



ACC DAR

Adapting to Climate Change in Coastal Dar es Salaam



CLIMATE CHANGE ADAPTATION INITIATIVES IN TEMEKE MUNICIPALITY



10 JUNE 2014



Mr. Photidas A. Kagimbo
(Director Temeke Municipal Council)
Email: Temeke@tmc.go.tz

Presentation outline

1. Background information
2. Urbanization challenges
3. Introduction: Key definitions
4. Vulnerability of climate change
5. Climate Change Adaptation Initiatives
6. Achievements
7. Conclusion
8. Recommendations

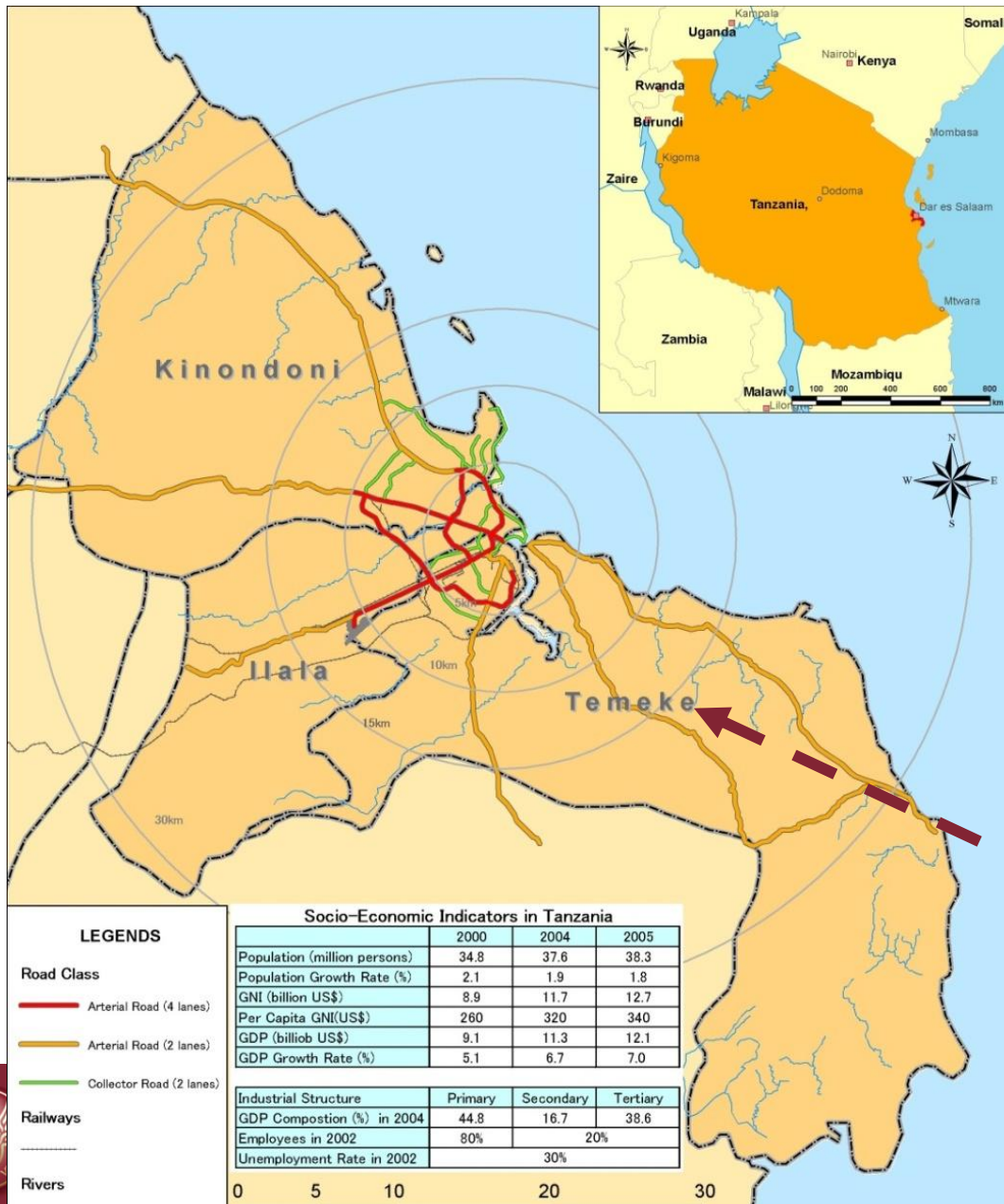
Basic information

Dar es Salaam

- Commercial city of Tanzania,
- Generates about 80% of domestic revenue,
- Has fastest growth of population and Vehicle ownership,
- City population (2014) is 5.0m, growth rate is 5.6%.

Temeke

- Present population about 1.6m



Introduction: Key Definition

Climate change

“A changing climate leads to changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events”
(SREX, 2012).

Urban Resilience

“It is the ability to resist or withstand impacts, as well as the ability recover and re-organise in order to establish the necessary functionality to prevent catastrophic failure at a minimum and the ability to thrive at best. Resilience is thus a spectrum, ranging from avoidance of breakdown to a state where transformational change is possible.”

