

COMMUNITY RESILIENCE IN CAPE TOWN (CORECT)

A TRANSDISCIPLINARY RESEARCH PROJECT ON
WATER ISSUES IN LOW-INCOME AREAS



THE SENSEMAKER PROJECT 2022

Activists and researchers collaborating to understand Cape Town's water-related issues



Introduction: partner and project development

This project is a result of two different groups having overlapping interests. On the one hand, researchers from University of Cape Town's African Climate & Development Initiative (ACDI) have been researching urban water governance, and wanted to identify and support community activities focused on urban water-related issues. On the other hand, the Western Cape Water Caucus (WCWC), a network of activists and community organisations working on water issues in several informal settlements and townships in Cape Town, wanted better data to support their work and to develop their skills in doing their own research.

Both the researchers and activists had collaborated with Environmental Monitoring Group (EMG) for several years, and decided to work together. This led to the creation of the Community Resilience in Cape Town (CoReCT) project in 2019. The project used a collaborative research approach, where both activists and researchers designed and carried out this **transdisciplinary research project*.

**transdisciplinary is a term academics use to describe collaborations with partners outside the university research world. A transdisciplinary project uses knowledge not only from academic disciplines (such as geography, biology, political science), but also recognises that valuable knowledge also exists in the rest of society. Such projects therefore try to involve non-academics, for example local residents, NGOs, government officials, or business owners, in the research process.*

The project aims to build knowledge about the lived experiences of water access, water services and water issues at a household level, particularly in low-income areas. The SenseMaker tool which was used makes it possible to collect large numbers of stories from local residents about water-related challenges, while also inviting respondents to share their view of why their story is important.

Through the project, the WCWC was able to both build internal capacity and gain research experience, and the ACDI researchers were able to learn from the expertise of activists who are intimately familiar with communities' water challenges. Together, they produced new knowledge about water-related issues based on fieldwork in the communities where WCWC's members live.

A co-designed study

ACDI researchers Gina Ziervogel and Johan Enqvist approached SenseMaker experts John van Breda and Luke Metelerkamp at the Centre for Complex Systems in Transition (CST) at Stellenbosch University to help run the research design process. WCWC appointed 12 of its members to participate: Ntombikayise Dondi, Zinzi Mgwigwi, Mpumelelo Mhlalisi, Gciniwe Nomela, Ann October, Welekazi Rangana, Maggie Yalabi, Austin Chiradza, Phumza Makeke, Ndileka Matume, Nomthandazo Nxoboyi, Lydia Petersen, Ayeza Mandla, Khayaletu Mateta, Henry Ngwenya, Pumla Nongawuza and Sumaya Witbooi - together with the researchers from ACIDI and CST in the process, which was also supported and facilitated by EMG's Thabo Lusithi, Siya Myeza and Apiwe Mdunyelwa. The study had two phases, where each began with a 4-day workshop: the first one focusing on design and story collection, and the second on story sense-making and communication of findings.



CORECT group at workshop 2

back row, from left: Maggie, Ntombikayise, Khayaletu, Luke, Henry, Jessica (visitor), John, Siya

front row, from left: Alice (student observer), Apiwe, Sumaya, Ann, Pumla, Mpumi, Ayeza, Gciniwe, Gina, Zinzi.

The first workshop was held in July 2019. In it, the activists and researchers worked jointly to develop a research approach to SenseMaker based on the mutually agreed objective of the study - to learn more about urban water-related issue and build WCWC capacity to do research.

Collecting the data would then follow two basic steps:

- The interviewer would first ask the respondent to share an experience of when they tried to address a water-related issue.
- Then the respondents would be asked to answer a questionnaire with multiple-choice questions that would assist them to give meaning to the story shared.

For example, the question would ask about how the person in the story was able to address the problem, if someone helped them, and when and where it took place. The goal was to understand people's own experiences and subjective views about challenges they face, rather than just collecting evidence on the performance of water services. The interview thereby collected both qualitative information (the story) and quantitative data (the questionnaire).

The research study begins

Once the research approach was developed and tested, the WCWC participants began collecting stories in their neighbourhoods, using paper questionnaires or a SenseMaker app on their smartphones. During three months, 311 stories were collected from 6 primary site areas where WCWC members live: Mitchells Plain, Du Noon, Makhaza, Joe Slovo, Green Park, Delft and several other areas in Cape Town (*Figure 1*). After which the whole research team helped to digitise all of the stories for processing in the SenseMaker software.

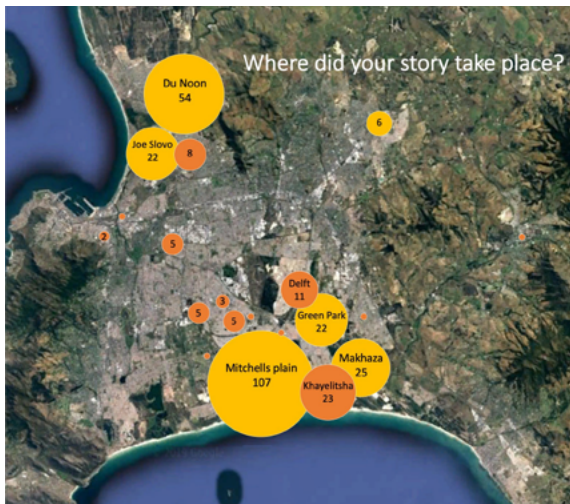


Figure 1. The project collected 311 stories at six primary study sites and in several other communities in and around Cape Town.

At the second workshop in October 2019, WCWC members and the researchers analysed the data and identified key findings with relevance for WCWC's work. A close reading of collected stories allowed the participants to identify the main narratives to be used as a strategy for communicating the research findings back to the researched communities. The workshop also included discussions with invited City of Cape Town representatives on how to best use the finding to improve their water services delivery in low-income areas.

