

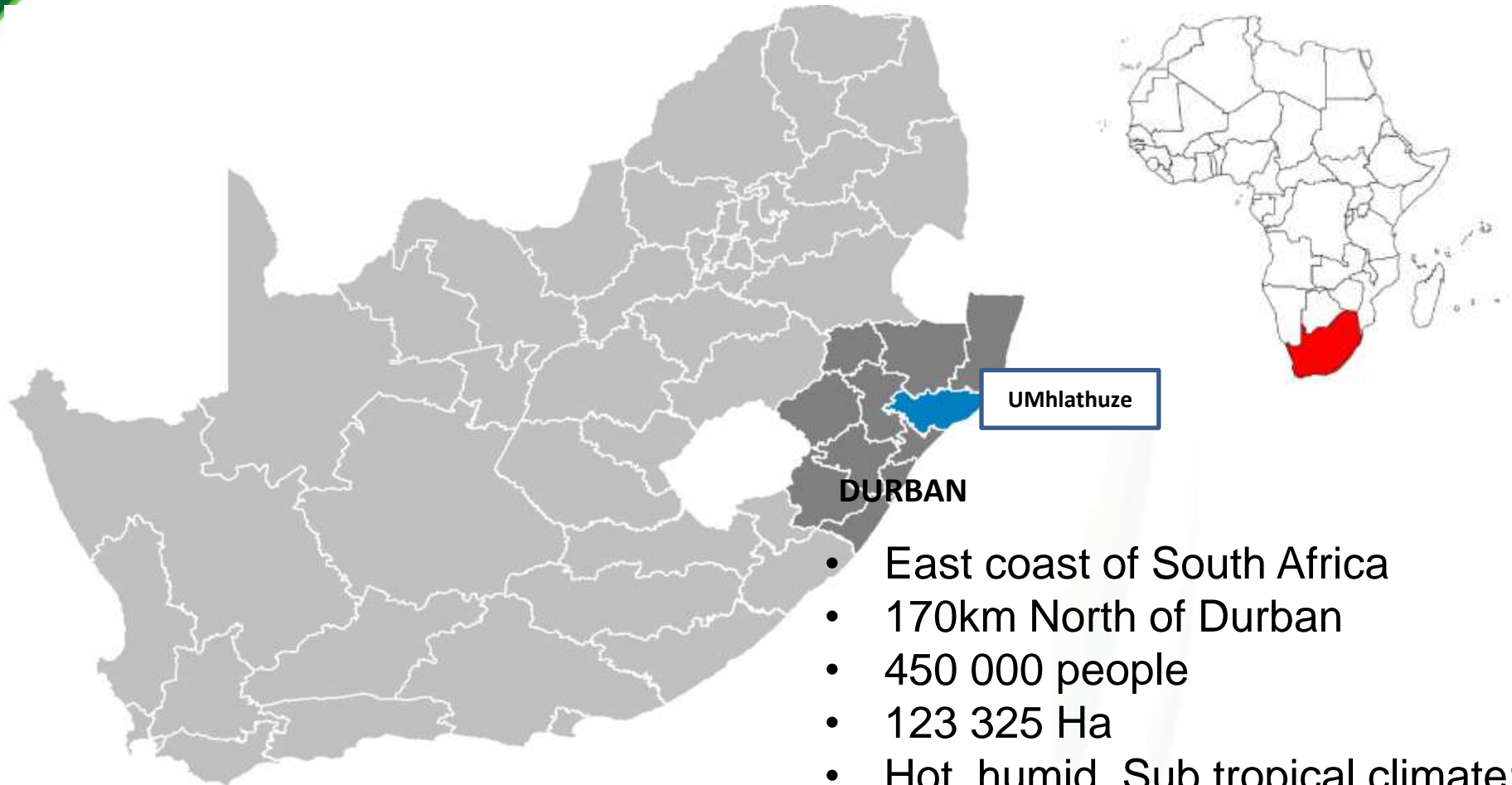
**RESILIENT CITIES 2018
BONN, GERMANY**

CIMATE FINANCING FROM A LOCAL GOVERNMENT PERSPECTIVE

**NONTSUNDU NDONGA
DEPUTY MUNICIPAL MANAGER: CITY DEVELOPMENT**



UMHLATHUZE AT A GLANCE



DURBAN

- East coast of South Africa
- 170km North of Durban
- 450 000 people
- 123 325 Ha
- Hot, humid, Sub tropical climate;
Ave Temps : S - 30 °C; W - 24 °C
- Pilot Municipality for the Integrated
Urban Development Framework

