

CLIMATE CHANGE MITIGATION FOR HEALTH AND WEALTH

“It has only rained a little, but later in March, the rainwater will enter the house. Last year during the rainy season, the rain flooded our house and we had to leave. We had to go and stay at our relatives’ house close to the ferry terminal while we waited for the water to dry. It took two months. It did not feel right to live in someone else’s home. I do not have the patience to deal with a different environment. But our toilet filled with water and it overflowed so we could not stay here”. Hawa Mohamed, 32.

Hawa Mohammedi is a 32-year-old resident of Magogoni ward located in Kigamboni, Dar es Salaam. Temeke is the most populated municipal in Dar es Salaam and among the most vulnerable to flooding. She is engaged in a small business where she makes homemade porridge, while her husband is a fisherman for a living. She lives with her mother, husband and two children. Hawa’s house which is located on the edge of what used to be a football field is now a swamp of stagnant brown and green water.



Hawa Mohamed (32) standing outside her house.

According to a [report](#) by the Tanzania Meteorological Office, the main rainy seasons between March and May over the last five years (2016-2020) have been characterized by record-breaking extremes.

“The frequency of floods has continued to increase. In Dar es Salaam we usually get 1, 100 mm of rain in one year. In October 2017, we got 156 mm in two hours. It means that extreme rainfalls are a very big challenge.” – Dr. Ladislaus Chang’a, Director of Research at the Tanzanian Meteorological Authority.

WaterAid Tanzania implemented the Decentralized Waste Water Treatment System (DEWATS) project (2016-2018) in close collaboration with entrepreneurs to empty pit latrines, collect rubbish and taking it to the landfill and turn it into fertilizer and biofuel. This faecal sludge treatment plant which recycles sludge and wastewater – a solution for dealing with human waste in a crowded city

with limited sewage systems. This action reduces the risk of flooding, as rubbish not only blocks the waterways, but overflowing pit latrines can contaminate the water and cause diseases. Thereafter, the fertilizer and the biofuel are [sold by sanitation workers groups](#) who have invested their lives in sanitation entrepreneurship as their economic activity in Kigamboni and Temeke[-. The project contributed to the improvement of sanitation service provision in all aspects of liquid and solid wastes, reaching up to 250,000 consumers.



Julius Chisengo, a sanitation worker collecting waste at Kigamboni. plan.



Solid waste after being recycled at a faecal sludge treatment

“The project has helped the community to understand the importance of hygiene, a clean environment, and sanitation. In the beginning, they would just empty their waste into the community, but now they call us to empty their latrines. We tell them the cost of emptying their latrines. We remove solid waste from the pit and then pump out the wastewater” Mathias Milinga, Director of Usafi wa Mazingira na Watu (UMAWA), a liquid waste management business in Kigamboni.

The impacts of climate change on top of urbanization pose challenges for the city planners as to how to provide essential services, such as clean and safe water, and decent sanitation, for its residents. There should be more efforts towards urban planning in mega-cities such as Dar es Salaam to minimize further challenges in the future. All sectors whether in WASH or not, should work together on delivering urban planning and infrastructures. Climate change mitigations will only be executed by beginning with urban planning especially in Megacities like Dar es Salaam. However, other solutions like DEWATS will ease the burden of poor sanitation infrastructures in megacities, turning waste into wealth to sanitation workers.