, takes place only once a decade in South Africa, the last one being in 2011. Only a few municipalities commission their own large-scale surveys.

“The English that they are writing there is ‘Big English’ so the people don’t understand.” (Urban CBO, i5)

“Is the information relevant to the person ‘on the ground’? If it is not relevant, what is it that can be used? ... How many people understand and know English?” (Metro CBO, i14)

Data on public services

Several service-related issues were brought up at the focus group discussions. Key among these was a strong demand for more information on basic services, such as electricity, water and refuse collection. This was related to the issue of municipalities not delivering the services and information for which they are responsible.

“Government does not inform us on the essentials, like when there is no electricity, we are not told [in advance that] ‘there will be no electricity.’” (Metro CBO, i7)

“Our municipality is taking out the sewerage into the stream; what is that?” (Urban CBO, i5)

4.3 Trust in data

There was a general mistrust of data, especially within the local focus group discussions. In addition, some individuals disagreed with the data about their areas that was presented to them, because it did not correlate with their own experiences of these areas.

Scepticism about methods and sources of data

Trust in statistical information was a major discussion point. This was evident when census data was displayed at one of the local focus group discussions. Three participants from a local environmental CBO knew individuals who had taken part in collecting this data and they did not agree with the methods used.

“I don’t trust it. Most of it is edited, even though people go to the houses and everything, they edit the information most of the time before they put it out.” (Urban CBO, i2)

“It is difficult to trust that kind of information because the people are getting tired on the ground level, they just fill these things up so that they can go home.” (Urban CBO, i5)

“What I see on this paper as [a] percentage and what I see in reality are not the same, because people do not have water.” (Urban CBO, i2)

A few groups spoke of how it was easy for data to be manipulated for various reasons, ranging from political reasons to personal gain.

“I have observed that even the smallest amount of data can be politicised. So, if people cannot discredit you, they will go after your method, they will go after you as a person.” (Local government practitioners, i1)

“It may be available but it’s very skewed information ... [it] does not tell you the realities.” (Metro national CSO, i2)

Many participants mistrusted the government data presented to them. Some went as far as arguing that the officials responsible for gathering the data had lied about the conditions of the areas they had collected this information from.

“It’s very difficult to trust the information from any government audit, because it’s very different from what we actually see.” (Metro national CSO, i3)

“Yes, those who compiled it or the people are not telling the truth.” (Urban CBO, i2)

They were, thus, wary of the credibility of information in general.

“Any data you get is likely to be flawed somewhere or manipulated.” (Metro national CSO, i1)

4.4 A demand for dialogue

The lack of effective communication and interaction with government officials was an important topic, and some participants strongly believed that there was a need to move beyond the provision of open data to dialogue. This challenge was raised by individuals at the local sessions in particular; they felt that government was not doing enough to communicate with citizens.

“You know what, there is no communication whatsoever from ... many of the department[s].” (Rural CBO, i2)

Some felt that government did not take their concerns seriously; that officials were not interested, nor were they ready to take their responsibilities seriously.

“I’m now the one sitting with a massive problem: they [are] not interested.” (Rural CBO, i1)

“We consult them but they don’t even come to us to give us their response.” (Rural CBO, i6)

“Nobody takes responsibility for something.” (Rural CBO, i2)

4.5 Modes of communication

There was a debate in one of the local CBO focus group discussions about whether government was only responsible for making data available (open data), or whether it was also responsible for ensuring that it reached the people who needed it. This can be described as ‘push versus pull’ communication.

However, not everyone placed the responsibility for communication solely on municipalities. It was argued that communication had to come from both sides. Some participants strongly believed that, at times, citizens did not play their part in ensuring that information comes their way. A director of a local CBO working for youths emphasised the importance of citizens playing a more active role in communicating with municipalities, for example.

