



Report on the 1st Maputo Learning Lab

Held in Maputo, at the Radisson Blu Hotel & Residence - 06-07 March de 2017

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With contributions of Izidine Pinto; Davison Muchadenyika; Sukaina Bharwani; Monica Coll-Besa; Di Scott; Shaban Mawanda; Pablo Suarez and Richard Jones

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Summary

The first Maputo Learning Lab was held 06-07 March 2017 at the Radisson Blu Hotel & Residence in Maputo. The meeting was attended by approximately 30 representatives from government entities, foreign and international NGOs, scientific entities, civil society, among others. Environmental problems caused by climate change and variability in the municipality were presented and the possible solutions thereof discussed as well as existing projects and programmes. Discussions within and among groups formed in the workshop have identified, in order of priority, (i) Drinking water supply; (ii) Drainage and sanitation; and (iii) Shortage of drinking water (infrastructure, policies, governance and planning) as the most important challenges of the Municipality. Although a Municipality Adaptation Plan and other municipality instruments exist, they need to be updated as the new threats presented were unaccounted for and are now pressing the decision making process. Five major research questions were identified by the participants, being, in order of voting priority the following: (i) "What are the projections for heavy rainfall events and dry spell events over the next 5-10 years and how can we adapt to these changes" (with 11 votes); (ii) "How can the Action plan better incorporate climate change and variability" (with 11 votes); (iii) "What institutional arrangements are key to facilitate smooth coordination among actors?" (with 6 votes); (iv) "How can climate information be translated and communicated to a whole range of actors?" (also with 6 votes); and (v) "What is the link between climate and vector-borne diseases and how might this change over the next 5-10 years, and how can we adapt to these changes?" (also with 6 votes). Reactions from the participants as what FRACTAL can do to help the Municipality to ingest climate change information in decision making process highlighted that, a clear plan of action needs to be designed, starting with a clear definition of geographical limits of the study area, since Maputo water is influenced by the region and neighbouring countries. Participants agreed that FRACTAL can help in framing research questions and conduct case studies around projections for heavy rainfall events and dry spell events over the next 5-10 years in Maputo and how the Municipality can adapt to climate change. It was also agreed that FRACTAL team members can help with hazard mapping; graphic visualizations of climate projections and impact assessment in different sectors in the Municipality. FRACTAL can also support in (i) appropriate mechanisms of communication and dissemination of information, including improving climate change knowledge by decision makers and communities; ii) development of urban resilience mechanisms; iii) Implementation of adaptation plans; and iv) in identifying funding mechanisms and sources for the implementation of the activities.

Day 1: 6 March 2017.

Welcome Remarks by *Teresa Chissequere*, Deputy Director - Municipal Urban Planning and Environment

Opened the workshop first by welcoming all the participants and FRACTAL team.

She highlighted some of the key issues that the country is facing due to the impacts of climate change. She mentioned that vulnerability of various communities and infrastructure along the Mozambican coast is high due to changes in the frequency and magnitude of floods, cyclones and droughts. And these changes are contributing to a gradual change of rainfall onset and cessation affecting the agriculture sector. Maputo also faces several environmental problems related to climate change. As a result the municipality has been implementing several mitigation/adaptation plans such as protecting the Costa do Sol mangrove, rehabilitation of the coastal protection, improvement of some informal settlements (e.g. Chamanculo and George Dimitrov), rehabilitation of roads, drainage systems and sanitation.

She concluded saying that the results of FRACTAL project will assist decision makers from the government and Maputo in particular in making the city more resilient to climate change.

Introduction to FRACTAL in Maputo by Genito Maure

Genito Maure gave an introduction to FRACTAL and the project objectives. He also raised the issue of FRACTAL starting late (compared to other cities) in Maputo due to issues of the language barrier. Pointed out the importance of cooperation between government institutions and the importance of making informed decisions. He also touched on the current issue that the city is facing which is the lack of drinking water. He also gave a brief introduction of the “third space”.

Introduction to FRACTAL by Dianne Scott

The presentation highlighted the reality of climate change in cities and lives as affirmed by existing evidence. Further attention was given to trends in intergovernmental developments in trying to address climate change through protocols and climate change assessments. To that effect most governments have signed and ratified climate change related protocols. The IPCC assessments remain a vital aspect in knowledge generation on climate change. The presentation emphasised the fact that many African countries are beginning to develop policies to deal with climate change. African cities including Maputo are bearing the brunt of climate change.

