# CHAPTER VIII

**PERFORMANCE AUDIT** 

# **CHAPTER VIII**

# PERFORMANCE AUDIT

8.1 Internal Control & Service Delivery Mechanism – Maheshtala municipality

# **HIGHLIGHTS**

Preparation of budget was not realistic as huge savings and excess expenditure were noticed.

[Paragraph 8.1.6.1(b)]

There was shortfall of ₹ 20.22 crore in collection of property tax during 2007-08 to 2011-12.

[Paragraph 8.1.6.3(c)]

Due to non-renewal of trade licenses, the municipality suffered loss of revenue amounting to ₹ 19.31 lakh.

[Paragraph 8.1.6.3(d)]

The authorized distributor of the municipality lifted only 2413.95 quintal of rice out of total allotment of 5010 quintal during 2011-12 resulting in lapse of allotment of 2596.05 quintal of rice.

[Paragraph 8.1.6.6(a)(iii)]

### 8.1.1 Introduction

Maheshtala municipality was established in the year 1993. It comprises 35 wards spread over an area of 44.178 sq. km. Population of the municipality was 449423 (Census 2011). There were 102540 holdings as of March 2012. Obligatory duties and responsibilities of the municipality as defined under section 63 of the West Bengal Municipal Act, 1993, included supply of water, construction and maintenance of roads and sewerage system, solid waste management, street lighting, control of building operation and uses and providing better conditions of habitation. The discretionary functions (section 64) included construction and maintenance of old-age-home / orphanage, implementation of various schemes, projects and programs funded by the Government of India, State Government and other organization.

A Performance Audit was conducted on 'Internal Control & Service Delivery Mechanism' in the municipality and findings thereon are mentioned in the succeeding paragraphs. The entry conference was held on 19 March 2013 wherein the scope of the audit, audit methodology and audit criteria were discussed and explained. The exit conference was held on 5 June 2013.

# 8.1.2 Organizational set up

The municipality is headed by a Chairman who is also the Drawing and Disbursing Officer (DDO) of the local Government. The Executive Officer and the Finance Officer, both appointed by the State Government, are the administrative and financial heads respectively. Health Officer is appointed by the State Government to look after public health. Working of the municipality is monitored by Municipal Affairs Department through Directorate of Local Bodies. Implementation of certain schemes is monitored by Kolkata Metropolitan Development Authority and State Urban Development Agency.

# 8.1.3 Audit objectives

Objective of audit was to examine whether -

- budget was prepared with desired linkage to reality, integration with accounts and control over expenditure was effective;
- management of resources including assessment, demand and collection of various taxes/fees/rents was transparent, efficient and prudent;
- human resource was managed properly with due attention on social security of the employees;
- effective control mechanism was in place on obligatory service like solid waste management;
- Central and State Government schemes were implemented with due adherence to the guidelines; and
- internal controls including control over financial transactions, stores and stock management and establishment were adequate in the areas specified above.

# 8.1.4 Scope of Audit and methodology

Activities of Maheshtala municipality covering the period from 2007-08 to 2011-12 in regards to financial management, service delivery mechanism and internal control were subjected to Performance Audit between February 2013 and May 2013. Methodology of audit involved review of records, discussion with management, collection of documentary evidences, field visits by the audit team, etc.

# 8.1.5 Audit Criteria

Following Act, Rules, Regulations and plans were used as audit criteria for evaluating performance of the municipality:

- The West Bengal Municipal Act, 1993;
- The West Bengal Municipal (Finance and Accounting) Rules, 1999 as amended from time to time;
- Agenda and minutes of Board of Councillors / Chairman-in-Council meetings;
- West Bengal Financial Rules, West Bengal Treasury Rules 2005, Guidelines
  of the Schemes and instructions issued by the State Government from time
  to time;
- Detailed Project Reports of the schemes;
- Approved Draft Development Plan (DDP) / Annual Development Plan (ADP);
- Other rules/ regulations / resolutions / norms / laid down procedures concerning activities of the municipality in the BOC and CIC meetings.

# 8.1.6 Audit observations

# 8.1.6.1 Budgetary control and financial management

Budget is a financial plan describing proposed expenditure and means of financing the same. It embodies the estimated receipts and expenditure (both revenue and capital) for a financial year. It plays an important role in planning and controlling operations of a municipality.

# (a) Preparation of budget

Scrutiny of records of the municipality revealed that estimates were made without grouping them under the relevant head as prescribed under rules. As a result, receipts or expenditure of a year under a particular head / activity could not be analyzed and compared with actual. Prescribed codifications were not followed till 2010-11 and those adopted in 2011-12 were also erroneous. Salary grant, dearness grant, bonus, pension and fixed grant (all falling under revenue grants), contribution, etc. were shown<sup>51</sup> under the same / different group with assigned revenue and or other Central / State schemes. The assigned revenue and State Finance Commission (SFC) grants were part of revenue receipt. But such revenues were partially shown as capital receipts<sup>52</sup>.

4

<sup>&</sup>lt;sup>51</sup> In 2010-11 and 2011-12.

<sup>&</sup>lt;sup>52</sup> In 2007-08 (SFC & MV), 2008-09 (SFC), 2009-10 (SFC) and 2010-11 (SFC).

# (b) Provision and actual

Budget estimates (revised) and actual receipts and expenditure thereagainst for the period 2007-08 to 2011-12 as computed from budget documents and receipt and payment statements furnished by the municipality are as under:

Table 25 (₹ in lakh)

			Receip	t	Expenditure			
Year	Category	Revised Estimate	Actual	Shortfall(+) / Excess(-)	Revised Estimate	Actual	Saving(+) / Excess(-)	
2007-08	Revenue	887.18	2015.69	( <b>-</b> ) 1128.51	955.92	1093.64	( <b>-</b> ) 137.72	
2007-00	Capital	3029.69	2238.83	(+) 790.86	3348.01	1341.96	(+) 2006.05	
2008-09	Revenue	2141.66	756.78	(+) 1384.88	870.55	854.05	(+) 16.50	
2000-09	Capital	5818.38	2086.60	(+) 3731.78	6434.58	2931.86	(+) 3502.72	
2009-10	Revenue	2361.67	2209.25	(+) 152.42	1695.19	1036.15	(+) 659.04	
2007-10	Capital	3489.06	5921.69	(-) 2432.63	4155.54	5548.49	(-) 1392.95	
2010-11	Revenue	2683.89	1798.62	<b>(-)</b> 885.27	1800.60	1385.74	(+) 414.86	
2010-11	Capital	8736.89	4598.13	(-) 4138.76	9620.18	7338.45	(+) 2281.73	
2011-12	Revenue	2864.68	1262.62	(-) 1602.06	2698.20	2526.86	(+) 171.34	
2011-12	Capital	1488.02	3155.55	(+) 1667.53	992.19	3295.72	( <b>-</b> )2303.53	

Analysis of budget estimates revealed that there was wide gap between estimates and actuals. Audit noticed that, the municipality incurred excess capital expenditure of ₹ 1392.95 lakh and ₹ 2303.53 lakh in 2009-10 and 2011-12 respectively. Further, there was also an excess revenue expenditure of ₹ 137.72 lakh in 2007-08. The excess expenditure in revenue as well as capital sector was incurred from accumulated unspent schematic grants. Thus, the entire expenditure of ₹ 3834.20 lakh was unauthorized as it was not sanctioned by the appropriate body. Shortfall and excess in estimates were indicative of absence of realistic assessment of resources by the authority.

# (c) Budgetary control

The prescribed forms and heads of accounts with reference to budgeting centre along with the details of function and functionaries were not adopted. This inappropriate presentation of budget did not co-relate / depict actual receipt / expenditure of a function / service.

A few mismatches in budgeting are illustrated below:

Table 26

Year	Items	Nature of mismatch				
2007-08	Administrative grants, assigned revenue and schematic grants.	The grants falling under different heads were grouped together.				
2008-09	Administrative grants, assigned revenue and schematic grants.	-do-				
	Trade licence fees and Advertisement tax.	Tax and non-tax revenues were grouped together.				
2009-10	Administrative grants, assigned revenue and schematic grants.	The grants falling under different heads were grouped together.				
2009 10	Deposits, schematic grants and SFC.	Both revenue and capital receipts grouped under capital sector.				
2010-11	Administrative grants, assigned revenue and schematic grants.	Grouped together irrespective of their nature and objectives.				
2011-12	Deposits, recovery of cost of materials and recovery of advance salary.	All shown under revenue receipts with nil estimates in capital sector.				

As indicated above, mismatch in preparation of budgets was due to missclassification, improper grouping and non-adoption of standard heads of account and appropriate codes.

### 8.1.6.2 Maintenance of accounts

# (a) Cash Book

The municipality did not maintain cash book in prescribed format except for 2009-10. Computerized transactions for the years 2010-11 and 2011-12 were incomplete. Confirmed closing balances were not available for any of the years under audit. Therefore, cash books were not exhaustive and reliable to that extent.

# (b) Cash Management System

Audit noticed that cash-in-hand ledger depicted a cash balance of ₹ 88483087.79. However, as per the statement of cash balance furnished by the municipality, the same was shown as 'nil' which was contradictory. This indicated that the municipality did not record cash transactions in a proper way.

# (c) Recording transactions

Audit noticed that the cashier deposited cash into the bank without entering the same into the cash book. The remittances, directly deposited into bank by the grantor, were also not posted in the cash book.

The expenditure did not reflect actual expenditure against a particular head of account. Only net amount was entered in the cash book and the ledger resulting in

short debit of expenditure in the respective head of account or grant. So the grant ledger never provided actual expenditure and the unspent balance on a particular date. The cost of a particular service was also not ascertainable because of non-segregation of function-wise expenditure.

