



**Covenant of Mayors**  
in Sub-Saharan Africa



**Evidence-Based Report 3**

# The need for and potential benefits of transformative adaptation in African municipalities

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# Key messages



Municipalities in Africa are experiencing increasingly extreme climate impacts, while simultaneously facing high rates of poverty and inequality, exacerbated by the COVID-19 pandemic.



To date, most adaptation interventions have been incremental in nature, meaning they aim to reduce climate risks and impacts, while maintaining the status quo of the system in question.



Transformative adaptation is increasingly being recognised as a necessary alternative, where responses to climate change must catalyse change at a deeper level, incorporating additional considerations such as poverty, inequality, healthcare, excessive consumption, and ecosystem loss.



This report provides examples of transformative adaptation initiatives that have been implemented in sub-Saharan Africa – two in municipalities in South Africa, and one in the Sahel region.



These case studies highlight some of the enabling factors that can facilitate the implementation of transformative adaptation, including: change driven from within municipalities; using the lived realities of the urban poor as entry points for intervention; and promotion and support of grassroots movements in the adaptation space.



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# Introduction

African municipalities face multiple rapidly growing climate risks which vary across the continent. Climate risks in urban areas of sub-Saharan Africa include flooding, droughts, sea-level rise, heat waves, and increased incidence of climate-related diseases such as malaria and cholera (GCA, 2021). These risks will only increase with rising urbanisation rates – at 4.4%, sub-Saharan Africa has the fastest urbanisation rate globally, with around 40% of its population living in urban areas up from 22% in 1980 (GCA, 2021). One of the significant challenges faced by African municipalities is that local governments do not have the revenue required to address rapidly growing populations and related infrastructure needs. As a result, many African municipalities face high rates of inequality with large populations of urban poor. This has been exacerbated by the Covid-19 pandemic, which has had severe economic impacts in Africa and its municipalities – economic activity in sub-Saharan Africa is estimated to have contracted by 2% in 2020 (GCA, 2021). Climate impacts are observed to fall disproportionately on the urban poor, who have fewer coping mechanisms and are less able to manage risk. In Africa, adaptation measures that safeguard urban infrastructure and target the most vulnerable groups, such as the urban poor, are therefore urgently needed.

To date, the majority of adaptation interventions have been incremental in nature, rather than transformative. Incremental adaptation here refers to measures that address proximate climate impacts, avoiding or reducing losses and damages without changing how the system is currently structured and functions (Pelling et al., 2015; Lonsdale et al., 2015). Examples of incremental adaptation would be a farmer using drought-tolerant crops to deal with increasing occurrences of heatwaves, or physical protection such as sea walls to prevent coastal flooding (IPCC, 2022). In contrast, transformative adaptation represents a departure from the status quo of the current system and emphasises the need to change the underlying causes of climate risk and vulnerability stemming from standard development pathways and associated power structures (Taylor et al., 2019). Examples of transformative adaptation would be farmers moving to an entirely new agricultural system such as livestock rearing, or migration (managed retreat) from areas prone to coastal flooding (IPCC, 2022). Transformative adaptation recognises that climate change combines with other drivers of global change, such as population growth and urbanisation, and that transformative approaches are needed to deal with these synergistic effects (Colloff et al., 2017).

Much of the literature, including the latest IPCC Working Group II report (IPCC, 2022), recognises the need for transformative adaptation because the long-term, large-scale and non-linear impacts of climate change in municipalities cannot be adequately addressed by incremental responses (Colloff et al., 2017). This is especially true when social, cultural, economic and political factors drive the underlying causes of unequal climate risk, which is often the case in rapidly urbanising areas with large populations of urban poor. In sub-



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Saharan Africa, climate change impacts also exacerbate inequalities that persist from a history of colonialism and oppression (Taylor et al., 2019). It is therefore particularly important to address the current development paradigm and socioecological systems in African municipalities in order to adequately address climate risks and impacts. Without doing this, we run the risk of introducing adaptation measures that could reinforce or even worsen existing inequalities in the system.

