# Lessons about holistic and flexible approaches to support transformative adaptation in Durban and Harare

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## Introduction

Transformative climate adaptation aims to address climate risks and impacts by challenging and changing the dominant underlying social, economic and political structures of society. This response to climate change is deemed necessary when considering the significant changes that are required to drastically curb carbon emissions and adapt to a changing climate. There is, however, little understanding of what this means in practical terms and how such processes play out in specific contexts.

Through the Transforming southern African cities in a changing climate project, a variety of stakeholders in Durban and Harare co-defined criteria of transformative adaptation relevant to southern African cities, informed by academic theory and adaptation research from elsewhere (see text box). These stakeholders also co-selected several potentially transformative case studies in Durban and Harare that aimed to deal with water-related risks. These case studies were explored through interviews with a variety of relevant stakeholders and transdisciplinary engagements. Data generated through interviews and engagements were analysed using the framework of the co-developed criteria to better understand pathways towards transformative adaptation, as well as enablers and barriers of this approach.

To truly deal with systemic risks in southern African cities, interventions need to **respond to context and be flexible** so that activities might be added or shifted as opportunities and problems arise. A **holistic, complex thinking approach** is needed to adequately understand the drivers of climate risk and develop appropriate responses. This brief homes in on and shares information relevant to these two co-developed criteria.

> **Co-developed criteria of TA**
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> 1. Fundamental/sustainable changes in thinking and doing
>    a. Capacity is developed for those involved to support this fundamental change
>    b. The fundamental changes must be permanent
> 2. Inclusive
>    a. Relationships across stakeholder groups support inclusivity
> 3. Challenges power asymmetries
> 4. Must be demonstrable in practice
> 5. **Responsive and flexible**
> 6. **Holistic, complex systems thinking**
>    a. Thereby addresses climate in combination with other things
>    b. Breaks down divisions between adaptation, mitigation and sustainable development

## What was revealed about being flexible and responding to context in Durban?

Across the Durban cases, some degree of flexibility and responsiveness is demonstrated by the evolution of the programmes to suit the needs of stakeholders and/or context. The 'spectrum' of flexible approaches across projects ranges from efforts to adapt based on experiences, failings and new opportunities (but coming up against considerable limitations and constraints) to being highly reflexive and adaptive on an ongoing basis.

Programmes are embedded within structures (e.g. institutional, political, funding), some of which restrain flexibility while others enable this criterion. If structures allow, flexibility might be planned for at higher levels of a programme (e.g. the Community of Innovators within the Palmiet Catchment Rehabilitation Project - PCRP) or across different levels through inclusive, reflexive learning processes, such as in the Aller River Pilot Project (ARPP). Flexibility and responsiveness are often constrained by rigid and bureaucratic governance structures and strict protocols associated with procurement, administration and finance such as those that are embedded within the municipality and often experienced by the Sihlanzimvelo team. This rigidity is countered, to some degree, in Sihlanzimvelo by hiring of consultants to manage several aspects of the project including contracting assessors and team leaders, site selection, managing monitoring reports and data collection.

The generally hierarchical and siloed approach of government often limits the potential for flexibility to respond to challenges or opportunities that seem to lie 'outside' or 'between' mandates. Government officials are more likely to overcome such limitations when they are willing to 'go the extra mile' to **adopt perspectives and consider systemic interactions** beyond their scope and/or spatial focus, thereby identifying additional challenges and/or opportunities (e.g. municipal representatives who initiated Sihlanzimvelo or the team developing the business case for upscaling). The ability to evolve and 'scale up' is, however, challenging in instances where trust and relationships between different government departments, land owners and/or organisations have not yet been built (e.g. Sihlanzimvelo hoping to implement on private sector or Ingonyama Trust land). **Good relationships and strong, clear, frequent communication** between different stakeholders increase the potential for identifying and responding to opportunities across mandates and landscapes, as well as responding to these.

Flexibility and responsiveness increases in programmes where **ongoing learning** is acknowledged as a core component of the project and an enabler for achieving objectives (e.g. ARPP) and where **inclusivity** is valued and practiced (e.g. ARPP, PCRP and Wize Wayz Water Care - WWWC). The larger the **diversity of stakeholders** involved at higher decision-making levels, the more likely the programme is able to identify and align with broader/systemic **contextual needs** rather than narrow organizational and funding requirements (e.g. the Community of Innovators in the PCRP). Related to this, opportunities for flexibility and responsiveness are influenced by the **openness of a project team to engage with different types of knowledge**. Increased access to knowledge for all stakeholders involved in a programme also contributes to the potential for flexibility; information empowers stakeholders to consider appropriate actions and responses at different points in time (e.g. ARPP, PCRP and WWWC). Real and mutually beneficial collaboration with a wide range of stakeholders is therefore likely to increase flexibility and responsiveness.

**Experimentation** and **learning from experiences** (including failure), are important in the context of flexibility and responsiveness (e.g. ARPP). Those programmes that work within funding frameworks or other structures that enable experimentation to respond to context (also through budget provisions) have increased flexibility (e.g. WWWC). The flexibility and responsiveness of some programmes is undermined by challenges associated with securing sustained funding (e.g. ARPP).

