

APPENDIX NO. 95

LIST OF LOCAL-BODIES WHERE SAMPLE SURVEY WAS UNDERTAKEN

CORPORATIONS	TOWN PANCHAYATS	PANCHAYAT UNIONS
1. Madras	1. Agastheeswaram	1. Achirapakkam
2. Madurai	2. Ariyalur	2. Annur
3. Salem	3. Avinashi	3. Agastheeswaram
4. Tiruchirapalli	4. Bargur	4. Ariyalur
	5. Gudular	5. Bargur
<b>MUNICIPALITIES</b>	6. Kallal	6. Chinnasekadu
1. Dharmapuri	7. Kilkulam	7. Devakottai
2. Kancheepuram	8. Komaralingam	8. Gudalur
3. Karaikudi	9. Koradacheri	9. Gummidipoondi
4. Kuzhithurai	10. Mallapuram	10. Jawadhu Hills
5. Manapparai	11. Pallathur	11. Jolarpet
6. Pallavapuram	12. Pallikaranai	12. Kadaladi
7. Thiruthuraipoondi	13. Pikketti	13. Kanchipuram
8. Tiruppur	14. Potturpettai	14. Karur
9. Udagamandalam	15. Pugalur	15. Kothagiri
	16. Tiruthani	16. Krishnarayapuram
	17. Thingalnagar	17. Kulithalai
	18. Thirumalayampalayam	18. Kamuthi
	19. Thirupathur	19. Maduranthagam
	20. Thiruvattarau	20. Manapparai
	21. Thiruverumbur	21. Mannargudi
	22. Valparai	22. Minjur
	23. Veerakerlam	23. Nagapattinam
	24. Velankanni	24. Nannilam
	25. Villimalai	25. Palladam
		26. Palacode
		27. Perambalur
		28. Pollachi-South
		29. Sembanarkoil
		30. Sholingar
		31. Sivagangai
		32. Sriperumpudur
		33. Thackalai
		34. Thirubuvanam
		35. Tiruppur
		36. Thiruvarur
		37. Thiruverambur
		38. Thoivalai

Though 38 Panchayat Unions were selected, only 35 were taken up for the survey excluding Jawadu Hills, Perambalur and Sembanarkoil Panchayat Unions. Under each Panchayat Union, 3 to 4 Village Panchayats were studied. The details of Panchayats are given in Appendix - 96.

APPENDIX NO. 96

LIST OF VILLAGE PANCHAYATS WHERE SAMPLE SURVEY WAS UNDERTAKEN

VILLAGE PANCHAYATS

<b>Agastheswaram P.U.</b>	<b>Tiruppur P.U.</b>	<b>Kancheepuram P.U.</b>	<b>Mannargudi P.U.</b>
Ramapuram	Perumanallur	Srikaveripakkam	Ullikottai
Panchilingapuram	Mudalipalayam	Muthuvedu	Vettaithidal
Leepuram	Muthanapalayam	Nathapettai	Vadagovanuram
<b>Sivagangai P.U.</b>	<b>Pollachi South P.U.</b>	<b>Sriperumpudur P.U.</b>	<b>Thiruvarur P.U.</b>
Sankkandhi	S.Nallur	Kunnam	Aamur
Edayamalur	Komangalampudur	Thandalam	Thirukkaravasal
<b>Thirubhuvanam P.U.</b>	Sinjuvadi	Kannanthangal	Adiakkamangalam
Madappuram	<b>Annur P.U.</b>	<b>Maduranthagam P.U.</b>	<b>Nannilam P.U.</b>
Peramanoor	Pasur	Vettur	Kaduvankudi
Manaloor	Narayanapuram	Kattudevathur	Pannangudi
<b>Kallal P.U.</b>	Kattampatti	Thonnadu	Senganur
Kundrakudi	<b>Kothagiri P.U.</b>	<b>Sholingar P.U.</b>	<b>Thackalay P.U.</b>
Alampattu	Kunjappunai	Pullevalam	Maruthurkurichi
Koviloor	Naduhatti	Pandiyannallur	Sadayamangalam
<b>Devakottai P.U.</b>	Kodanadu	Somasamudram	Atthivenai
Pudukurichi	<b>Gudalur P.U.</b>	<b>Jolarpet P.U.</b>	<b>Bargur P.U.</b>
Theneervayal	Mudumalai	Pethakallupalli	Pochampalli
Selugai	Masinangudi	Ponneri	Kondappnayanapalli
<b>Kadaladi P.U.</b>	Srimadurai	Kathandapatti	Orappam
Kielachelvanur	<b>Minjur P.U.</b>	<b>Krishnarayapuram P.U.</b>	<b>Palacode P.U.</b>
Ervadi	Vellivoyalchavadi	Manavasi	Chettihalli
Elanjamboor	Periakarambur	Karupathur	Jertlav
<b>Kamudi P.U.</b>	Avurivakkam	Mayanur	Dandukanahalli
Kovilangulam	<b>Achirapakkam P.U.</b>	<b>Ariyalur P.U.</b>	
K.Nedumgulam	Anandamangalam	Kadugur	
Narayanapuram	Vedanthangal	Subrayapuram	
Aanayur	Orathi	Edeyathangudi	
<b>Palladam P.U.</b>	<b>Gummudipoondi P.U.</b>	<b>Nagapattinam P.U.</b>	
K.Ayyampalayam	Mukkarampakkam	Sembianmadevi	
Echipatti	Kilmudalambedu	Chikkal	
Karaipudur	Erukuvai	Theythi	

