Preliminary mapping of water and climate change governance in Lusaka, Windhoek and Maputo

Celeste Renaud, Dianne Scott, Davison Muchadenyika, Kornelia Iipinge, Hecralito Macavele, Genito Maure, John Mfune, Brenda Mwalukanga, Izidine Pinto and Gilbert Siame

FRACTAL Briefing Note
June 2018
Produced by the
Decision-making Cluster

FUTURE CLIMATE FOR AFRICA

FRACTAL
FUTURE RESILIENCE FOR AFRICAN CITIES AND LANDS

FRACTAL

FUTURE RESILIENCE FOR AFRICAN CITIES AND LANDS

FRACTAL

The Future Resilience for African Cities and Lands (FRACTAL) project aims to address the challenge of providing accessible, timely, applicable and defensible climate information that is needed by decision makers operating at the city-region scale in southern Africa. FRACTAL has been running since June 2015. It is part of the Future Climate for Africa (FCFA) multi-consortia programme. FCFA's major objective is to generate fundamentally new climate science focused on Africa, and to ensure that this science has an impact on human development across the continent. FCFA is funded by the Department for International Development (DFID) and the Natural Environment Research Council (NERC).

These knowledge products have been developed to share findings from the research in the hope of fostering dialogue and eliciting feedback to strengthen the research. The opinions expressed are therefore those of the author(s) and are not necessarily shared by DFID, NERC or other programme partners.

UKaid
from the British people

NERC
SCIENCE OF THE ENVIRONMENT

1. Introduction

The aim of this brief is to document the first step of the governance analysis. It:

- Provides an overview of the FRACTAL project.
- Briefly summarises the governance configuration concept used to frame the governance research.
- Describes the process of gathering the data via open-ended interviews in the three cities of Lusaka, Windhoek and Maputo.
- Presents an initial visualisation of the data which is presented as a set of governance maps.
- Describes the process of collaborative ground-truthing in the Learning Labs.

2. Overview of the FRACTAL research project

The Future Resilience for African Cities and Lands (FRACTAL) project aims to address the challenge of providing accessible, timely, applicable and defensible climate information that is needed by decision makers operating at the city-region scale in southern Africa. FRACTAL has been running since June 2015. It is part of the Future Climate for Africa (FCFA) multiconsortia programme. FCFA's major objective is to generate fundamentally new climate science focused on Africa, and to ensure that this science has an impact on human development across the continent. FCFA is funded by the Department for International Development (DFID) and the Natural Environment Research Council (NERC). The governance research is part of the Decision-making work package, which is one of three packages, the others being the Climate Science and the City Learning work packages. The latter involves the process of transdisciplinary learning forums where deliberative knowledge exchange takes place between academics, municipal officials and other stakeholders (the Learning Labs).

3. Governance configuration

The concept framing of the FRACTAL governance research is that of the governance configuration (see Scott, 2017: Concept Note). This is a framework of elements that in relation produce outcomes (see figure 1 for simplified set of elements) at a particular time and place. These elements include discourses, actors, legislation and policy, decision-making processes and materialities (geography and climate, and physical infrastructure). The governance configuration provides a framework for understanding how the elements come together as an ensemble to create a set of governance arrangements that can potentially produce outcomes in different contexts, for example, piped water. It is proposed that this will allow for the identification of the existing water and climate change governance configurations that provide an institutional context in which climate information is to be integrated. It will also highlight insight into the key decision-making arenas where the receptivity of actors to climate resilient urban development can be enhanced (Scott and Taylor, 2019).

The initial Learning Labs in the three cities of Lusaka, Windhoek and Maputo revealed that water problems were burning or critical issues in each of the cities, taking different forms in each city due to the different geographies, histories and governance arrangements in each city. A thematic analysis of interviews held with city-stakeholders in the three cities of Lusaka, Windhoek and Maputo revealed dominant actors, discourses, policies/plans, materialities,

decision-making processes and outcomes which may be implemented or not. The configuration of elements provides insight into the institutional arrangements that allow or block engagement in problem solving and resilience development in cities, for example, allowing engagement would be facilitated by the existence of platforms and forums; access to funding; building competencies and receptivity (Scott, 2017).

