

City Water Stories:

Kampala



Population

Population: 1,500,000. Population density is 7,936 inh/km² (2015). 60% of the total population in informal settlements.

Geography

Kampala is the largest City in Uganda (189 km²). Located at the periphery of Lake Victoria, Africa's largest fresh water lake.

Main challenges

High urbanization rates translating into informal settlements encroaching on wetlands. Inadequate sanitation services, flood risks and pollution.

Main solution

Integrated & inclusive planning with a vision of developing a green & resilient city.

A Growing City with Limited Resources

Kampala is Uganda's capital and largest city. Opportunities in the city are driving rural-urban migration translating to an overwhelming amount of informal settlements in Uganda's economic hub. The urbanization rate is far outpacing service delivery in the city, with a lag in the development of infrastructure, sanitation services and freshwater supply, in addition to preparing for flood risks and other impacts from a changing climate. Industries and commercial enterprises are also growing, continuing to threaten water supply, sewerage, waste management and sanitation systems.

Currently, Kampala's city sewerage network covers less than 10% of the city, with the remaining areas relying on onsite sanitation, such as pit latrines or septic tanks. Fecal sludge management (FSM) remains a major problem, especially in the informal settlements, threatening environmental and water quality. Moreover, the impacts of climate change are city-wide, as Kampala is characterized by hills and valleys making it vulnerable to frequent flooding during heavy rains. Increased expansion of paved areas and the degradation of wetlands and green spaces have also escalated the problem. With the current and projected increase in precipitation intensity under all climate change scenarios, flooding is ultimately one of the major risks to infrastructure, human settlements, industrial sector, health and businesses in Kampala City.

Towards a Vibrant, Attractive and Sustainable City

Following decades of inefficient city planning and management, the Government of Uganda decided to take action focusing on transforming Kampala into a vibrant, attractive and sustainable city. Consequently, Kampala Capital City Authority (KCCA) was established in 2011 to set the pace for this vision. Working on the Kampala Physical Development Plan, the KCCA is focusing its efforts to become a water sensitive city with regards to flood vulnerabilities and water security. KCCA has also established partnerships with NWSC, government ministries, development agencies, NGOs, the private sector and local communities to implement various projects that address sustainable urban water and sanitation systems.

One such project funded by the World Bank aims to enhance infrastructure and the institutional capacity of the KCCA to improve urban mobility and drainage management in Kampala. Improvements will include expansion of stormwater drains in flood-prone areas, as well as updating the Kampala Drainage Master Plan of 2003 to help plan a city-wide strategy to reduce flood impacts. Many other projects are also in place to improve FSM and involve local stakeholders in the process. WaterAid Uganda aims to achieve just this, with construction of new sanitation facilities in schools and offer workshops to communities on waste management activities.

Case Study: The Kampala Water-Lake Victoria Water and Sanitation Project

This project aims to rehabilitate the distribution network and extend water treatment capacity, while increasing coverage, reliability and access to water supply and sewerage services for the population, with the main focus on the urban poor living in informal settlements. NWSC is the implementing agency working in close collaboration with KCCA. Core priorities addressing water and sanitation challenges in informal settlements include; i) a new fecal sludge treatment plant; ii) fecal sludge dumping points; iii) public and institutional toilets in informal settlements; and iv) pre-paid meters for urban poor to access clean and safe water supply at utility tariffs.



Kampala's Journey to Become a Water-Wise City

A closer look at how Kampala is satisfying the IWA Principles for Water-Wise Cities

1 Regenerative Water Services

Replenish Waterbodies & their Ecosystems

- ✓ Restoration of degraded wetland ecosystems by KCCA in partnership with Ministry of Water and Environment.

Reduce the Amount of Water & Energy Used

- ✓ Kampala Green Industry Project.
- ✓ Kampala City Solar street lighting.

Reuse, Recover, Recycle

- ✓ Upgrades to Bugolobi WWTP – biogas production component.
- ✓ Recycle Reuse & Recovery Project – energy and nutrient recovery from waste.

Apply a Systemic Approach for Integration with Other Urban Services

- ✓ Biogas sanitation systems with water harvesting in schools.

Increase the Modularity of Systems and Ensure Multiple Options

- ✓ Investment in drainage infrastructure linked to wetland ecosystems as natural buffers.

2 Water Sensitive Urban Design

Enable Regenerative Water Services

- ✓ Physical Development Plan.
 - ✓ Promoting water harvesting and planned flood retention basins.
- ### Design Urban Spaces to Reduce Flood Risks
- ✓ Kampala Drainage Master Plan and Physical Development Plan.
 - ✓ Restoration of wetlands in collaboration with NEMA and Ministry of Water and Environment.

Enhance Liveability with Visible Water

- ✓ Reclaim and develop green parks in degraded wetland areas (Planned project)-seeking funding.

Modify & Adapt Urban Materials to Minimise Environmental Impact

- ✓ Kampala Pollution Task Force since 2012.
- ✓ Green Industry Campaign launched in 2016.

3 Basin Connected Cities

Plan to Secure Water Resources & Mitigate Drought

- ✓ Promoting water harvesting in schools and
- ✓ increasing storage capacity by NWSC.

Protect the Quality of Water Resources

- ✓ NWSC and KCCA.
- ✓ WASH initiatives – KWSF and Pollution Task Force.

Prepare for Extreme Events

4 Water-Wise Communities

Empowered Citizens

- ✓ Community cleanups, school water, environment and sanitation clubs.
- ✓ Sanitation improvement programs in schools & Pro-Poor Interventions.

Professionals Aware of Water Co-Benefits

- ✓ NWSC, KCCA.

Transdisciplinary Planning Teams

- ✓ NWSC, KCCA.

Policy Makers Enabling Water-Wise Action

- ✓ Policy Committee on Water and Environment.
- ✓ Ministry of Water and Environment Board.
- ✓ National Environment Management Authority Board.
- ✓ NWSC, KCCA.

Leaders that Engage and Engender Trust

- ✓ KCCA council led by the Lord Mayor.
- ✓ Division leaders and council representatives.

5 Building Blocks for Kampala on the journey to water-wise cities



Vision

Vibrant, attractive and sustainable City. This is an overarching vision shared across stakeholders including the water and sanitation sector.



Governance

Water Act 1997 – The Ministry of Water and Environment is mandated to provide for the use, protection and management of water resources and supply.

The National Water Policy 1999.

Water (Waste Discharge) Regulations in 1998.

Water sector guidelines developed in 2009.



Knowledge & Capacity

WASH initiatives and other sanitation projects in schools (WaterAid, GIZ-RUWASS, Cheshire Project, Rotary Club Kivatule, MTN Uganda).

Innovative Water Solutions - Nordic Climate Change Aqua Unique Norge.



Planning Tools

The Kampala Physical development plan.

A Drainage master plan.

The Kampala water and sanitation master plan.

Solid waste management system.



Implementation Tools

The Kampala Capital City Act.

The Kampala Physical Development Plan.

The Kampala Water and Sanitation Master Plan.

The Kampala Drainage Master Plan.

The Water Act.

The National Environment Management Act.