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Water tariff rationalisation in Kerala Water Authority

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The Government of Kerala has rationalised the drinking water tariff applicable to consumers of Kerala Water Authority, with effect from 01.09.2008. The Water Tariff revision has been adopted with a clear-cut rationale drawn up based on national and international experience modifying it suitably to the specific requirements of the state of Kerala as well as with a view to ensure sustainability of services. While the sustainability of the institution and service is of primary importance, equal importance has been provided to address the issues of low income and poor population in accessibility to drinking water. It is expected that after the tariff rationalisation, the Kerala Water Authority would be able to meet all its operation and maintenance expenditure and this would contribute to sustainable service delivery.

Introduction

Kerala, one of the smallest states in the Republic of India, was formed in 1956. It has an area of 15,005 sq. miles [38,863 sq. km.] about one percent of the total land area of India. State (pop., 2001: 31,841,374), southwestern India. The capital of the State is Thiruvananthapuram.

Until formation of the Kerala Water Authority (KWA) in 1984, the drinking water sanitation sector in the State was decentralized with most of the local bodies having the responsibility of providing the services. The Public Health Engineering Department rendered services directly in certain local bodies, but otherwise was more or less a bulk water provider to the local bodies. The KWA came into existence on 1st March 1984 by converting the erstwhile Public Health Engineering Department of the Government of Kerala. Subsequently, many municipalities transferred their responsibilities in the sector to Kerala Water Authority. KWA continues to be the major single agency providing drinking water services in the State.

The finances of the KWA were in a bad shape until recently. The previous water tariff revision in Kerala Water Authority was done in the year 1999 and since then, the power tariff had been revised four times and the revenue - expenditure gap had widened gradually. The non-plan grant assistance of the Government compensates the KWA to a certain extent but still there was a wide gap between revenue and expenditure and therefore, KWA was not paying power charges since the year 2003. As on 31.3.2008, the accumulated arrears stood at Rs.774 crores. Due to serious financial crisis, in addition to non-payment of power charges KWA had to many times divert capital plan funds for revenue purposes. The diversion of capital funds had seriously affected the plan schemes causing cost and time over run.

The KWA and Government of Kerala took note of the situation and took a series of steps to improve the performance of the organisation. The Government decided to waive the accumulated interest of Government loan amounting to Rs.1006 crores, agreed to convert outstanding loan amounting to Rs.854 crores into interest free fund. Recently the Government has ordered to settle the power charges arrears amounting to Rs.774 crores by a one-time settlement by payment of Rs.250 crores. Government also came forward to complete the long pending water supply schemes through a one-time arrangement availing loans from NABARD. KWA from their side took several initiatives including management improvements, computerization, claim settlement mechanisms, providing metered connections, billing and fixing responsibilities to employees. From all the efforts taken up by Government and KWA, the revenue collection went up to almost 100% without a tariff revision within a short span of four years. In recognition

of the special efforts taken up by the KWA, the Government of India had selected the organisation for the National Urban Award 2008.

From 1.4.2008, due to their own constraint, the Kerala State Electricity Board had commenced disconnection of water supply schemes of KWA for non-payment of power charges. As there were no other options in front of the Government, the Government decided to rationalize the water tariff with effect from 1.9.2008 to cover the revenue gap. According the Government Water Policy-2008, water charges for various uses shall be fixed in such a way that they cover at least the operation and maintenance charges of providing the service. The subsidy on water rates to the disadvantaged and poorer sections of the society shall be continued.

Guiding principles

The tariff rationalization proposals were drawn up generally based on the following guidelines:

1. Normally, the Water Charges shall be fixed in such a way that it guarantees not only a stable source of funds sufficient to cover their costs of operation (including treatment, storage, and distribution costs), but also funds for infrastructure investments (EPA 2005)².
2. The charges customers are asked to pay for any commodity or service sends a signal to them about the value of the product or service they are purchasing (EPA 2005)².
3. While there is a need for cost recovery, it cannot be expected in a democratic society that every citizen has to pay the same. Poorer sections of the society have to be provided drinking water either free or at low subsidised rates.
4. Wherever, cross subsidy is proposed, it should not be so excessive as to drive away high end users (who are after all the water utility's best customers as they are the easiest to collect from), or induce them to shift to other sources of water, such as freely available but only partly renewable (deep aquifer groundwater (industries) (John J. Boland - D. Whittington).¹
5. Wherever the Government as a policy wants to offer special concessions to certain classes of population like Below Poverty Line (BPL) families, then instead of cross subsidization, Government may resort to direct assistance to the service provider.
6. While fixing tariff, similar rates shall be fixed for high end users in different categories to discourage miss-classification of users and consequential loss of revenue.
7. Demand management and capacity constraints should be considered while fixing tariff to ensure equitable supply of water to all consumers (John J. Boland - D. Whittington)¹

Rationalized tariff

The pre-revised tariff and tariff after rationalization is given below:

Table 1.		
Category/Consumption Level	Present Level	Revised Tariff
Domestic		
0-5 KL***	Fixed Nil,	Fixed - Nil
	20 (min.Rs.20)	20(Min. Rs.20)
5-10 KL ***	20	20+4/KL>5
10-20 KL	20+3/KL > 10	40+5/KL > 10
20-30 KL	50 + 3/KL > 20	90 + 6/KL > 20
30-50 KL	80 + 5/KL > 30	150+ 14/KL > 30
50 KL +	180 + 7.5/KL > 50	430 + 25/KL > 50

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Non-Domestic		
0-15	Minimum 100	Minimum 125
	Rs.7.35 KL	Rs.10.00
15-50 KL	110.25+7.35 KL	150+14 KL>15
50 KL +	368 + 10.6/KL	640 + 25/KL>50
Industrial	Minimum 200	Minimum 250
	10.6/ KL	25 /KL

***No water charges will be collected from BPL families who consume up to 10,000 liters per month

Rationale for fixing tariff for each group/category

Domestic consumers:

Up to 5000 litres – these consumers were paying Rs.20 even before tariff rationalization. After rationalization too, they continue to pay Rs.20 only. The tariff rationalization has no effect on this group.

From 5001 to 10000 litres – For every liter additional litre, this group has to pay Rs.4 per 1000 litre. Earlier there was no incentive for saving water as they were allowed to consume up to 10000 litres for Rs.20.

From 10001 to 20000 litres – The increase is slightly steep as this consumption group is beyond the capacity of the water supply scheme. Maximum consumers fall under this category. Though it is beyond the capacity of the water supply scheme, penal tariff is not applied here considering the social/cultural background and the prevailing high consumption pattern of the population.

From 20001 to 30000 litres – This Consumption Group is very much above the present capacity of the water supply scheme and beyond the capacity designed for future population. Non-domestic tariff should have been made applicable for this group. However, again considering the present consumption pattern a controlled increase has been adopted here.

From 30000 to 50000 litres – No normal household would consume so much of water. Thus to avoid misuse or careless wastage of water non-domestic tariff at Rs.14 per 1000 litres is adopted for this group.

Beyond 50000 litres – This category has to be penalized for exorbitant consumption. Therefore, industrial tariff at Rs.25 per 1000 litres is adopted.

Non-domestic consumers

Up to 15000 litres – The increase in minimum water charges is marginal to aid small offices, schools, clinics, hospitals, places of worship, etc.

From 15000 to 50000 litres - This is a new consumption slab introduced to avoid exorbitant increase to medium hotels, hospitals that would have indirect impact on the common population.

More than 50000 litres – This category has to pay high rates as the water supply schemes are not designed to cater to the requirements of this group. However, the rates are not increased beyond a limit to avoid these consumers adopting alternative sources at the cost of the environment.

Industrial consumers

The Tariff has been fixed at Rs.25 per 1000 litres. The number of industrial consumers is very few. The rates has been kept lower than neighboring states as it would help the industrial policy of the State and also avoid the industries adopting alternative sources for their water requirement at the cost of the environment.

BPL (below poverty line) families

The concession to BPL families, offered as part of the Water Policy of the Government, is designed to target the subsidy component directly to the most deserving group of the Society. Another important point to be noted is that the subsidy has been offered directly by Government without cross subsidization to other categories of consumers.

Challenges

1. The main challenge that may arise is the reduction in present consumption and consequently on revenue because of higher tariff for higher consumption. There should be a tendency on part of consumers to save water and therefore, in the absence to controlled production and distribution, KWA may have to increase its consumer base to obtain the anticipated revenue.
2. As there has been no considerable revision in the minimum rates, the tariff is mainly dependent on recording the correct consumption. Therefore, the fitness of the meters is of prime importance. At present the non-working meters varying from 15% to 25% in different divisions. To recover the anticipated revenue, the meters have to be kept working and timely meter reading and billing has to take place.
3. The meter reading and demand raising efficiency of KWA has to improve. The shortage to meter readers and billing clerks has a direct impact on the revenue generation. The arrangement made with Kudumbasree (a Government initiative to empower women) for meter reading and ABACUS (Advanced Billing Accounting and Collection Utility System) now running on pilot basis at Thiruvananthapuram has to be rolled out to all billing centers. Better facilities for remittance of water charges have to be ensured.
4. The level of outstanding debt has to be brought down through intensive collection drive.
5. The cost of water supply could be considerably reduced by reducing the non-revenue water and KWA has to expedite the initiatives already in place to reduce it.
6. Further cost reduction measures like energy management reduced overheads, innovative management of processes, etc., has to be adopted.

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References

- 1 John J. Boland - D. Whittington – Water Tariff Design In Developing Countries: Disadvantages of Increasing Block Tariffs (IBTs) and advantages of Uniform Price with Rebate (UPR) Designs.
- 2 EPA – United States Environmental Agency - Case Studies of Sustainable Water and Wastewater Pricing- December 2005 Michael Rouse International Water Association – IWA Reference Paper (August 2006) – Sustainable Cost Recovery.

Note/s

This paper is an attempt to share the practical experience of the author working as the Finance Head in the organisation.

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