**APPENDIX NO. 97**

**VILLAGE PANCHAYATS**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I.</b>	<b>Population</b>	Lakhs	350.51	378.28
<b>II.</b>	<b>Water Supply:</b>			
i)	Per-capita supply	Ltrs.	22	40
ii)	Population covered with House service connection	%	2	5
iii)	Covered with Standpost	%	62	50
iv)	Covered with Handpumps	%	36	45
v)	Persons per standpost	Nos.	170	30
vi)	Persons per handpump	Nos.	-	125
vii)	Capital Investment Required	Creore Rs.	Nil	198.24
viii)	O&M requirement for above	Creore Rs.	Nil	4.84
ix)	Staff Requirement	Nos.		
	a) Technical		381	384
	b) Skilled		989	2476
	c) Semi-skilled		20014	4712
x)	O&M needs for existing assets	Creore Rs.	28.54	78.45
<b>III.</b>	<b>Sewerage &amp; Sanitation:</b>			
i)	Population covered with underground drainage	%	0	0
ii)	Covered with low cost sanitation	%	0.1	10
iii)	Public convenience	%	2.2	10
iv)	Uncovered	%	97	80
v)	Capital Investment Required	Creore Rs.	Nil	257.46
vi)	O&M requirements for above	Creore Rs.	Nil	6.79
vii)	O&M needs for Existing Assets	Creore Rs.	32.03	47.72
<b>IV.</b>	<b>Solid Waste Management</b>			
i)	Collection performance to waste generated	%	0	15
ii)	Households per dustbin	Nos.	3568	50
iii)	Capital Investment Required	Creore Rs.	Nil	22.40
iv)	O&M Requirements for above	Creore Rs.	Nil	13.16
v)	Staff Requirements:	Nos.		
	a) Conservancy Staff		2047	8939
	b) Drivers		0	0
vi)	O&M needs for existing assets	Creore Rs.	NA	20.62

