



ACC DAR Adapting to Climate Change in Coastal Dar es Salaam

International Workshop

TOWARDS SCENARIOS FOR URBAN ADAPTATION PLANNING

Assessing seawater intrusion under climate and land cover changes in Dar es Salaam, Tanzania



Scenario Analysis for Adaptation to Climate Change: the ACC Dar Project Approach



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KEY POINTS

Background

Planning for climate change (CC) adaptation in urban contexts is a major challenge, particularly due to:

- increasing levels of future complexity and dynamicity of socio-economic and environmental systems, which are intrinsically unpredictable
- difficulty in predicting climate effects at the regional/local level

Assumptions

1. Adaptation planning should be aimed at:

- reducing the potential impacts of CC
- identifying transformative societal projects oriented to sustainability

2. Scenario analysis methods are particularly useful in:

- anticipating and shaping the future
- dealing with uncertainty and complexity

Research Question

How can scenario analysis contribute to adaptation planning in the sub-Saharan urban context and promote systemic societal transition to sustainability targets?

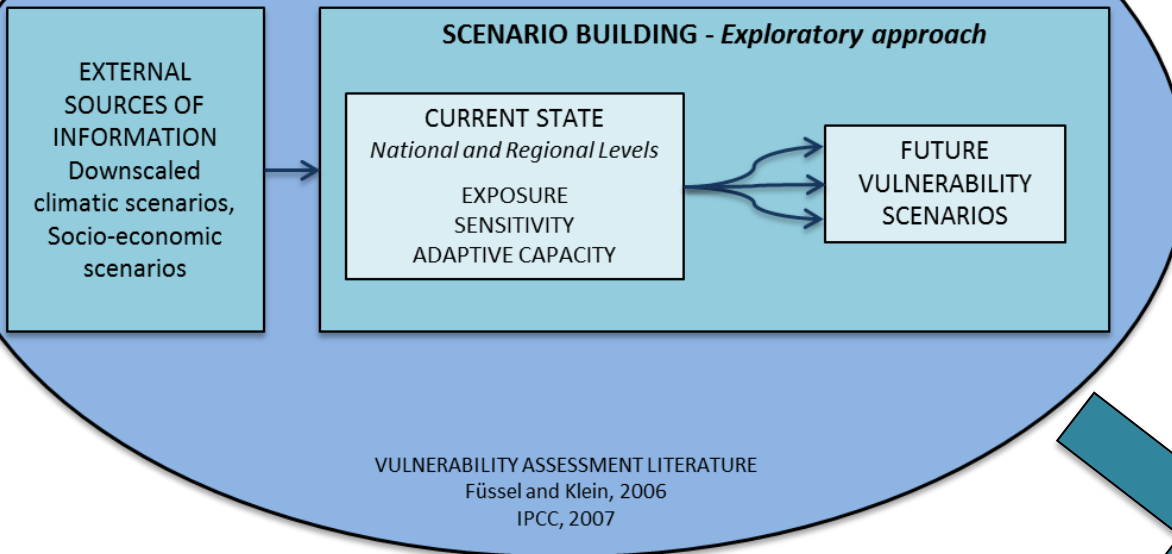
Case Study

Access to safe water in coastal Dar es Salaam (Tanzania)



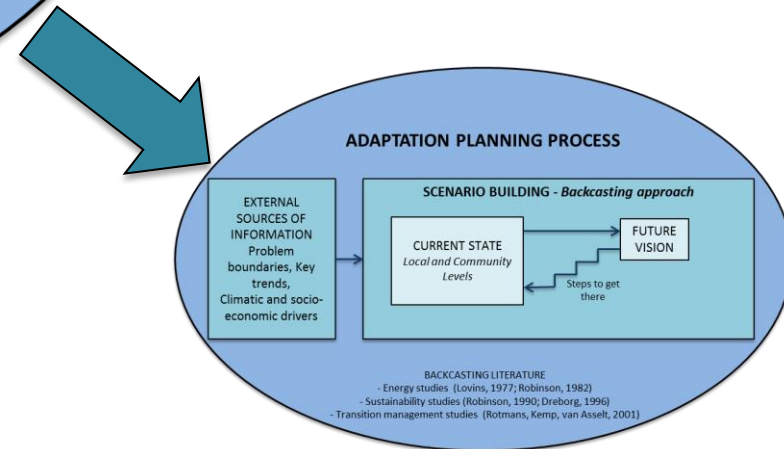
MOVING TOWARDS A NORMATIVE SCENARIO APPROACH FOR CC ADAPTATION ON A LOCAL SCALE

ADAPTATION PLANNING PROCESS



EXPLORATORY SCENARIO (*What could happen?*)