Feeding back the study findings

After this workshop, in November the WCWC members organised and hosted story return sessions in Du Noon, Mitchells Plain and Makhaza. The findings were shared with invited community members through role-playing typical stories, and by using posters with the quantitative findings.



This was followed by lively discussions, serving as an additional learning step and opportunity to reflect on the emerging results.

The design of the project meant that the study was conducted primarily by WCWC members. Stories were collected and returned to communities in English, isiXhosa and Afrikaans, depending on the neighbourhood.

ACDI and CST researchers provided support and expertise with regards to scientific rigour, analysis and presentation. With permission from WCWC, the collected data as well as observations from the collaborative process have and will be used for scientific publications – see references and links below.

Research findings - what we learned

Transdisciplinary research can be difficult and messy, as it involves collaborations between not only academics in different fields, but also between academics and people who are not used to doing research. In this project, challenges included developing research questions and approaches for data collection that meet scientific discipline and criteria, while also being appropriate for story collectors and respondents, and meet norms for ethical conduct. This project included enough time during the two 4-day workshops in order to prepare participants for their tasks. In addition, story collectors were able to attend additional 1-day support and care workshops during the fieldwork phase in order to resolve emerging issues and debrief around fieldwork experiences.

Of all the 311 stories shared, 45% were about bills and pricing, 35% about water management devices (WMDs), and 32% about leakages. By comparison, problems with water restrictions (16%) and pressure (14%) are relatively uncommon – which is remarkable considering the Cape Town’s recent drought and authorities’ efforts to minimise water use through restrictions and pressure management. After analysing the stories and questionnaire responses several findings emerged:

Frustration

The most prevailing message is that people are frustrated from not being able to resolve problems. As one respondent explains:

“My water bill comes sky high even though I have a water device. I’m sick and tired of going to the City and getting no solution. ... Sometimes we sit without water for days, but our bill still comes out high. Where can we go for help?”

When asked when their story took place, most respondents (64%) state that their problem is still ongoing. Only 14% of respondents said that they usually get help when they try to address service delivery problems (Figure 2).

IF YOU TRY TO ADDRESS A SERVICE DELIVERY PROBLEM, WHAT USUALLY HAPPENS?

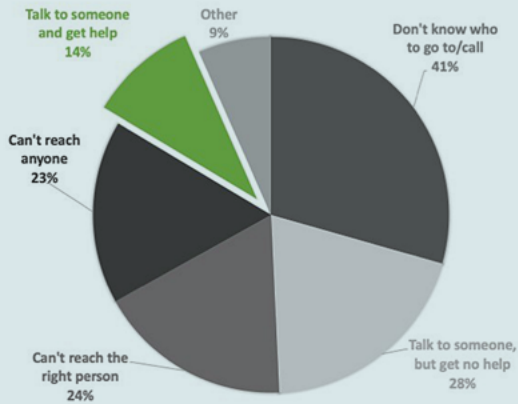


Figure 2. Very few respondents are usually able to resolve problems with service delivery

People’s frustrations are mostly directed towards the City of Cape Town, the local municipal government branch ultimately responsible for water service delivery, or the local Ward Councillor, who is supposed to represent the community. In some cases, stories express frustration with unsafe access to shared toilets at night, and community members who misuse water or cause other problems like stealing water, damage to property, and littering in drains.

Success stories

IN YOUR STORY, PEOPLE’S EFFORTS RESULTED IN...



Figure 3. Most respondents saw no improvement in the issue they described, and some only found a temporary fix.

About 13% of respondents reported that their story resulted in a solution (Figure 3).

While this is a low number, these stories are important for understanding how the type of problems that people report are usually resolved. Of the 25 respondents that both shared a positive story and coded it as such in the follow-up questions only seven stated that they were helped by the municipality. More often, help came from other community members (9) stories, while others helped themselves or paid for help (5 stories), some did not state the reason for the solution (4 stories).

This means that it is twice as common that residents rely on local neighbourhood capacity rather than the City of Cape Town municipality for solutions to water problems. This can create problems if the solutions undermine the long-term quality of services and put strain on residents. One respondent explains:

“I have a problem with a drain that [keeps] blocking, and ... the smell comes straight into the house. No one has ever come from City of Cape Town [to help]. I end up [relying on] people from the community to come and help, even though they are not trained.”

In other cases, collaborating with neighbours to make one’s voice heard can be empowering, and can help build local capacity to hold authorities accountable:

“Living in an informal settlement, we once as a community, asked municipality to put up a tap closer to our houses. The results were positive; we were asked to write a letter to the municipal office and have everyone affected to sign.”

Water management devices (WMDs)

The City of Cape Town introduced WMDs to automatically limit the amount of water a household can use. The stated objectives were to detect unreported leaks, help households avoid debt, facilitate demand management and guarantee access to basic water needs. However, in many stories, the outcomes seem to have been the opposite of these goals.

Respondents with WMD issues were more likely than others to also have problems with bills as well as water restrictions.

This is not evidence that WMDs cause those problems; another explanation could be that devices are installed primarily in areas where these problems are already more common.

However, given that the devices intend to cut off daily water supply at 350 litres, many residents struggle to understand why they are still receiving high bills after having a device.