# (d) Preparation of Annual Accounts

As per the provision of Section 84 of the West Bengal Municipal Act, 1993, the municipality was to prepare the annual accounts (Balance Sheet), Income & Expenditure Accounts and Receipt & Payment Accounts of the year. The municipality was also required to prepare an accrual based balance sheet within six month of the close of a financial year<sup>53</sup>. It was, however, observed that the balance sheets were not prepared for any of the financial years from 2006-07 to 2011-12.

# 8.1.6.3 Resource mobilization

Trend of inflow of resources for the last five years was as under:

Table 27

		- 40010 -	• •		
Category	2007-08	2008-09	2009-10	2010-11	2011-12
			(₹ in lakh)		
Own receipt	1111.12	810.20	1066.60	1742.53	1204.96
Assigned Revenue <sup>54</sup>	195.72	189.94	160.40	176.69	188.65
Admn grants <sup>55</sup>	400.81	364.03	563.44	560.26	592.75
State Finance Commission	133.94	136.92	135.79	207.49	0.00
Total	1841.49	1501.09	1926.23	2686.97	1986.36
Schematic grants	353.04	2025.91	4446.51	2820.28	608.98
Grand total	2194.63	3527.00	6372.74	5507.24	2595.34

(Source: Information furnished by municipality)

It would be seen from above that:

• Own receipts in 2010-11 was ₹ 1742.53 lakh which was attributable to receipts mainly from building plan sanction fees.

• There was no steady inflow from assigned revenue.

• There was huge slide in schematic grants in 2011-12.

From the year 2006 - 07 onwards.

The assigned revenue included share of taxes on entertainment, motor vehicle and trade, profession and callings.

The State Government grants for administrative and establishment expenses included a portion of basic pay of the approved staff, full dearness allowance, relief on pension, gratuity and untied funds in compliance to the recommendations of State Finance Commission.

# (a) Delay in periodical assessment

Maheshtala municipality had 94591 holdings as on 31 March 2007 with annual demand of ₹ 392.43 lakh. The last general assessment of annual valuation of holdings was effective from the year 2000. The subsequent periodic assessments were due in 2005 and 2010. It was noticed that the municipality did not make periodic assessment till March 2012. This resulted in low demand and consequent loss of revenue.

# (b) Accumulation of arrears to the tune of ₹ 17.18 crore

Property tax is the main source of own revenue of a municipality. Annual demands, trend of accumulation of arrear and collection of property tax for last five years from 2007-08 to 2011-12 of the municipality were as under:

Table 28 (₹ in lakh)

Year →	2007-08	2008-09	2009-10	2010-11	2011-12
Annual demand	401.62	402.57	407.50	395.49	416.68
Arrear demand	514.67	574.57	1351.76	1483.56	1622.22
Total demand	916.29	977.14	1759.26	1879.05	2038.90
Current collection	143.85	125.33	139.04	146.17	168.92
Current conection	(36)	(31)	(34)	(37)	(41)
Arrear collection	71.25	119.80	112.97	122.08	151.45
Arrear conection	(14)	(21)	(8)	(8)	(9)
Total collection	215.10	245.13	252.01	268.25	320.37
Total conection	(23)	(25)	(14)	(14)	(16)

(Percentage of collection with reference to corresponding demand is given in bracket)

From the above table, it may be noticed that the overall collection ranged between 14 to 25 *per cent* only. Due to such low collection, the arrears accumulated to the tune of ₹17.19 crore<sup>56</sup> in 2011-12 which was more than four times the current demand.

# (c) Shortfall of ₹ 20.22 crore in mobilization of own receipts

As per provision of the West Bengal Municipal (Finance and Accounting) Rules, 1999, a municipality shall collect 80 *per cent* of current property tax and 30 *per cent* of arrear demand. The scope of enhancement of resource and the shortfall in collection is given in **Table 29**:

63

Total Demand – Total Collection i.e. ₹ 20.39 crore - ₹3.20 crore = ₹ 17.19 crore.

Table 29 (₹ in lakh)

Category	2007-08	2008-09	2009-10	2010-11	2011-12
Arrear	514.67	574.57	1351.76	1483.56	1622.22
Annual demand	401.62	402.57	407.50	395.49	416.68
Collection target (arrear)	154.40	172.37	405.53	445.07	486.67
Collection target (current)	321.30	322.05	326.00	316.39	333.34
Total target	475.70	494.42	731.53	761.46	820.01
Actual collection	215.10	245.13	252.01	268.25	320.37
Shortfall	260.60	249.29	519.52	493.21	499.64

The table above indicated that total shortfall of receipts was ₹ 20.22 crore during 2007-08 to 2011-12. However, there was no recorded reason for such huge shortfall for years together.

# (d) Loss of revenue of ₹ 19.31 lakh due to non-renewal of 19311 licenses

Under section 118 of West Bengal Municipal Act, 1993 every person engaged or intending to be engaged in any profession, trade or calling in a municipal area, shall obtain a certificate of enlistment and get the same renewed annually.

Audit noticed that 19311 traders did not renew their licenses during 2007-12. The Municipal Authority also did not monitor or pursue the same.

Thus, the municipality suffered a loss of revenue amounting to ₹ 19.31 lakh<sup>57</sup> during the period under audit.

# (e) Loss due to remission on arrear

In terms of Section 111 (4) of the West Bengal Municipal Act, 1993, any person who is dissatisfied with the decision on annual valuation of his property as entered in the assessment list, may prefer an application for review before the Board of Councilors within a period of two months from the date of presentation of bill for payment of tax.

Section 112 (1) of the Act stipulates that every application presented as above shall be heard and determined by a Review Committee. The Review Committee may reduce the valuation of any land or building. However, such reduction shall not be more than 25 *per cent* of the annual valuation of such land or building except in the case of gross arithmetical or technical mistake.

<sup>57</sup> Considering fee of ₹100 each.

Audit noticed that in contravention of the above provision, the municipality allowed remission directly on annual property tax amounting to ₹ 82.01 lakh<sup>58</sup> during the period under audit. The municipality did not record any reason for such irregular remission.

In absence of any provision in the Act, the remission of such huge revenue resulted in loss to the municipality.

# 8.1.6.4 Administrative Control

# (a) Manpower Management

Maheshtala municipality was manned by 178 regular employees against 250 sanctioned posts in different cadre leaving a vacancy of 72 posts as of March 2012. The municipality did not take effective step to fill up those posts for better management of municipal activities. It was noticed that the municipality made 29 appointments during 2007 to 2012 though 41 posts fell vacant due to retirement / death / resignation during that period.

# (i) Excess employees in the cadre of Lower Division Clerk (LDC)

The State Government sanctioned additional 24 supernumerary posts<sup>59</sup> in 1995 to facilitate absorption of erstwhile *Panchayat* staff whose services had been transferred to the municipality. It was observed in audit that all such staff had either retired/repatriated or promoted against regular vacancy prior to March 2012. So, such sanction did not exist as of March 2012. However, there were 76 LDCs against the sanctioned strength of 63 posts in the cadre. Thus, the appointment / promotion to 13 post of LDC was irregular.

# (ii) Deployment of staff

Function-wise sanctioned strength was stipulated in the Government order for creation of posts. It was noticed that the municipality deployed manpower in contravention to the prescribed norms and thus compromising the effectiveness of the organization. Scrutiny of function-wise deployment of manpower revealed the following irregularities:

-

<sup>₹</sup> 5.31 lakh (2007-08), ₹ 28.16 lakh (2008-09), ₹ 28.67 lakh (2009-10), ₹ 8.21 lakh (2010-11) and ₹ 11.66 lakh (2011-12).

<sup>&</sup>lt;sup>59</sup> 16 in Group 'C' and eight in Group 'D'.

**Public Health and Conservancy Department** – The Department had only five *mazdoors* as on March 2012 against the sanctioned strength of 115 *mazdoors* and 15 mates. The conservancy function also got affected due to the absence of one sanitary inspector, two sanitary assistants, etc. There was overall shortage of 111 staff in the department.

**Public Works Department -** The municipality did not fill vacancy of three sub assistant engineers (SAEs), eight work sarkars, one surveyor, one draftsman and one helper but engaged 18 contractual staff as technical assistant in addition to excess deployment of 17 LDCs, two mates and 19 *mazdoors* for clerical job ignoring technical and field works.

Further, the municipality deployed four regular staff for extending service at railway ticket counter and in SC/SC/OBC Department of the State Government. So far the municipality did not recover any service charge or commission for extending such service to other departments. Such deployment without service charge was unjustified.

# 8.1.6.5 Implementation of Solid Waste Management

Municipal Solid Waste is generated from household, markets and slaughter houses. The waste consists of bio-degradable, non-biodegradable and inert materials. Management of solid waste has been devolved on the municipalities under the 74<sup>th</sup> Constitutional Amendment Act (Article 243W) as well as West Bengal Municipal Act, 1993. The municipalities had to perform such duties as laid down in the Municipal Solid Wastes (Management & Handling) Rules, 2000.

Maheshtala municipality took up solid waste management (SWM) in 17 wards (7, 11-14, 16, 17, 22-24, 27, 28, 30-33 and 35). The municipality did not furnish any information regarding disposal of waste in those un-covered wards.

The municipality collected (during October 2007 to March 2010) solid waste and dumped it in the trenching ground in a scattered manner through contractors. However, municipality engaged (November 2010 onwards) daily-wage labourers for collection of solid waste.

