CFF Transformative Riverine Management Learning Workshop,
Port Elizabeth 4 and 5 Nov 2019
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1. Introduction

The C40 Cities Finance Facility (CFF) Transformative Riverine Management (TRM) Learning Workshop was held as part of a Water Resilient Cities Learning Event on the 4th and 5th November 2019 in Port Elizabeth. The Water Resilient Cities Learning Event was organised by GIZ’s Natural Resources Stewardship Programme (NatuRes), South African Local Government Association (SALGA), South Africa Cities Network (SACN), USAID WASH-FIN Program and World Bank Water Resources Group 2030 in collaboration with C40 Cities Finance Facility. It was hosted by the Nelson Mandela Bay Metropolitan Municipality at the Garden Court Kings Beach hotel, Port Elizabeth under theme “Water as a Strategic Enabler for Economic Development Cities”. The event targeted the following audience:

- Metropolitan Cities,
- Secondary cities,
- National Department of Water and Sanitation,
- Provincial Departments of Water and Sanitation,
- National Department of Cooperative Governance and Traditional Affairs,
- Water Research Commission,
- Water Specialists from Provincial Governments and
- Climate Change Professionals.

The CFF TRM Learning Workshop was held as a parallel session for the full duration of the second day of the Water Resilient Cities Learning Event, 5th November 2019. The CFF TRM workshop aimed to share learnings from the Durban TRM programme and encourage discussion amongst cities on how TRM could be valuable in their different contexts. The CFF invited delegates from South African cities with an interest in TRM to attend the Water Resilience Cities Learning Event and CFF TRM workshop, which included selected members of the Central KwaZulu-Natal Climate Change Compact (CKZNCCC).

2. Organising Team

The CFF TRM workshop organising and facilitation team included Aris Moro (CFF), Shahid Solomon (CFF), Lisa Junghans (GIZ), Khulile Lamula (FutureWorks) and Nicci Mander (FutureWorks). Khulile Lamula and Nicci Mander of FutureWorks co-facilitated the proceedings of the workshop, which was led by Aris Moro of CFF. The planning for the workshop was undertaken with the input of the Water Resilient Cities Learning Event organising team.

EThekweni Municipality representatives at the workshop included Chumisa Thengwa (Deputy Head: Environmental Planning & Climate Protection Department), Zama Khuzwayo (C40 Programme Manager), Geoff Tooley (Senior Manager: Catchment Management), Joanne Douwes (Manager: Environmental Planning & Climate Protection Department) and Mark Tomlinson (Project Manager: Roads and Stormwater Maintenance).
3. Agenda

The full Agenda for the Water Resilient Cities Learning Event is included in Annexure A.

The CFF TRM workshop agenda for the parallel session on day 2 of the Learning Event was as follows:

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA ITEM</th>
<th>SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:45 – 9:00</td>
<td>Welcome</td>
<td>Aris Moro, CFF</td>
</tr>
<tr>
<td>8:50 – 9:00</td>
<td>Agenda overview &amp; Ice-breaker</td>
<td>FutureWorks</td>
</tr>
<tr>
<td>9:00 – 9:15</td>
<td>Introduction</td>
<td>Chumisa Thengwa and Zama Khuzwayo, eThekwini Municipality</td>
</tr>
<tr>
<td>9:15 – 9:50</td>
<td>Setting the Scene: Transformative Riverine Management in eThekwini</td>
<td>Geoff Tooley, eThekwini Municipality</td>
</tr>
<tr>
<td>9:50 – 10:00</td>
<td>Q&amp;A</td>
<td></td>
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<tr>
<td>10:00 – 10:30</td>
<td>Group Exercise: Exploring the essential ingredients</td>
<td></td>
</tr>
<tr>
<td>10:30 - 10:45</td>
<td>TEA BREAK</td>
<td></td>
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<tr>
<td>10:45 – 11:15</td>
<td>eThekwini’s Community Partnerships Model</td>
<td>Mark Tomlinson, eThekwini Municipality</td>
</tr>
<tr>
<td>11:15 – 11:45</td>
<td>Insights on Project Structuring for sustained positive impact</td>
<td>Jo Douwes, eThekwini Municipality</td>
</tr>
<tr>
<td>11:45 – 12:15</td>
<td>Q&amp;A and plenary discussion on the scaling-up challenge</td>
<td></td>
</tr>
<tr>
<td>12:15 – 12:30</td>
<td>Summary of morning session &amp; logistics check</td>
<td>Aris Moro, CFF</td>
</tr>
<tr>
<td>12:30 – 13:30</td>
<td>LUNCH</td>
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<tr>
<td>13:30 – 13:50</td>
<td>Looking ahead: building the case for adaptation finance in eThekwini</td>
<td>Shahid Solomon, CFF</td>
</tr>
<tr>
<td>13:50 – 14:15</td>
<td>Interactive session: Reflections on my city</td>
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<tr>
<td>14:15 – 14:30</td>
<td>Wrap up</td>
<td>Aris Moro, CFF</td>
</tr>
<tr>
<td>14:30</td>
<td>Delegates return to Water Resilience workshop for closing sessions</td>
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4. Participants

There were 13 participants in the CFF TRM workshop in addition to the C40 CFF, FutureWorks and eThekwini Municipality team members. The Workshop Attendance Register is attached as Annexure B. Cities and other organisations represented at the workshop included:

- Ugu District Municipality – KwaZulu-Natal
- KwaDukuza Municipality – KwaZulu-Natal
- uMhlathuze Municipality – KwaZulu-Natal
- eThekwini Municipality – KwaZulu-Natal
- uMgungundlovu District Municipality – KwaZulu-Natal
- Umsunduzi Municipality – KwaZulu-Natal
- City of Cape Town – Western Cape
5. Summary and Outcomes of Proceedings

5.1 Day 1 Cocktail Event

On the evening of the first day of the Water Resilient Cities Learning Event (4th November 2019), C40 CFF sponsored a cocktail event for all participants. This provided a good catalyst for networking and conversation between delegates.

5.2 Ice Breaker

The CFF TRM workshop session on Day 2 was opened by Aris Moro, who welcomed the participants and thanked them for attending. Nicci Mander then presented an overview of the Agenda for the day.

Khulile Lamula of FutureWorks facilitated an “Ice Breaker” session in which workshop participants introduced themselves and were asked to give one key reason why river management is important in their municipal area. Participants were not allowed to repeat of the reasons stated by others. Reasons given included:

- Water security improvement / protection
- Avoiding the devastating impacts of poor riverine management, including loss of life and property
- People connecting with nature – can happen if rivers are in a good state
- Protecting ecosystem services supplies, especially from wetlands
- Water source area management
- Ecosystem sustainability and biodiversity protection
- Sustaining estuaries, lakes and coastal processes
- Protecting tourism amenity and blue flag status of coastal recreation areas
- Opportunity to promote water sensitive urban design that builds connectivity in the landscape
- Managing ecological infrastructure in catchments in a source to sea approach
- Job creation and economic stimulation through management activities
- Protecting life underwater
- Managing rivers is an entry point for tackling more complex environmental issues
- Managing urban natural assets
- Marine ecosystems management
- Pollution control, thereby ensuring clean water for consumption
- Rivers are the most sensitive and yet undermined ecosystems – need special attention
- Rivers become a useful / valued part of the urban fabric, rather than a liability
- Water connecting people
- Water supply protection through ecological infrastructure management
- Water is life
- Improving people’s lives
5.3 Introduction and Setting the Scene

After the Ice Breaker exercise, presentations resumed. Chumisa Thengwa and Zama Khuzwayo presented first.

Chumisa Thengwa and Zama Khuzwayo provided insight on how the CFF project came about in eThekwini. They further explained how political buy-in was crucial in securing funding from the CFF. They also provided an overview of CFF support to eThekwini and why it is important to eThekwini in the context of the city’s climate change work and efficient service delivery.

Chumisa then contextualised the CFF parallel session as an opportunity to share learning from Durban, and collaboratively explore opportunities in participant cities to implement transformative riverine corridor management.

Geoff Tooley then set the scene for why transformative riverine management has become a focus in eThekwini. He gave a summary overview of eThekwini’s transformative riverine management context and, specifically, how the Sihlanzimvelo project arose and evolved. He also provided a brief overview of eThekwini Municipality’s early warning system, which has been pivotal in saving lives and property in the face of increasingly frequent and intense flash flooding.

A question and answer session was held to provide participants an opportunity to ask questions in relation to the presentations by Chumisa, Zama and Geoff. The key aim for the question and answer session was to keep participants engaged in the programme. All the questions asked during this session related to Geoff’s presentation and he gave responses in relation to questions raised.

1. Question 1: Now that you have evolved the technology needed to implement the early warning systems, how have you ensured your team is ready and capable of using it? Is your department evolving to be able to use this technology?

   Response: My department has young blood and they are interested and capable to engaging with the emerging technologies. This is an important pointer for their career training through, and is being taken account of as graduates join the team.

2. Question: The Sihlanzimvelo programme is by far one of the best practices around. How is eThekwini going to sustain the programme beyond the CFF funding?

   Response: Sihlanzimvelo operations are funded by eThekwini Municipality as part of the operating budget. CFF funding is only for providing a cost benefit analysis and developing a business case for its bankability.

3. Comment: There is a great difficulty in motivating municipal expenditure on riverine management and other ecological infrastructure management, because the benefits are not easily expressed in financial terms. Showing how the cost translates to benefits is difficult.

