First Maputo City Dialogue

Water in a changing climate in Maputo City: Challenges, Scenarios and Visions

Municipality of Maputo
23rd February 2018

Prepared by
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With contributions from Izidine Pinto & Dianne Scott

ACRONYMS

ADB	African Development Bank
AdeM	Water of the Region of Maputo
AFORAMO	Mozambique Association of Water Suppliers
AFUR	African Forum for Utilities Regulators
AIAS	Administration of Infrastructure for Water Supply and Sanitation
ARA Sul	Regional Administration of Waters in the South
CBO	Community Based Organizations
CEFPAS	Professional Training Center
CMM	Maputo Municipal Council
CRA	Council for the Regulation of Water Supply
DFID	Department for International Development
DNAAS	National Directorate of Water and Sanitation
DNGRH	National Directorate of Water Resources Management
EDM	Mozambique Electricity
EU	European Union
FCFA	Future Climate For Africa
FIPAG	Water Supply Investment and Asset Fund
FRACTAL	Future Resilience for African CiTies And Lands
Hidroex	International Center for
INAM	National Institute of Meteorology
INDE	National Institute of Education Development
IWEGA	International Center for Water Economics and Governance in Africa
IPCC	Intergovernmental Panel on Climate Change
KFW	Development-Bank
LL	Learning Lab
LNHAA	National Laboratory for Hygiene, Water and Food

MOPHRH	Ministry of Public Works Housing and Water Resources
NERC	Natural Environment Research Council
SOG	FRACTAL Small Opportunity Grants
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	The United Nations International Children's Emergency Fund
VITENS	Let water for You soften - Laat water voor Je verweken

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1. WELCOME REMARKS | *Maputo City Council, Luis Nhaca*

The session of the city dialogue was opened first by the welcome to the participants and thanks for their participate in the event. Luis Nhaca raised some of the problems that Maputo has been experiencing in the wake of climate change and urban growth, and noted that these problems are also due to the fact that Maputo is located in the coastal zone and that the effects of climate change affect informal settlements.

He stressed the important collaboration that the Maputo Municipal Council has with the Eduardo Mondlane University in the elaboration of the Plan to adapt to the effects of climate change, in order to be able to respond to the above mentioned problems.

He spoke about FRACTAL, collaborating with the Municipal Council, Eduardo Mondlane University and University of Cape Town (UCT) as being of great importance and happening at a good time, since the two cities of Maputo and Cape Town have been suffering from water scarcity, and that together they can see how to solve this problem.

In conclusion, Luis Nhaca once again thanked everyone for their presence and hoped that the debate would bring possible solutions to the water sector.

2. ICEBREAKER AND INTRODUCTIONS

Izidine Pinto made the introduction to this session explaining the ICEBREAKER to the participants. All participants had to ask their neighbors about: 1) their name, 2) where they work and 3) if they had any problems in the use of water in the past weeks. They were given 5 minutes to talk, and then had to return to the plenary where everyone shared the answers.

Most of the participants reported having serious water problems, to mention a few:

- Restrictions of water, being supplied 3 times a day;
- Water supply from water holes or few and fontenarias;
- Water supply 3 to 4 days per week.

Others did not not have water problems because of boreholes at their houses, while others receive supplies by trucks.

3. INTRODUCTION TO FRACTAL IN MAPUTO (FRACTAL AND THE DIALOGUE: BACKGROUND, OBJECTIVES AND EXPECTATIONS) | *Genito Maure*

Presentation here

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 efforts 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 due to its geographic location at an extensive lowland coastal region within the inter-tropical convergence zone, downstream of regional shared river basins. Over 70% of its population live in informal settlements, prone to floods and soil erosion and lack of adequate infrastructure services (water, sanitation, drainage system & electricity).

