

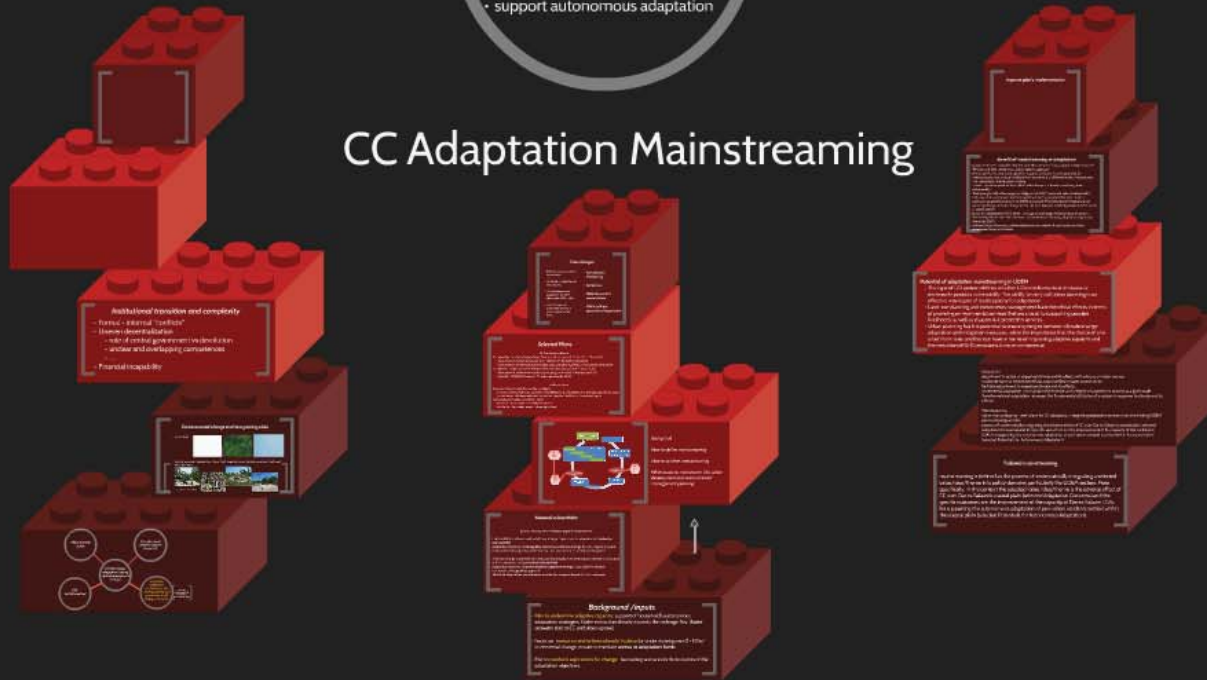
**Supporting Adaptive Capacity**

- focus on contextual vulnerability
- support autonomous adaptation

Stresses/vulnerabilities

Planning/institutional change

**CC Adaptation Mainstreaming**

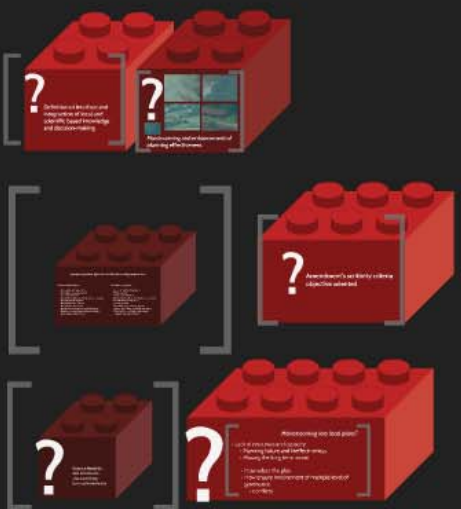
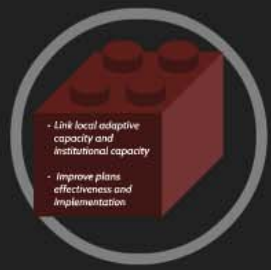