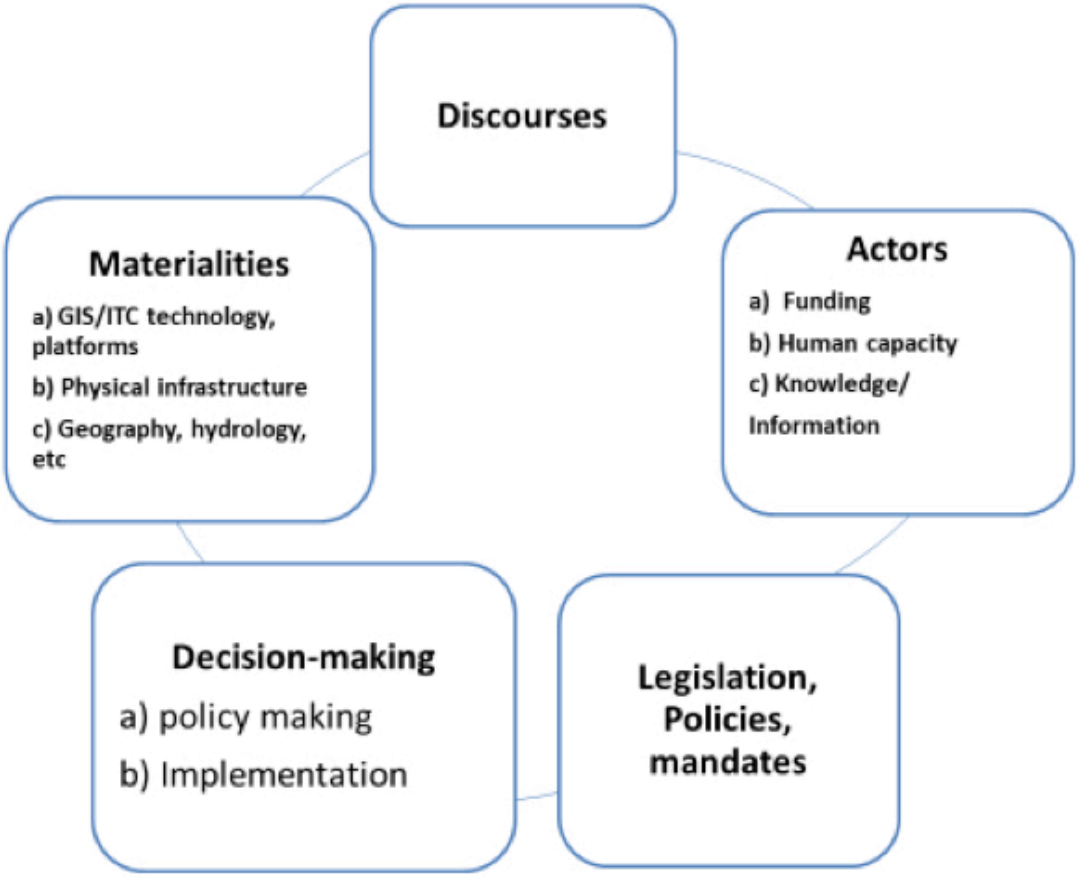

Figure 1 | Elements of the concept of a governance configuration (Source: adapted Scott, 2017).