# (a) Financial outlay

The year-wise provision and expenditure<sup>60</sup> under SWM is given below:

Table 30

(₹ in lakh)

		Revenue			Capital	
Year	Budget (RE)	Expenditure	Savings(+) / Excess(-)	Budget (RE)	Expenditure	Savings(+) / Excess(-)
2007-08	16.50	28.07	( <b>-</b> ) 11.57	97.96	45.58	(+)52.38
2008-09	40.30	0.00	(+) 40.30	73.00	15.87	(+)57.13
2009-10	21.00	12.98	(+) 8.02	73.00	2.36	(+)70.64
2010-11	27.00	9.06	(+) 17.94	83.30	NA	NA
2011-12	14.50	2.13	(+) 12.37	0.00	NA	NA
Total		43.18	(+) 67.06		63.81	

The revenue expenditure was incurred mainly on wages of 33 labours engaged for SWM, repair and maintenance, sweeping and cleaning equipments. The substantial savings of ₹ 78.63 lakh, during 2008-09 to 2011-12, indicated that the municipality did not utilize the budgeted expenditure for improving the facilities for disposal of waste.

Capital savings of ₹ 180.15 lakh in three years during 2007-08 to 2009-10 pointed to reducing development of required infrastructure despite substantial provisions. The shortfall in financial achievement indicated absence of planning and systemic management.

# (b) Coverage

House-to house collection of solid waste was limited to very few wards till May 2010. The municipality conducted house-to-house collection through contractor from June 2010 to September 2010. In November 2011, the responsibility for collection of waste was entrusted to the councillors. The cost of collection was to be met at ward level from collection of fees at a prescribed rate and the activities be monitored by a ward level management committee. The municipality did not have any information regarding constitution and functioning of such committee. Fees were collected on municipal receipt but the receipts and the expenditure there-from were not accounted for in the municipal accounts.

6

The budget and accounts of the municipality was not prepared with reference to prescribed functions / codes. The revenue expenditure towards the service was not depicted for 2007 - 08 to 2009 - 10. In absence of accounts, revenue expenditure during 2007 - 10 was obtained form subsequent budget documents.

Further scrutiny of implementation of SWM in six wards revealed that house-to-house collection remained limited to only 14 to 76 *per cent* of households.

Moreover, the municipality had distributed 236 tricycle vans during 2007-12 for house-to-house collection of solid waste. Audit, however, noticed that only 70 tricycle vans were in operation as of April 2013. The condition and whereabouts of remaining 166 vans were not on records.

# (c) Segregation of waste at source not done

Segregation of solid waste means separation of waste into recyclable, biodegradable and inert material. Segregation at source is essential to reduce weight with simultaneous reduction of cost of carriage and processing.

The municipality did not collect segregated waste at source though primary household waste bins and tricycle vans were provided with specifically designed separated bins for bio-degradable and non-biodegradable materials. Procurement and issue of 33630 covered buckets of two different colours to the house-holds, thus, became wasteful.

Further, the municipality provided storage facility in 17 wards with 38 movable metal containers with a capacity of 1.3 MT each.

Audit noticed that the municipality distributed (2007-08) 37 containers to 18 wards where house-to-house collection of solid waste did not exist. The scope and manner of utilization of the containers were not on record.

# (d) Transportation

The municipality had seven vehicles for transportation of solid waste but they failed to attend to major parts of its storage sites daily leading to overflowing of containers. This also resulted in littering of wastes on the road.

# (e) Disposal system

According to Municipal Solid Wastes (Management & Handling) Rules, 2000, biodegradable materials were to be processed, preferably by vermi-composting in order to minimize the burden of final disposal of wastes by sanitary landfill. The recyclable material was to follow the route of recycling. The land filling was to be restricted to non-biodegradable and inert materials along with residues of wastes after processing.

The municipality developed a disposal site (17 acres) at *Serengabad* (ward 35) in June 2007. The plant had a vermi-composting device measuring 200 m<sup>2</sup> and a separate cubicle for recyclable materials. The municipality reported (March 2009) to the WBPCB that 1.2 MT of organic compost was being produced per day. The basis of such report was not made available to audit.

# 8.1.6.6 Implementation of schemes / projects

Implementation and activities of a few schemes / projects was test checked during Audit. Audit findings are discussed below:

# (a) Implementation of Mid-day Meal Scheme

Mid-day Meal (MDM) Scheme was introduced by the Government of India (GoI) with the objective to give a boost to universalization of primary education by increasing enrolment, retention of attendance of students and simultaneously impacting on nutrition of student in primary classes. The local authority was responsible for implementation of the scheme with free food grain and incidental cost provided by the GoI.

# (i) Cash Component

The receipt and utilization of conversion cost during 2007-12 is given below:

Opening Closing Receipt **Total** Expenditure Percentage of Year Balance Balance utilization (In ₹) 2007-08 2110609 59 983728 2570600 3554328 1443719 2008-09 1728407 39 1443719 1383025 2826744 1098337 2009-10 1728407 22339206 24067613 9045401 15022212 38 <del>201</del>0**-**11 15022212 13597130 28619342 6625340 21994002 23 2011-12 21994002 21875766 43869768 18164318 25705450 41

Table 31

It would be seen from the above that the municipality could utilize only 23 to 59 per cent of the available fund during 2007-08 to 2011-12. Such poor utilisation of grants during last five years resulted in accumulation of funds to the tune of ₹ 257.05 lakh and indicated that the grant releasing authority did not monitor actual utilization of fund. It also indicated that the MDM scheme was not implemented to the extent it was envisaged as funds are released based on the number of schools and student strength in a particular district.

# (ii) Rice component

Receipt and utilization of rice during 2007-12 was as under:

Table 32

Year	Opening Balance	Receipt	Total	Utilization	Closing Balance	Percentage of utilization
			(In quintal	l)		utmzation
2007-08	195.83	1840.37	2036.20	1636.54	399.66	80
2008-09	399.66	0.00	399.66	341.13	58.53	85
2009-10	58.53	1886.90	1945.43	376.64	1568.79	19
2010-11	1568.79	3580.97	5149.76	3159.88	1989.88	61
2011-12	1989.88	2413.95	4403.83	2332.41	2071.42	53
Total	195.83	9722.19	9918.02	7846.60	2071.42	79

From the above table, it may be observed that utilization of available stock was very low ranging from 19 to 61 *per cent* during 2009-10 to 2011-12.

# (iii) Lapse of allotment of 2596.05 quintal of rice

In terms of guideline, the scheme was to be implemented by the municipality within its area. It was noticed that the Additional District Magistrate allotted rice to the municipality simultaneously directing the District Controller of Food & Supply to issue 'Delivery Order' directly to the concerned distributor.

Audit noticed that the distributor lifted only 2413.95 quintal of rice out of total allotment of 5010 quintal during 2011-12 resulting in lapse of allotment of 2596.05 quintal of rice. The municipality should have monitored the timely lifting of the allotted quantity of rice for distribution to the schools.

# (iv) Monitoring

The municipality did not constitute Steering-cum-Monitoring Committees (SMC) during 2007-12 to oversee the management and monitor the scheme though provided in the guidelines. The municipality did not conduct physical verification to ensure quantity and quality of rice. The system deficiency coupled with lack of proper control of the municipality in monitoring and supervision resulted in poor implementation of the scheme.

# (b) Basic Services to Urban Poor

The Basic Services to Urban Poor (BSUP) under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched with thrust on comprehensive

development of slums through composite projects for providing shelter, basic services and other related civic amenities to urban poor in an integrated manner.

The Government of India sanctioned an amount of ₹ 141.01 crore for implementation of BSUP project (comprising housing and infrastructural components) in three phases<sup>61</sup>. The sharing of fund of the project was as follows:

Table 33 (₹ in lakh)

	Government of India	State Government	KMDA	ULB	Beneficiaries' contribution	Total
Phase-I	2872.67	1731.38	472.39	157.46	524.40	5758.30
Phase-II	2800.11	1680.05	361.31	120.44	638.27	5600.18
Phase-III	1371.21	822.73	210.60	70.20	267.69	2742.43
Total	7043.99	4234.16	1044.30	348.10	1430.36	14100.91

(Source: Information furnished by municipality)

The inflow and outflow of the fund under phase-I and phase-II as of March 2012 revealed that while the municipality spent the entire fund available under phase I, only 70 *per cent* of available funds under phase II was utilized as shown below:

Table 34 (₹ in lakh)

Sauvas of funds		Phase-I			Phase-II		
Source of funds	Sanction	Release	Expenditure	Sanction	Release	Expenditure	
Government of	2872.67	2154.51		2800.11	1400.06		
India	2072.07	2134.31		2000.11	1400.00		
State	2189.18	1724.99		1680.05	840.02		
Government*	2109.10	0 1724.99		1080.03	840.02		
KMDA	472.39	351.37	5029.54	361.31	90.33	2138.66	
ULB	157.46	117.12		120.44	60.22		
Beneficiary	524.40	524.40		638.27	650.10		
Loan	-	157.15		-	-		
Total	6216.10	5029.54	5029.54	5600.18	3040.73	2138.66	

<sup>\*</sup> Included additional grant of ₹20000 each for 2289 dwelling units

The municipality diverted an amount of ₹ 157.15 lakh (as loan) from BSUP phase-II fund to meet the shortfall of fund under phase-I.

71

The three phases were sanctioned on 21 March 2007, 7 March 2008 and on 9 February 2012 respectively (to be completed within 3 years from the date of sanction).

# (i) Physical and financial progress **Phase-I**

The municipality started execution of phase-I in December 2007. The schedule date of completion of phase I was March 2010. But even after expiry of two years (March 2012), the municipality could not complete the project.