CAPE TOWN



UMHLATHUZE AS A GATEWAY TO WORLD MARKETS



1. South 32 Aluminium Smelter
2. Rio Tinto Dune Mining
3. Richards Bay Coal Terminal: Largest in the Southern Hemisphere, positioned in SAs Premier deep water Port



UMHLATHUZE AS A BIODIVERSITY HOTSPOT



1. uMhlathuze Estuary supporting 50% of SA's Mangrove Forest
2. Thula Thula Nature Reserve
3. Nile Crocodile at Nseleni River



IMPACTS OF CLIMATE CHANGE ON VARIOUS SECTORS

- Drought spells have resulted in diminished water security for Industry and Port Development as well as for human consumption;
- Intense coastal storms has resulted in alarming levels of erosion and a receding coastline;
- Flooding and Disaster Management Implications for Settlements within Peri urban and rural areas especially that are generally unplanned;
- Increased maintenance for municipal Infrastructure (Roads, Stormwater, Electricity, sewer);
- Biodiversity Loss;
- Food security and Sustainable Livelihoods (Fishing, Subsistence Agriculture, Harvesting and Livestock).

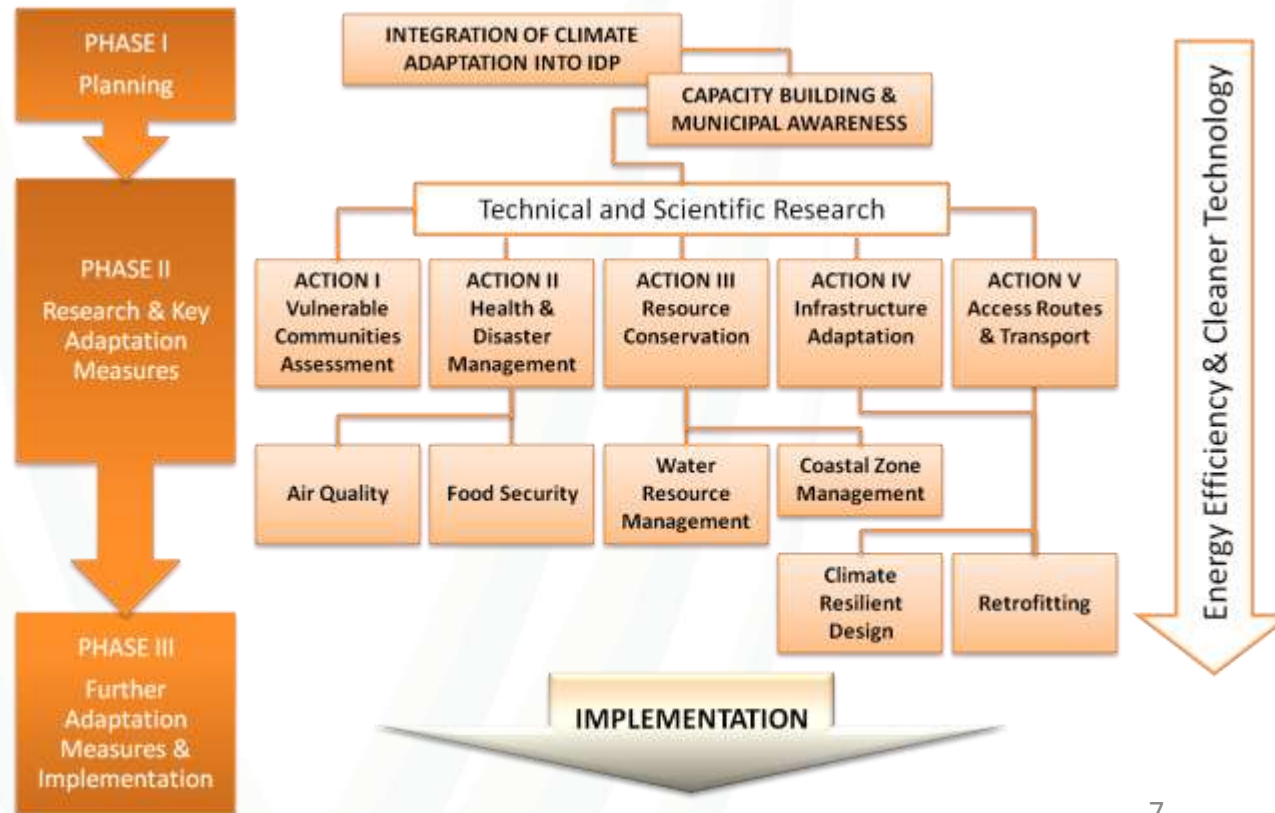
A SNAPSHOT OF LOCALIZED IMPACTS OF CLIMATE CHANGE

Coping with extreme weather events are at the core of the Municipality's challenges



CLIMATE CHANGE STRATEGY

- The Municipality has a climate change strategy that was adopted in 2010.
- This was a proactive undertaking, informed by a vulnerability assessment that profiled the various climate change risks for the municipality.
- The strategy has since been adopted as a sector plan of the IDP.
- Implementation relies on day to day operations across the organization.



