



**MUNICIPAL ADMINISTRATION AND
WATER SUPPLY DEPARTMENT**

DEMAND No. 34

**POLICY NOTE
2015-2016**

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Law, Courts and Prisons**

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1. Introduction

Tamil Nadu is one of the most rapidly industrialising and urbanising States in India, with 48.45% of its population living in urban areas. Tamil Nadu will continue to lead the country in urban growth over the next decade also. At the projected growth rate, the urban population of Tamil Nadu is estimated to be 67% of the total population by 2030, which will be the highest in the Country. In this scenario, there will be many major policy and managerial challenges in coping with the increased urban infrastructure and access to basic civic services required by the burgeoning population.

Capacity building, accessing funds for infrastructure development, employing new, relevant green technologies will be the key to meet these challenges.

The Municipal Administration and Water Supply Department is responsible for the development of urban areas in the State and for ensuring provision of water supply to all the areas of the State. The Corporation of Chennai, the Commissionerate of Municipal Administration and the Directorate of Town Panchayats are integral parts of this Department in achieving the objectives set forth by the Government.

The Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) and Tamil Nadu Water Supply and Drainage Board (TWAD Board) are responsible for the provision of Water Supply and Underground Sewerage

facilities. The New Tiruppur Area Development Corporation Limited (NTADCL) caters to the water supply and industrial water needs of Tiruppur and nearby areas.

Apart from these, the Tamil Nadu Urban Development Fund (TNUDF) and Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (TUFIDCO) are the two urban financial intermediaries which are the pioneers and trendsetters in the field of urban finance and are guiding the Urban Local Bodies in assessing the financial viability of projects and thereby helping in developing the Urban Infrastructure. These agencies also coordinate in channelizing funds from Government of India, External Agencies and financial markets for the development of Urban Infrastructure. The expertise of institutions like the Tamil Nadu Urban Infrastructure and Financial Services Limited (TNUIFSL) and the Tamil Nadu Urban

Finance and Infrastructure Development Corporation (TUFIDCO) will be fully utilized to provide necessary consultancy based support services to the urban local bodies to improve their technical capability for implementing bigger and more complex projects.

The vision of the Hon'ble Chief Minister Puratchi Thalaivi Amma is to make Tamil Nadu '**numero uno**' among the Indian States. '**Vision Tamil Nadu 2023**' document recently unveiled by the Hon'ble Chief Minister envisages the improvement of urban infrastructure, with a focus on the development of ten World Class Cities in Tamil Nadu. These cities in turn will become the nuclei and engines of economic growth, thereby facilitating regional and balanced development across the State. **The Hon'ble Chief Minister's vision** is to provide piped and

pressurized 24x7 water supply to all the citizens.

In order to realise this vision, the State Government, apart from devolving 10% of the State's Own Resources to the Urban Local Bodies (`3166.54 crore during 2014-15) is also providing a major thrust to the creation of infrastructure through its landmark mission mode schemes like the Integrated Urban Development Mission (IUDM) and the Chennai City Megacity Development Mission (CMCDM). Further, financial assistance is also provided under the External Aided Projects like the World Bank sponsored Tamil Nadu Urban Development Project – III (TNUDP – III) and the German Development Bank assisted SMIF-TN.

The Government have accorded utmost importance for the provision and access to safe

and adequate drinking water to every household in the Urban Local Bodies. In order to meet this challenging objective, the Government have initiated various projects under the Integrated Urban Development Mission (IUDM), Japan International Cooperation Agency (JICA), German Development Bank (KfW), Tamil Nadu Urban Development Mission (TNUDP-III) and Urban Infrastructure Development Schemes for Small and Medium Towns (UIDSSMT) and had sanctioned a sum of `5893.15 crore for implementation of 543 Water Supply related works during the period 2011-15 under the above schemes. 304 of these works amounting to `2226.37 crore have been completed.

The Hon'ble Chief Minister of Tamil Nadu, during her tenures as the Chief Minister of Tamil Nadu has taken several bold

and innovative steps that have brought about revolutionary changes in the entire approach to deal with the problems of urbanization. **The Hon'ble Chief Minister** launched the historical **Rain Water Harvesting** movement in the State in the year 2001. Necessary Legislative measures were taken to make installation of Rain Water Harvesting Structures mandatory in all buildings. A massive IEC campaign was undertaken to make the general public aware of the benefits of Rain Water Harvesting. These measures reaped rich dividends, and the ground water level across the State showed a significant rise during the period 2001–2006. The thrust on Rain Water Harvesting has now been revived and measures geared up to rejuvenate Rain Water Harvesting structures and to install new structures. Thus, since the inception of the scheme, RWH structures have been incorporated into 7.20 lakh structures in

Chennai Corporation, 31 lakh structures in other Municipal Corporations and Municipalities and 20.02 lakh structures in Town Panchayats. Further, out of the 3994 Tanks under the maintenance of the urban local bodies, 3394 have been restored. The cumulative impact of these measures has resulted in the creation of an additional recharge of 8.67 TMC ft.