   Response: eThekwini’s use of resource economics to value ecosystem services from ecological infrastructure has been a useful approach for building awareness across the municipal administration on why these areas warrant investment. It is exactly this challenge that led eThekwini to wanting CFF’s support in building a strong case through cost-benefit analysis for the upscaling of TRM across the municipal area.

4. Question: How is eThekwini collaborating with other departments in the work they do? Particularly Department of Water and Sanitation?
Response: eThekwini ensures collaboration with other stakeholders for common interests and make sure that they are informed on other projects implemented within eThekwini. eThekwini is working with Department of Water and Sanitation on some of the national initiatives and provides local examples for guidance on the practical aspects of implementation challenges.

5.4 Group Exercise 1 – Essential Ingredients

A group exercise aiming to foster conversation on the value, benefits and challenges of partnership-based urban service delivery models like Sihlanzimvelo was facilitated through asking participants to identify the essential pre-requisites for getting projects like this to work. The key aim for the group exercise was to keep participants engaged and consistently internalising the information provided during the workshop sessions.

Nicci briefly introduced the exercise. Participants split into 3 groups and each group had an “expert” from eThekwini Municipality. Each group was presented with a flipchart page and a pen to capture thoughts from the discussion. The discussion is to be focused around the question: “What is needed to get cross-sectoral riverine management projects off the ground in your city?”

Notes from groups’ feedback after discussions below:

GROUP 1:
- Political buy-in
- Engagement (council and officials)
- IDP (projects and programmes)
- Capacity building
- Human capacity
- Financial resource (capital and operating)
- Cross sectoral partnerships and collaboration
- Public participation
- Project champion
- Skills

GROUP 2:
- Strong leadership and political will (what if you don’t have a “Zama”?)
- Community / civil society activism (can this be used to bypass political will?)
- Facilitating collaboration across key sectors line functions, private sector (this can be used to generate new / good ideas)
- Common interest catalysts e.g. loss of life, infrastructure damage, flooding (framing). This can be used to facilitate conversation. Use opportunities from crisis situations (e.g. flooding, water security).
- Articulating a business plan and implementation model
- Funding
- Clearly defined roles and responsibilities
- Sustainability - managing transitions
- M&E framework
5.5 Project Structuring Lessons

Mark Tomlinson provided an overview of the community partnerships approach used in Sihlanzimvelo, including the community co-op and community assessor models. He shared lessons from this approach, including some of the challenges experienced and how these were overcome, and what the key benefits of having adopted this approach were.

Joanne Douwes presented Durban experiences and learning on different TRM project structures (municipal line function, special purpose vehicle, citizen organisation partnership etc) and how associated project governance, project objectives, sustainability, outcomes etc may differ. In her presentation she included opportunities for green economy value chain development. She further explained the challenge of governing projects across line functions. Her key message was the importance of thoughtful structuring to ensure projects are best placed to deliver the desired outcomes on a sustainable basis.

Participants were given the opportunity to ask questions after the presentation by Mark and Joanne. Questions related to both presentations and responses were given by both presenters.

1. **Question:** it is very challenging to ensure communities take ownership of the projects in their areas, how have you overcome challenges of engaging communities?

   **Response:** eThekwini Municipality has a structured co-operatives enterprise development programme. Sihlanzimvelo is implemented by these co-ops but there is also a system of monitoring their performance.

   *The Eco Champs model was successful in the Aller in building community interest in the programme, and once the benefits of improved river quality are visible, buy in improves.*

2. **Question:** Programmes are usually failed by procurement systems. How do you ensure that you keep the momentum of implementing the programme? Is there any action in getting council approval for long-term appointment?
Response: The programme is run on a 3-year contract and has not lost momentum yet. Getting a long-term appointment will call for the use of Section 33 of the MFMA but we have not gone that route yet.

3. Comment: it is a good achievement by eThekwini Municipality that the Sihlanzimvelo is accommodated in their operations budget because, as much as there are many funding opportunities, in most cases the structure of the funding criteria does not accommodate the objectives of the project.

Response: Yes, this is a challenge and the Aller project showed how with new donor funding the objectives shifted slightly – although the core focus of the project (i.e. river management) stayed the same. However, the municipal funding does come with challenges in the form of procurement processes which can also change the way that projects are implemented to some extent.

4. Question: Sihlanzimvelo involves dealing with solid waste dumping / litter clean ups, is it linked to Waste Management of eThekwini Municipality?

Response: Durban Solid Waste (DSW) is part of the Sihlanzimvelo Programme. They provide training and help with removal of collected litter / waste.

5. Question: Most of the co-ops do not have seed capital, how do you ensure that they have capital to buy PPE and Tools when they start? Do you experience any challenges of upfront payment requests?

Response: eThekwini Municipality strives to assist emerging entrepreneurs to ensure that they have enough cash-flow for implementation. There are opportunities for them to borrow money for these up-front costs – we are able to assist them with accessing such finance.

5.6 Plenary Discussion on Scaling-up / Replication

A plenary discussion was held on the challenges of scaling-up / replicating the TRM projects and how these might be overcome. The purpose of this was to get cities to think about what scaling up of TRM entails, highlighting the benefits of a phased approach, and the value of incremental scaling-up. This consideration of a phased approach to implementation and scale-up is a logical progression from the first group work session, which focused on the key ingredients for getting such projects started. The purpose of this session was to keep the participants engaged and internalise the information that has been presented for application in their own contexts.

The Plenary Discussion was facilitated by Aris Moro. Key discussion points included:

- Need to plan and develop a pipeline of co-operatives: developing/up skilling them in the right locations for effective rollout.
- Need different implementation models for different areas (i.e. with different contexts). The same project model will not work everywhere.
- Use scale-up to close loops, build green economy value chains, integrate effective community up-skilling etc.
- Institutionalisation of approaches tested in pilots, the skills built, champions etc. is important. Upscaling and replication must ensure that the work is embedded “beyond the individual” and there are skills sets and general understanding of the approaches within all relevant departments of the municipality.
- Understanding of “different approaches” to municipal service (as per the Sihlanzimvelo project) delivery needs to be expanded - buy-in to innovative ecological infrastructure investment needs to be improved.
- Need to ensure that political license is not linked to projects, individuals etc – avoid the risk when political change happens. Programmes need to be well embedded in the institutions.
- Competition between co-operatives undermines performance, this may also be linked also political ties. This needs to be addressed in upscaling model.
- Include riverine management zones (e.g. river buffers) in Spatial Development Frameworks and link these to programme development for management of defined river zones.
- Need to collect data and analyse it in order to create a solid portfolio of evidence, link research to the evidence-building process.
- Strengthen systems thinking in graduate engineers.
- Motivating a “business unusual” approach to municipal service delivery through a climate change lens. Needs to be embedded in policy.
- Community co-ops need to be upskilled for long-term sustainability/employability/sustainable income beyond the 36-month municipal TRM contract – there needs to be opportunities for them to be included in other types of jobs/economic value chains.
- Poverty alleviation focus is a clear priority for municipalities, this needs to be honestly addressed in project planning in terms training and capacity building requirements.
- Need to consider different community partnership models - not just co-ops.
- Link sustainable poverty alleviation to building political license for up-scaling.
- Different kinds of land ownership in different parts of the municipality - need different implementation models that work for each place.

5.7 Looking Ahead

Shahid Solomon presented on Adaptation Finance options and the associated challenges that municipalities need to address in accessing different kinds of finance. This was a context-setting presentation which painted a broad picture of why the eThekwini Municipality is being supported to develop a Business Case for upscaling of its TRM projects, and the issues associated with financing this through climate adaptation finance.

5.8 Group Exercise 2 – Reflections on My City

Through this Group Exercise, participants were encouraged to share their thoughts on how TRM might be applicable / replicable in their cities, and what they would need to know in order to take the idea forward. The purpose of this session was to get the participants to think deeply about what they would need to do to implement TRM in their cities, and to capture the key learning needs that CFF may be able to assist with during the Knowledge Learning process from Durban.

This was a logical progression from the previous two interactive sessions, in which cities were first asked to think about the basic requirements for getting a project in place, and the value of a phased implementation / scale-up model. In this exercise they were being asked to bring this back to the practical: what, when and how would I do this?