FRACTAL is funded by DFID and NERC as part of the FCFA programme. The programme supports 5 large projects in East, central and southern Africa. From these, only FRACTAL engages with climate change in cities. Maputo is among the 3 tier 1 cities in the project. The FRACTAL project is led by CSAG at UCT and implemented in collaboration with many partners. FRACTAL aims to advance scientific knowledge about regional climate responses to anthropogenic forcings, enhance the integration of this knowledge into decision making at the

codependent city-region scale, and thus enable resilient development pathways. The Learning Lab (LL) applied participatory methods to co-explore “burning issues” with city decision-makers and climate scientists that require further research through FRACTAL. Thus the LL is a collaborative platform to identify issues and information needs within the city.

FRACTAL objectives and deliverables were presented as follows:

- Creating a community of practice which better understands climate change and informs decision making in the city,
- Produce new knowledge on climate change,
- Deliver climate knowledge to city partners,
- Design learning processes through learning labs.

Presentation by Raul Chilaúle, Head of Environmental Department of Maputo Municipal Council (MMC)

[\(Presentation\)](#)

Gave a brief introduction of Maputo and the problems the city faces due to climate change. Highlighted the main risks as flood/coastal erosion from tropical cyclone/sea-level rise.

Why Maputo is implementing the CC adaptation plan?

Maputo is facing the Indian Ocean, and it is a pathway of cyclones, which makes the city of Maputo vulnerable to climate change: flash floods, coastal erosion, sea level rise.

Urban and environmental issues:

70% of population live in informal settlements, very dense and unregulated, built on unplanned areas prone to floods, soil erosion, lack of infrastructure services, such as water sanitation drainage, etc.

Described an agreement with UN-HABITAT for climate change impacts plan.

Presented the climate change adaptation plan for Maputo (PROMAPUTO project 2006-2016) , which allowed the municipality of Maputo to develop the following studies: environmental education plan, environmental pollution plan, ecological zoning plan, climate change adaptation plan, rehabilitation and coastal protection study.

Described city master plan for Maputo Municipality (MM) – legal and strategic framework for city expansion, densification/zoning, etc.

Described municipal strategy and action plan for integrated intervention at informal settlements. Noted demolition of houses illegally built on mangrove swamps to protect natural water flows and sea-food production.

During discussion some issues were raised

- There is a need to update the population census for the city

- Many people are living outside the city and just come to the city to work – this is always observed in the mornings and afternoons due to traffic congestion. But a proper study should be undertaken to understand the population influx to the city.
- With regard to the various plans designed to respond to climate change, it is necessary that they be implemented in practice, not remain in the drawer, since much money has been invested in these plans.
- One of the major problems raised was the question of the fortification of Resettlement Action Plans (RAPs), since the population living in vulnerable and flood-prone areas, return to the same risk areas after the floods subside..

Group Presentations on ‘burning issues’ (problems, drivers, impacts and interventions)

In order to identify the major burning issues in the Municipality of Maputo, the participants were split into three groups. Each group was composed of participants from academia, decision-makers, research institutions and civil society. Each of the group had to identify a burning issue, the drivers and impacts of this issue and the Interventions that have taken place. Afterwards, the groups presented back to all their discussions, which was followed by a voting process by all on each of the burning issues.



The above image shows the three groups discussing ‘burning issues’.

