POLICY PAPER 1

Community Managed System for Operation, Billing & Collection of Water Charges

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PREFACE

The Urban Local Bodies are mandated to make adequate provision for the management and maintenance of all municipal water works and construction of new works for providing supply of suitable water for public and private purposes. This requires adequate resources which are to be raised from consumers. Inadequacies in management include high proportions of non-revenue water, poor billing arrangements, limited metering, non-viable pricing, lack of proper municipal dues collection, and poor revenue recovery rates leading to commercially non-viable urban local bodies, and inadequate service coverage especially in the slum and squatter settlements to improve service delivery. The prevailing water tariffs are generally below the actual cost of water supply. Moreover, the urban water supply sector has traditionally been plagued with high levels of inefficiencies leading to poor service delivery. This leads to a poor willingness to pay among the consumers and consequent poor collection of water charges and financial losses to the urban local bodies. Rationalization of water tariff and its billing and collection system is one of such measures to improve fund mobilization.

Water for Asian Cities (WAC) Programme, a collaborative initiative between UN-HABITAT and Asian Development Bank (ADB), is supporting the implementation of the water and sanitation related targets in Asian cities and promoting new/innovative investments in the urban water and sanitation sector. In India, WAC is supporting the ADB financed MPUWSEI Project in cities of Bhopal, Gwalior, Indore and Jabalpur in the state of Madhya Pradesh for the improvement and expansion of urban water and sanitation services.

In the area of water demand management, the UN-HABITAT had commissioned The Energy & Resources Institute (TERI), New Delhi and Water Resources Planning and Conservation (WRP), South Africa for developing Water Demand Management strategy to reduce unaccounted for water as well as to improve the revenue of the Municipal Corporation of the four project cities. The study has recommended a comprehensive city-wise reform package, which include an efficient billing and collection system for water charges. This Publication is a policy initiative on Community Managed System for Operation, Billing & Collection of Water charges, jointly prepared with the Directorate of Urban Administration and Development, Government of Madhya Pradesh followed by consultation with Municipal Corporations and other stakeholders.

The initiative suggests that for improving the efficiency of collection of water charges, the billing and collection system should be decentralized to the door step of the consumer, matching with the income cycle and paying capacity of consumer. A mechanism for converting individual households billing into bulk consumer billing be devised to reduce cost of billing and collection through the involvement of the community based organization like "Mohalla Committees". This mechanism is expected to benefit both MCs and the households The Municipal Corporation can choose one of the effective CBOs and may enter into agreement for entrusting the function of billing and collection of water charges. I am happy to note that Directorate of Urban Administration and Development has issued the instructions for piloting the initiative in municipal areas.

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Chapter – I

INTRODUCTION

Background

The Millennium Development Goal 7 target 10 targets access to safe drinking water supply and basic sanitation to the under privileged. These two issues pose new challenges to all civic bodies in providing these very basic services for ensuring a healthy living environment. This could build on capacities of communities to make significant progress with regard to poverty reduction and improvement in the quality of life. The current level of investment in the water sector is quite inadequate. While additional financial resources will help to meet these challenges, infrastructure investment alone does not ensure sustainability. The need for efficient use of existing water resources, and community participation are imperative to make increased coverage to all a reality.

There are prospects for a rapid increase in the external investment flow to improve service delivery in this sector. It is expected that efforts are made to intensify domestic mobilization of funds. Rationalisation of inter tariff is one of such measures to improve fund mobilization.

Inadequacies in management include high proportions of non-revenue water, poor billing arrangements, limited metering, non-viable pricing, lack of proper municipal dues collection, and poor revenue recovery rates leading to commercially non-viable urban local bodies, and inadequate service coverage especially in the slum and squatter settlement to improve service delivery.

The prevailing water tariffs are generally below the actual cost of water supply. While over the years, both the annual receipts from water charges and annual Operation and Maintenance (O&M) expenses have been rising, the trend in the former has been subdued compared to the latter resulting in a growing gap between the two and thereby further resulting in mounting losses over the years.

This paper puts forward possible measures for strengthening the urban water sector along with the enhancement of the capacity of the community, emphasizing the importance of water charges billing and collection involving user groups or Non-Governmental Organisations (NGOs).

Context and rationale of the initiative

Water for Asian Cities (WAC) Programme is a collaborative initiative between the United Nations Human Settlements Programme (UN-HABITAT), the Asian Development Bank (ADB) and Governments of Asia. WAC Programme in India is to pursue the accomplishment of Millennium Development Goals (MDGs) relating to water and sanitation at the local level in four cities viz. Bhopal, Indore, Gwalior and Jabalpur in the state of Madhya Pradesh. The WAC Programme is supporting the following areas agreed upon at the Regional Consultation held in August 2004 in New Delhi and reiterated later in the Consultation held in Bhopal in March 2005:

1. Pro-poor Urban Water and Sanitation Governance,
2. Integrated Urban Environmental Sanitation ,
3. Capacity Building ,
4. Monitoring and Evaluation and Knowledge Sharing.
5. Water Demand Management

In the area of water demand management the UN-HABITAT had commissioned studies on water demand management in four cities of Madhya Pradesh through The Energy and Resources Institute (TERI), New Delhi and Water Resources Planning and Conservation (WRP), South Africa, with the objectives of conducting a water balance study, recommending the measures for reducing non revenue water and preparation of a detailed database on a Geographical Information System (GIS) platform. The scope of the studies also covered a review of the existing institutional, policy, legal frame work, tariff structure including billing, pricing and recovery structures and suggesting measures for financial sustainability in the four project cities of Madhya Pradesh.

