

Building African City-Region Resilience: translating priority principles into action for improved management of water resources



Overview

- Two parts
- First: African context for managing water resources
 - Brief context of African cities related to water management
 - “Africanising” resilience principles to fit with this context
 - What is needed in African cities
- Second: The case of Cape Town in how they are managing their water crisis

African Cities are unique...



Developing African resilience principles

- Stockholm Resilience Centre have developed principles for resilience
- However, there was a need to “Africanise Resilience”
- Workshop was held with African politicians, city officials, academics, private sector, NGOs & community members in order to interrogate and develop a set of principles for Africa

Principles Developed

- Promote cross-scale spaces for learning and building relationships
- Work within context
- **Embracing creativity and innovation**
- Encourage neutral and trustworthy knowledge brokers
- Build networks of intermediaries
- Manage conflicts and tensions at the city level
- Improved participation at multiple levels
- Embrace complexity
- Embrace politics and power
- **Work with informality**
- **Encourage adaptive and flexible policies (rather than prescriptive adaptive capabilities)**

Principles Continued

- Promote equality in African cities
- Apply systems thinking
- **Support regenerative approaches – i.e. building the vision**
- Promote knowledge flows and overlapping research/policy agendas
- Coordinate, cooperate & collaborate
- Create diversity

A new approach to planning

A new way of thinking

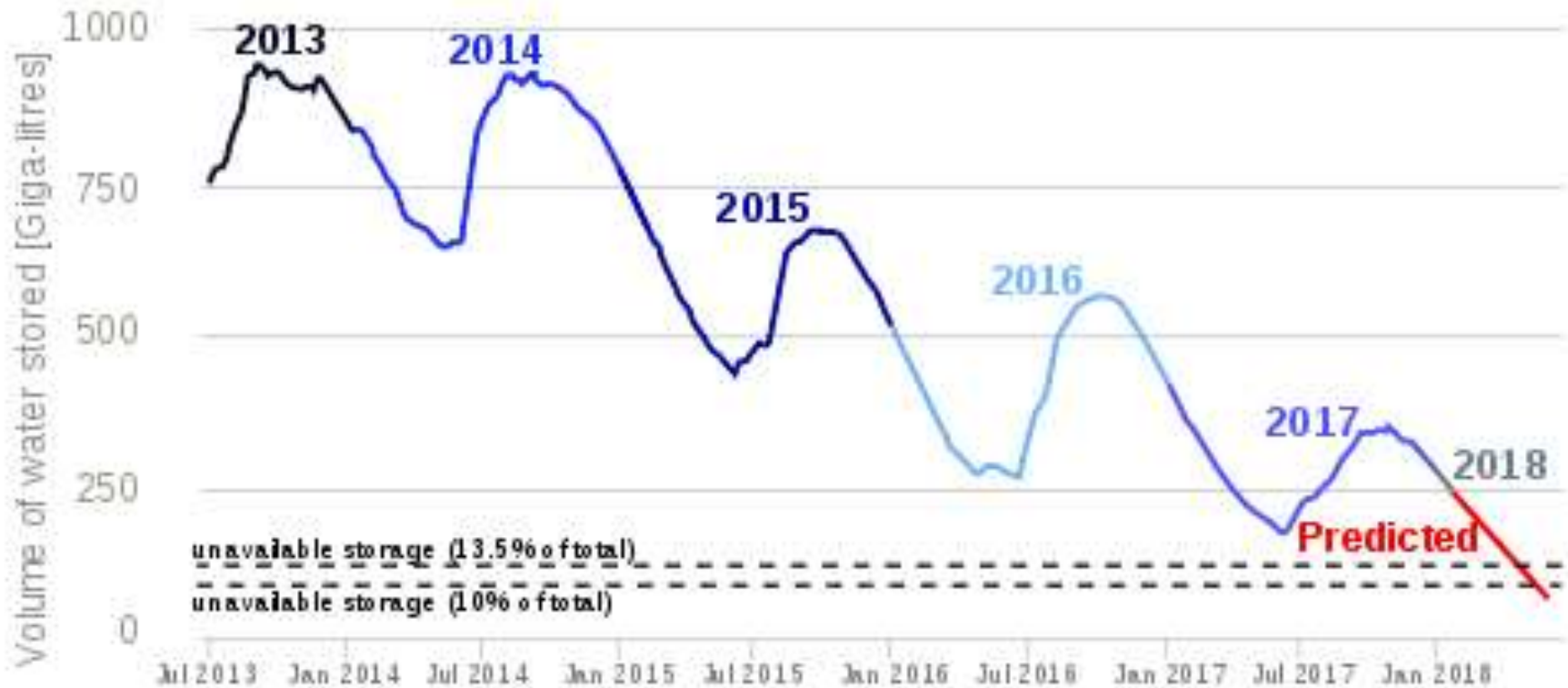
Scenario planning

- Don't focus on plans but on alternative futures
- Have a deep understanding of the current environment- political, economic, social, technical, environmental and cultural
- A stepped approach to developing the city we want

Urban Tinkering

- Work with what is already on the ground
- Change the mind-set from unplanned to unserved

The Case of Cape Town




CSAG, 2017

Complex system of interactions

- Winter Rainfall: May – August
- Dams are recharged by winter rainfall
- Dam level decline annually during summer months – exacerbated by agricultural use
- Agriculture consumes 80 – 90% of the area's water
- Over the last 23 years: 79 % population growth and only 15% increase in dam water storage
- The possibility of exceeding the water supply was highlighted as early as 1990
- 2009: Building of the Berg River Dam increased the storage by 17%. However, many still predicted that the water demand would exceed this supply by 2013 if no conservation strategies were implemented.
- Cape Town's water dependence is that their water systems is built on the stable climate of previous years
- In 2015 drought started – warnings were made to decision makers but level of uncertainty created delays
- Desalination and other infrastructural mechanism were largely delayed due to complex contract processes
- Different local, provincial and national political parties
- Many agenda items and protests during this period


Management plan: Water restrictions

2015

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- **January 2016: Level 2**
 - **November 2016: Level 3**
 - **February 2017: Level 3B**
 - **May 2017:** Dam levels were 10 % lower capacity. **Level 4** (limits to 100 litres per person)
 - **September 2017: Level 5** (limiting outdoor and non-essential water use; encouraging use of greywater; 87 litres per person)
 - **October 2017:** Estimated 5 months left of water and the city announced its emergency plan
 - Phased approach to water rationing
 - City manager was given special “powers” – drought related action would not need to follow the normal decision making processes

Management plan: Water restrictions

2015

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- **January 2018:** Escalated to national government to fund the expansion of water supply
 - **February 2018: Level 6 B restrictions** (50 litres per day per person)
 - Day Zero Announced: Many dates; 149 collection points, 25 litres per day (water shut off except CBD, informal areas and essential services)
 - A representative body for farmers in areas just outside the city released 10 billion litres
 - **March 2018:** Water consumption dropped to 511 million litres per day. Day Zero was announced as no longer happening. On Level 6 B until further notice.

Key learnings

- The lack of co-ordination and the ability to work across city boundaries
- Many policies and processes in place failed to adequately provide the City of Cape Town with the framework to deal effectively and timeously with disaster.
- Political tension across different governance levels
- Tangible losses were experienced: loss of 37,000 jobs in the agricultural sector (nationally)
- Need conversation and dialogue around communicating climate change uncertainties
- Communication with civil society needs major improvements
- Need more around behavior change
- Starting earlier and placing more responsibility on civil society, private sector etc.



 **Thank you**

Any questions?



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