**ACC DAR Adapting to Climate Change in Coastal Dar es Salaam**

**MAINSTREAMING ADAPTATION TO CLIMATE CHANGE INTO URBAN PLANNING: LESSONS FROM DAR ES SALAAM, TANZANIA**



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- Risk to undermine adaptive capacity: support of households autonomous adaptation strategies. Water extraction already exceeds the recharge flux (water sewerage due to CC and urban sprawl)

- Focus on measures and actions already in place (or under development) - little/ incremental change, ensure immediate access to adaptation funds

- Risk to overlook aspirations for change: backcasting scenario for formulation of the adaptation objectives



**ACC DAR** Adapting to Climate Change in Coastal Dar es Salaam

# MAINSTREAMING ADAPTATION TO CLIMATE CHANGE INTO URBAN PLANNING: LESSONS FROM DAR ES SALAAM, TANZANIA



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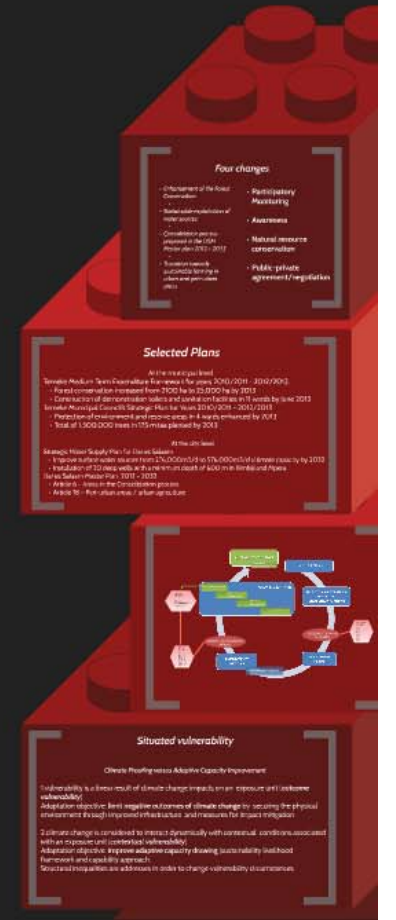
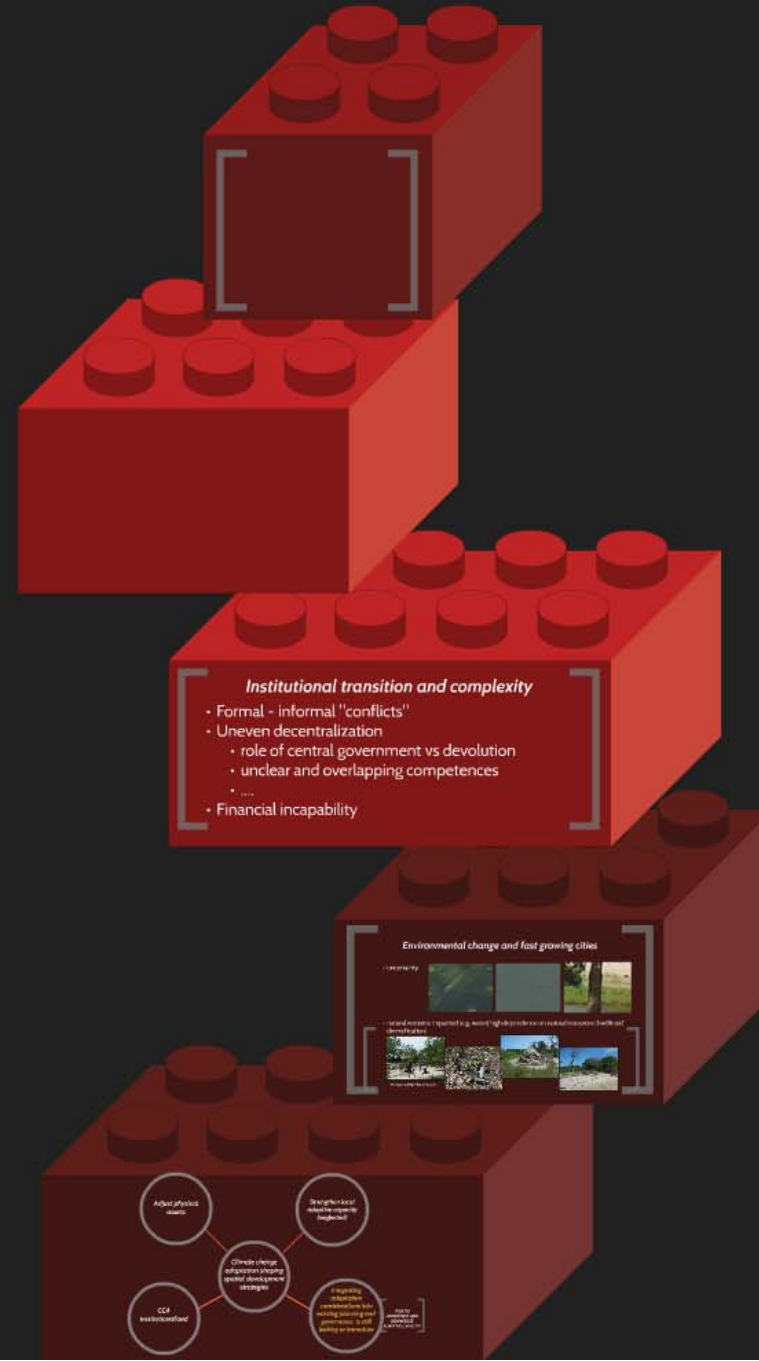
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# Stresses/vulnerabilities