The Hon'ble Chief Minister has taken farsighted and innovative decisions to augment and stabilize the drinking water requirements of Chennai City. The implementation of the '**New Veeranam Project**' in record time in 2004 brought tremendous relief to a water stressed Chennai City. **The Hon'ble Chief Minister** also directed the establishment of a Reverse Osmosis Desalination Plant at Minjur in 2003 to further drought proof Chennai. **The Hon'ble Chief Minister** had also inaugurated a 100 MLD capacity desalination plant at Nemmeli

on 22.02.2013 at a cost `871.24 Crore to further stabilize the water supply to Chennai City, which had traditionally depended only on monsoon rains.

The Hon'ble Chief Minister has now directed that the existing reservoir capacity of Chennai City be augmented by 4.20 TMC ft. at a cost of `1,851 crore. The preliminary work on the formation of the new reservoir in Thervaikandigai in Thiruvallur District has already commenced and is in progress. Administrative Sanction has been granted for the creation of an additional 150 MLD Desalination Plant to convert sea water to drinking water in the premises of the existing 100 MLD Desalination plant at Nemmeli. In addition, Detailed Project Report has been prepared for the establishment of a 400 MLD

Desalination plant at Perur on ECR road and is awaiting financial tie-up.

The Hon'ble Chief Minister has emphasized the need for re-cycling of waste water which can be utilized for industrial purposes. This will relieve the pressure on the overall availability of water for drinking purposes. The Chennai Metropolitan Water Supply and Sewerage Board is in the process of setting up 45 MLD Tertiary Treated Reverse Osmosis (TTRO) Plants in Koyambedu and Kodungaiyur. More such projects will be implemented under the PPP mode for recycling sewage to meet industrial needs. These proposed plants will cater to the needs of the industries in Sriperampudur, Irungattukottai and Oragadam areas and the power plants of North Chennai region. Work on both these projects will commence in 2015-16.

The inadequacy of proper sanitation facilities in many of our cities and towns, and lack of proper maintenance of public and community toilets lead to the practice of open defecation. To eradicate this, **the Hon'ble Chief Minister** has charted out a two pronged strategy viz., implementation of Under Ground Sewerage Schemes in all the Urban Local Bodies of the State in a phased manner and making Tamil Nadu an Open Defecation free State by the year 2015. This two pronged strategy will ensure that the health of the urban population in the state is protected and at the same time, pollution of land and water resources in the State is mitigated. The Government had taken a policy decision to implement Under Ground Sewerage System in all the Urban Local Bodies in a phased manner. During 2011-2015, a sum of `4791.89 crore has been sanctioned for the implementation of

Underground Sewerage System in 75 ULBs in the state, out of which, work in 15 ULBs totalling `695.79 crore has been completed. The remaining are in various stages of implementation. Absence of sufficient and well maintained public toilets in the urban areas had led to the age old practice of open defecation. Recognizing this, the Government had sanctioned `346.18 crore in the past 4 years for the construction and renovation of Community toilets.

Cities are the most powerful engines of growth. They contribute as much as 70% of the State's GDP. **The Hon'ble Chief Minister** has announced two path-breaking funding schemes for Urban Infrastructure Development - the Chennai Mega City Development Mission **(CMCDM)** for Chennai and suburban areas and the Integrated Urban Development Mission

(IUDM) for all other Corporations, Municipalities and Town Panchayats, to supplement the available funds under various schemes. Accordingly, a sum of `2000 crore was provided for the Chennai Mega City Development Mission and `3000 crore for the Integrated Urban Development Mission during the past 4 years. Under these missions, existing schemes are dovetailed to improve the standards of basic infrastructure like roads, street lights, drinking water, sewerage and sanitation, storm water drains, solid waste management, improvement of bus stands, parking places etc., in an integrated manner. The additional resources provided under the Chennai Mega City Development Mission and the Integrated Urban Development Mission have given the much needed thrust to the development of basic amenities in urban areas

and also stimulated economic growth through planned urbanization.

The Hon'ble Chief Minister has laid special emphasis on quality and durability of urban roads and advocated the technological innovation of using plastic waste along with bitumen for laying roads. All the ULBs in the State have embarked on a programme by which roads will be laid utilizing plastic wastes, thus ensuring a safe and cost effective solution to the environmental pollution caused by throwaway plastic wastes. This Government lays special emphasis on the fact that all the Urban Local Bodies are to be maintained clean and green. Solid Waste Management therefore assumes greater significance among the basic functions of the Urban Local Bodies. To fulfil this objective and to promote source segregation, RRR concept (Reduce, Reuse and Recycle) had been introduced. The Government

had created a special Solid Waste Management fund with an initial amount of `100 crore in 2013-14 and during the period 2011-2015, Solid Waste Management projects were taken up in 4 Municipal Corporations, 9 Municipalities and 77 Town Panchayats for a total amount of `143.47 crore from the special SWM Fund.

The Municipal Administration and Water Supply Department is thus fully committed to implement progressive schemes for the creation of urban infrastructure, improved civic governance, delivery of civic services and making the cities and towns in the State safe, clean and liveable. By doing so, this Department will strive hard to make the **Hon'ble Chief Minister's Vision for Tamil Nadu, "to become India's most prosperous and progressive State with no poverty, and where its people enjoy all the basic**

services of a modern society and live in harmonious engagement with the environment and with the rest of the World”, a tangible reality.