Table 35

		Table 35		
			Phase-I	
Component	Unit	Target	Achievement	Percentage of
		Target	Achievement	achievement
Housing				
Physical	Number	2622	1496	57
Financial	₹ in lakh	3079.80	2634.82	86
Water supply	•			
Physical	Km	86.329	70.97	82
Financial	₹ in lakh	783.00	650.23	83
Drain	•	•		
Physical	Km	88.715	31.990	36
Financial	₹ in lakh	1004.26	615.21	61
CC road	1	1	1	1
Physical	Sq.m.	190169	143492	75
Financial	₹ in lakh	1087.95	1060.86	98
Guard wall	<u> </u>			
Physical	Km	2.248	1.100	49
Financial	₹ in lakh	44.15	21.60	49
Street light	•	•		
Physical	Number	2036	800	39
Financial	₹ in lakh	122.38	44.00	36
Community S	eva Kendra			
Physical	Number	15	1	7
Financial	₹ in lakh	81.60	4.29	5
SWM (Purcha	ase of dustbin)			
Physical	Number	216	Nil	Nil
Financial	₹ in lakh	12.96	Nil	Nil

Audit noticed that the following factors were responsible for shortfall in physical progress:

• The State Government increased (May 2008) cost of dwelling units (DUs) from ₹ one lakh to ₹ 1.20 lakh. The additional fund of ₹ 457.80 lakh for 2289 DUs was to be borne by the State Government. The municipality, however, received only ₹ 299.24 lakh and the balance amount of ₹ 158.56 lakh was not received till March 2013.

• The municipality revised the DPR estimates<sup>62</sup> and also included various additional items. This enhanced the cost substantially.

The extent of increase in some of the items is illustrated below:

Table 36

Sl. No.	Components	DPR / SOR 2002	SOR 2007	Difference in rates	Remarks	
110.		Amount (₹ / Meter)				
1.	Guard Wall	1869.88	2147.95	278.07	Increased due to revision of rates in SOR and additional items.	
2.	Cement Concrete Road	570.00	712.00	142.00	Increased due to revision of rates in SOR and inclusion of additional earth work, brick work, etc.	
3.	Surface Drain	1078.48	3872.38	2793.90	Increased due to revision of rates in SOR and additional work of RCC slab, etc.	

• The Urban Development Department allowed (February 2009) price escalation up to 12 *per cent*. Accordingly the municipality executed 33 works above the sanctioned estimate ranging from 10 to 12 *per cent* involving an excess expenditure of ₹ 177.18 lakh.

Therefore, the municipality failed to achieve the physical target within the project cost.

# Phase-II

The phase-II for construction of 2167 DUs was started in December 2009. Although the schedule date of completion was March 2011, the municipality could complete only 448 DUs as of March 2012 after incurring an expenditure of ₹ 2138.66 lakh. The municipality did not take up the infrastructure works of this phase.

The municipality sought (October 2012) permission of the State Government to wind up execution of infrastructural work of phase-II, phase-III and balance work of phase-I because of huge price escalation.

Following other irregularities was also noticed in implementation of the BSUP project:

- The municipality did not spend any amount towards Solid Waste Management.
- The municipality failed to construct 14 Community *Seva Kendra* due to non-availability of land.

From Schedule of Rate (SOR) -2002 to SOR -2007.

• Against the sanctioned cost of ₹ 122.38 lakh for 2036 street light<sup>63</sup>, the municipality installed (December 2010) 800 solar photo voltaic street light through West Bengal Renewable Energy Development Agency at the subsidized cost of ₹ 44 lakh (@ ₹ 5500 each). However, balance work remained incomplete (December 2013).

# (c) Implementation of Employment Generation Scheme

The State Government launched the Employment Generation Scheme in September 2005 with the objective of creating employment in urban areas as well as improvement and maintenance of civic infrastructure by direct engagement of urban poor. However, scrutiny of records revealed following irregularities.

- The municipality didn't maintain work register and details of stores used. The municipality failed to furnish any records for implementation of the scheme for the period from 2007-08 to 2010-11.
- The municipality did not maintain any register showing complete list of the urban poor eligible to participate as wage earners in the scheme. Therefore, the eligibility of the beneficiaries was not ascertainable.
- Municipality had spent ₹ 2.75 crore during 2007-12 but certificates of Ward Committee and / or Community Development Societies (regarding involvement of urban poor) were not made available to audit. As such, the employment of urban poor could not be vouchsafed in audit.

# (i) Utilisation of grants

The municipality utilized  $\stackrel{?}{\underset{?}{?}}$  2.75 crore out of  $\stackrel{?}{\underset{?}{?}}$  4.83 crore of received during 2007-12. The annual expenditure during the period under audit varied between 15 and 47 per cent.

### 8.1.7 Conclusion

Performance of Maheshtala municipality, entrusted with the responsibility of local governance and providing better conditions and amenities to its residents through implementation of various Central and State Governments programmes, was adversely affected by weak resource mobilization and various control failures.

Budget management was flawed as would be evident from instances of wide variations between budget estimates and actual. Remission of taxes was allowed

<sup>63 (</sup>a) ₹ 6010 each.

Including ₹ 0.81 crore as opening balance as on April 2007.

unauthorisedly. Non-observance of rules and guidelines affected the implementation of schemes *viz.*, Mid-day Meal, Basic Services for Urban Poor and Solid Waste Management, etc. The same was compounded by lack of monitoring mechanism.

Other organizational weaknesses as observed in audit included poor implementation of Solid Waste Management, delay in completion of projects and lacunae in establishment control and staff matters.

### 8.1.8 Recommendations

- ➤ Budget should be prepared realistically to avoid huge savings /excess expenditures.
- Prompt serving of demand notices, persuasion and taking penal action for non-payment of property tax, as provided in rules, are required for collection of revenues.
- > System of maintenance of accounts and cash management may be streamlined through periodical / surprise physical verification, maintenance of records in prescribed forms and registers.
- > The municipality may review contract management for ensuring timely completion of projects under Basic Services for Urban Poor and optimum utilization of resources.

# 8.2 Performance Audit of Management of Water Supply in Urban Area

### HIGHLIGHTS

Around 35 per cent to 45 per cent of population in selected ULBs remained outside the urban water supply network.

[Paragraph 8.2.7.3]

Out of 33 ULBs whose information was available, only seven ULBs could achieve the benchmarked per capita Supply of Water. The average per capita water supply in nine ULBs was less than 50 *per cent* of the stipulated benchmark.

[Paragraph 8.2.7.3 (b)]

Consumption was not metered; only one ULB was having all the water connections metered.

[Paragraph 8.2.7.3(c)]

No mechanism for evaluation of unaccounted for water could be developed in any of the selected ULB.

[Paragraph 8.2.7.3(d)]

Achieving the benchmark in respect of continuity of water supply is a remote possibility; the ULBs under scrutiny had an average of five hours of water supply.

[Paragraph 8.2.7.3(e)]

Monitoring and testing of quality of water was not done in most (31 out of 35) of the ULBs.

[Paragraph 8.2.7.3(f)]

Revenue receipt show steady reducing trend in comparison to revenue expenditure during the period of audit.

[Paragraph 8.2.7.3(k)]

Staff position was meagre in comparison to both national and international standards.

[Paragraph 8.2.7.3(o)]

Blocking of fund of ₹ 61.58 crore and avoidable expenditure to the extent of ₹ 1.24 crore was noticed in Durgapur Municipal Corporation.

[Paragraph 8.2.7.5(a) (i) & (iii)]

Unfruitful expenditure of ₹ 18.28 crore and wasteful expenditure ₹ 0.36 crore due to delayed execution of approved water supply project under JNNURM was noticed in Kulti municipality.

[Paragraph 8.2.7.5(b) (i)]

Blocking of  $\overline{\xi}$  7.23 crore in Siliguri Municipal Corporation towards non-completion of water supply scheme Zone X resulted in beneficiaries being deprived of treated water facility.

[Paragraph 8.2.7.5(d) (ii)]

Central assistance of ₹ 2.75 crore in NDITA could not be availed and NDITA had to incur expenditure of ₹ 1.18 crore.

[Paragraph 8.2.7.6(c)]

# 8.2.1 Introduction

West Bengal is relatively rich in water resources due to the three major river basins of the State, the Ganga, the Brahmaputra and the Subarnarekha. However, the population pressure on the State is tremendous with population density of 1028 persons per square meter. Urban Local Bodies (ULBs) accordingly have a considerable role to cater to the need of the population in terms of both quality and quantity of water supply. A Performance Audit (PA) on water supply was conducted to ascertain how far ULBs had discharged their duties.

The entry conference was held with State Urban Development Agency, representatives of Municipal Affairs Department, Kolkata Metropolitan Development Authority and other related officials in August 2013. Draft Performance Audit was issued to the Department in March 2014.

# 8.2.2 Organisational set up

State Government									
		State Minis	stries / Departme	ents					
Municipal	Panchayat	Urban	Public Health	Irrigation &	Water Investigation				
Affairs	& Rural	Development	Engineering	Waterways	and Planning				
Department	Department	Department	Directorate	Directorate					
		]	Functions						
Urban water supply	Urban water Rural water For water For water Irrigation Minor irrigation								

# 8.2.3 Objectives

Performance Audit on water supply by the Urban Local Bodies was conducted with the objective to assess whether -

- > ULBs discharged the obligatory responsibilities of water supply effectively and efficiently.
- > minimum standards/benchmarks in terms of quantity, quality and reliability of water supply were fixed.
- water supply service was run economically i.e. the revenue receipts being matched against revenue expenditure.
- > control measures were taken to reduce Unaccounted for Water (UFW).
- water supply projects were executed efficiently and their objectives fulfilled.

- ➤ additional capital investment requirements were estimated for coverage of entire population from 2008 to 2023 (at five yearly intervals).
- participation of private agencies or attraction of private investment for this sector was induced.
- norms for deployment of staff for maintenance, control and monitoring of water supply were fixed and followed.