Two flipchart papers were stuck on the wall in different parts of the room, each with one of the following headings and a colour allocated to it: (1) Replicability of TRM in my city; and (2) Things I need to know. The participants were given 2 colours of sticky notes to match the 2 colours of the flipchart sheets. They were then asked to go to each of the 2 flipchart papers and write their thoughts on the matching colour sticky notes and stick these on the flipchart papers.
TOPIC #1: REPLICABILITY OF TRM IN MY CITY

- Institutional organisation needed:
  - Establishing an action task team for project / programme planning and implementation is needed (KwaDukuza)
  - Integrate TRM with service delivery imperatives like provision of water and sanitation.
  - Institutionalize project objectives within the organisation
  - Already several alien plant clearing initiatives underway, sewer monitoring underway (Msunduzi)

- Defining the approach in a context-specific way:
  - It is replicable Within a context that is suitable for the municipality
  - Land ownership will trigger different packages
  - Continuous review of vulnerability of people and sectors to make sure replicability is relevant
  - Need to first analyse the context: biophysical and socio-economic (uMhlathuze)

- Partnerships:
  - Establishing good community partnerships (co-ops, community, NGOs, NPO, Ward level) needed (KwaDukuza)
  - Identify other actors in the space – who’s doing what where, map resources
  - Establish through collaboration between municipality, NGOs, private sector (UMhlathuze)

- Funding:
  - Funding for implementation is a challenge, needs to be addressed (KwaDukuza)

- Early Warning Systems:
  - Early warning system needed (uMhlathuze)
  - Use of FEWS is an opportunity (Dar es Salaam)
  - Currently developing an Early Warning System, Floodline Assessment to be completed (Msunduzi)

- Be clear on the benefits:
  - Definitely replicable with a strong focus on entrepreneurial development for local contractors/river ambassadors

TOPIC #2: THINGS I NEED TO KNOW

- Building a Compelling Business Case
  - Need to quantify the problem including extent and pressure points (uMhlathuze)
  - Formulation of common risk /challenges.
  - Develop an implementation tool/action plan that is context specific.
  - Paradigm shift from reactive work to adaptation with practical measure which can be implemented (Msunduzi).
  - Innovative ways to slice the city budget to get a greater slice for green infrastructure (uMgungundlovu).
  - Can local storm water by laws be used to operationalize a climate change policy/ adaptation action plan? (City of Cape Town).
- How to build a good business case for investment (Ugu)
- Project packaging to meet the requirements of the funder (UMhlathuze)
- How to shape the message to fit in with the core mandate of the different municipal/district departments (KwaDukuza).
- Understanding the cost/benefits of the projects (KwaDukuza).
- How to develop a good business case that will attract funding (KwaDukuza).
- Technical support on developing proposals with statistical information that is relevant.

- Partnerships and Collaboration
  - Who are our partners and potential for collaboration?
  - Establishing solid private partnership buy-in (KwaDukuza).
  - Stakeholder mobilisation techniques (internal & external)
  - Engagement with stakeholders (industry, communities) (Msunduzi).
  - Interdepartmental co-operation and engagement to address issues (Msunduzi).
  - How do we get community involved because in our case community don’t see the value on what we want to achieve? (uMgungundlovu).

- Political Buy-in and Technical Capacity
  - How do we get our political heads see the value in what we want to achieve? (uMgungundlovu).
  - Management techniques for project sustainability.
  - Building capacity of key individuals and partners.
  - Capacity building across various sectors (Msunduzi).

6. Workshop Evaluations

Workshop participants were asked to complete a short questionnaire on their experiences at the workshop. Results of these evaluations are as follows:

6.1 Overall Workshop Experience

85% of participants indicated that the workshop was “very useful”, while the remaining 15% scored it as “useful”.

All participants ranked the workshop logistics, venue, session formats and moderation as “exceptional” or “very good”.

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6.2 Value of different Workshop Sessions

Session 2 covering the community partnerships model, project structuring and discussion on project scale-up, received the greatest number of “extremely useful” votes from participants. However, all three sessions were ranked by participants as either “extremely useful”, “very useful” or “somewhat useful”. No participants ranked any of the sessions as not having been useful.
6.3 Take-home Learning

Participants were asked to indicate the two most useful ideas that they would be taking back from the workshop. Responses included:

- How do we get Key Performance Areas related to river management into the city?
- The river is a complete system that requires a systems and / or programmatic approach.
- How do we partner better with our Finance team to understand financing options for our work?
- The need to think in a very careful way about the different context elements that will shape different river management models, even within one catchment.
- Institutionalisation to oversee the program is critical for continuity.
- Development of a Climate Action Plan.
- Development of a Riverine Management Plan.
- Early warning flood system in reducing climate change risk.
- Climate finance, adaptation finance.
- Sihlanzimvelo implementation systems.
- Innovation and partnerships.
- Community involvement and community partnerships model, especially the organogram used by eThekwini Municipality.
- How to communicate a project proposal to council and to municipal officials to get a positive response.
- It is possible to build a funding model for transformative riverine management.
- Link between creating job opportunities to climate actions.
- Start small and create possibility to expand.

The questions / information gaps relating the above take-home ideas were listed as follows:

- What is the easiest way to measure the state of a river?
- What are all the components of a river system?
- Better understanding of adaptation finance options.
- How to create awareness about the programme through sharing data in order to build buy-in.
- How to conduct a greenhouse gas inventory, baseline energy assessment and get floodline assessments done across the whole municipal area.
- Options for stormwater bylaws.
- How Durban got the community involved in their riverine management.
- Data / software requirements for early warning systems.
- Information on how we can access the CFF.
- Technical support in the project/prog action plan and ensuring that the project can be upscaled and most importantly maintained by the municipality.
- Project/programme packaging and a more detailed understanding of cost benefit and funding models.
- Project structuring.

6.4 Suggestions and comments

Participants suggested the following may have improved the workshop:

- Involvement of Municipal Accounting / Finance Department staff.
• Involvement of engineers from cities to capture knowledge shared from eThekwini Municipality engineers.
• Involvement of Heads of certain departments.
• Involvement of a greater number of municipalities.
• Presentation of other municipality examples.
• Ability to attend Day 2 of the Water Resilience Learning Event would also have been appreciated (perhaps extending the full workshop to 3 days).

Comments included:

• Participative workshop approach was appreciated.
• Going forward, more sharing of other growing case studies that are not fully developed yet to show others how to start from humble beginnings. This is good to eliminate the fear factor.
• Potential for establishment of a South African working group should be explored.

7. Conclusions and Recommendations

Participation in the CFF TRM workshop was excellent, with all attendees well-engaged in the subject matter and discussions throughout the day. The workshop design was deliberately participative to ensure good engagement and opportunities for though and discussion. The questions asked in the Q&As were insightful and generally showed that the presentations had sparked ideas and deep thought. The plenary discussion and group work sessions showed that participants had understood the content and were able to consider it in light of their own city contexts.

Given the level of interest in the material presented by eThekwini Municipality, there could have been more time available for question and answer sessions than was possible in the single-day format that the workshop took. The amount of chatting and discussion that took place during the group sessions, and over tea’s and lunch was testimony to participants interest in finding out more from eThekwini Municipality on their experiences.

It is therefore recommended that future Learning Events build on the participative, dialogue-building approach used in this workshop by creating more time and new lenses through which to foster and facilitate conversations between eThekwini Municipality representatives and other cities. It is also suggested to consider including opportunities for other cities to share some of their experiences in riverine management (even if this is just the problems they face that underpin introduction of TRM as a solution), in order to help build a good footing for ongoing social learning and collaboration between all cities as different TRM approaches and experiences emerge over time.
Annexure A – Water Resilient Cities Workshop Concept & Agenda
3rd WATER RESILIENT CITIES LEARNING EVENT

Water as a Strategic Enabler for Economic Development in Cities

Concept Note and Programme

In collaboration with
Concept Note

PURPOSE
The purpose of this concept note is to outline the objectives, target audience, programme, partners and logistical details of the third (3rd) Water Resilient Cities learning event.

INTRODUCTION
Cities are engines of economic growth where business, cultural, educational and scientific activities as well as technological innovations thrive and account for 80% of global GDP (UN-Habitat, 2011 and World Bank, 2019). African cities are also claiming their place in the global arena as engines of the continent’s economic growth. “In the last two decades, as The Economist captured it, the perception of Africa as ‘a hopeless continent’ has shifted to ‘Africa rising’ with cities as the engine of its growth” (Kebede, G. 2018).

The potential for economic growth, inclusion, sustainability and innovation in African cities cannot be under-estimated as African cities are experiencing exponential economic growth that contributes an estimated $700 billion to the continent’s economy with the potential to double their contribution by 2030 (Bafana, B. 2016).

The potential for economic growth, inclusion, sustainability and innovation in African cities cannot be under-estimated

These cities are not only growing in GDP but also in population, with economic growth being a pull factor for rural-urban migration. The World Economic Forum (WEF) predicts that the population in African cities will double from 1.1 billion to 2.2 billion in the next 30 years with 80% of the population growth happening in urban centers (Muggah, R and Hill, K. 2018).
CONTEXT

Rapid urbanization and climate change impacts are increasing the vulnerability of cities;

Socio-economic development in cities is affected by the availability of natural resources;

Water underpins growth and dignity.

NEED FOR:

Coupling growth with strong job-creation, high productivity and tradable sectors;

Good governance, to ensure water security as well as smart financial and investment solutions;

Sustainable management of water resources;

Inclusive economic growth.

In order for African cities to unlock the full potential of their rapid urban transition, this growth needs to be coupled with strong job creation in formal, high-productivity and tradable sectors, which will result in the minimization of urban poverty and increased opportunities for development (Kebede, G. 2018). This economic and population growth should, however, be decoupled from resource use and environmental degradation as larger cities and their economies are becoming increasingly fragile and more likely to be negatively affected by the impacts of inefficient resource use and extreme weather events such as droughts or floods caused by climate change (WEF, 2019).

Economic and population growth should be decoupled from resource use and environmental degradation

These growth trends are also evident in South African cities, where 64% of the population resides in urban centers (Chibba, S. 2016). Socio-economic development in these cities is largely dependent on natural resource availability and its efficient use, where water is one of the fundamental elements underpinning growth and dignity.