“When the municipality has the meetings, people do not go there.” (Metro CBO, i11)

“Problems ... about citizen participation [arise] directly as a result of defective participation practices.” (Local government practitioners, i1)

“People do not read. We have local newspapers, we have local radios.” (Metro CBO, i12)

Some were adamant that citizens should participate more actively. For them, it was the responsibility of citizens to make sure that they meet municipalities halfway.

“If the municipality imposes itself on the people, then it becomes one-way traffic. So, we need to have two-way traffic.” (Metro CBO, i14)

“I disagree because the information from the municipality is there, but people sometimes are not searching.” (Metro CBO, i11)

However, participants at the local focus group discussions in particular suggested that municipalities do not play their part in the communication process, even when citizens actively try to communicate with them on vital matters.

“When you go there and say you want that vendor number, they say ‘we’re full, we will be open next July.’” (Urban CBO, i2)

The Internet as a mode of communication

In the metropolitan focus group discussion, there was acknowledgement that the municipality made significant amounts of relevant information available on its website. The participants then discussed the complexity of Internet use, mobile practices, access to the Internet and how this affected people getting information from digital sources.

“We are living in a technological era, so we need to make use of that.” (Metro CBO, i14)

Issues of how to improve access and affordability were raised.

“There is free Internet at the libraries ... we use WhatsApp, which is Internet use [but] there are issues of access.” (Metro CBO, i14)

One participant, a member of a local environmental organisation, pointed out that because there was no electricity at his informal settlement, he had no means with which to power his devices (iPad, smartphone). Another said that while they had smart devices, they did not have Internet access.

There were also concerns that the advancement of open data sources leaves individuals who use more traditional means of acquiring data behind.

“You have social media, but you still have traditional ways in which people rely on information, like the radio. What source is used to disseminate that information and what audience is supposed to receive that information? We still have communities that don’t have reliable electricity, not to talk of accessing the Internet.” (Metro national CSO, i1)

4.6 Accountability processes

The use stories we gathered all made some connection between data and accountability processes. In addition, participants raised broader issues around accountability, including some scepticism about formal, government-led public participation and accountability processes. Some participants viewed protest – both peaceful and violent – as the means by which people got heard.

“All they [government] understand is *toi-toi*.” (Metro CBO, i6)

“I’m against vandalism but the violence in a strike is needed for people to listen and act on what you really want.” (Urban CBO, i2)

“If we are too quiet, they won’t listen.” (Urban CBO, i3)

There was widespread concern that local government was not ‘accountable’ and a suggestion that the term ‘accountability’ was losing its meaning.

“‘Accountability’ will always be another term, just another term used in meetings ... [We] need a new generation that understands how data can move you from one level as a country ... Basically, knowledge and intelligence can assist in planning and that on its own can increase accountability.” (Local government practitioners, i2)

“We are still leaving masses behind ... this is something that impedes on how accountability will be improved because actually people that are active, that lobby and advocate, they don’t necessarily have access.” (Local government practitioners, i5)

The importance of making sure that government sources of data were verified by independent groups was a fundamental issue for some participants. As not everyone could verify data, CSOs were identified as the ideal groups to verify data, because they were active and the most familiar with the data and topics being discussed.

“If you look at the [National Development Plan] ... any type of data must involve active citizens.” (Local government practitioners, i1)

“People who have got an oversight in civil society should be part of data collection verification.” (Local government practitioners, i1)

“Those groups should be formalised and known to the public, that is the group responsible for the verification of data.” (Local government practitioners, i2)

The verification process was, however, seen as lengthy.

“Data takes too long to be verified.” (Local government practitioners, i6)

4.7 Challenges in interpreting data

It was recognised that data is not self-explanatory; it requires knowledge to understand and interpret it, or skill to use it effectively for accountability.

The participants made clear that not everyone can interpret and understand data and information in the same way, and that interpreting data can be a complicated exercise.

“The statistics that we had received [were] too broad and complicated to understand.” (Urban CBO, i3)

The fact that data does not give the context of a situation was also identified as an important factor to consider before acting on it.