# 8.2.4 Audit Criteria

- West Bengal Municipal Act, 1993 (Act'93);
- West Bengal Municipal Corporation Act, 2006 (Act'06);
- West Bengal Municipal Corporation (Amendment) Act, 2009;
- Calcutta & Howrah Municipal Corporation Act, 1980;
- West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005;
- West Bengal Municipal (Finance & Accounting) Rules, 1999 (Rules, 1999);
- Nabadiganta Industrial Township Authority Rules, 2006; and
- Scheme guidelines.

# 8.2.5 Audit scope and methodology

Data for PA was obtained from respective Urban Local Bodies (ULBs), water supplying authorities and agencies executing capital works in the selected sample cities and towns. There is almost a complete absence of data on the financial aspects of these services (such as water tariff, income and expenditure on the service) as well as on the newly emerging aspects such as private sector involvement in municipal services.

Performance Audit covered 19 districts spread over sample of 35<sup>65</sup> out of 128 ULBs (119 municipalities, two notified area authorities, six Municipal Corporations and one Industrial Townships) from metropolitan and non-metropolitan cities and towns. While selecting ULBs, audit gave thrust on

Asansol, Balurghat, Bankura, Baranagar, Barrackpore, Berhampur, Bidhannagar, Chandernagore, Contai, Diamond Harbour, Durgapur, Englishbazar, Gangarampur, Ghatal, Hooghly-Chinsurah, Islampur, Jhargram, Kamarhati, Kharagpur, Khirpai, Krishnanagar, Kulti, Mathabhanga, Nabadiganta, North Dum Dum, Panihati, Purulia, Rajpur-Sonarpur, Ranaghat, Raniganj, Sainthia, Siliguri, South Dum Dum, Taki and Uluberia.

proportionate representation of different class of ULBs. The audit looked at only the public provision of selected services but did not cover private arrangements made by individuals, communities or NGOs. The audit focused on the city or town as a whole and did not cover intra-city distribution of services.

# 8.2.6 Selection of samples

Selection of the ULBs was based on area, population and geographical coverage within each district. It was decided to select cities that have relatively better accessibility. Some towns were also selected in clusters in order to facilitate information collection. In the selected towns, only the area falling under municipal jurisdiction has been covered. Areas outside municipal jurisdiction i.e. rural areas have not been covered in audit. By following these rationales 35 cities / towns were selected.

# 8.2.7 Status of water supply

# 8.2.7.1 Legal framework

With the introduction of 74<sup>th</sup> Constitutional Amendment in 1992, ULBs are vested with the constitutional right for planning, designing, implementing and operation and maintenance of water and sanitation projects. In terms of West Bengal Municipal Act, 1993, it is an obligatory duty of the ULBs to provide quality potable water of required quantity, to all residents under their jurisdiction, as per norms, suggested by the Central Public Health and Environmental Engineering Organisation (CPHEEO) and accepted by Municipal Affairs Department, Government of West Bengal.

# 8.2.7.2 Benchmark indicators / norms of water supply

Municipal Affairs Department on the basis of norms suggested by the CPHEEO and the provisions prescribed in different Fund Guidelines, fixed benchmark indicators for water supply by ULBs in West Bengal as given in **Table 37**:

Table 37

Sl. No.	Indicator	Benchmark	
1.	Coverage of water supply connection	100 per cent	
2.	Per capita supply of water	<ul> <li>a) 135 litres per capita per day (lpcd) in towns where sewerage system is exiting /contemplated.</li> <li>b) 70 lpcd in towns without sewerage system.</li> </ul>	
3.	Extent of non-revenue water	15 per cent	

Sl. No.	Indicator	Benchmark
4.	Extent of metering	100 per cent
5.	Continuity of water supplied	24 hours
6.	Quality of water supplied	100 per cent
7.	Cost recovery	100 per cent
8.	Efficiency in collection of water	90 per cent
٥.	charges	70 per cem

Against these accepted benchmarks, the audit findings emerged on the basis of information, data and comments, received from the selected ULBs in reply to the questionnaire issued, are described in the succeeding paragraphs.

# 8.2.7.3 Coverage of water supply connections

In the selected ULBs, 34.77 to 44.85 per cent of population remained outside the urban water supply network.

Eleven ULBs<sup>66</sup> out of 35 test checked ULBs, failed to provide water connection to 100 *per cent* population as per benchmarking, while 44.85 *per cent* residents of these ULBs remained outside municipal water supply network in the year 2008-09 and in subsequent four years, i.e. from 2009-10 to 2012-13, such figure stood at 42.58 *per cent*, 38.93 *per cent*, 34.89 *per cent* and 34.77 *per cent* respectively (**Appendix-18**).

It may be seen from the above that during four years 2009-10 to 2012-13, only 10.08 *per cent* population was additionally covered by municipal water supply network.

(a) In Rajpur-Sonarpur, Balurghat, Islampur and Siliguri more than 50 *per cent* of their population did not have access to municipal water supply during the period under audit. For Siliguri Municipal Corporation, the situation slightly improved in 2012-13 when 43.44 *per cent* of population remained outside the municipal water supply network.

Thus, 34.77 *per cent* urban population which were yet to be covered by the municipal water supply network remained dependent on private wells and other sources.

80

Asansol, Balurghat, Gangarampur, Islampur, Kharagpur, Panihati, Rajpur-Sonarpur, Ranaghat, Raniganj, Siliguri and South Dum Dum.

#### (b) Per capita Supply of Water

Records of 33 ULBs<sup>67</sup> were made available against the selected 35 ULBs in respect of quantum of water supply (Appendix-19). Audit noticed that out of these 33 ULBs, only seven ULBs (Chandernagore, Bidhannagar, Balurghat, Mathabhanga, Englishbazar, Contai and Krishnanagar) achieved the stipulated benchmark in 2012-13. Shortfall in the remaining ULBs in that particular year ranged from six lpcd to 95 lpcd except for Durgapur Municipal Corporation where the shortfall was marginal (1.96 lpcd). The average per capita water supply in nine ULBs<sup>68</sup> was less than 50 per cent of their stipulated norms. The position of per capita water supply in 2012-13, compared to 2008-09, marginally improved in respect of 12 ULBs while in seven ULBs the position worsened and such position for the remaining 14 also remained unchanged.

Thus, with the passage of time the rate of increase in the quantity of water generated and distributed could not keep pace with the incremental growth of population in majority of the ULBs.

#### (c) Consumption not metered

Data revealed that metered connections were almost non-existent in 31<sup>69</sup> out of 35 ULBs audited. Of the four ULBs (Raniganj, Durgapur, Chandernagore and NDITA) where metered connections existed, Ranigani municipality had all the connections metered.

#### (d) **Unaccounted for Water**

One of the major problems in the water supply sector today is the high level of Unaccounted for Water (UFW) and this includes both physical losses as well as revenue losses (including theft of water through illegal connections). The acceptable level of UFW (as per CPHEEO norms) is about 15 per cent. Since meters were not installed on pipelines at the point of origin and at consumers end; the estimation of physical leakages as well as revenue losses were not ascertainable. The 11<sup>th</sup> five year plan of Municipal Affairs Department, West

Taki and Diamond Harbour did not furnish reply. 68

North Dum Dum, Rajpur-Sonarpur and Raniganj for 135 lpcd earmark. Berhampur, Kulti, Khirpai, Jhargram, Purulia and Gangarampur for 70 lpcd earmark. Asansol, Balurghat, Bankura, Baranagar, Barrackpore, Berhampur, Bidhannagar, Contai,

Diamond Harbour, Englishbazar, Gangarampur, Ghatal, Hooghly-Chinsurah, Islampur, Jhargram, Kamarhati, Kharagpur, Khirpai, Krishnanagar, Kulti, Mathabhanga, North Dum Dum, Panihati, Purulia, Rajpur-Sonarpur, Ranaghat, Sainthia, Siliguri, South Dum Dum, Taki and Uluberia.

Bengal supported this fact but did not have plan or control measures to prevent it. Failure to ascertain and arrest this factor not only deprived the rate payers from having sufficient water supply but also contributed to loss of revenue of the ULBs.

# (e) Continuity of water supply

Availability of continuous 24 hours of water supply in a day to the residents of the ULBs is the accepted benchmark and one of the major goals in Urban Renewal Projects. But with the exception of Contai municipality in the years 2011-12 and 2012-13, none of the test checked ULBs provided 24 hours of water supply in a day. The ULBs under scrutiny had an average of 5.36 hours of water supply in the year 2008-09 and in the following years (from 2009-10 to 2012-13), the average supply were 5.45 hrs, 5.57 hrs, 6.1 hrs and 6.1 hrs respectively (**Appendix-20**) indicating there was hardly any improvement over the years in spite of taking up water supply projects.

# (f) Monitoring and testing of quality of water supply

A 100 per cent quality assurance for the supplied water is the accepted benchmark. To achieve this benchmark, monitoring and testing of quality is required to be done periodically by the ULBs at various stages of generation, distribution and supply. Audit noticed that the periodicity of testing quality of water for monitoring of raw water quality and that at distribution network was not fixed by the Municipal Affairs Department.

In 14 ULBs<sup>70</sup> (**Appendix-21**), no monitoring of quality of water was conducted either for raw water or at distribution network.

Audit noticed that laboratory facilities for testing water quality were not available in most of the sampled urban centres. For example, regular monitoring in this respect is being done by the Raniganj municipality, Durgapur Municipal Corporation and Asansol Municipal Corporation with the help of laboratory facility available at Asansol. Kulti municipality does not resort to such monitoring and testing even though it is neighbouring to Asansol. Similarly, while regular monitoring and testing of quality of water supply was done by the Chandernagore

82

Bankura, Barrackpore, Berhampur, Diamond Harbour, Englishbazar, Hooghly-Chinsurah, Kamarhati, Kulti, North Dum Dum, Panihati, Rajpur-Sonarpur, Ranaghat, South Dum Dum and Taki.

