

**USES conference, Nakuru, December 2017**

**Governance of a project on “Supporting African Municipalities in Sustainable Energy Transition”**

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# Energy situation & growing inequalities in African cities

- African cities consume major part of the energy of the country
  - Middle class = consumption per capita can be equivalent to middle class in European cities
  - Informal settlements = consumption can be as low as 1 tonne carbon per capita
- Huge increase in demand of transport
  - Cars needed to travel in cities
    - Segregation – urban sprawling – ghetto/private development poorly linked -
  - But most people too poor (to have a car) & inequalities are growing
    - Unreliable public transport (crowded collective minibus taxis); walking is often the only option
    - Very long commute
    - Urban environment “hostile” to pedestrians and cycling

# Poor local urban governance in African cities

- Limited (political) power – decentralisation
- Limited financial and human resources of local authorities
  - Local fiscal resources sometimes non-existent
- Lack of enforcement of regulations and laws
- Private initiatives vs public good
  - Informal settlements
  - Private developers
- Lack of overall coordination/planning
- Unsustainable growth
  - Maximise consumption of energy
  - Mountains of waste
  - Treatment of water? No sewage system,...
  - Traffic congestion, air pollution

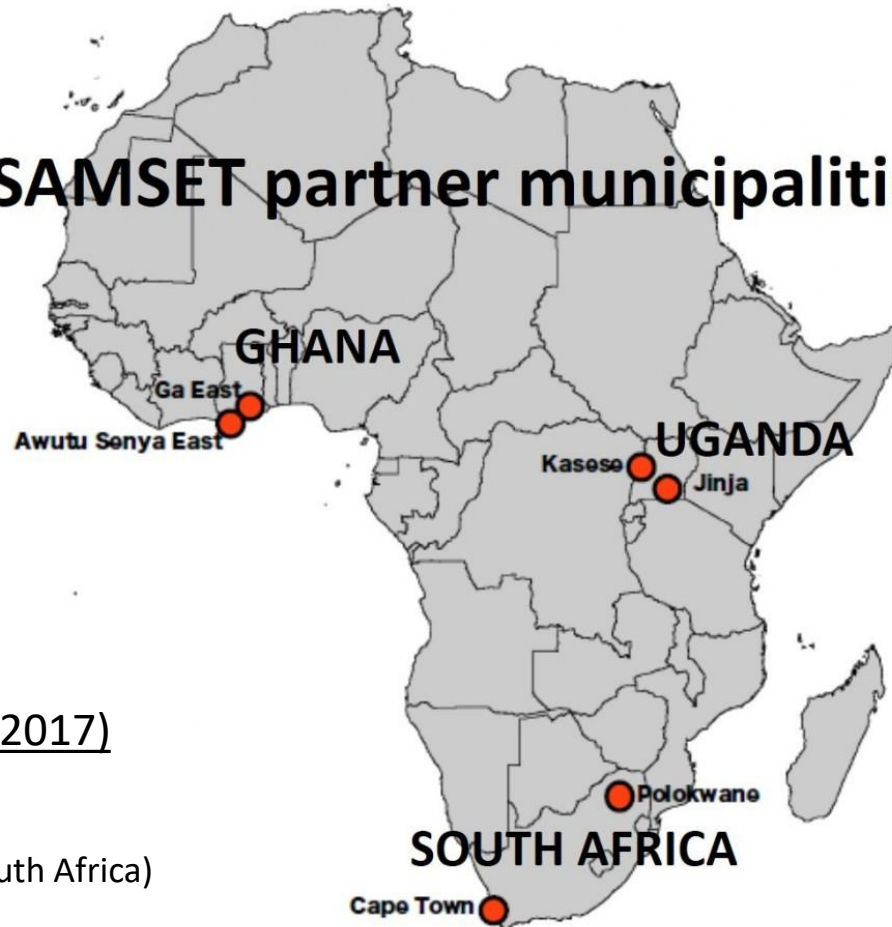
# How to improve urban governance

- No local authorities can work without income
  - Collect taxes
  - Land value capture from new development: municipalities to capture part of land value uplifts that private development and planning activity generates.
- Proper staffing
- Recognition of the role of cities in fighting climate change → decentralisation
- Shift of political priorities for cities inclusive & sustainable
- Networks of expertise