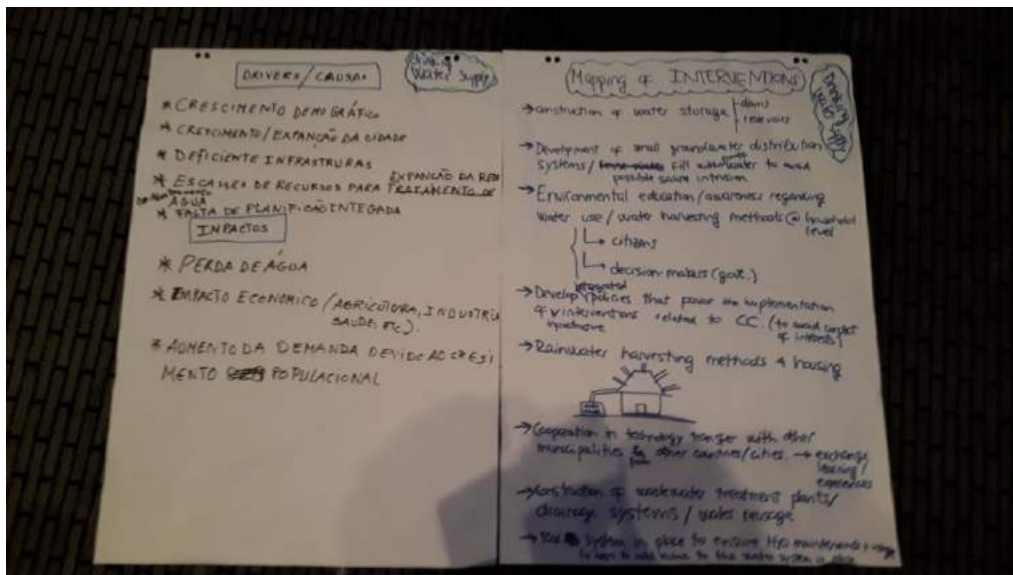
Group 1

The first group identified the main problem as **drinking water supply**. The mapping of interventions listed and that could be foreseen included issues such as construction of water storage facilities, development of small ground water distribution systems, environmental education / awareness programmes regarding water use, development of integrated policies that

favour implementation of climate change related interventions, rainwater harvesting methods for housing, cooperation in knowledge transfer with other municipalities in other countries, and construction of wastewater treatment plants / drainage systems / water re-useage.



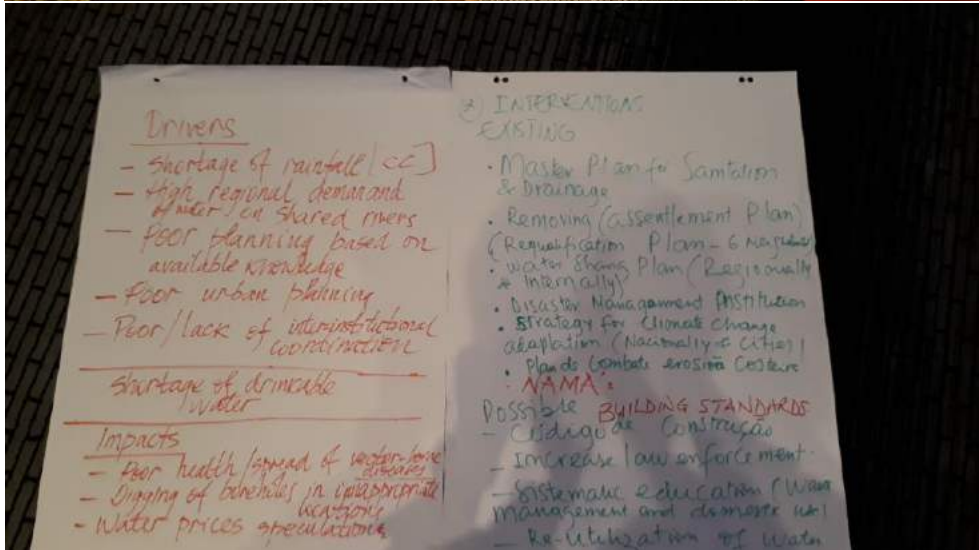
One of the groups presents to the workshop the discussions held on 'burning issues'



The chart above shows the Drivers and Impacts of the shortage of water from an infrastructure perspective. On the right, the chart shows the Current Responses to this 'issue' and the Potential Responses that could be possible.

Group 2

Group 2 identified the **shortage of potable water** as the main problem. The drivers were identified as shortage of rainfall, high regional water demand Vs available water, and lack of planning & institutional coordination in the city's development. The impacts were presented as limited water supply, borehole water price speculation because of the increased demand, spread of vector borne diseases, and borehole drilling in inappropriate locations. Proposed interventions are integrated development planning i.e. the planning of new settlements should incorporate water, sanitation and energy provision. Hence, the issue here is the policy problems related to this issue. The photo below shows Group 2 presenting their discussion to the workshop



The chart provided by group 2 shows the Drivers and Impacts on the left and the Existing and Possible Responses on the right.