2. Directorate of Municipal Administration

The Directorate of Municipal Administration is the nodal department responsible for coordinating and supervising the functions of all Municipalities and Municipal Corporations in the State except the Corporation of Chennai. The Directorate of Municipal Administration is headed by the Director of Municipal Administration and assisted by Joint Commissioners, Additional Directors, Joint Director and 7 Regional Directors of Municipal Administration (one each

for Chengalpattu, Vellore, Salem, Tiruppur, Thanjavur, Madurai and Tirunelveli regions).

The Population of the Corporations (except Chennai Corporation) as per census 2011, is 80,66,269 accounting for 11.18% of the total population of the State and 23.08% of the Urban population. The total area under the Corporations (except Chennai Corporation) is 1278.31 sq.km. which constitutes 12.05% of the total urban area of the State.

The population of the Municipalities, as per census 2011, is 86,38,732 accounting for 11.98% of the total population of the State and 24.72% of the urban population. The total area under the Municipalities is 2516.05 sq.km. which constitutes 23.72 % of the total urban area of the State.

There are 11 Municipal Corporations (except Chennai) viz, Madurai, Coimbatore,

Tiruchirappalli, Tirunelveli, Salem, Tiruppur, Erode, Vellore, Thoothukudi, Dindigul and Thanjavur and 124 Municipalities under the administrative control of the Directorate of Municipal Administration. The Municipalities in the State have been classified into different grades based on their annual income as follows:-

Sl. No.	Grade	Annual income (in ` crore)	No. of Municipalities
(1)	(2)	(3)	(4)
1	Special Grade	Above 10.00	18
2	Selection Grade	6.00-10.00	28
3	First Grade	4.00-6.00	34
4	Second Grade	Below 4.00	44

Sl. No.	Grade	Annual income (in crore)	No. of Municipalities
(1)	(2)	(3)	(4)
	Total		124

Elected Representatives in Municipal Corporations and Municipalities

As mandated by the 74th Constitutional Amendment Act, the elections to the Municipal Corporations and Municipalities were conducted on 17th and 19th October 2011. During these elections, the Corporation Mayors and Municipal Chairpersons were elected directly by the people. The elected Corporation Mayors,

Municipal Chairpersons and Councillors assumed their Offices on 25th October 2011.

The Bye-Elections to the vacant posts were conducted on 18th September 2014. The Elected Mayors, Municipal Chairpersons and Councillors have assumed their offices on 24th September 2014.

Category-wise elected Mayors, Municipal Chairpersons and Councillors are given below:-

Urban Local Bodies	SC (General)	SC (women)	ST (Women)	Women (General)	General	Total
Corporations(including Chennai Corporation)						
Mayors	--	1	--	4	7	12
Councillors	58	34	--	275	552	919
Municipalities (*)						
Chair persons	10	6	1	34	73	124

Councillors	271	194	4	1007	2137	3613
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At present, there are 7 women Mayors out of a total of 12 Mayors and 53 women Chairpersons out of a total of 124 Chairpersons.

2.1 Infrastructure Development

Creating and maintaining urban infrastructure is an important function of the Urban Local Bodies (ULBs). The Government accords highest priority to the creation of quality and effective infrastructure. Infrastructure works in ULBs are taken up by accessing financial assistance from Central/State Governments and external funding agencies like World Bank, German Development Bank (KfW) and Japan International Cooperation Agency (JICA).

2.2 Integrated Urban Development Mission

The Hon'ble Chief Minister has launched the Integrated Urban Development Mission for all Corporations (except Chennai), Municipalities and Town Panchayats which has given major thrust to the Infrastructure Development of the Urban Local Bodies in improving the basic standards of infrastructure like roads, drinking water supply, street lights, sewerage, storm water drains, sanitation, solid waste management, bus stands, parks etc., in an integrated manner.

During the last 4 years, `2237.89 Crore has been infused for development of urban infrastructure. Out of 6467 works undertaken, 5340 have been completed, and the balance works are in various stages of implementation.

The sector wise projects taken up during the year 2014-15 under IUDM are as follows:-

SI. No	Sector	No. of ULBs	Amount Sanctioned (in Crore)	Number of Works taken up	Works under progress
(1)	(2)	(3)	(4)	(5)	(6)
1	Under Ground Sewerage Scheme	17	132.12	17	17
2	Water Supply	38	328.22	41	41
3	Roads	1	3.11	6	6
4	Storm Water Drains	3	13.18	18	18
5	Street Lights	36	79.64	38	38
6	Eradication of Open Defecation Construction of Toilets	98	12.50	761	761
7	Other works	4	3.02	7	7
Total			571.79	888	888

An amount of `500.00 Crore has been allocated for continuing this scheme during the year 2015-16.

2.3 Water Supply

Norms prescribed by Central Public Health and Environmental Engineering Organization (CPHEEO) for drinking water supply in Corporations and Municipalities covered by underground sewerage system is 135 Litres Per Capita per Day (LPCD). For other cities not covered by underground sewerage system, it is 90 LPCD. The ULBs aim to implement water supply schemes with the objective of achieving these norms.