Plate 1: Introduction by Dr Genito Maure

FRACTAL is funded by the Department for International Development (DFID) and Natural Environment Research Council (NERC) as part of the Future Climate For Africa (FCFA) programme. The programme supports five large projects in east, central and southern Africa. From these, only FRACTAL engages with climate change in cities. The FRACTAL project is led by Climate System Analysis Group (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) approach that has been applied uses participatory methods to co-explore "burning issues" with city decision-makers and climate scientists, which require further research through FRACTAL. Thus the LL is a collaborative platform to identify issues and information needs within the city. In order of priority the burning issues

identified are: i) drinking water supply; ii) drainage and sanitation; and iii) shortage of drinking water (infrastructure, policies, governance and planning). The way forward of the collaboration was deliberated and an action plan for FRACTAL to work with the city partners in addressing the issues was charted, see details in the Learning Lab Report.

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

4. UNDERSTANDING THE WATER SECTOR AND ITS CHALLENGES

The governance of water in Maputo is variously complex with different institutions responsible for the components of water governance. Genito introduced the session, and invited each representative of the institutions to present their slides. Each representative had five minutes to present three slides. However, given the nature of each company, many presentations ran overtime.

Each presenter answered three questions during their presentations:
1) What is the key mandate of your institution?
2) Who are the most important partners that you work (or should) work with and why?
3) What are the three main challenges that your institution faces with regard to water?

Plate 2: Presentation by representative of a water institution

The following presentations (find link here) were given:

1. Water of the Maputo Region (AdeM), by Ricardo Angelo.
2. Administration of Water and Sanitation Infrastructures (AIAS), by Narcia Tinga
3. Regional Water Administration (ARA-Sul), by Lizete Dias
4. Water Regulation Board (CRA), by Emilio Muchanga
5. Water Research Institute (IIA), by Sergio Machava.

4.1 Mandate of each institution

AdeM: To contribute to the improvement of the quality of life of the population of the area served, through the supply of drinking water in a sustainable way. To be recognized as a reference entity in the potable water distribution sector, by continuously improving customer satisfaction.

AIAS:

- Improve access to drinking water in 130 villages;
- Ensure adequate sanitation conditions in 151 towns and cities;
- Promote investment to improve water supply and sanitation;
- Improve the management of water supply and sanitation through the delegated management of services by autonomous entities or private operators in order to ensure:
    - Sustainability
    - Reliability
    - Good quality of services

ARA-Sul: Ensure the management of water resources taking into account the principle of environmental sustainability and the satisfaction of users' needs, promoting the development of a monitoring network and adequate infrastructure in the river basins within their jurisdiction.

CRA: Regulate the public water supply and sanitation service, balancing the interests and promoting a reliable, transparent, efficient and fair service for all!

IIA: Promote and coordinate research activities in the water sector with a view to improving the strategic articulation of the country's economic development agenda, taking into account the role of water as a vital resource for its materialization.

4.2 Main partners of each institution

AdeM To implement their activities, the AdeM has the following cooperation partners:

- CRA - Water Supply Regulatory Council
- FIPAG - Investment Fund and Water Supply Heritage
- MOPHRH - Ministry of Public Works Housing and Water Resources
- CMM - Maputo Municipality Council
- ARA-Sul - Regional Water Administration
- VITENS - Let water for You soften - Laat water voor Je verweken

AIAS To implement their activities, the AIAS has the following cooperation partners:

International partners

- World Bank
- KFW - Development-Bank
- Embassy of Netherlands
- UNICEF and EU - United Nations Children's Fund and European Union
- BAD - African Development Bank
- Among others.