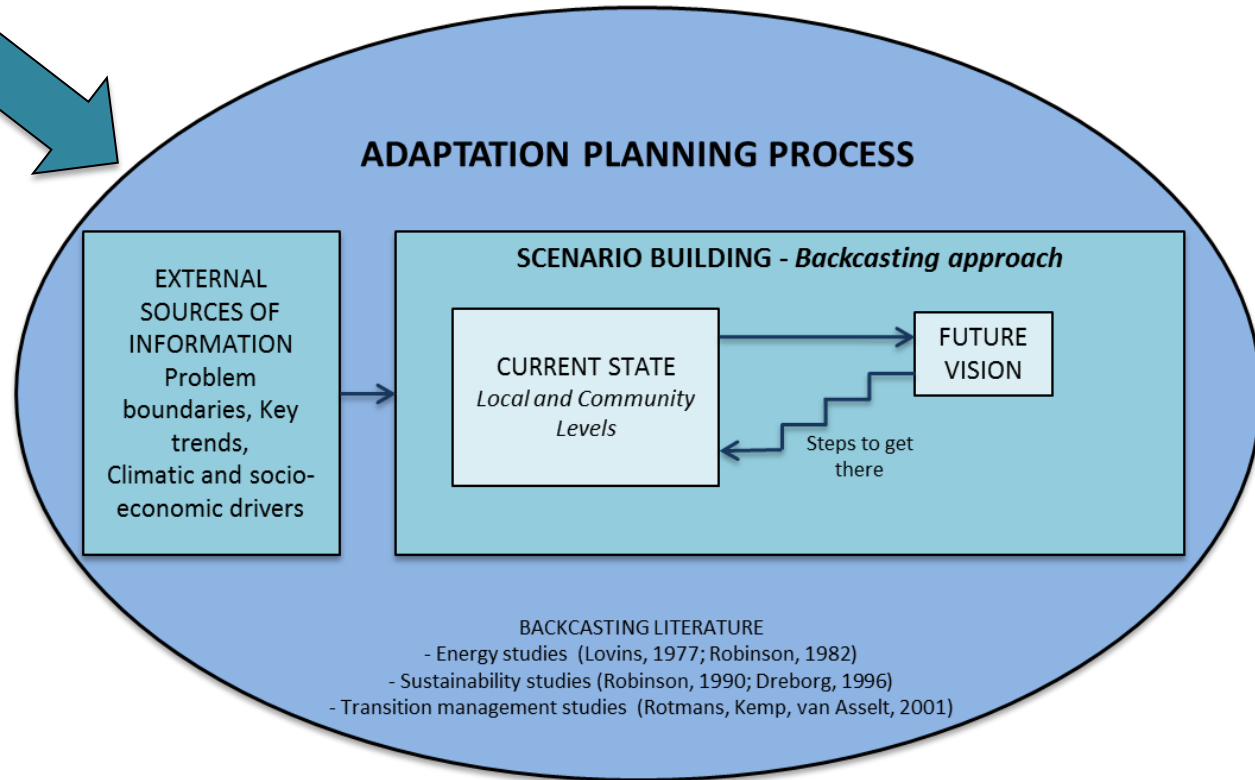
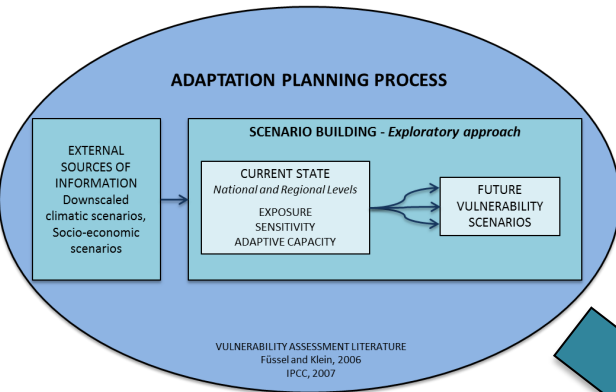
- Articulate different plausible societal developments
- Explore present-future pathways and possible societal consequences
- Define problem boundaries, key trends and drivers
- Not able to support transformative planning processes



MOVING TOWARDS A NORMATIVE SCENARIO APPROACH FOR CC ADAPTATION ON A LOCAL SCALE

BACKCASTING SCENARIO (*How can a specific target be reached?*)