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>V. Roads</b>				
i)	% of length covered with BT	%	15	20
ii)	Length covered with WBM	%	16	25
iii)	Length covered with Metal/ Gravel	%	69	30
iv)	Capital Investment Required	Crore Rs.	Nil	619.39
v)	O&M Requirements for above	Crore Rs.	Nil	11.77
vi)	Staff Requirements:	Nos.		
	a) Technical		1053	1053
	b) Skilled		2105	4210
	c) Unskilled		1053	26313
vii)	O&M needs for the existing assets	Crore Rs.	8.14	157.15
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%	1.5	10
ii)	% of length Pucca closed drains	%	0	0
iii)	Capital Investment Required	Crore Rs.	Nil	191.56
iv)	O&M Requirements for above	Crore Rs.	Nil	Nil
v)	O&M needs for existing assets	Crore Rs.	NA	3.08
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres	121	80
ii)	Tube-lights coverage	%	94	98
iii)	Sodium vapor lamp	%	1	2
iv)	Capital Investment Required	Crore Rs.	Nil	150.52
v)	O&M Requirements for above	Crore Rs.	Nil	28.23
vi)	Staff Requirements:	Nos.		
	a) Technical		0	8
	b) Helper		0	8700
vii)	O&M Needs for existing assets	Crore Rs.	21.17	73.75
VIII) i)	<b>Total Capital Investment</b>	Crore Rs.	Nil	1439.57
ii)	<b>Per-capita per year</b>	Rs.	Nil	76.10
IX) i)	<b>Total O&amp;M per year for above</b>	Crore Rs.	Nil	73.43
ii)	<b>Per-capita</b>	Rs.	Nil	19.41
X)	<b>Total staff requirement</b>	Nos.		
	a) Technical		1434	2301
	b) Skilled/Drivers		3094	6686
	c) Semi-skilled		20014	4712
	d) Unskilled/Helper/ Conservancy staff		3100	43952
XI) i)	<b>Total O&amp;M requirements for the existing Assets</b>	Crore Rs.	89.87	380.76
ii)	<b>Per-capita</b>	Rs.	25.65	100.65

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.

**APPENDIX NO. 98**

**PANCHAYAT UNION**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I.</b>	<b>Population</b>	Lakhs	350.51	378.28
<b>II.</b>	<b>Water Supply:</b>			
	i) Per-capita supply	Ltrs.		
	ii) Population covered with House service connection	%		
	iii) Covered with Standpost	%		
	iv) Covered with Handpumps	%		
	v) Persons per standpost	No.		
	vi) Persons per handpump	No.		
	vii) Capital Investment Required	Creore Rs.		
	viii) O&M requirement for above	Creore Rs.		
	ix) Staff Requirement	Nos.		
	a) Technical			
	b) Skilled			
	c) Semi-skilled			
	x) O&M needs for existing assets	Creore Rs.		
<b>III.</b>	<b>Sewerage &amp; Sanitation:</b>			
	i) Population covered with underground drainage	%		
	ii) Covered with low cost sanitation	%		
	iii) Public convenience	%		
	iv) Uncovered	%		
	v) Capital Investment Required	Creore Rs.		
	vi) O&M requirements for above	Creore Rs.		
	vi) O&M needs for Existing Assets	Creore Rs.		
<b>IV.</b>	<b>Solid Waste Management</b>			
	i) Collection performance to waste generated	%		
	ii) Households per dustbin	Nos.		
	iii) Capital Investment Required	Creore Rs.		
	iv) O&M Requirements for above	Creore Rs.		
	v) Staff Requirements:	Nos.		
	a) Conservancy Staff			
	b) Drivers			
	vi) O&M needs for existing assets	Creore Rs.		

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>V. Roads:</b>				
i)	% of length covered with BT	%	19	30
ii)	Length covered with WBM	%	45	40
iii)	Length covered with Metal/Gravel	%	35	30
iv)	Capital Investment Required	Crore Rs.	Nil	756.79
v)	O&M Requirements for above	Crore Rs.	Nil	11.77
vi)	Staff Requirements:	Nos.		
	a) Technical		455	455
	b) Skilled		910	1820
	c) Unskilled		455	11376
vii)	O&M needs for the existing assets	Crore Rs.	14.00	78.06
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%		
ii)	% of length Pucca closed drains	%		
iii)	Capital Investment Required	Crore Rs.		
iv)	O&M Requirements for above	Crore Rs.		
v)	O&M needs for existing assets	Crore Rs.		
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres		
ii)	Tube-lights coverage	%		
iii)	Sodium vapor lamp	%		
iv)	Capital Investment Required	Crore Rs.		
v)	O&M Requirements for above	Crore Rs.		
vi)	Staff Requirements:	Nos.		
	a) Technical			
	b) Helper			
vii)	O&M Needs for existing assets	Crore Rs.		
VIII i)	Total Capital Investment	Crore Rs.	Nil	756.79
ii)	Per-capita per year	Rs.	Nil	40
IX) i)	Total O&M per year for above	Crore Rs.	Nil	11.77
ii)	Per-capita	Rs.	Nil	3.11
X)	Total staff requirement	Nos.		
	a) Technical		455	455
	b) Skilled/Drivers		910	1820
	c) Semi-skilled		-	-
	d) Unskilled/Helper/Conservancy staff		455	11376
XI i)	Total O&M requirements for the existing Assets	Crore Rs.	14.00	78.06
ii)	Per-capita	Rs.	4	20.63

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.