National partners

- DNAAS - National Directorate of Water Supply and Sanitation
- FIPAG - Investment Fund and Water Supply Heritage
- CRA - Water Supply Regulatory Council
- ARA-Sul - Regional Water Administration
- Provincial Directorates

ARA-Sul To implement their activities, the ARA-Sul has the following cooperation partners:

- DNGRH - National Directorate of Water Resources Management
- DNAAS - National Directorate of Water Supply and Sanitation
- CRA - Water Supply Regulatory Council
- FIPAG - Investment Fund and Water Supply Heritage
- AIAS - Water Infrastructure and Sanitation Administration
- INAM - National Institute of Meteorology - Mozambique Meteo Service
- AdeM - Waters of the Maputo Region
- EDM -Mozambique Electricity
- AFORAMO - Mozambique Association of Water Suppliers

CRA To implement their activities, the CRA has the following cooperation partners:

- DNGRH - National Directorate of Water Resources Management
- DNAAS - National Directorate of Water Supply and Sanitation
- FIPAG - Investment Fund and Water Supply Heritage
- AIAS - Water Infrastructure and Sanitation Administration
- AdeM - Waters of the Maputo Region
- ARA-Sul - Regional Water Administration
- AFUR - African Forum for Utilities Regulators
- CBO - Community Based Organizations

IIA To implement their activities, the IIA has the following cooperation partners:

- unesco-United Nations Educational, Scientific and Cultural Organization
- Hidroex - International Center for Capacity-Building and Applied Research in Water
- Unesco PHI - International Hydrological Program
- Argentina Water Institute
- Nepad - New Partnership for Africa's Development

National partners

- DNGRH - National Directorate of Water Resources Management
- DNASS - National Directorate of Water Supply and Sanitation

- IWEGA - International Center for Water Economics and Governance in Africa
- Pedagogic University
- Unesco-Mozambique
- AIAS - Water Infrastructure and Sanitation Administration
- ARA-Sul - Regional Water Administration
- FIPAG - Investment Fund and Water Supply Heritage
- CRA - Water Supply Regulatory Council
- INDE - National Institute of Education Development
- LNHAA - National Laboratory for Hygiene, Water and Food
- CEFPAS - Professional Training Center for Water and Sanitation
- Municipalities of Matola, Maputo and Namaacha

4.3 Challenges of each institution

AdeM To implement their activities, the AdeM has the following challenges:

- ➔ Training in attendance, including the component of time management and leadership
- ➔ Need for market positioning
- ➔ Payments, physical and commercial losses and failure to charge consumers
- ➔ Extensions works of the water supply network

AIAS To implement their activities, the AIAS has the following challenges:

- ➔ Improve the management of the public secondary systems of potable water distribution and drainage of waste waters
- ➔ Improve water conditions sanitation and hygiene in small towns / villages
- ➔ Training of local operators of water supply systems

ARA-Sul To implement their activities, the ARA-Sul has the following challenges:

- ➔ Better management of water resources, to the low levels of precipitation that have occurred in the main hydrographic basins of the southern zone
- ➔ Ways of managing infrastructure to ensure that there is enough water to meet basic needs
- ➔ Recover the storage capacity of the reservoirs
- ➔ Continue to cooperate with the countries with which it shares water resources

CRA To implement their activities, the CRA has the following challenges:

- ➔ Ensure that investment in the water supply and sanitation sector is reflected in the quality of services provided to users
- ➔ Raise the water supply coverage rate, from the current 70, to 90 percent by 2019
- ➔ Placing installation of provincial representations

IIA To implement their activities, the IIA has the following challenges:

- ➔ Water quality monitoring
- ➔ Train profissional interested in learning bases and techniques for the elaboration of plans for the monitoring and evaluation of water quality in hydrographical basins and water systems

➔ Investigate, monitor and propose new and better ways to use water

After the presentations, Genito pointed out that it was a good opportunity for the participants to know better the attributions and challenges that these institutions have, as well as to know what is the role that each one plays in the water sector.

5. A SCENARIO OF WATER IN NEAR TERM FUTURE - WHAT WE THINK IT WILL LOOK LIKE?

This session was devoted to understanding what participants thought Maputo would be like in the near future, in 2040. Participants were divided into three groups, each of which discussed both a positive and negative scenario for the city for 2040. Each group presented their results in plenary.

