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## Cost recovery for water supply, policy and practice in Bangladesh

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## Cost recovery for water supply, policy and practice in Bangladesh

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*The National Policy for Safe Drinking Water supply and Sanitation of Bangladesh states that “in the near future”, larger parts of the construction costs of water supply systems should be recovered from the users. Furthermore, the policy prescribes that user communities should become responsible for O&M of the water supply facilities in rural areas and should bear 100% of the costs for this. The policy states that transaction should be more towards cost recovery and financing practices for water supply should be gradual and there should be a safety net for the hard-core poor. This paper deals with the cost recovery and financing of water supply according to the National and how it is interpreted and put into practice by different organizations.*

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### Introduction

The systematic adoption of equitable and justifiable full-cost pricing for water services is often forwarded as a solution to various water related problems. The issue maybe analyzed from the perspective that water must be valued, but not necessarily priced, unless it is the best local option among a range of options. The costs of water supply and sanitation include capital cost of the infrastructure, the on-going operation and maintenance (O&M) costs and provisions for replacement, upgrading and extensions. The initial capital cost is high and either has to be subsidized or recovered over a long period through tariffs. Sustainability costs include operations and maintenance and perhaps provisions for later refurbishment. The State is primary responsible to ensure water and sanitation but does not have the resources to do this alone. In Dublin meeting it was agreed “water should be treated as an economic good”. However, no clear interpretation of the term was provided, but in general it is interpreted that water should have a “price”. Unofficially the norm in the sector is that 5% of total household expenditure is for individual services.

### National policy on cost recovery and financing of water supply

#### Launching of National Safe Water Supply and Sanitation Policy

In Bangladesh, the ‘National Policy for Safe Water Supply and Sanitation’ 1998, was developed by the Local Government Division of the Ministry of Local Government Rural Development and Cooperatives. A committee, chaired by Chief Engineer Department of Public Health Engineering (DPHE), was involved in drafting the policy. Donors are said to have had a big hand in the establishment of the policy.

A guideline was formed, which was endorsed through a workshop later in 1998. The policy was reviewed and slightly adjusted by the cabinet before it was accepted.

In the process of the development of the policy, lessons from NGO experiences were taken in consideration since NGOs already had good experience in cost recovery. A number of NGOs were involved in the establishment of the policy.

### Cost recovery in the National water and sanitation policy

One of the policy principles of Safe Water Supply and Sanitation Policy, 1998 is that water has “an organic, social and concurrently an economic value. To ensure that service provision is viable, the price of water should reflect its economic value, with the eventual objective of covering the cost of supply”. Because of the differences in institutional aspects, content and magnitude between the urban and the rural water and sanitation sector, the policy presents the urban and the rural sector separately.

The policy states that in the urban areas water will be provided at costs, in order to make the water supply system sustainable. Therefore the policy prescribed that in the near future tariffs should be determined on the basis of the cost of water production, O&M, administration and depreciation. The local government bodies should be empowered to set tariffs, by-laws etc according to their needs and in accordance with the guidelines laid down by the Ministry. They should take action against water losses and unauthorized connections.

For the rural areas the policy states that water services will be provided based on user demand and on cost sharing basis and that in near future, communities should share the costs in the following way:

- 50% of hand tube wells in shallow water tables
- 25% of hand tube wells in low water table areas
- 20% of deep hand tube wells and other technologies for difficult areas
- User communities will be responsible for the O&M and will bear its costs.

Shallow tube wells (STW) were not considered to be public goods but the private property of a single user or a small group of users. The market price of STW priced around Tk 5000, was considered to be within the buying capacity of the general public. It was determined STW costing Tk 5000 would be affordable for a group of 10 families sharing the costs.

The policy prescribes that user communities should become responsible for O&M of the water supply facilities in rural areas and should bear 100% of the costs for this. The policy states that transaction to be more toward cost recovery and financing practices for water supply should be gradual and there should be a safety net for the hard-core poor. Also the policy lags a clear time frame, which was included later with a rather vague term, “in the near future”.

According to the policy, educational and religious institutions are exempted from costs of safe water supply facilities, as these would be provided by the government. The policy states that tube wells will be installed free of cost immediately after disasters. However, the policy failed to focus current arsenic situation, which is generally considered as a natural disaster that has caused the largest case of mass drinking water poisoning in the world.