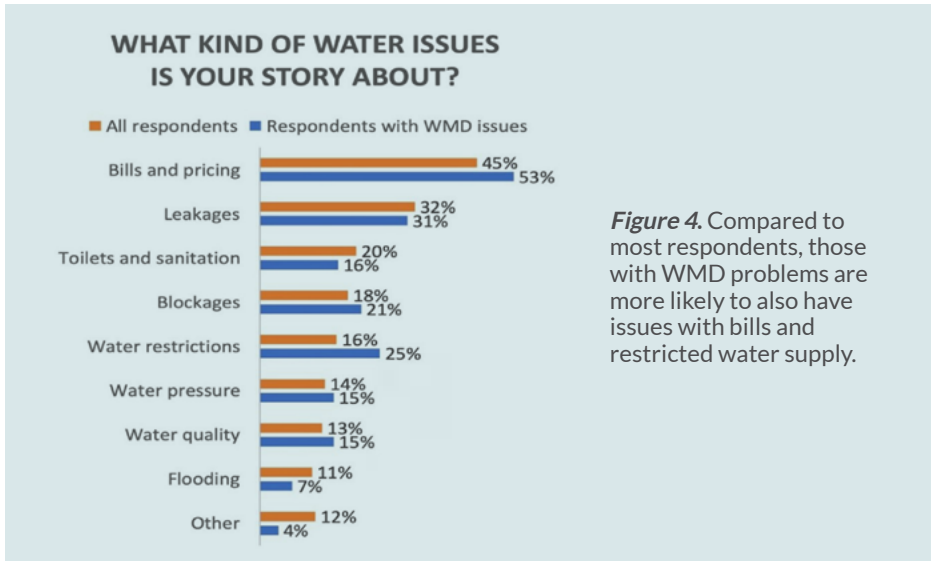


Figure 4. Compared to most respondents, those with WMD problems are more likely to also have issues with bills and restricted water supply.

“I am a single mother of two kids. I chose to have the water [management device installed] because I couldn’t afford to pay water bills. But nothing has changed for the better, it has gotten worse: there are days when there’s no water. The water bills are sky high and I don’t understand why. I have gone to the council to report it but for two years no one has come to help.”

Relationship between residents and the City of Cape Town

As shown in the findings above, the communication between local residents and municipal authorities is failing. This causes frustration when households are not able to connect with municipal authorities to report water service problems, leaving residents with the only choice: resort to the local community for solutions, and contributes to WMDs being viewed as a disruption and violation of people’s right to quality of life.

Some even report that devices have been installed without their approval:

“I’m very, very angry. I have a WMD which was installed without my consent. Now I’m facing a huge water bill and leakages. I have no one to talk to.”

Others even doubt that the City of Cape Town is sincere about improving the lot of the least privileged:

“I have no faith in the Council as my complaints fall on deaf ears. ... I have reported [my broken WMD] many times and was promised that it will be seen to. It kept leaking water and my water [allocation] would run out quickly. My husband asked a plumber in our area who charged us R200 to fix ... it so we can have water.”

These alternative solutions are notably common, even when they require bypassing the law. Less than two of five respondents trust that water problems can be solved by working within the law (Figure 5).

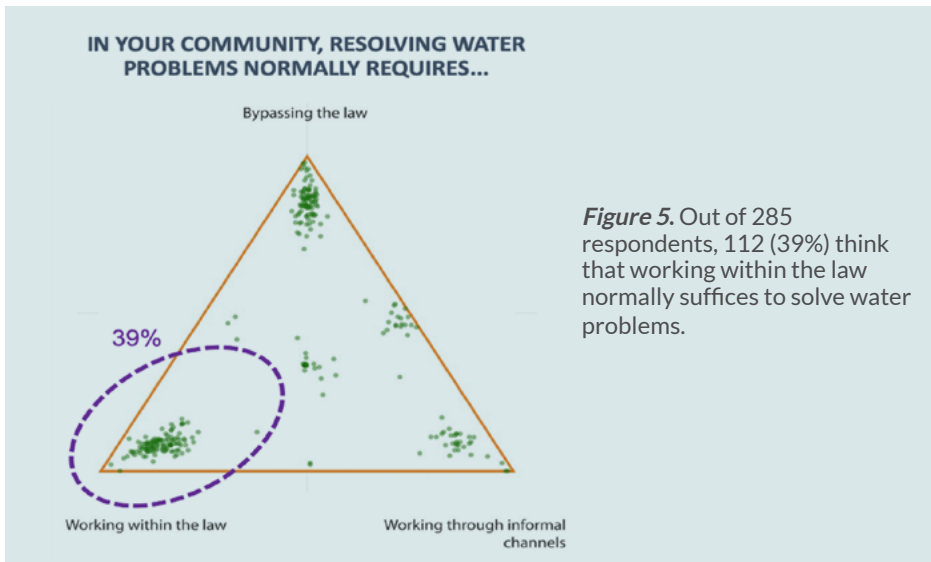


Figure 5. Out of 285 respondents, 112 (39%) think that working within the law normally suffices to solve water problems.

This lack of trust in the formal municipal system can be seen as a serious threat to gaining support for efforts to improve service delivery.

However, the majority of respondents still hope that the municipal government will hear their story (Figure 6).

People generally want the local government to take more responsibility for improving water service delivery, not less.

WHO NEEDS TO HEAR YOUR STORY?



Figure 6. Respondents primarily shared stories that the municipal and national governments need to hear.

Living with informality

Many respondents are trying to navigate a system that is partly formal, partly informal. When informal housing settlements grow organically without central planning, problems can emerge that formal authorities are unable or unwilling to address. Says one respondent:

“My problem is a drain leaking inside my yard. My house has been built on top of a pipe, so I have to demolish my house in order to solve the problem. ... The Housing Department ... told me that it’s not their problem: ... “The owner is supposed to hire a planner before extending the house.” I can’t afford all [this]; that’s why I took shortcuts.”