The study had recommended the need for a sound billing and collection system essential in respect of the taxes levied by the urban local bodies and the amount collected by them. A sound billing system can ensure timely serving of demand notice and collection of dues from individual customers, thereby enabling efficient cash recycling. The present situation of recovery as a percentage of the demand in case of individual consumers is not encouraging in the 4 project cities.

Chapter – II

STATUS OF WATER CHARGES BILLING AND COLLECTION

The urban water supply sector in India has traditionally been plagued with high levels of inefficiencies leading to poor service delivery and a high level of losses. This leads to a poor willingness to pay among the consumers which on the other hand translates into a financial crunch for the utility making any improvements in day to day O&M very difficult.

Water charges

The Madhya Pradesh Municipal Corporation Act, 1956 Section 66(K) requires the corporations to make adequate provision for the management and maintenance of all municipal water works and construction of new works for providing supply of suitable water for public and private purposes. Proper management of water works entails the resources which are to be raised from consumers, should be adequate to meet the O & M as well as the cost of capital works. However, the water taxes were never commensurate even to the expenditures incurred on the operation and maintenance of the water supply to the consumers.

In the year 1995, the Department of Local Self Government, GoMP, vide its circular No.F-6/18-95/18-3 dated 22.12.1995 promulgated the minimum uniform rates of Rs 60 per month for a ½ inch connection for water taxation in Municipal Corporations having a population more than 3 lacs. This was amended in the year 1999-2000 with the GoMP leaving it to the Municipal Corporations to decide upon the water tax based on their income and expenditure analysis of water supply to the consumers.

The Gwalior Municipal Corporation increased the rates of water taxation from Rs 60 to Rs 80 per month from 1.4.2002. The Jabalpur Municipal Corporation has not made any changes from the existing Rs 60. The Bhopal Municipal Corporation raised the water charges from Rs 60 to Rs. 150 per month from 15.7.2001, but in view of pressure created by local power brokers against the move this increase has been withdrawn from 1.10.2004.

The Corporations broadly classify water uses in the following categories:

1. Domestic
2. Commercial including establishments such as hotels, restaurants, beauty parlours, cinema theatres, nursing homes etc.
3. Industrial

The Corporations charge domestic consumers on a monthly fixed rate basis while it is a volumetric rate for other categories. Though there is also a volumetric rate existing for domestic uses it is not used on account of lack of a non functional individual water meters. The status of the rates of water charges in four Municipal Corporations over the last 10 financial years starting from 1995-96 to 2004-05 is illustrated in table No.2.1 to 2.4.

Table 2.1: Rates of water user charges in Gwalior

Metered rates (in Rs. per kilo litre)				Flat (fixed) rates (in Rs. per month)
Financial year	**Domestic**	**Commercial**	**Industrial**	**Domestic connections**
1995-96	2	10	15	12
1996-97	2	10	15	12
1997-98	2	10	15	60
1998-99	2	10	15	60
1999-00	2	10	15	60
2000-01	2	10	15	60
2001-02	4	20	30	60
2002-03	4	20	30	80
2003-04	4	20	30	80
2004-05	4	20	30	80

(Source: **GMC)**

Table 2.2: Rates of water user charges in Jabalpur

Metered rates (in Rs. per kilo litre)				Flat (fixed) rates (in Rs. per month)
Financial year	**Domestic**	**Commercial**	**Industrial**	**Domestic connections**
1995-96	1	3	3	20
1996-97	1	3	3	20
1997-98	3	6	6	60
1998-99	3	6	6	60
1999-00	3	6	6	60
2000-01	3	6	6	60
2001-02	3	9	9	60
2002-03	3	9	9	60
2003-04	3	9	9	60
2004-05	3	9	9	60

(Source: **JMC)**

Table 2.3: Rates of water user charges in Indore

Metered rates (in Rs. per kilo litre)				Flat (fixed) rates (in Rs. per month)
Financial year	**Domestic**	**Commercial**	**Industrial**	**Domestic connections**
1995-96	1	5.25	16	30
1996-97	2	10.5	22	30
1997-98	2	10.5	22	60
1998-99	2	10.5	22	60
1999-00	2	10.5	22	60
2000-01	2	10.5	22	60
2001-02	2	10.5	22	60
2002-03	2	10.5	22	60
2003-04	2	10.5	22	60
2004-05	2	10.5	22	60

(Source: **IMC**)

Table 2.4: Rates of water user charges in Bhopal

Metered rates (in Rs. per kilo litre)				Flat (fixed) rates (in Rs. per month)
Financial year	**Domestic**	**Commercial**	**Industrial**	**Domestic connections**
1995-96	2	4	8	30
1996-97	2	4	8	30
1997-98	2	4	8	30
1998-99	2	4	8	30
1999-00	2	4	8	30
2000-01	3.5	10	14	60
2001-02	3.5	10	14	150
2002-03	3.5	10	14	150
2003-04	3.5	10	14	150
2004-05	3.5	10	14	60

