

WINDHOEK CITY DIGEST

Highlights



Above: Third Learning Lab, 14-15 August 2018

LEARNING LAB | Third Windhoek Learning Lab

As the FRACTAL project heads into its final year, the momentum is growing in the effort to collaborate between academia, the city government and relevant stakeholders to integrate climate considerations into decisions that will affect the city for the next 5 to 40 years and beyond.

The [Third Windhoek Learning Lab](#) took place on 14-15 August 2018 at Roof of Africa Hotel, Windhoek. The Learning Lab included Action Planning for the City of Windhoek's Integrated Climate Change Strategy and Action Plan (ICCSAP), a Climate information training, Dialogues on Water and Energy, and a discussion on FRACTAL Legacy.

As part of the FRACTAL city learning exchange, Dr. Lapologang Magole (Head of the Faculty of Architecture and Planning, University of Botswana) and Mr. Molebogi Ramatuhare (Principal Physical Planner, City of Gaborone) participated to learn about Windhoek's ICCSAP and how it has been developed.

The **Climate Information Training** reminded participants that the climate system includes the dynamics and composition of the atmosphere, the ocean, ice and snow cover, the land surface and its features. Building and running computer models to understand how the climate works, globally and in a given region, entails

representing and calculating a large variety of physical, chemical and biological processes taking place in and among these components of the climate system. Making such calculations requires plenty of data, which is hard to come by, especially across Africa. So we need to keep investing in the research and the networks of monitoring stations, as well as getting as much valuable information about current and future climate patterns out of the results as possible, so that development and resource management decisions can be made that are climate resilient. The training took 4 hours. Participants reflected that more hands-on training is needed and there is more interest in further training on using climate models and data, and on interpreting climate data.



Above: Mrs. Laura Ashipala from City of Windhoek and Dr. Lapologang Magole from University of Botswana

The Energy Dialogue focused on getting inputs on the proposed Small Opportunity Grant-funded research on energy provision and access in informal settlements in Windhoek. Input was gathered on the proposal to investigate what sources of energy people living in Windhoek informal settlements use (focusing on Okahandja Park and Goreangab), and how policies and engagements between the city government and the informal residents shape these energy usage patterns. This will be done using a survey, interviews and group discussions.



Above: Climate information training, 14 August 2018

TRAINING | Language and terminology exercise

The **Language and terminology exercise** at the Windhoek Third Learning Lab aimed to clarify meaning and raise awareness and understanding of terms used in relation to climate variability and climate change issues. There were two groups: 1. adaptation vs. mitigation vs. disaster risk reduction vs. development; and 2. Climate vs. Weather. Facilitators asked the participants if there were any terms or

words that are unclear / confusing or that they do not understand what they mean or refer to. The facilitators asked participants to discuss in pairs their small card(s) with different words which of the categories they think the term/statement belongs to. Participants were then asked if they agreed with how everyone had placed their cards and if any of the cards should be moved and why.

Some reflections from the exercise included: the differences in timescale between weather and climate (i.e. weather is daily and weekly atmospheric conditions, while climate refers to longer-term conditions over seasonal, annual, decadal and multi-decadal periods); and how the term 'mitigation' is used in relation to climate (i.e.

in the climate change field mitigation refers specifically to reducing the concentration of greenhouse gases, like carbon dioxide and methane in the atmosphere, which is different to the way risk managers, especially disaster risk managers use the word mitigation to mean an intervention to reduce a risk, any risk).



Above: Group discussions on language and terminology exercise

LEARNING LAB LINK | Windhoek

There is a new tradition that has been started in FRACTAL, which is that the participants of each Learning Lab selects something to send to the next Learning Lab happening in another city / country, call the Learning Lab Link. The **FRACTAL Tier 1 Learning Lab Link** drawing, which was

started by those in the Lusaka Third Learning Lab and added to by those of the Maputo Second Learning Lab, was presented in the Third Windhoek Learning Lab. Ms. Nashilongo Amutenya volunteered to draw the Windhoek message.