Two of three respondents see their water problem as linked to issues of housing and planning. It seems as if the structural limitations of their environments, paired with poverty and inability to access municipal services, forces people to resort to informal and sometimes illegal alternatives to cope with their daily service delivery challenges.



Project outcomes and benefits

This project has generated several valuable outcomes, both through its findings and the research process itself:

- For the WCWC: the network has benefited by acquiring data around the issues it works on, to inform their action and advocacy. The process has also helped the organisation build internal capacity and experience in how to collect data in their own communities, and analyse and present findings. Through engagement with City of Cape Town officials as well as other community-based organisations, WCWC members have also seen first-hand how their legitimacy and credibility can increase when using research data in their engagements.
- The collaborative approach to SenseMaker enabled a process whereby resident community members make their voices heard and are acknowledged, ensuring that a broad set of experiences are recorded and made part of the collective narrative. It is particularly important within the urban landscape of a city with high inequality, and ongoing psychological traumas and stresses due to insufficient service delivery and recent impacts of the “Day Zero” drought in 2018.
- This project also showcases a tool that can capture stories to share - demonstrating how to better understand residents’ lived experiences which is critical for improving service delivery.
- Lastly, this project has given valuable research insights into designing and implementing transdisciplinary research, and shown how academics and activist can engage productively.
- This type of project and process is critical for navigating environmental and social challenges and thereby speaks directly to the ACIDI researchers’ focus on urban resilience and water governance.



Contacts

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- Johan Enqvist johan.enqvist@su.se



CORECT group in dialogue with the City of Cape Town

Published works

- Community Resilience in Cape Town (CoReCT) Project Page - for brief, documentary, podcast and report links
<http://www.acdi.uct.ac.za/community-resilience-cape-town-corect>
- Enqvist, J., G. Ziervogel, L. Metelerkamp, J. van Breda, N. Dondi, T. Lusithi, A. Mdunyelwa, Z. Mgwigwi, M. Mhlalisi, S. Myeza, G. Nomela, A. October, W. Rangana, and M. Yalabi. 2020. *Informality and water justice: community perspectives on water issues in Cape Town's low-income neighbourhoods*. *International Journal of Water Resources Development* 00:1-22
<https://doi.org/10.1080/07900627.2020.1841605>
- Water Stories - an information and story sharing platform containing the SenseMaker stories on their Water Map by location:
<https://waterstories.co.za/>
- Ziervogel, G., J. Enqvist, L. Metelerkamp, and J. van Breda. 2021. *Supporting transformative climate adaptation: community-level capacity building and knowledge co-creation in South Africa*. *Climate Policy*
<https://doi.org/10.1080/14693062.2020.1863180>.

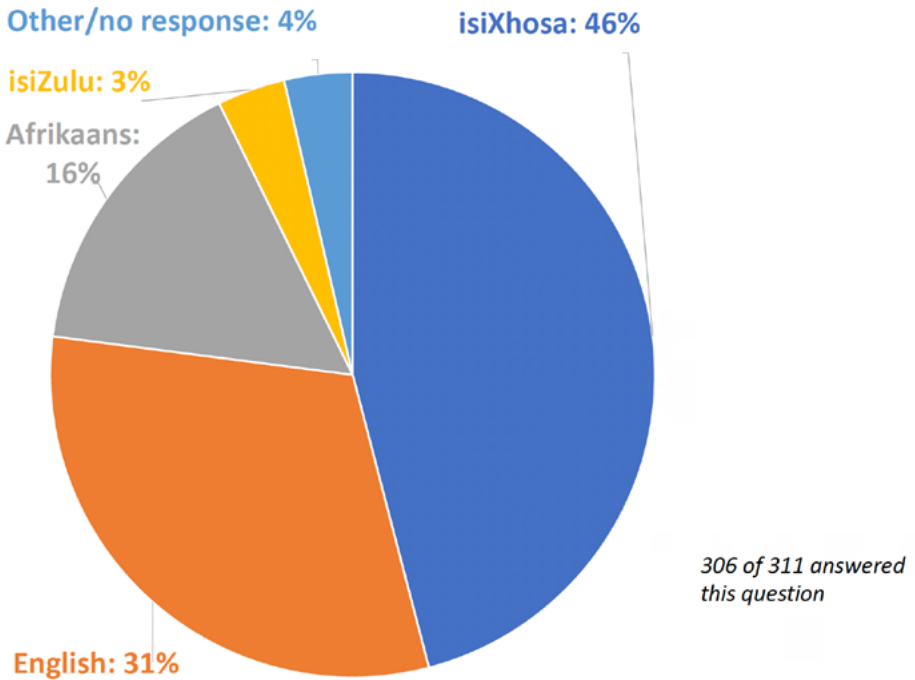
Appendix

The following figures (on pages A1 - A14) present some of the results captured in the study's questionnaire. It gives an overview of who the participants of the study were, what water issues they experience, and how they try to address them.