## Adaptive Co

- focus on contextual vul
- support autonomous a

# CC Adaptation M





*Adjust physical  
assets*

*Strengthen local  
adaptive capacity  
(neglected)*

*Climate change  
adaptation shaping  
spatial development  
strategies*

*CCA  
institutionalized*

*Integrating  
adaptation  
considerations into  
existing planning and  
governance is still  
lacking or immature*

A

## *Environmental change and fast growing cities*

- uncertainty



- natural resource impacted (e.g. water) high dependence on natural resources (livelihood diversification)



Charcoal making in Dar es Salaam



## *Institutional transition and complexity*

- Formal - informal "conflicts"
- Uneven decentralization
  - role of central government vs devolution
  - unclear and overlapping competences
  - ....
- Financial incapability



# CC Adaptation Mainstreaming

on and complexity

ent vs devolution  
g competences

Environmental change and fast growing cities



## Four changes

- Enhancement of the Urban Committee
- Participatory Microplanning
- Systematic evaluation of water services
- Assessment
- Contribution process supported by UDEM
- Natural resource conservation
- Revision of water supply and sewerage services
- Public-private agreement/negotiation

## Selected Plans

- At the municipal level**
- **Maraka Medium Term Expenditure Framework for years 2010/2011 - 2012/2013**
  - **Water conservation measures from 2010 to 2025/2026 by 2012**
  - **Construction of demonstration toilets and sanitation facilities in Thika by June 2013**
  - **Maraka Municipal Council Strategic Plan for Years 2010/2011 - 2012/2013**
  - **Water Board Environmental and Impact Assessment Study and Review by 2013**
  - **Total of 1300 000 users in UEM in August by 2013**

- At the facility level**
- **Strategic Water Supply Plan for Dar es Salaam**
  - **Expansion of water supply from 750,000 to 1,000,000 in Dar es Salaam by 2012**
  - **Installation of 50 deep wells with capacity of 600 m in Thika and Kiunga**
  - **Water supply to the coastal zone by 2012**
  - **Water supply to the coastal zone by 2012**
  - **Total of 1300 000 users in UEM in August by 2013**



## Background

- How to define mainstreaming
- How to achieve mainstreaming
- What issues to mainstream into urban development and environmental management planning