This report describes several enabling factors for transformative adaptation in African municipalities, as well as challenges to its implementation. In addition, three case studies are presented which showcase responses to climate change in sub-Saharan Africa that can be considered transformative in nature, highlighting the related successes and opportunities.





## Aim

The aim of this report is to showcase enabling factors and examples from municipalities and countries in sub-Saharan Africa where transformative climate action, specifically adaptation, has resulted in lasting and impactful change.



## Methodology

This evidence-based report draws on a number of sources to achieve the aim as stated above. These include peer-reviewed journal articles, case studies and other grey literature, specifically focused on highlighting the municipalities' experiences in implementing transformative adaptation.



## Findings

There are a number of factors that enable and constrain transformative adaptation, as reviewed in Taylor et al., 2019. **Briefly, the main factors that enable transformative adaptation are:**

- Deliberate, conscious action to deeply understand the different aspects of a system, particularly those that perpetuate vulnerability to climate change, and working to change them (Moore et al., 2014);
- Strong relationships built between local governments and civil society groups from which transformative innovation often comes (Revi et al., 2014);
- Increased political will and political feasibility to undertake coordinated transformational measures in response to the threat of severe climate impacts (Mapfumo et al., 2015);
- Redistribution of power and agency to local actors to prevent powerful actors such as global or national organisations from working to prevent transformative adaptation that they perceive to threaten their interests (Colloff et al., 2017); and
- The availability of evidence of successful transformative adaptation initiatives to reduce uncertainties around risks, costs and benefits of such initiatives and encourage further uptake (Colloff et al., 2017).

Many of the barriers to more mainstream adaptation interventions in African municipalities, such as limited technical and financial capacity also apply to transformative adaptation. **In addition, key barriers to transformative adaptation, as identified by Colloff et al., 2017, include:**

- Limited problem awareness where there is a lack of acknowledgement of the scale – including the rate and extent – of climate change impacts on socioeconomic systems;
- Perceived lack of new or alternative solutions; and
- Powerful political and economic actors working to prevent adaptation that they perceive to threaten their interests.

While transformative adaptation can seem like a daunting concept, our society already provides examples of how transformative change can occur at scale, both spatial and temporal. Avoiding the Day Zero Drought in the Western Cape of South Africa is one such example, where the City of Cape Town successfully reduced its water consumption by more than half in three years by combining media campaigns with regulatory bans and physical restrictions to change behaviours, as well as effective monitoring and enforcement. It must be noted that the water reduction scheme has drawn criticism for exacerbating existing deep inequalities and social

tensions in Cape Town – a highly unequal city as a legacy of the Apartheid regime. However, it provides an example of transformative changes in behaviour that have made it possible to reduce resource consumption substantially and maintain it at lower levels over a long period of time (Wallace, 2021).

The case studies presented below – two from South African municipalities and one from the Sahel region of West Africa – provide evidence for the potential of transformative climate action to provide multiple benefits for local communities. They also highlight the various enabling factors in place that allowed for these transformative initiatives to take place.

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## Case Study: Transformative urban climate adaptation in Durban, South Africa