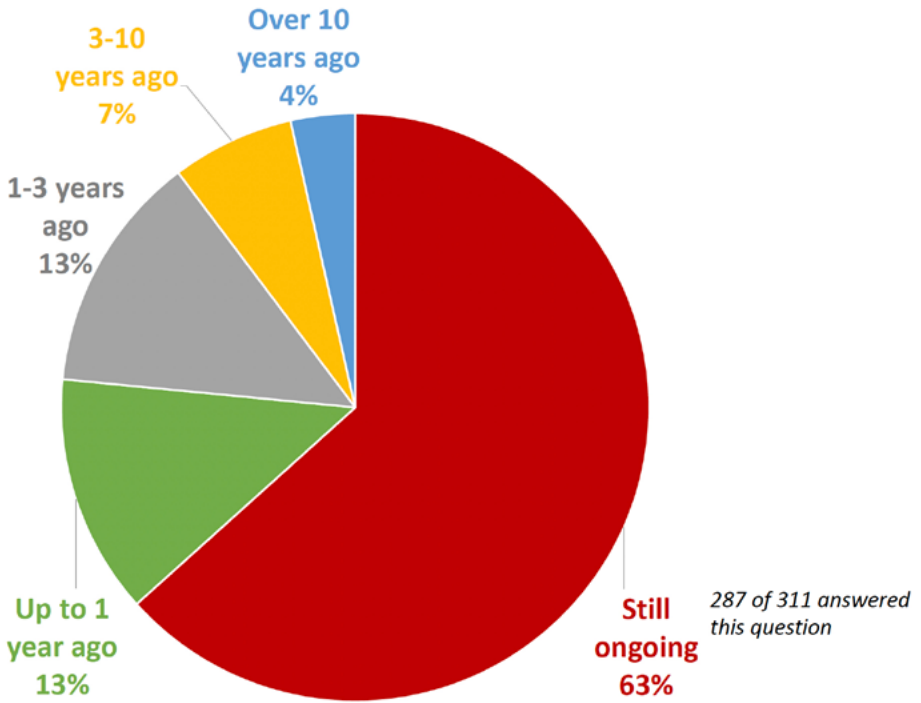
We collected stories from several townships and informal settlements around Cape Town. Most of them came from Mitchells Plain (107 stories), Du Noon (54 stories) and Makhaza (25 stories).

HOME LANGUAGE



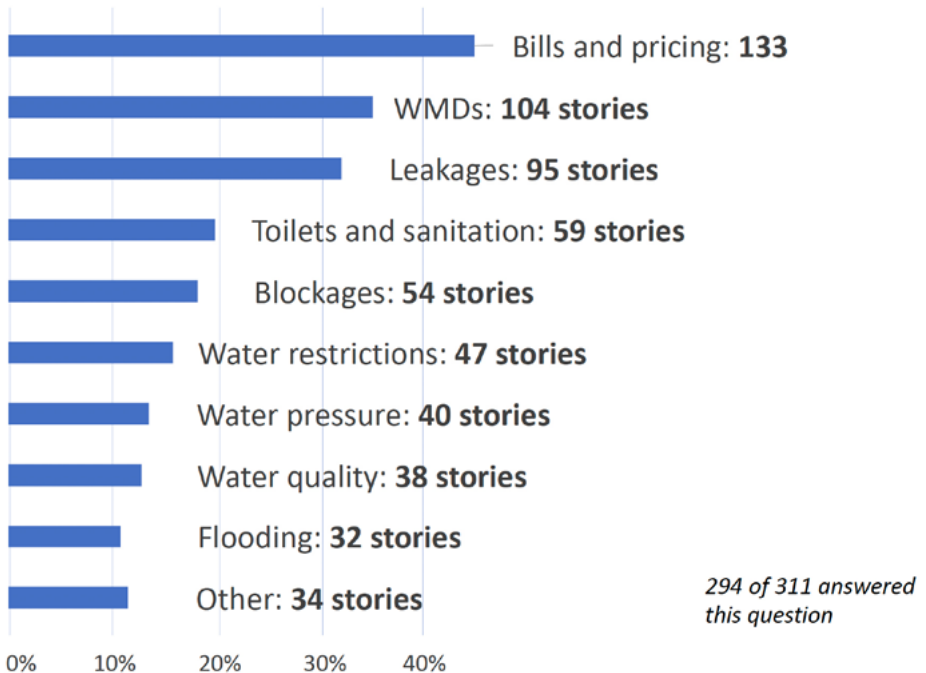
The people who shared stories with us had different backgrounds. Almost half of them said isiXhosa was their home language, while a third said English and one sixth said Afrikaans.

WHEN DID YOUR STORY TAKE PLACE?



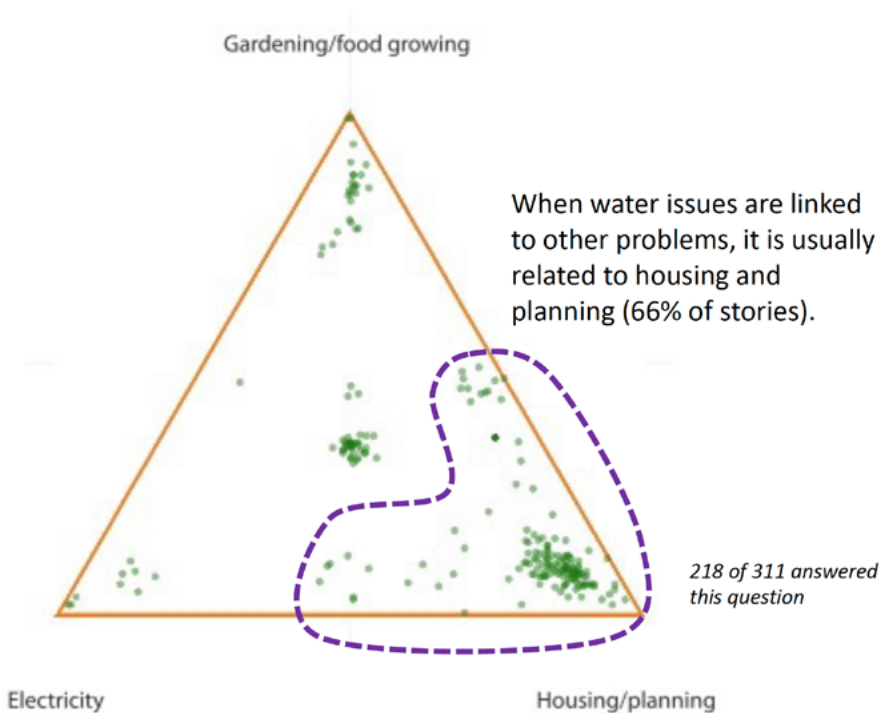
Most stories shared describe problems that are still ongoing. Almost two thirds have not been resolved yet, and most of the rest are very recent.

