Case Study: Dhaka Domestic Water Flow

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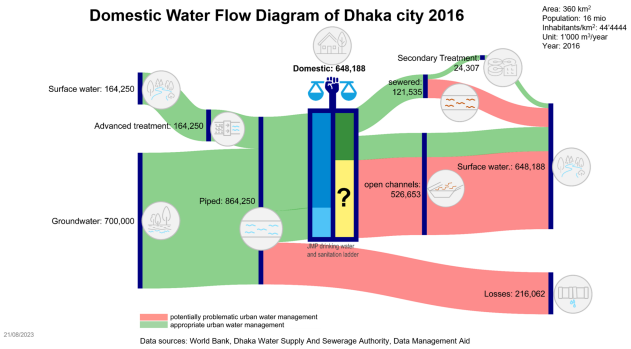
INTRODUCTION

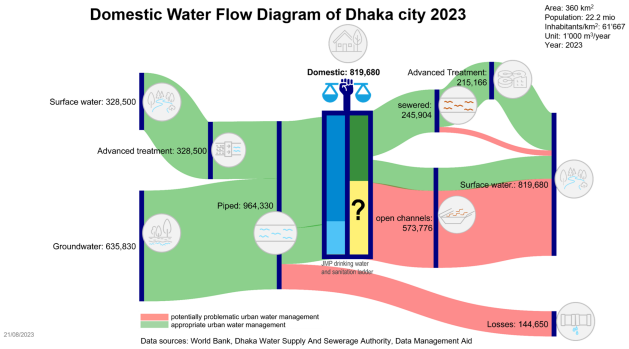
- When poorly managed, human excreta and solid waste are a public health concern
- Dhaka is a mega-city with a population of 22 million staying in 260 km^2
- The Water and Sewerage Authority (WASA) of the city serves about 250 crore liter of water/day to its inhabitants. However, it has a capacity of treating only 75 crore/liter of wastewater/day
- This study looked at, how lack of integrated planning and management is contaminating the surface and groundwater of Dhaka city

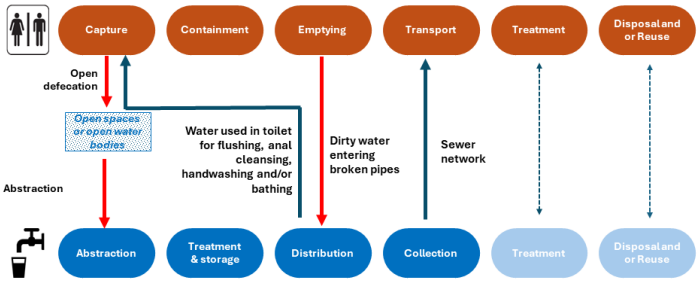
METHODOLOGY

- The study has looked at how water is being abstracted, treated, supplied (for domestic use), transported, treated (or not treated) and discharged to surface (and ground) water
- The study used the Water Flow Diagram (WFD) developed by SANDEC as a method for data collection and visualisation
- Information are mainly collected from secondary sources includes Dhaka WASH annual reports, World Bank reports for Dhaka Sanitation Systems and similar other literatures

RESULTS







CONCLUSIONS

- Surface water use has increased over time but not significant compare to groundwater use
- Water losses have decreased but still too high due to poor network
- Reduction of losses of water in the piped network can contribute to profit of DWASA
- Households (on-site) are discharging faecal sludge to stormwater drains
- Sewer overflow contaminates surface water as well
- New WTP construction led to increased wastewater treatment, but new sewer network was not built
- Without ensuring proper containment of faecal sludge, wastewater treatment is not helpful