4. Process of data collection

Data on governance was gathered via interviews which were conducted with a wide range of stakeholders in the city-regions of Maputo, Lusaka and Windhoek during May, August and October 2017 respectively[1]. Participants in the study were drawn from various sectors of each city-region including water and energy sectors, national institutions, government regulatory bodies, city institutions, research institutions, civil society and NGOs. The interviews were semi-structured and open-ended to allow for a relatively informal interview process. Questions were aimed at understanding the institutional and governance arrangements as well as decision-making processes in each city, particularly regarding water and energy. A total of 26 interviews were conducted in Lusaka, 32 were conducted in Windhoek and 26 were conducted in Maputo, totalling 84. Reports on the preliminary findings have been produced for each city-region based on the information gathered during the interview process as a precedent for a more detailed thematic analysis of the interview data (Muchadenyika & Mwalukanga, 2017; Muchadenyika &

1 These were undertaken by Davison Muchadenyika and Brenda Mwalukanga (in Lusaka), Davison Muchadenyika, Izidine Pinto and Hecralito Macavele (in Maputo) and Davison Muchadenyika and Kornelia Iipinge (in Windhoek).

Iipinge, 2017; Muchadenyika, Pinto & Macavele, 2017). The mapping of the preliminary analysis of the interviews provides the initial understanding of water, energy and climate change governance in each city.

The transcribed interviews have been entered Nvivo (a software package for qualitative analysis of oral data) and coding is complete for the Lusaka and Windhoek interviews.

5. Governance configuration maps

The governance configuration has been used as a framework to analyse the preliminary findings and three governance configuration maps for water and climate change for Lusaka, Windhoek and Maputo have been produced (Figures 2, 3 and 4). The maps are visual thinking tools that help to structure the information about actors, discourses, legislation, decision-making processes and materialities in each city-region.

6. Collaborative ground-truthing of governance map

The Maputo governance map was deliberated with participants in the Maputo Learning Lab during 15-16 May 2018, and an updated version was produced (see Figure 4) after this engagement. In Maputo, Learning Lab participants were divided into seven groups and each group discussed the governance map separately. New information or corrections were written in Portuguese on the maps and hence translation was needed before incorporating this into the governance map. Figure 4 shows the updated map (blue writing indicates new elements added during the Lab). This activity allowed for the map to be enriched with new actors with their roles in decision-making described, and some necessary corrections added.