WHAT KIND OF WATER ISSUES IS YOUR STORY ABOUT?



We asked the 311 people in the study what kind of water issue their story was about. 294 of them answered, and the figure shows that bills and pricing was the most common issue, mentioned in 133 stories, while many were also about water management devices (104 stories) or water leakages (95 stories).

IN YOUR STORY, IS THE WATER ISSUES YOU DESCRIBE LINKED TO ANY OF THE ISSUES BELOW?



Many people see water problems as linked to other issues. For two thirds of those who answered, housing and planning is linked to their water problem. Only a few see a link to gardening and food growing, or electricity.

IN YOUR STORY, PEOPLE'S EFFORTS RESULTED IN...



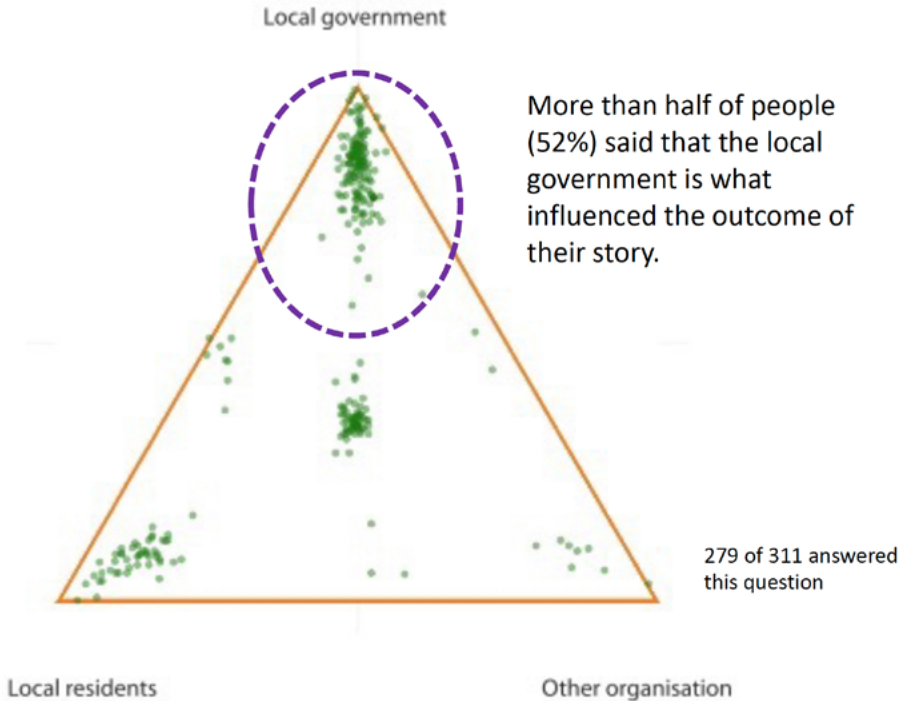
In the stories that we collected, most people were not able to solve the water issue they described. Almost two thirds (63%) saw no improvement, and less than one in seven (13%) found some solution.

IN YOUR STORY, THE PERSON WAS DRIVEN BY...



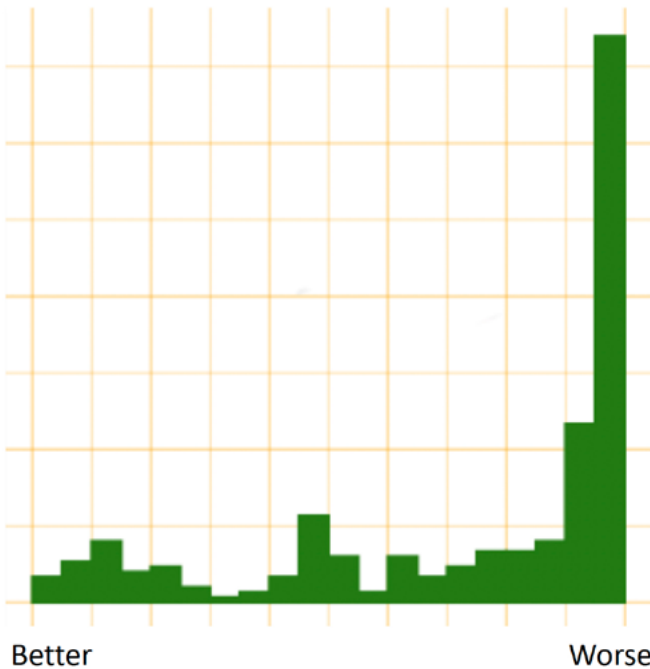
Most people, seven out of ten, are driven by the needs of ongoing water problems. Few are driven by future opportunities and almost no one by traditional values.

IN YOUR STORY, THE OUTCOME WAS INFLUENCED BY...



When asked who had the most influence over the outcome of their story, more than half said that it was the local government. Only a few think that local residents are able to influence the outcome.