Durban in KwaZulu-Natal, South Africa is globally recognised as an ‘early adapter’ because of its extensive focus on adaptation through the Municipal Climate Protection Programme (MCCP) of the eThekweni Municipality. Climate work in Durban began in the early 2000s and gained significant momentum in 2004 with the initiation of the MCCP (Roberts, 2008). It subsequently took around 13 years for the importance of adaptation to be recognised beyond the city’s environmental management team, and integrated into municipal planning with implementation throughout the eThekweni Municipality following (van Rooyen et al., 2019). The approach to adaptation has included trial-and-error with a focus on ‘no-regrets’ activities, ‘learning-by-doing’ and a willingness to experiment (Roberts, 2008). This has resulted in climate change impacts being recognised in eThekweni Municipality’s Integrated Development Plan (IDP) as one of the key development challenges facing Durban. The city also has additional mechanisms in place to address climate change, namely the Durban Climate Change Strategy (DCCS) and the Durban Adaptation Charter (DAC). The extent of integration of climate change into eThekweni Municipality’s policies, plans and strategies, as well as some of the specific adaptation strategies themselves can be considered transformative in nature. There is a transformative intention in Durban, with a strong emphasis on building knowledge and learning, and a significant focus on prioritising vulnerable communities and the natural environment. This suggests the foundations are being laid for longer-term systemic shifts that could address the underlying causes of climate risk in a fundamental way (Douwes, 2018). One of the biggest achievements in the city with regards to transformative adaptation is the widespread promotion and integration of ecosystem-based adaptation to deliver environmental and community benefits for socially just and environmentally sustainable outcomes (Douwes, 2018). Durban is an example of how transformative adaptation can happen through the inclusion of climate change priorities in normal development processes, driving the process from within the municipality rather than from outside actors.





## Case Study:

# The Fostering Local Wellbeing (FLOW) programme in Piketberg, South Africa



The Fostering Local Wellbeing (FLOW) programme was implemented in Piketberg, in the Bergrivier Municipality in the Western Cape, South Africa. The aim of the programme was to “contribute towards fostering well-being in two towns in South Africa through developing adaptive and transformative capacity in the face of climate change and increasing economic inequality, particularly amongst the youth” (ACDI, 2014). Under the programme, academics, practitioners, municipal officials and a group of citizens worked together to implement a range of interventions aimed at building transformative capacity for unemployed youth and local government (Ziervogel et al., 2016). An interesting aspect of this programme that speaks to transformative change is that the programme and related engagement in the region began with a focus on climate change adaptation, but soon shifted to strengthening generic capacity to respond to multiple stressors and transformative capacity to actively change current aspects of the system. This is because it became clear that unemployed youth and other urban poor in the region face a range of social, economic and ecological stressors which underpin their vulnerability to climate impacts and require a more holistic response (Ziervogel, 2019). Through the FLOW programme, there was significant personal growth amongst the youth participating, which facilitated increased participation in municipal processes and increased representation of the urban poor. As a result, governance processes shifted to provide space for more diverse voices. As the programme progressed, the focus could shift back to understanding environmental systems and climate risk, as by then the youth participants could better appreciate the importance of reducing environmental risk. Thus, to effectively reduce climate risk for the urban poor, their existing circumstances and governance models should be the entry point to identify priorities for transformative change (Ziervogel, 2019). This programme is considered the beginning of an imagined future where planning is fully participatory and owned by the community, resulting in transformative adaptation (Ziervogel, 2019).

## Case Study: Regreening the Sahel



While not focused in urban areas, this case study provides strong evidence for initiatives driven by communities on the ground leading to transformative adaptation – these learnings are valuable for local governments and urban communities trying to achieve adaptation at scale. In the Sahel, severe droughts in the early 1970s and 1980s drove farmers to modify traditional agroforestry, water and soil management practices to improve the fertility of their land. In Niger, ‘farmer-managed natural regeneration’ (FMNR) – where valuable trees are regenerated and multiplied across the landscape – was introduced by outside actors, but was rapidly spread from farmer to farmer once its effectiveness was established. It is estimated that FMNR has improved nearly 6 million hectares of land, producing more than 600 000 additional tons of food a year with the potential to feed more than 2.5 million people (Reij et al., 2009). Financial benefits were estimated to be up to USD 250 per hectare, with household gross income appearing to increase by between 18% and 24% (Magrath, 2020).

