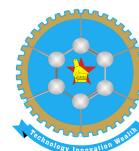
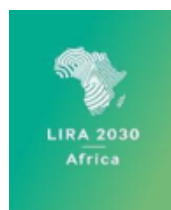


POLICY BRIEF

Pathways towards transformative climate change adaptation in Harare

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Introduction

This brief provides findings and recommendations from research that was implemented to build an understanding of pathways towards transformative climate change adaptation (hereafter transformative adaptation) in Harare.

The main objective of the "Transforming southern African cities in a changing climate" research was to better understand, explore, as well as unpack how transformative adaptation might be envisioned and implemented in the context of southern African cities. Using Durban (South Africa) and Harare (Zimbabwe) as cases, the project explored ways in which theoretical notions of transformative adaptation play out in reality, and to inform this theory using on-the-ground evidence. Considering both cities are faced with the challenge of managing water under changing climate conditions, water resilience case studies that have transformative potential were assessed. The project is premised on the understanding that key principles of transformative adaptation in the context of southern African cities are equality, inclusivity and justice.

This policy brief is based on key lessons emerging from the LIRA2030 project in Harare. These lessons are based on engagement with stakeholders in Harare and assessment of two case studies in the city that are deemed potentially transformative.

1 Climate adaptation that addresses climate risks and impacts, while challenging and changing the dominant underlying social, economic and political structures of society (Taylor et al., 2019).

2 Research that involves actors from science, policy and practice to co-produce contextual and appropriate knowledge (Roux et al., 2017)

Three engagements took place to collaboratively unpack these case studies and learn about transformative adaptation in the context of Harare with these stakeholders. The core research team also undertook interviews with stakeholders who were involved in these case studies alongside these learning engagements.

Stakeholder engagement

The introductory engagement in Harare was held on the 3rd of July 2019. The aim of this initial engagement was to share the project design for input from stakeholders working in relevant fields, exploring perceptions of these stakeholders related to transformative adaptation, identifying complementarities with other ongoing programmes in Harare and thinking about ways in which LIRA2030 research might best contribute to decisions and actions for climate adaptation in the city. The initial findings of the research (i.e. the literature review and stakeholder meetings) was used as a basis for discussions at this meeting.

During this first engagement, participants were introduced to theoretical notions of transformative adaptation¹ and transdisciplinary research.² Participants selected criteria for transformative adaptation relevant to Harare, comparing with those that were identified in literature and those selected in Durban through a similar transdisciplinary process. Stakeholders considered important criteria for transformative adaptation, particular to Harare, to include: integrated/holistic thinking; inclusivity; ecological sustainability; technologically advanced/disruptive; forward thinking; challenging power; participatory;

contextual; backed by will; and accountability. In addition, two water resilience case studies with transformative potential were selected for further exploration and these were the Harare Wetlands Advocacy Project (HWAP) and the Urban Resilience Project (URP).

Following the first engagement, interviews were undertaken with stakeholders involved in the case studies to gain a deeper understanding of these interventions from multiple perspectives. A city learning exchange visit took place from the 23rd to the 24th of October 2019, during which several Harare team members visited Durban. The team comprised of researchers from the Chinhoyi University of Technology and a city official from the City of Harare. This exchange supported learning from Durban associated with best practices for managing rivers with local communities, while simultaneously working towards providing employment opportunities. During the exchange visit, the Harare team visited sites of three potentially transformative case studies in Durban.

Contextual issues in the city of Harare

The city of Harare is an industrial and commercial hub of the country. This hub has grown as a result of rural-urban migration and coupled with population growth (~34,000 in the 1980s to ~1,485,232 in the

year 2012³). Water infrastructure that was developed in 1980 has not been upgraded and fails to meet the needs of the growing population of Harare^{4,5}. Cholera and typhoid outbreaks have consequently been increasingly witnessed in the past decade (with the latest experienced in 2018). Increasing demands for housing have also been unmet, which has triggered the development of informal settlements in wetlands surrounding Harare.