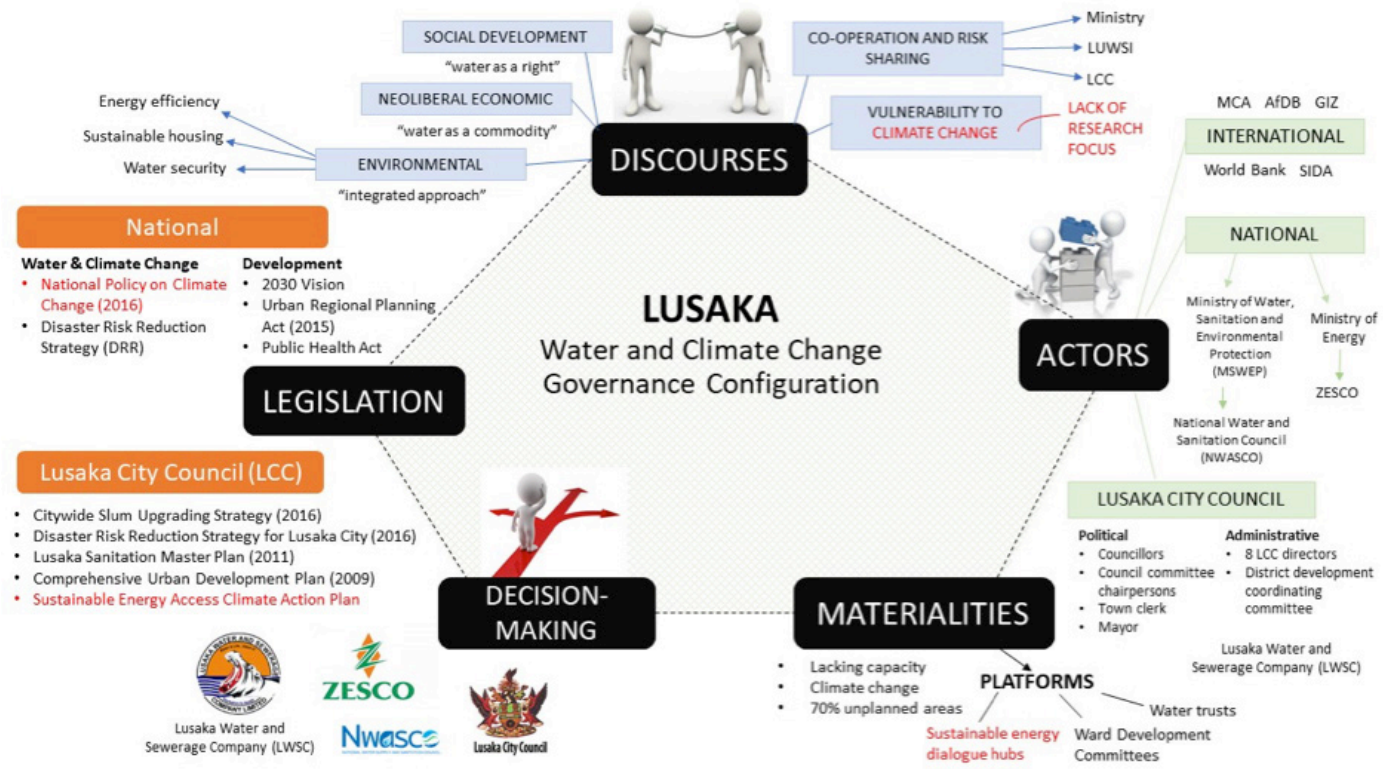

Figure 2 |Water and climate change governance configuration diagram for Lusaka, Zambia. (Source: Muchadenyika & Mwalukanga, 2017). Produced by Celeste Renaud, June 2018.

