

# GLOBAL CHANGE, CLIMATE CHANGE

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**Action Research on Climate Change and  
Development Alternatives:  
The Transition Township Project**

NMMU CMR Symposium  
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# Why 'Transition Township'?

- Transition away from a fossil-fuel based economy in the current global context of climate change
- Transition to a new model of economic development in working-class communities, where residents take control of their own resources, and create sustainable livelihoods in an integrated and localised economy

# Global context

- \*Amended
- Photograph of Coega Harbour

# Creative solutions: Localisation

- Localised production (cheaper for some things)
- Cooperatives (production, distribution, service provision)
- Local ownership of resources
- Local control of services (waste, water, energy)
- Local markets with diverse, cheap, quality goods
- New technology allows for custom made goods

# Local context: A coastal community



# The research context: Why Kwazakhele?

- History
- Demography
- Geography
  - Swartkops estuary, Pond 6
- Politics
- Infrastructure
  - Swartkops power station
- Economy

# Development corridor, Kwazakhele





# The 'hidden assets' of townships

- Markets (for basic needs) – who supplies these currently?
- Property (De Soto's argument)
- Land (unutilised)
- Infrastructure (buildings, roofs, electricity pipelines, gaptaps, unused power station...)
- Human capital (skills, experience, creativity)
- Natural assets (wetlands, grazing, water, wind)
- Waste to wealth
- Social capital (community networks, solidarity)



# Swartkops estuary (Pond 6)



# Swartkops power station





# Infrastructure



# Service provision in Kwazakhele, 2011 census

NMB Ward	No of households	% access to water at or above RDP	% access to electricity	% access to sanitation at or above RDP	% access to refuse removal
18	4992	95	79	77	86
19	3141	99	64	66	95
20	3474	97	97	95	99
21	3209	99	95	96	97
22	3732	100	97	100	96
24	3520	98	92	93	96
25	3450	100	99	99	100
Average	3645	98	89	89	96
Total	25518				

# ‘Local living economies’

- Michael Shuman (2010:1) has explored the concept of a ‘local living economy’ as a ‘pragmatic approach to localization’.
- The wealthiest communities are those with the highest percentage of jobs in businesses that are locally owned
- The wealthiest communities are those that maximize local self-reliance.

# Conceptual framework

- Community mobilisation, participation and self-reliance
- Integration
- Sustainability
- Permaculture design
- Resilience, localisation, livelihoods
  
- Solidarity economy
- Community economy
- Asset-based community development (ABCD)
- Food sovereignty
  
- New economic theories.....circular economy, steady state economics...

# Methodological Framework: Participatory Action Research

- ***Piloting Localised and Sustainable Township Economies in Kwazakhele, Nelson Mandela Bay***
- Catalyst for new developments in the social sciences, exploring and piloting new models of local economic development (NIHSS Catalytic Research project)
- Maximum participation, ownership and empowerment of the research process by the residents themselves
- Community Research Team model



# Participatory Action Research process

- Training of Community Research Team from four Wards
- Mapping, interviews, transects, documentation 'on the ground', household surveys - using PRA methods
- Community workshops, consultations using ABCD approach
- Cooperatives and management alternatives exploration
- Analysis and desktop research (helioscope, google earth, technology, comparative studies)
- Compile feasibility studies
- Establishment of pilots to test the model



# The project

- The project will use the existing infrastructure and resources to create livelihoods through integrated provision of goods and services:
- Decentralised energy generation through PV, feeding into the Municipal grid
- Waste to energy/manufacture
- Food production and distribution (including fresh vegetables and meat, fresh produce markets)
- Conversion of the Swartkops power station into a 'hub' for new industries, in particular renewable energy and food production and processing, including mariculture/fish farming
- Ecotourism and recreation around Pond 6





# The pilot: A 'gap tap' neighbourhood cooperative





# Long-term outcome

- Transition to low-carbon economy
- Localised economy using existing assets, human and natural resources and infrastructure
- Provision of needs (goods and services) through local production (rather than export/import based economy)
- High quality of life in working-class neighbourhoods
- Sustainable use of natural resources and protection of the coast (especially RAMSAR site estuary)