Water security and resilience critically hinge on good governance as well as sustainable management of water resources coupled with smart financial solutions. If cities get their water resources and water services management right, and sustainably so, this will directly and indirectly spur inclusive economic growth.
KEY ISSUES TO CONSIDER

- The complexity of challenges confronting city water managers;
- Trade-offs that are made between financing service provision or infrastructure maintenance;
- The growing funding gap for capital expenditure and declining municipal revenue streams.

In practice, however, good governance and sustainable management of water resources and services is often not entirely possible due to the complexity of the challenges that city water managers are confronted with and the difficult decisions they have to make. Regular trade-offs between using limited financial resources to invest in new service connections for the urban poor or financing the maintenance of existing water supply and wastewater treatment infrastructure, are a common theme.

Regular trade-offs between investing in new service connections for the urban poor or financing the maintenance of existing water infrastructure to ensure long-term performance, are a common theme in cities.

This, according to the State of City Finances Report (SACN, 2018), often occurs within a context of the growing funding gap of between 10% and 38% of cities’ capital expenditure due, in part, to declining municipal revenue streams, expenditure inefficiencies (e.g. losses incurred through non-revenue water), as well as the backlogs caused by the historical legacy of exclusion.
OBJECTIONS OF THE LEARNING EVENTS

- To promote engagement and provide effective platforms for peer-to-peer learning;
- Enable solution seeking conversations to take place;
- Build capacity and capability amongst city water managers and practitioners;
- Develop innovative responses to water security and resilience challenges.

BACKGROUND

To support cities in their efforts towards water resilience, the South African Local Government Association (SALGA) and the South African Cities Network (SACN) together with their partners, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)’s Natural Resources Stewardship Programme (NatuReS), the USAID WASH-FIN program, and the World Bank Water Research Group 2030 (WRG 2030), bring this third (3rd) installment of the Water Resilient Cities series of learning events which will be held in Port Elizabeth under the theme “Water as a Strategic Enabler for Economic Development in Cities”.

Beginning in 2018, the partners have come together to organize the Water Resilient Cities series of learning events which have become catalysts for:

- engagement and effective platforms for peer-to-peer learning;
- solution seeking conversations;
- capacity building amongst participating cities; and
- innovative responses to water security and resilience challenges.

Each event is guided by participant feedback (from city managers and practitioners, water specialists in the public and private sectors, civil society organizations and regional and international experts) on topics that require further discussion, exploration and collaboration.
EVENT OBJECTIVES

The November learning event is designed to:

- Discuss how local economic development can be spurred by investment in water resources;
- Highlight the approaches that can improve revenue for utilities and cities;
- Put a spotlight on the role of disruptive technology; and
- Encourage peer-to-peer learning and knowledge sharing across the region and beyond.

OBJECTIVES

This third (3rd) Water Resilient Cities learning event will bring into focus:

1. How investment in improved water resources and water services management can, with intention and focus, enable local economic development;

2. How the application of circular economy approaches in the water value chain, particularly energy capture, improves utility and city revenues;

3. The most recent learnings and thought leadership in attracting, applying and blending diverse capital sources; and

4. City experiences with applying disruptive technology – the smart city drive;

5. Best practices in water security planning from Zambia, Uganda, Kenya and Tanzania – to encourage peer-to-peer learning, knowledge sharing and knowledge dissemination in the region and beyond.

For this event, the partners will be collaborating with the C40 Cities Finance Facility, which will be hosting a complementary parallel session, detailed in the programme.

Participants, mostly city water managers, water utility managers, finance officers, city practitioners, local government support institutions and water regulators are drawn from South Africa, Zambia, Uganda, Kenya and Tanzania. All the learning events promote and celebrate participation across gender and age.
<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC</th>
<th>SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Registration and Coffee/Tea</td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td>Welcome and opening remarks from Secretariat</td>
<td>SALGA</td>
</tr>
<tr>
<td>11:00</td>
<td>Welcome from host city</td>
<td>Nelson Mandela Bay Municipality</td>
</tr>
<tr>
<td>11:15</td>
<td>Setting the scene</td>
<td>USAID WASH-FIN</td>
</tr>
<tr>
<td>12:00</td>
<td>Keynote address</td>
<td>Deputy Minister: Dept. Human Settlements, Water and Sanitation</td>
</tr>
<tr>
<td>12:15</td>
<td>Economic status of water in the country: trade-offs</td>
<td>Victor Ngobeni, National Treasury</td>
</tr>
<tr>
<td>12:30</td>
<td>SACN State of Cities Reporting</td>
<td>Liteboho Makhele, SACN</td>
</tr>
<tr>
<td>12:45</td>
<td>SALGA’s work on investment</td>
<td>William Moraka, SALGA</td>
</tr>
<tr>
<td>13:00</td>
<td>An economic study modelling the impact of water on the Nelson Mandela Bay Economy</td>
<td>Faith Lawrence – GIZ</td>
</tr>
<tr>
<td>13:15</td>
<td>Panel discussion</td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td>Localizing the New Urban Agenda</td>
<td>Dept. Human Settlements, Water and Sanitation (TBC)</td>
</tr>
<tr>
<td>15:15</td>
<td>Water security planning learning from Lusaka, Zambia</td>
<td>Faith Lawrence – GIZ</td>
</tr>
<tr>
<td>15:30</td>
<td>Water security planning in Kampala, Uganda</td>
<td>Faith Lawrence – GIZ</td>
</tr>
<tr>
<td>15:45</td>
<td>Regulatory approaches and an independent regulator</td>
<td>Meredith Kummings – USAID WASH-FIN</td>
</tr>
<tr>
<td>16:00</td>
<td>Dar es Salaam experience with the C40 Cities Finance Facility, Tanzania</td>
<td>Faith Lawrence – GIZ</td>
</tr>
<tr>
<td>16:15</td>
<td>Panel discussion</td>
<td></td>
</tr>
<tr>
<td>16:45</td>
<td>Final Remarks</td>
<td>Introduction of C40 Cities Finance Facility parallel session on Day 2</td>
</tr>
<tr>
<td>17:00</td>
<td>Closing of Day 1</td>
<td></td>
</tr>
<tr>
<td>17:15</td>
<td>Networking session</td>
<td></td>
</tr>
</tbody>
</table>
## DAY 2: TUESDAY, 5 NOVEMBER 2019

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>TOPIC AND SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30</td>
<td>Welcome and opening remarks for Day 2</td>
<td>WRC Secretariat</td>
</tr>
<tr>
<td>08:45</td>
<td>Summary of Day 1</td>
<td>Facilitator</td>
</tr>
<tr>
<td>09:00</td>
<td>Introduction of C40 Cities Finance Facility parallel session</td>
<td>Aris Moro, CFF</td>
</tr>
</tbody>
</table>

### WATER RESILIENT CITIES

#### 4. Revenue generating projects and circular economy

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC AND SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:15</td>
<td>Water-energy nexus</td>
</tr>
<tr>
<td>09:30</td>
<td>Hydro-WRC Bloemwater</td>
</tr>
<tr>
<td>09:45</td>
<td>Sludge to Energy</td>
</tr>
<tr>
<td>10:00</td>
<td>Panel discussion</td>
</tr>
</tbody>
</table>

### C40 CITIES FINANCE FACILITY

#### 5. How to Structure Transformative Riverine Management Projects in Cities: Lessons from eThekwini

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC AND SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:15</td>
<td>Introduction</td>
</tr>
<tr>
<td>09:30</td>
<td>Setting the scene: Transformative Riverine Management in eThekwini</td>
</tr>
<tr>
<td>09:50</td>
<td>Q&amp;A</td>
</tr>
<tr>
<td>10:00</td>
<td>Exploring the essential ingredients</td>
</tr>
</tbody>
</table>

#### 6. Financing Mechanisms

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>TOPIC AND SPEAKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45</td>
<td>Finance Session: introduction and approach</td>
<td>eThekwini’s Community Partnerships Models</td>
</tr>
<tr>
<td></td>
<td>Chris Serjak, USAID WASH-FIN</td>
<td>Mark Tomlinson, eThekwini</td>
</tr>
<tr>
<td>10:50</td>
<td>Case Study 1: PPP Lessons learned and look at current experiences in South Africa</td>
<td>Insights on Project Structuring for sustained positive impact</td>
</tr>
<tr>
<td></td>
<td>Chris Serjak, USAID WASH-FIN</td>
<td>Jo Douwes, eThekwini Municipality</td>
</tr>
<tr>
<td>11:10</td>
<td>Case Study 2: Strengthening financial sustainability through efficiency improvement</td>
<td>Q&amp;A and plenary discussion: the scaling-up / replication challenge</td>
</tr>
<tr>
<td></td>
<td>USAID WASH-FIN / Cape Town</td>
<td>Nicci Mander, FutureWorks</td>
</tr>
</tbody>
</table>
**DAY 2 (Cont’d): TUESDAY, 5 NOVEMBER 2019**