Pollution produced upstream in Harare flows downstream to the main water source for the city (Lake Chivero) (figure 1). Wetlands are recognised for their potential to filter this water and support recharge of streams, and therefore play a critical role in natural purification of water. Wetland degradation therefore affects water security for the city⁶. The city's geographical location in the country's natural region II (generally considered to be wet) makes the land suitable for urban agriculture. Residents living in or near wetlands are practicing such agricultural activities. These activities have further degraded wetlands and have contributed to pollution (through fertiliser use) and siltation in these areas. Consequently, the ability of wetlands to mitigate water-related risks as well as provide other ecosystems services such as water purification and recharging Harare's river system is constantly decreasing. Recurrent droughts, heavy rains and heat waves exacerbate the water-related risks faced by residents in Harare.

The "Transforming southern African cities in a changing climate" project provided a transdisciplinary, collaborative learning platform for many different groups of

3 Kharlamova et al., 2016; ZimStat, 2012

4 Nhapi, 2015

5 Ndebele-Murisa and Mubaya, 2019

6 Cuneo et al., 2017; Mutisi and Nhamo, 2015

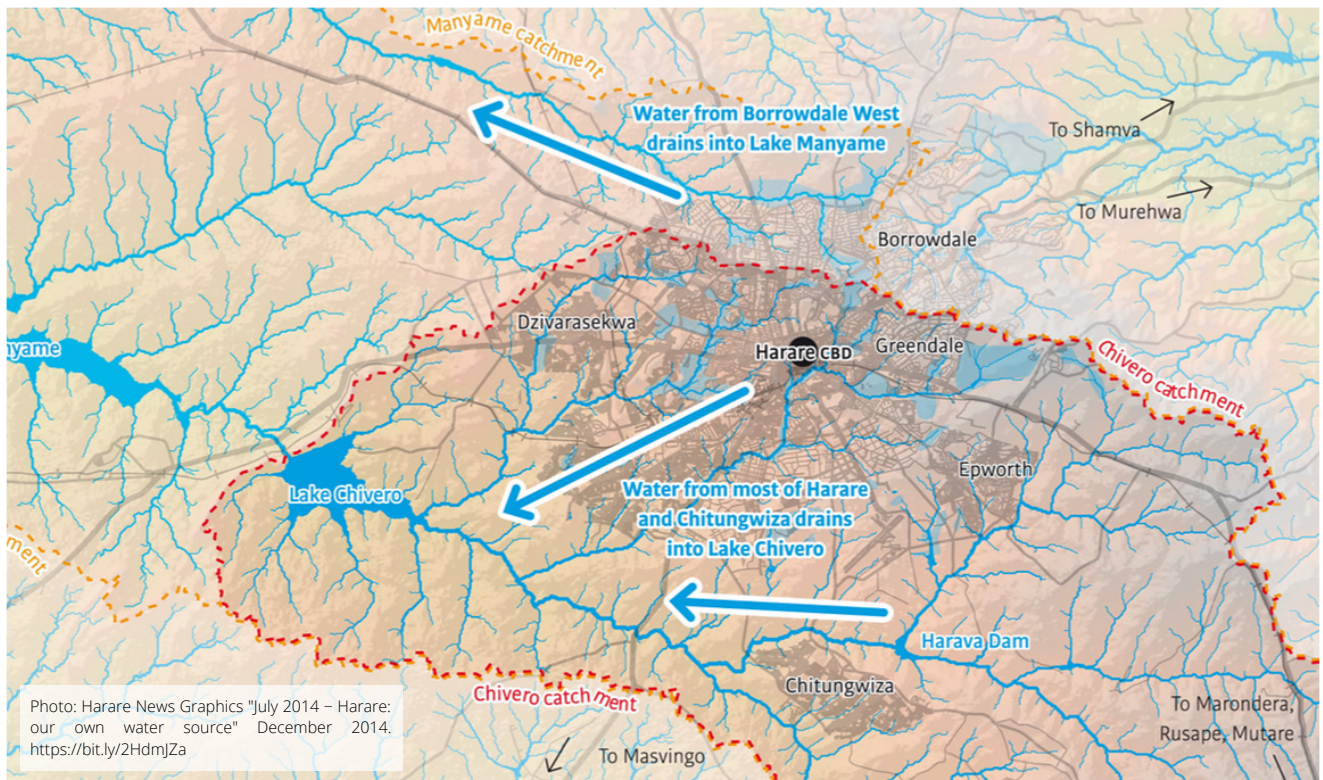


Figure 1: Location of Chivero Dam (downstream of Harare)