Sources: (UNDP (2010). A Toolkit for Designing Climate Change Adaptation Initiatives; Brown et al, (2012a)



Introduction: Key Definition

Ecosystem-based Adaptation

“Ecosystem-based adaptation uses the range of opportunities for the sustainable management, conservation, and restoration of ecosystems to provide services that enable people to adapt to the impacts of climate change. It aims to maintain and increase the resilience and reduce the vulnerability of ecosystems and people in the face of the adverse effects of climate change. Ecosystem-based adaptation is most appropriately integrated into broader adaptation and development strategies”

(Secretariat of the Convention on Biological Diversity 2009)



Urbanization challenges

- Rapid population increase resulting pressure on land
- Rapid mushrooming of unplanned settlements
- Traffic congestion
- Degradation of environment through human activities
- Inadequate waste management
- Limited financial resources to support development projects.
- Climate Change Adaptation deficit
- etc...





Identified threats: settlement encroachment, waste disposal, change in sea-level etc.



Human activities destruct fragile eco-systems



Lime manufacturing using fuel wood



Vulnerability to Climate Change

- **Flooding**

Excessive rainfall has led to frequent flooding in Dar es Salaam, experiencing frequent flooding that damages infrastructure and properties and disrupts economic activities.

- **Drought**

*- Residents of Dar es Salaam have been experiencing water scarcity for many years **resulting into** drinking untreated water from boreholes and streams*





Vulnerability to Climate Change ACC DAR

cont'nue:

- **Sea-level rise**

human activities, including dynamiting of coral reefs for fishing, sand extraction for construction, lime manufacture from coral rocks, removal of salt pans, and the cutting of poles from mangroves

- **Coastal erosion**

already widespread in Dar es Salaam, particularly in the area of Kunduchi beach, to the north of the city down to Temeke beaches.



Strategies & Policies relevant for managing sustainability and building resilience in Dsm

- The National Reform Water Sector Policy of 1991
- The National Environmental Action Plan (NEAP) of 1994
- National Environment Policy (NEP) of 1997
- The Environmental Management Act (2004)
- Tanzania's National Adaptation Programme of Action (NAPA) (2007)
- United Nations Convention to Combat Desertification (UNCCD),
- United Nations Framework Convention on Climate Change (UNFCCC)
- Convention on Biological Diversity (CBD)
- etc.

Climate Change Adaptation Initiatives

- Improving unplanned settlements by providing basic infrastructure (CIUP) in Sandali, Azimio & Keko wards & other areas in the city.
- Conservation of Marine & Coastal Resources under MACEMP.
- Use of Clean Development Mechanism (CDM) to reduce methane equivalent in air - Mtoni CDM Project.
- Other future programmes Kigamboni New City Development Programme, Dsm Metropolitan Development Projects, Bus Rapid Transit (BRT), etc.
- Developing partnership with ICLEI in support Climate change Adaptation Programme and other partners,

Roads & Drainage improvement at Mangaya Road



Mangrove replanting groups:

- Centre for Fisheries Development & Environment Group (**CEFDEC**), replant mangrove in Mtoni Kijichi, Vijibweni & Bokorani areas (10ha).
- **Youth Vision of Kigamboni** actively engaged in coastal resource protection and mangrove replanting (15ha) in Kibugumo, Mjimwema & Mbwanamaji.
- Tanzania Mangrove Protection Association (**TAMPA**)-regular patrol along the beach area to protect coastal resources, awareness campaigns & replanting mangrove in Puna area (10ha).

Group replanting mangrove in denuded area in Kijichi



Achievements

- Capacity building to Staff & selected community members
- Baseline data collected
- Building Climate Resilience: A Handbook for Temeke Municipality Council was prepared.
- Stakeholders consultation on Climate change Adaptation, options were developed
- Online *Climate change Adaptation Toolkit* being developed).

Conclusion

- There is inadequacy of local authority capacity to address climate change and its associated impacts.
- Climate Change Adaptation Programme is limited to few areas in D'salaam.
- No city-wide strategy to address climate change adaptation challenges
- Inadequacy coordination of various activities undertaken to restore the environmental conditions
- Limited support to community initiatives to protect eco-systems (e.g mangrove replanting).
- Limited information flow among users

Recommendations

- Community participation is quite vital for sustainability of environmental protection initiatives.
- Collected efforts are needed among our local authorities to address the global threats of climate change in our local environment at all levels.
- Dar es Salaam City-wide Strategic Action Plan for Climate change Adaptation is necessary for future livable city.
- Capacity building on Climate change adaptation that include training & exchange of Best Practices among Local Authorities should be considered important.
- Coordinated activities and information sharing among users will lead to positive results
- Resource mobilization and integration of action plans into planning and budgeting processes for Climate Change Adaptation, mitigating impacts is quite necessary. Let us do it **today tomorrow will be too late!**





ACC DAR

Adapting to Climate Change in Coastal Dar es Salaam



Glacia!

**Thanks
For your attention!**

Asanteni!