(Source: **BMC**)

It is evident that the water charges since 1995-96 had not been getting frequently revised, whereas associated utility charges such as electricity, fuel and wages have been revised on a regular basis. The prevalent water charges are not commensurate with the expenditure incurred on the O & M of the water supply. The prevailing water charges in four cities for individual household connections are presented in Table 2.5:

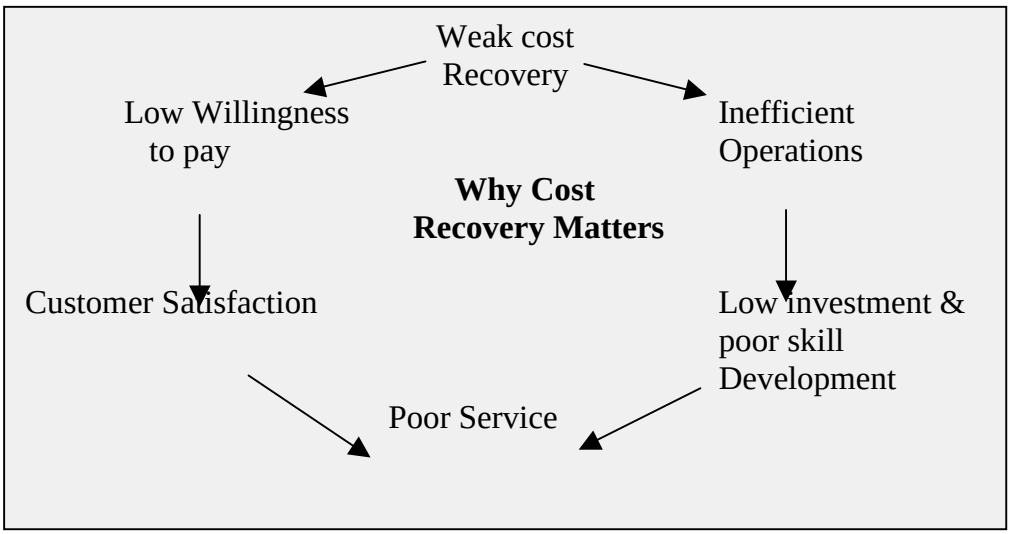
Table 2.5: Domestic water charges in cities

City	Flat rate per ½" domestic connection in Rs per month	Effective from
Bhopal	60	October 2004
Gwalior	80	April 2002
Jabalpur	70	April 2006
Indore	60	March 1997

The entire revenue from households is realized on a flat rate basis resulting in wastage. The absence of metering coupled with a flat tariff structure results in inequities between the water supplied and recoveries made from consumers in different locations. Experiences from reforms in the electricity sector indicate that metering and tariff rationalisation is the basic requirement for effective demand management.

The existing tariff structure needs to be rationalized to address cost recovery principles. The importance of cost recovery and its inter-relationship with technical, financial and governance factors has been highlighted in Fig. 2.1.

Fig. 2.1: Why Cost Recovery Matters



Source: "Water Demand Management Strategies and Implementation Plan for Gwalior (2006), TERI Pvt. Ltd.

The full cost recovery (FCR) for water services primarily covers all costs associated with operating, maintaining and financing the capital cost of expansion of the municipality's water system. In other words, this concept implies that revenues from water sales, primarily through tariffs, are equal to or exceed the amount required to cover all costs related to obtaining, processing and distributing water to the Corporation's consumers. Therefore, revenues should not only cover the Operation &

Maintenance (O&M) costs, but also fresh capital infusion. Clearly, achieving FCR can be an important determinant of a utility's ability to improve and expand service/infrastructure.

A similar concept was advocated by the circular No.F-6/18-95/18-3 dated 22.12.1995 of Department of Local Self Government, Government of Madhya Pradesh. There are, however, several factors that typically inhibit a utility from embracing the FCR principles. These include inability of MCs for managing water tariff increases, operational inefficiencies, poor water supply infrastructure and mismanagement of existing resources.

Water charges billing

An efficient billing system is extremely essential for taxes levied by the municipal corporations and their collection from consumers. An efficient system of billing can only ensure timely serving of demand notice and collection of dues from customers, thereby enabling efficient cash recycling and serve the following objectives:

- Timely raising of bills for the water dues;
- Establishing clear cut time schedules between the raising of bills, serving it to the consumers and payment by them;
- Collection from the consumers of the right amount and on due date;
- Make it easy for willing consumers to pay at convenient collection centres, most ideally at the door step;
- Accounting for daily collections and their remittances
- Clear accounting of dues of consumers;
- Elimination of avoidable delays;
- Minimizing the cost of collection;
- Paying adequate attention to disputed cases and defaulters;
- Rigorous follow-up of defaulters;
- Incentive mechanism for workers involved in dues collection from consumers.

There is no uniform billing frequency among the Municipal Corporations for the collection of domestic water charges as shown in Table 2.6. The GMC has adopted bi-monthly billing; the BMC and IMC have adopted quarterly billing, whereas JMC has adopted an annual billing of water charges.