stakeholders to come together and consider the multiple drivers of wetland degradation relevant to Harare, as well as water-related risks that might be exacerbated by climate change. These stakeholders discussed ways in which several groups of stakeholders in Harare (and Durban) are trying to address these interconnected issues in a more transformative manner. The foregoing exposition of the context of Harare makes such transdisciplinary engagements invaluable to addressing climate change and better development, more generally.

Harare's adaptation engagement case studies

The Harare case studies that were explored through the "transforming southern African cities in a changing climate" project aim to build resilience in the water sector. The

overarching objective of the HWAP is to address challenges related to wetlands degradation, while the URP aims to tackle Water, Sanitation and Hygiene (aka WASH) issues in an integrated manner. Responding to a context and history of water-related challenges for more than two decades in the city, both case studies aim to ultimately contribute to water availability and improved water quality in Harare. A major motivation of these engagements is that climate change adaptation has, to a large extent, been focused on rural areas in Zimbabwe, which tend to be directly dependant on rainfall and temperature in agriculture production, yet residents living in urban areas are also vulnerable to climate change. Considering the rapid population growth rate of the city, climate change risks need to be well considered and adaptation responses implemented.

The HWAP project is a coalition of various environmental organisations and civil society

organisations namely Bird-Life Zimbabwe, Community Water Alliance, Combined Harare Residents' Trust among others and is funded by Transparent Responsive Citizen Engagement (TRACE). Engagement through HWAP has included nine Community Based Organisations (CBOs) that have been established in locations such as Mabvuku, Kuwadzana, Kambuzuma and Dzivarasekwa. Lessons from HWAP suggest that effort should be directed at supporting an informed citizenry to become stewards and co-managers of urban and peri-urban

ecosystems (e.g. wetlands surrounding the city). These citizens should also have the knowledge and voice to hold duty bearers to account for the management (or mismanagement) of these ecosystems.

The URP is being implemented by the Ministry of Local Government, Public Works and National Housing in partnership with UNDP and UNICEF, who are also the founders of the project. Local authorities, Oxfam and Boost fellowship are some of the stakeholders involved in the project, which

