

**CHAPTER-IV
WORKS EXPENDITURE
SECTION- A
(AUDIT REVIEWS)**

PUBLIC HEALTH ENGINEERING DEPARTMENT

4.1 Review of Public Health Engineering department

Highlights

The implementation of water supply and sewerage schemes by the department was characterised by disproportionate expenditure on maintenance and establishment, non-collection of water taxes, arrears in collection of revenue, improper deployment of staff, blocking of Government funds, inadequacy in testing of water, excess expenditure in procurement of materials and the existence of illegal connections.

The department's casual approach led to non-realisation of water tax and water and sewerage charges amounting to Rs.85.82 lakh and Rs.35.88 lakh respectively.

(Paragraphs 4.1.15, 4.1.17,4.1.22)

Excess deployment of staff and engagement of work charged and muster roll employees despite a ban resulted in avoidable and irregular expenditure of Rs.12.64 lakh and Rs.38.03 lakh *per annum* respectively.

(Paragraphs 4.1.27 & 4.1.29)

While two projects were stopped after an expenditure of Rs.40.80 lakh, eight projects completed at a cost of Rs.3.62 crore failed to augment the desired level of water supply.

(Paragraph 4.1.36 & 4.1.37)

Treated water was mixed with untreated water before supply to consumers nullifying the utility of treatment and investment of Rs.52.99 lakh in the plant with recurring expenditure of Rs.4 lakh per year.

(Paragraph 4.1.41)

68 per cent of households did not have water connections even though as much as 80 per cent of the piped water supply was not accounted for.

(Paragraph 4.1.58 and 4.1.59)

Introduction

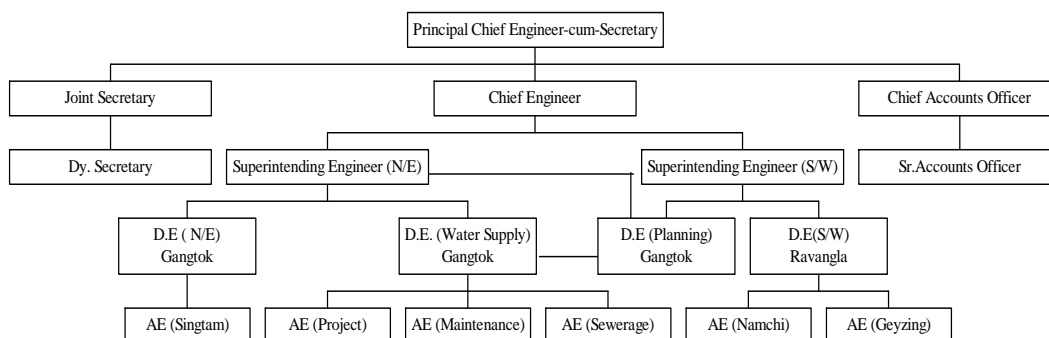
4.1.1 The Public Health Engineering department (PHED) is responsible for providing safe water supply and sewerage services to the urban and semi urban population of the State residing in:

- (i) State capital at Gangtok,
- (ii) 7 others urban towns ,¹ and,
- (iii) 55 Rural Marketing Centres (RMCs)

Organisational set-up

4.1.2 The organisational set-up of the PHED was as under:

Chart-4.1



Audit coverage

4.1.3 A review on the PHED covering the period 1997-98 to 2001-02 was conducted during April-May 2002 through a test check of records maintained at head office, Gangtok; divisional offices at Ravangla and Gangtok; four sub-divisional offices at Gangtok (Project and Sewerage), Geyzing and Namchi . During the period under review, 193 works were taken up by the department of which 95 were checked in audit. The internal control system prevalent in the department was also examined during the course of the review.

¹ Mangan (North District); Naya Bazar, Namchi and Jorethang (South District); Gyalsing (West District); Rangpoo and Singtam,(East District).