“Data in itself, without an explanation, it doesn’t really tell a story.” (Local government practitioners, i7)

“You have to be very careful with data because data doesn’t always tell you the actual story.” (Metro national CSO, i5)

One local government practitioner raised concerns about publishing data that people didn’t understand.

“Citizens have to be educated, because they can misinterpret the data and protest.” (Local government practitioners, i2)

While civil society participants didn’t share this fear, some did identify the need for organisations to play a role in helping people to interpret data.

“[There is an] opportunity for us to find ways on how to use this kind of data effectively, because we still need to empower citizens; not all of them [are] ready to play around with this data ... We are willing to play the broker relationship between state and non-state actors.” (Metro national CSO, i3)

“[A] lot of folks are ignorant of the [Municipal] Barometer and uses of data. So, you have to sensitise them first before they use it.” (Metro national CSO, i1)

“It could be presented in a way that doesn’t mean anything to you ... So, information as is, [not] interpreted, un-deconstructed, is not empowering.” (Metro national CSO, i5)

5. Conclusions

This research presented in this report, which stems from CMRA's work with the Municipal Barometer, aimed to investigate the demand for government data and open data tools, and barriers to their effective use, by exploring how citizens and members of national and local CSOs use, or might wish to use, government data in their work. The research also aimed to determine the role, if any, of open government data in the efforts of CSOs to hold local and provincial government actors accountable.

The exploratory approach used provided a valuable opportunity to learn more about the current and potential uses of open data among citizen groups. The findings suggest some important directions for consideration by open government data projects, including the Municipal Barometer.

This concluding section highlights some of the research assumptions, the key lessons learned and some thematic areas that could be further explored. In the sample selection for the focus group discussions, we aimed to ensure diversity in terms of location, size of organisation, gender, age and focus of activities. While diverse, our sample was not representative of all citizen groups in South Africa that might need or use government open data. Therefore, our findings and insights are tentative. Nonetheless, we believe they are relevant to CMRA's work and to the Municipal Barometer project, and we hope they may be of interest to others, in South Africa and elsewhere, working on open government data.

5.1 Challenging assumptions

The CMRA researchers embarked on this project with certain assumptions about how potential users of open data understand and use data. These assumptions were often challenged: we even found that the term 'data' was not understood in the way we expected.

As practitioners, we sometimes assume that if citizens have information, they are empowered to question and demand answers from government. This thinking assumes a linear order of events in the relationship between transparency and accountability that follows this sequence.

1. Some part of government publishes information.
2. Organisations or individuals access and process it.

3. Based on that information, they intervene in some way (e.g. advocacy, lobbying, using mass media, mobilising communities) to demand accountability from responsible actors in the state.
4. These state actors respond to this demand, or don't.

In this research, we found examples that fit this model. But we also found many examples where data was gathered and used at more than one stage in accountability processes. For example:

- A participant who works for an advocacy group described how their organisation saw data as evidence to improve a lobbying case they were already making to improve a public service (in this case, schools).
- A research officer described the possibility of using government data to prioritise particular areas within the country on which to focus.
- A project coordinator who works on social audits described the potential for communities to use comparative data to see how they were being treated compared to neighbouring areas.

In all these cases, the order in the linear model above was not followed. This implies to us a need to reframe the question "under what conditions can transparency lead to accountability?" (Fox 2007), since in a number of the use stories an existing accountability process led to the demand for, or opportunity to use, transparency. What the evidence we gathered suggests is that sometimes the role of transparency may be to enable or strengthen what Fox calls 'strategic approaches' and "bolster the enabling environments for collective action" (Fox 2014 quoted in McGee and Edwards 2016: 10). A reframed question might be: at what points in accountability processes is transparency a condition for those processes to work?

We also found significant barriers to the use of data. For example, for many participants, especially those in local CBOs, data in the form of statistical tables is very difficult to 'read' or process. We were surprised by some participants' strong scepticism towards government data, even when it came from the national statistics office – a source generally trusted by journalists and researchers.