Municipal Corporation, the same was not done by neighbouring Hoogly-Chinsurah municipality.

# (g) Cost recovery of water supply schemes

In terms of the accepted benchmark, 100 *per cent* cost recovery of water supply should be achieved by the ULBs. But none of the municipalities could achieve this. The reasons for the same are analysed in the subsequent paragraphs.

# (h) Water tariff

In the present scenario, most of the ULBs are dependent on grants from the Government of India and the State Government for building up water delivery infrastructure. Setting of water tariff has been a much discussed area which is not fully under the control of these local bodies. Thus, at present, independent investment and tariff setting decisions do not rest with the local bodies. They are mostly focused on operation and maintenance of the water supply infrastructure.

Recovery of costs in the water sector in West Bengal is through tariff mechanisms. It is not carried out at present; some local bodies have been exploring innovative mechanisms for this purpose.

# (i) Charging for Water

Water is not considered an economic good and therefore, is either provided at very low rates or free of cost. The rates fixed are also not revised frequently to match the prevailing costs of service, widening the gap between the cost of service and tariff charged (Appendix-22).

It was noticed that out of 35 test checked ULBs, 20 ULBs<sup>71</sup> imposed water tariff; of which 12 ULBs<sup>72</sup> imposed both domestic and industrial water tariff, seven ULBs<sup>73</sup> imposed only domestic tariffs and one ULB (Barrackpore) imposed only industrial water tariff. Range of domestic tariff was between ₹ five to ₹ 1500 and that of industrial tariff was ₹ five to ₹ 2000. Detailed scrutiny revealed that six ULBs<sup>74</sup> had neither imposed any water tariff nor collected any water charges. Another four ULBs (Baranagar, South Dum Dum, Panihati, Uluberia and

North Dum Dum, Kamarhati, Barrackpore, Hooghly-Chinsurah, Chandernagore, Ranaghat, Berhampur, Sainthia, Durgapur, Raniganj, Kulti, Kharagpur, Khirpai, Ghatal, Contai, Purulia, Balurghat, Islampur, Siliguri and Englishbazar.

Kamarhati, Hooghly-Chinsurah, Chandernagore, Berhampur, Sainthia, Durgapur, Raniganj, Kulti, Ghatal, Purulia, Siliguri and Englishbazar.

North Dum Dum, Ranaghat, Kharagpur, Khirpai, Contai, Balurghat and Islampur.

Bidhannagar, Taki, Rajpur-Sonarpur, Diamond Harbour, Jhargram and Gangarampur.

Asansol) collected water charges but tariff rates were not made available to audit. Further, six ULBs namely Hooghly-Chinsurah, Chandernagore, North Dum Dum, South Dum Dum, Baranagar and Ranaghat discontinued collection of water charges since 2010.

# (j) Efficiency in collection of water charges

During 2008-09, water charges collected by the aforesaid ULBs was ₹ 8.16 crore. In the following four years (2009-13), the same were ₹ 9.12 crore, ₹ 7.54 crore, ₹ 8.38 crore and ₹ 9.39 crore respectively. Thus, there was virtually no steady growth in the succeeding years.

The ULBs did not maintain any data of water supply / demand nor its realization both current and arrears. As a result, audit could not verify whether the benchmark of 90 *per cent* realization of water charges could be achieved by them.

# (k) Revenue receipt and expenditure

Lack of uniformity in the method of keeping municipal accounts across the towns in the state makes the analysis of revenue receipts and revenue expenditure a difficult task. Necessary expenditure is kept by Public Health Engineering Directorate (PHED), Kolkata Metropolitan Water and Sanitation Authority (KMW&SA), Kolkata Metropolitan Development Authority (KMDA) and Urban Local Bodies in different ways – some are kept department-wise while others are kept by major revenue expenditure headwise such as establishment, electricity, consumables and so on. This makes it difficult to segregate revenue expenditure for water department. These differences in the methods of keeping accounts reflect inconsistencies in the analysis of revenue receipts and revenue expenditure.

In respect of revenue receipts and revenue expenditure, data were available for 25 out of 35 ULBs test checked (**Appendix-23**). A gloomy picture has been revealed in terms of revenue receipts as a percentage of revenue expenditure, as is evident from the following table:

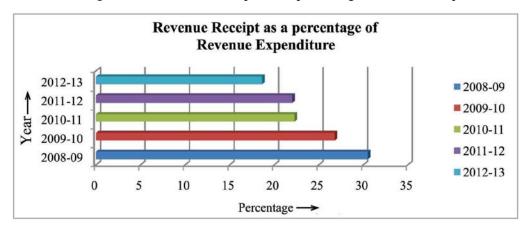
Table 38

Year	Revenue receipts (₹ in crore )	Revenue expenditure (₹ in crore )	Revenue receipts as a per cent of revenue expenditure
2008-09	13.64	44.68	30.51
2009-10	15.84	59.08	26.80

Year	Revenue receipts (₹ in crore )	Revenue expenditure (₹ in crore )	Revenue receipts as a per cent of revenue expenditure
2010-11	15.60	70.00	22.28
2011-12	18.13	82.26	22.03
2012-13	19.74	105.83	18.64

It may be seen from the above table that in the year 2008-09, combined revenue receipts of the aforesaid ULBs was ₹ 13.64 crore as against revenue expenditure of ₹ 44.68 crore; revenue receipts represented 30.51 *per cent* of revenue expenditure. In the subsequent four years, i.e., 2009-10 to 2012-13 revenue receipts as a percentage of revenue expenditure reduced to 26.80, 22.28, 22.03 and 18.64. This represented a drop of 38.9 *per cent* in revenue receipt as a percentage of revenue expenditure in 2012-13 in comparison to 2008-09.

It may be seen from the graphical representation presented below that there have been declining trend in revenue receipts as a percentage of revenue expenditure.



# (l) Utilisation of production capacity

In absence of comprehensive State water policy, the independent regulatory authorities like individual municipalities and various departments of the State Government decide on policy issues. The data regarding quantity of water generated from different sources were kept by different authorities (like, Kolkata Metropolitan Water & Sanitation Authority, Kolkata Municipal Corporation, other ULBs and the private parties) but the quantity of distribution and supply and the quantity of water actually reaching the end users were neither maintained nor monitored. The connections are not metered; no structure was also developed for

arresting the unaccounted for water (UFW). This is one of the major draw backs in the existing urban water management. Thus, utilization of production capacity resultantly could not be evaluated.

# (m) Water shortage

Shortage of water cannot be evaluated as the total quantity of water generated and total quantity of requirement are not known as explained above. As per Kolkata Development Report, 2007, the shortage of water may reach 59 *per cent* by 2025, as depicted in the table below:

Table 39

Year	Water Requirement (Million hectare meter, Mham)	Deficit (in <i>per cent</i> )
2000	10.85	38
2011	13.02	48
2025	16.60	59

Source: Kolkata Development Report 2007, p170 (based on 2001 census data).

As suggested in the above report, necessary action plan requires to be structured to make good such deficit. No such action plan was found to have been taken to address the issue.

# (n) Unabated depletion of ground water

While some urban centres may depend entirely on surface sources, such as rivers, lakes and reservoirs, others may use a combination of surface and ground water sources. West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005 was introduced to control and regulate the usage of groundwater. West Bengal State Action Plan on Climate change (WBSAPCC) provides a direction towards alternative water sources as also the Building Rules of the ULBs have also adopted the mandatory use of rainwater harvesting systems in building plans to arrest the depletion of ground water.

Audit noticed that, in violation of the stated policy, the ULBs in West Bengal continued to depend on ground water as main source of water. Only five ULBs (Raniganj, Purulia, Siliguri, Durgapur and Kulti) supplied water entirely from

surface water sources as against 17 ULBs<sup>75</sup> who were entirely dependent on ground water **(Appendix-24)**. Failure on part of the ULBs to tap surface water sources and implementing mandatory rain water harvesting contributed to unabated depletion of ground water.

In terms of water quality, arsenic contamination is severe in the state of West Bengal. Thus, dependance on groundwater sources has an additional impact on health issues in the state. The approach paper to the 11<sup>th</sup> Five year plan of West Bengal Municipal Affairs Department for the period 2007-12 has also supported this fact.

# (o) Staff position

No norms stipulating the manpower was fixed as per the municipal rules and regulations. The staff position can be analysed by using indicators such as staff per 1000 connections or staff per km. of distribution lines. However, any attempt to analyse whether the water utilities / departments were overstaffed / understaffed or had the right number of staff would require a norm against which this can be judged. In the absence of such norms, only the situation as it exists can be described. The staff here refers to the total staff, including managerial, technical and O&M staff (Appendices-25 & 26).

# (i) Staff per km. of Distribution Line

Eight ULBs<sup>76</sup> could not furnish any data in this matter, while Nabadiganta and Bidhannagar outsourced the work. There is about 0.02 to 14.24 staff per kilometre (**Appendix-25**) of distribution line in the ULBs test checked.

Such huge differences in number of staff engaged per kilometre amongst the individual ULBs imply that in absence of any fixed norm, in some ULBs there were shortages while in other ULBs there are excess engagement of staff per kilometre.

# (ii) Staff per 1000 Connections

Nine ULBs<sup>77</sup> could not furnish any data in this matter. This apart, Nabadiganta and Bidhannagar outsourced the work. The audit indicated that in almost half of

75

Barrackpore, Taki, Rajpur-Sonarpur, Diamond Harbour, Ranaghat, Sainthia, Khirpai, Ghatal, Jhargram, Contai, Bankura, Gangarampur, Balurghat, Islampur, Mathabhanga and Englishbazar.