Group 1: Scenario (Plate 3)

Positive Scenario

1. Increased water availability with the completion of the Kurrumana Dam in 2020 and construction of the Moamba major Dam
2. Access to the existence of improved water infrastructure, reservoirs, dams, etc
3. Community aware of the rational use of water
4. The demand will be high but the dams will cope
5. Education, TV, Radio are very important to educate people. By 2014 many communities will be sensitized

Plate 3: Group 1 discussing the positive and negative scenarios of water in Maputo in 2040

Negative Scenario

1. Lack of institutional coordination
2. Poor control of urban sprawl
3. Lack of hydraulic infrastructures for groundwater retention
4. Lack of inter-institutional articulation

Group 2: Scenario

Positive Scenario

1. Rain water will be used more in the future
2. We assume sources of water will be protected
3. Increased availability of water due to the construction of new dams
4. Education and sensitization of communities in conservative water consumption

Plate 4: Group 2 discussing the positive and negative scenarios of water in Maputo in 2040

Negative Scenario

1. The urban population will be greater than the rural
2. There will be a weak control of urban expansion
3. Legislation will not be enforced – legislation is acceptable but not implemented
4. Education is a problem – people don't know that they need to conserve water
5. Lack of infrastructure to reserve groundwater
6. Increased saline intrusion into the Incomati river due to the high consumption of groundwater
7. Lack of sectoral articulation

Group 3: Scenario (Plate 5)

Positive scenario

1. Increase of number of small operators or water suppliers
2. Reduction of water diseases
3. Private water suppliers will become powerful
4. Small water suppliers (small businesses) will expand in number and become powerful – they source water from wells and there are some dams in the suburbs

Plate 5: Group 3 discussing the positive and negative scenarios of water in Maputo in 2040

Negative Scenario

1. High level of water losses
2. Weak investment in infrastructure maintenance
3. The water situation in Maputo is not OK now so what about in over 20 years?
4. The institutional infrastructure is not adequate
5. There is a lack of capacity
6. With urban expansion the city cannot supply all. The population is nearly 2 million and growing
7. Today 65% of water is used to supply the public sector. 30% is theft and 15% leaks. There will be less water to supply if nothing is done to improve the supply. Water coverage will be down
8. Water losses will increase by 2040
9. The underground water pipes are old – about 60 years – and these is degrading and leaking. Even if we raise the walls of dams to hold more water, the piping of it will not work
10. The dams were built for a certain capacity but we have now exceeded this

11. The quality of water will decline and this will result in health problems which will increase costs in the health sector
12. There will be social instability
13. People will migrate away from the city
14. The economy will decline
15. Legislation exists but there is not compliance – this will continue
16. Sectoral actors will be under great pressure to deliver
17. It was predicted in 2015 that the water would run out – why haven't they done anything about it. Will it be the same in 2040?
18. Studies were done in the past for the Moambe dam but these never came to fruition – same again?

6. ENERGIZER

This session consisted in transmitting a climate message among the participants in order to demonstrate how important it is to have an efficient communication system in place for climate information. The climate message was read by the first person who would then verbally pass it on to the next person. The message was repeated around a line of people, from person to person until it, reached the last participant of the line, who repeated the final message back in plenary.

> "The message was as follows: Climate Prediction (JFM-2018). For the period January, February and March 2018, the INAM predicts a higher probability of occurrence of: normal rains with a trend down from normal for Maputo provincial and extreme south of the provinces of Gaza and Inhambane."

At the end of the line the message communicated by the last person was:

> "INAM predicts rains in Maputo, Gaza and Nampula in January, February, March, April and May."

Genito concluded that the way in which the message is forwarded results from the lack of appropriate communication mechanisms around the different actors, and it is necessary to adopt alternative ways of communicating, from suppliers, distributors, consumers and decision makers in the water sector as well as in other sectors, so that the message is not incorrectly transmitted and that it does not misrepresent the information to the consumer/user.