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC AND SPEAKER WATER RESILIENT CITIES</th>
<th>TOPIC AND SPEAKER C40 CITIES FINANCE FACILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30</td>
<td>Case Study 3: Credit enhancements Pegasys / USAID WASH-FIN</td>
<td>12:15 Summary of morning session Nicci Mander, FutureWorks</td>
</tr>
<tr>
<td>12:10</td>
<td>Participant Roundtable Discussion</td>
<td>12:15 Summary of morning session Nicci Mander, FutureWorks</td>
</tr>
<tr>
<td>12:20</td>
<td>Participant Roundtable Discussion</td>
<td>12:10 Summary of morning session Nicci Mander, FutureWorks</td>
</tr>
<tr>
<td>12:40</td>
<td>Participant Polling Exercise</td>
<td>12:20 Panel Discussion</td>
</tr>
</tbody>
</table>

| 12:45 | Lunch | 12:30 Lunch |

6. Smart Cities

| 13:45 | A framework for Smart Cities in South Africa Giuliana Branciforti, GIZ | 13:30 Looking ahead: building the case for adaptation finance in eThekwini Shahid Solomon, CFF |
| 14:00 | Using drone technology for data collection, case study from Umhlathuze Giuliana Branciforti, GIZ | 13:50 Reflections on my city All participants Nicci Mander, FutureWorks |
| 14:15 | Smart service delivery William Moraka, SALGA Nick Tandi, World Bank WRG 2030 | 14:15 Wrap up Aris Moro, CFF |
| 14:30 | CSP coastal cities tool Giuliana Branciforti, GIZ | 14:30 Closure |
| 14:45 | Panel discussion | 15:15 Final Remarks and closure |
THE EVENT IS ORGANISED BY THE FOLLOWING PARTNERS:

- South African Local Government Association (SALGA)
- South African Cities Network (SACN)
- GIZ’s Natural Resources Stewardship Programme (NatuReS)
- USAID WASH-FIN Program
- World Bank Water Resources Group 2030

IN COLLABORATION WITH:

- C40 Cities Finance Facility

AND IS HOSTED BY:

- Nelson Mandela Bay Municipality

TARGET AUDIENCE

- Metropolitan Cities
- Secondary Cities
- National Department of Water and Sanitation
- Provincial Departments of Water and Sanitation
- Water Research Commission
- National Department of Cooperative Governance and Traditional Affairs
- Water Specialists from provincial governments
- Climate Change professionals

In collaboration with
## Annexure B – CFF TRM Learning Workshop Attendance Register

### WORKSHOP: HOW TO STRUCTURE TRANSFORMATIVE RIVERINE MANAGEMENT PROJECTS IN CITIES: LESSONS FROM ETHEKWINI

**Registration sheet – Port Elizabeth, November 5**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kluwe Lwasa</td>
<td>FUTURWORKS</td>
<td></td>
</tr>
<tr>
<td>Imercia Altimere</td>
<td>No. of Salmon City Council</td>
<td></td>
</tr>
<tr>
<td>On Dorweu</td>
<td>Ethekwini Municipality</td>
<td></td>
</tr>
<tr>
<td>Ntsitoso Ndega</td>
<td>CMUAAUSSU</td>
<td></td>
</tr>
<tr>
<td>Hamo Buber-Arundel</td>
<td>Avocado Vision</td>
<td></td>
</tr>
<tr>
<td>Friderieh Seehien</td>
<td>CIF NATURAL/40 FF</td>
<td></td>
</tr>
<tr>
<td>Montusetho Cola</td>
<td>SARBEN</td>
<td></td>
</tr>
<tr>
<td>Gregy Gill</td>
<td>DEQQAT, WCIT</td>
<td></td>
</tr>
<tr>
<td>Mark Tamlinson</td>
<td>Ethekwini Municipality</td>
<td></td>
</tr>
<tr>
<td>Shaein Gavenner</td>
<td>UNISTHUSEE MUSCIPALITY</td>
<td></td>
</tr>
<tr>
<td>Nkosiek Duma</td>
<td>Lambari Municipality</td>
<td></td>
</tr>
</tbody>
</table>

### WORKSHOP: HOW TO STRUCTURE TRANSFORMATIVE RIVERINE MANAGEMENT PROJECTS IN CITIES: LESSONS FROM ETHEKWINI

**Registration sheet – Port Elizabeth, November 5**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lorraine Gerrans</td>
<td>City of Cape Town</td>
<td></td>
</tr>
<tr>
<td>Lockside Khanyile</td>
<td>City of Cape Town</td>
<td></td>
</tr>
<tr>
<td>Lenardale Randivan</td>
<td>Mthungu-Mntsho Mmpo</td>
<td></td>
</tr>
<tr>
<td>Netshie Wolinga</td>
<td>Mthunzima Municpality</td>
<td></td>
</tr>
<tr>
<td>Umar Baraka</td>
<td>UDA BM</td>
<td></td>
</tr>
<tr>
<td>Nsoya Khuzwayo</td>
<td>City of Tshwaie</td>
<td></td>
</tr>
<tr>
<td>Chimeni Tshangmo</td>
<td>Etwaedi Municpality</td>
<td></td>
</tr>
<tr>
<td>Ncie Nander</td>
<td>FUTURWORKS</td>
<td></td>
</tr>
</tbody>
</table>
Annexure C - Presentations
The C40 Cities Finance Facility and The Sihlanzimvelo Project, eThekweni.

Geoff Tooley
Senior Manager: Catchment Management
The Municipal Context

- Area of eThekwini Municipality: 2297 km²
- Population: 3.7 million
- Length of streams and rivers: 7400 km
- 18 River Catchments
- 17 Estuaries
- 98 km of coastline
- Budget: R35 billion (1 EURO = +/- 16 Rands)
- 2/3 of the province of KwaZulu-Natal’s GDP
- 34.4% unemployment
- Housing backlog: +500 000 units
Higher temperatures
- Generally wetter and more variability in rainfall
- Increased storm intensity

IMPACTS: Increased flooding and reduced water quality
The Challenge

Alien Vegetation and Solid Waste
MUNICIPAL ADAPTATION PLANS – WATER SECTOR - FLOODING

- W9 - Protect and restore riparian vegetation so as to protect integrity of river banks and retain biological buffers against flooding.

<table>
<thead>
<tr>
<th>Implementation plan (including policy framework for addressing issue)</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate a 'Working for Rivers' programme on a catchment by catchment basis</td>
<td>Reed beds and wetlands retained. Ecosystem services secured. Reduced risk of flooding to residential and public property.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsible Parties</th>
<th>Resource Availability</th>
<th>Funding Source</th>
<th>National and Provincial Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal and Stormwater Catchment Management</td>
<td>None at present</td>
<td>eThekwini Municipality EPWP government program</td>
<td>Provincial support at present through “working for water” program</td>
</tr>
</tbody>
</table>
SIHLANZIMVELO
(We care for our environment)

Departments dealing with streams

- Stormwater – erosion and flooding issues
- Parks – vegetation control
- Environment – alien vegetation
- Pollution control
- Sanitation – breakages and sewer blockages
- Environmental health
- Vector control
- Roads and Stormwater maintenance
Sihlanzimvelo
(We care for our environment)

- 59 co-ops
- 472 workers
- 295 km of stream
- R26 million per annum
- Removing Solid waste
- Removing Alien vegetation
- Reporting sewer leaks
- Vegetable gardens

Before

After

2011 to 2019
Sihlanzimvelo Streams Vs eThekwini Metro

HOW DO WE UPSCALE?
300 km to 7400 km
Benefits

Job/Business Creation

- Economic growth
- Increase in local businesses
- More money in local economy
- More money stays in local economy and households
- Reduced carbon footprint
- Reduced travel to work
- Work close to home

Job/Business creation

- Improved business skills
- Opportunity for Co-op to use skills in other fields
- Economic growth
- More jobs created

- More money available for other expenses
Benefits

Job/Business Creation

- Economic growth
- Increase in local businesses
- More money in local economy
- More money stays in local economy and households
- Reduced carbon footprint
- Reduced travel to work
- Work close to home
- More money available for other expenses
- Improved business creation
Benefits

Job/Business Creation

- Work close to home
- Improved business skills
- Opportunity for Co-op to use skills in other fields
- Economic growth
- More jobs created
Presence on the Stream

Benefits

- Early and accurate reporting of sewer leaks or blockages
- Improved water quality
- Reduced demand on clinic
- Healthier community
- Improved recreation
- Improved estuaries
- Improved biodiversity (birds/fish)
- Improved tourism
- Improved beach water quality

- Community awareness
- Sense of belonging
- Community contribution
- Stop others polluting
- Support local community workers

- Reporting of other wrongdoings
- Action against perpetrators
- Sand mining

- Reduced criminal activity
- Safer neighborhood
- Improved sense of place
- Less money spent on community or security
- More money available to households for other purchases
Benefits

Presence on the Stream

- Lower operating costs
- Faster more efficient response by operations team
- Early and accurate reporting of sewer leaks or blockages
- Improved water quality
  - Improved estuaries
  - Improved biodiversity (birds/fish)
  - Improved beach water quality
  - Blue flag beaches
- Improved economy
- Improved tourism
- Improved fishing industry
  - Recreational fishing
  - Subsistence fishing
Benefits

Presence on the Stream

Early and accurate reporting of sewer leaks or blockages

Community awareness
  Sense of ownership
  Community contribution
  Stop others polluting
  Support community workers

Reporting of other wrongdoings
  Action against perpetrators
  Sand mining

Improved water quality

Reduced criminal activity
  Safer neighbourhood

Improved sense of place
  Less money spent on community on security
  More money available to households for other purchases
Removal of Alien Vegetation

Benefits

- Less income loss by port (less closing of port)
- Less disruption to Cargo imports and exports
- Less disruption of the Port operations
- Less operational clean up costs
- Less waste in the Port

- Reduced Disruption to business and residential traffic
  - Capital cost
  - Operational cost