Budgeting and control over expenditure

4.1.4 The budgetary provision and expenditure of the department during the period under review was as under:

Table-4.1

(Rupees in lakh)

Year	Budget Grant*	Expenditure**				Excess (+)/ Savings (-)
		Up to end of third quarter	Last quarter	Last Month	Total	
1997-98	605.80	393.65	211.05 (35)	98.10 (16)	604.70	(-) 1.10
1998-99	721.37	569.57	157.32 (22)	110.32 (15)	726.89	(+) 5.52
1999-00	835.70	679.59	156.18 (19)	93.43 (11)	835.77	(+) 0.07
2000-01	1108.27	690.75	418.58 (38)	276.49 (25)	1109.33	(+) 1.06
2001-02	1591.92	700.93	930.87 (57)	848.81 (52)	1631.80	(+) 39.88

Source: * Finance & Appropriation A/c

** departmental Figure.

Figures in bracket represent percentage to total expenditure

4.1.5 From the above table, it would be seen that barring 1997-98, the expenditure during the other four years was consistently in excess of the budgetary provisions. The excess expenditure for these years had not yet been regularised (September 2002).

4.1.6 In reply (October 2002), the department stated that the observation has been noted and such lapses would not be repeated.

4.1.7 The breakup of expenditure incurred during the year 1997-2002 on original works, maintenance and restorations, direction and administration was as below:

Table – 4.2

(Rupees in lakh)

Items of expenditure	Year				
	1997-98	1998-99	1999-00	2000-01	2001-02
Direction and Administration	77.85	136.00	148.08	160.58	170.17
Maintenance & Restoration Works	257.92	323.79	356.68	365.21	340.80
State Plan Schemes	268.93	261.10	331.01	395.70	354.99
Centrally Sponsored Schemes (CSS)	Nil	Nil	Nil	187.84	765.94
Total	604.93	720.89	835.77	1109.33	1631.90

4.1.8 During the period under review, the expenditure on establishment (Direction & Administration) went up from Rs.77.85 lakh in 1997-98 to Rs.1.70 crore in 2001-02 – an increase of 119 *per cent*. Compared to this, the expenditure on substantive activities (Maintenance and Restoration, Capital expenditure but excluding CSS) went up from Rs.5.27 crore in 1997-98 to Rs.6.96 crore in 2001-02 – an increase of 32 *per cent* only.

4.1.9 The establishment expenditure as a percentage of total expenditure was 13 *per cent* in 1997-98 and 10 *per cent* in 2001-02. The apparent improvement was due to the implementation of a number of Centrally sponsored schemes (CSS)

during the last two years. In 2001-02 the expenditure on CSS constituted 47 *per cent* of the total expenditure during the year.

4.1.10 It was seen that as per Government of India norms prescribed for Central sector schemes, expenditure on maintenance and establishment should be in the range of 10-15 *per cent* and 7.5-10 *per cent* respectively of the total expenditure. Judged on both the counts the department fared poorly - the expenditure on maintenance and establishment as a percentage of the total expenditure from the State sector during 2001-02 was 39 and 20 *per cent* respectively which was far over Government of India norms.

4.1.11 In reply the department stated (October 2002) it had noted the audit observations for compliance in future.

Cash Management

4.1.12 The SFR stipulates that no work shall commence or liability incurred in connection with it until funds to cover the charges have been provided. During 2000-01 and 2001-02, the department incurred liabilities of Rs.10.24 crore in 8 works and Rs.12.08 crore in 12 works respectively despite non-availability of funds for these works.

Revenue management

4.1.13 The Government of Sikkim has passed a number of acts and framed rules thereunder to regulate matters concerning water supply and sewerage in the State.²

Non-collection of Water Tax

4.1.14 Water charges and water tax were required to be levied under Sections 14 and 33 of the Sikkim Water Supply and Water Tax Act 1986. While the former was being collected since January 1991, the latter, though levied, was not collected so far.

4.1.15 In terms of a notification issued in October 1999, the levy of water tax at flat rate at Rs.21 per month was imposed for all water connections in Other Bajar Areas (OBA), excluding Gangtok, which was not collected by the department and the revenue loss in this respect worked out to Rs.65.42 lakh as under:

² (i) The Sikkim Water Supply and Water Tax Act 1986
(ii) The Sikkim Water Supply Rules 1990
(iii) The Sikkim Sewerage and Sewage Disposal Act 1987
(iv) The Sikkim Sewerage and Sewage Disposal Rules 1990

Table-4.3

Name of the Bazar Area	Number of connections with PHE Water (10/99)	Period of collection	Rate (Rupees)	Amount (Rupees)
Geyzing	1375	10/99 to 9/01 = 24 months	21	693000
Jorethang	3500	-do-	-do-	1764000
Rangpo	166	-do-	-do-	83664
Namchi	6200	-do-	-do-	3124800
Mangan	198	-do-	-do-	99792
Melli	780	-do-	-do-	393120
Singtam	237	-do-	-do-	119448
Ranipool	525	-do-	-do-	264600
Total	12981			6542424

4.1.16 In terms of Rule-50 (1) of the SFR, the responsibility for the above revenue loss rest with the Secretary of the PHED.