7. VISIONING THE WATER SECTOR - WHAT IS OUR VISION FOR WATER IN MAUPTO BY 2014?

Participants were invited to work in groups, to create a vision for the water sector in Maputo by 2040, what they *would like* the water sector to be like. Each group wrote down their points or vision, and presented it to the wider group using flipchart paper. The vision of all the groups for the water sector in 2040, was around conditions such as: infrastructure, legislation, satisfying water demand and education.

All groups were unanimous in that the vision should be::

- A city which guarantees access to water for 80% of the people
- There would be a increase of total distribution of water by 30%
- The AdeM and CMM legislation would be implemented to create at least 60% of the drainage system
- The time of distribution would have increased to 12 hours
- Each stakeholder would know their role according to the legislation and fulfil it
- Awareness raising would have been taken place for the efficient use of water
- There would ben investment in the rehabilitation and expansion of infrastructures
- There would be technologies to have improved customer service

8. HOW DO WE GET THERE? OPTIONS FOR ADDRESSING THE CHALLENGES

In this session the *three horizons mapping approach* was used: where Horizon 1 represents the present; Horizon 2 is the transition phase and Horizon 3 is the future or vision. The Plate below shows these three horizons and how the transitional phase will be dominant after the present and finally, after that would be the future.

Plate 6: Genito Maure translating the explanation of the three horizons to the participants

In the previous session the *vision* had been agreed on and this was used as a starting point. Also the *scenarios* for the future had been decided especially a negative scenario which the group predicted for water in the city participants added the issues faced by the city now (the challenges) (see picture a) below). They were also asked to see what exists now that will be an important 'seed' to

take forward to the future (see the orange sticker in picture c) below). Three horizons presentation here.

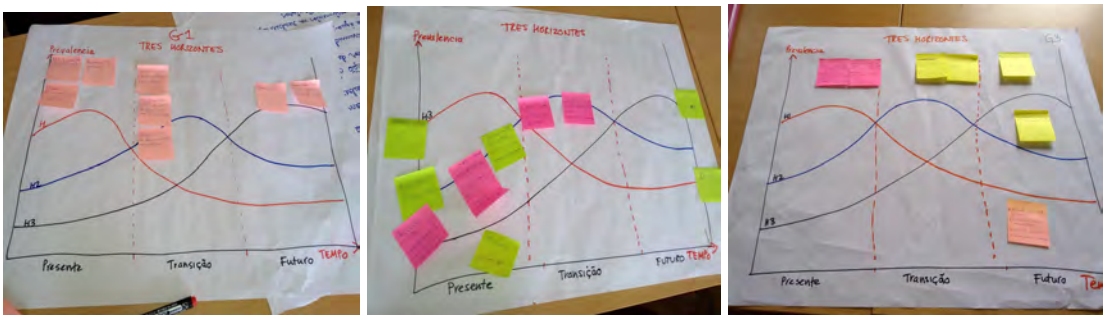


Plate 7: Example of how a group had used stickers to add comments to the present, the transition phase and the future. Plate 7 a) the present (pink stickers); b) the transitional phase (green and bright pink stickers); and c) the future (yellow stickers).

The participants of the three groups identified the following *actions* that should take place in the transitional phase:

- Education of people to save and conserve water – the private company has education programmes. We need to change consumers' mindsets.
- There should be an urban development plan.
- Tariffs should be higher x 5. Consumers should pay tariffs based on their use of water, e.g. 5 cubic metres is the minimal amount and could be a 'social tariff'. Users using 6-10 cubic meters of water would be charged a higher tariff. Tariffs can influence water use behaviour.
- More investment in infrastructure.
- Hydraulic research necessary.
- Reduction of use of water – there is corruption whereby people 'fudge' their water use so as to pay less.
- There is a need for 'smart registers' – companies use those. Smart technology should be used to shut down users if they overuse. Even 'smart taps' are possible – used in Italy – you have to put your hand on the tap so nobody can steal your water.
- There needs to be institutional coordination.