- Reduced risk of environmental damage
  - Capital cost
  - Operational cost

- Reduced impact on economy
  - Reduced insurance claims
  - Reduced loss to Residents
  - Operational cost
  - Less culvert cleaning

- Cleaner water
  - Sediment entrapment
  - Biodiversity improvement
  - More capacity for water storage

- Reduced erosion potential

- Reduced downstream siltation
  - Less siltation of downstream dams

- Reduced damage to infrastructure
  - Road
  - Sewer

- Reduced damage to river bank

- C40 Cities Finance Facility
Removal of Alien Vegetation

Benefits

- Reduced impact on economy
  - Operational cost
  - Reduced insurance claims
  - Reduced loss to Residents
  - Less damage to private property

- Operational cost
  - Less culvert cleaning
  - Cleaner water
  - Sediment entrapment
  - Biodiversity improvement
  - More capacity for water storage

- Less siltation of wetlands
  - Reduced downstream siltation

- Reduced erosion potential

- Reduced demand on clinic
- Healthier family
- Improved food for family
- More funds for family
- Possible selling of veggies

- Cleared areas can be used for veggie growing

- Sense of place
- Community takes ownership of open space
- Community feels safer in area
- Cleared area means safer area
Removal of Alien Vegetation

Benefits

- Reduced risk of blockage of road crossings
- Reduced risk of environmental damage
- Reduced risk of water loss
- Reduced risk of pollution
- Reduced insurance claims
- Reduced loss to Residents
- Reduced maintenance costs
- Reduced operational costs
- Reduced disruption to business and residential
- Reduced insurance claims
- Reduced economic cost
- Reduced risk of carbon emission increase
- Reduced risk of losses due to outage
- Reduced impact on economy
- Improved natural corridor for fauna
Removal of Alien Vegetation

Benefits

- Improved biodiversity in river corridor
- Improved natural corridor for fauna
- Link to treepreneur program
- Carbon storage in trees
- Increase in treepreneur program
- Advantages of program for community
- Alien plant recycling
- Business opportunity
- Composting
- Building materials
- Less demand on natural materials
Benefits

Removal of Solid Waste

- Reduced risk of blockage of road crossings
- Reduced damage to infrastructure
- Reduced risk of environmental damage
- Reduced risk of water loss
- Reduced disruption to business and residential
- Reduced risk of loss due to outage
- Reduced maintenance outages
- Reduced operational costs
- Reduced insurance claims
- Reduced loss to residents
- Reduced impact on economy
- Reduced loss of private property
- Reduced disruption to business and residential
- Reduced economic cost
- Reduced risk of extra travel
- Reduced emission of Carbon
- Reduced risk of fire
- Reduced risk of illness
- Reduced risk of accidents

Less negative economic impact
Less disruption to Cargo imports and exports
Less disruption of the Port operations
Less waste in the Port
Less operational clean up costs
Less risk to community
Less risk of disease in community
Community feels safer in area
Less snakes
Less Rats (vectors)

Opportunity for more recycling
Less need for new resources
Small business opportunity
Benefits

Removal of Solid Waste

- Less negative economic impact
- Less disruption by port (less closing of port)
- Less disruption to Cargo imports and exports
- Less operational clean up costs
- Less waste in the Port
- Less disruption of the Port operations

 Reduced demand on clinics
- Less risk of disease in community
- Less risk to community
- Community feels safer in area
- Less snakes
- Less Rats (vectors)
Benefits

Removal of Solid Waste

- Reduced risk of blockage of road crossings
- Reduced damage to infrastructure
  - Reduced risk of flooding of private property
  - Reduced maintenance callouts
- Opportunity for more recycling
  - Reduced need for new resources
  - Small business opportunity
- Capital cost
  - Road
    - Reduced disruption to business and residential traffic
    - Reduced risk of extra travel
    - Reduced risk of Carbon emission increase
  - Culvert pipes
    - Capital cost
  - Sewer
    - Reduced risk of environmental damage
  - Water
    - Reduced risk of water loss
    - Cost of water
  - Electricity cables
    - Capital cost
  - Telkom cables
    - Capital cost
  - Reduced disruption to business and residential
  - Reduced risk of losses due to outages
  - Reduced economic cost
  - Reduced impact on economy
    - Reduced insurance claims
    - Reduced loss to Residents
    - Reduced operational costs

C40 Cities Finance Facility
THE BUSINESS CASE PROJECT
Business Case Vision

• Build a compelling Business Case (based on Cost Benefit Analysis) for transforming some 7 400 km riverine corridors:
  • to be resilient to climate change
  • to be valuable places which are clean, safe, healthy, useful and pleasant open spaces
  • to close the loops: blue economy
  • to create jobs and build the green economy
  • to build communities
  • to work in partnership with all affected stakeholders
  • to impact positively on the City as a whole.
Business Case Task Organogram

Preparatory Studies
- Gap Analysis

Supporting Studies 1
- Situation Analysis
- Climate Vulnerability Studies
- Gender Study

Supporting Studies 2
- Precedent Study
- Green Economy
- Toolkit
- Regulatory Framework
- Business Engagement
- Funding Atlas

Rivers & streams on PRIVATE LAND
- Operating Models
- Cost Benefit Analysis

Rivers & streams on INGONYAMA TRUST LAND
- Operating Model
- Cost Benefit Analysis

Transformed Durban Riverine Corridors Cost Benefit Analysis
- Climate funds
- Climate Investors
- Business Partners
- Homeowner Partners

Business Case Task Organogram

Existing Sihlanzimvelo Cost Benefit Analysis

Upscaled River management Programme (streams on public Land ) Cost Benefit Analysis

Business Case eThekwini Operating Budget

Supporting Studies

CAPACITY BUILDING

KNOWLEDGE AND LEARNING
Conclusion: 5 ways in which transformative adaptation of eThekwini’s streams & rivers could shape the city’s future

1. **Risk Mitigation & Resilience**: water security & protection from catastrophic climate change impacts (heat, flooding, disease) and social mobilisation for disaster preparedness

2. **Green Economy**: Thousands of jobs, food security, hundreds of enterprises and some new factories can be supported

3. **Global city brand**: transformed waterways mean greatly enhanced liveability and performance on global city indexes that drive investment

4. **Social Cohesion**: water connects everybody, and in eThekwini this especially means reconnecting the poor majority of the city with a life giving asset

5. **Youth development**: recreation, amenity, employment, education, jobs, entrepreneurship, community leadership & aspiration
Thank You

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SIHLANZIMVELO STREAM CLEANING PROGRAMME

PRESENTED BY: MARK TOMLINSON
PROGRAMME BACKGROUND

- In 2009 the Engineering Department acknowledged that the majority of local watercourses in the eThekwini Municipality were severely blocked and polluted and that there was a lack of coordination between various departments in resolving these issues.

- The majority of “watercourses” were clogged with invasive weeds and polluted with litter. This resulted in storm water blockages and pollution downstream of high density areas as well as health and safety hazards for its inhabitants.

- The eThekwini Roads and Stormwater Maintenance Department (RSWM) together with various line departments within the city developed an operations manual for an integrated sustainable programme to focus on the worst affected streams in high density areas of the city.
The programme aim was to ensure that all watercourses are brought up to an appropriate standard to reduce storm water blockages and pollution downstream of these high density areas.

This programme was then aligned to address the eThekwini Municipalities objective of creating work opportunities, experience and skills for local contractors and communities within the wards of the streams being targeted.
FOCUS AREAS

• Due to budget constraints the initial focus areas are in the INK (Inanda, Ntuzuma and Kwamashu) and Umlazi areas.

• Field investigations were carried out to:
  ▶ Assess the magnitude of the problem;
  ▶ Water quality assessments
  ▶ Determine the scope of work required for each stream
  ▶ Prioritise streams which were in the worst condition
  ▶ Capture each targeted stream spatially in 5km sections
  ▶ Capture photographic evidence of each stream
FOCUS AREAS...

On completing the field investigations some of the problems that were observed and recorded were:

- Overgrown/dense vegetation on streams,
- Constant culvert blockages,
- Overflow of sewerage pump stations and sewer line ruptures resulting in sewerage flowing into the streams and
- Excessive illegal dumping on streams.

It was therefore imperative to carry out an initial cleanup which mainly comprised of removing the overgrown vegetation and the removal of any debris that may affect the flow of water.
TARGETED WATERCOURSES

• There are approximately 800km of rivers, streams and open storm water channels within the target areas of Inanda, Ntuzuma and KwaMashu (INK) and Umlazi.

• Various departments, ward councilors and ward committees within the municipality were consulted and assisted in identifying the worst affected watercourses according to condition and the impact they have on surrounding communities within the pilot project areas.

• This resulted in 100km of stream being selected in the Umlazi area and 300km in the Inanda, Ntuzuma and Kwa-Mashu (INK area). Each co-operative was allocated 5km of stream that they had to clean/clear and maintain.
TARGETED COOPERATIVES

• An expression of interest was advertised, where cooperatives were asked to respond by submitting their company documents.

• Qualifying Co-ops that responded and who reside within the project area were selected to be part of the programme which will assist in maximizing employment opportunities for community members that reside within the local area.