Our research also offered some insights into "what *kinds* of information are most actionable

Like many other national open data portals, the Municipal Barometer began by identifying and sourcing available national data sets and publishing them. This ‘supply side’ approach contrasts with the nature of the demand for local data that we found in local CBOs. The information they wanted often concerned local government actions and processes – for example, service provision and council records. This is only available directly from local authorities and is rarely available online in South Africa.

for pro-accountability stakeholders, as well as the channels for dissemination that can motivate collective action, empower allies and weaken vested interests” (Fox 2014 quoted in McGee and Edwards 2016: 10). Like many other national open data portals, the Municipal Barometer began by identifying and sourcing available national data sets and publishing them. This ‘supply side’ approach contrasts with the nature of the demand for local data that we found in local CBOs. The information they wanted often concerned local government actions and processes – for example, service provision and council records. This is only available directly from local authorities and is rarely available online in South Africa. Their accounts suggest that government is often ‘closed’ rather than open, especially at local levels, and that opening up local government data may face significant resistance.

5.2 Audiences for open government data

We identified ten distinct uses for data (see section 3), which were then further categorised into two broad groups: (1) strategy and planning, and (2) monitoring, mobilising and advocacy. As well as having different purposes, these two broad categories of use have different audiences, as Table 1 shows.

In the first group, organisations used or envisaged using public data to develop their strategies – for example, to prioritise where to focus their activities by identifying where services were poorly delivered. In the second, organisations used public data to monitor government performance; in most of these cases, organisations went on to use the data as a mobilising or advocacy tool, to strengthen their arguments for change. In these situations, the organisations were or would be playing a role of intermediary – linking data to other audiences.

In this intermediary role, we found organisations had two distinct audiences for data. Sometimes, organisations used (or wanted to use) data to communicate with government officials or representatives. In others, data was important in communicating with citizens, or with further intermediaries that might in turn reach citizens or citizen groups (e.g. journalists).

5.3 Data, transparency and accountability

The use case approach adopted in this research gave us a user-centred perspective on open data tools and platforms. This led us to think about the relationships between data, transparency and accountability in new and more complex ways. Participants provided a rich diversity of uses of data, many of which were either directly or indirectly related to accountability

Table 1 The purposes of and audiences for open data

	Group 1	Group 2
Purpose	Strategy and planning: informing what the organisation should do	Monitoring, mobilising and advocacy: informing others of what government is doing
Audience	Internal, donors, other stakeholders	Government officials or representatives, communities, journalists and advocates

processes. This diversity has implications for which data should be made available, and how data should be presented and made accessible.

The research highlighted that the search for, and use of, government data is often part of a wider conversation, or engagement, with government. There are several issues that affect, and may limit the use of, data in transparency and accountability processes, including the lack of a common understanding of data, its origin and its use, difficulties in accessing and interpreting data and information, and a lack of trust in government data. Improving the availability of data may not improve the extent or quality of that engagement; we identified the need for multiple communication methods for sharing data.

The variety of actual and hypothetical use cases and use stories provided by the participants indicate that there is a role for government data in accountability processes. Although not all the use cases are directly linked to accountability-claiming processes themselves, they play a role in larger accountability processes, such as providing an understanding of the local context, mobilising communities and raising awareness.

This diversity of potential uses of data for accountability purposes has important implications for the design of open data interventions and portals. Firstly, it suggests that the relationship between open data and accountability processes is likely to be complex and will vary on a case-by-case basis. Accessing data is not necessarily the beginning of an accountability process; rather, it appears as a necessary resource in many steps of accountability processes. Secondly, it highlights the need to engage with potential users – organised citizens such as the CSOs included in our study as well as citizens as individuals – in order to understand the specific purposes for which the data might be used, so that this can be taken into account in the design and implementation of any initiative.