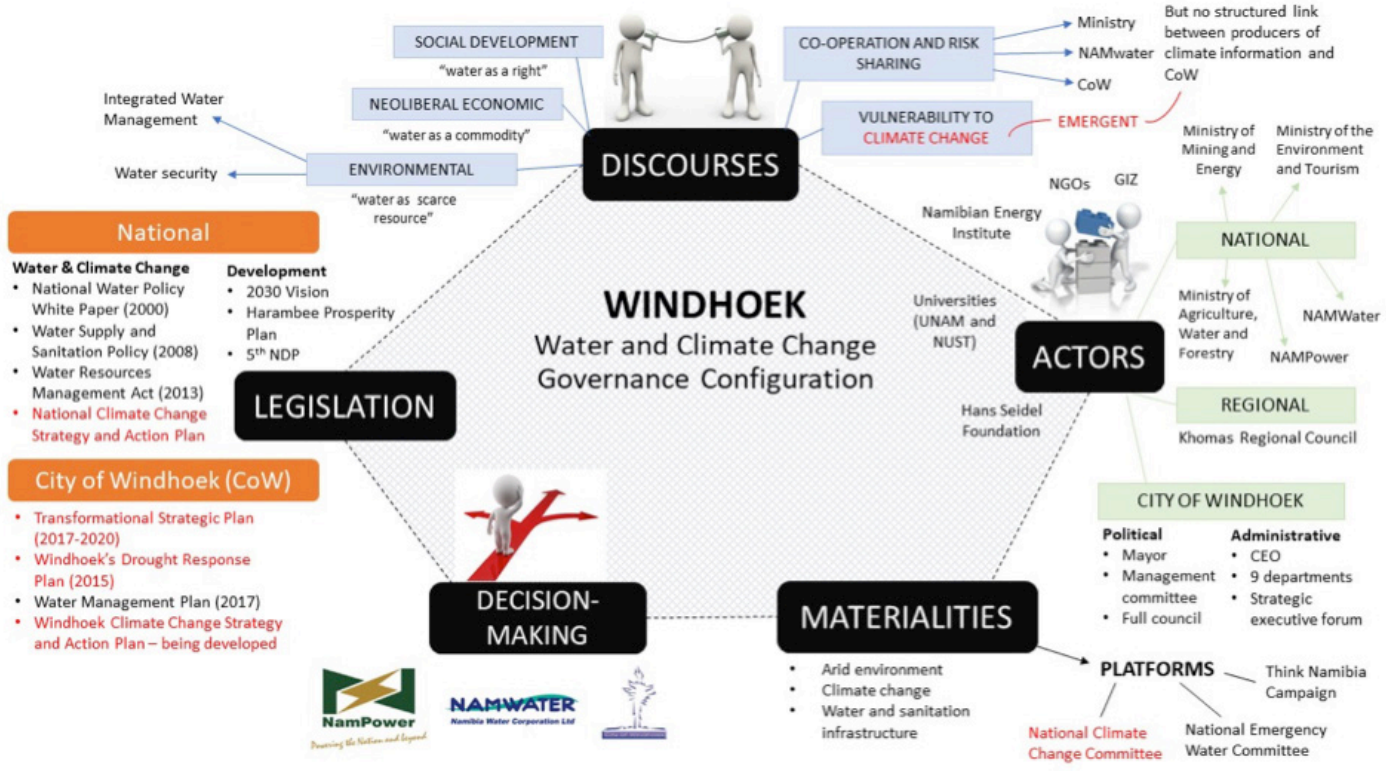

Figure 3 |Water and climate change governance configuration diagram for Windhoek, Namibia. (Source: Muchadenyika & Iipinge, 2017). Produced by Celeste Renaud, June 2018.