4.1.17 Further, the exclusion of Gangtok from the ambit for the notifications issued in October 1999 appeared to be without basis, which resulted in loss of Rs.20.40 lakh* (calculated on the basis of water connection of 1999 in Gangtok).

4.1.18 In reply the department stated (October 2002) that corrective action would be initiated for collection of both water tax and water charge.

Target and achievement

4.1.19 The actual revenue realised vis-à-vis the budgetary estimates was as under:

Table-4.4

(Rupees in lakh)

Heads of account	1997-98		1998-99		1999-00		2000-01		2001-02**	
	Estimates	Actual	Estimates	Actual	Estimates	Actual	Estimates	Actual	Estimates	Actual
Water supply	12.00	9.51	12.00	11.66	23.00	23.18	23.00	28.60	25.50	24.32
Sewerage scheme	3.50	2.47	3.50	1.72	3.50	1.98	3.50	4.92	3.50	6.12
Other receipts	0	1.97	0	2.24	0	2.24	0	4.36	0	0
Fees and Fines	0	0	0	0	0	0	0	0.08	0	0
Total	15.50	13.95	15.50	15.62	26.50	27.40	26.50	37.96	29.00	30.44

Source: Finance Accounts ** Departmental figures

Arrears of revenue

Arrears of Water and Sewerage Charges

4.1.20 The arrears of water and sewerage charges ranged from Rs.19.11 lakh to Rs.26.37 lakh and Rs.3.90 lakh to Rs.9.51 lakh respectively during the period under review as detailed below:

*Rs.21x4047connectionsx36 months

Table-4.5

(In rupees)

Year	Opening Balance		Assessment		Realisation		Balance	
	Water	Sewerage	Water	Sewerage	Water	Sewerage	Water	Sewerage
1997-98	1910595	390158	1197770	236730	941174	97586	2167191	529302
1998-99	2167191	529302	1399338	251765	1105443	253692	2461086	527375
1999-00	2461086	527375	1533565	285767	1756425	469114	2238226	344028
2000-01	2238226	344028	2081058	637425	1869422	398092	2449862	583361
2001-02	2449862	583361	2619314	979753	2432379	611947	2636797	951167

4.1.21 The increase in the arrears of revenue of both the water and sewerage charges indicated that the revenue collection and monitoring mechanism of the department was lax.

4.1.22 While not furnishing any specific reply to the increase in the arrears of revenue, the department stated (October 2002) that it had achieved the revenue target set for it by the Finance department. No action was taken or contemplated by the PHED to take concerted steps to recover the arrears.

Non-realisation of water charges from contractors and construction of private buildings

4.1.23 Section 22 of the Sikkim Water Supply and Water Tax Act 1986 stipulates that the Government identify and declare certain water sources/sheds for the purpose of utilisation of water from the said sources by public, local authorities and any other agencies with the prior approval of the competent authority. The Government shall impose tax for use of water from the said notified water source.

4.1.24 Scrutiny of records revealed that the Government did not identify and notify any water source/sheds and consequently, the water consumed in construction of private buildings escaped payment of tax.

Non-realisation of revenue from industrial units

4.1.25 Of the two circles in PHED namely, North-East and South-West, the latter had neither assessed nor realised any revenue pertaining to the supply/consumption of water by industrial/other units under its jurisdiction. In respect of the North-East circle it was noticed that the industrial/other units situated at Majitar only had been assessed once only for water tax up to December 2000, as under:

Table-4.6

(In rupees)

Sl. No	Units	Assessment	Realisation	Outstanding
1	LPG bottling Plant, IOC	3240	0	3240
2	Manipal Tech Institute*	3996	0	3996
3	Himalayan Distillery Ltd	77733	0	77733
4	Sikkim Distillery Ltd	2904	2904	0
5	Mount Distillery Ltd	77275	0	77275
6	SNT Workshop*	4252	0	4252
7	BPC Ltd	4590	4590	0
Total		173990	7494	166496

*These two units are not registered with Sikkim Sales Tax department.