Table No. 2.6: Billing Frequency

Municipal Corporation	Billing Frequency			
	For Volumetric (Metered) rates			For Flat rate (Fixed Rates)
	Domestic	Commercial	Industrial	Domestic
Jabalpur	quarterly	quarterly	monthly	yearly
Bhopal	quarterly	quarterly	quarterly	quarterly
Gwalior	bi-monthly	bi-monthly	bi-monthly	bi-monthly
Indore	quarterly	quarterly	quarterly	quarterly

Collection efficiency

The collection efficiencies of the cities in relation to domestic consumers are presented in Table 2.7 to 2.10.

Table 2.7: Yearly water demand versus collection in Gwalior

Financial Year	No of household connections/ consumers	Demand note / Bill issued in a year (Rs in Lacs)	Revenue collected in a year (Rs in Lacs)	Collection efficiency (%)
2000-01	70495	507.56	288.86	56.91
2001-02	71406	514.12	329.48	64.09
2002-03	74809	718.16	424.84	59.16
2003-04	76405	733.48	375.28	51.16
2004-05	79707	765.18	426.30	52.67

Table 2.8: Yearly water demand versus collection for Bhopal

Financial Year	No of household connections/ consumers	Demand note / Bill issued in a year (Rs in Lacs)	Revenue collected in a year (Rs in Lacs)	Collection efficiency (%)
2000-01	93780	2480.15	1067.07	43.02
2001-02	95240	2630.50	1337.78	50.86
2002-03	97570	2747.77	1382.37	50.31
2003-04	99935	3139.74	1491.84	45.01
2004-05	102411	3010.64	1209.74	40.18

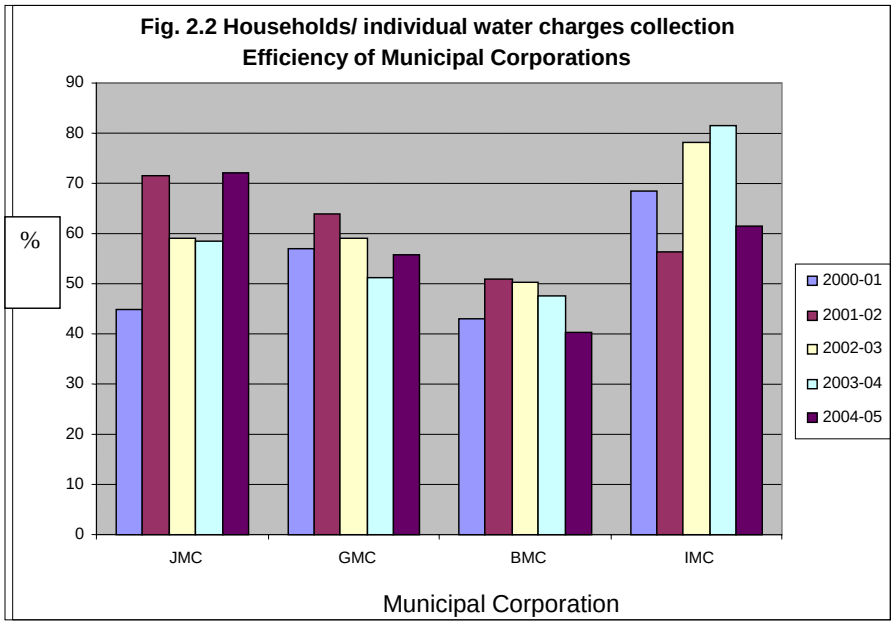
Table 2.9: Yearly water demand versus collection in Jabalpur

Financial Year	No of household connections/ consumers	Demand note / Bill issued in a year (Rs in Lacs)	Revenue collected in a year (Rs in Lacs)	Collection efficiency (%)
2000-01	50735	365.29	164.25	44.97
2001-02	52964	381.34	272.45	71.45
2002-03	59997	431.97	254.91	59.01
2003-04	62007	446.45	261.44	58.56
2004-05	65017	468.12	337.30	72.05

Table 2.10: Yearly water demand versus collection in Indore

Financial Year	No of household connections/ consumers	Demand note / Bill issued in a year (Rs in Lacs)	Revenue collected in a year (Rs in Lacs)	Collection efficiency (%)
2000-01	128616	974.01	666.78	68.46
2001-02	134502	1176.01	661.47	56.25
2002-03	144421	1094.01	854.84	78.14
2003-04	149710	1173.00	955.56	81.46
2004-05	154285	1232.96	759.85	61.63

As may be observed the average collection efficiency of the Municipal corporations is only 50% (Fig 2.2).



Population served by the piped water supply in the 4 cities varies from 67 to 89 %. Since it is evident that all households must be getting water in any case, hence one can conclude that a considerable number of the short fall may be in the form of illegal connections (Table 2.11).

Table 2.11: City wise status of water connections

City	Total Population (2001 Census) (in Lacs)	Population being supplied piped water by MCs (in Lacs)	Expected connections (No.)	Authorised connections (No.)	Shortfall in connections (No.)
Bhopal	14.33	9.6 (67 %)	1,92,000	1,02,411	89,589
Indore	15.97	10.86 (68 %)	2,17,200	1,54,285	62,915
Jabalpur	9.51	8.46 (89 %)	1,69,200	65,017	1,04,183
Gwalior	8.26	5.61 (68 %)	1,12,200	79,707	32,493

The matter is further elaborated with example of **Gwalior Municipal Corporation (GMC)** which follows a bi monthly billing cycle for the collection of water charges. The collection efficiency figures for GMC for individual household connections range from 51% to 64 %. The Water Demand Management Strategy and Implementation Plan for Gwalior prepared by The Energy and Resources Institute (TERI) under the WAC programme portrays alternative scenarios that could have emerged in FY 2004-05 (in table 2.12), with higher levels of collection efficiencies.

