African Climate & Development Initiative

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Understanding urban resilience: a Cape Town perspective

Gina Ziervogel

RESEARCH OVERVIEW

The term resilience is growing in use internationally. In 2016 the Rockefeller Foundation nominated Cape Town to be part of the 100 Resilient Cities Network (100RC), pioneered by the Rockefeller Foundation. 100RC define urban resilience as "the capacity of a city's systems, businesses, institutions, communities, and individuals to survive, adapt, and grow, no matter what chronic stresses and acute shocks they experience." But how does the term 'resilience' land in Cape Town with people who are working on urban social and environmental change? And how is it being used?

Creating resilience maps is one way of taking stock of where we are at and visualizing how to move forward. But there are different approaches to mapping that draw on different types of data and are used in different ways. This research brief draws on material from interviews with people working within the City of Cape Town, in NGOs, as independent consultants and as researchers. It starts by exploring the understanding of the term resilience and what it might mean in Cape Town, before looking at the role of mapping resilience.

The material in this research brief is based on 11 interviews undertaken in 2017 by Gina Ziervogel and Maud Borie. This research is part of the WhyDAR (Why We Disagree About Resilience) project led by Kings College London funded by NERC, AHRC, ESRC and Urban resilience and water governance project, led by African Climate and Development Initiative, University of Cape Town, funded by AXA.

KEY FINDINGS

To unlock resilience in Cape Town, the city's residents and officials should consider:

Shift residents' focus from "Me to We", and find ways to manage public space as contributing to "the common good".

Working at both individual level and the city level. Individuals cannot expect the CoCT to do it alone and vice versa.

Focusing on "deepening strategies" that ensure people have a strong foundation and are better able to cope in their current circumstances rather than trying to shift to new situations.

Paying greater attention to how the natural environment underpins social and economic wellbeing.

Placing more effort on getting different government departments to collaborate across sectors on common resilience issues, such as water supply, energy, etc.

Keywords:
urban resilience; Cape Town; mapping; participation

Left | Rising flooding in and around Cape Town is an annual occurrence (Photo: Sean Wilson)

UNDERSTANDING RESILIENCE

From a personal perspective, everyone interviewed understood the word resilience and could relate to it. But when it comes to how the term has been used in a broader societal context, a few dominant themes emerged. The first was that resilience suggests a holistic approach that takes whole systems into account. Some specified that this would include individual empowerment as well as resilience in the broader physical environment.

The second understanding focused on resilience as the ability to learn and use opportunities as a personal level. And the third understanding of resilience was about taking a forward-looking perspective that is about anticipating and long-term planning. For some people, all of these were important, while others just focused on one of these themes.

USE OF RESILIENCE

One respondent stated that resilience is appealing as a concept but shows very little evidence of how to achieve in practice. This talks to mixed sentiments around the term. Some feel it has been used to support ongoing activities that are unjust, meaning they view it in a negative light. Those working in the NGO sector or as independent consultants tend to hold this view. Their critique is based on their experience of the term being attached to activities that are top-down and not sensitive to what is happening at grassroots level. Very few people within the City (Council) of Cape Town or among NGOs were actively using the term and framing of resilience in their applied work when this research was undertaken; this has since shifted.

MAPPING RESILIENCE

Currently maps are used in relation to spatially documenting various aspects of resilience. There seems to be two broad categories of data mapped: objective and subjective. Those that try to take a more “objective” perspective are the ones the City of Cape Town produces and uses most. They are often based on GIS and quantitative data and are anchored by Cape Town’s network of Town Survey Marks (TSM) that provides accurate positions of infrastructure and areas.

There is significant overlap between the two types of maps but the subjective maps try to capture the “unknown sub-surface”, as one interviewee put it. They represent the city from a certain perspective. For example, they indicate where some households are able to access certain services and others not. Some examples given were how cyclists experience certain streets at different times of the day and mapping the differential access households have to public toilets.

Above | Participatory mapping can spur conversations about resilience among multiple actors (Photo: Gina Ziervogel)

WAYS TO INCREASE CAPE TOWN’S RESILIENCE

Change how problems are framed:

- Shift from seeing the parts of the system as separate, to seeing the system as a whole. Until now, the city’s infrastructure has been prioritised and insufficient attention has been paid to environmental and social issues.
- City officials need to facilitate more processes that provide opportunities for residents to share their lived realities and insights to current challenges. Those working outside of government feel that the CoCT is inconsiderate of people and heritage.