4.1.26 The details of year wise assessment as well as realisation for the industrial units was not available. As per the records of the Sikkim Sales Tax department, there were 45 registered industrial units in Sikkim of which only five (out of the seven units listed in Table 4.7) had been assessed for tax. The non-assessment of the remaining 40 units and the fact that the assessment has been done only upto December 2000 had resulted in a recurring revenue loss to the Government. In reply, department stated (October 2002) that it had realised the arrear in regard to cases mentioned in the para. While no documentary evidence was furnished in support of the realisation, the reply was silent about non-assessment and realisation of tax for the remaining 40 industrial units.

Manpower Management

Excess and improper deployment of manpower in sub-divisions

4.1.27 Test check of Namchi, Singtam and Sewerage sub-divisions disclosed excess staffing (as on 31 March 2002) vis-a-vis the SPWD norms as under:

Table-4.7

(In rupees)

Designation of the Post	Provi-sion as per SPWD Manual	Men in Position	Excess/Less	Minimum Basic Pay per month (R,WC) /Daily Wages (MR)	Yearly expenditure (Basic+70%allowances wrt R, WC) x12 months & Daily Wages (wrt MR) x 365 days
LDC	3	9 (4R, 1WC, 4MR)	6(1R, 1WC, 4MR)	3400 57	138720 83220
Peon	3	5 (3R, 2MR)	2 MR	50	36500
Bill Clerk	0	9 (MR)	9 MR	57	187245
Mali	0	12 (MR)	12 MR	50	219000
Chowkidar	0	4 (3MR, 1WC)	4 (1WC, 3MR)	2850 50	58140 54750
Supervisor/ Munshi	0	7 (1R, 3WC, 3MR)	7(1R, 3WC, 3MR)	2850 51	232560 55845
Carpenter	0	1 (MR)	1MR	54	19710
Driver	3	6 (2MR, 4R)	3(1R, 2MR)	3440 59	70176 43070
Sweeper	0	1(WC)	1WC	3180	64872
Total					1263638

Note: R-regular; WC-work charged; MR-muster roll

- The excess deployment resulted in an expenditure of Rs.12.64 lakh per year.
- With reference to the number of departmental vehicles in the three sub-divisions, there was one excess driver in employment.
- The PHED had not fixed any norms of its own for assessment/deployment of manpower.

Irregular appointment of clerks, draftsmen etc. on work charged establishment

4.1.28 Work charged establishment is employed for actual execution of work and by definition could not include employees like clerk, draftsman etc. The department, in contravention of this principle, engaged the office staff on work charge basis resulting in irregular payment of Rs.17.64 lakh *per annum*:

Irregular appointment of work charged and muster roll employees despite ban

4.1.29 Notwithstanding the ban imposed by the Government on appointment of work charged and muster roll workers with effect from 23 December 1994, the department appointed 57 work charged and 24 muster roll employees during the period December 1994 to March 2002 resulting in an extra expenditure of Rs.38.03 lakh *per annum*.

4.1.30 In reply the department stated (October 2002) that the appointment was on the basis of requirement, which is not acceptable in view of the ban imposed by the Government.

Operational Management

Viability of the water supply and sewerage scheme

4.1.31 The revenues collected by the PHED from water charge and sewerage charge fell substantially short of the expenditure incurred on running and maintenance of the water and sewerage systems in the State as shown below:

Table-4.8

(Rupees in lakh)

Year	Revenue realized	Expenditure on maintenance	Shortfall	Percentage of revenue to expenditure
1997-98	10.39	257.92	247.53	4
1998-99	13.59	323.79	310.20	4
1999-00	22.25	356.68	334.43	6
2000-01	22.67	365.21	342.54	6
2001-02	30.44	340.80	310.36	9

4.1.32 The revenue collected as a percentage of the expenditure on maintenance ranged from 4 to 9 *per cent* only. The shortfall therefore, was made up by way of budgetary support, which ranged from Rs.2.48 crore to Rs.3.43 crore (94 *per cent*), which was an unacceptably high level. Considering that the State Government's oft stated policy was for all such services to be self-supporting, the department should take action to bridge the gap between revenue and expenditure by increasing the user charges and levying water tax and sewerage tax.

4.1.33 In reply the department stated that while vigorous efforts were made to bridge the gap between revenue and expenditure by evolving an appropriate system, it will take long time to achieve this.