The status of water supply in Corporations and Municipalities are as detailed below:-

Range	Status	Municipalities	Corporations
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90LPCD & Above	Good	54	5 (110 Lpcd & above)
40 to 89 LPCD	Comfor- table	69	5 (70- 109 Lpcd)
20 to 39 LPCD	Poor	1	1 (less than 70 Lpcd)
Less than 20 LPCD	Acute	-	-
Total		124	11

The Government has accorded priority for the provision and access to safe and adequate drinking water to every household in the Urban Local Bodies. In order to improve the water supply situation, the government has taken up various water supply projects availing financial assistance from various external agencies such as Japan International Cooperation Agency (JICA), German Development Bank (KfW), World Bank and under various schemes such as Integrated Urban Development Mission (IUDM) and JnNURM. These schemes are being implemented by ULBs and in some cases by the

para-statal agencies like Tamil Nadu Water Supply and Drainage Board (TWAD) and the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB).

In the year 2011, a total of 1567.10 MLD of water has been supplied to all ULBs at an average rate of 93 LPCD. In the year 2014, after the implementation of several water supply schemes under TNUDP-III, JnNURM, KfW, JICA, IUDM, IGFF etc., the supply level has increased to 1794.40 MLD at an average rate of 110 LPCD.

The following water supply schemes have been completed in the period of 2011-2015 under various schemes:-

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
(1)	(2)	(3)	(4)

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
1	Salem DWSS stage -I completed Tamil Nadu Urban Development Project III	1	179.66
2	Coimbatore Pillur-II WSIS Urban Infrastructure & Governance (JnNURM - UIG)	1	159.85
3	Erode,Rasipuram, Thanjavur,Villupuram, Oddanchatram , Mettur and Attur Urban Infrastructure Development Scheme for Small and Medium Towns (JnNURM - UIDSSMT)	7	61.13
4	Tiruchirappalli, Devakottai ,Idappadi & Coonoor Tamil Nadu Urban Infrastructure Programme (JICA)	4	269.86
5	Tirunelveli,Tiruvannamalai,Kadayanallur & Pallipalayam Sustainable Municipal Infrastructure Financing (KfW)	4	91.95
6	Hosur, Dharmapuri & Krishnagiri	3	399.69

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
	Hogenakkal water supply and Fluoride mitigation Project		
7	89 ULBS Integrated Urban Development Mission	277	307.45
	Total	297	1469.59

The water supply schemes under implementation with the financial assistance from different funding agencies are detailed below:-

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
(1)	(2)	(3)	(4)
1	Salem DWSS stage -II, Pallavapuram, Pammal, Theni-Allinagaram Tamil Nadu Urban Development Project III	4	352.76
2	Avadi, Thirumangalam, Madurai	7	903.37

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
	(added area), Coimbatore (added area), Poonamallee, Anakaputhur & Coimbatore 24x7 Urban Infrastructure & Governance (UIG)		
3	Chidambaram, Palladam, Tiruchengode, Dharapuram, Attur, Kayalpattinam, Cumbum, Kovilpatti, Karaikudi, Vandavasi, Vellakoil, Kangeyam, Periyakulam, Tiruvathipuram, Arani, Tindivanam & Kodaikanal Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)	16	404.21
4	Palani, Thoothukudi, Dindigul, Mettupalayam & Udumalaipet Japan International Cooperation Agency (JICA)	5	393.82
5	Karur (Inam Karur, Thanthoni) , Udhagamandalam & Tirunelveli German Development Bank (KfW)	5	325.60
6	49 ULBs	167	455.60

Sl. No.	Name of Scheme	Number of projects	Project Cost (` crore)
	Integrated Urban Development Mission		
	Total	204	2835.36

Under TNUDP III, 17 water supply improvement schemes at a cost of `661.65 Crore have been taken up, of which 13 schemes have been completed.

The supply level has increased in the 13 completed ULBs as follows:-

Sl. No	Name of the ULB	Daily Water Supply Service Level			
		Before		After	
		Implementa-tion of the Scheme		Implementa-tion of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD

1	Tirunelveli (Thachanallur)	36.72	77	55.00	116
2	Gobichetty palayam	4.96	90	7.44	135
3	Pollachi	10.2	105	12.7	135
4	Bodinayakanur	5.75	76	6.95	90
5	Salem	71.00	85	105.72	127
6	Kurichy	4.00	40	7.5	70
7	Kuniamuthur	3.5	40	8.00	75
8	Koundam palayam	4.56	48	8.00	80
	Vadavalli	2.3	55	3.00	70
9	Tiruvanna malai-I	Distribution Revamped			
10	Sivagangai-II				
11	Thuraiyur	Distribution Revamped			
12	Krishnagiri				
13	Kuzhithurai-II				

The status of remaining **4** Water Supply Schemes are as follows:-

S.	Name of the ULB	Project cost (in	Present stage
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No		Crore)	
1	Salem stage-II	147.12	work nearing completion
2	Pallavapuram	99.95	work in progress
3	Pammal	43.10	
4	Theni-Allinagaram	68.83	

Under Urban Infrastructure & Governance (JnNURM - UIG), 12 Water Supply Improvement Schemes (WSIS) have been taken up at an estimated cost of **`1184.59 Crore**, of which 5 schemes have been completed.