• Each cooperative has between 5 and 8 members
Co-operatives are contracted for a 36month period to perform tasks and paid at a pre-determined rate on tasks completed for the month:

<table>
<thead>
<tr>
<th><strong>SCOPE OF CONTRACT</strong></th>
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<tbody>
<tr>
<td><strong>NATURAL STREAMS – DEBRIS</strong></td>
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<td><strong>NATURAL STREAMS – ALIEN VEGETATION REMOVAL</strong></td>
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<td><strong>NATURAL STREAMS - EROSION PROTECTION</strong></td>
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<tr>
<td><strong>GRASS &amp; VEGETATION MAINTENANCE</strong></td>
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<tr>
<td><strong>LITTER CONTROL</strong></td>
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Protective Clothing

As part of the contract, each cooperative is required to be equipped with the following protective clothing:

- Heavy duty, non-tear overalls;
- Vulcanized canvas gloves;
- Disposable gloves;
- Hip boots and/or gum boots;
- Hats;
- Safety glasses
TOOLS AND EQUIPMENT

As part of the contract document each cooperative had to be equipped and provide the following equipment as a requirement:

- Garbage/ refuse bags for collection and dumping of trash
- Axe and bow saw for large trees
- Bush knife for lighter vegetation
- Shovels for root extraction and silt removal
- Rakes for debris clearing
- Wheelbarrows for carting debris
Over the years that co-ops have been in the programme, they have been provided with the following contractor development training:

- Business Management and Marketing Management (basic training) (Training was facilitated by SEDA)
- Book keeping
- Health and safety (facilitated by Ethekwini Municipality)
- Alien vegetation removal (facilitated by WESSA)
- Construction mentorship of minor infrastructure

Mentorship of Co-operatives (Co-operatives are being mentored on a continuous basis.)
GENDER

GENDER PERCENTAGES IN THE PROGRAMME

- MALES: 59%
- FEMALES: 40%
- DISABLED: 1%
NTUZUMA
CHALLENGES

- No co-ops or not enough stream length within the targeted wards resulting in co-operatives working in areas they do not reside in creating political instability.
- Illegal sewerage discharged from households into the streams
- Illegal dumping (by households, street vendors, and local business centres; taverns and tuck shops, etc.)
- Safety of co-operatives on site – streams that are situated in remote areas and the workers on site can be easy targets for criminals
MAINTAINED STREAM CONDITIONS

- The programme has been largely successful in improving the ecological environment of targeted streams as well as creating approximately 640 work opportunities at a local level.

- Currently there are 400km of streams maintained by 80 co-operatives
The current cooperative's contracts will come to an end in December 2019

New co-operatives were invited for the next phase of the programme

( expression of interest which is facilitated by Supply Chain Management)

99 Co-operatives will be allocated work in Wards they reside in covering approximately 990km

Each co-operative will be allocated 10km which they will work on in two month cycles (5km per month)

Training will be provided for all co-operatives in different aspects (Health and Safety, Technical, Business, alien invasive identification and removal etc… )
Up-scaling transformative river management in Durban: Reflections across existing river governance practices

Water Resilient Cities, 5th November 2019
• Three **riverine management examples** to draw from in Durban:
  - Sihlanzimvelo (City led)
  - Aller River (Conservancy led)
  - Durban Green Corridors (Special Purpose Vehicle)

• What are the **learnings** across these that help to inform how we think about **effective river management** programmes, and the **up-scaling** of these?
UPSCALING RIVER MANAGEMENT: The pieces of the puzzle...

- **Governance:** Structuring, coordination, champions and partners
- **Funding and Resourcing:** Financial and human
- **Implementation models and programme objectives**
- **Reporting, Monitoring and learning**
THE CASE OF SIHLANZIMVELO

Governance
• Embedded in municipal line function; strong champion who could build from past experience

Funding
• Municipal budget line item and embedded programme management staff

Implementation models/programme objectives:
• Waste and IAPremoval for stormwater and infrastructure benefits + job creation
• Contracting of consultants for oversight and co-operatives for implementation (every 3 years)
THE CASE OF SIHLANZIMVELO

Reporting, monitoring and learning

- Assessed through consultant; some data collected on water quality

Sustainable and replicable, with potential for expansion, if appropriately resourced. Challenges with coordination across municipal line functions

Queries: Possibly more expensive than other models with less flexibility/creativity (commercial contractor)
THE CASE OF THE ALLER RIVER

Governance
• Led by NGO (conservancy), with strong champion supported by committed volunteers; some support from local government; limited private sector support

Funding
• Varied – initially municipal grant, then other grant funds.

Implementation models/programme objectives:
• Localised focus on ‘eco-champs’ and the broader enabling environment in terms of education and monitoring.
• Investment in key HR (project manager, community facilitator, education coordinator)
THE CASE OF THE ALLER RIVER

Monitoring and evaluation

- Internal reflections and university report collated and used to inform programme development

Significant at small scale (in terms of eco-champs, behavioural change and monitoring), creative and flexible in approach. Could be difficult to up-scale without resources (human and financial). Sustainability is challenging and finding funds requires significant investment of time.
Governance
• Durban Green Corridors established in 2015, through early partnership between Municipality, DUCT and other river management stakeholders
• Municipality represented on multi-stakeholder board; also steering committee for management
• Potential to draw in other partners/implementers

Funding
• Municipality = key stream (Section 67 of MFMA); but DGC can look for funds beyond this. Renewed after 3 years
Implementation models/programme objectives:
- Municipality and other partners provide strategic direction and DGC is the implementer
- Focus on partnerships and capacity building for implementation – uMngeni catchment

Monitoring and evaluation
- Regular reporting as part of accountability

*Strengthens municipality’s implementation capacity and facilitates a longer-term partnership model. Potential for some expansion, but would ultimately need broader entity to coordinate action across the municipal area.*
GOVERNANCE

• Clear leadership, champion and political support = critical
• Objectives need to be clear: Can’t do everything
• Governance model: Understand the strengths and weaknesses of the role-players and their interests to find a model that maximizes the strengths across the partners.
• Arrangements that facilitate partnerships bring in complexity but also opportunities in terms of increased creativity, flexibility
• Ensure clear understanding of roles and responsibilities in order to facilitate participation and ensure accountability
• Understand relevant legislation around what is possible e.g. governance models, financial legislation, contracting terms etc
• Strong project/programme management capacity is needed, with the skills necessary to facilitate complex conversations
Baseline of reliable funding is critical in (a) ensuring sustainability, (b) building capacity, (c) generating credibility and learning, and (d) maintaining core work.

Possible sources e.g. municipal line budgets, reliable CSI funding etc.

Explore other options to build on this, that enhance the programme objectives, rather than compromising them.

Ensure adequate capacity to manage finances in the case of more complex programmes.
IMPLEMENTATION

- Be clear on ‘core implementation’ activities
- Develop and articulate clear programme messaging e.g. climate change, job creation, risk reduction etc
- Understand stakeholders and their interests and engage early
- Understand what already exists and build from that
- Once established, look for opportunities to improve and add value (e.g. new workstreams, circular economy initiatives etc)
- Think systemically – make sure that success in one area doesn’t compromise another
MONITORING

• Need structures and systems in place to facilitate the collection of data and reporting – ensure accountability but also allows assessment of impact
• Structure in learning opportunities and space for reflection – in complex spaces, this is critical to learn, grow and adapt
• **Thoughtful structuring** is needed – not just a ‘cut and paste’
• Understand **context** (e.g. political, socio-economic, governance) – what is likely to work best given the existing opportunities and constraints?
• How can **sustainability** be ensured: Financial (funding flows over longer time-frames), human (capacity building and growth) and **partnerships**?
• Start small, learn and grow – **incremental changes** can be important
• Who needs to **come along for the journey** and how do we make sure they stay for the duration?
• **Learn** and **adapt**
By 2030 eThekwini will be Africa’s most caring and liveable city

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Adaptation Finance Primer
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What is Adaptation Finance?

- Finance that reduces social vulnerability to climate risks (e.g. post-disaster financing for relief efforts);
- Finance that is used for climate mainstreaming and resilience building (e.g. finance spent on enhancing the strength of power lines and their resistance to high wind speeds) – transforming existing financial flows rather than increasing financial flows; and,
- Finance used for risk reduction and “pure” adaptation projects (e.g. financing mangrove rehabilitation to enhance the resilience of a coastline to storm surges and coastal flooding).

(Kamilshan Pillay C40)
Why is mobilizing adaptation finance so difficult?

Carney warns of risks from climate change 'tragedy of the horizon'

Bank of England governor tells Lloyd's insurers that 'challenges currently posed by climate change pale in significance compared with what might come'

Mark Carney said: 'Once climate change becomes a defining issue for financial stability, it may already be too late.' He proposes that firms 'would disclose not only what they are emitting today, but how they plan their transition to the net-zero world of the future'. Photograph: Jonathan Brady/PA
Why is mobilizing adaptation finance so difficult?

“Climate change is the Tragedy of the Horizon.

We don’t need an army of actuaries to tell us that the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors – imposing a cost on future generations that the current generation has no direct incentive to fix.

The horizon for monetary policy extends out to 2-3 years. For financial stability it is a bit longer, but typically only to the outer boundaries of the credit cycle – about a decade.

In other words, once climate change becomes a defining issue for financial stability, it may already be too late.
What are the barriers experienced during AF programmes and projects

- Scientific uncertainty and the frequency of impacts
- Accounting measures
- Political uncertainty and competing demands
- Matching risk reduction to adaptation measures (cost benefit analysis)
- Income streams: ability to pay & willingness to pay

(Kamilshnan Pillay C40)
Building blocks of financial instruments

- Grants
- Loans & Concessionary Loans
- Equity
- Guarantees
- Insurance
Municipal Budget

- Cost-benefits analysis can prove that preventive measures to reduce flooding (e.g. EbA) is more cost effective than direct and indirect costs of flood damages.