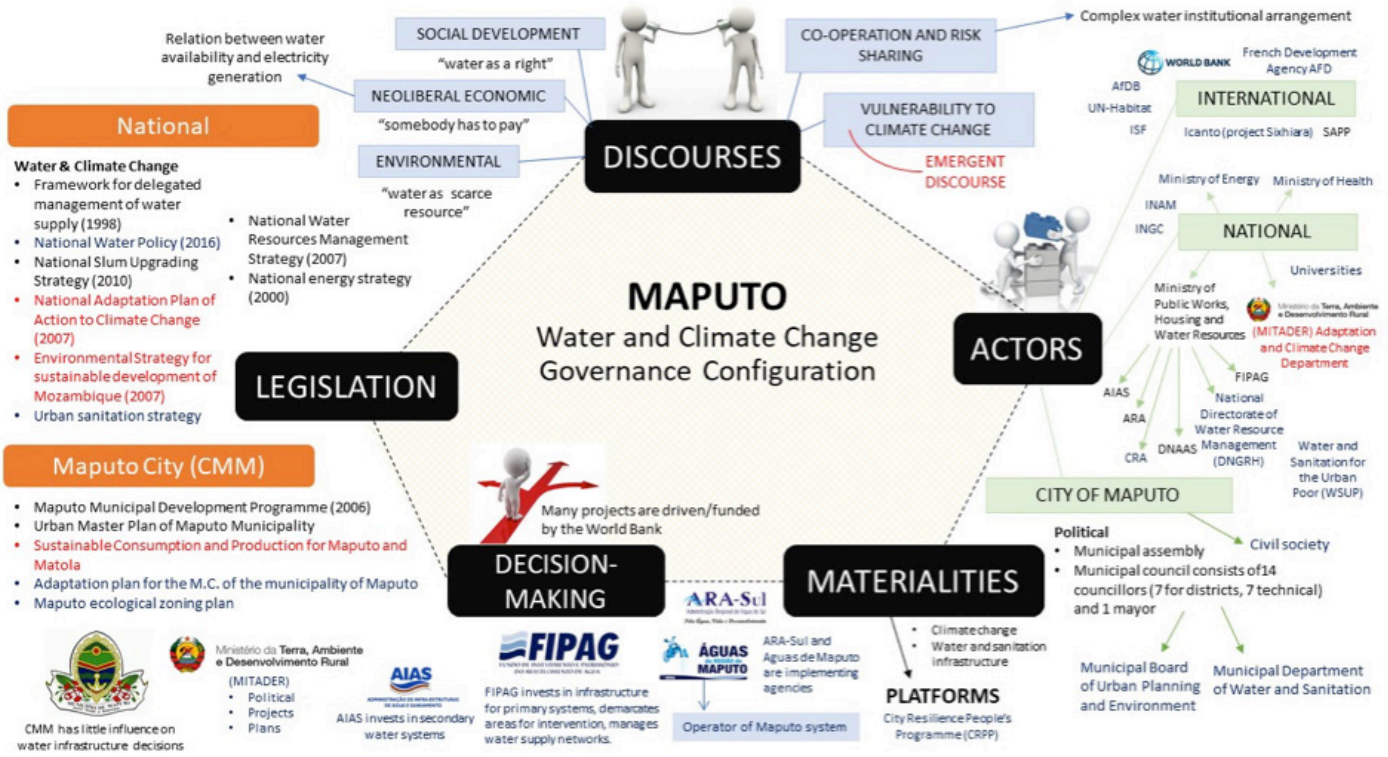

Figure 4 |Water and climate change governance map for Maputo, Mozambique. (Source: Muchadenyika, Pinto & Macavele, 2017). Produced by Celeste Renaud, June 2018. Blue writing indicates new information added during the co-production process in Maputo Learning Lab, 15-16 May 2018.

7. Conclusion

The visualisation of the preliminary understanding of governance in the three cities of Lusaka, Windhoek and Maputo provides a useful contextual reference for discussing the complexity of governance in the three cities. While the original source of data was the Preliminary Reports which were produced after the interview process in each city, it is important that these 'top down" mappings are deliberated and discussed in the Learning Labs where they become co-produced maps through a process of collaborative interaction.

What is interesting when comparing the three cities is that institutions and dedicated policies for climate change governance lie mainly at the national level with very little activity at the municipal level. This is because of the limited degree of decision-making power at the municipal level due to the low level of devolution of powers to the local level. This is evidence of a 'dedicated approach' which is emerging at national and to some degree at the municipal level. The Learning Labs show that mainstreaming of climate change is beginning to take place at the municipal level where departments are integrating climate change into their activities (Windhoek Transformational Leadership workshop, 18-19 April 2018; Maputo Learning Lab 15-16 May 2018) (Uittenbroek, et al. 2014). From the reflection sessions at the conclusion of each Learning Lab, participants have exhibited a high level of receptivity to the need to include climate change information into development decision-making to increase the resilience of the city, and dedicated work is in progress in the municipalities to develop climate change strategy and action plans.

References

Muchadenyika, D. and Mwalukanga, B. (2017) *Governance Arrangements, Decision Making and Climate Change in Lusaka.* Report: Preliminary Findings. Fractal Research Project, CSAG, UCT.

Muchadenyika, D. and Iipinge, K. (2017) *Governance Arrangements, Decision Making and Climate Change in Windhoek.* Report: Preliminary Findings. Fractal Research Project, CSAG, UCT.

Muchadenyika, D., Pinto, I., Macavele, H. (2017) *Governance Arrangements, Decision Making and Climate Change in Maputo.* Report: Preliminary Findings. Fractal Research Project, CSAG, UCT.

Uittenbroek, C. J., Janssen-Jansen, L. B., Spit, T. J. M., Salet, W. G. M. & Runhaar, H. A. C. (2014) 'Political commitment in organising municipal responses to climate adaptation: the dedicated approach versus the mainstreaming approach'. *Environmental Politics* 23: 1043–63.

Scott, D. (2017) *Understanding urban governance: entry points for climate science to inform development decisions in Southern Africa.* Fractal Research Project, CSAG, UCT.

Scott, D. and Taylor (2019) *Receptivity and Judgement: expanding ways of knowing the climate to strengthen the resilience of cities.* Fractal Research Project, CSAG, UCT.