The key drivers of change were farmers, with the support of NGOs and other groups to enable greater scaling, which first occurred horizontally with voluntary adoption due to the multiple benefits derived from these practices. However, vertical scaling was also achieved as governments introduced enabling policies, such as decentralisation of powers to more local authorities (Magrath, 2020). This aspect is particularly transformative as it represents a shift away from ‘benefit-sharing’ to ‘power-sharing’, where local communities can adapt initiatives to their particular circumstances, increasing their effectiveness. While the regreening initiatives in the Sahel have undoubtedly improved soil and water resources, they have also impacted power relations, institutional policies, social norms and behaviours. This provides evidence for how farmer innovation and the spread of information through shared learning processes, as well as through the assistance of NGOs and governments, can address key structural causes of poverty, resulting in long-term change (Magrath, 2020). Lessons from this case study could prove valuable for local governments seeking to enact long-lasting and transformative adaptation initiatives.



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# Conclusions

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Transformative adaptation refers to initiatives that work to change the system under consideration more radically than incremental adaptation, which aims to reduce climate risks and impacts while maintaining the status quo, including power structures and business-as-usual development pathways. Transformative adaptation is increasingly being recognised as necessary because it is increasingly likely that climate change impacts in municipalities cannot be adequately addressed by incremental responses. This means that responses to climate change must include considerations of poverty, inequality, healthcare, education, excessive consumption, pollution and ecosystem loss, among others. This is particularly pertinent in sub-Saharan African municipalities which are experiencing increasingly extreme climate impacts, while simultaneously tackling legacies of colonialism and oppression that have resulted in highly unequal societies. The case studies presented in this report demonstrate a number of enabling factors that can facilitate the implementation of transformative adaptation initiatives. These include: climate change priorities being strongly driven from within municipalities, integrating adaptation efforts into all levels of development planning; interrogating the daily realities of the urban poor and other vulnerable groups to find appropriate entry points for action and to create space for participation from more diverse groups; and promoting and supporting grassroots innovations, revising policy where necessary to create space for reflexive approaches. Through these approaches, adaptation initiatives have the potential to address more than just climate impacts, but structural inequalities, increasing the likelihood of long-term uptake and results.



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Covenant of Mayors  
in Sub-Saharan Africa

## About the Covenant of Mayors in Sub-Saharan Africa

Started in 2015, the Covenant of Mayors in Sub-Saharan Africa (CoM SSA) is a major catalyst for local climate action in the region, with political commitment from over 300 local governments. The purpose of CoM SSA is to support local governments in moving from planning to implementation, with a focus on unlocking climate finance at the local level.

The CoM SSA initiative is a European Union (EU) action that supports the external dimension of the European Green Deal, as the global challenges of climate change and environmental degradation require a global response. At the same time CoM SSA moves to strengthen the Africa-EU partnership and supports Agenda 2063 of the African Union Commission.

CoM SSA is the regional chapter of an international alliance of cities, the Global Covenant of Mayors for Climate and Energy. It is a partnership between city networks, development agencies and funding institutions, supporting cities in meeting the dual challenge of climate change and access to sustainable energy to achieve a low-emission, climate resilient and sustainable energy future.

### Why work on energy and climate change with cities on the African continent?

- By 2050 Africa's urban population will triple, and will be the second largest urban population in the world.
- Despite being the continent most affected by the impacts of climate change and contributing 4% to global greenhouse gas emissions, only 3% of total climate finance flows to Africa.
- Currently 548 million people lack access to electricity in Africa.

### The CoM SSA initiative works through three pillars of action:

- 1. Planning support:** development of Sustainable Energy Access and Climate Action Plans (SEACAPs),
- 2. Project development:** urban infrastructure project support, and
- 3. Knowledge exchange and partnerships:** city-to-city/regional partnerships and exchanges

The integrated CoM SSA Secretariat and technical helpdesk are the first contact points for CoM SSA cities and serve all CoM SSA signatories with light touch technical support and deep-dive support to a limited number of signatories. The CoM SSA Secretariat and technical helpdesk are the key coordination structures for the initiative, providing advocacy support, and ensuring effective communication and visibility for the initiative.

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