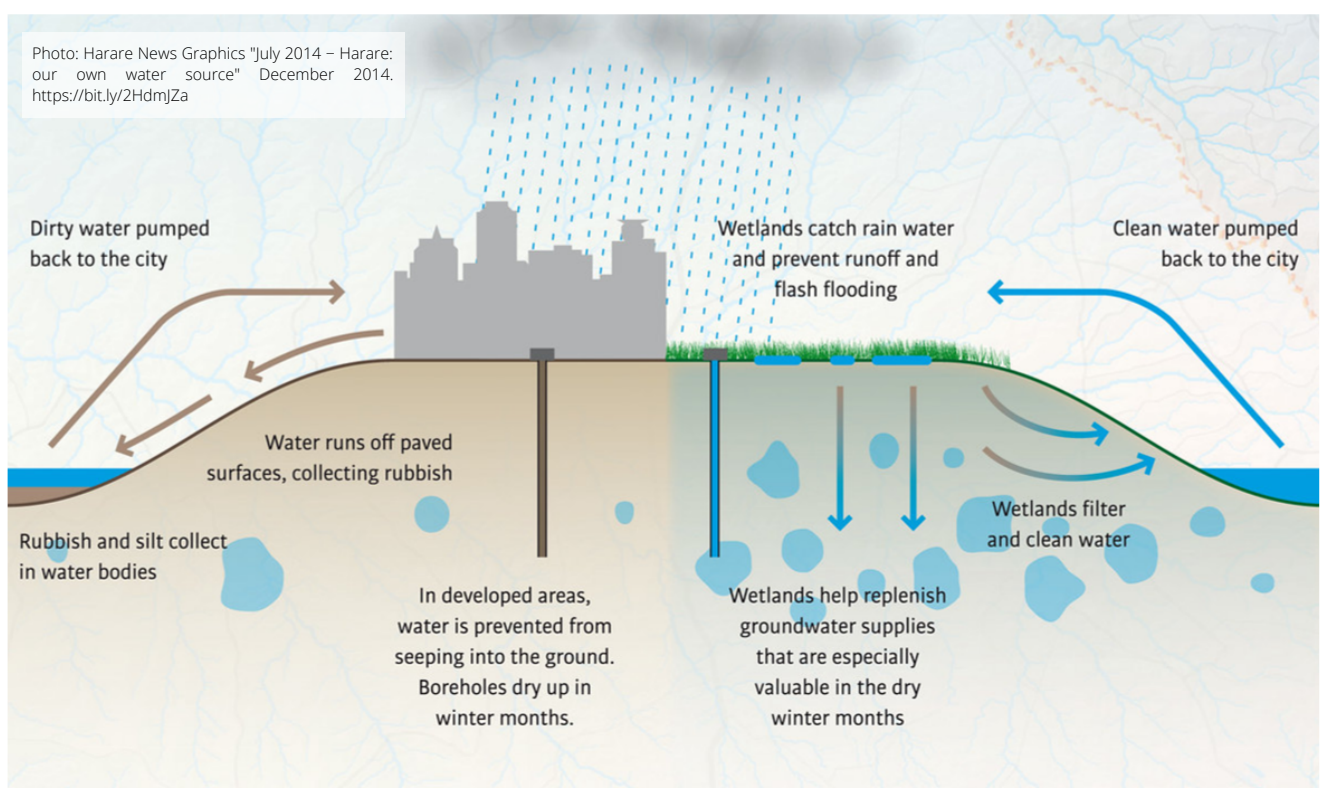


Figure 2: Image showing the difference in ecosystem functioning between a transformed (left) and natural (right) wetland landscape, as well as benefits to the city

was implemented in Harare (Budiro and Glenview), Gwanda and Chipinge and piloted in 2018 to 2019. The premise of the URP is to complement ongoing efforts to address environmental shocks and unemployment among citizens, which contributes to the vulnerability of residents. The URP

showcases how WASH services are critical to creating sustainable economic solutions through community entrepreneurship, training programmes and consideration of byelaws. Economic recovery and improvement of WASH services for the urban poor are key to building urban

resilience, as is understanding barriers and challenges to urban resilience in the water sector.

There is evidence that communities living near wetlands better understand the linkages between these ecosystems and the water that they receive through the taps in their homes through the engagements supported by HWAP. The project has also managed to build a strong voice among the communities so that they hold duty bearers to account to manage wetlands appropriately, for example, through litigation. These communities have been vocal in advocating for wetlands protection, and challenging decisions that have allowed development to take place in wetlands. Several communities have petitioned parliament and raised awareness within their areas on the need to protect wetlands. The URP is building resilience in the city by not only focusing on WASH issues but also addressing macro-economic issues for the community through entrepreneurship and related training, ultimately building the capacity of communities to better adapt to shocks such as climate change.

Recommendations for policy

Both projects appear to have successfully achieved two things: building awareness among residents on aspects of water security (e.g. on importance of wetlands in HWAP) and providing opportunities for communities to self-mobilise and demand accountability, and in some cases, work collaboratively with authorities. The case

studies provide insights on potential of transformative adaptation in Harare to change the status of communities for the better, so that they are more resilient to climate risks. Through these insights, we make three important recommendations for resilience building in cities:

Recommendation 1: Stakeholders at all levels must implement adaptation efforts through a systems thinking approach to water management. Whilst it is important to implement targeted interventions in wetland and general water management, findings illuminate the need for better understanding of the interconnectedness between various issues and sectors. Problems in one sector may cascade into and affect the resilience of a whole socio-ecological system. Management of water and climate change is a cross-cutting issue, linked to many sectors of the economy and the environment. Both LIRA2030 case studies consider the wide variety of drivers that contribute to declining water security and increasing climate risks; they not only deal with water management issues directly but also incorporate secondary activities (e.g. community entrepreneurial projects that seek to empower these communities and provide livelihoods). Essentially, the projects target broad-based empowerment so that communities might contribute to sustainably managing water resources while building resilience. Activities that focus on creating livelihoods linked to sustainable water resources promote empowerment and, in some cases, financial sustainability as opposed to enhancing donor dependency.

