

A Backcasting Scenario Methodology for Planning Adaptation to Climate Change in Coastal Dar es Salaam

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Abstract (max 2100 characters)

The study assumes that planning for Climate Change (CC) adaptation in urban areas should not seek exclusively to reduce the potential impacts of CC, but should also identify transformative social projects oriented to sustainability.

By focusing on scenario analysis methods, which are increasingly used in adaptation planning to cope with the growing uncertainty and complexity in socio-economic, environmental, and climatic systems, the study aims to improve methods for building local-level CC vulnerability scenarios that incorporate communities' development objectives and the non-climatic factors that influence their potential to reach such objectives. The study employs a backcasting scenario approach, considered more suitable than the "classical" forecasting when supporting decision-making in systems whose trajectory depends heavily on human choice.

Focusing on the Sub-Saharan urban context, the study analyses how the main features of participatory backcasting (community vision, stakeholder learning, and future-present pathways) can support communities and local authorities in defining shared adaptation objectives, alternative livelihoods, and possible system transformative actions.

The implications of this approach in local adaptation planning are explored through a community scenario exercise, carried out in a peri-urban settlement of Dar es Salaam (Tanzania), where a scenario-building methodology based on the conceptual model of participatory backcasting and Augusto Boal's Forum Theatre technique was developed and tested. The analysis focuses on access to safe water, an emerging problem for Dar es Salaam's coastal communities that could be exacerbated by the effects of CC.

The results of the community scenario exercise in Dar es Salaam are presented, and the capacity of the developed methodology is evaluated with respect to promoting social learning, increasing the population's awareness of relationships between access to water and climatic or non-climatic factors, and defining shared targets, agents of change, and actions with the potential to transform the system.

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