

CITIES SECTOR COOPERATION BETWEEN TSHWANE & AARHUS, Annual report for 2019

Danish Authorities in International Cooperation



Non-Revenue-Water collaboration in City of Tshwane

Since June 2018 Aarhus Water Utility (City of Aarhus) and City of Tshwane's have been collaborating on a strategy that will enable City of Tshwane to reduce its Non-Revenue-Water, save money and potentially reinvest savings into the city's water infrastructure. City of Tshwane's current water loss is set around 40% and Denmark's around 5% and which is among the best in the world.

Main activities in 2019 has been a number of missions and workshops in Tshwane to collect data and information for the strategy. The South African partners has also visited City of Aarhus/Aarhus Water Utility on a study tour to learn about how Denmark deals with NRW. The key mission in 2019 was perhaps a comprehensive leak detection mission to City of Tshwane to collect data and test new technologies. For this purpose, acoustic equipment was sent down from Aarhus Water Utility. For a week, the two teams would use the equipment to detect leaks and collect data from 20:00-03:00 at night, register broken meters, do pressure management control etc. The next day identified leaks would be repaired and water savings recorded. During daytime the team would plot and document all the collected data into GIS maps in order create the full picture of the situation on the ground. The data has been documented in a 30-page technical report by the SA/DK team at this will inform the actual

strategy. Staff has been involved at almost every level form engineers to plumbers to the labourers who dig out the leaks. This is important in order to secure skills transfer. Another leak detection mission was carried out in February 2020 to finalize the work and a business model is under development to be presented for top management in City of Tshwane for management to understand how much money and water the can save if the apply the teams strategy. A SoMe film was developed about the collaboration and the leak detection mission.

- Testing of technology and data collection completed on leak detection mission and other missions.
- 30-page technical report drafted by team.
- Capacity building and knowledge sharing of findings/report through workshop with key staff and management across all involved departments
- Study trip to City of Aarhus/Aarhus Water utility to study the Danish NRW model and approach.
- Participation and presentation of the NRW SSC Programme at African Utility Week
- Presentation of the NRW collaboration and preliminary results to Executive Mayor Stevens Mokgalapa.
- City of Tshwane Executive Mayor Stevens Mokgalapa visit to City of Aarhus and Marselisborg Wastewater Treatment plant.

Main achievements and lessons learned in 2019

The main events in 2019 have a number of highly successful missions and the compilation of all data into a well-written report that will inform the team's strategy for processes and technology that will reduce water use and non-revenue water in selected area in Tshwane.

Furthermore, the team presented their work at African Utility Week which is the largest utility conference in Africa. Finally, the team managed get previous Executive Mayor to visit City of Aarhus and Marselisborg Wastewater Treatment plant. This happened in association with the EM's participation in the global C40 Mayors Summit in Copenhagen in October 2019.

Status: Phase I

Project period: [01.01.2019/31.12.2019]

Partners: City of Aarhus & City of Tshwane

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