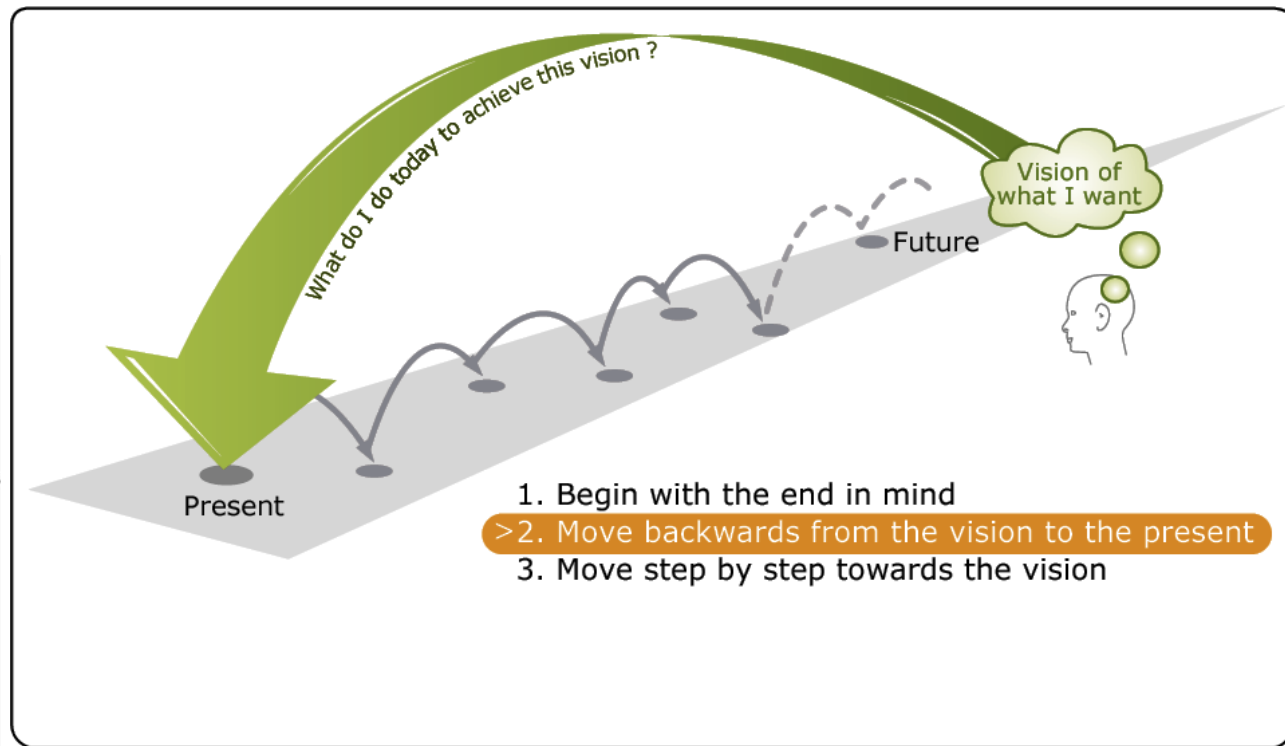
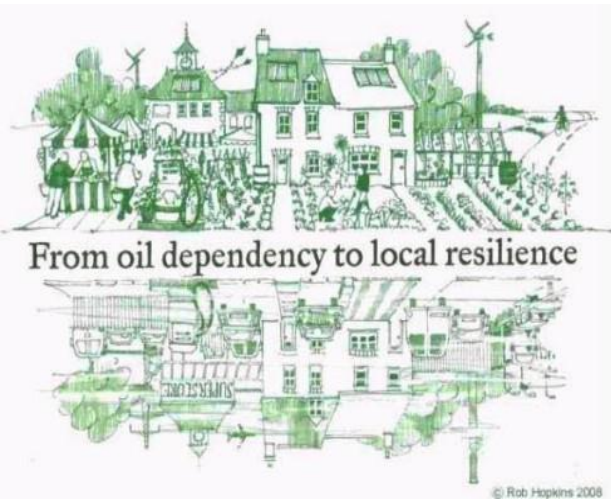
- Generate a desirable future
- Explore future-present pathways
- Individuate strategies, including system change actions, for achieving that future



TRANSITION TOWNS

Community Transition Initiatives

- Objectives: mitigate the effects of oil price peak oil and reduce carbon emissions
 - Visioning
 - Backcasting
- EDAP – Energy Descent Action Plan



PARTICIPATORY BACKCASTING

(Robinson, 2003; Quist and Vergrat, 2006)

Participatory Backcasting Methodological Features

*(based on an iterative
process)*

1 - Create community
vision for future
development
*(future vision as analytical
and social construct)*

2 - Stakeholder
involvement and learning
*(importance of the process
over the outcome)*

3 - Develop future-
present pathways
*(continuous feedback
between future visions and
present actions)*



How Backcasting can assist communities and local authorities in CC adaptation

- Define societal adaptation objectives

- Maintain a systemic perspective in reading the key features of natural and human systems and the different ways in which CC can impact them
- Set normative adaptation assumptions and define criteria of desirability for various images of the future

- Promote a learning process through social interaction, thus broadening the space for actions, behavioural alternatives and agents of change

- Organize information and enhance knowledge on climatic threats and opportunities
- Incorporate the values and preferences of different stakeholders into adaptation strategies

- Highlight the possible need for system transformative actions

- Connect future objectives with policy choices and adaptation actions to be applied in the present (adaptive management)
- Promote a robust decision-making process, which will close the gap between planning and implementation typical of sub-Saharan local governments
- Avoid the autonomous adaptation practices that can lead to maladaptation



THE ACC DAR PROJECT APPROACH

