

# LUSAKA CITY DIGEST

## Highlights



### LEARNING LABS | 1 : Participants Identify Burning Issues



Above: Participants at FRACTAL's first Learning Lab in Lusaka

The FRACTAL project has been engaging with stakeholders in the water sector since August 2016, gaining traction throughout 2017. An inception multi-stakeholder workshop was held in 2016 and was followed by the first [Learning Lab](#) for Lusaka. The

multi-stakeholder workshop allowed stakeholders (policy officials, researchers and councillors) to share and learn about the nature and objectives of the FRACTAL project. During the Learning Lab stakeholders worked to identify the issues that are

most likely to be more pronounced due to climate change (referred to as burning issues). The main burning issue for Lusaka that was prioritized for further work in FRACTAL is water

security (quantity and quality of water supply) especially in the informal settlements. For details on how this issue was identified, see the full report from the first Learning Lab [here](#).

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## TRAINING | Training for City Councillors

A one-day training for City Councillors was held in January 2017 on understanding climate change and decision making. The deputy Mayor, Her Worship, Madam Chilando Chitangala, 30 city councillors and 5 city directors

were in attendance. The city officials recognised that the climate plays a huge role in the risks being faced in informal settlements. A full report can be found [here](#).

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## DIALOGUE | City Dialogue on Lusaka's Water Resources and Climate Change

Ahead of the City Councillors' training FRACTAL held a City Dialogue on Lusaka's water resources and climate change, which targeted stakeholders from the Department of Water Resources Development, Lusaka Water and Sewerage, the National Water and Sanitation Council, and the Zambia Meteorological Department. This was to engage the key public institutions that are responsible for Lusaka's water resource management and development. Discussions focussed on mapping Lusaka's surface and ground

water resources. During the Dialogue, various presentations pointed to the growing risks in groundwater resources, driven largely by over abstraction and distraction of ground water recharge areas. It was revealed that 110 boreholes feed Lusaka's water supply network with approximately 40% being drawn from the Kafue River. With increasing records of climate related shocks and effects (such as droughts and floods), the water resources for Lusaka are increasingly being put under pressure.

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## RESEARCH | Understanding Decision-making in the Water and Energy Sectors

Research has been undertaken by the FRACTAL team into understanding decision-making in the water and

energy sectors in Lusaka. During this research twenty five partners drawn from public institutions in the water

sector, City Council decision-makers, Councillors, ward and community representatives, research institutions, and meteorology departments were all interviewed. A focus group discussion was held to validate and disseminate the findings of the research. One of the key findings was that the local authority has little input into key decision-making and funding mechanisms in the water sector. The second was that energy generation, distribution, development and planning were all handled at a national level and that all efforts to use

alternative sources of energy were as a cost saving measure rather than as a measure against climate change implications or water resource conservation. Thus, it was established that Lusaka has not put in place measures that actively address climate risks in the energy sector. Mostly, efforts around clean energy solutions (solar) seem to be driven by international efforts. There is no clear policy or programme to promote clean energy development for the Lusaka city region.

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## LEARNING LABS | 2 : Participants Request Policy Briefs

A second Learning Lab was held in July 2017. Participants requested the development of policy briefs to point stakeholders to specific issues, possible policy and action programming. The policy briefs were to focus on the broader theme of water security with a specific focus on the water security

aspects of flooding, unregulated water abstraction, inadequate water supply and low water quality. At this Learning Lab, participants were engaged in developing a planning pathway that would address each of the issues. Please see the full report [here](#).



Above: Unpacking Lusaka's water security issues at the Second Learning Lab



## TRAINING | Producing and Using Climate Information

Training on the production and use of climate information was held for twenty one participants. It was led by climate scientists from the Met Office Hadley Centre and the University of Cape Town's Climate Systems Analysis Group. The team developed climate risk narratives that could help decision-makers to use climate information that shows possible future

climates as generated by the climate modelling tools. The Models showed that Lusaka's temperature is warmer in the three scenarios modelled, while rainfall patterns are drier in one scenario, localised rainfall events are heavier and more intense in the second scenario and droughts are more prolonged in the third scenario. You can read the full presentation [here](#).

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## DISSEMINATION | High-Level Breakfast

Following the second Learning Lab, a high-level breakfast was held with the Minister of Water, Sanitation and Environmental Protection as the guest of honour. The Deputy Mayor, District Commissioner and Directors from key institutions such as the National Water and Sanitation Council were also present. The Minister explained that the Ministry of Water, Sanitation and Environment had recently been realigned. Previously the mandate of environmental management had been under the Ministry of Lands. Professor Richard Jones from the UK Met Office and Dr Chris Jack from the University of Cape Town gave a presentation on the possible future climate scenarios using the climate narratives approach. This approach presents three possible futures based on the results from the climate models.