Table-2.12: Profit / loss scenarios for GMC for the financial Year 2004-05 with varying collection efficiencies (Rs. in Crores)

S. No.	Collection efficiency	Revenues	Expenditure	Profit/ loss
1	52.67%(Actual estimated)	5.29	10.07	-4.78
2	55% (Assumed)	5.53	10.07	-4.54
3	65% (Assumed)	6.53	10.07	-3.54
4	75% (Assumed)	7.54	10.07	-2.53
5	85% (Assumed)	8.54	10.07	-1.53
6	95% (Assumed)	9.55	10.07	-0.52
7	100% (Assumed)	10.05	10.07	-0.02

(Source:"Water Demand Management Strategies and Implementation Plan for Gwalior (2006), TERI pvt. Ltd.)

It is evident that even at 100% collection efficiency; GMC would still incur a loss.

The **Bhopal Municipal Corporation (BMC)**, follows a quarterly billing cycle for the collection of water charges. The collection efficiency figures for individual households range from 40% to 51%. The Water Demand Management Strategy and Implementation Plan for Bhopal prepared by TERI under the WAC programme, states that in the year 2003-04 approximately 45% of the billed amount was actually received by the BMC. With a higher level of collection efficiency of about 70%, the BMC would have achieved break even situation and with 100% collection efficiency, the Municipal Corporation could have acquire a profit of 10%. The Table 2.13 illustrates the profit and loss to the BMC on various collection efficiencies for a particular year.

Table-2.13: Profit / loss account of BMC with varying collection efficiencies for the Financial Year 2003-04 (in Rs. Crores)

S. No	Collection efficiency	Revenues	Expenditure	Profit / loss
1	45%	15.43	24.3	-8.87
2	55% (Assumed)	18.90	24.3	-5.4
3	65% (Assumed)	22.30	24.3	-2.0
4	71% (Assumed)	24.3	24.3	Break Even
5	85% (Assumed)	29.1	24.3	+4.8
6	95% (Assumed)	32.6	24.3	+8.3
7	100% (Assumed)	34.3	24.3	10.0

(Source:"Water Demand Management Strategies and Implementation Plan for Bhopal" (2006), TERI pvt. Ltd.)

Evaluation of municipal water charges billing and collection mechanism

Infrequent billing or billing at intervals, which do not meet community income cycles has a serious effect on the ability of the community, specially the poor to pay. The result is that there is a lower percent of recovery of billed amounts. One time a large bill is more difficult to pay as compared to several small bills. In addition to this very few geographically dispersed collection centres lead to the poor rate of settlement of bills. The collection of water charges could be increased by reducing the billing frequency from annual to monthly or bimonthly levels making it similar to the cable connection bills.

This suggest that a billing and collection system should be decentralized to the door step of consumer, matching the billing cycle with the paying capacity of consumer, which would lead to a higher collection efficiency. The cost and effort involved in issuing bills to households individually has been the reason why many Municipal Corporations have not adopted monthly or fortnightly based billing cycles.

Another measure for improving collection of water charges could be to reduce number of bills and to devise a mechanism for converting individual households into group user or bulk consumer which needs further examination. The water charges in Municipal Corporations are collected on fixed rate from households individually and metered rates from bulk consumers. The collection efficiencies both in individual consumer system and bulk consumer system are discussed here.

The water charges demand versus collection for bulk consumers and individual household consumers of **Jabalpur Municipal Corporation** over five financial years is presented in Table 3.1.

Table-3.1: Water tax demand versus collection in Jabalpur Municipal Corporation

	Bulk consumers				Individual household consumers			
Financial Year	No. of Bulk Consumers	Demand Amount (Rs in lacs)	Revenue Collected (Rs in lacs)	Collecion efficiency (%)	Number of Domestic Consumers	Demand Amount (Rs in lacs)	Revenue Collected (Rs in lacs)	Collecion efficiency (%)
2000-01	21	300.1	299	99.63	50735	365.29	164.25	44.97
2001-02	20	385.2	383	99.43	52964	381.34	272.45	71.45
2002-03	20	385.2	383	99.43	59997	431.97	254.91	59.01
2003-04	18	382.2	380	99.42	62007	446.45	261.44	58.56
2004-05	18	382.2	380	99.42	65017	468.12	337.30	72.06

From the analysis of the data over the last 5 years, one can conclude that the collection efficiency of JMC in the bulk collection mode remained at almost 100 % over the years (Fig 3.1) .However, the collection from the domestic consumers for the same period remained low and ranged between 44 to 72%, averaging around 60 %.

The water charges demand versus collection for bulk consumers and individual household's consumers of **Bhopal Municipal Corporation** over five financial years is presented in Table 3.3.