Above: FRACTAL Tier 1 Learning Lab Link Painting

In addition to the painting, the FRACTAL team in Maputo also sent some gifts. The raffle tickets competition of gifts from

Maputo took place. The prizes included: African print fabric, cashew nuts, and a bag (see pictures below).



Above: Raffle prize winners

WORKSHOP | CaDD Tool Deep Dive

The **Climate Capacity Diagnosis and Development (CaDD) tool** is a tool that can be used to assess and support organizations' capacity to manage climate change risks and opportunities and integrate climate considerations in their decision-making. It is a tool that has been used in other cities e.g. in Europe. It is based on an online inquiry process that asks a series of questions to assess at what level an organization's capacity is currently at and where strengths and gaps may lie. Identifying these can help to focus capacity development activities in the areas that can have greatest impact. More information on the CaDD tool can be found here:

<https://www.weadapt.org/knowledge-base/adaptation-decision-making/climate-cadd>

The FRACTAL team first engaged the environmental planning department with this tool to test its usefulness and relevance, especially when it came to enhancing capacity to implement the newly developed city-wide climate strategy, the ICCSAP. The CaDD approach and questions were co-designed with members of this team. It

was recognized by Mr. Olavi Makuti and the team coordinating the development of the city's ICCSAP that a key department for the implementation of the ICCSAP is the water division, mainly because drought and water scarcity are such a primary concern for Windhoek and there are a number of decisions and actions being undertaken or planned in the water department that will have long lifetimes and will be climate sensitive. As such, it was recognized that a high level of climate capacity would be important for this department.

The FRACTAL team therefore ran an initial workshop with representatives from the Department of Water, Infrastructure and Technical Services in August 2018 in which the CaDD online inquiry process was undertaken. The training took place on 16 August 2018 at City of Windhoek and was facilitated by the Stockholm Environment Institute (SEI), partners on the FRACTAL Project. A follow up workshop to discuss the CaDD findings with the department was undertaken on 07 March 2019.

DIALOGUE | Namibia Talanoa Dialogue



Above: Participants that made up the Namibian Talanoa Dialogue

The Cities and Regions Talanoa Dialogues is a series of in-country climate consultations which are designed to kick off a collaborative process involving all levels of government. Under the United Nations international agreement on climate change, the Talanoa Dialogues convene national, regional and local governments to take stock of, shape and strengthen Nationally Determined Contributions (NDCs). The NDCs are what each country has committed to doing to play their part in tackling climate change at a global scale. In Windhoek, the **Namibian Talanoa Dialogue** took place 04

October 2018 at Kubata Conference Centre. Primarily participants were from local government City of Windhoek and mainly members of the Namibian National Climate Change Committee (NCCC): national government, international representation (World Food Programme), Development Bank of Namibia, University of Namibia and National Youth Council. The session was facilitated by Local Governments for Sustainability (ICLEI)-Africa and the [Talanoa Dialogue in Africa](#) findings were shared at the 24th Conference of the Parties in December 2018, Katowice, Poland.

WRITESHOP | FRACTAL Writeshop

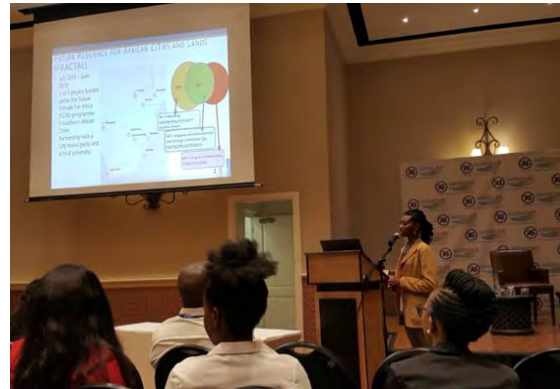
The FRACTAL project convened a **Writeshop** for 20 team members from 19-22 November 2018 in Worcester, South Africa. This writeshop served as a pivotal milestone in the ongoing process of producing key FRACTAL outputs, by giving team members the time to meet, write, discuss and share advice on documenting various research results and processes of co-producing knowledge from the FRACTAL project.

