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# **Putting greenspace and green infrastructure at the heart of Malawi's cities: a policy review**

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## SUMMARY

With 1.2 billion Africans projected to live in cities by 2050, it is important that urban planning and management practices are in place that can address the challenges brought by urbanization. Incorporating and prioritising urban greenspaces and green infrastructure within a city has many advantages for the city's inhabitants, the environment and urban sustainability. Greenspaces and green infrastructure facilitate the delivery of many ecosystem goods and services and provide a wide range of environmental, social, cultural, biodiversity, climate change adaptation and mitigation benefits. Greenspaces and green infrastructure therefore help to meet a number of Sustainable Development Goals (SDGs), such as Goal 11, which focuses on making cities and human settlements inclusive, safe, resilient, and sustainable.

We explored whether (i) urban greenspaces and green infrastructure have been incorporated into Malawian government planning and management priorities; and (ii) whether urban greenspaces and green infrastructure were a strategic priority for Lilongwe City Council. We collated and reviewed relevant national-level and Lilongwe City Council policies and strategies to determine the extent to which they recognised the need to promote and enhance urban greenspaces and green infrastructure.

At the national level, regardless of the policy area, there was no evidence that urban green infrastructure is incorporated into decision-making processes. In contrast, promoting and enhancing urban green infrastructure was a priority in documents produced by Lilongwe City Council. Overall, better institutional coordination and policy coherence across national level sectors that affect urban greenspaces and green infrastructure is required if their multiple benefits are to be realised.

## Key Messages

- 1. Urban greenspaces and green infrastructure contribute to social and environmental sustainability***
- 2. In Malawi, regardless of policy sector, national level actors have not integrated greenspaces into planning practices***
- 3. The City of Lilongwe, in its planning documents, emphasises the importance of investing in urban greenspaces and infrastructure***
- 4. The City of Lilongwe development plans do not refer to the ecosystem services concept, which could provide further justification for promoting and enhancing urban greenspaces***
- 5. Institutional coordination and policy coherence across national level sectors that affect urban greenspaces are required***

## Introduction & background

Over half the world's population lives in towns and cities, a proportion predicted to reach around 70% by the middle of the century. The majority of this future urban expansion will occur in low-income regions, with Africa urbanising faster than any other continent. Around 1.2 billion Africans will live in cities by 2050.

While cities are centres of social and economic development, many challenges exist in how to manage their growth sustainably to ensure human well-being is prioritised and maximised. One key measure, which is increasingly recognised as essential in urban living, is the provision of high quality, accessible urban greenspaces and green infrastructure (Box 1). However, as cities expand, the maintenance or enhancement of the natural environment, and the ecosystem services it supplies, is rarely considered in planning and development

processes, leading to a loss of urban greenspaces.

These losses are despite the plethora of research studies demonstrating the important role urban greenspaces play in supporting the delivery of multiple ecosystem services, such as flood risk and temperature mitigation, pollution reduction, biological carbon storage, human health, good social relations, food provision, habitat for biodiversity and cultural/spiritual value. Equally, poorly managed or located urban greenspaces can cause/augment negative aspects of ecosystem properties such as increasing disease or natural hazard risks.

Cities will play a central role in meeting the United Nation's "2030 Agenda for Sustainable Development" and addressing several of its associated Sustainable Development Goals (SDGs). Goal 11 seeks to "make cities and human settlement inclusive, safe, resilient and sustainable" through enhancing cultural and heritage preservation, addressing urban resilience and climate change challenges, and providing access to safe and secure public spaces. Goal 11 is not the only goal in the 2030 Agenda that addresses urban or human settlements. Goal 1 (poverty), Goal 3 (health), Goal 6 (water and sanitation), Goal 7 (clean energy) and Goal 12 (sustainable consumption and production) also cover targets relevant to cities.

In line with the 2030 Agenda, the Government of Malawi has developed policies in key sectors to make cities and human settlements inclusive, safe, resilient and sustainable. In addition, strategic documents, including the Malawi Growth Development Strategy III (MGDSIII), which will allow the country to sustain its economic growth.

Malawian cities and district councils are also developing their own plans and urban development strategies to guide current and future development goals that are aligned to the MGDSIII. Whilst environmental issues are often given attention by both government and development partners, there is still need to understand the extent to which greenspace

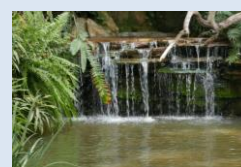
and green infrastructure have been included in policy and strategic documents, especially those that are directly supporting resilient cities.

#### Box 1: Glossary (source EEA 2017)

An **urban greenspace** is any vegetated land within the urban fabric. This includes patches of native vegetation, parks, gardens, street trees, road verges and sports fields. They include assets of different sizes from green roofs or pocket gardens to large parks.



**Urban blue spaces** are all surface waters within a city, such as rivers, lakes, reservoirs, canals.



**Urban green infrastructure** refers to strategically planned networks of natural and semi-natural areas that are often designed and managed to deliver a wide range of ecosystem services. In urban areas, many different features may be part of green infrastructure (e.g. parks, gardens, grassy verges, green walls or green roofs). The term is frequently expanded to include '**blue**' infrastructure which includes surface waters and drainage features, such as swales and sustainable urban drainage systems (SUDS).

**Ecosystem services** refer to benefits that people obtain from ecosystems or their direct and indirect contributions to human well-being. These include supporting services such as nutrient cycling or primary production; provisioning services such as supply of food and water; regulating services such as flood regulation and disease control; cultural services such as spiritual, recreational, cultural and aesthetic benefits.



For this Policy Review, we examined policies and strategies that are linked to the role of greenspace and green infrastructure in cities.

