



# On a Mission to Eliminate Floods in Kampala

**Dr. Michael Kizza**

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**Doctorate Studies:** Makerere University and Uppsala University, 2006 -2012

**Doctorate Research Area:** Water Resources Engineering and Hydrology

**Title of Doctorate research:** 'Uncertainty Assessment in Water Balance Modeling for Lake Victoria'

Dr. Michael Kizza is a Manager for Drainage in Kampala Capital City Authority, KCCA. For his PhD studies, Dr. Kizza was concerned with water balance, cognizant of the water inflows and outflow for Lake Victoria.

"I found out that data available for estimating the water inflows and outflows of Lake Victoria are very limited in terms of quantity and quality, and this makes it difficult to plan effectively. I therefore developed a mathematical formulation for modelling the water balance of Lake Victoria that takes into account the most error-prone variables. For a Lake that serves many

countries in the region, it is important to have reliable estimates of its hydrology at any given time to facilitate better planning for water management and utilisation,” he explains. He is one of Uganda’s few top experts in hydrology and has shared his work with the hydro power generation industry to better predict water fluctuations and their effect on hydropower availability.

As Manager for Drainage, Dr. Kizza is in charge of planning, construction and maintenance of Kampala’s storm water drainage network. His team successfully constructed a massive drainage system at Lubigi, an initially highly flood-prone area. “By constructing a drainage channel to direct the flood waters towards River Mayanja, we significantly reduced the frequency of flooding of surrounding areas and lessened its threat to residents’ property and lives. This project has been a huge success and we intend to replicate it in other flood-prone areas of the city,” he confidently explains. The Lubigi wetland is in the neighbourhood of Kalerwe, Bwaise and Namungoona, which have high population densities mainly made of low income communities and artisan workers whose livelihood are highly sensitive to climate-related risks like flooding.

## Supervision

- Supervised 5 MSc students to completion. Their research was in the area of Water Resources Engineering. He has also supervised many undergraduate students

## Membership to Professional Organisations

- Member: Uganda Institute of Professional Engineers