## Situating vulnerability

- Climate Resilient Adaptive Capacity Improvement**
- Vulnerability is a linear result of climate change impacts on an exposed (H) vulnerable (S) system
  - Adaptation objective: **limit negative outcomes of climate change** by securing the physical environment through improved infrastructure and measures for impact mitigation
  - Climate change is considered by threat dynamically with contextual conditions associated with an exposure and contextual vulnerability
  - Adaptation objective: **improve adaptive capacity** through sustainability livelihood framework and capacity approach
  - Structural Preparedness are addressed in order to change vulnerability circumstances

## Background /inputs

- **Risk to undermine adaptive capacity:** support of households autonomous adaptation strategies. Water extraction already exceeds the recharge flux, (faster seawater due to CC and urban sprawl)
- **Focus on measures and actions already in place (or under development) - little/ incremental change.** ensure immediate access to adaptation funds
- **Risk to overlook aspirations for change:** backcasting scenario for formulation of the adaptation objectives

**Benefit of mainstreaming in adaptation**

- Greater main streamed efforts contribute to financial and non-financial (Pavani and Davis 2008) than action-specific approach
- Unlike stand-alone and sector specific measures and plans, has the potential to mainstream action and contribute to the achievement of different strategies and stakeholders into decision-making
- Promote consistency and accountability with other policy domains and long-term sustainability
- Find synergies with other programs (Adger et al. 2003) and contribute to the reduction in future projects and resources by reducing processes that are not successful adaptation (Linos et al. 2007) and some safety of investment and current and future climate change and resiliency (Prasad et al. 2003, Aguilera et al. 2005, 2007)
- Promote robustness (IPCC 2001) through a multi-layer financial flows in affected by climate risk than the resources available for housing, water supply (Aguilera 2005)
- Enhance the performance and development contribution of each sector and government body of all levels

**Potential of adaptation mainstreaming in UDEM**

- The type of UD pattern defines whether UD contributes to an increase or decrease in people's vulnerability. The ability to carry out urban planning effective way is part of local capacity for adaptation
- Land-use planning and ecosystems management have beneficial effect of providing environmental services that are crucial to supporting people livelihoods as well as disaster risk protection services
- Urban planning has the potential to create synergies between climate adaptation and mitigation measures, while the importance that the urban form over another can have in terms of improving adaptive capacity and the reduction of GHG emissions is more controversial

**Adaptation**

adjustment to actual or expected climate and its effects to moderate harm or exploit beneficial opportunities in with facilitate adjustment to expected climate and its effects.

**Incremental adaptation** - to maintain the essence and function of existing systems

**Transformational adaptation** - changes the fundamental characteristics of systems

**Mainstreaming** - rather than preparing 'new' plans for CC adaptation, integrate climate change into existing plans and programmes

**Process of systematically integrating the adverse effects of climate change into urban development and environmental management planning**

**Adaptation Concerns and the specific outcomes are the UEM for supporting the autonomous adaptation of peri-urban residents (Selected Potentials for Autonomous Adaptation)**