The supply level has increased in the 5 completed ULBs as follows:-

Sl. No	Name of the ULB	Daily Water Supply Service Level	
		Before	After

		implementation of the Scheme		implementation of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
1	Madurai	71.6	67	118.6	110
2	Coimbatore	176.00	109	216.00	135
3	Tambaram	8.77	55	16.12	90
4	Anaiyur (merged with Madurai Corporation)	3.48	46	4.12	90
5	Tirupparan- kundram & Harvipatti (merged with Madurai Corporation)	2.69	69	3.71	90

The status of remaining **7** Water Supply Schemes are as follows:-

Sl. No	Name of the ULB	Project cost (`in Crore)	Present stage
1	Avadi	130.84	work in progress
2	Thirumangalam	68.13	
3	Madurai (added area)	106.99	
4	Coimbatore (added area)	29.03	
5	Anakaputhur	14.88	Tender Stage
6	Poonamallee	23.87	
7	Coimbatore (24x7)	556.57	

Under Urban Infrastructure Development Scheme for Small and Medium Towns (JnNURM - UIDSSMT), 40 Water Supply Improvement Schemes at a cost of `740.47 Crore have been taken up for implementation, out of which, **24** Water

Supply Improvement schemes (WSIS) have been completed.

The supply level has increased in the 24 completed ULBs as follows:-

SI No	Name of the ULB	Daily Water Supply Service Level			
		Before		After	
		implementation of the Scheme		implementation of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
1	Devakottai	only internal infrastructure development			
2	Karur	6.9	84	8.4	110
3	Valparai	0.75	42	2.51	122
4	Tirupathur	4.9	52	5.75	72
5	Ramanathapuram	1.25	20	6.61	70
6	Paramakudi	6.00	62	8.47	70
7	Keelakarai	0.6	19	2.88	70
8	Sivagangai	2.8	70	4.40	70
9	Rameshwaram	0.75	20	2.66	70
10	Arakkonam	6.00	77	9.6	90
11	Tiruthani	2.9	69	7.2	90
12	Aranthangi	3.16	85	4.16	112

13	Maraimalainagar	2.68	55	5.32	135
14	Vickramasingapuram	4.61	83	7.23	90
15	Nammakkal	4.24	70	10.16	135
16	Srivilliputhur	0.35	47	0.6	90
17	Gudalur (Nilgris)	2.95	60	5.94	135
18	Erode	only internal infrastructure development			
19	Rasipuram				
20	Thanjavur				
21	Villupuram		57	11.25	135
22	Oddanchatram	1.94	54	3.24	90
23	Mettur	5.00	104	7.2	135
24	Attur	only internal infrastructure development			

The status of remaining **16** Water Supply Schemes are as follows:-

S. No	Name of the ULB	Project cost (` in Crore)	Present stage
1	Chidambaram	7.18	work in progress
2	Palladam	17.74	
3	Vellakoil	17.41	
4	Kangeyam	16.07	

5	Tiruchengode	7.58	work in progress
6	Dharapuram	14.74	
7	Karaikudi	18.58	
8	Cumbum	18.8	
9	Kovilpatti	81.82	
10	Kayalpattinam	29.67	
11	Vandavasi	10.9	
12	Periyakulam	15.54	
13	Tiruvathipuram	13.44	
14	Tindivanam	52.45	
15	Arani	36.26	
16	Kodaikanal	46.31	Tender stage

With the financial assistance of **JICA, 9** water supply improvement schemes have been taken in Tiruchirappalli and Thoothukudi Corporations, Palani, Coonoor, Idappadi,

Devakottai, Dindigul, Mettupalayam and Udumalpet Municipalities at a cost of `663.68 **Crore**. The projects in Tiruchirapalli Corporation and Devakottai, Idappadi and Coonoor Municipalities have been completed.

The supply level has been increased in the 4 completed ULBs as follows:-

SI. N	Name of the ULB	Daily Water Supply Service Level			
		Before		After	
		implementatio n of the Scheme		implementatio n of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
1	Tiruchirapalli	90	98	154	135
2	Devakottai	4.06	78	4.67	81
3	Idappadi	3.14	61	6.3	113
4	Coonoor	2.82	62	3.46	76

The status of remaining **5** Water Supply Schemes are as follows:-

S. No	Name of the ULB	Project cost (` in Crore)	Present stage
1	Palani	13.85	Partly completed. For balance work, work order issued on 21.7.2015
2	Thoothukudi	282.44	work in progress
3	Dindigul	70.5	
4	Mettupalayam	9.16	
5	Udumalaipet	17.87	

Under KfW fund, 9 works have been taken up at a cost of `417.55 Crore, out of which, 4 in Tirunelveli Corporation, Kadayanallur, Pallipalayam and Thiruvannamalai Municipalities have been completed.