Group 3

The third group identified **drainage and sanitation** as the main problem. Existing interventions include Master plan for drainage, removing (resettlement plan), re-qualification plan (6 neighbourhoods), water sharing plan (regionally), Disaster Management Institution, strategy for Climate Change adaptation (nationally of cities) and Plan de Combate coastal erosion. Possible interventions include improving the Building standards, increasing law enforcement, bringing in systematic education (waste management and domestic use) and the reutilisation of water.

NB. Those 70% of people in Maputo Municipality living in the informal settlements do not rely on reticulated water. They buy water from water vendors. However, much noise about the water crisis is coming from the formally planned areas which are facing a crisis (30%). Those in unplanned areas are 'more resilient' because they have been living without reticulated water for years.



	CAUSAS	IMPACTOS	INTERVENÇÕES
• DRENAGEM	<ul style="list-style-type: none"> • TOPOGRAFIA DA CIDADE; • INADQUÂNCIA DE INFRAESTRUTURAS DE DRENAGEM; • FALTA DE MANUTENÇÃO PERÍODICA (DIFICIL MANUTENÇÃO); 	<ul style="list-style-type: none"> • INUNDAÇÕES FREQUENTES; • DESTRUIÇÃO PARCIAL/ TOTAL DE INFRAESTRUTURAS; • GASTOS ELEVADOS DE REPARAÇÃO E/OU RECONSTRUÇÃO DE INFRAESTRUTURAS; • DOENÇAS DE ORIGEM HÍDRICA E/OU TRANSMISSIDAS POR VETORES; 	<ul style="list-style-type: none"> • AUMENTO DE INTERVENÇÃO NA MANUTENÇÃO DE INFRAESTRUTURAS (EN CURSO); • PROMOÇÃO DE PROGRAMAS DE EDUCAÇÃO PARA SANEAMENTO, HIGIENE E SAÚDE (EN CURSO);
• R. SÓLIDOS	<ul style="list-style-type: none"> • FALTA DE GESTÃO INDIVIDUAL DE R. SÓLIDOS; • FRACA COMUNICAÇÃO E SENSIBILIZAÇÃO DOS MUNICÍPIOS; 	<ul style="list-style-type: none"> • PRODUÇÃO DE GRANDES QUANTIDADES DE R. SÓLIDOS; • INCAPACIDADE PARA A PROMOÇÃO DE R. SÓLIDOS PELO CMM (RECOLHA, TRATAMENTO E DESTINO FINAL); 	
A. SANEAMENTO			

The photo above shows Group 3 presenting their discussion to the group. The chart above shows the Drivers and Impacts of this issue and the Interventions that have taken place.

Three problems or burning issues were identified by the 3 groups as

1. Drainage and sanitation,
2. Drinking water supply, (Infrastructure)
3. Shortage of potable water (policies, governance and planning).

Priorities after the voting outcome

After the discussion of the 3 'burning issues' the participants have voted the following issues as the highest priority issues Maputo is currently facing

1. Drinking water supply (focus on infrastructure)
2. Drainage and sanitation
3. Potable water (focus on policy issues).

Reactions from participants to FRACTAL in Maputo

This session was an attempt to collect the perceptions of the participants on what FRACTAL can do to Maputo

- What can FRACTAL offer which is new? The response was that the modality of discussion of climate change issues is novel,
- The exercises allowed one 'to begin to learn to think about climate change issues in the city',
- What can we do as FRACTAL to deal with the realities of long term climate change issues and politics such as re-election of mayors? FRACTAL will not delve into anything political.
- Plan our concrete steps,

- Start with the Climate Change Action plan in the city and address climate information next,
- At the end of day 1 it was noted that issues discussed in day 1 were not new and that there exist plans to tackle them (eg. PROMAPUTO 2006-2016 project). What the city needs is to implement them as most just “sit in desks drawers”. The question is thus: “How do we make people to do things?”

Group drama on what a successful/unsuccessful FRACTAL would look like:

Participants were broken into groups and tasked with acting out what a successful/unsuccessful FRACTAL project would look like. Key points that resulted from the exercise:

- Failure of FRACTAL would look like everyone arriving each year and then going back to their offices and not doing any more interaction until the next year.
- Success would look like something actually changing and a change of frame of mind of how we work together in a transdisciplinary setting



The photo above illustrates one of the groups acting out a possible outcome of Fractal, causing much laughter.