**APPENDIX NO. 99**

**TOWN PANCHAYATS**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I.</b>	<b>Population</b>	Lakhs	92.51	99.84
<b>II.</b>	<b>Water Supply:</b>			
i)	Per-capita supply	Ltrs.	34	55
ii)	Population covered with House service connection	%	16	30
iii)	Covered with Standpost	%	56	50
iv)	Covered with Handpumps	%	28	20
v)	Persons per standpost	Nos.	164	30
vi)	Persons per handpump	Nos.	-	125
vii)	Capital Investment Required	Crore Rs.	Nil	133.39
viii)	O&M requirement for above	Crore Rs.	Nil	10.94
ix)	Staff Requirement	Nos.		
	a) Technical		168	635
	b) Skilled		311	1013
	c) Semi-skilled		795	3774
x)	O&M needs for existing assets	Crore Rs.	15.17	40.18
<b>III.</b>	<b>Sewerage &amp; Sanitation:</b>			
i)	Population covered with underground drainage	%	0	0
ii)	Covered with low cost sanitation	%	13	20
iii)	Public convenience	%	4	10
iv)	Uncovered	%	83	70
v)	Capital Investment Required	Crore Rs.	Nil	100.97
vi)	O&M requirements for above	Crore Rs.	Nil	2.11
vii)	O&M needs for Existing Assets	Crore Rs.	8.45	12.59
<b>IV.</b>	<b>Solid Waste Management</b>			
i)	Collection performance to waste generated	%	46	50
ii)	Households per dustbin	Nos.	363	50
iii)	Capital Investment Required	Crore Rs.	Nil	18.75
iv)	O&M Requirements for above	Crore Rs.	Nil	5.55
v)	Staff Requirements:	Nos.		
	a) Conservancy Staff		1163	9152
	b) Drivers		497	1218
vi)	O&M needs for existing assets	Crore Rs.	9.08	24.59

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>V. Roads:</b>				
i)	% of length covered with BT	%	29	40
ii)	Length covered with WBM	%	24	40
iii)	Length covered with Metal/ Gravel	%	47	20
iv)	Capital Investment Required	Crore Rs.	Nil	153.34
v)	O&M Requirements for above	Crore Rs.	Nil	5.43
vi)	Staff Requirements:	Nos.		
	a) Technical		266	635
	b) Skilled		266	532
	c) Unskilled		133	3328
vii)	O&M needs for the existing assets	Crore Rs.	27.96	31.06
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%	22.91	40
ii)	% of length Pucca closed drains	%	0	0
iii)	Capital Investment Required	Crore Rs.	Nil	49.12
iv)	O&M Requirements for above	Crore Rs.	Nil	Nil
v)	O&M needs for existing assets	Crore Rs.	NA	3.01
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres	62	40
ii)	Tube-lights coverage	%	92	90
iii)	Sodium vapor lamp	%	4	10
iv)	Capital Investment Required	Crore Rs.	Nil	49.90
v)	O&M Requirements for above	Crore Rs.	Nil	10.25
vi)	Staff Requirements:	Nos.		
	a) Technical		0	635
	b) Helper		0	2141
vii)	O&M Needs for existing assets	Crore Rs.	6.52	19.72
<b>VIII) i) Total Capital Investment</b>				
	ii) Per-capita per year	Crore Rs. Rs.	Nil Nil	505.46 101.25
<b>IX) i) Total O&amp;M per year for above</b>				
	ii) Per-capita	Crore Rs. Rs.	Nil Nil	34.27 34.32
<b>X) Total staff requirement</b>				
	a) Technical		434	1905
	b) Skilled/Drivers		1074	2763
	c) Semi-skilled		795	3774
	d) Unskilled/Helper/ Conservancy Staff		1296	14621
<b>XI) i) Total O&amp;M requirements for the existing Assets</b>				
	ii) Per-capita	Crore Rs. Rs.	67.18 72.60	131.16 131.37

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.