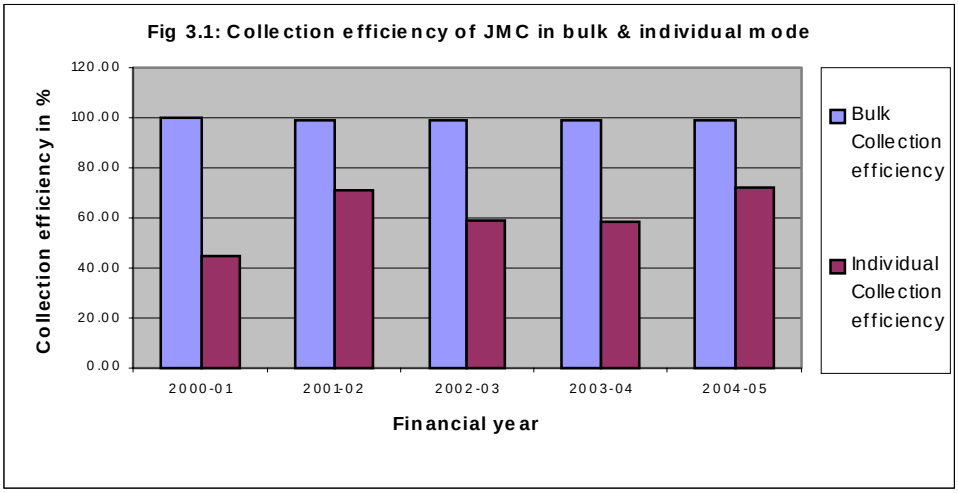
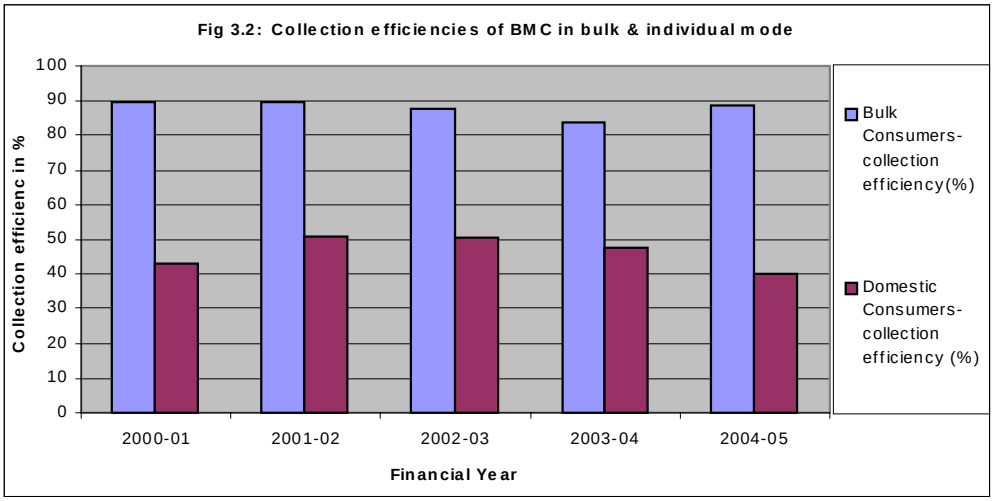


Table 3.3 Water tax demand versus collection in Bhopal Municipal Corporation

	Bulk Consumers				Domestic Consumers			
Financial Year	No. of Bulk Consumers	Demand Amount (Rs in lacs)	Revenue Collected (Rs in lacs)	Efficiency (%)	Number of Domestic Consumers	Demand Amount (Rs in lacs)	Revenue Collected (Rs in lacs)	Efficiency (%)
2000-01	83	95.00	85.00	89.47	93780	2480.15	1067.07	43.02
2001-02	83	98.00	88.00	89.80	95240	2630.5	1337.78	50.86
2002-03	105	105.00	92.00	87.62	97570	2747.77	1382.37	50.31
2003-04	120	173.00	145.00	83.82	99935	3139.74	1491.84	47.51
2004-05	135	190.00	168.00	88.42	102411	3010.64	1209.74	40.18

From the analysis of the data over the last 5 years, as in Fig 3.2, one can conclude that the collection efficiency of Bhopal Municipal Corporation in the bulk collection mode is around 88% and has remained steady over the years. However, in the case of domestic consumers it has ranged between from 40 to 50%, with an average of 45 %. Thus it is evident that bulk mode of revenue collection is more efficient than the individual household mode.



The comparative advantage of bulk billing versus individual billing is illustrated through the following example which assumes bulk and individual collection efficiencies as 90% and 50% respectively. Likewise, the bulk water charges of Rs 3.0 per Kl has been assumed ,since the bulk water charges for domestic consumers in Gwalior, Jabalpur, Indore and Bhopal are Rs 3.0, Rs 4.0, Rs 2.0 and Rs 3.5 per Kl, respectively. The fixed monthly water charge for individual households is Rs 80.0 in Gwalior, Rs 70 in Jabalpur and Rs 60.0 in the remaining cities and for the model Rs 60 per month has been assumed.

Example: For a colony of say 1000 connection, assuming a consumption of 100 lpcd the total requirement of water per month would be (1000*5*30*100/1000) =15000 Kl.