Key things participants wanted to see from Day 2:

- Talk concretely about plan of action of what can be completed.
- Defining where the borders of the study are in terms of geographical area
- Define an implementation plan

Day 2: 7 March 2017

Presentation by Eduardo Mondlane University

Antonio Queface, a researcher at the Eduardo Mondlane University and a consultant for the Municipality Adaptation Plan gave an overview of the Municipal Adaptation Plan (2016-2018) and the methodology (participatory) used to identify the climate vulnerability and drivers in the municipality. Within the Maputo municipality the climate risks identified were: Heavy rainfall, floods, erosion, high temperatures and intense winds.

This project identified four themes:

1. Communication and dissemination of information – this includes improving climate change knowledge
2. Development of urban resilience mechanisms
3. Implementation of adaptation plans
4. Financing

It is important to note that drinking water supply did not come up in the Adaptation Plan and water supply was not perceived as a problem when the Adaptation Plan was developed.

Group Presentations

As a continuation of day-1's group work to identify 'burning issues', gaps in climate and non-climate knowledge and information needs linked to the priority burning issue were discussed and presented.

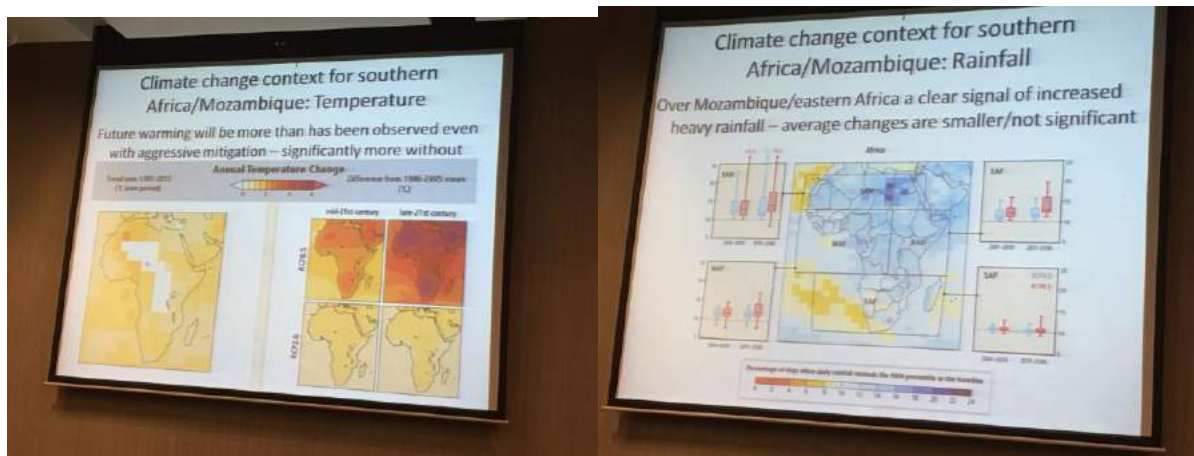
From the group presentations to the workshop, the following aspects were identified and highlighted:

- There is need to use existing climate information to manage the risk of inundation and managing water in the city,
- FRACTAL to produce data on precipitation trends i.e. past, present and the future,
- Information gap between municipality and communities as some municipal decisions are not grounded with the reality facing communities (FRACTAL therefore needs to build capacity on both decision makers and community on climate sensitive decision making),
- On water issues, all stakeholders should be included as water is a function of a government public entity and not CMM (municipality),
- There is need to think beyond Maputo metropolitan area to include peri-urban areas and the whole metropolitan region,
- FRACTAL can influence the CMM to take the water seriously through providing information on the socio-economic impacts of no-action now on the water issues,
- Research to understand and improve decision making needs to be conducted since there are many stakeholders with an impact on what happens at the CMM,
- Provide climate information so that CMM will better plan water and make decisions in advance before a disaster happens,
- Information should be relayed to all stakeholders,

- Research to assess the real needs of water in the municipality to compare with water supply.

