



Dhaka WASA is planning to cross-subsidise lower-income groups along with proposition to reduce Government subsidy

Technical Study on Introducing Area-based Water Tariff System in Dhaka City

Summary

Bangladesh is facing more major water security challenges than ever due to the increased demand of a growing population and the impacts of climate change, inappropriate land use and waste management. Dhaka Water Supply and Sewerage Authority (DWASA) covers more than 401 sq. km. Service area with a supply capacity of 2650 million litres of water per day (MLD). Total service areas or zones of DWASA are currently divided into ten geographic zones for easy operation, maintenance and better public service.

The current heavily subsidised flat tariff rate is well below the production cost of water. The subsidy is meant to alleviate some burden on the poor, who have to pay a larger share of their income to access water. Instead, the benefits are largely enjoyed by the affluent, which often leads to wastage and inefficient use. According to Bangladesh National Building Code 2020, per capita water consumption among the relatively affluent in Dhaka is 260 litres per day, compared to 80 litres for households in the low-income group.



15.18 BDT/1000 L

Current domestic and LIC water tariff



42.00 BDT/1000 L

Current commercial and government water tariff

Clause 22, sub-clause 2 of the WASA Act of 1996 permits WASAs to adjust the tariff at a rate of a maximum of 5% each year, but it is encouraging to note that DWASA is looking for support to design an area-based water tariff structure since flat tariff is not socially just and equitable; and should be reconsidered for many socioeconomic reasons. Considering these facts, an improvised area-based water tariff system is proposed to ensure equity among different user groups.



Higher water tariff

Paid by high income group of affluent areas in proposed system



Lower water tariff

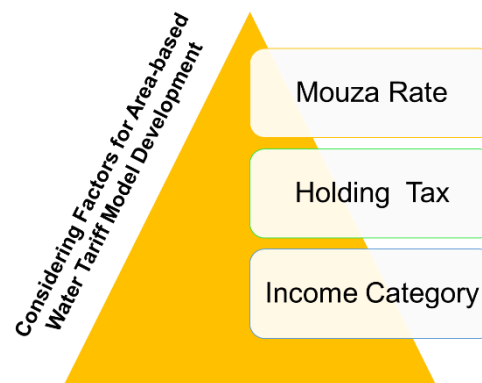
Paid by low-income community of poor areas in proposed system

Proposed area-based water tariff systems follow the simplest ways to determine tariffs for different population segments with minimum modification requirements in DWASA's current billing and revenue collection system. The idea behind these systems is that the users in relatively affluent areas and high-income groups will pay a higher rate than low-income groups. Moreover, according to the national cost-sharing strategy, the tariff should be proposed in such a way so that the financial cost can

be recovered by DWASA at the same time while ensuring sustainability and equity for the water users (Policy Support Unit (PSU), 2012) which can also be achieved through the proposed area-based water tariff system. On the other hand, Bangladesh Water Rules 2018: Article 7, sub-article 2, emphasises on setting water tariff based on affordability of consumers and the production cost of water supply system.



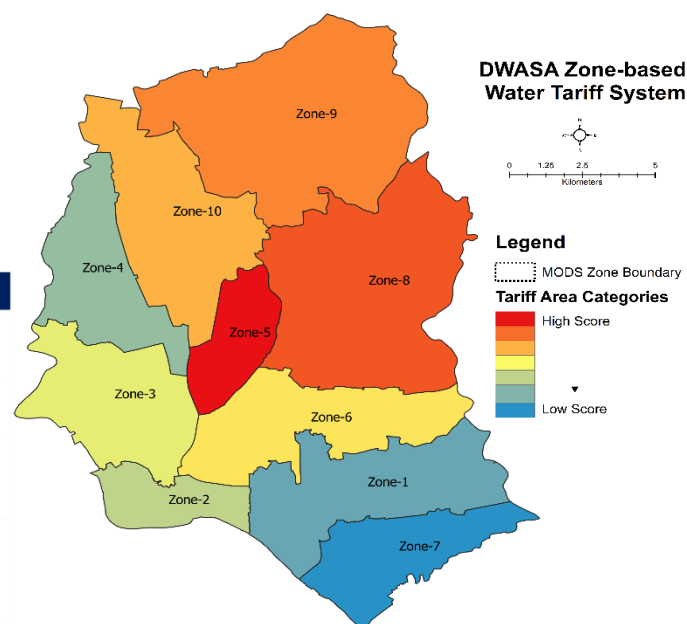
The area-based water tariff model has been proposed considering different factors. Understanding the consumer group complexities and following the BNBC 2020, based on the flat size, the domestic consumer groups are categorised in 4 categories. Three other categories chosen are Low-income communities, commercial and industrial, Government and public services. Different tariff rates have been proposed for these categories following the National cost sharing strategy for water supply and sanitation 2012- the tariff rates for upper consumption blocks should increase at 25% rate from the base tariff. For study purpose, we considered the estimated production cost at consumer's level is 25 taka/1000L. This will be replaced by the actual figure once the ongoing another study by DAWSA is done. For the proposed area-based water tariff system, the production cost rate of water supply system has been considered as the base tariff and for middle income consumers.



This model can easily be implemented in the short term and medium term as the current DWASA billing system has the provision to collect the required information, e.g., household type (e.g., building, tin shed, etc.), the land area, number of storied, total water consumption, location/area and zone, which DWASA is already collecting. A detailed report on the study will be published soon.

Area-based Water Tariff System

- Characteristics Areas are categorised according to DWASA Zone
- Pros Easy to implement
- Cons Normalises the tariff structure within same zone
- Plan of action DWASA can operate within the existing zoning and with minimum modification in billing system



Summary of proposed tariff against each consumer group



Consumer Group Category	% of consumer	Proposed Tariff (BDT)
Domestic (D)		
• High (H)	0.8%	37.50
• Upper Middle (UM)	1.3%	31.25
• Middle (M)	4%	25.00
• Lower Middle (LM)	79.4%	18.75
Low-income Community (LIC)	2.9%	12.50
Commercial and Industrial (CI)	11.5%	50.00
Government and Public (GP)	0.1%	25.00

