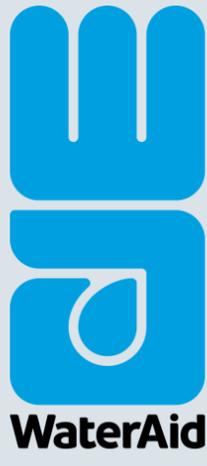


TANZANIA URBAN AND CLIMATE CHANGE STORY



DAR ES SALAAM, TANZANIA

PHOTOGRAPHY BY SAM VOX



Left: Floods in Kigamboni, Dar Es Salaam, Tanzania Right: Aerial View of Dar Es Salaam city centre.

Few cities illustrate better the dual challenges of urban growth and climate change than Dar es Salaam, Tanzania's commercial capital and principal seaport.

The government's Meteorological Office reports that the main rainy seasons between March and May over the last 5 years have been characterized by record-breaking extremes leading to flooding, severe damage to infrastructure, and loss of life while in other areas there could have been no rain at all. Its population of 4.4m at the last census in 2011 is expected to reach nearly 11m by 2030, making it one of Africa's megacities.

The impacts of climate change on top of urban growth pose particular issues for the city's planners as to how to provide basic services, such as vital clean water and decent sanitation, for all living in the city.



Dr Ladislaus Chang'a

Director of Research at the Tanzanian Meteorological Authority Dr Ladislaus Chang'a said: "Yes, the climate is changing, and it is changing at an unprecedented rate. In Tanzania, the minimum temperature is increasing very fast. The major issue is that extreme events are increasing in terms of frequency and magnitude.

"The frequency of floods has continued to increase. In Dar es Salaam we usually get 1,100mm of rain in one year. In October 2017, we got 156mm in two hours. It means that extreme weather is a very big challenge."



Hawa sitting outside her house

32-year-old Hawa Mohammedi's house is on the edge of what used to be a football field in Magogoni village but is now a swamp of stagnant brown and green water. She lives there with her mother, husband and two children. She sells homemade porridge while her husband sells fish for a living. They have an outside toilet with no roof.



Hawa Mohammedi fetches water from a nearby well in Magogoni, Kigamboni, Dar Es Salaam.

The water Hawa fetches from a nearby well is murky brown and is only used for bathing or washing dishes. Clean drinking water costs the equivalent of 20 US cents per jerrycan. Nearly 25 million people are denied clean water in Tanzania. Extreme flooding caused by climate change can pollute fragile water sources, making it harder to access clean water



Water collected from the well near Hawa's Mohammedi house



Hawa Mohammed outside her house

In Tanzania 70% of the population – that's more than 40 million people - do not have access to decent toilets. Without decent sanitation, there's nowhere to treat or manage human waste properly, so germs enter water sources, and spread illnesses like diarrhea and cholera.



Mathias Millinga



Recycled Waste

WaterAid Tanzania has worked to set up one project in Kigamboni to start to solve the sanitation issues so critical to stopping the spread of disease.

Mathias Milinga is the director of a liquid waste management business, UMAWA, in Kigamboni. His team empties pit latrines using a device known as a “gulper” and processes the waste into agricultural fertiliser.

“People are very affected by flooding because this area is close to a swamp. Before, the flooding was less severe. But as people build more houses it has become worse. Some people block the waterways or build in swamps,” he said.

“We have more work to do because when it rains, the toilets are constantly filled up with rainwater.



Julius Chisengo on his gulper



Julius Chisengo in action

53-year-old Julius Chisengo has been operating one of the “gulpers” for 14 years, traveling around Kigamboni on a three-wheeled motorbike truck.

“We cannot stop working when it’s raining because someone’s toilet gets full and people can’t empty it themselves. Rain or shine, we have to continue to work,” he said.

“I am not doing this to benefit myself but because we must help each other in the community. It is hard work, but the problem will not go away so I will continue.”



The house of Rehema Saidi Likoko a resident of Msakala Ward in Temeke District

Further south from Kigamboni, Rehema Saidi Likoko, 22, lives in small brick house with a tin roof in Temeke, Msakala. Temeke is dominated by unplanned settlements built in low-lying, flood prone areas along the coastline.

Rehema* has every reason to be aware of the risks of disease posed by poor sanitation. Two years ago, she lost her older brother to cholera and now regularly cares for his two children. She recalls: “He just woke up one morning and his head was hurting. He went to the hospital but died later the same day. They said it was cholera. He was my big brother and it made me very sad.”

****Rehema did not wish to have photos of her or her niece and nephew taken for the reasons of her family’s privacy***



Juhudi Nyambuka



Ismail Hassan Mdubuli

Juhudi Nyambuka, 55, has been a district health officer since 1988 and now works in Temeke. “The biggest problem is urban planning. The lack of urban planning makes it hard to ensure a clean environment,” she said.

“The infrastructure is poor because the authority to construct drainage and wells is not there. We need an authority like Dar es Salaam Water and Sewerage Authority (DAWASA) to construct safe wells. Now people have no option but to use their own wells. WaterAid has constructed wells and the distribution of water to household here and it really helps.

“There should be more urban planning in Dar es Salaam for the future. The environmental law should make it easier for people to organise and come up with solutions themselves. All sectors should work together on delivering urban planning and infrastructure.”

Temeke market is a busy centre for traders to sell their fresh produce on their wooden stalls or laid out on the ground. Ismail Hassan Mdubuli, 39, sells maize. “During the rainy season, the heaps of fresh maize are sometimes washed away by water and the environment here gets very bad and muddy. When the maize gets wet our profit drops from around 10,000 shillings (\$4.30) to 3,000 shillings (\$1.30) and we have to throw most of it away,” he said.



Mihayo Kallaye

Local artist Mihayo Kallaye, 25, focuses in his work on individual and collective responsibility for the environment and the impacts of climate change.

“Growing up in Temeke, the football pitch we used was often flooded with water,” he recalled. “It was very difficult to play because we did not have any drainage system. People threw away waste in public and many people thought that it was the government that should take care of the environment. I thought I should talk to people about that.

“In 2016, we experienced the flooding in Jangwani (the valley in central Dar). People were running away from the flooded area and sleeping at bus stops. The professionals who are supposed to take care of the drainage system, they just sit in their offices. I thought I could do more with art. The power of art is to start conversations and raise questions. My expression is inspired by the environment.

“I don’t think the authorities really consider building proper latrines or wells. Where we stayed in Temeke, we could not build a well because of all the latrines in the area. So, this is taking us backward.”



ARTWORKS BY MIHAYO



**Thank
you!**