The Windhoek writeshop inputs were:

1. Windhoek-FRACTAL impact study.
2. Harare, Lusaka and Windhoek city exchange visits: Application of the city-to-city learning approach in FRACTAL.
3. Ujams Wastewater Treatment Plant governance research.
4. Content analysis comparative study of Lusaka, Maputo and Windhoek.

ENGAGEMENTS | 19th WaterNet/WARFSA/GWP-SA Symposium, Zambia

The Windhoek team gave an oral presentation of the published paper “ Scott D., lipinge K.N., Mfuno J.K.E., Muchadenyika D., Makuti O.V., Ziervogel G. [The Story of Water in Windhoek: A Narrative Approach to Interpreting a Transdisciplinary Process](#). Water 2018, 10, 1366.” at the 19th WaterNet / WARFSA / GWP-SA Symposium that took place on 31 October 2018 - 02 November 2018 at AVANI Hotel, Livingstone in Zambia.



Above: Miss Kornelia lipinge giving the oral presentation at the Symposium, 02 November 2018

The main learnings from this story are that the lack of decentralization of power and resources serve to exacerbate water crises at the local level and hamper climate adaptation, despite a proactive and innovative local municipality. The paper also shows that the narrative approach provides the thread of the story to simplify a very complex set of arrangements and contradictions.

TRAINING | City of Windhoek Strategic Executive Training on Transformational Leadership on Climate Change



Above: Group picture of the Strategic Executive Transformational Leadership on Climate Change

Training on [Transformational Leadership on Climate Change](#) was held for the **City of**

Windhoek's Strategic Executives (SE) team at Heja Game Lodge on 06 March 2019. A

range of presentations and activities were facilitated by the FRACTAL team on mainstreaming and dedicated approaches to climate change, 'business as usual' vs. 'business unusual' transformative leadership approaches, and exploration of decision-making processes and how these can be structured to include climate considerations.

Two approaches to climate change that cities can adopt are the "Dedicated" and the "Mainstreaming" approach. This is a useful framework for understanding what a city is doing in adapting to climate change. The Dedicated approach has political commitment, resourcing, involves policy development and the creation of new organizational structures targeting climate change adaptation and/or mitigation. It can lead to targeted outcomes and more rapid implementation. The Mainstreaming approach on the other hand, is rather an integration of climate change adaptation or mitigation into existing sectors, within existing budgets and staff components and can become the logic for the Department's activities.

Since mainstreaming is usually promoted

through champions, the SE were motivated to become champions and integrate climate change into their City Departments. The proposed City of Windhoek's Integrated Climate Change Strategy and Action Plan (ICCSAP) is a dedicated policy which being finalized. The ICCSAP will provide a framework for Windhoek's ongoing climate change mainstreaming activities happening across departments.

The Strategic Executives undertook a range of activities to explore how climate change could be mainstreamed into city planning processes and decisions.



Above: Group discussions during the SE TLCC Training

FRACTAL | Last Annual Meeting



Above: In break-out groups, team members discussed the progress FRACTAL has made over the past year

The FRACTAL Project is ending the project 30 June 2019, the team members of FRACTAL met on the 13-15 February 2019 in Cape Town to discuss and reflect on the

programme's work to date, its impact and its future. Nine FRACTAL city partners presented feedback on the diverse impacts FRACTAL's work has achieved in their

respective cities. In Windhoek, FRACTAL played a huge role in the development of the Windhoek Integrated Climate Change Strategy and Action Plan. Thanks to FRACTAL, the Lusaka sanitation plan now details the rehabilitation, upgrading and expansion of climate resilient infrastructure and creates a policy entry point to integrate climate change in city planning more permanently. In Durban, FRACTAL is contributing towards the training of all city planners on the use of climate information and the importance of integrating this into their work.