These actions in the transition phase were identified – elements that would allow the sector to transition from its current form (business-as-usual) to that of the ideal 2040 scenario. This process also allowed for identification of "seeds" of the current situation that may act as catalysts for undertaking the transition to an ideal future scenario.

9. REFLECTIONS

After all the presentations, participants were invited to give their reflections about the event in its general composition. The reactions were as follows:

1. Liked the food and the participation.
2. This is my first time – it was positive to meet the water sector. We shouldn't wait for next meeting we should start now having institutional

engagement – otherwise it will be time consuming to get together again and there will be a loss of momentum.

3. Happy to know that there are institutions interested in water, not only water provision but also conserving water for the future too. Other cities are also co-operating in the programme. Positive to interact with other institutions. Time was short for all the exercises. Nice if they could keep up the contact and momentum. Shouldn't be limited to the municipality but share with stakeholders in other settings. Rational use of water – what do we mean by this? It isn't taken seriously enough. We should know how to use water – therefore it is important to receive education.
4. Very good to take part. Positive aspect, brought together researchers and decision-makers – we should put into practice what we discuss, and not only have it limited to such meetings. Often no continuity and not implemented. I have learnt a lot and if we could visit each other more often it would be good. There are many challenges, when its rainy there are floods and then when it is dry we have droughts.
5. [Representative from private company]. Wants to thank us for the seminar, he hopes the initiative will not stop. His company will continue to distribute water according to expectations. He was expecting to hear results which would have helped his company.
6. Very interesting – he hopes this project continues. Activities were productive. This could help to get all stakeholders to come together. He wants to thank the municipality for invitation. He notices that Matola was not represented. He will carry the good messages to his office.
7. [Representative from research institution]. Thanks for the opportunity of sharing experiences from the presentations. Institutional coordination like this is important and his institution is linked to research. They would like to be invited to any project to interact with other stakeholders. He congratulates the project.
8. Congratulations to the team. Looking forward to this continuing engagement. The time was not enough. Also, there was a problem as the invitation and final agenda did not match.
9. It was nice to meet colleagues from the water sector. Distributors, consumers, etc were all there, which is rare.
10. Thanks. First time he has been part of this type of group. Positive – we are learning about CC which is the cause of these issues. He is with the water sector in Maputo. CC has been affecting quantity of rain water which is very crucial to supply the hydrographic basins. CC has caused floods, erosion, etc. In Maputo we are having higher temperatures nowadays and we should be prepared for consequences of CC. Therefore, this type of forum is important.
11. Thanks for invitation. We wish this proposal should be shared with others. We need to pass on the message and sensitize the city.
12. I am thanking you on behalf of Eduardo Mondlane University and the Municipality. The presence of so many stakeholders is rewarding. We expected fewer people. It is so good that there are so many. The issues are a concern for people working in this sector. The positive aspects – people are passionate. Negative – there is a guy asking about research - there are results – research in place – there is data but we still want to collect more from the participants more insights. I am critical of participants not talking about the future. In our institutions what will be

the climate in the future, because you can spend money on reaching people how to use water and build dams so there is a need to learn about the future under climate change. He is happy about the theory of 'a story adds a point'. Communication – in April we will invite people for another meeting and information shared. This was a dialogue.

13. Exciting conversations. Thank you

10. Closure of meeting

On behalf of FRACTAL, Genito Maure thanked everyone for their participation and promised to share the translated version of the Dialogue's report for comments and inputs. He also announced the upcoming Learning Lab.

