



LEARN BRIEFING

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Mainstreaming Indigenous Nature-Based Solutions in African Urban Practice: Insights and Calls to Action from a Cross-City Dialogue



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Executive Summary

Nature-based Solutions are actions that protect, manage and restore ecosystems while addressing societal challenges. They are rooted in the traditional ecological knowledge of indigenous peoples and local communities. Across Africa, practices such as water harvesting, sacred forests and rotational grazing have sustained both communities and ecosystems for generations. Yet these culturally grounded approaches are increasingly neglected amid rapid urbanization, technological change and shifting socio-economic contexts.

For African cities, the challenge lies in safeguarding, revitalizing and integrating indigenous NbS into contemporary urban planning frameworks. While global advocacy has raised awareness of NbS, institutional uptake of indigenous practices in East African cities remains limited and uneven. Bridging this gap is critical to shaping urban development that builds on culture, ecology and resilience.

What Are Nature-based Solutions (NbS)?

Actions that protect, restore, and manage ecosystems



Address challenges like climate change, flooding, and urban stress



Rooted in indigenous knowledge and community practices



Africa's Hidden Strength

Traditional practices have sustained communities for generations:



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- 1 Water harvesting
- 2 Sacred forest conservation
- 3 Rotational grazing
- 4 Community stewardship

These are not new, they are time-tested solutions



Context and Rationale

African cities face mounting climate pressures. Rising temperatures, erratic rainfall, floods and other climate-related disasters intersect with rapid urbanization, creating complex social and environmental challenges. Expanding populations, growing informal settlements and overstretched infrastructure mean many communities occupy vulnerable spaces exposed to climate risks. NbS have gained global prominence as a response, but in African urban contexts they are often implemented at small or fragmented scales such as community tree planting and localized water harvesting that remain insufficient to drive systemic ecosystem protection. Many interventions now promoted as NbS are longstanding indigenous ecological practices. For generations, African communities have relied on sacred forest protection, rotational land use and community-based water management. Yet despite their effectiveness, indigenous NbS are frequently overlooked, sidelined by modernization, knowledge hierarchies and a lack of formal recognition within planning frameworks. This policy brief seeks to reposition these traditional ecological systems within urban policy debates, emphasizing their value as assets for sustainable and climate-resilient African cities.

Insights from Cities

Drawing from insights from a LEARN policy dialogue on **“Mainstreaming Indigenous Nature-Based Solutions in African Urban Practice: Insights and Calls to Action from a Cross-City Dialogue“**, examples were brought forward of indigenous and community-rooted practices. Internationally, references included the Persian qanat system for groundwater management, community-led water storage in the Himalayas, rotational grazing in the Alps and the terps and polders of the Netherlands. Within Africa, compelling cases include Rwanda’s *Umuganda*, a community work initiative mobilizing collective stewardship for reforestation, community-driven tree planting in Nakuru, Kenya, flood mitigation along Johannesburg’s Jukskei River and enclosure systems in Addis Ababa that conserve soil and water. These examples share a common thread: successful interventions are rooted in community participation, cultural legitimacy and locally adapted knowledge.

However, critical challenges remain. Financial constraints are a key barrier, as community-led initiatives often operate with limited resources. Policy and governance gaps exacerbate this, with many indigenous practices lacking formal recognition, leaving them excluded from urban planning frameworks and underfunded in national or municipal budgets. The lesson emerging is that indigenous socio-ecological systems and NbS need not be competing approaches. Integrating the cultural depth and lived experience of indigenous practices with the technical and policy strengths of NbS offers a pathway toward more resilient and sustainable African cities.

Reactions and Reflections

NbS has long existed in Africa through indigenous socio-ecological systems, yet current discourses may view these traditions as “new” solutions, creating the perception that African communities need capacity building despite their long-standing expertise. A related concern is that NbS are increasingly shaped by capitalist logics, once community-driven and impactful with modest resources, they are now framed as large-scale, bankable projects that can reinforce external control and perpetuate colonial dynamics in financing and implementation.

The broader discourse often portrays Africa as lacking capacity, resources and policy frameworks, which undermines agency and overlooks the continent’s distinct urban trajectories and knowledge systems. Participants argued that Africans do not need external validation to affirm the legitimacy of their practices. On barriers to integration, several gaps were highlighted: the absence of direct NbS policies, urban planning that privileges engineering over ecological solutions and limited documentation of traditional knowledge which risks being lost to future generations.



Africa’s future cities can be more resilient by learning from their past.



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Policy Recommendations



Embracing local approaches: For indigenous socio-ecological knowledge to contribute to urban resilience, recognition must go hand in hand with protection. These practices are cultural and relational systems that risk being commercialized or politicized if unprotected. Governments should prioritize inclusive governance structures that elevate indigenous voices, ensuring their knowledge is not an afterthought but a foundation of planning. This requires institutional reforms, capacity enhancement and policies that recognize these systems as legitimate sources of urban resilience.



Scaling and Governance: Scaling indigenous practices requires more than replication; it demands co-creation with knowledge holders. Communities should be actively engaged in shaping how their knowledge is adapted in urban settings. A rights-based approach is needed, one that safeguards community governance mechanisms, protects sacred knowledge and respects practices meant to remain seasonal or relational while enabling the sharing of those that can inform broader resilience strategies.



Sustainability and Impact: Governments should foster partnerships between public authorities, private actors and communities. Such collaborations can channel resources into projects that blend traditional knowledge with modern urban needs, while maintaining community ownership. Through embedding indigenous socio-ecological systems into planning, financing and implementation, African cities can advance climate-resilient, culturally grounded development pathways.

Conclusion

Indigenous NbS and traditional socio-ecological systems are enduring practices whose relevance is amplified by today's urban environmental and social challenges. Their integration into modern NbS frameworks requires genuine inclusion of local knowledge holders, ensuring practices rooted in culture and lived experience inform urban resilience strategies.

There is a need for co-creation where communities are not only consulted but empowered to document, transfer and safeguard their knowledge for future generations. Participatory tools such as mapping and storytelling can play a role in amplifying these voices. By restoring and elevating indigenous socio-ecological practices, African cities can develop inclusive solutions suited to the realities of climate change and rapid urbanization.

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