Presentation on Climate Hazards (and impacts) in Maputo and Mozambique by Richard Jones

Dr Richard Jones, from the UK Met Office gave a presentation on the current data and knowledge on past and future climate of Maputo, followed by a session of questions and answers. The images below show extracts of the [presentation by Richard Jones](#).



Photos: Sukaina Bharwani

As concluding remarks for this part of the presentation, Richard Jones stated that climate we might experience in Mozambique can be summarised as follows:

- A warmer future with more variable summer rainfall, i.e., summer rainfall with greater maxima/minima with no long-term average change
- Annual temperature increases may reach ~1 degree above present by the 2040s - the upper range of future projections
- Annual rainfall with lower minima and maxima but many years will be similar to present day

Group Work and presentations

Groups led by researchers and city officials were formed to discuss the prioritization of needs, identification of information beneficiaries; Information formats, and how to bring together and integrate different sources and types of knowledge into decision-making with respect to priority 'burning issue'. The following set of questions were asked:

1. Who needs information on these hazards? (led by researchers)
2. How would you use information on these hazards? (Researchers and city officials splitted and then discussed).
3. What information is needed? (Led by city officials).

As responses to the questions posed, the following came up:

- With respect to who needs information on hazards, the group led by researchers indicated that every institution needs such information be it local authorities, fire brigade, Disaster Management Institute etc. However, the way this information is going to be relayed depends on the target people. Information on sea level rise should be more detailed. It is vital to tailor-make the methods and form of communicating climate information.
- On how one would you use information on these hazards, researchers and city officials share the idea that Climate information is vital in city and infrastructure planning and specifically for development and infrastructure plans for water and sanitation. It would also be useful to use it to update flood maps. The information needs to be in the format which can be used in plans.
- For “What information is needed?” question, the group led by city officials indicated that Information on climate variability – rainfall (onset, changing distribution patterns), temperature, sea level rise, and wind on 5, 10, 15 and 20 year periods. These timeframes are based on 5 year municipal planning cycles.

Dr Richard Jones resumed the second part of the presentation with the topic *Lessons learned on Climate information in Mozambique between 2000 and 2007 from the Disaster Management Programme that was developed after the 2000 floods* (cf. Richard slides). The following were indicated and the lessons learned:

- Reduction in deaths,
- One coordination structure in the case of disasters established and strengthened,
- The development of one contingency plan in 2006 (before that there were many),
- Planning for future hazards is based on previous cyclones,
- Some modelling taking place,
- Useful example to show how generating a single structure covering all government functions significantly improved the response to tropical cyclone warnings

Presentation on Fractal Work Packages

A short presentation of what Fractal could actually provide was provided in order to enable the participants to understand the role of Fractal. ([See slides](#))

Comments from the floor

The most important stakeholder in FRACTAL is CMM and it is important to see where environment and climate change issues sit in the CMM. CMM representative argued that what has been happening recently is that the mayor and his team has placed high priority on climate change issues as a result of the current impact of having no potable water from the Lebombo Dam. To that end, CMM has a division taking care of environmental and climate change aspects. Every Tuesday, there is Technical Council Disaster Management meetings at CMM. It was stated by the Deputy Director for Environment and Urban Planning of the Maputo Municipality that it was once a commission but was disbanded to form a committee.



Main themes emerging from discussions

Fractal researchers identified the main themes that had emerged from the discussions held, namely

1. Use of climate information in the city, development and infrastructure decision making,
2. Communication and institutional coordination among actors,
3. Climate variability of current and near term water supply (including heavy rainfall events leading to flooding and inundation),
4. Modelling hydrological changes including water capture.

