Climate change and development in Ghana

Climate change and cities

URAdapt
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Why are we here?

- **Debate** on Ghana’s plans & role of urban areas in tackling opportunities & challenges posed by climate change for development

- National & international context on climate change

- Emerging climate change response
  - Each area & sector as part of national solution
  - Ghana as part of international solution
  - Long-term implications & lock-in decisions
  - Securing international support & finance
Why are we here? 2

Ghana’s response to climate change in development

- A comprehensive vision & approach key
- Senior leadership commitment & direction
- Cross-government approach & inter-sectoral coordination & collaboration to scale up
- Integration with national, regional & sector plans
  - Med-Term Nat Dev Plan, budget cycle, PFM
- Systems approach – financing, institutions, measurement, reporting & verification

but

- stretch on technical capability & capacity
Ghana dry scenario - °C change from base

High increase in north

Temperature Change °C

- Less than 1.3
- 1.3 - 1.6
- 1.7 - 2.0
- 2.1 - 2.4

2020 2030 2040 2050
Conclusions Economics of Adaptation – 1

- **Cost**: Estimated cost of adaptation $60m - $300m per year (mid-range) – agriculture, roads, energy & water, coastal infrastructure – selected elements only

- **Shocks**: Potential negative impacts of CC shocks significant & increasing over time
- **CC shocks** will become greater & increase in variance

- **GDP**: Present values of losses under scenarios are significant compared to a historical climate base simulation
- **1.2% - 3.9%** of present value of discounted baseline GDP
Conclusions – 2

- **Agriculture**: Significant drop in crops requires intervention for food security & productivity

- **Energy**: Energy mix needs to include diversified renewable sources (e.g. mid-size hydro & mini-hydro)

- **Roads**: Costs of roads adaptation high

- **Coastal**: Coastal communities very vulnerable to CC
Response to climate change in development

Development

Mitigation

Adaptation & disaster risk

... tackling adaptation

... & mitigation needs

'Lower carbon'

'Climate-resilient'
Climate & development plans

- **Development, adaptation & mitigation**
- **Long & short term horizons**
  - **Content**
    - Priorities, policies, measures & international support
  - **CCGP** = *climate compatible growth plan*
  - **LCGP** = *low carbon growth plan*
  - **CRGP** = *climate resilient growth plan*

- Both developing + developed countries
  - **Process**
    - Iteration, Support, Financing, Capacity, Technology
    - Measurable, Reportable & Verifiable
Cities & climate change initiatives

Building Climate and Disaster Resilience into City Planning and Management Processes

Climate change, urban flooding and the rights of the urban poor in Africa
Key findings from six African cities

Ranking Port Cities with High Exposure and Vulnerability to Climate Extremes

Flood Risks, Climate Change Impacts and Adaptation Benefits in Mumbai
Cities & climate change

- How cities contribute to & are affected by CC

- How policy makers can use cities to change behaviour & technology on CC

- How cities could use CC as an opportunity to raise profile, reinforce sensible policies & move toward a more sustainable pattern
Cities & climate change

- Urban transition - future population growth in low- & middle-income country urban centres – 3M a week!
- Cities most vulnerable, especially poor groups
- Cities account for bulk of consumption & GHGs
- Infrastructure of 2050 being built today – is it adequate?
- Fit for past or for future purpose?
- Vulnerability – location, economy, scale
- Congestion or competition?
Why scenarios?

• Acknowledge & explore uncertainty – not ‘one future’ or projection, need to understand extremes & implications

• Take a holistic view – show interconnections

• Long-term mindset - beyond the day-to-day

• Make explicit impact of decisions made now on future

• Enable ‘future-proofing’ of initiatives – a useful tool
A framework approach for Ghana

- Climate adaptation & disaster risk reduction
- Lower carbon growth in carbon-constrained world
- Social development – equity, poverty & gender
- Governance & coordination
- Capacity
- Research & knowledge management – gaps, uncertainty
- Financing mechanisms – markets, risk, scale
- International cooperation
- Communication
- Measurement & reporting
An approach for Ghana - content

• Assist Ghana to achieve its growth & development objectives in a resilient & lower-carbon way

• Both long-term vision & short-term strategy/action plans

• Coordinate action across sectors, link to national policies

• Spell out requirements for domestic & international resources - funding, technology transfer & capacity

• Nationally appropriate mitigation actions

• Specify international support needs
An approach for Ghana - process

• Base on sectoral and geographical needs & capabilities

• Integrate with other policy documents & overall economic & development objectives, esp. MTNDP & sector plans

• Build on previous consultation, extend with multiple stakeholders, (public, private & non-state) & public debate

• Ensure consistency – or surface trade-offs - between overall national plan & individual measures

• Mandate & ownership directly from leadership

• Allow for iterations, learning & refinement
Urban risk assessment

- Historical incidence of hazards
- Spatial data
- Institutional mapping
- Community participation

- Integration???
- Flood action & preparedness
- NADMO? AMA?
- Private sector, informal sector?
- Infrastructure, assets, shelter
Why are we here again?

- Each area & sector as part of national solution
- Ghana as part of international solution
- Act now, Act together, Act differently

- Urban risk assessment & integrated action essential

  - How implement a comprehensive climate vision & approach for Accra & urban areas, at highest levels?

  - How consolidate & extend existing climate practice in light of technical, resource & political stretch?