Involving lots of different groups of people does, however, come with significant challenges and complex social and political dynamics; being "too open" and flexible can compromise a broader, shared understanding of objectives. Inclusive governance structures might also slow down decision making because it takes time for everyone to be heard and for consensus to be built on the best way forward. While inclusivity may compromise speed and efficiency it is often essential to sustaining collective action and achieving impact that is potentially transformative. A **clear, overarching strategy** on which all stakeholders agree and to which they can align their own goals or mandate (e.g. the PCRP Action Plan), as well as **targeted but flexible decision-making** supports more streamlined activities.

## What was revealed about adopting a holistic, complex systems approach in Durban?

The 'spectrum' associated with adopting holistic, complex systems thinking approaches across Durban case studies ranges from some joined-up thinking that shows a departure from narrow, singular, simplistic problem identification to seeing problems and interventions in context of interconnected systems and ability to translate joined-up thinking into action.

All case studies in Durban seem to be increasingly **joining the dots between systemic issues** and responses, with the climate change lens added most recently. For example, Sihlanzimvelo stemmed from the need to reduce blocked drains and maintain infrastructure for stormwater management to reduce flooding, but linkages have since been made with waste management, employment, poverty alleviation, health, crime reduction, safety, coastal management, biodiversity and tourism. While maintenance of ecological infrastructure is at the core of the other case studies (ARPP, PCRP and WWWC), there is explicit acknowledgement of the interconnectedness of healthy ecosystems and the wellbeing of communities living near river systems.

To support more holistic and complex perspectives, teams working on the business case for the upscaled Sihlanzimvelo (Transformative River Management Programme - TRMP) are trying to integrate business prospects from waste, as well as planning across bigger water cycles, landscapes and ecosystems. Trade-offs might need to be made between holistic, complex thinking and demonstrable benefits at different stages of projects; 'quick wins' (i.e. demonstrable benefits for all partners involved) are unlikely to be achieved quickly if implementing a complex project structure from the start. This is because it will likely take time to **build trust** and a shared vision amongst the wide variety of stakeholders involved in complex projects, to **adequately understand the suite of drivers of risks and to consider various responses**. 'Quick wins' and demonstrable benefits do, however, seem to further catalyse shifts in thinking over longer time or larger spatial scales (see brief on fundamental and demonstrable changes).

The generally siloed functioning of government departments introduces challenges to maintaining a holistic, complex systems perspective. However, if different groups of people can see **evidence of** how **collaboration and working together results in more benefits** associated with their mandate than working alone, the chance for maintaining a holistic approach to deal with complex problems increases. Holistic, complex systems thinking is likely to be an enabler of success of an intervention if business loops can, indeed, be closed, costs reduced, and benefits demonstrated across various functions.

## Summary of what was revealed about these criteria in Harare

The Harare Wetlands Advocacy Project (HWAP) emphasises the strong synergies between inclusivity and flexibility. More opportunities for evolution and growth have been identified over time as a wider range of stakeholders have become involved and built relationships, as well as through the **empowerment of those who might not normally have a voice** (e.g. community members living near wetlands and the youth). Flexibility and responsiveness are also enabled by carving out dedicated spaces for reflection and learning within the programme (e.g. situational meetings within communities). Such spaces are not generally included in the functioning of government and have been introduced by an NGO.

Like Durban, interlinkages between drivers of risk are increasingly being acknowledged in Harare. The case study clearly includes objectives to **develop the capacity** of communities living near wetlands **to understand these interlinkages**, which supports more holistic, complex perspectives on problems associated with wetland degradation. Evidence suggests some changes in behaviour within the community as a result of this increased understanding. 'Locked in' mindsets and the

siloed structure of government is not, however, conducive to joined up thinking; more holistic perspectives are predominantly being supported by NGOs and multilateral agencies.

## What does this mean going forward?

Interventions that aim to transform a city to be more climate resilient should explicitly consider how those involved might work in new ways by adopting a **holistic, complex systems thinking approach that is designed to yield demonstrable benefits in a short time** within a clear vision for longer-term and larger-scale efforts. One option might be starting with a few initial components of a project, then adding objectives and additional stakeholders over time as the project demonstrates successes (i.e. a modular design). This would require **careful design** to ensure that there is scope for the **project to evolve**, and the resources to support such flexibility. Among such resources would be a **culture that is encouraging of experimentation and failure (amongst people, institutions and systems)** because "learning by doing", innovation and experimentation are important enablers.

A **decentralised governance system** (i.e. not hierarchical and rigid) seems to support project flexibility and responsiveness but evidence suggests that such a system needs to be **supported by a clear, shared vision and good communication** within and across stakeholder groups. **True inclusivity seems to be an enabler of project success** and is important for developing more complex, holistic, systems-thinking interventions. There is a need to **build relationships across departments and/or organisations** to support work that acknowledges and tackles systemic issues within a complex system, but this will likely take additional **time and effort from everyone involved**, particularly those involved in strategic management of such interventions.

It seems that the types of multi-level and collaborative governance models required to manage the complexity of systemic issues truly and effectively (e.g. those in southern African cities) are not yet known or, at least, practiced. Shifting governance systems to increase inclusivity, complex thinking and learning-by-doing takes additional effort (at least initially), and the **ability to tolerate discomfort and change**. This reinforces the importance of **experimentation, as well as collaborative learning spaces**.