INSTITUTIONALIZATION OF CLIMATE CHANGE ACTIONS - ESTABLISHMENT OF A GREEN TEAM

- Climate Change actions are cross cutting and therefore needs to be mainstreamed in operational units & institutionalized

City Development

Spatial and
Environmental
Planning

Coordinator

**Community
Services**

Waste
Management

Air Quality

Parks, Biodiversity
and Horticulture

Health / Clinics

Environment and
Recreational
Services

Disaster
Management

**Infrastructure and
Technical Services**

Transport, Roads,
Stormwater and
Coastal
Management

Water and
Sanitation

Energy
Management



FUNDING CLIMATE RESILIENCE IN THE CONTEXT OF LOCAL GOVERNMENT

uMhalthuze Budget Overview for 2018/2019:

Description R thousands	2018/19 Medium Term Revenue & Expenditure Framework		
	Budget Year 2018/19	Budget Year 2019/20	Budget Year 2020/21
Total Operating Revenue	3,035,560	3,219,818	3,450,169
Total Operating Expenditure	2,997,183	3,187,174	3,418,838
Surplus/ (Deficit) for the year	38,377	32,644	31,331
Total Capital Expenditure	517,311	523,756	542,057
TOTAL OPERATING & CAPITAL BUDGET	3,514,493	3,710,930	3,992,226

Less than 1% (R5 000 000) of total capital budget is spent on environmental management related projects/initiatives



- **R517 000 000 = \$43 400**
- **R3 514 000 = \$295 217**

HOW ARE WE RESPONDING IN TERMS OF BUILDING CLIMATE RESILIENCE?

The City of uMhlathuze has taken bold strides in responding to climate change risks that were compromising industrial operations, infrastructure and human life. The following **catalytic project interventions** were initiated as a result of climate threats encountered in the last 3-5 years:

Adaptation

1. Coastal Defence at Alkantstrand Beach
2. Planning climate resilient Waterfront
3. Desalination Plant
4. Waste Water Re-use

Mitigation – Diversification from electricity to gas

1. Gas to Power Development

In context: Richards Bay (consumes as much electricity as 3 of the Country's largest cities: Joburg, Cape Town and Durban collectively hence impetus to reduce Green House gas Emissions.



OUR RESPONSES TO ADAPTING & BUILDING CLIMATE RESILIENCE... CATALYTIC CLIMATE PROJECTS



GEOBAGS AT ALKANTSTRAND BEACH

- Geofabric Bags- considered a soft engineering defence against coastal erosion along the beaches north of the Richards Bay Port;
- Installed under emergency circumstances at the risk of losing the lifeguard building and infrastructure along coastal public property;
- Requires on-going maintenance and has always been considered as temporary mitigation;
- The success of the geobags relies on sand pumping from the Port.

- **R 10 Million**
- **R 14 Million** Phase 2
- **R 2 M** p/a for maintenance

OUR RESPONSES TO ADAPTING & BUILDING CLIMATE RESILIENCE... CATALYTIC CLIMATE PROJECTS

Richards Bay desalination plant officially up and running

SA's first portable seawater purification plant is now fully operational in Richards Bay

May 11, 2017



The desalination plant comprises 10 portable containers near Alkantstrand

DESALINATION PLANT

The 10 Mega Liter Plant was funded by the DWS on Council owned land.

Constructed as a package plant, can be relocated to relieve other drought stricken areas.

Cost of construction in excess of R350m

OUR RESPONSES TO ADAPTING & BUILDING CLIMATE RESILIENCE... CATALYTIC CLIMATE PROJECTS

Richards Bay to get 2,000MW from gas power project

05 OCTOBER 2016 - 10:22 by LINDA ENSOR

Richards Bay gas-to-power plant a 'game changer'

Department of Energy expects one million full-time jobs will be created from the massive project

March 13, 2017



GAS TO POWER PLANT

- The Mayor has been instrumental in securing 2000 MW gas to power development in Richards Bay;
- The project is aligned with the National resource plan of the Department of Energy.
- Council resolved on land that must be set aside for such purposes;
- The LNG will be piped from a gas import facility which government is also planning
- The gas to power plant will feed into the local grid
- Currently at a planning/ EIA stage.