Programme Implementation

Implementation of water supply programmes revealed the following shortcomings:

4.1.34 Scrutiny of 95 out of the 193 works implemented during 1997-98 to 2001-02 and scheduled for completion between April 1999 to March 2002 revealed that 20 works were completed one month to six years behind schedule and cost overruns with reference to the original estimated costs ranged from 7 to 46 *per cent* in 11 cases. Further, 9 works were not completed to the extent of 27 to 45 *per cent* within the scheduled dates and are still in progress (August 2002).

4.1.35 The department attributed the reason for the delays to climatic condition and non-finalisation of compensation, forest clearance, natural calamity etc.

4.1.36 Two schemes (water supply scheme to Samduptse at Namchi and water supply scheme to army complex at Ravangla) taken up in October 1998 and July 1999 have been stopped respectively for want of environmental clearance and non-acquisition of land resulting in the blocking of Rs.40.80 lakh of Government fund already expended on these schemes.

4.1.37 In 8 (out of the 95) works completed at a cost of Rs.3.62 crore, the projects failed to augment water supply to the planned capacity due to decrease in discharge of the water sources soon after the completion of works.

Inadequate testing of water

4.1.38 The PHED was to ensure that water supplied was clear and free from pathogenic organisms, undesirable taste, odour, palatable and free from minerals. Periodical testing of water was to be carried out to ascertain presence of toxic and bacteriological substances. Test-check of records of Gangtok and Ravangla divisions revealed that a total of 516 tests were carried out during the period under review in respect of 63 schemes though water was supplied to all the towns and RMCs in the State. This worked out to an average test of 1.6 per year per scheme which was considerably on the lower side. These test reports concluded that bacteriological contamination was within the permissible limit and differed from reports of the laboratory of the State Mines and Geology department (MGD) which revealed the presence of bacteriological contamination to the extent of 14 to 79 most probable number (mpn) of coliforms in 15 out of 30 tests conducted during April 1997 to May 2001 as against the permissible limit of 10 mpn prescribed by the World Health Organisation. The findings of the MGD were not known to the PHED. Further, the outbreak of water borne diseases during April to August 1998 as reported by State Health department was further confirmation that the water was contaminated.

4.1.39 In reply, the department stated (October 2002) that from next year onwards it would monitor all water samples in time and minimize the bacteriological contamination and presence of chemicals in the water.

Supply of untreated water

4.1.40 It was observed that untreated water was being supplied by two divisional offices, namely, Ravangla and Gangtok from 33 out of 63 schemes due to lack of sufficient number of treatment plants.

4.1.41 In Gangtok, the capacity of the treatment plant was 3 million gallons per day (MGD), which was not adequate to meet the requirement of 4.5 MGD of potable water. The PHED stated (May 2002) that mixing potable water with untreated water before distribution bridged the gap between capacity and requirement. The mixing of untreated water with treated water was unscientific and diluted the quality of the water, if not altogether undoing the effects of the treatment process. In the light of this, the investment of Rs.52.99 lakh on the

treatment plant, the recurring expense of Rs.4 lakh per year on chemicals and manpower deployed for the operation of the plant was unproductive.

Materials Management

4.1.42 The procurement system of materials in the PHED was characterised by the following shortcomings:

4.1.43 Despite Government directives that all purchases above Rs.5000 should be through the State Trading Corporation of Sikkim (STCS), the PHED directly procured materials worth Rs.3.03 crore during the period under review.

4.1.44 The procurement rates fixed for 1995-96 in respect of ten types of GI pipes was allowed to continue upto 1999-2000. Subsequently, procurement rates were fixed for 2000-01 and 2001-02 by inviting quotations. A comparison of the procurement rates of 1995-96, 2000-01 and 2001-02 showed that the prices had over the years declined in all the cases. The unjustified extension of the 1995-96 rates upto 1999-2000 was against the financial interest of the department besides a violation of the SFR, which stipulates that rates obtained through quotations should be valid for a specified and not indefinite period.

4.1.45 Purchases from local suppliers were split up in 615 cases during 1997-2002, in contravention of the provisions of the SFR, to avoid obtaining sanction of higher authorities.