**APPENDIX NO. 100**

**MUNICIPALITIES**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I.</b>	<b>Population</b>	Lakhs	76.89	83
<b>II.</b>	<b>Water Supply</b>			
i)	Per-capita supply	Ltrs	48	70
ii)	Population covered with House service connection	%	32	70
iii)	Covered with Standpost	%	44	20
iv)	Covered with Handpumps	%	24	10
v)	Persons per standpost	No.	NA	30
vi)	Persons per handpump	No.	184	100
vii)	Capital Investment Required	Creore Rs.	-	168.78
viii)	O&M requirement for above	Creore Rs.	Nil	15.11
ix)	Staff Requirements	Nos.		
	a) Technical		146	104
	b) Skilled		437	936
	c) Semi-skilled		728	1972
x)	O&M needs for existing assets	Creore Rs.	27.79	51.66
<b>III.</b>	<b>Sewerage &amp; Sanitation:</b>			
i)	Population covered with underground drainage	%	2.8	2
ii)	Covered with low cost sanitation	%	2.4	10
iii)	Public convenience	%	5	15
iv)	Uncovered	%	77	50
v)	Capital Investment Required	Creore Rs.	-	414.74
vi)	O&M requirements for above	Creore Rs.	Nil	29.87
vii)	O&M needs for Existing Assets	Creore Rs.	17.42	38.48
<b>IV.</b>	<b>Solid Waste Management</b>			
i)	Collection performance to waste generated	%	70	90
ii)	Households per dustbin	Nos.	102	50
iii)	Capital Investment Required	Creore Rs.	-	25.91
iv)	O&M Requirements for above	Creore Rs.	Nil	21.92
v)	Staff Requirements:	Nos.		
	a) Conservancy Staff		14307	16643
	b) Drivers		359	411
vi)	O&M needs for existing assets	Creore Rs.	31.49	95.33

**APPENDIX NO. 100-cont.**

Items	Parameters of Service	Unit Status	Present by 2002 (1995-96)	Position
<b>V. Roads:</b>				
i)	% of length covered with BT	%	69	75
ii)	Length covered with WBM	%	16	25
iii)	Length covered with Metal/Gravel	%	15	0
iv)	Capital Investment Required	Crore Rs.	-	99.43
v)	O&M Requirements for above	Crore Rs.	Nil	2.81
vi)	Staff Requirements:	Nos.		
	a) Technical		182	104
	b) Skilled		182	242
	c) Unskilled		303	1513
vii)	O&M needs for the existing assets	Crore Rs.	9.08	59.56
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%	52.81	70
ii)	% of length Pucca closed drains	%	0	10
iii)	Capital Investment Required	Crore Rs.	-	157.28
iv)	O&M Requirements for above	Crore Rs.	Nil	0.91
v)	O&M needs for existing assets	Crore Rs.	NA	2.78
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres	34	30
ii)	Tube-lights coverage	%	89	80
iii)	Sodium vapor lamp	%	10	20
iv)	Capital Investment Required	Crore Rs.	-	16.82
v)	O&M Requirements for above	Crore Rs.	-	5.23
vi)	Staff Requirements:	Nos.		
	a) Technical		201	178
	b) Helper		1348	1779
vii)	O&M Needs for existing assets	Crore Rs.	7.29	20.65
<b>VIII</b>				
i)	<b>Total Capital Investment</b>	Crore Rs.	-	882.96
ii)	<b>Per-capita per year</b>	Rs.	Nil	212.45
<b>IX</b>				
i)	<b>Total O&amp;M per year for above</b>	Crore Rs.	Nil	75.85
ii)	<b>Per-capita</b>	Rs.	Nil	91.39
<b>X)</b>				
	<b>Total staff requirement</b>	Nos.		
	a) Technical		529	386
	b) Skilled/Drivers		978	1589
	c) Semi-skilled		1031	3485
	d) Unskilled/Helper/ Conservancy staff		15655	18422
<b>XI</b>				
i)	<b>Total O&amp;M requirements for the existing Assets</b>	Crore Rs.	93.07	268.45
ii)	<b>Per-capita</b>	Rs.	21	323.43

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.