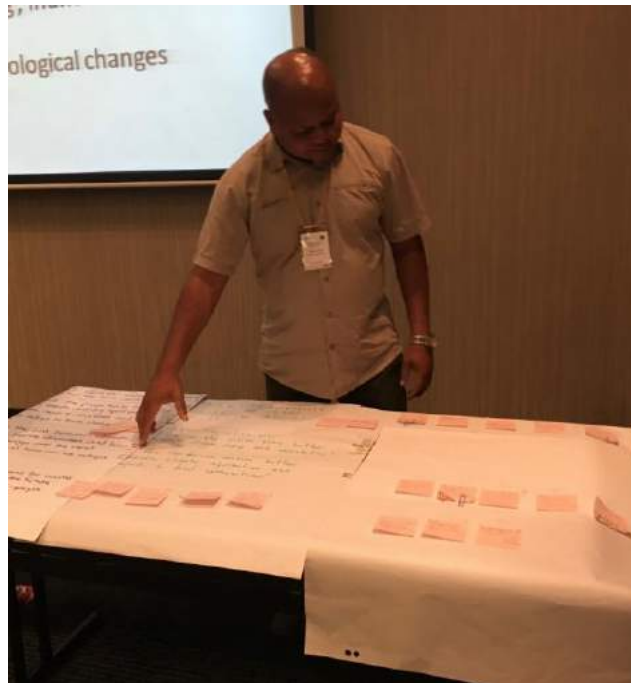
The '[Vote with your feet](#)' methodology was then used to prioritise research themes identified. These themes were written on flipchart paper for the process of identification of research questions.

Questions emerging from main themes

During the process of identification of research questions, each participant was requested to develop 3 questions and write them on post-its given earlier by the facilitators, one question per post-it. Afterwards each participant had to discuss the questions identified with a participant from a different sector and explain the reasons why those questions identified were relevant. Afterwards each participant was requested to stick each question (post-it) on the corresponding theme on the theme's flipchart. After that everyone was given an opportunity to check all the questions from the 3 burning issues and asked to cast a vote. Afterwards, participants' research questions were clustered according to similarity and the results showed five major questions, as follows:

1. How can the Action plan better incorporate climate change and variability? (11 votes).

2. What are the projections for heavy rainfall events and dry spell events over the next 5-10 years and how can we adapt to these changes? (11 votes).
3. What institutional arrangements are key to facilitate smooth coordination among actors? (6 votes).
4. How can climate information be translated and communicated to a whole range of actors? (6 votes).
5. What is the link between climate and vector-borne diseases and how might this change over the next 5-10 years, and how can we adapt to these changes? (6 votes).



Participant deciding where to place his questions on an identified theme. (Photo: Sukaina Bharwani)

Action plan

It was consensus that an action plan needs to be drafted to address the all research questions. It can be driven by the five research questions identified above. It was also agreed among participants that FRACTAL, as a team, has a huge opportunity to incorporate climate information in the decision making processes through

- Undertaking a case study on dry spell and heavy rainfall in Maputo
- Hazard mapping
- Producing graphical visualizations of climate projections for the Municipality
- Conducting impact assessment in different sectors within the Municipality

For that purpose, preliminary sources of data have been identified as CORDEX and Satellite data.

Reflection from the Learning Lab participants

General feedback

The following present the reactions of the participants to the first Learning Lab held in Maputo:

- I like the methodology used and the learning and the topics that were raised.
- I didn't like the timing of the starting (because we started late)
- I would like to see a report of the lab.
- I didn't like that we started late
- I liked the methodology and the dynamics
- I wanted everything in portuguese, we started in portuguese and ended up in english
- I didn't like that it was organised in the city, it would be best to be organised outside.
- The workshop was good - I would like that in the future it includes adaptation actions for climate change impacts.
- The facilitators of this workshop were good, the location was very good, the food was very tasty and good, only improve the starting time.
- The participants didn't arrive on time in the first day.
- I liked the organisation, discussion, and the methodology.
- I didn't like the short time to discuss the topics, too much of good food.
- I would like to change the duration of the days of the seminar, to be extended.
- I liked the methodology of the work and the use of the time.
- Everything was good.
- It would have been good to work more in depth re the topics that were identified.
- I liked the food, facilitation, location, participants enthusiasm.
- The social event should be more social
- I liked the methodology and the topics were covered by the workshop
- I didn't like the duration of the workshop, it should be extended to 3-4 days and be outside the city.
- I wish I could change the focus of the workshop, because this one was on water, while I would go for heavy rainfall and strong winds instead.
- I liked very much the way the lab was organised and the interactivity of the workshop, it was my first time that I participated in an event like this.
- It was inspiring and rich and didn't make you feel tired. In other workshops you just come and listen to presentations.
- Everything was good.
- I liked the interactivity, how the topics were brought up - the discussion was inclusive.
- I didn't like that there was no translation of the language. I would like to see translation of all the ppts of the event in the future.
- I liked the dynamics of the group, because I didn't see anyone sleeping.
- I would like to see participation of decision-makers for the next/future events/engagements.
- I would like these same people to follow up the next labs/dialogues, and not change the people for following workshops and look for mechanisms to make sure that these people

are the ones who are coming, because there are a lot of politics in the institutions. E.g. MoU saying that person x in this project will be the focal point for this project and this institution....