Support participatory planning:

- Planning needs to include more people across the spectrum. As one official said, “Everyone talks about participatory planning, but nobody knows what it means.”
- Use GIS and digital tools smartly. These should not replace engagement with citizens but benefit from it.
- CoCT has been restructuring and part of this rationale has been to recognise citizens as customers. But as one respondent pointed out, trust is going to be built through delivery. Some interviewees suggested that this could be done by strengthening services that more directly meet users’ needs.

Better use of data:

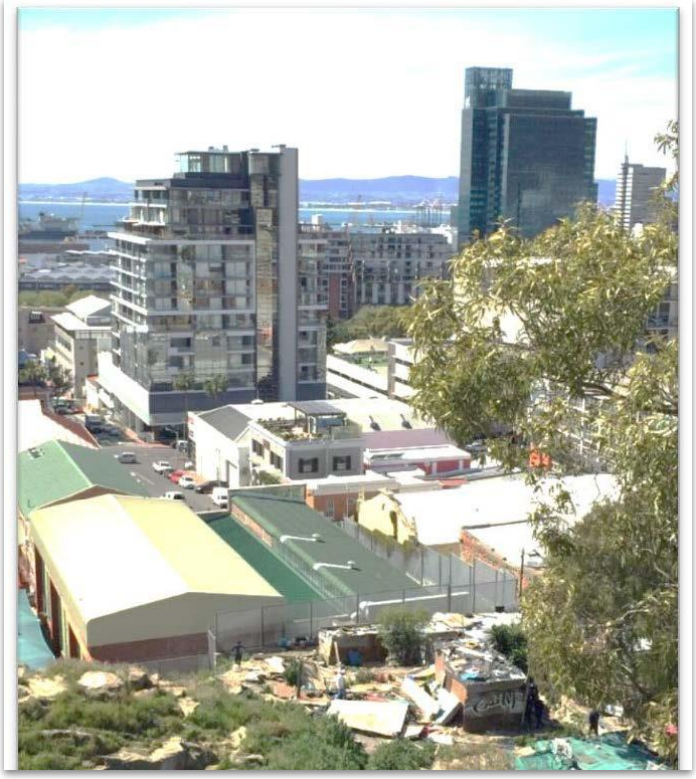
- There is a wealth of data on urban issues that is often not sufficiently consolidated or analysed to inform decision-making. Some felt there is not sufficient desire at a political level to make changes based on evidence.
- Despite the large quantity of data about urban risk in some areas, in many areas we need to better understand what the knowledge gaps are. These gaps and questions should be the starting point for gathering new data.

WHY USE MAPS TO LOOK AT RESILIENCE?

Because maps:

- Can start a conversation.
- Are a "powerful consultation tool to engage on complex topics".
- Help to engage across the divide of quantitative and qualitative.
- Help to engage multiple actors from different backgrounds who can all relate to a place in space.
- Make the invisible visible.
- Identify where to intervene.
- Have temporal and spatial aspects that can show change over time.
- Are flexible tools for visualizing a range of formats of evidence (e.g. pictures, sound).

"Maps that capture how citizens and others experience infrastructure, services and place tend to be more 'subjective'. These are the types of maps that many NGOs and civics use."



Above | Inequality in Cape Town is high, as captured in this picture with shack dwellers squatting beside a high income residential area in the city centre (Photo: Gina Ziervogel)

HOW MAPS MIGHT CONTRIBUTE TO BUILDING RESILIENCE

There was agreement that mapping can have an important role to play in understanding resilience and identifying responses. However, a number of factors could ensure that maps contribute even more to building resilience than they currently do.

Maps need to be used with other apps and tools that are rapidly developing such as 3D visuals, games, citizen science reporting and novel ways of gathering and using data.

Maps often illustrate the status quo. From a resilience perspective, we need to explore how they can be used in a forward-looking way to identify new ways of working that include multiple perspectives. Processes are important. Beyond the maps, it is important to consider who is involved in mapping and how it matters.

Issues around power and "owning" maps need to be surfaced more. Some questions to ask around this might include: Whose perspective currently dominates the maps? How do we get different perspectives shown in the maps and different people using maps? Are there ways that intellectual property can be dealt with to increase access to data? The data visualised in maps decays over time, and is often laborious to update.

By exploring crowdsourced supplementary data or incorporating non-official data sources, it may be possible to present a more up-to-date picture of the city as experienced by a range of people. Maps often present boundaries with crisp lines, when the reality on the ground is more 'fuzzy'. Visualisations that acknowledge the uncertainty of the data used are encouraged.

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www.acdi.uct.ac.za

Corresponding author: Gina Ziervogel, gina@csag.uct.ac.za

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