ETHEKWENI SOUTH AFRICA

THE TRANSFORMATIVE RIVERINE MANAGEMENT PROGRAMME

Community co-operatives for cleaner rivers

KEY CONCEPTS

TRANSFORMATIVE CLIMATE ADAPTATION, GREEN LIVELIHOODS, NATURE-BASED SOLUTIONS, ECOSYSTEM SERVICES, CO-OPERATIVES

Blockages from household waste, tires, and alien vegetation are polluting eThekwini Municipality's rivers and streams, increasing flood risk and ocean pollution during heavy rains, and causing damage to neighbouring infrastructure (e.g., transport routes, culverts, bridges, sewage pipes). In response, 12 government departments from the eThekwini Municipality launched the Sihlanzimvelo programme. Engaging local co-operatives in the labour-intensive work of cleaning and maintaining the municipality's watercourses, the programme has created hundreds of jobs, improved interdepartmental collaboration, and made great strides towards building climate resilience.

COMMUNITIES
Settlements of Inanda, Ntuzuma, KwaMashu, and Umlazi

POPULATION
eThekwini is home to 3.89 million inhabitants, 25% of whom live in informal settlements

DENSITY
1 502 inhabitants per km² in eThekwini , up to 8 530 inhabitants per km² in Umlazi

INFRASTRUCTURE DEFICITS
Lack of flush toilets with sewer connection, lack of piped water in homes

CLIMATE
Warm and temperate climate

RISKS
Flooding, rising sea levels, increasing frequency of droughts

Introduction

Home to the coastal city of Durban, eThekwini Metropolitan Municipality (EMM) has long battled with invasive plant species (IAPs) blocking watercourses. Unlike indigenous plants, IAP's shallow root systems are easily swept away in stormwater, resulting in the plants clogging culverts along with other debris and litter. Blockages exacerbate flooding, which in turn damages homes, health, and infrastructure (e.g., culverts, bridges, sewage pipes). Attempts to manage these urban rivers have proven difficult due to fragmented responsibilities across different local government departments (for example, the national Department of Water and Sanitation is responsible for river and water management, but not the land the rivers run through). Recognising the multiple benefits of clean rivers and streams, the eThekwini Municipality launched the Transformative Riverine Management Programme (TRMP): a cross-departmental programme aimed at cleaning the city's watercourses whilst maximising local economic and employment opportunities.

Approach

Inspired by an earlier program in eThekwini that hired women from rural communities to rebuild roads, the TRMP employs local co-operatives from Inanda, Ntuzuma, KwaMashu (INK), and Umlazi townships to routinely clean and maintain 525 kilometres of streams. Local co-operatives (5-8 members each) identified from previous project databases are responsible for maintaining a five kilometre stretch of stream, including the three metres of stream-banks on either side. Duties include removing invasive alien plant species, rubble, and litter, as well as cutting grass, constructing erosion defences, and reporting sewer leaks. Together, these actions improve water quality, protect neighbouring ecosystems, and reduce pollution of these rivers flowing out to the sea.

Assigned to stretches of stream close to their own communities, co-operatives build a sense of local ownership and pride in their shared public spaces, which would otherwise be left to the government to maintain. Regular project monitoring is undertaken by team leaders and a network of assessors, also typically hired from the local communities.

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Governance and Finance

Aligned with the 2015 Durban Climate Change Strategy, the TRMP is managed by eThekwini Municipality's Roads and Stormwater department in collaboration with 11 other departments. Coordinated by a steering committee, the various departments contribute to the programme in kind (for example, by providing training, refuse bins, and water quality testing), while the University of KwaZulu-Natal serves as a knowledge partner. Project funding comes from the C40 Cities Finance Facility (CCF), supplemented with an operating budget from the eThekwini Municipality Roads and Stormwater Maintenance department.

The Impact

IMPACT	SOCIAL	ENVIRONMENTAL	ECONOMIC
Reduced frequency and intensity of flooding	X	X	X
Reduced damage to adjacent infrastructure	X	X	X
Local job creation, including for women	X		X
Fewer vermin in neighbouring communities	X	X	
More open space for gardens and play areas	X	X	
Less hazardous river water	X	X	
Protection of indigenous plants and species		X	

Looking Ahead

Additional funding is being sought to expand the project to other parts of the river network, creating more jobs for local communities. The programme is also attempting to collaborate with initiatives like the indigenous tree-growing programme, 'tree-preneur' (to replace alien invasive vegetation with indigenous species that better withstand heavy rains); and the KwaMashu Materials Beneficiation Centre (to convert non-recyclable plastics collected by co-ops into monetised circular products such as gabions and green pavers).

Learn More

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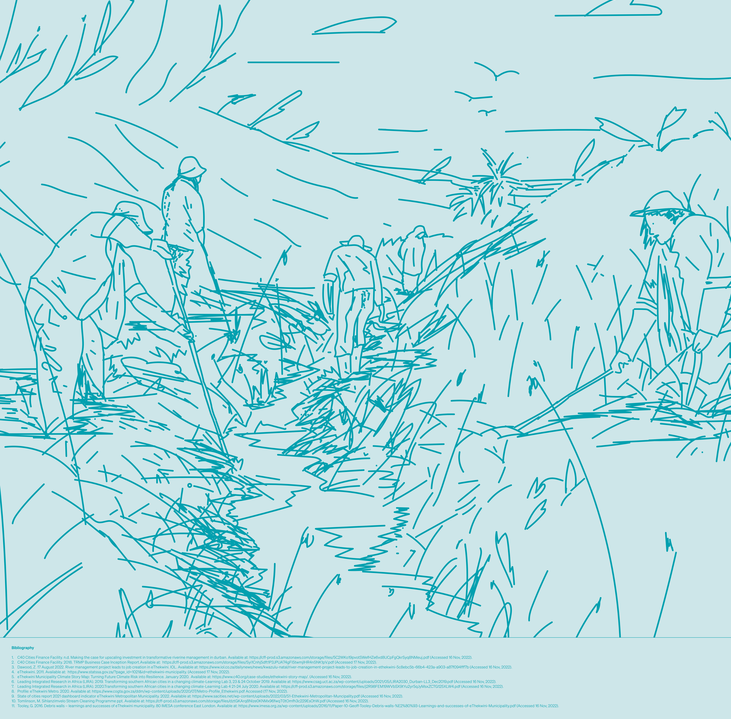

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