The supply level has increased in the 4 completed ULBs as follows:-

SI. No	Name of the ULB	Daily Water Supply Service Level			
		Before		After	
		implementation of the Scheme		implementation of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
1	Tirunelveli	40.32	84	47.90	101
2	Kadayanallur	4.06	78	4.67	81
3	Tiruvannamalai	18.3	100	20.50	126
4	Pallipalayam	2.59	63	3.72	91

The status of remaining 5 Water Supply Schemes are as follows:-

S. No	Name of the ULB	Project cost (` in Crore)	Present stage
1	Karur	24.67	work in progress
2	Thanthoni	25.16	
3	Inam Karur	18.57	
4	Udhagamandalam	27.20	Partly completed, balance work in tender stage

5	Tirunelveli	230.00	Tender Stage
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The **Hogenakkal Water Supply and Fluorosis Mitigation Project** has been completed at total estimated cost of `1928.80 Crore which has benefited **3** ULBs viz., Dharmapuri, Krishnagiri and Hosur Municipalities. Their total proportionate cost out of the total project cost is `399.69 Crore.

After implementation of the water supply scheme, supply level has increased as follows:-

Sl. No	Name of the ULB	Daily Water Supply Service Level			
		Before		After	
		implementation of the Scheme		implementation of the Scheme	
		Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
1	Dharmapuri	5.50	80	14.26	135
2	Krishnagiri	4	56	8	112
3	Hosur	6.50	27	15.50	63

CWSS to Attur and Narasingapuram

Municipalities were taken up for implementation at an estimated cost of `270.00 crore and was completed. After completion of the scheme, the supply level has increased as follows:-

Name of the ULB	Daily Water Supply Service Level			
	Before implementation of the Scheme		After implementatio n of the Scheme	
	Quantity supplied in MLD	LPCD	Quantity supplied in MLD	LPCD
	Attur	3.30	52	6.20	100
Narasingapauram	1.30	56	1.90	82

Apart from the above major projects, the TWAD Board is also implementing the following Water Supply Projects:-

- **Vellore Combined Water Supply Scheme (CWSS)** at an estimated cost of `1044.90 Crore for Vellore Corporation and Ambur, Arcot, Arakkonam, Gudiyatham, Ranipet, Tirupattur, Vaniyambadi, Walajapet, Jolarpet, Melvisharam and Peranampet Municipalities. Under Integrated Urban Development Mission (IUDM), a ULB Contribution amount of `104.50 crore has been allotted as grant. Vellore Corporation and the above 11 municipalities have received Cauvery water under this scheme.
- CWSS to Melur Municipality has been taken up at an estimated cost of `23.80 Crore.
- CWSS to Cuddalore Municipality has been taken up at an estimated cost of `148.09 Crore.

Apart from the above, Detailed Project Reports have been prepared for 3 corporations and 10 municipalities at a total project cost of `1508.24 crore. Implementation of these

projects will be taken up after arranging for funding.

2.3.1 Efficient Water Management System

The Government has given priority to the improvement of Water Management Systems in Corporations and Municipalities. The following measures have been taken :-

- Replacing inefficient motors and pumps to improve the efficiency of the pumping system.
- Revamping the existing water supply network to ensure equitable distribution of water.
- Implementation of the Supervisory Control and Data Acquisition (SCADA) system to continuously monitor the transfer of data on water flow, performance and efficiency of pumps and motors, physical and chemical quality parameters of water etc., have been taken up in the water supply schemes in Corporations and Municipalities.

- In Coimbatore Corporation, SCADA implementation has been completed by TWAD Board which is maintained by them. For Pillur-II, DPR is under preparation.
- SCADA system has been partially implemented and commissioned in the Corporations of Tirunelveli, Tiruppur, Madurai and Tiruchirappali.
- In Rasipuram, Komarapalayam, Tiruchengode, and Namakkal Municipalities, SCADA works are under progress.
- In Tirunelveli, Thoothukudi and Dindigul Corporations, SCADA will be implemented in 2015-16.

2.3.2 Improvement of Distribution system

A detailed study has been taken up in all ULBs about the status of existing water supply system in a prescribed format devised by this Directorate to ascertain the short fall in infrastructure facilities as well as the source position to improve the existing supply level and achieve daily water supply. From the data

collected, 53 ULBs were identified for the improvement of distribution system infrastructure facilities, of which 11 ULBs were merged with the adjacent corporations / municipalities. Hence, the Detailed Project Reports (DPRs) have been prepared in the first stage for 42 ULBs at a total project cost of ₹1220.15 Crore for improvement of Distribution system and other infrastructure facilities like OHTs, Sumps etc., Out of the 42 DPRs prepared, 15 projects in 15 municipalities have been taken up for implementation at a cost of ₹226.12 Crore under various schemes such as UIDSSMT, UIG, JICA, KfW and IUDM. For the remaining 16 projects, the process of funding under KfW is underway and for the remaining 11 projects, action is being taken to arrange funding. Apart from the above, all the new

water supply schemes would be inclusive of distribution system improvement.

2.3.3 Rain Water Harvesting

The path-breaking Rain Water Harvesting (RWH) Programme was launched in 2001 under the visionary leadership of the Hon'ble Chief Minister of Tamil Nadu. The vigorous implementation of this scheme during 2001-2006 has reaped rich dividends in enhancing ground water table.