There were a number of challenges faced by cities in the process. Blantyre is experiencing a slow uptake of climate information, attributed to high staff turnover and lack of continuity in public institutions, and lack of coordination amongst development partners. For the City

of Johannesburg, Prof. Colleen Vogel challenged stakeholders to understand power relations and systemic issues that drive the city's functioning.

The Project heads into its final months of research, the focus will be on publishing final scientific papers and hosting the final city events. It is clear that the network of FRACTAL partners have built up a strong head of steam in the region and that the appetite is there to extend work beyond this initial funding window. Team members brainstormed, and sketched, pathways to maintain the momentum of the network and leverage the previous investment in a strong foundation of collaboration, trust, and relationships. Read more at [FRACTAL Annual Meeting 2019 Report](#) and <http://www.futureclimateafrica.org/news/southern-african-cities-and-climate-scientists-enjoy-fruitful-exchange-at-fractal-meeting/>

Other FRACTAL Cities | Gaborone and Lusaka

Gaborone

FRACTAL has funded a [City Narratives Development Initiative in Gaborone](#), Blantyre and Harare. Narratives are useful tools, which enable specialist knowledge, such as that of climate scientists, to be integrated with contextual knowledge, such as that of decision-makers. Researchers in Blantyre, Gaborone and Harare have developed future narratives for a particular sector in their city for the year 2040. Climate scientists will contribute to these narratives in terms of plausible climate futures.

Lusaka

Lusaka Policy briefs were developed by the FRACTAL research team and the [Lusaka Water Security Initiative](#) (LuWSI). LuWSI is a multi-stakeholder collaboration system between public sector, private sector, civil society and international actors inspired by and working towards the vision of water security for the residents and businesses of Lusaka. LuWSI partners engage in dialogue

and leadership, analysis and knowledge generation, advocacy and awareness raising, planning and project development.

The Policy briefs were presented to a high-level panel in Lusaka at the Lusaka Fourth Learning Lab in December 2018. They included briefs on [Groundwater Pollution](#), [Groundwater Levels](#) and [Flooding](#).

Below are some Groundwater pollution policy recommendations:

1. Improve land use planning by enhancing environmental protection of groundwater resources.
2. Development control practices must be revisited to put mechanisms in place that ensure timely and effective regulation of developments, especially in water catchment areas and for development projects that have the potential to increase or contribute to groundwater pollution.
3. Review solid waste management systems

for the city to adjust approaches and practices to reduce groundwater pollution resulting from indiscriminate solid waste disposal.

4. Intensify education and engagement at the household level on health, hygiene and water quality.

EMBEDDED RESEARCHERS | Bridging science and practice



Above: Kornelia Ipinge (Windhoek ER), Brenda Mwalukanga (Lusaka ER), Anna Taylor (ER Coordinator), Rudo Mamombe (Harare ER), Lulu van Rooyen (Durban ER) and Hécralito Mucavele (Maputo ER)

Embedded researchers (ER) work with city officials, policy-makers and scientists to translate existing knowledge from research into policy and practice and vice versa, and to develop new knowledge around shared urban development and climate change questions. [The bridge between science and practice: embedded researchers share experiences and insights](#) article shares experiences and ten tips to beginner embedded researchers from the FRACTAL embedded researchers team.

Durban

As a self-funded partner city, Durban had the opportunity to apply the ER approach according to their requirements. Durban, being on the forefront of climate adaptation in many aspects already, had a specific burning issue of integrating climate information into biodiversity planning. As the result of the specific research focus of the Durban Research Action Partnership (a partnership between the University of KwaZulu-Natal and the eThekweni Municipality) at that time, a Post-Doctoral

Researcher was embedded into the Environmental Planning and Climate Protection Department at the eThekweni Municipality to develop an understanding of how climate information can inform and support biodiversity planning in the City. The ER was tasked with developing a long-term biodiversity monitoring programme and providing an overview on how integration of climate information into biodiversity planning is being done on a global level.

