

Urbanisation-Climate Change Nexus

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Sustainable Urbanisation

1 out of 3 urban residents in the world are slum dwellers



Climate change will lead to a rise in sea level in coming decades with devastating impact on coastal cities and urban population

✓ 3,351 cities in low elevation coastal zones ✓ Nearly 634 million people (10% of the global population) \checkmark 384 million people at risk mostly developing world \checkmark Asia alone will account for more than half of the most vulnerable cities \checkmark LAC = 27% / Africa = 15% ✓ <u>Developed world</u>: 35 of the largest cities are coastal or along a river banks



The Impacts of Climate Change on African Cities

- Extreme weather events damage buildings and urban infrastructure
- Coastal cities and small island states affected by sea level rise; Coastal erosion
- Water resources stress: floods and droughts
- Human Health malaria; waterborne diseases; polluted water
- Food Security Livelihoods Tourism
- Climate refugees move to urban slums



Climate change vulnerability in Africa







Major and Capital Cities of Africa at risk due to sea level rise

> Alexandria Mombasa Dar es Salaam Maputo Durban Port Elizabeth **Cape Town** Luanda Douala Lagos Accra Cotonou Lome Abidjan Monrovia Conakry **Banjul** Dakar Casablanca **Algiers Tunis**



All grids 1km resolution.

What do we have?

- Cities in the developing world growing faster than cities in the developed world;
- Increase on risk and vulnerabilities due to unplanned urbanisation;
- Climate Change and Sea Level Rise;
- Local capacities overwhelmed by a rapid unplanned urbanisation;



Adaptation & Mitigation

- Adaptation = To manage the un-avoidable Local and long term
- Mitigation = To avoid the un-manageable Global and short term
 - Closely interconnected;
 - Indispensable for poverty alleviation agenda;
 - Potential for global economic recovery.



Adaptation Options

- Climate proofing of urban infrastructure, e.g. seawalls and storm surge barriers
- Investing in storm water drainage
- Early warning systems
- Enhance community resilience
- Upgrading of slums; Relocation of extremely vulnerable settlements and infrastructure
- Avoiding Slum formations, especially in risk prone areas due to unequal land access



Adaptation Options

- Reinforce building codes and regulations;
- Strengthen local and National authorities in order to deal with this inevitable urbanisation process;
- Emphasise our work in small and medium size cities (due to the important part of urban growth and limited human and financial resources)
- Access financing mechanisms such as the UNFCCC Adaptation Fund
- Insurance schemes



Mitigation Options

- Energy efficiency in local government facilities, e.g. street lighting and water pumps
- Foresighted transport and infrastructure planning
- Compact and dense urban patterns to reduce travel distances and infrastructure networks
- Promote energy efficient building materials
- Landfill methane recovery
- Protect forests and watersheds
- Finance: Clean Development Mechanism (CDM)



Cities and Climate Change Initiative (CCCI)

Key Concern:

Urbanization affects climate change, resulting in impacts to cities, ecosystems and livelihoods. The severest burden is born by **urban poor in slums**. Local initiatives are often disconnected from national action plans.

Objective of CCCI:

To enhance climate change **mitigation and adaptation capacity** of cities in developing & least developed countries.





- Assessing conditions, identifying challenges and opportunities for cities ***
- Enhancing CC policy dialogues **
- Developing tools for awareness, education & capacity building to support CC strategies **
- Mobilizing and promoting CC <u>networks</u> **
- Stimulating <u>learning</u>, <u>knowledge</u> sharing and exchange of good practices *
- Supporting cities by designing innovative and propoor pilot initiatives *



Geographical Scope CCCI

- First group of pilot cities (2008)
 - <u>Sorsogon (Philippines)</u>
 - Esmeraldas (Ecuador)
 - <u>Maputo</u> (Mozambique)
 - Kampala (Uganda)

Additional cities (planned 2009-2010)

- Sub-Saharan Anglophone Africa (5 DevAcc)
- Southeast Asia (20 WB/CA)
- South Pacific SIDS (5 AusAid tbc)
- Caribbean (5 being explored)



Capacity Development Levels

- In the pilot cities: Decision makers, urban planners, neighbourhood organizations (strengthening assets and response capacity of the urban poor)
- At the national level: Integrating urban issues into national climate change debates; strengthening networks.
- Local Government Training Institutes & Universities: Curriculum Development, rolling out of CC courses; Research and training in support of pilot cities



UN@HABITAT FOR A BETTER URBAN FUTURE Thank you!