At the bulk water rate of Rs. 3.0 per Kl, the MC would earn Rupees =15000*3*0.90 = Rs. 40500 per month. On the other hand, in individual households revenue collection mode, with monthly water charges of Rs 60 per month per connection MC would earn = 1000*60*0.5 = Rs.30000 per month.

Further, there be saving for Municipal Corporation for issuing one bulk instead of 1000 individual bills. The computation of the same is as follows:

The cost of the paper (In A4 sheet two bills will be printed), 500 Number of A4 sheet = Rs 148.0
Printing from computer 500 Number of A4 sheet = Rs 500.0
Cost of distribution of Bills @ 2 minutes per bill = 5 man-days= Rs 500.0
Total monthly cost of distribution of 1000 bills = Rs. (148+500+500) = Rs. 1148.0…. .(A)
Cost of raising one bulk water bill = Rs.2.0 ……(B)
Saving to the MC (A)-(B = Rs 1146.0

Thus the MC stands to gain Rs (40,500- 30,000) + 1146 = Rs 11, 646 per month with reduction of efforts on the part of MC, if one bulk connection bill is generated instead of 1000 individual ones.

Further, when allocated to each household level each household in bulk mode will be paying = Rs 40500/1000=Rs 40.5 per month in a scenario. However, if there is a metered arrangement then households consuming lesser water say 70 lpcd on an average would end up paying=40.5*70/100= Rs 28.35 per month.

Thus the MCs as well as households both would be benefited from the bulk mode of collection. Therefore, there appear to be a strong case in favour of shifting to a bulk mode of water charges collection by devising partnership between the MC and the community.

Chapter – III

COMMUNITY MANAGED SYSTEM OF OPERATION, BILLING AND COLLECTION OF WATER CHARGES

The scenario discussed in the previous chapters has led to the emergence of informal water operators in the peri-urban areas not having access to municipal corporations piped water supply with the people purchasing water from them at a premium, as illustrated in table 3.1.

Table 3.1: Water charges of private water providers

Locality and City	Water Charges	Mode of payment
Shanti Nagar, Indore	Volumetric Charges being Rs. 2.0 per jerry can of 35 litres.	On the spot per jerry can of 35 litres.
Choudhary Park Colony/ Shiv Nagar/ Shahin Nagar, Indore	Charges ranging from Rs. 70/- to Rs. 150/- per month	Water being charged per jerry cans
Gauri Nagar, Indore	Charges ranging between Rs. 70/- to Rs. 150/- per month	On the basis of 5 to 10 minutes of water supply per day
Bhimnagar and Narmada Nagar Area in Gwarighat Ward, Jabalpur	Rate of Rs.140/ per household per month	Fixed rate monthly collection

(**Source:** UN-HABITAT and ADB Mission report on SPWN in Madhya Pradesh)

On analysis of examples provided in Table 3.1, it is evident that the problem lies more with the payment system rather than ones ability to pay. The lack of metering and use of flat rates hardly encourage water conservation. The recovery of water charges even when no water is supplied, contribute to consumers' dissatisfaction. Improved collection rates and willingness to pay can be achieved by more flexible and innovative approaches to payment systems. The collection efficiency could be increased by reducing the billing frequency from annual to monthly, from monthly to even fortnightly in low income areas. Another effective measure could be reducing the number of consumers by shifting from individual to bulk mode of billing, which needs further exploration.

While the role of community and small water entrepreneur has not always been recognized within the formal water sector, these are central to the provision of water in many urban neighbourhoods where the MC is not able to supply water. It has been seen that when local groups organize themselves the attempts to meet water needs are successful. Such communities should be identified and trained in the issues of water supply distribution and running the system on their own or by appointing a private entrepreneur for carrying out these duties. The challenge lies in ensuring links between civil society and municipal governments so that the demands of the poor are articulated, reflected in the action plans and actually operated.

The examples of the Municipal Corporation billing and collection system suggest the following possibilities:

1. Decentralization of billing and collection system
2. Shifting to community / private sector managed group connection

Partnerships for water service provisions and functions

Various arrangements seems possible in which the MC can collaborate with small scale independent water providers or civic organizations (CBOs, NGOs) for water supply or sanitation service delivery. These include community based structures, which has been setup for employment generation and poverty alleviation in the urban areas such as Neighbourhood Groups (NHGs), Neighbourhood Committees (NHCs) and Community Development Society (CDS).

Mohalla Committee (Neighbourhood Committee)

A model partnership between **MC** and '**Mohalla Committee'** can prove effective. The important provisions under Madhya Pradesh Municipal Corporation Act, 1956 pertaining to **Mohalla Committee'** are shown in Box- 4.1

4.1: Mohalla Committee (Neighbourhood committee)

- *Madhya Pradesh Municipal Corporation Act 1956 provides for the constitution and composition of elected Mohalla Committees (Article 48-B), whose term shall be co-terminus with the term of council. Salient provisions regarding Mohalla Committees are:*
- *In every municipal area, which is notified by the state government in this behalf, the Mohalla Committees shall be constituted within three months from the date of notification.*
- *The elected councillor of wards concerned shall be a member and patron in all Mohalla Committees within the territorial area of any ward.*
- *Every Mohalla Committee shall consist of a President, a Vice President, a Treasurer and minimum of seven and maximum of fifteen members. The President, Vice President, Treasurer and the members of the Mohalla Committees may be nominated only from amongst such persons who are residents of the Mohalla Committee and are eligible for election as a councillor.*

The Government of Madhya Pradesh, Urban Administration and Development Department vide its order No F-7-3-2002.18-3 dated 26 March 2003 provides for constitution of one Mohalla Committee for a group of families ranging from 750 to 1000 families for a town having population more than 5.0 Lacs.