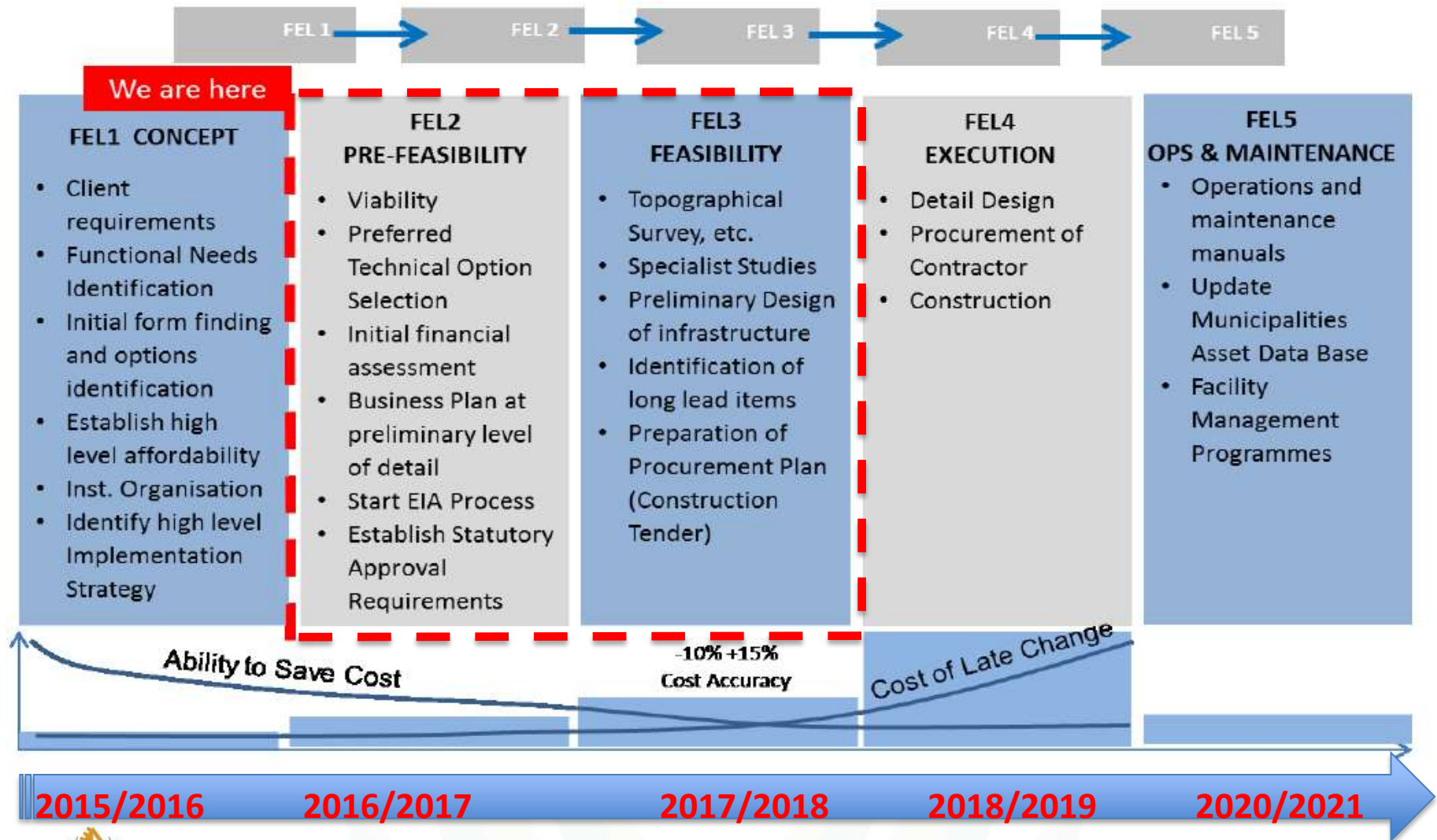
CHALLENGES WITH FUNDING CLIMATE RESILIENT PROJECTS

- Expectations for local government to fund climate responses as Climate impacts are experienced at a local level. This is often impossible.
Note the capital outlay required for of some of the catalytic project interventions at uMhlathuze.
- **uMhlathuze has competing financial needs**, i.e. water, sanitation, energy provision, housing etc.
- Against the backdrop of addressing socio economic inequalities and poverty, Municipalities are expected to do more with less by:
 1. re-evaluating resources (human and financial capital);
 2. identify alternate funding sources for environmental management and sustainability programmes in general; and
 3. Grants are most popular means of funding climate change adaptation and mitigation programmes.