The Minister informed the meeting that the Government of the Republic of

Zambia, under the Ministry of Water, Sanitation and Environment was in the process of undertaking construction and rehabilitation of water resources under the Department of Water Resources Management Authority. These works would cost approximately \$50 million. The Honourable Minister also emphasized that the Zambian government recognises the essential nature of water and how as a resource it is at the centre of development. Water's centrality has been recognized in the newly launched 7<sup>th</sup> National Development Plan.

The Deputy Mayor, Councillor Chilando Chitangala, then gave speech in which she noted that Lusaka needed to be at the centre of research and engage in best practices when dealing with climate change adaptation. She noted that the negative impacts of climate change needed to be dealt with beforehand.



Above: Minister of Water, Sanitation and Environment with FRACTAL partners from CSAG; Dr Chris Jack presenting the climate narratives to the minister and other delegates; Minister of Water, Sanitation and Environment speaks to the attendees;; Lusaka Deputy Mayor, Chilando Chitangala addresses the Breakfast

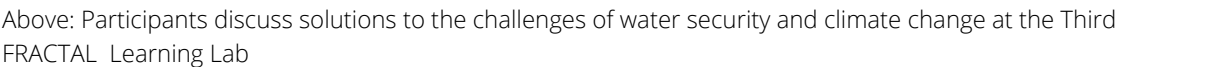
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## TRAINING | Joint Water Security Training Event

A joint Lusaka Water Security Initiative (LuWSI) and FRACTAL training event was held at Fringilla Lodge. The event aimed to train decision-makers and policy makers on how to engage the media on information about water security. The event provided the opportunity to jointly develop policy briefs that disseminate information on the burning issues and key function areas of FRACTAL and LuWSI respectively. This

had been suggested by participants at the second Learning Lab. The Mayor of the City of Lusaka, His Worship Wilson Kalumba, was in attendance and actively participated in the proceedings. Draft press statements and draft policy briefs were co-developed by journalists, researchers and other practitioners in the water sector of Lusaka. Policy briefs will be disseminated at a breakfast meeting planned for April 2018.

This third Learning Lab was themed 'Exploring water and climate from different perspectives'. It was held in November as a close off to 2017. The Learning Lab started with a field visit to the largest groundwater borehole called Shaft 5 under the guidance of the Lusaka Water and Sewerage Company.





## CITY EXCHANGE | Lusaka and Windhoek



Above: Lusaka -Windhoek participants pose for a photo at Mulungushi conference centre in Lusaka

Embedded Researchers, Brenda Mwalukanga and Kornelia Lipinge from Lusaka and Windhoek respectively visited each others' cities to share ideas and challenges. Site visits in Lusaka were done to the Kafue River, Shaft 5 abstraction borehole and Kalikiliki informal settlement. Whilst in Windhoek, the Goreangab Wastewater Reclamation Plant, Havana informal settlement, and artificial aquifer recharge borehole were visited. On the second day in each city, discussions were held on water & climate change related issues in both cities to explore key commonalities and differences and learn lessons about how issues are being addressed and what interventions

are working well. Commonalities included having informal settlements in the city that received water through communal water points or communal kiosks. Differences were found between the two management systems. In Windhoek, the local authority is responsible for service delivery of water and infrastructure development and maintenance. In Lusaka, it is a water utility company called Lusaka Water and Sewerage Company that has established water trusts in informal settlements in order to sell water to residents. A blog about the exchange has been co-written by the Lusaka and Windhoek Embedded Researchers and is available [here](#).



Above: Lusaka SOG participants pose at Goreangab wastewater reclamation and treatment plant in Windhoek



Above: Group photo in the Windhoek committee room

## EVENTS

The first learning lab of 2018 will be held on 17-18 April 2018. Look out for invitations soon. A breakfast to disseminate the policy briefs will be held on 20 April 2018.

**January to March** | WEAP training for water sector officials from Lusaka water and sewerage, Water Resources Management Authority and Lusaka City Council

**February** | Combining the systems map, developed under the nexus cluster and further unpacked at the FRACTAL annual events, with the themes and burning issues in Lusaka

**March** | Validation, publication and presentation of policy briefs at international conferences (World Water Day and IPCC Cities Conference)

**April** | Dissemination of policy briefs at high-level event, and publication

**April** | Fourth FRACTAL Learning Lab: solutions focus

**April to June** | Think tank workshop, funded by an innovation grant, focussing on understanding the perceptions that influence decision-making in the water sector - participants from the water sector will be invited to discuss the Kafue bulk project

## FRACTAL

Future Resilience for African Cities and Lands (FRACTAL) is a trans-disciplinary group of researchers from partner organisations around the world. Together with a broad range of stakeholders, they are working to co-produce relevant knowledge that will support resilient development pathways and enable decision-makers to better integrate pertinent climate knowledge into their resource management decisions and urban development planning. FRACTAL is a four year project within the multi-consortia [Future Climate for Africa](#) (FCFA) programme - jointly funded by the UK's [Department for International Development](#) (DFID) and the [Natural Environment Research Council](#) (NERC).

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