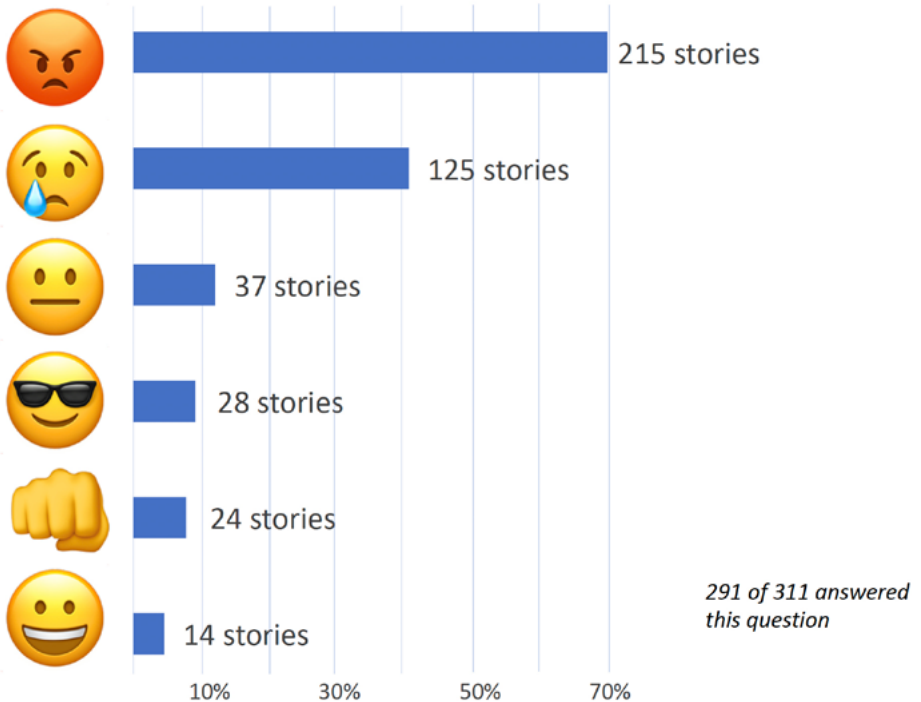
THE OUTCOME OF YOUR STORY WAS THAT PEOPLE'S ACCESS TO WATER GOT...



287 of 311 answered this question

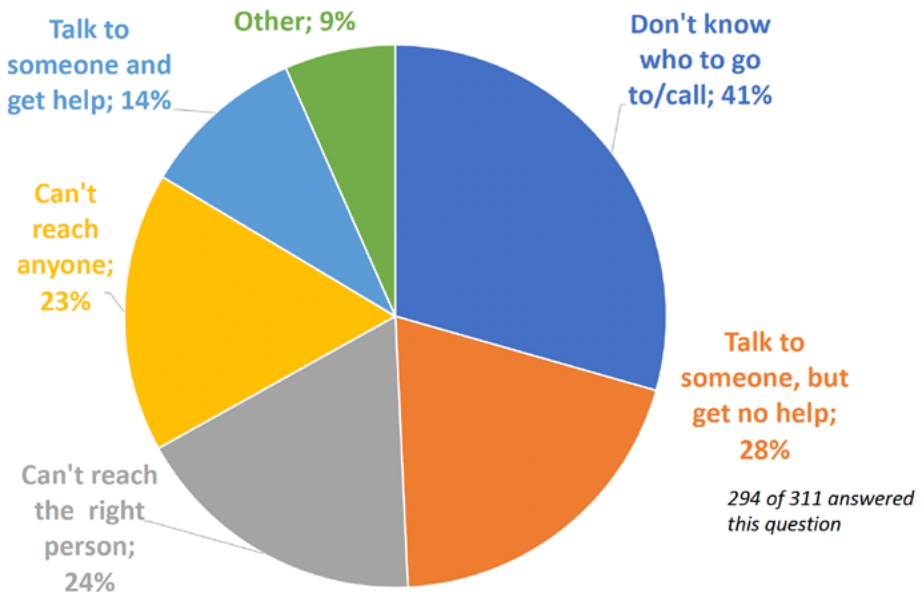
In the stories that we collected, most ended with people's access to water getting worse than it was before.

PEOPLE IN YOUR STORY FELT...



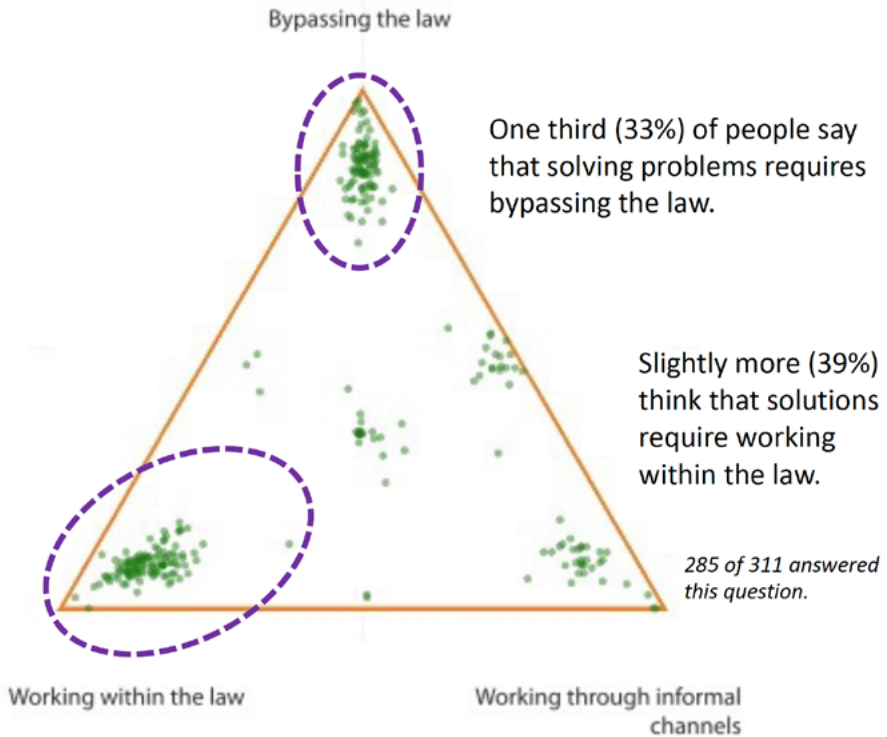
When we asked people how people in their stories felt, most chose an angry emoji (215 stories) or a sad one (125 stories). The happy emoji was the least common one (14 stories).