- Can be used to fund (not to finance) an infrastructure project
  - Financing: obtaining the funds to build infrastructure
  - Funding: used to payback financing and to operate infrastructure

- Instruments include user fees, development charges, value capture, air rights

- Critical issues: SDBIP, IDP, MTEF multi-year budgeting, intergovernmental transfers
Green Fund

The Green Fund is a unique, newly established national fund that seeks to support green initiatives to assist South Africa’s transition to a low carbon, resource efficient and climate resilient development path delivering high impact economic, environmental and social benefits.

The Fund is managed by the Development of Bank of South Africa (DBSA) on behalf of Department of Environmental Affairs.

- National budget allocation to PSF (grant funding): USD 200 millions
- Local governments can receive funds for infrastructure development, water resources management, restoration of natural ecosystems, etc.
- Application process, incl. investment criteria such as vulnerability, participation, poverty, cost effectiveness
Adaptation Fund

- The Adaptation Fund (AF) was established by the Parties to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC), as a mechanism to finance concrete adaptation projects and programmes in developing country parties.
- The fund is capitalised mainly from a percentage of proceeds of the Clean Development Mechanism. Future capitalisation in discussion.
- Adaptation Fund resources are accessed via Multilateral Implementing Entities (MIEs) and National Implementing Entities (NIEs).
  Initial country cap of USD10 million – but under revision
- SANBI is South Africa’s National Implementing Entity (NIE) of the Adaptation Fund
Green Bonds: Cape Town

Bond Details
- Bond Value = R1billion
- Amortised bond (interest + capital repayment) over 10 years

Financial Results
- Issued at R186 (treasury 10 year bond) rate + 1.33% = approx 10.13% (similar non-green South African Municipal bond issued a day earlier at +1.75%)
- 4x oversubscribed – demonstrating market appetite
- Comparable to current cost of capital (from other sources including concessionary loans) @ 9.95%

Non-financial benefits
Publicity/awareness of “Green Credentials” Conversations with new mix of asset managers
Linked to launch of our Climate Change Policy – “greening” of treasury department
Awareness of Standards to develop future projects
Certification Process
Bilateral Agencies

French Development Agency (AFD)
- provides direct loans to municipalities for infrastructure projects
- uses financial intermediaries to support small and medium sized municipalities in basic infrastructure investments
- Cape Town: AFD funded adaptation solutions through the Cities and Climate Change in Africa programme

US Agency for International Development's (USAID) Credit Authority offers partial credit guarantees, using risk-sharing agreements to mobilize local private capital to fill financing gap

Many other bilateral agencies offer technical assistance.
Private Sector Solutions

Engaging the private sector in GIZ EbA project in Cartagena, Colombia

- EbA to minimise flooding events, e.g. restoration and maintenance of forests, conservation of mangroves
- Compensation fee for hardening and sealing green areas (reduction of rainwater runoff that often causes flooding)
- Specific fee for conferences and events in Cartagena (awareness of environment, reduce pressure on water use)
- Revenue fed into endowment fund, administered by municipality

Payment for ecosystem-services

- Private sector makes a direct/indirect payment to provider of ecosystem services
Private Sector Solutions

Engaging the private sector in South Africa

- BBBEE Scorecard
  - Enterprise Development
  - Corporate Social Investment
- Property Development and Asset Maintenance Funds
- Special Rating Areas
- ‘Stewardships / Conservances
- Legislative Compliance
Insurance: Resilience Bonds

Resilience Bonds

- Innovative variation of catastrophe bond
- City wants to insure assets against flooding events
- Build new seawall, but lacks funds
- Insurer takes expected impact of planned investment into account and lowers the premium the city has to pay
- Cost saving to be used to fund seawall construction
- Premium discounts to incentivize long-term decision-making is typical concept in the personal insurance industry
Multilateral Climate Funds

Green Climate Fund, Adaptation Fund, GEF, etc.
- Provision of grants or loans
- Cities cannot apply directly but have to go through accredited entity
Mulilateral Development Banks (MDBs)

- IDB, AfDB, ADB, EBRD, EIB
- Instruments: (concessional) loans
- World Bank with Cities Resilience Programme, technical assistance for project preparation
- Tanzania: project preparation (grant) and construction (loan) of flood resilience measures

Figure 1. Total reported MDB climate finance commitments, 2011-17 (in US$ million)
Philanthropy

Corporate Social Responsibility Funds
- Companies spend 1 - 5% of average profit on CSR activities, which can include climate change adaptation

Stewardship approaches
- Companies support water stewardship programme, e.g. cleaning of rivers that has clear adaptation benefits

Technical assistance & small financial contributions
- 100 Resilience Cities Program by Rockefeller Foundation: Financial support for establishing Chief Resilience Officer in municipality
Crowdfunding / Crowd-investing

Local Level
- Guided by principle: residents want to take forward and invest into project
- Funding from diverse donor pool, incl. matching fund from municipality
- A way to realise small initiatives in the context of adaptation, such as green roofs / facades, street gardens

International level
- Investors looking for sustainable investments
- www.clime-it.com or www.ecoligo.com
Climate Change Flagship Programmes and South Africa’s Climate Change Response

South Africa’s Nationally Determined Contribution to the UNFCCC

South Africa’s GCF Country Programme and Investment Framework

South Africa’s NDC to UNFCCC

South Africa’s NAMA Portfolio

National GCF Country Programme

South Africa’s Portfolio of Nationally Appropriate Mitigation Actions (NAMAs)
Current DBSA Involvement in Climate Finance Activities

**GF**
The Green Fund is managed by the Development Bank of South Africa (DBSA) on behalf of Department of Environmental Affairs.

*Current portfolio:*
- 8 capacity development projects
- 16 R&D projects
- 31 Investment projects

**GCF**
DBSA’s accreditation to GCF allows the bank to access GCF funds in order to support innovative and risk-sharing approaches in projects that contribute towards low-carbon and climate-resilient development.

*Current Pipeline:*
- 3 project approved (1 FP, 1 PPF & 1 readiness support)
- 6 being prepared for GCF board consideration, pipeline being developed.

**GEF**
The DBSA is also accredited as a National Project Agency (NPA) for the Global Environment Facility (GEF) in 2014.

*Current Pipeline:*
- 6 projects approved
- Pipeline of projects being prepared for GEF 7

**IDFC**
DBSA is an active member of the International Development Finance Club, IDFC, formed in 2011. IDFC is a network of 23 leading national, regional and international development banks from across the planet that share a similar vision of promoting of low-carbon and climate resilient futures.

**GILFCC (The Lab)**
DBSA is a member of the Global Innovation Lab for Climate Change, whose mandate is to support the identification and piloting of climate change financing instruments and products to catalyze private sector money into Climate Change mitigation projects in developing countries.
Key Agencies partnered with DBSA

- The **Green Fund** is managed by DBSA on behalf of Department of Environmental Affairs.
- DBSA ‘s accreditation to **Global Climate Fund (GCF)** allows the bank to access GCF funds in order to support innovative and risk-sharing approaches in projects that contribute towards low-carbon and climate-resilient development.
- The DBSA is also accredited as a National Project Agency (NPA) for the **Global Environment Facility (GEF)** in 2014.
Key Agencies partnered with DBSA

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- DBSA is a member of the **Global Innovation Lab for Climate Change**, whose mandate is to support the identification and piloting of climate change financing instruments and products to catalyze private sector money into Climate Change mitigation projects in developing countries.
The Adaptation Finance Value Chain:

1) **Sourcing** Adaptation Finance:
   - sources of Adaptation Finance (private, public and donor: nationally and globally)
   - key SA intermediaries and accredited agencies
   - donor funding cycle
   - criteria requirements and application processes
   - application submissions including technical studies, cost benefit analyses etc
The Adaptation Finance Value Chain:

2) Packaging Adaptation Finance:
embracing Adaptation Finance in municipal programming and planning cycles,
integration and alignment with municipal IDP, SDBIP, policy and strategy
capital & operating budget alignment
capacity building
crowding in of other sources of finance (co funding)
The Adaptation Finance Value Chain

3) Delivering Adaptation Finance Projects & Programmes:
   • project management,
   • project cycle,
   • governance structures and partnerships.

4) Monitoring, Reporting and Evaluation:
   • Indicators
   • quality control,
   • reporting systems
   • impact assessment.
Towards a Financial Framework

**Challenge #1:** integrating multiple funding sources & streams across dozens of big and small projects over many years to meet three core needs:

1. **Green and grey infrastructure** (canals, culverts, gabions, floating wetlands, pocket parks)
2. **River management services** (e.g. Sihlanzimvelo)
3. **Human & business capability development** (capacity building, business support, partnerships, skills development)
Towards a Financial Framework

**Challenge #2** : Synchronising disparate institutional cycles

1. Donor Funding and M&E Cycle
2. Business budget cycle
3. Municipal IDP, Budget & SDBIP Cycle
4. Project Cycle
Towards a Financial Framework

**Challenge # 3**: Integration & alignment mechanisms

- Programme Packaging & Integration
- Funding receipt, disbursement
- M&E and reporting
Thank you!

C40 CITIES FINANCE FACILITY