A more cross-cutting and integrated

approach can also contribute to addressing resource constraints. For example, the HWAP argues that wetlands purify water for 'free', thereby reducing the amount of funds spent on water purification processes. In some cases, people who are collecting waste from wetlands are generating small amounts of income from these exercises. LIRA2030 case studies in Durban have shown us that it is possible to scale these income-generating activities for communities, which have co-benefits of improving ecosystem functioning.

Recommendation 2: Authorities must engage communities in their adaptation efforts and decision-making processes. The two case studies indicate the benefits associated with community engagement. In line with building sustainable, resilient and inclusive societies, efforts should be directed at supporting entrepreneurship opportunities, forming partnerships and networks of governance and sharing decision-making powers. These partnerships and networks bring many different minds together, thereby encouraging innovation, for example, with regards to effective water management approaches, or technologies for address pressing challenges. Multi-stakeholder platforms also provide

opportunities to realise and record multiple benefits (e.g. waste collection providing income generation). Recording and sharing of such benefits contributes to evidence, which might lead to longer-term mindset and behaviour change. Indeed, communities that have been involved in the HWAP continue to demand accountability regarding wetland management since they have experienced 'wins' in litigation exercises.

Recommendation 3: Local government entities must create funding mechanisms for community engagement projects. Results from the HWAP and URP indicate the need for local and home-grown financing mechanisms that are more sustainable than external funding to build longer term resilience. Analysis of a LIRA2030 case study in Durban shows how financial commitment from the local authority has catalysed larger amounts of funding and investments from global networks (e.g. Sihlanzimvelo project)⁷. The conversations that occurred during the second LIRA2030 engagement in Harare surfaced the fact that funders often complement existing resources that are already committed by government. Cities that commit this initial funding to building resilience have shown initiative and commitment to addressing issues.

⁷ <https://www.c40cff.org/projects/ethekwini-municipality-durban-transformative-riverine-management-programme>

References

- Taylor, A., McClure, A., van Rooyen, L., Mubaya, C., Mamombe, R., Kushata, N. and Pasquini, L. 2019. Pathways to transformative climate adaptation in southern African cities. Working paper prepared as part of the LIRA2030 project. Available at: https://www.weadapt.org/sites/weadapt.org/files/working_paper_pathways_to_transformative_climate_adaptation_updatedrefs.pdf
- Roux, DJ, Nel, JL, Cundill, G, O'Farrell, PJ and Fabricius, C. 2017. Transdisciplinary research for systemic change: who to learn with, what to learn about and how to learn. *Sustainability Science*, vol. 12(5): 711-726.
- Cuneo, C. N., Sollom, R., & Beyrer, C. (2017). The cholera epidemic in Zimbabwe, 2008–2009: a review and critique of the evidence. *Health and human rights*, 19(2), 249.
- Kharlamova, M., Mada, S. Y., & Grachev, V. (2016). Landfills: problems, solutions and decision-making of waste disposal in Harare (Zimbabwe). *Biosciences Biotechnology Research Asia*, 13(1), 307.
- Mutisi, L., & Nhamo, G. (2015). Blue in the green economy: land use change and wetland shrinkage in Belvedere North and Epworth localities, Zimbabwe. *Journal of Public Administration*, 50(1), 108-124.
- Ndebele-Murisa, M. R. and Mubaya, C. P. (2019). Decision-making and climate resilience in the water sector of Harare. Policy Brief. <http://www.fractal.org.za/wp-content/uploads/2019/02/Harare-Policy-Brief.pdf>
- Nhapi, I. (2015). Challenges for water supply and sanitation in developing countries: case studies from Zimbabwe *Understanding and Managing Urban Water in Transition* (pp. 91-119): Springer.
- ZimStat. (2012). Zimbabwe Population Census 2012: National Report. Harare, Zimbabwe.