In our research, we found a demand not only for data, but also for dialogue between government and citizens to further accountability. While most participants demonstrated their creative and nuanced thinking about using data to further accountability, they expressed their frustration with (local) government actors' lack of response to their efforts. There were many instances where organisations approached government officials with data (e.g. annual reports, standards of service, contracts with service providers) demanding change in their communities. Yet they often had little success in trying to make government officials act on the data presented to them.

These issues support the argument (Carter 2014) that more data does not necessarily increase citizens' access to data, nor does increased access necessarily lead to an improvement in or strengthening of government accountability or responsiveness.

5.4 Thematic areas for further exploration

The research highlighted several issues that warrant further research and exploration by those who advocate for or are engaged in increasing open government data. We focus on four of these issues below.

The hunger for local data

Local and national organisations had sophisticated and nuanced ideas of the multiple ways in which they could use data to advance accountability, to improve services and to improve governance and democratic processes. This demonstrates that there is a demand from CSOs for government data, but not necessarily the data that is currently available on open data portals. While the government data already available is being used, there are many further opportunities for using data to improve accountability and governance. Our evidence suggests that, in particular, data on local services and on local government decision-making processes would directly support accountability especially at the local level.

The availability of relevant local data and how to extend this

If local information is in great demand, local supply is another matter. The participants shared many stories of frustration in trying to access data, especially at the local government level. Attitudes, capacity and political risks were all suggested as reasons for these difficulties.

One way of addressing this demand would be to increase the amount and kinds of local data available on national open data portals. But our research suggests some limits to this approach. Many of the use stories involved challenges with comparing data from multiple sources and accessing local records, especially those relating to local government processes such as planning. Such documents are often difficult to aggregate at the national level, so the need to improve access to data and records held at the local level remains.

One strategy that some organisations reported using (see section 3.3, 'Learn about an area or region', and 3.5, 'Monitor public services') is to create their own data to replace, challenge or compare

Accessing data is not necessarily the beginning of an accountability process; rather, it appears as a necessary resource in many steps of accountability processes.

with available government data. This approach – sometimes described as ‘social audits’ – is consistent with the wider demand for dialogue that we found, as community-sourced data was often used to engage local government actors. It also suggests a path towards improving the quantity and quality of local government data through the comparison of multiple data sources.

Barriers to the effective use of government data

While the participants in our research demonstrated great creativity in their ideas of how to use data, they also commonly expressed scepticism about government data – a level of distrust that is likely to be a barrier to CSOs using it. This may be part of a broader problem in the relationships between citizens, citizen organisations and government. If so, this trust deficit may be unlikely to be addressed solely through open data initiatives. However, our evidence suggests that there are some aspects of this deficit that open data initiatives could address, by being more transparent about data sources and how data is collected, and by being more proactive in ‘pushing’ data through active dialogue with CSOs rather than passive publishing.

Trust in data may also be related to skills and understanding of what it represents. While the participants shared many ideas on how they did and could use data, when it came to structured data of the type found on the Municipal Barometer, few participants had the skills or experience to process such data without help. This was especially true of the local CBOs. Others suggested a role for ‘data intermediaries’ to enable the wider use of open government data portals. This could be considered if efforts to make the Municipal Barometer or other portals more accessible are pursued. But the demand for dialogue that we identified could also be extended to creating opportunities for local government and CBOs to discuss and process data together.

Open data and open doors

This research convinced us that pursuing open government data initiatives is worthwhile and that there are many opportunities to take these much further. However, the experiences of the participants

to date suggest that national-level open data portals are likely to be only one part of the solution. Decisions about which data to make open need to be based on demand; in particular, local data need to be available, and at the local level. Also, open government may require more open government people, as well as more open data.

5.5 Using these findings in CMRA’s work

One of CMRA’s focus areas is public participation in local government planning and decision-making processes. This includes improving how local government approaches public participation with the citizens in their locality.