**APPENDIX NO. 101**

**OTHER CORPORATIONS**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I. Population</b>		<b>Lakhs</b>	<b>33.76</b>	<b>36.44</b>
<b>II. Water Supply:</b>				
i)	Per-capita supply	Ltrs.	73	90
ii)	Population covered with House service connection	%	57	80
iii)	Covered with Standpost	%	25	10
iv)	Covered with Handpumps	%	18	10
v)	Persons per standpost	No.	143	30
vi)	Persons per handpump	No.	-	100
vii)	Capital Investment Required	Crore Rs.	Nil	152.87
viii)	O&M requirement for above	Crore Rs.	Nil	3.46
ix)	Staff Requirement	Nos.		
	a) Technical		54	25
	b) Skilled		218	135
	c) Semi-skilled		797	2587
x)	O&M needs for existing assets	Crore Rs.	17.24	34.76
<b>III. Sewerage &amp; Sanitation:</b>				
i)	Population covered with underground drainage	%	9	30
ii)	Covered with low cost sanitation	%	1	10
iii)	Public convenience	%	12	10
iv)	Uncovered	%	70	50
v)	Capital Investment Required	Crore Rs.	Nil	540.44
vi)	O&M requirements for above	Crore Rs.	Nil	30.20
vii)	O&M needs for Existing Assets	Crore Rs.	15.11	33.45
<b>IV. Solid Waste Management</b>				
i)	Collection performance to waste generated	%	82	90
ii)	Households per dustbin	Nos.	271	50
iii)	Capital Investment Required	Crore Rs.	-	14.39
iv)	O&M Requirements for above	Crore Rs.	Nil	17.24
v)	Staff Requirements:	Nos.		
	a) Conservancy Staff		7437	9108
	b) Drivers		167	138
vi)	O&M needs for existing assets	Crore Rs.	14.32	53.11

**APPENDIX NO. 101-cont.**

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>V. Roads:</b>				
i)	% of length covered with BT	%	65	100
ii)	Length covered with WBM	%	17	0
iii)	Length covered with Metal/Gravel	%	18	0
iv)	Capital Investment Required	Creore Rs.	Nil	54.23
v)	O&M Requirements for above	Creore Rs.	Nil	4.62
vi)	Staff Requirements:	Nos.		
	a) Technical		389	25
	b) Skilled		199	99
	c) Unskilled		115	621
vii)	O&M needs for the existing assets	Creore Rs.	7.37	25.51
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%	22.8	40
ii)	% of length Pucca closed drains	%	0	10
iii)	Capital Investment Required	Creore Rs.	Nil	166.47
iv)	O&M Requirements for above	Creore Rs.	Nil	1.77
v)	O&M needs for existing assets	Creore Rs.	NA	3.72
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres	83	70
ii)	Tube-lights coverage	%	15	30
iv)	Capital Investment Required	Creore Rs.	Nil	15.08
v)	O&M Requirements for above	Creore Rs.	Nil	4.62
vi)	Staff Requirements:	Nos.		
	a) Technical		43	79
	b) Helper		482	790
vii)	O&M Needs for existing assets	Creore Rs.	3.90	10.21
VIII)	i) Total Capital Investment	Creore Rs.	Nil	943.49
	ii) Per-capita per year	Rs.	Nil	517.85
IX)	Total O&M per year for above Per-capita	Creore Rs. Rs.	Nil Nil	61.90 169.86
X)	Total staff requirement	Nos.		
	a) Technical		486	129
	b) Skilled/Drivers		584	372
	c) Semi-skilled		912	3208
	d) Unskilled/Helper/ Conservancy Staff		7919	9898
XI)	i) Total O&M requirements for the existing Assets	Creore Rs.	57.94	157.41
	ii) Per-capita	Rs.	76.90	431.95

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.