Teresa Chissequere, the Deputy Director of the Municipal Directorate of Urban Planning and Environment, closed the meeting on behalf of municipality. She thanked everyone for their active participation and said she believed that the input from this meeting will be useful. She reiterated that we are a team and that there should be interaction and engagement, and that the network should be kept alive and the sharing of information promoted. She stated that this kind of meeting is very important not only for sharing knowledge but also to be followed up, and that with this kind of discussion, it is easier to debate many issues related to water supply. She hopes we have more time next time and really appreciates the strategy of the group work that was adopted. If there was more time, more could have been shared. Thankful for all the arrangements and ideas shared by participants.

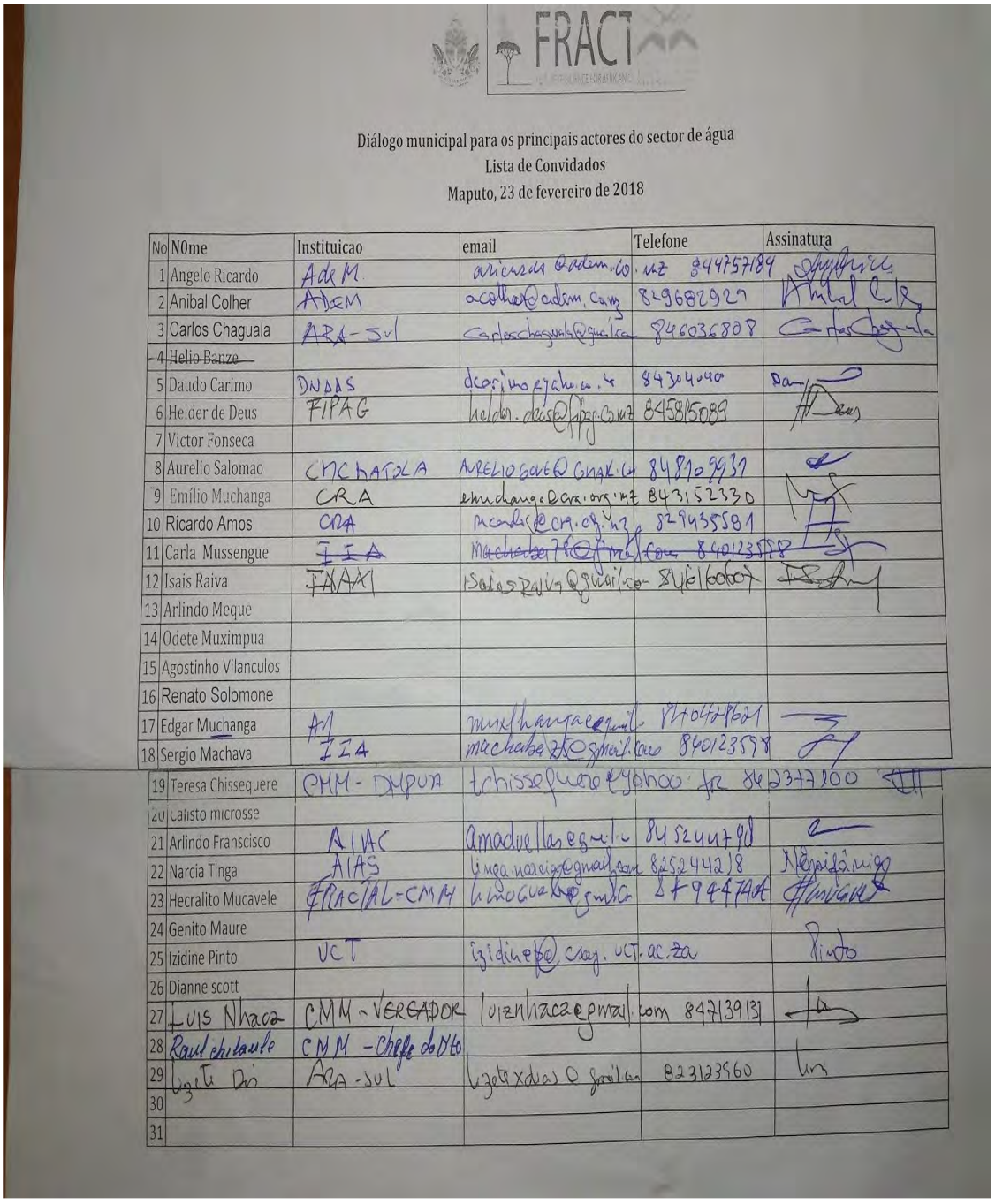
If there is a need to answer some of the problems raised in the event, it is necessary to maintain the engagement with different actors at the city level, not only with the water sector but also with others that are directly or indirectly affected by the effects of climate change, through the realization of learning labs, training, research and publications of some actions carried out by FRACTAL.