CHALLENGES WITH ACCESSING FUNDING

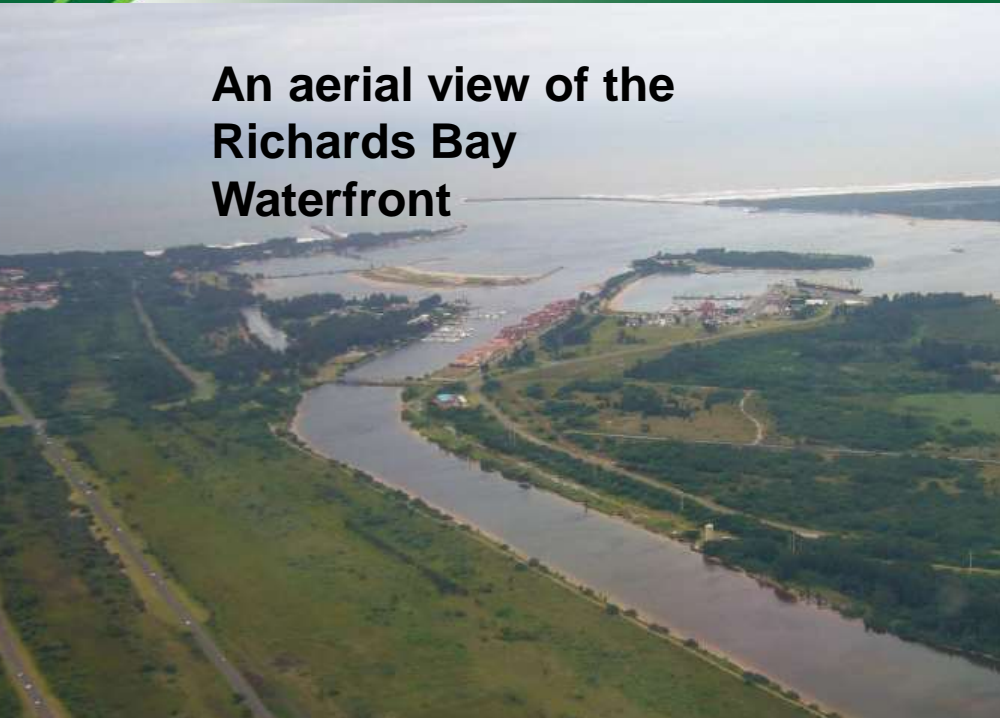
- Developing credible business plans requires specific skills, time and human resources which are lacking.
- Bankability of a project: The business case risks are often not considered for projects implemented at a municipal level;
- Human resources required to initiate grant applications and project management once funding becomes available is often underestimated.
- Explicit funding criteria of funding agencies must be understood and captured in business plans and they often differ from funder to funder.
- Project preparation phase is often underestimated and climate change projects by their nature need a proper due diligence process PPPs are generally considered for projects exceeding municipality's affordability
 - The process is protracted and takes longer to execute than projects initiated from municipal budgets

PROJECT PREPARATION CYCLE: A CASE OF THE STEEL BRIDGE AT THE RICHARDS BAY WATERFRONT



OUR RESPONSES TO ADAPTING & BUILDING CLIMATE RESILIENCE... CATALYTIC CLIMATE PROJECTS

**An aerial view of the
Richards Bay
Waterfront**



RICHARDS BAY WATERFRONT

**Existing Steel
Bridge**



**A climate friendly
aesthetically pleasing ,
functional design**



CONCLUDING REMARKS

The Municipality has strategic partners to assist with the implementation of climate programmes.

ICLEI

- Membership provides global outreach/ networking; funding green projects as well as training and networking with local governments
- The municipality as a selected secondary/intermediary City and is participating in low emissions development programmes

International Water Stewardship Program

- Commissioned by the German Federal Ministry for Economic Cooperation and Development through the GIZ
- In SA, Partnered with the World Wildlife Fund and National Business Initiative
- The uMhlathuze Water Stewardship Partnership: Address sustainability issues affecting water security within important catchments. Projects include: Alien invasive clearing, Waste Management, Awareness, Water losses etc.



CONCLUDING REMARKS

- The expectations at a local level is to respond with implementing projects at a rapid pace, which defines and gives impetus to the service delivery mandate.
- Such expectations however require somewhat of a paradigm shift if municipalities are to access climate finance, which generally need to honour the requirements prescribed by the various funding mechanisms.
- Furthermore, climate resilient projects would need to be proactively planned for, instead of reacting once a climate related disaster has occurred.

THANK YOU

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