# Six municipalities partner of a research-action project

## Supporting African Municipalities in Sustainable Energy Transition

### SAMSET partner municipalities



#### SAMSET Project (2013-2017)

University College London

Gamos (UK)

Sustainable Energy Africa (South Africa)

University of Ghana

University Martyrs Uganda

University of Cape Town

# Actions taken in South Africa

- After the apartheid – lack of expertise
- Sustainable Energy for Environment and Development started in 1998
  - Identification of local energy issues
  - Partners with NGOs and cities
- Structured program of capacity building to integrate energy into municipal planning
  - housing, urban planning, electricity, transportation, waste and water
- Sustainable energy strategies in eight South African cities
  - Actions taken in: Nelson Mandela Bay, Jo'burg, Cape Town, Ekurhuleni, Buffalo City, eThekweni, Sol Plaatje, Tlokwe, Tshwane
- City Energy Support Unit <http://www.cityenergy.org.za/>
  - EE tools for municipalities,...
- Number of (large-scale) energy projects
  - Roll-out of 1 million Solar Water Heaters
  - Energy efficiency in townships (materials insulation of roofs/ceiling)
  - Municipal Energy Efficiency Demand Side Management Program
- 80-100 professionals are part of the network
  - Learning by doing when problem arise
  - Capacity building

# The approach of the SAMSET project

- **To build on this South African experience**
  - Integrate energy issues in planning approach
  - To locate the knowledge exchange (already experimented in South Africa) in a theoretically sound, practically tested framework
  - Which could be replicated successfully throughout other cities to impact on sustainable energy transitions
- **To develop effective & systematise knowledge transfer framework**
  - Understanding of the complexity of municipal operations and constraints
  - Action research / bottom-up approach starting with “needs” of end users: municipalities
  - 2 cities selected in each 3 countries
  - Use modelling (LEAP) to identify major energy consumptions / municipality
- **To include middle-size cities (100.000 inhabitants) in situation of “urban stress” and not just large cities**
  - High demographic pressure
  - Limited Planning resources

# Difficulties linked to the approach

- Bottom-up approach
  - **Each municipalities defines its own priorities**
    - But doesn't correspond necessarily to the experience or priorities of other municipalities
      - Waste to energy priority for some municipalities
  - **3 very specific country contexts**
    - South Africa a lot wealthier than Ghana or Uganda
      - Comparative research via cases studies between very different countries?
  - **Transfer of knowledge?**
    - Staff turnover (municipalities, academics)
    - Critical mass of “expertise” + champion in a country
    - Problem of funding: help municipalities to raise funding? (otherwise knowledge in itself not enough)
- Heterogeneous team
  - Academics: research driven leading to action taking into account specificities of each country
  - Consultants: action driven based on **modelling** – use model to bring stakeholders around a table



# Administrative & logistic issues

- Articulation public/private
  - Lifecycle of the project for different stakeholders
    - Funders specific set of rules
    - Universities
      - Accounting – public money
      - Large organisations – generate own bureaucracy
      - Work long-term vs consulting short-term
        - » Cash flow / delays of payment
      - Budget allocated to leader very limited
        - » Only a small part stay within universities for lead organization
        - » Strain on administrative resources
- Logistic
  - Coordination
    - Large meetings = cost (time, financial resources, carbon impact)
    - More intensive utilisation of on-line collaborative platforms?

# Impact

- Immediate
  - Change of mindset among municipalities
  - Small clean energy demonstration projects implemented
    - Solar street lights, energy efficient fridges, ...
  - Integration of energy in municipal action plan and national development plan
  - Feasibility studies
    - Small-scale embedded generation,...
  - Number of reports and working papers (<http://samsetproject.net/>)
  - Capacity building
  - Blog and website
- Future
  - Working groups – networks focused according to priorities (waste management,...)
  - How to access funding for large projects

Thank you!