ANNEX 1: AGENDA

City Dialogue for Major Actors in the Water sector
23 February, 2018
Maputo City Council Training Center
Programme

No	Time	Session	Facilitator
1	08:30-09:00	*Registration and Tea/Coffee*	Hecralito Mucavele
2	09:00-09:15	*Welcome remarks*	Luis Nhaca - Maputo City Council
3	09:15-09:30	*Introduction (Overview of the City Dialogue)*	Izidine Pinto
4	09:30-10:00	*FRACTAL and the Dialogue: Background,objectives and expectations*	Genito Maure
5	10:00- 10 :30	*Understanding the Water Sector and its challenges - Presentations*	Genito Maure
6	10:30-11:00	*Tea Time (and Group photo)*	Hecralito Mucavele
7	11:00-12:30	*A scenario of Water in 2014 - what we think it will look like?*	Izidine Pinto, Genito Maure & Dianne Scott
8	12:30-13:30	*Lunch*	
9	13:30 - 13:45	*Energizer*	Genito Maure & Dianne Scott
10	13:45-14:45	*Visioning the Water Sector - what we would like it to look like*	Genito Maure, Dianne Scot & Izidine Pinto
11	14:45 - 15:30	*How do we get there? Options for addressing the challenges*	Genito Maure, Dianne Scot & Izidine Pinto
12	15:30 - 15:45	*Reflections*	Izidine Pinto
13	15:45-16:00	*Closing remarks*	Rep. Maputo City Council or Genito Maure

ANNEX 2: ATTENDANCE LIST



FRACT

Diálogo municipal para os principais actores do sector de água
Lista de Convidados
Maputo, 23 de fevereiro de 2018

No	NOme	Instituicao	email	Telefone	Assinatura
1	Angelo Ricardo	ADEM		844757184	
2	Anibal Colher	ADEM		849682927	
3	Carlos Chaguala	ARA-Sul		846036808	
4	~~Helio Banze~~				
5	Daudo Carimo	DNAAS		84304040	
6	Helder de Deus	FIPAG		845815085	
7	Victor Fonseca				
8	Aurelio Salomao	CMCHATUCA		848109937	
9	Emílio Muchanga	CRA		843152330	
10	Ricardo Amos	CRA		829435581	
11	Carla Mussengue	IIA	~~Machaba~~	~~840123598~~	
12	Isais Raiva	FAAM		846160607	
13	Arlindo Meque				
14	Odete Muximpua				
15	Agostinho Vilanculos				
16	Renato Solomone				
17	Edgar Muchanga	AR		847448621	
18	Sergio Machava	IIA		840123598	
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20	Calisto microsse				
21	Arlindo Franscisco	AIAC		845244790	
22	Narcia Tinga	AIAS		825244218	
23	Hecralito Mucavele	FRACTAL-CMM		847447848	
24	Genito Maure				
25	Izidine Pinto	UCT			
26	Dianne scott				
27	Luis Nhaca	CMM - VEREADOR		847139131	
28	Raul chilaule	CMM - Chefe do DNA			
29	Ugete Dio	ARA-SUL		823133960	
30					
31					