- The location should be out of the city - if duration to be extended.

Facilitator notes on the process

According to Pablo Suarez, the main facilitator, this 2-day workshop combined a few conventional presentations with substantial time dedicated to intensely interactive learning and dialogue, building on the experience of FRACTAL partners (see [ref1](#), [ref2](#))

Activities included:

- [Answer with your feet](#) (to understand who we are, collectively)
- [Snap!](#) (to understand what we think about Maputo & Climate)
- “No! - Yes, but... - Yes, *and*...” (to quickly elicit key problems and possible solutions)
- Innovative approaches to self-organized groups for rapid yet deep identification and exploration of key issues
- Self organised drama sessions assisted participants to exhibit/ simulate possible success and failure of the research and this provided for better learning and linking to action planning.
- The Zip-Zap game also used (1-7) to increase understanding of participants on how a catastrophe would prevail and this led to a reflection with clear understanding on how climate information would be key to strengthening city preparedness.

Annex 1: Maputo Learning Lab -1 Programme

Time	Session	Facilitator
DAY 1		
Morning: formal inception meeting		
09:00-09:30	Welcome	<i>S.Excia Presidente da CMCM</i>
09:30-10:00	Intro to FRACTAL in Maputo	Genito
10:00-10:45	FRACTAL aims, objectives etc.	Di
10:45-11:15	Tea and group photo	N/A
11:15-11:45	City government presentation on climate-related challenges and opportunities	<i>Councillor - Environment and Urban Planning</i>
11:45-12:00	Overview of learning lab approach	Pablo
12:00-13:00	Lunch	N/A
Afternoon: unpack and prioritise burning issues		
13:00-14:00	Volunteer-hosted groups on unpacking specific burning issues - drivers, impacts, existing and prospective interventions	Pablo and Shaban + facilitators (Anna S, Di, Izidine, Monica, Richard)
14:00-14:30	Groups present back	
14:30-15:00	Tea	
15:00-16:00	Distill burning issues	Pablo and Shaban
16:00-16:30	Voting for burning issues to tackle through next phase FRACTAL collaborations and engagements	
16:30-17:00	Overview of Day 2 and closing	
Evening: social event		

DAY 2		
Morning: climate session		
09:00-10:00	Presentation of current data and knowledge on Maputo climate (past and future) plus Q&A	Richard Jones/Izidine
10:00-10:30	Group-work to identify climate knowledge gaps and information needs linked to the #1 burning issue	Pablo and Shaban+ facilitators (Anna S, Di, Izidine, Monica, Richard)
10:30-11:00	Tea	
11:00-11:30	Continue group-work to identify other (non-climate) knowledge gaps and information needs linked to the #1 burning issue	Pablo and Shaban+ facilitators (Anna S, Di, Izidine, Monica, Richard)
11:30-12:00	Groups presenting back on climate and non-climate knowledge gaps and information needs	
12:00-13:00	Discussion on prioritizing needs, identifying where / by whom that knowledge / info is needed and in what format, and how to bring together and integrate disparate sources and types of knowledge into decision-making	Pablo and Shaban
13:00-14:00	Lunch	
Afternoon: planning and next steps		
14:00-14:45	What would participants like to see happening next and over the coming 3 years of FRACTAL collaboration?	All
14:45-15:15	What can participants offer to the process?	All
15:15-15:30	Tea	
15:30-16:00	Prioritizing next steps linked to timeframes and identifying organizations and individuals responsible for driving them	Pablo and Shaban
16:00-16:30	Reflection, evaluation and thanks	Pablo and Shaban

Annex 2: Attendance lists for the Maputo learning lab

Day 01: 06 March 2017



Nome	Instituição	Email	Telefone	Assinatura
1 Davison Muchadenyika	African Centre for Cities	muchadenyikad@gmail.com	+27726071700	<i>[Signature]</i>
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Annex 3: Attendants of initial moments of the the Maputo learning lab



Attendants of the initial moments of day-01 of First maputo Learning Lab