## Tailored mainstreaming

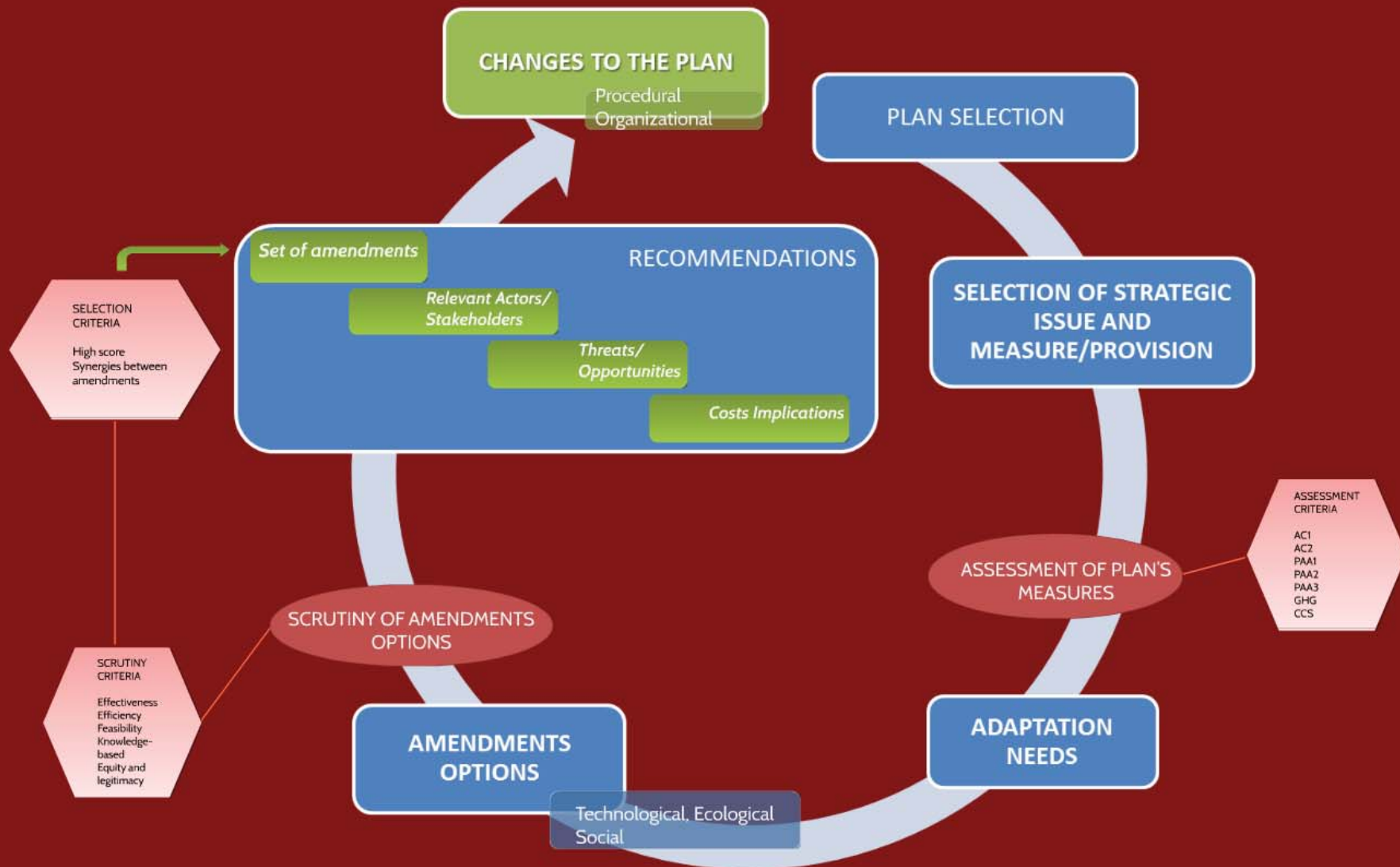
mainstreaming is defined as the process of systematically integrating value/idea/theme into policy domains, particularly the UDEM specifically, in this context the selected value/idea/theme is the CC over Dar es Salaam's coastal plain (Selected Adaptation Concerns and the specific outcomes are the improvement of the capacity of Dar es Salaam for supporting the autonomous adaptation of peri-urban residents (Selected Potentials for Autonomous Adaptation)

improve adaptive capacity drawing (sustainability livelihood  
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## *Background /inputs*