### Perceptions on cost recovery policy

In general all stakeholders in Bangladeshi watsan sector considered cost recovery to be an important instrument to ensure ownership and in that way improve the sustainability. It is feared that if user groups do not share the costs, they will be completely dependent and will not share the responsibility i.e. they would not feel responsible for efficient operation and maintenance of the water supply system. If the users pay for their services, this will give them a voice and certain rights as well. If poor people are asked to contribute as well, this should give them also a voice in the site selection of the water supply facility in the rural area and provide the rural water user the right to demand better water supply services. Another important reason as to why cost recovery is considered to be essential, is to reduce donor dependency, especially in the light of retrieving donors (in the 1980s, bilateral and multilateral donors contributed about 80% of the total investments in the Watsan sector. In the 1995-1999 Five Year Plan, donors were responsible for funding only 24% to 34% of the annual sector budget (Den Consultants, 1999)).

About 89% of rural households feel that the state, through DPHE should be responsible for the provision of safe water. About 54% of the households indicated that they would mainly like to contribute with manual labor to the construction costs. For the O&M costs, the users were found to be

not willing to pay per quantity of water they receive, but rather per month (WHO, 1996).

### Implementing organizations and their policies

The policy is interpreted by different implementing organizations in different ways. This has led to the fact that there is a wide variety of practices in the field level.

#### DPHE: Recovering fixed amounts

DPHE, the governmental department with the functional responsibility for drinking water supply and sanitation in Bangladesh, has been and still is the largest implementing agency in the rural water supply sector. Up to June 1998, it has been involved in implementation of more than 1 million hand tube wells. For implementation of these tube wells, it is working closely together with donors, especially with UNICEF and DANIDA

Most of the installed pumps were STW (about 74%). However, since the emergence of the arsenic crisis, DPHE has shifted its focus more to implementing the more arsenic safe and more expensive Deep Tube Well (DTW). These tube wells should normally be shared by 7 to 10 households. The households should be under/un-served and should belong to the lower income groups. DPHE indicates poor families by observing head of the household. Female headed households and households of which the head is a day laborer are given priority.

The total costs of installation of a DTW will be about Tk 40,000-45,000. It is DPHE's policy to recover 10% of the costs of the deep tube well from the future users. The costs that should be partly recovered are the costs of the materials and the pump itself and sinking of the tube well (labor costs). Especially this latter part varies considerably for different geo-hydrological areas. Recovering a fixed percentage would thus entail great administrative costs and would lead to an unequal distribution of the actual costs that would be recovered from the users.

Therefore, DPHE in reality is not recovering the user's contribution as a percentage of the actual costs, but as a fixed amount. This amount is set on Tk 4,500, which is roughly 10% of the average (nation wide) costs of a DTW. This is a well-established procedure.

For a long time, DPHE has been giving 90% subsidy for the construction of water supply facilities. Since the implementation of the National Policy, there has been lot of discussion why this is not changed to 80%, as prescribed in the policy. However, this discussion never really found proper ground. DPHE proclaims that, as per the policy, which states that subsidies should be decreased “in the near future”, they will decrease the subsidies in due time.

The fixed amount is paid by the users in advance. Often beneficiaries are willing to pay, but might not be able to pay in one go. Therefore, the users' contribution is collected over a period of about 6 to 9 months

Within the group of households there are always some that are better off, than the others. Not all households in a group necessarily pay the same amount. The households decide and arrange this amongst themselves, without support from DPHE or DANIDA. O&M of the hardware installation should be done by the users. However, the services of the DPHE tube wells mechanics are free of costs. Costs of the spare parts are generally paid by the users.

### **DSK: 100% cost recovery in urban slums**

The tube wells have been primarily installed under subsidies from the government. DSK feels that subsidies will decrease the self-esteem of the people who receive the subsidies. DSK brings these ideals in practice in their urban slum water and sanitation programme.

Under the programme, urban slum communities are entrusted to pay the borrowed amount for construction of water points in 24 installments spread over 30 months, with a 6 months grace period. Before installation, the prospective clients deposit 10% of the estimated construction costs in advance. This can be considered a "subsidized loan", since no interest is charged over the investment costs. Besides 100% of the installation costs, the users pay the full O&M costs. To recover the costs, there are different collection systems for different slum communities, as some communities prefer monthly rates, while others prefer set rates per use. Combinations of both collecting systems are most common.

The financial management is done by a Water Management Committee comprising of 9 women members. They take care of the repayment of the capital costs and regular payment of the water bills, the salary of the caretaker and maintenance. The water rates are collected from the users by 2 hired part-time female caretakers. Next to the Water Management Committee, the community selects 5 men to form a male committee, which fulfills an advisory role (Dibalok 2002).

So far, the recovery rate of the DSK water bill has been 98%. This is in contrast to the capital costs, of which so far, only 47% has been recovered. The main reasons for that are the lack of motivation to pay, the fact that water was not available, and, most importantly, evictions of the slum people by the government.