Specific objectives were to:

- Identify the extent to which green infrastructure is included in national sector policies, as well as city planning strategies (focusing on Lilongwe City)
- Assess policy coherence across sectors, and with National Development Plans (NDPs)
- Propose revisions of the selected policies and strategies

## Approach and results

Policies and strategies that are directly linked to cities, greenspaces and sustainability more broadly were collated in collaboration with Malawian partners. Policy documents included: agriculture, forestry, housing, health, education, development and energy sector plans (See Box 2 for a complete list). In addition, we included a number of documents relating to climate change, such as Malawi's National Adaptation Programmes of Action (NAPA) and Malawi's Nationally Determined Contribution (NDC) to the Paris Agreement.

All policies and documents were reviewed via a thematic analysis to determine the extent to which they recognised the need to promote and enhance urban greenspaces and infrastructure.



We found the following:

1. There was limited evidence that the role of urban greenspaces and green infrastructure in supporting biodiversity, ecosystem functions and human well-being has been incorporated into national level policy documents. This is a missed opportunity, as a wide range of government departments can, and should, be engaged in the process of creating and enhancing green infrastructure assets.

### Box 2: Policy documents reviewed

#### National level documents

National Urban Policy (2019)  
National Education Policy (2013)  
National Transport Policy (2015)  
National Resilience Plan (2016)  
National Water Policy (2007)  
National Irrigation Policy (2016)  
National Health Policy (2018)  
National Forest Policy (2016)  
National Energy Policy (2018)  
National Climate Change Management Policy (2016)  
National Biodiversity Strategy (2015)  
National Agricultural Policy (2016)  
National Adaptation Program of Action (2006)  
Nationally Appropriate Mitigation Actions (2015)  
Nationally Determined Contribution (2017)

#### Lilongwe City documents

Lilongwe City Structure Plan (2014)  
Land Use and Housing Development (2015)  
Traffic Planning (2014)  
Urban Utilities and Environment (2014)  
Lilongwe Development Strategy 2010-2015 (2009)  
City Development Structure Plan (2014)

Examples of missed opportunities included:

- The National Urban Policy (2019) acknowledges the need to increase urban resilience to climate change, disaster risks and environmental shocks. The policy also highlights in general terms the importance of greenspaces as constitutive elements of sustainable urban development. However, there is no reference to the relationship between greenspaces and human or ecological health in urbanized areas, the role greenspaces could play in providing a range of other ecosystem services, nor their role in reducing climate change impacts in Malawian cities.
- The National Transport Policy (2015) does not explore the potential of green infrastructure in adapting cities for climate change. Yet, integrating transportation plans and green infrastructure programmes may present multiple benefits to urban centres. For instance, vegetated drainage and porous materials in streets, alleys, rights of way, and parking lots can allow urban centres to increase their storm-water

capacity and reduce flooding. Lilongwe City is frequently affected by natural disasters in part due to a lack of greenspace and green infrastructure.

- The National Education Policy (2013) fails to mention environmental education, let alone greenspaces and green infrastructure. However, successful integration of green and built infrastructure depends on governments fulfilling a facilitating role in education and empowering change and innovation among developers/builders and residents.
- The National Health Policy (2018) discusses linkages with other policies, legislation and guiding principles, but does not explore the potential health benefits of bolstering the extent of, and access to, high quality greenspaces, which are associated with improved mental and physical health.
- The National Water Policy (2007) makes no recommendations pertaining to urban blue spaces. The literature, however, has demonstrated the contribution of urban blue spaces to emotional benefits, restoration and recreational benefits and direct health benefits.

2. Documents from Lilongwe City Council highlight the important role of greenspaces and green infrastructure. The City Council is keen to preserve Lilongwe's existing green landscape and keep its reputation as the "Garden City". According to Lilongwe's Development Guidelines and Standards, "for the realization of eco-friendly urban development, which balances natural environment preservation and urban development, the existing greenery resources such as the nature reserves and waterfront greens in the central area should be strictly protected". The city is keen to develop without losing greenspace and jeopardising its character as a garden city. Some other regions and cities, such as Mzuzu, are also active in terms of prioritising greenspaces and green infrastructure. However, further analysis is needed to examine the extent to which this is captured in official documents and strategies.

3. National level policy documents (e.g. National Biodiversity Policy) acknowledge that ecosystems provide a wide range of goods and services that are essential for human well-being. Such recognition was largely lacking in Lilongwe's development plans. Investing in restoring, protecting, and enhancing greenspaces and ecosystem services in cities is ecologically, socially, as well as economically desirable. To provide additional incentives for conservation and habitat protection, Lilongwe's decision-making and planning processes could consider incorporating economic and non-economic values of urban ecosystem services.

## Recommendations

Our review of national level policy documents demonstrated a lack of appreciation for the role greenspace and green infrastructure could play in improving the quality of the urban environment and thus simultaneously addressing several government and global development goals. This contrasted with our findings for Lilongwe. Here, documents stressed the importance of protecting and enhancing urban greenspaces. This mismatch exists despite the fact that city and district councils are under the remit of the Ministry of Local Government. Consequently, there is a need for better coordination between city and national level decision-makers, as interactions between these actors ultimately largely shape the way cities and city infrastructure develop.

Better institutional coordination and policy coherence across national level sectors that affect urban greenspaces and green infrastructure is also required. Each government department could consider analysing whether it can play a more prominent role in promoting urban greenspaces. Ministries could then coordinate actions with other departments that are in a position to contribute to the realization of this policy agenda. The SDGs provide a window of opportunity for integrating urban greenspaces with the broader development agenda to deliver multiple benefits.

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