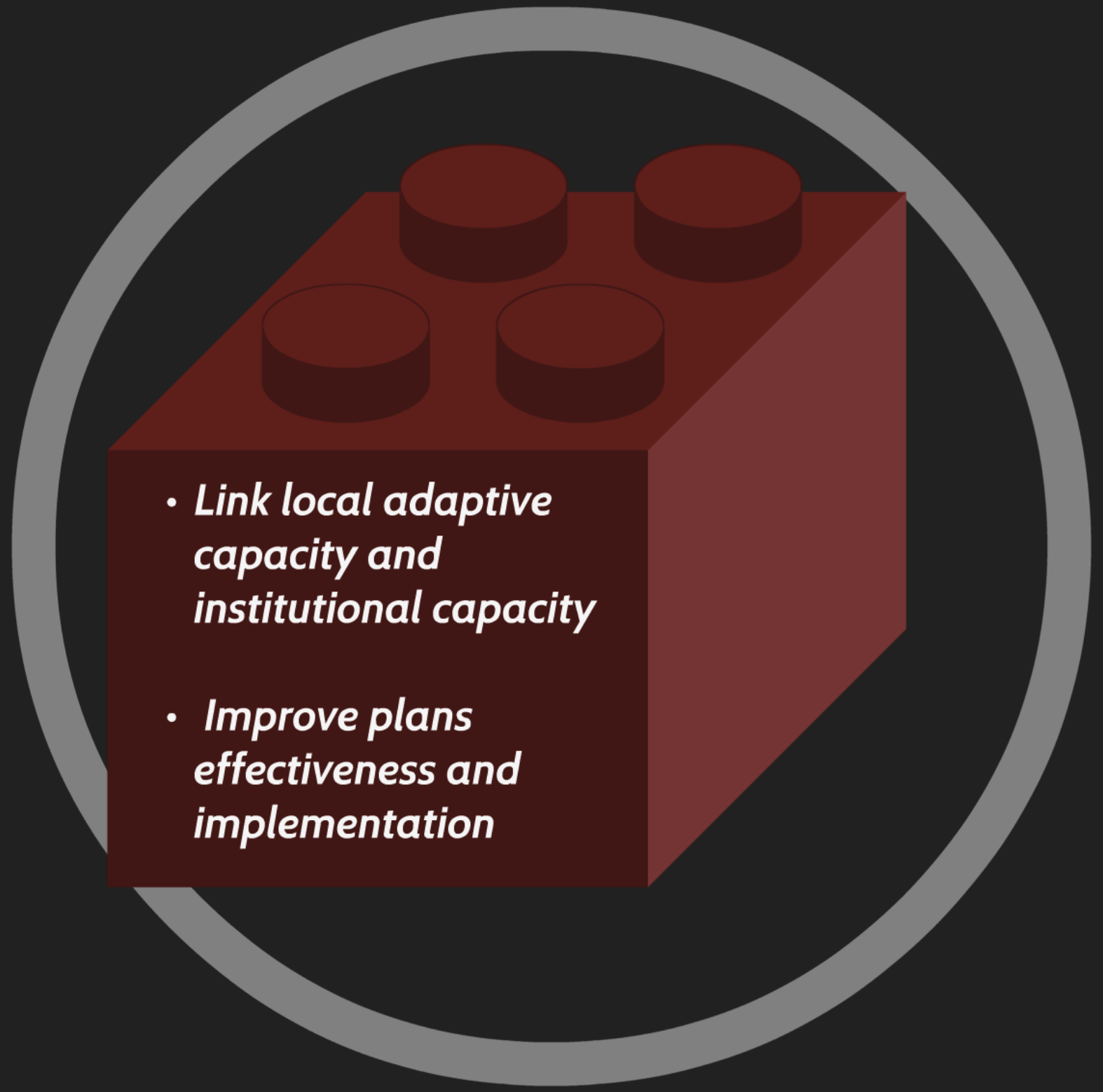
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- Focus on **measures and actions already in place** (or under development) - little/ incremental change, ensure immediate **access to adaptation funds**
- Risk to **overlook aspirations for change:** backcasting scenario for formulation of the adaptation objectives





## *Four changes*

- *Enhancement of the Forest Conservation*
    -
  - *Sustainable exploitation of water sources*
    -
  - *Consolidation process proposed in the DSM Master plan 2012 - 2032*
    -
  - *Transition towards sustainable farming in urban and peri-urban areas*
- **Participatory Monitoring**
  - **Awareness**
  - **Natural resource conservation**
  - **Public-private agreement/negotiation**

- 
- *Link local adaptive capacity and institutional capacity*
  - *Improve plans effectiveness and implementation*