The research confirmed that communities at the local level want to be kept informed about what is happening in their locality. Their first point of reference is usually the municipality: the councillor, or a ward committee member. Other sources that are used to access information include radio, newspaper and public notices. However, through this research we were made more aware that the ability of citizens and communities to participate in democratic processes depends directly on the availability of, and access to and understanding of, data.

Central to this is increasing citizens’ awareness of available government data sources, while acknowledging the widespread scepticism about government data. These findings will assist CMRA in our work. For example, we will give more attention to the implementation of our public participation benchmarks, and increasing citizens’ value and understanding of data.

SALGA, one of our main partners, has expressed an interest in evaluating public participation practices and identifying best practices in municipalities across the country. It is increasingly prioritising the availability of, and access to, data and information as an important element in effective local government. We hope that the outcomes of this research will not only contribute towards their current policy on information sharing for municipal officials, but also towards their broader understanding of the relationship between citizens and municipalities.

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Annex 1. CMRA open government data action research project: use stories facilitation guide

Facilitator:
 Note-taker (for research):
 Reporter (in meeting):
 Notes and transcription:

Purpose of the meeting

To gather 'use stories' of potential uses of the Municipal Barometer and similar Open Government Declaration data by organisations aiming to extend or improve accountability of local and other government institutions.

1. Introductions

Gather names and information on roles and affiliations of participants.

Circulate register.

Ask each participant for an example of any recent or current work that involves trying to deepen or extend local or other government accountability.

2. Explanation of research

SALGA leads a project called the Municipal Barometer, which publishes national data, mostly drawn from the census, broken down to municipal level and often to ward level. It is a freely available open tool.

The South African Government takes over the Chair of the Open Government Partnership this month (October 2016). There is likely to be greater focus within government on transparency and accountability.

In local government in particular, SALGA is leading a process to encourage local government managers and leadership to reconsider how they engage citizens and civil society organisations in their processes. In this context, we want to understand how government and public data could or should play a role in improving accountability.

This is *action research*. By that, we mean that it is research being done in a process of engagement

with civil society and local government institutions that is aimed at improving accountability. It is also *exploratory research*. By that, we mean that we don't have a particular theory or view that we are testing. Rather, we are aiming to use this session to encourage a 'creative brainstorm' to generate ideas and new thinking. What we are trying to understand today is how you, the people in this room, might want to use data.

Before we start we need to explain a little about our research process.

3. Ethical considerations and informed consent

We will record and transcribe the session. We will not publish any identifying information about the participants or their organisations. We will aim to store the data securely. We don't see any significant risks in participating in this research. If you have any concerns please tell us now.

Record responses.

We will share with you the results of our research for your own use, and inform you of any further activities that we undertake in connection with this research. If you are happy to be contacted in the future about the research, please confirm now.

Record responses.

If you would like to attend any training on using the Municipal Barometer tool in the future, please confirm now.

Record responses.

Can you confirm that you have been informed about this research sufficiently and that you are happy to participate in this research?

Record responses and address any outstanding questions.

We have consent forms which we would like you to sign.

Distribute consent forms.

Thank you.

4. Warm-up exercise

OK, thank you. That's the formal part of the meeting out of the way. Now we want to change gear. We want this to be a creative meeting and one we can all come away from thinking we have learned something and experienced something interesting.

Warm-up exercise: vary in each session.

Exercise 1: Clockwise

Exercise 2: Controversy

Example to explain the game: If South Africa embraced open government data, it would transform the country.

Work in twos and come up with a controversial statement about data, government, working with data, that you think people might agree or disagree with. You don't have to share the same view of the answer to the question.

If you agree, come to this side of the room; if you disagree, come to this side.

5. Preparatory questions

For those familiar with the Municipal Barometer (e.g. SALGA/CMRA management)

Do you know of any experience of citizens using the data on the Municipal Barometer website? For what purpose were they using it?

Have you thought of any way citizens or citizen groups might use the site?

What data on the site do you think might be of use to citizens or citizen groups?

How do you think they might use such data?