- *The sources of income of the Mohalla Committees:*
  1. Funds received from the Central Government, State Government or Municipality;
  2. Contribution received from the residents of Mohalla for the development of Mohalla;
  3. Sums received from any other source.
- *Each Mohalla Committee shall have a bank account which shall be opened in such bank as may be earmarked by the municipality. Whichever sums received to the Mohalla committee shall immediately be deposited in the bank account opened as above. The amount shall be withdrawn from the bank account through cheque under the joint signatures of the President and Secretary of the Mohalla*
- *The important functions of Mohalla Committee related to water supply are:-*
  1. Monitor works relating to water supply and arrange disposal of complaints
  2. Encourage the public participation in development programme.
  3. Discharge functions which are entrusted by the urban bodies, e.g determination of tax fees and their recovery.

Partnership model

A model wherein the **Mohalla Committee** of the area connected to the municipal water supply system enters in **Memorandum of Understanding** with **Municipal corporation,** and purchases bulk quantity of water from Municipal Corporation and collects water charges from the doorsteps of the member households based on the water charges decided amongst residents can be piloted to test its effectiveness as a measure for improving the efficiency of water charges collection.

a) Responsibility of Partners

i. **Municipal Corporation (MC):** The MC will be responsible for providing the requisite quantity of potable water at the agreed frequency to the **Mohalla Committee** on the rates applicable to bulk water consumers fixed by the MC.

ii. **Mohalla Committee:** Mohalla Committee will be responsible for collection of water charges as agreed and fixed by MC from the individual households and payment of bulk water charges from the collected amount to the MC. The Mohalla Committee will receive the complaints regarding problems in water supply and rectify the problem or ensure necessary action on the part of the Municipal Corporation. The new connection through the distribution will only be authorized by the Mohalla Committee. Through the peer group pressure, the scope for illegal water connection will be minimized or at least be brought into the notice of the MC through the Mohalla Committee.

Households will be saved from visiting the MC and queuing up for payments of water bills. House holds will be getting the bills regularly on an agreed basis and will find it easy to pay for it as per their paying capacity. Households will also be saved from getting exaggerated bills issued by the MC.

b) Mechanism

Mohalla Committee may use a mechanism of intermediary by appointing an individual entrepreneur among residents for discharging its functions. He would be paid as per the agreement with the Mohalla Committee**.** The working relationship with entrepreneur is being postulated in the following framework: -

c) Responsibilities of the entrepreneur

- The entrepreneur will be responsible for the issuance of water charges bills in Performa prescribed by the Municipal Corporation and signed by the Mohalla Committee functionary to households at agreed frequency and collection of water charges on behalf of Mohalla Committee from their door steps issuing receipts in Performa prescribed by the Municipal Corporation and signed by the Mohalla Committee functionary. He will deposit the collected amount in the account of Mohalla Committee opened for the purpose.
- The entrepreneur will receive the complaints regarding water supply problems (quantity, quality, pressure and duration of supply) from residents on behalf of Mohalla Committee. He will rectify the problem on his own or take up the matter with the MC for remedial measures if it is outside his control.
- He/She will function from the office of the Mohalla Committee (if it is not from her/his residence) and assist and liaison in conduct of meetings of the Mohalla Committee.
- She/He will also liaise with ward office of the Municipal Corporation.

Chapter – IV

RECOMMENDATIONS

1. The prevailing water tariffs are generally below the actual cost of supplying water. While over the years, both the annual receipts from water charges and annual Operation and Maintenance (O&M) expenses have been rising, the trend in the former has been subdued compared to the latter resulting in a growing gap between the two and thereby further resulting in mounting losses over the years. Under such circumstances the municipal Corporations should take the measures for improving the efficiency of collection of water charges.

2. The measure which emphasizes the importance of water charges billing and collection involving user groups, MCs, partner Non-Governmental Organisations (NGOs)/ Community Based Organisations (CBOs) and individuals needs to be devised. The partnership in municipal water sector between Municipal Corporation and community needs to be identified, devised or created.

3. The billing and collection system should be decentralized to the door step of the consumer, match with the income cycle and paying capacity of consumer, and minimize the cost of billing and collection. The cost of billing and collection and issuing number of bills to households individually (along with low water charges) had been the reason why many Municipal Corporations have not adopted monthly or fortnightly based billing cycles. For reducing numbers of bills and devising a mechanism for converting individual households into group user or bulk consumer could be a way out and needs further examination.

4. The Municipal Corporation should pilot the community approach by identifying an area in the jurisdiction of municipal water supply system, where the community based activities are being undertaken in some or other form. The area may be a ward, part of zone served by an overhead tank, a colony, or a township. The community based organization could be either of the Residents Association, Residents Water Association, Mohalla Development Committees, constituted "Mohalla Committees". The Municipal Corporation can choose one of the effective CBOs and may enter into agreement for entrusting the function of billing and collection of water charges.

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