North Dum Dum, South Dum Dum, Panihati, Taki, Durgapur, Chandernagore, Howrah and Baranagar.

North Dum Dum, Contai, Taki, Mathbhanga, Balurghat, Gangarampur, Purulia Chandernagore and Baranagar.

the ULBs test checked, the range is between less than one staff (0.73) to 14.82 staff (**Appendix-26**) per 1000 connections. It was 20 per 1000 connections in South East Asia<sup>78</sup>, 93 in Mumbai, 68 in Delhi and 106 in Chennai.

Thus, there is a need to rationalise manpower with reference to national and international levels.

# 8.2.7.4 Capital Investments

ULBs incur capital expenditure on source development, adding new infrastructure and upgrading existing systems. Schemes for improving the existing infrastructure may be undertaken more frequently. Audit observed that capital expenditure was incurred on source development for laying new pipelines, adding new treatment plants, pumping stations, reservoirs and on digging new tube wells to cope up with the shortfall.

The coverage of population by public water supply system is 60.80 per cent in the

# (a) Additional investment requirements

by March 2013 for these projects.

sampled urban centres against 100 *per cent* coverage of population by water supply and the present Performance Audit aims to evaluate the procurement / mobilisation of required additional capital investments by 2013, 2018 and 2023. Out of 35 ULBs test checked, water supply projects were taken up in 18 ULBs<sup>79</sup> to mitigate the demand of water (**Appendix-27**). Remaining ULBs did not take any initiative either to mitigate the present shortfall or to evaluate the future demand of the growing population to meet their requirement (**Appendix-28**). It was noticed that 16 of the above projects could not be completed in time. Scheduled date of completion of the projects was between March 2009 to March

Scrutiny of records revealed that only six ULBs<sup>80</sup>, completed their projects as of March 2013 whereas schedule dates of completion for Purulia and Kharagpur

2012 and the time overrun for all the projects varied from 12 to 50 months. A sum of ₹739.19 crore was released against sanctioned project cost of ₹ 1282 crore

88

The Political Economy of urban water India and South East Asia.

North Dum Dum, South Dum Dum, Panihati, Barrackpore, Hooghly-Chinsurah, Chandernagore, Krishnanagar, Berhampur, Uluberia, Asansol, Durgapur, Raniganj, Kharagpur, Khirpai, Contai, Purulia, Balurghat and Siliguri.

Chandernagore, Krishnanagar, Uluberia, Asansol, Raniganj and Contai.

municipalities were not yet over. For the remaining 10 ULBs<sup>81</sup>, there has been substantial time overrun ranging between 12 and 50 months. Even the six completed projects were marred with time overrun of 26 to 48 months. Fund amounting ₹ 500.41 crore has already been released for the incomplete works (Appendix-27).

Failure to complete projects within the schedule time resulted in blocking of fund to the extent of ₹ 500.41 crore and the residents of these ULBs were, thus, deprived of one of the fundamental civic amenities.

Scrutiny of the records of the projects taken up in six ULBs revealed various deficiencies as discussed in the succeeding paragraphs.

# 8.2.7.5 Execution of water supply projects

# (a) Durgapur Municipal Corporation (DMC)

With the objective of ensuring comprehensive water supply coverage of the entire Corporation area as per norms and also to cater the bulk water demand of 8.45 Million Gallon per day (MGD), 'Water Supply Scheme phase III' was sanctioned at a cost of ₹ 126.81 crore in December 2009 and was scheduled to be completed in September 2011. Asansol Durgapur Development Authority (ADDA) was to execute the project.

# (i) Blocking of fund –₹ 61.58 crore

The project already suffered time overrun of 27 months. Even the tender for procurement of distribution pipelines and its laying was not finalized till March 2013 though an amount of ₹ 61.58 crore had already been incurred (up to March 2013) for implementation of the project. This not only resulted in blocking of entire amount but also defeated the objective of providing potable water to the entire population under the Corporation.

### (ii) Loss of revenue

Such huge delay in completion also resulted in loss of revenue because one of the objectives of the project was to supply bulk water of 8.45 MGD which could have fetched substantial revenue to the Corporation.

Siliguri, North Dum Dum, South Dum Dum, Panihati, Barrackpore, Hooghly-Chinsurah, Durgapur, Khirpai, Balurghat and Berhampur.

# (iii) Avoidable expenditure -₹ 1.24 crore

Due to non-completion of the said project, DMC purchased clear water from Durgapur Project Ltd. (DPL) to maintain the supply within DMC area for which payment of  $\stackrel{?}{\underset{?}{$\sim}}$  0.72 crore was made to Durgapur Project Limited and balance due amounting to  $\stackrel{?}{\underset{?}{$\sim}}$  0.52 crore from them was yet to be paid.

# (iv) DMC could not utilize the excess generation capacity of four MGD water to earn revenue from the industries

One 14 MGD water supply project was executed in 2004 for the DMC residents by Public Health Engineering Directorate, West Bengal. Out of capacity generation of 14 MGD, four MGD was to be distributed to different industries as per their requirement submitted to DMC. But after completion of the project, the industries did not take the required quantity of water and only 10 MGD water was being utilized out of the total capacity of 14 MGD. As a result, the DMC authority failed to utilize the surplus balance of the four MGD of available water.

# (b) Kulti municipality

# (i) Blockage of ₹ 18.28 crore and wasteful expenditure ₹ 0.36 crore due to delayed execution of approved water supply project under JNNURM depriving the beneficiaries

A scheme named 24X7 water supply scheme for Kulti municipality was sanctioned under JNNURM in January 2010 at an estimated cost of ₹ 133.71 crore. The DPR was prepared by Assansol Durgapur Development Authority (ADDA) by engaging an outside agency at a cost of ₹ 0.44 crore of which ₹ 0.36 crore was already paid. The cost estimate of ₹133.71 crore was prepared on the basis of PWD Schedule of Rates (SOR) 2007-08.

The Project could not start as the title of the land meant for the project was subjudice but it was settled out of the Court in March 2013. Meanwhile, an amount of ₹ 28.84 crore lying with ADDA as central assistance received for this project was released to Kulti municipality in April 2012 for implementation of this project. Kulti municipality initiated action to implement the project with the technical help of the Municipal Engineering Directorate (MED) by procurement and laying of Ductile Iron (DI) pipes for the rising mains. Meanwhile, Kulti municipality prepared a revised detailed project report to meet the escalated price of the project for an additional amount of ₹ 85 crore. Kolkata Metropolitan Development

Authority (KMDA), the State Level Nodal Agency (SLNA) for this project in June 2013 based on suggestion of Government of India decided to abandon the project.



Figure :Kulti municipality pipes stacked without security

An amount of ₹ 18.28 crore was incurred towards procurement of DI pipes and soil investigation by March 2012. This huge quantity of DI pipes were found lying scattered at different places in the municipal area without any security as shown in the photograph above.

This apart, as the project was abandoned, ₹ 0.36 crore already spent for preparation of DPR was also rendered wasteful.

# (ii) Additional expenditure of ₹ 2.14 crore incurred to provide minimum quantity of water due to delay in execution of the main project

Due to non execution of the above mentioned project, Kulti municipality installed four river bed tube wells with discharge of 160 KL per day to supply water to the inhabitants at the rate of 40 lpcd. Near about 4.672 km of pipelines was also laid for the purpose. A new scheme was also designed for installation of eight river bed tube wells to remove scarcity of water. Total amount of  $\mathfrak{T}$  0.53 crore was spent for this stop-gap project. The municipality also incurred an amount of  $\mathfrak{T}$  1.62 crore for another stop gap project on installation of five river bed tube wells with discharge of 975 KL per day. The municipality, thus, incurred a total amount of  $\mathfrak{T}$  2.14 crore in order to provide the minimum quantity of water to its inhabitants as the main project was abandoned.

# (c) Raniganj municipality

# Deficiencies of 10 MGD water supply project executed by ADDA for the Raniganj municipality

A 42 MLD/10 MGD water supply project for Raniganj municipality approved with a view to augment *per capita* water supply from 60 lpcd to 30-40 *per cent* of the population to 135 lpcd to the entire population, under JNNURM by the Central Sanctioning & Monitoring Committee (CSMC) in October 2006 at an estimated cost of ₹ 36.27 crore. The scheduled date of completion of the project was October 2009. It was also directed that no change in the scope of work should be effected without prior approval of CPHEEO.

ADDA executed the project on the basis of approved DPR with estimated cost of ₹ 36.27 crore. The project was partly completed for 21 MLD (against approved 42 MLD) in December 2012 incurring an expenditure of ₹ 37.81 crore.

The partly completed project was handed over by the ADDA to Raniganj municipality in July 2013. In the handing over note, no detailed physical specifications like capacity, dimension, etc. of reservoirs and pumps, length of rising mains and distribution lines, the design and drawings of all the components executed, etc. as well as other details like cost incurred for execution of each component of the water supply project were disclosed.

During physical verification of the said water supply project, following deficiencies were noticed.

- Out of six overhead reservoirs (OHR) constructed, there were visible water leakage from three OHRs.
- At Rambagan OHR, the water leakage was so excessive that the local people objected to allow storage of water at that OHR. Because of this, the same is filled in the evening and the water is distributed fully by the morning.
- *Jhatidanga* and *Girjapara* OHRs were not utilized for storage purpose. Water is distributed through pass lines by boosting pumps directly from source. Water is not being stored at another reservoir at Public Health Centre due to shortage of water. The expenditure incurred towards construction of these two OHRs, thus, rendered idle.