### **NGO forum: Cost recovery in line with the National policy**

NGO Forum for Drinking Water Supply and Sanitation is involved in watsan interventions, through its numerous local level Partner NGOs (PNGO). The PNGOs stimulate communities to implement safe water supply, sanitation and hygienic practices. In order to do that, a Village Development Committee (VDC) is established in each village, which is responsible for promoting watsan activities. Furthermore the VDC plays an important role in processes like resource mapping and site selection for water points. After two years NGO Forum withdraws its direct support service from the village. The VDC continues its activities and the PNGO

keeps monitoring the ongoing process and maintains supplying support where necessary.

In its watsan policy of January 2003, NGO Forum proclaims to follow the guidelines as provided in the National Policy for Safe Water and Sanitation 1998. Concerning cost recovery of rural water supply, it states that "to ensure ownership over the water points, the concerned communities shall share at least 20% of the costs of their respective technology, while the communities will share 10% of the costs for technologies in difficult areas". The 10% is considered to be in line with the national policy; because difficult areas are considered to be inhabited by the poorest of the poor and the policy prescribes that there should be a safe net for the poorest of the poor. In addition, the beneficiaries should provide the full costs of the O&M of the water supply facilities and will provide sites for the installation of hand pumps and water points.

### **NGO forum's policy in practice**

The general cost sharing practice of NGO Forum is that before the actual implementation of water supply facilities, an estimation of material costs, the carrying costs and labor costs of the constructor(s) is made. Depending on the technology, 10 or 20% of these costs will be recovered from the beneficiaries before the actual implementation. The payment must be received within 6 months. Over this time, no interest is calculated. The materials are bought from the local market by a purchasing committee, which consists of the Regional NGOF field engineer, a member of the Partner NGO and often a member of the VDC. After implementation, the actual amount spent is compared with the planned amount and the amount recovered from the users is adjusted. The VDC is responsible for collecting this money.

Not all beneficiaries pay the same amount. The beneficiaries decide amongst themselves who will pay what amount. Instead of cash amount, the hard-core poor are requested to contribute with their labor. This reduces the actual costs a little, but, more importantly, it makes sure the hardcore poor are involved and have the right to claim ownership over the water supply facility.

Operation and Maintenance is fully the responsibility of the community. In the (rare) case of community based piped systems, monthly water fees are set. These fees cover the operation costs, like the operator's salary and the pumping costs. The money that is left is put in the bank to cover future maintenance costs. However, the operator's salary and the monthly water rate to be collected from the users are set in such a way, that little money is left for this purpose. Generally, in case of maintenance work or repairs are needed, the required money is collected from the users by the caretaker/operator on an ad hoc basis. This is also the case for most other safe water options (like tube wells, Pond Sand Filters, Arsenic Iron Removal Plants and Rain Water Harvesting Systems).

## Conclusions and recommendations

Policies can generally be interpreted in different ways and their interpretation can change over time or for different situations. This can be considered inherent to policies. However, to prevent that conflicting interpretations lead to and “fund-shopping” of beneficiaries and possible resulting tense situations between implementing organizations, it will be essential to ensure good communication and coordination between the organizations.

Scope for cost recovery scheme in community based water supply systems in Bangladesh is highly feasible for replication. The people’s participatory based approach adopted in a democratic way is highly laudable and a model for the third world countries which have very poor economy. Internal generation of funds for various other development programs can also be adopted from this concept. The major breakthrough in this scheme not provides for a social mobilization and a healthy society but also induces the society to good effects of banking scheme which is lacking in the rural areas and also in the urban slums.

Cost recovery is obviously the only scheme through which capital investment can be addressed. People should realize, own and administer their own goods. The concept should be adopted in all sectors of development. Along with micro-credit scheme it provides a new challenge to a community which is lagging behind the world community

The world today is a global village. The global community should also come ahead to support these down trodden community. The people in Bangladesh have proven that unitedly

they can achieve significantly; the world community should therefore come ahead to support them.

## References

- NGO Forum (2003) Water Supply and Sanitation Policy (NGOF), Dhaka, Bangladesh  
Dibalok, S. (2002) Water Point Implementation Strategy, Dusthya Shasthya Kendra (DSK), Dhaka, Bangladesh  
LGD (1998) National Policy for Safe Drinking Water Supply and Sanitation, MLGRDC  
WHO (1996) Report on study on the optimum contribution from beneficiary user groups for water supply installations

## Note

1 \$ 1 = 60 taka

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