IF YOU TRY TO ADDRESS A SERVICE DELIVERY PROBLEM, WHAT USUALLY HAPPENS?



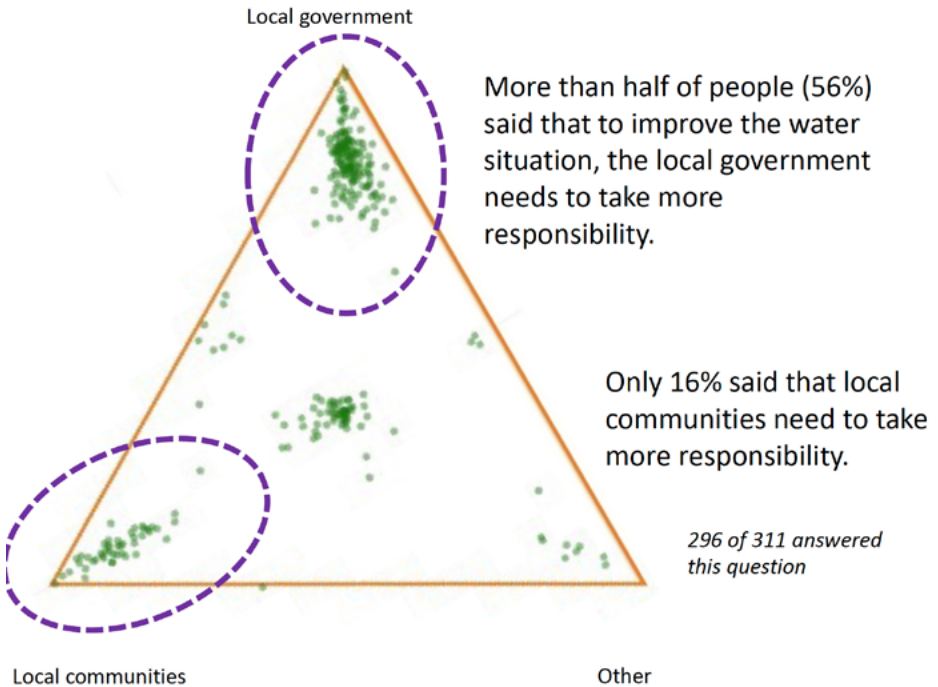
We asked people what usually happens when they try to address a problem with service delivery. The most common response was that people won't know who to go to or call (four of ten people), or that they talk to someone but don't get any help (three in ten people). Only one in seven people usually get help.

IN YOUR COMMUNITY, RESOLVING WATER PROBLEMS NORMALLY REQUIRES...



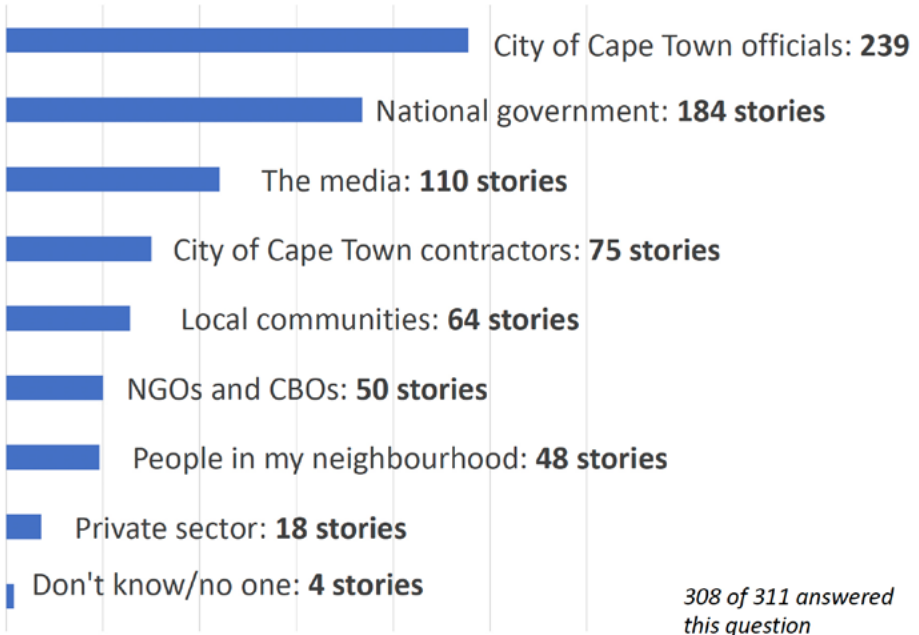
We asked people what they think is normally need to solve water problems. One third said that you have to bypass the law to find solutions, while slightly more (four in ten) said that solutions require that you work within the law.

IN YOUR COMMUNITY, THE WATER SITUATION WOULD BE IMPROVED IF MORE RESPONSIBILITY WAS TAKEN BY...



More than half of the people we asked said that the water situation would improve if the local government would take more responsibility. Only one in six said that local communities need to take more responsibility.

WHO NEEDS TO HEAR YOUR STORY?



People want their stories to be heard, especially by the government. Over three of four people who shared stories (239 people) hoped that City of Cape Town officials would hear them, and many also wanted the same from the national government (184 people).

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