**APPENDIX NO. 102**

**CHENNAI CORPORATION**

Present (1995-96) levels of service, proposal for 2002 in Core Civic Services and  
Operation and Maintenance

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>I.</b>	<b>Population</b>	Lakhs	41.58	44.87
<b>II.</b>	<b>Water Supply:</b>			
	i) Per-capita supply	Ltrs.	73	90
	ii) Population covered with House service connection	%	78	80
	iii) Covered with Standpost	%	10	10
	iv) Covered with Handpumps	%	12	10
	v) Persons per standpost	No.	54	30
	vi) Persons per handpump	No.	Nil	100
	vii) Capital Investment Required	Crore Rs.	Nil	263.36
	viii) O&M requirement for above	Crore Rs.	Nil	7.1
	ix) Staff Requirement	Nos.		
	a) Technical (MMWSSB)		507	507
	b) Skilled		1192	1192
	c) Semi-skilled		1699	1699
	x) O&M needs for existing assets	Crore Rs.	27.36	48.48
<b>III.</b>	<b>Sewerage &amp; Sanitation:</b>			
	i) Population covered with underground drainage	%	85	90
	ii) Covered with low cost sanitation	%	4	5
	iii) Public convenience	%	3	5
	iv) Uncovered	%	8	0
	v) Capital Investment Required	Crore Rs.	Nil	156.82
	vi) O&M requirements for above	Crore Rs.	Nil	8.48
	vii) O&M needs for Existing Assets	Crore Rs	31.01	68.66
<b>IV.</b>	<b>Solid Waste Management</b>			
	i) Collection performance to waste generated	%	85	90
	ii) Households per dustbin	Nos.	84	50
	iii) Capital Investment Required	Crore Rs.	Nil	17.91
	iv) O&M Requirements for above	Crore Rs.	Nil	6.36
	v) Staff Requirements:	Nos.		
	a) Conservancy Staff		7305	8170
	b) Drivers		687	537
	vi) O&M needs for existing assets	Crore Rs.	22.67	53.45

**APPENDIX NO. 102-cont.**

Items	Parameters of Service	Unit	Present Status (1995-96)	Position by 2002
<b>V. Roads:</b>				
i)	% of length covered with BT	%	99	100
ii)	Length covered with WBM	%	0.1	0
iii)	Length covered with Metal/Gravel	%	1	0
iv)	Capital Investment Required	Crore Rs.	Nil	174.99
v)	O&M Requirements for above	Crore Rs	Nil	0.15
vi)	Staff Requirements:	Nos.		
	a) Technical		281	281
	b) Skilled		151	151
	c) Unskilled		0	0
vii)	O&M needs for the existing assets	Crore Rs.	11.88	31.89
<b>VI. Storm Water Drains:</b>				
i)	% of length Pucca open drains	%	0	20
ii)	% of length Pucca closed drains	%	29	40
iii)	Capital Investment Required	Crore Rs.	Nil	102.08
iv)	O&M Requirements for above	Crore Rs.	Nil	1.04
v)	O&M needs for existing assets	Crore Rs.	NA	1.42
<b>VII. Street Lighting:</b>				
i)	Spacing distance between posts	Metres	27	25
ii)	Tube-lights coverage	%	66	60
iii)	Sodium vapor lamp	%	34	40
iv)	Capital Investment Required	Crore Rs.	Nil	5.87
v)	O&M Requirements for above	Crore Rs.	Nil	1.96
vi)	Staff Requirements:	No.		
	a) Technical		100	79
	b) Helper		1022	790
vii)	O&M Needs for existing assets	Crore Rs.	9.17	14.74
VIII) i)	<b>Total Capital Investment</b>	Crore Rs.	Nil	721.04
ii)	<b>Per Capita per year</b>	Rs.	Nil	321.40
IX) i)	<b>Total O&amp;M per year for above</b>	Crore Rs.	Nil	25.08
ii)	<b>Per-capita</b>	Rs.	Nil	55.90
X) i)	<b>Total staff requirement</b>	Nos.		
	a) Technical		888	867
	b) Skilled/Drivers		2030	1880
	c) Semi-skilled		1699	1699
	d) Unskilled/Helper/ Conservancy staff		8327	8960
XI) i)	<b>Total O&amp;M requirements for the existing Assets</b>	Crore Rs.	102.08	218.64
ii)	<b>Per-capita</b>	Rs.	245.58	487.25

**Note:** The cost indicated is at 1995-96 price level. Increase 12% per year in case of Capital Investment and 10% in case of O&M.