- No boundary wall / fencing were constructed for any of the OHRs to ensure safety and security. No input output meters were provided at any of the OHRs and pump houses except Collector Well thereby making it difficult to ascertain the water content or the OHR and quantity of distribution at any point of time.
- Only five MGD of Water is generated from sub surface of the river Damodar at *Damaliya*, through four pumps instead of DPR provision of 10 MGD of water to be generated through six pumps. Out of four pumps installed at Collector Well, one pump was stated to be inoperative by the pump operator. The water generated was stored at the UGR of 0.6 MGD. Therefrom, the water is sent to the distribution pump house. Even 24 hours a day running of three pumps operative at the collector well could only provide water at *Damaliya* UGR for sixteen hours of distribution. No water is stored in the OHR due to inadequate water received from the generation point.
- Out of six pumps in distribution pump house, four pumps were stated to be operative by the pump operator.

It was observed that both rising main and distribution pipe lines were laid only a few inches below the road surface and in some places, those were above the road surface. As a result, the sluice-valves appeared above the road surface. Due to such irregular laying of pipelines, not only the road width was reduced but the required earth cushion over the pipeline was missing.





Pipes being stacked here and there without security

The sluice-valves are appearing above the road surface

• Huge stock of DI pipes (429 pipes with total length of 2359.5 m) was found stacked at many places in the municipal area.

 Moreover distributed pipelines of approx 3500 meters were not laid in Zone-5 though as per sanctioned DPR 27.3 km of 100 mm diameter pipelines were to be laid; no such laying was actually done. Only six OHRs against DPR provision of seven, were constructed.

Audit noticed that for these deviations from the approved DPR, no approval from the CPHEEO was obtained in violation of the laid down provision.

It was further noticed that a revised DPR was prepared to complete the project fully at an estimated cost of ₹ 52.33 crore, which is under process of approval. In the revised DPR, such huge cost escalation was attributed to escalation of rates due to time overrun.

It was thus observed that the project was implemented in a deficient manner and monitoring and supervision was poor. Due to huge time overrun, the project cost increased from ₹ 36.27 crore to ₹ 52.33 crore. i.e., an increase of 44 *per cent* from the initial approved project cost. The basic objective of the project was also defeated because against projected 135 lpcd, the municipality could only provide about 75 lpcd of water to the inhabitants in spite of spending ₹ 37.812 crore.

# (d) Siliguri Municipal Corporation

# (i) Delay in completion of water supply scheme resulted in unfruitful expenditure of ₹ 30.36 crore

A water supply scheme at Siliguri Municipal Corporation (SMC) under JNNURM was sanctioned in January 2007 at an estimated amount of ₹ 32.97 crore. The schedule date of completion of the project was 15 January 2009. The entire amount of Government of India share of ₹ 15.83 crore was released and the State Government also released ₹ 14.52 crore out of its total share of ₹ 17.04 crore in four installments between December 2007 and March 2013. Thus, a total amount of ₹ 30.36 crore was released for the project. Audit scrutiny revealed that even after four years from the schedule date of completion, the water supply scheme could not be commissioned till March 2013. Out of seven OHRs, only two could be completed. Other works like laying of rising main and boundary walls of OHRs remained incomplete.

Though, an amount of ₹ 30.36 crore was already utilized for implementation of this scheme, SMC failed to improve *per capita* availability of potable water even by a single litre from the existing 70 lpcd as against CPHEEO norm of 135 lpcd.

Thus, due to inordinate delay in executing the water supply scheme, the entire expenditure rendered unfruitful besides depriving the people from portable drinking water.

# (ii) Delay in completion of water supply scheme for Zone X resulted in blocking of ₹ 7.23 crore and beneficiaries being deprived of treated water facility

A Detailed Project Report was prepared to extend the facility of treated water through piped water supply system to ward no. 45 to 47 under a new independent zone i.e. zone X. The estimated cost of the work was ₹ 13.15 crore. The target population was one lakh. Audit noticed that by the end of 2010-11, the entire pipeline was laid at a cost of ₹ 7.23 crore, though the construction of OHR was yet to be completed. Furthermore, the land on which the said OHR was to be constructed belonged to the Agriculture Marketing Department, GoWB and the same was under the possession of Siliguri Regulated Market Committee under West Bengal State Marketing Board. The said Board on May 2008 conveyed its approval for construction of OHR on the land subject to final approval by the Agriculture Marketing Department. Though such approval was accorded in August 2008, SMC failed to take possession of the same for about three years. As a result, the entire project was stalled and the expenditure of ₹ 7.23 crore incurred on laying of pipeline, etc. remained blocked and the project remained incomplete thereby defeating its objective.

# (e) Barrackpore and North Barrackpore

The 15 MGD surface water supply project for Barrackpore and North Barrackpore municipalities at an estimated cost of ₹ 129.51 crore was stalled because the project implementing authority, KMW&SA failed to obtain permission from the Barrackpore Cantonment Board for laying 1600 meter of 700 mm dia. pipeline within the Barrackpore Cantonment area, as a result the Underground Reservoir (UGR) already completed at Latbagan could not be connected. Thus, the construction cost of ₹ 102.02 crore so far released for completion of the project remained unfruitful depriving the residents of two municipalities from the benefit of the project.

# 8.2.7.6 Private participation

# (a) Private participation in water supply in West Bengal

Private participation and private involvement in building, owning, operating, leasing and transferring of water resource facilities were recommended in National Water Policy, 2002. Scrutiny of records revealed that out of 35 ULBs under scrutiny, only Nabadiganta Industrial Township Authority (NDITA) engaged private sector for distribution and supply of potable water.

In 2008, Urban Development Department (UDD) formulated a water supply project for NDITA in PPP model, where the private partner was to bear 65 *per cent* of the estimated project cost of ₹ 26.07 crore and the remaining 35 *per cent* was to be funded by the Government of India through JNNURM.

The project commenced on February 2009 and completed in December 2010. Out of 283 identified holdings till September 2010, only 201 connections were given.

# (b) Avoidable liability of ₹ 2.12 crore – NDITA

This water supply project does not include generation of water which was to be purchased by NDITA from KMC at a predetermined rate of  $\mathfrak{T}$  four per KL and the same was to be sold to the private partner at the same rate for distribution and supply to the beneficiaries by them at the rate of  $\mathfrak{T}$  25 per KL. No formal agreement was executed with KMC for this purpose. KMC raised bill amounting to  $\mathfrak{T}$  2.73 crores against NDITA towards supply of 1515857 KL of clear water supplied between April 2011 and December 2012 @  $\mathfrak{T}$  18 per KL. As per agreement with the private partner, NDITA was to receive only  $\mathfrak{T}$  0.61 crore from them @  $\mathfrak{T}$  four per KL for the above quantity of water. As a result, NDITA already shouldered a liability of  $\mathfrak{T}$  2.12 crore and also subject to a recurring liability of  $\mathfrak{T}$  14 per KL of water supply for allowing subsidized rate of  $\mathfrak{T}$  four per KL to them. NDITA in reply, stated that KMC without showing any documentary evidence unilaterally claimed the rate of  $\mathfrak{T}$  18 per KL.

# (c) Loss of opportunity to avail Central assistance of ₹ 2.75 crore as well as reducing financial liability of private partner due to faulty DPR

Construction of UGR, an essential requirement of the project, was not included in the DPR at the time of obtaining approval from the GoI. The same, subsequently, was constructed at a total project cost of ₹ 7.87 crore with the private partner and NDITA sharing 50 *per cent* each of the project cost. By not including the

construction of underground reservoir in the DPR, NDITA not only lost the opportunity to avail Central Assistance amounting to  $\stackrel{?}{\stackrel{?}{\stackrel{}}{\stackrel{}}}$  2.75 crore but also ended up with additional expenditure of  $\stackrel{?}{\stackrel{?}{\stackrel{}}{\stackrel{}}}$  1.18 crore due to reducing the private partners share of expenditure from 65 *per cent* to 50 *per cent*.

Thus, due to non inclusion of the said construction in the DPR, NDITA had to bear the financial burden of  $\mathfrak{T}$  3.94 crore which otherwise would have been financed through Central assistance ( $\mathfrak{T}$  2.75 crore) and by Private partner ( $\mathfrak{T}$  1.18 crore).

# 8.2.8 Conclusion

ULBs failed to discharge the obligatory responsibility of water supply to the urban population effectively & efficiently. The supply was far from achieving the benchmarks fixed in respect of ensuring quantity, quality, reliability and continuity of water supply. The water supply service was not run economically i.e. revenue receipts were much below the revenue expenditure. Water was not treated as economic goods. Control measures were not taken to reduce Unaccounted for Water and metering of the connections was not done. The water supply projects were not executed efficiently and their objectives were not fulfilled. Responsibility for carrying out capital works, in all cities and towns did not rest with a single State level agency and the operation & maintenance function of the project was with the local body. Additional capital investment requirements were not properly estimated for full coverage of population from 2008 to 2023 (at five yearly intervals). No significant progress was made in creation of new surface water sources resulting in steady depletion of ground water table across the state, in view of the expanding urbanisation and more and more multi-storeyed buildings being constructed. Periodical monitoring and testing of quality of water was not being done in some of the Urban Local Bodies.

# 8.2.9 Recommendations

- Prevalent orders regarding charging of water from consumers needs to be adhered to.
- Capacity building in urban centres is to be developed for estimation of Unaccounted for Water.

- Metering of connections, both for bulk supply and small supply, may be ensured.
- > Tariff structure may be modified at regular intervals, indexed to inflation and power tariff.
- For Ground water depletion may be controlled by making the rainwater harvesting mandatory in all Urban Local Bodies while sanctioning of the building plan and identifying new surface water source.
- Additional capital investments are required to cover the presently uncovered population by water supply and also cover the population that will be added to the urban population during 2008-23.