4.1.46 The department had no consolidated information about the issue and extent of recovery of the cost of materials by deduction from the bills of the various works. For verification and adjustment in the bills, the Accounts section relied on the certification by the field officials on the concerned contractors' bills to this effect. The field officials did not submit any accounts relating to material receipt, issue, recovery and utilisation to the Accounts section as required under para 247 of SPWD code. Also no works accounts were maintained to watch the consumption of materials purchased and debited to the works in question.

4.1.47 The department had not carried out any reconciliation of the amount of Rs.8.57 crore paid as advances to STCS during 1997-98 to 2001-02.

4.1.48 As per the SPWD code, where the item rate includes material to be supplied by the contractor, no carriage should be paid for carrying the materials to the worksite. Scrutiny revealed that out of 95 works checked in Audit, in 81 cases cost of carriage of materials amounting to Rs.2.35 lakh for which the item rates had been entered into was paid which was irregular.

4.1.49 In 92 out of 95 cases seen, Rs.5.43 lakh on account of storage charges was not recovered from the contractors and in two cases, the charges were only partially recovered. Only in one case was full recovery effected.

4.1.50 In reply the department stated (October 2002) that the procurement at the higher rates was due to urgency of water supply activities. It was further stated that circular had been issued by the Secretary PHED for compliance of SFR by the concerned officers within the department.

Other points of interest

Non-recovery of establishment, tools and plants charges

4.1.51 The Public Accounts Committee in its 37th report had recommended (September 1999) that establishment, tools and plants charges at prescribed rates should, as per codal provisions, be levied in cases where works were executed on behalf of other departments/ governments.

4.1.52 Scrutiny of Deposit Works Register revealed that the department executed ten deposit works (valuing Rs.87.14 lakh) on behalf of Defence, GB Pant Institute, JNV Rothak, and Telecom department, etc. during December 1998 to March 2001 for which the PHED had not recovered the above charges amounting to Rs.11.76 lakh.

4.1.53 In reply the department stated that such omission would not be repeated and recovery would be ensured.

Undue temporary financial benefit to a contractor

4.1.54 The Finance department while according concurrence to award the work of a 5 MGD treatment plant at Salep to a contractor at 49.90 *per cent* above the estimate specifically prohibited payment of any mobilisation advance to contractors. Despite this, the PHED paid Rs.8.84 lakh as advance in August 2001 to the contractor as advance for bringing materials like stone chips, sand, etc. to the work site.

Monitoring, Vigilance, Surveillance etc.

Fines for illegal connection and disconnection

4.1.55 The PHED furnished the following figures of illegal water connections detected by it during the period under review.

Table-4.9

Year	No of Illegal connections detected	No of illegal connection regularized	Penalty imposed
1997-98	11	11	Nil
1998-99	16	16	Nil
1999-00	21	21	NIL
2000-01	30	30	NIL
2001-02	25	25	NIL
Total	103	103	

4.1.56 It was observed that all the above illegal connections were regularised on payment of necessary fees for a new connection from a prospective date without the imposition of any fine. In terms of Section 41 of the Sikkim Water Supply and Water Tax Act 1986, the department should have imposed fine of Rs.2000/- per connection along with necessary fees for connection that was not done resulting in a revenue loss of Rs.2.06 lakh.

4.1.57 Further, in response to an Audit query the PHED stated that 16 illegal connections were detected during 1998-99 whereas the corresponding figure furnished by it to another agency was 81. This lack of consistency underscores the fact that the reporting, monitoring and information system of the department left much to be desired.

Distribution network and leakage of revenue

4.1.58 The total number of registered water consumers on the books of the PHED was 24611 (5710 Gangtok +18901 other parts of Sikkim) as on 31 March 2002. The 5710 consumers in greater Gangtok (as on March 2002) as projected by the department was far below the number of 18,000 households estimated by the PHED itself in 1998. Going by these numbers, there were 12,290 households (68 *per cent*) in greater Gangtok not connected to the PHED's water distribution system that appears implausible. The inference therefore, is that there were a large number of illegal connections leading to considerable leakage of revenue.

4.1.59 A 1999 report of the AUS- AID Agency also calculated that 80 *per cent* of the piped water supply in the State was lost due to illegal connections, distribution losses and improper use. This corroborates the above audit contention. However, the department exhibited such losses to be only 30 *per cent*.

4.1.60 While agreeing to the audit observation, the department stated (October 2002) that it would go for house-to-house enumeration to track down illegal connections, distribution losses and other improper use of water supply.