As usual in these type of endeavors many things did not play out as planned - both in a positive and a negative fashion. One of the unexpected aspects of the work was that the monitoring program ballooned extensively after it was realized that the focus cannot solely be on climate change monitoring, but also on the other more pressing biodiversity threats the city is facing. In order to get stakeholders to buy into such a programme, the ER had to be able to adapt the work plan according to the

needs of the biodiversity planners. The successes in the approach were multifold:

1. Trust and relationships were built and a commitment to the development of the product.
2. Identification of entry points and creating of receptivity for climate change.
3. A realization of the need for better data management in the Department and the creation of a position for a data manager who will also oversee monitoring initiatives.
4. Uptake of output into the South African National Biodiversity Assessment 2018.
5. Many other emergent initiatives as a result of having an ER moving between institutions.
6. Extensive capacity building of the ER, and also learning for Durban Research Action partnership (D'RAP) as a partnership on how to apply better transdisciplinary research and approaches.

Kornelia lipinge (Windhoek Embedded Researcher) attended the Water Sensitive Cities short course at IHE Delft Institute for Water Education, The Netherlands from 02 July - 20 July 2018. Kornelia was funded by the Future Climate for Africa Mobility Fund.

Kornelia also attended the Evidence-informed Policymaking Seminar on Water-Energy-Food-Health, 09-11 December 2018 in Pretoria, South Africa. The seminar brought together policymakers and scientists to develop skills in using evidence to devise policy solutions and inform policymaking. The seminar was delivered by EU Joint Research Centre; African Academy of Sciences; United Kingdom Research and Innovation; International Network for Government Science Advice, and Department of Science and Technology - South Africa. Kornelia shared her Embedded Researcher experience and lessons learned in a blog: <http://www.futureclimateafrica.org/news/windhoek-bridging-the-human-divide-between-city-managers-and-climate-scientists/>.

Windhoek

Interesting Articles

- [Climate science and humanitarian dialogue](#). Unpacking the findings of the Intergovernmental Panel on Climate change (IPCC) 1.5° report and the implications for policy and climate action.
Link: <http://pressclub.ch/climate-science-and-humanitarian-dialogue/?lang=en>
- [What latest assessment on global warming means for southern Africa](#) by Mark New, published in The Conversation AFRICA on 09 October 2018.
- Chitekwe-Biti, B. (2018). Co-producing Windhoek: the contribution of the Shack Dwellers Federation of Namibia. *Environment and Urbanization*, 30(2), 387–406.
<https://doi.org/10.1177/0956247818785784>
- [Namibia municipalities urged incorporate climate change and mitigation strategies](#) insert on NBC News-8.
- [Water supply restrictions prevail in Maputo](#), Government Portal from Mozambique
- [What The Cape Town Drought Taught Us: 4 Focus Areas For Local Governments](#), Assoc. Prof. Gina Ziervogel on behalf of the African Centre for Cities as part of a package of work commissioned by the Cities Support Programme.
- [Adaptation Futures 2018 Insights from Africa](#), the fifth in the global adaptation conference series, was held in Cape Town, South Africa, from 18 to 21 June 2018.
- The [Urban Forum](#) is aimed at creating a permanent platform for multi-stakeholder engagement on issues around urbanisation hosted at Namibia University of Science and

Technology. The first Forum in 2019 was on [Informal settlement upgrading exchange](#).

- Urban Knowledge Exchange Southern Africa: Promoting innovation and good practice in cities, towns and villages <https://www.ukesa.info/> .

EVENTS

12 April 2019 | Junior Council awareness on climate change workshop, Windhoek
21-22 May 2019 | Maputo Fourth Learning Lab, Maputo
03 June 2019 | Academia Dialogue, Windhoek
05 June 2019 | World Environment Day
06-07 June 2019 | Climate change awareness workshop for Local Authorities, Windhoek
11-12 June 2019 | Climate Information Training #2, Windhoek
17-18 June 2019 | Windhoek Last Learning Lab, Windhoek
19-21 June 2019 | Lusaka Urban Caucus, Lusaka
30 June 2019 | FRACTAL Project ends

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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