On the directions of the Hon'ble Chief Minister, necessary amendments were made to the Tamil Nadu District Municipalities Act, 1920, the Tamil Nadu District Municipalities Building Rules, 1972, the Multi- Storied and Public Buildings Rules, 1973 and the Madurai City Municipal Corporation Building (Water Conservation) Rules, 2002 to make rain water harvesting structures in all buildings mandatory

while issuing Building Plan approval. The rain water harvesting structures created throughout the State have helped to raise the ground water table substantially. The awareness programme for Rain Water Harvesting is also being continued in all the ULBs.

Upto August 2015, out of 42.09 lakh buildings in Corporations and Municipalities, 32.87 lakh buildings (24,288 Government buildings and 32.63 lakh Private buildings) have been provided with RWH structures. Rain water harvesting in the water bodies in ULBs have also been given major thrust. Out of 1482 Ponds and temple tanks, 631 have already been provided with RWH structures.

With this drive, 78% of Buildings and 42.58% of Ponds and Tanks have been covered upto August 2015. The harvestable rain water from buildings and water bodies is calculated at

4.59 TMC which may be recharged into the aquifers (Source: TWAD).

During the year 2015-16, RWH structures will be taken up in the remaining Buildings and 170 Ponds and Tanks in the ULBs.

2.3.4 Summer Management Plan

To mitigate the scarcity of drinking water in 2015-16 summer, proposals have been received from all the ULBs. Based on hydro-geological maps, in consultation with TWAD Board, it is planned to mitigate the water scarcity situation by providing additional bore wells with hand pumps/mini power pumps, purchase of spare parts for the maintenance of existing hand pumps, transportation of water through lorries, providing PVC tanks, flushing of existing bore wells, replacement of motors, hiring and purchase of gensets etc., for which

an amount of `10 Crore and `5 Crore for Vellore Corporation has been released as grants besides the expenditure from the General Fund of the ULBs amounting to `43.72 Crore. With the total estimate of `58.72 Crore, 1095 number of works have been taken up and 831 number of works have been completed and the remaining works are under progress.

2.4 Under Ground Sewerage Scheme

As per the policy decision of the Government, the implementation of UGSS to all the Urban Local Bodies will be taken up in a phased manner. The Detailed Project Reports for 117 ULBs for an estimated project cost of `11,271 Crore have been prepared. These DPRs have been prepared by CMWSSB, TWAD Board, and the ULBs. The implementation will be taken

up in a phased manner after necessary financial tie up.

2.4.1 Implementation of Under Ground Sewerage Schemes

Under the **Tamil Nadu Urban Development Project-III**, UGSS have been taken up in 22 Towns for implementation at a total cost of `1025.51 crore, of which the UGSS in Udhagamandalam, Chinnamanur, Namakkal, Dharmapuri, Perambalur, Dindigul (part), Thiruvannamalai, Kancheepuram, Ramanathapuram, Tiruvarur, Cuddalore, Theni-Allinagaram and Pallavapuram Municipalities have been completed at a cost of `451.19 Crore.

Under the **Urban Infrastructure and Governance** component of JnNURM, UGSS in 4 Towns viz., Madurai and Coimbatore

Corporations, Avadi and Tambaram Municipalities were taken up at a total cost of `925.49 Crore and the works are at various stages of implementation.

Under the **Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)** component of JnNURM, UGSS in 11 Towns viz., Maraimalai Nagar, Ariyalur, Arokkonam, Sathur, Chidambaram, Thirupathur, Jolarpet Periakulam, Mettur, Nagerkoil and Udumalai-pet were taken up at a total cost of `1033.86 Crore, of which Maraimalai Nagar has been completed. The remaining projects are in advanced stages of implementation except Jolarpet.

Under **German Development Fund (KfW)**, UGSS in Erode Corporation at a cost of `209.09 Crore, Karaikudi at a cost of `112.53 Crore, Pollachi at a cost of `109.62 Crore and Villupuram at a cost of `49.36 Crore were taken

up. Villupuram UGSS has been completed and the process of effecting House Service Connections is in progress. Erode, Karaikudi and Pollachi UGSS are at various stages of progress.

Out of the 22 ULBs for which UGSS has been announced during the budget session of 2012-13, works are in progress in 18 ULBs viz., Perambalur(Partly), Ariyalur(Partly), Trichy-Srirangam, Nagercoil (Phase-I), Mettur, Periyakulam, Thirupathur, Rasipuram, Bodinayakanur and Arakkonam. The status of the remaining projects is as detailed below:-

Sl. No.	Name of the Town	Source of funding	Estimated Cost (` crore)	Present Status
(1)	(2)	(3)	(4)	(5)
1	Pollachi	KfW	109.62	Tender Stage
2	Karaikudi	KfW	112.53	
3	Sattur	UIDSSMT	37.66	
4	Chidambaram	UIDSSMT	75.62	
5	Sathyamangalam	IUDM	54.26	
6	Rameswaram	IUDM	41.35	

7	Palani	IUDM	98.30	Financial assistance obtained under IUDM and action taken for calling tender
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8	Kodaikanal	IUDM	140.00	Design to be revised
9	Kumarapalayam	IUDM	107.81	
10	Bhavani	IUDM	54.55	
11	Jolarpet	UIDSSMT	79.00	Finalisation of land for STP is under way
	Total		910.70	

For Hosur Municipality, the Administrative Sanction for `283.94 crore was obtained vide G.O.M(s)No.1 dated 02.01.2015 under TNSUDP and action is being taken for the commencement of work.