Are there comparisons (i.e. cross tabs) on the site that you think citizens or citizen groups might want to make? And for what reason or purpose?

For those not familiar with the Municipal Barometer
In what ways does your organisation work to

improve or extend accountability? Can you give some examples?

Have you ever looked for national or local government data to help you in your work that relates to accountability or good governance? Can you share some examples?

How do you think data ever helps you in this work?

Gather any purposes or uses of data, examples.

6. Brainstorm part one

OK. Now we would like to try to think about the work you and your organisation are involved in and when or if local data would or could help you in your work.

We want to create, together, some 'use stories'. What we mean is imaginary stories of how you or a colleague would use an open government data collection in your work.

Our first goal is to generate as many of these stories / ideas of how data might contribute to your work in accountability.

Reporter to document on whiteboard or large paper sheets all the ideas that emerge in the brainstorm.

If the discussion requires further input, suggest examples selected from the table of examples to stimulate discussion, e.g. Would it be useful to be able to compare the ten best and the ten worst municipalities to live in in the country in the delivery of water to the household? How might you use such information?

If the discussion requires further input, offer a data example:

[To be completed with data examples pulled from the Municipal Barometer]

7. Brainstorm part two: review

Of the ideas that have been generated, especially ones you didn't suggest, do you think they could apply in your organisation or do you feel they really would not be useful? Are there other 'user stories' you want to suggest? Are there any other ideas that occur to you as a result of this exercise?

Annex 2. Data set examples

This is an example of a data sheet used in one of the focus group discussions. Table 2 lists the wards with the highest proportions and lowest proportions of child-headed households in a particular urban municipality in South Africa in which one of the focus groups took place. The sheet was used

to prompt discussion of hypothetical cases that participants were asked to imagine where they might use such data and explore the context, purpose and effects of such use. The data is from the last South African census and is available on the Municipal Barometer website.

Table 2 User stories data example: percentage of heads of household aged 0–19

Age group of head of household, 2011, wards in metropolitan municipality XXXXXXXXX		
Wards with highest % of child-headed households		
	Child-headed households, aged 0–19 (%)	Number of child-headed households, aged 0–19
Ward 41	1.4	189
Ward 33	1.0	187
Ward 61	1.4	164
Ward 86	1.3	164
Ward 89	0.7	158
Ward 25	1.1	156
Ward 52	1.1	154
Ward 1	0.7	151
Ward 21	0.8	145
Ward 81	1.0	143
Ward 26	1.2	124
Wards with lowest % of child-headed households		
	Child-headed households, aged 0–19 (%)	Number of child-headed households, aged 0–19
Ward 27	0.3	23
Ward 94	0.3	23
Ward 19	0.2	22
Ward 18	0.2	21
Ward 76	0.2	18
Ward 15	0.2	16
Ward 37	0.2	16
Ward 29	0.3	14
Ward 38	0.1	11
Ward 28	0.1	10

Source: Statistics South Africa

About Making All Voices Count

Making All Voices Count is a programme working towards a world in which open, effective and participatory governance is the norm and not the exception. It focuses global attention on creative and cutting edge solutions to transform the relationship between citizens and their governments. The programme is inspired by and supports the goals of the Open Government Partnership.

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Research, Evidence and Learning component

The programme's Research, Evidence and Learning component, managed by IDS, contributes to improving performance and practice, and builds an evidence base in the field of citizen voice, government responsiveness, transparency and accountability (T&A) and technology for T&A (Tech4T&A).

Web www.makingallvoicescount.org
Email info@makingallvoicescount.org
Twitter [@allvoicescount](https://twitter.com/allvoicescount)

About CMRA

CMRA is a dynamic research and consultancy organisation, established in October 2005 as a technical service provider in the field of local government. It aims to support and strengthen municipalities and local government associations in southern Africa. As an institutional capacity builder, CMRA assists municipalities by offering innovative solutions to critical challenges through research, facilitative support, hands-on mentoring and advice.

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