Upto August 2015, 3,31,769 House Service Connections (previous year 2,51,981

connections) have been effected in 22 ULBs Coimbatore (part), Dharmapuri, Thiruvannamalai, Dindigul, Pallavapuram, Maraimalainagar, Chinnamanur, Kancheepuram, Tirunelveli, Tiruchirapalli, Madurai, Udthagamandalam, Namakkal, Karur, Mayiladuthurai, Kumbakonam, Thanjavur, Tiruppur, Perambalur, Ramanathapuram Thiruvarur and Villupuram in which the Under Ground Sewerage Scheme has been completed.

Advanced techniques like trenchless technology for laying of sewer lines, usage of pre-fabricated manholes, HDPE pipes and other modern technologies for treatment of sewage etc., are being explored.

2.5 Sanitation

With a vision to ensure that the towns are sanitized, healthy and liveable and sustain public health for all the citizens, the

Government have brought to focus, access to safe sanitation including open defecation free and garbage free environment as priority areas.

2.5.1 Eradication of Open Defecation

Recognizing the absence of adequate number of toilets linked to Under Ground Sewerage Scheme, absence of sufficient and well maintained public / community toilets and the age old practice of open defecation posing serious sanitation problems and health hazards, the Government has announced the total elimination of open defecation by 2015. Necessary Guidelines and instructions were issued to the Urban Local Bodies and suitable sites have been identified for construction of toilets.

A massive awareness campaign has been launched to create awareness on health hazards of open defecation and need for behavioural change. A detailed survey has been taken up by the ULBs in coordination with NGO's, to identify the locations where open defecation is still practiced. Based on the Survey, 3024 number of Community toilets improvements and construction of new toilets have been contemplated by 2015-16 to eradicate open defecation. In the last 4 years, construction of 1124 new Community toilets and rehabilitation of 1900 existing Community toilets have been taken up at a cost of `197.70 Crore, out of which construction of 452 new Community toilets and rehabilitation of 1298 existing Community toilets has been completed and remaining are in various stages of progress.

With a view to improve the usability by different types of user groups, such as Men, Women, Children, Elders, Differently Abled, a “Universal Design Toilet – Namma Toilet” has been developed by the Commissionerate of Municipal Administration. It is being implemented in various ULBs and has received a positive feedback from all the users. On the same lines of Universal Access and Design, retrofitting manual for Municipal Engineers for improving the existing toilets has been prepared.

During 2015-16, the scheme will be continued by dovetailing the funds made available under the **Swachh Bharat Mission**. An allocation of `150 Crore is provided in the Budget Estimates 2015-16 for implementation of the Swachh Bharat Mission in urban areas.

2.5.2 Swachh Bharat Mission

The Government is giving top most priority to cleanliness and clean environment. Keeping this in mind, the **Honorable Chief Minister has launched 'Vision Tamil Nadu 2023'** with one of its main objectives to provide piped and pressurized 24×7 water supply to 100% of its residents and ensure that all of them have **access to safe sanitation including open defecation free** and garbage free **environment**".

The Swachh Bharat Mission aims at Elimination of open defecation, Eradication of Manual Scavenging, Modern and Scientific Municipal Solid Waste Management, to effect behavioral change regarding healthy sanitation practices, Generate awareness about sanitation and its linkage with public health, Capacity Augmentation for ULB's and to create an enabling environment for private sector

participation in CapEx (Capital expenditure) and OpEx (operation and maintenance).

Administrative sanction for the Scheme has been sanctioned vide G.O.(Ms.)No.105 MAWS (MA-2) Department, dated: 21.07.2015.

The Government is in the process of formation of State Mission Directorate, District Level Review and Monitoring Committee to implement this scheme.

2.5.3 Septage Management

Partially treated sewage that is stored in a septic tank is commonly called as Septage. It includes liquids, solids (sludge), as well as fats, oils and grease (scum) that accumulate in septic tanks over time. Septage management includes the process of design collection, safe treatment & disposal of septage. A comprehensive program that regulates periodic

septic tank cleaning, as well as septage transport, treatment, re-use and disposal is important in the context of our rapidly urbanizing economies.

Need for Septage Management

In order to regularize and monitor the handling of faecal sludge, comprehensive guidelines have been issued by the Government vide G.O. (Ms) No. 106 MA&WS Department, dated 01.09.2014. The guidelines contemplated the following initiatives:-

- i. Design and Construction of Septic Tanks
- ii. Septic Tank Pumping & De-Sludging
- iii. Septage Transportation
- iv. Treatment & Septage Disposal
- v. Fees / Charges for Collection, Transportation and Treatment
- vi. Information, Education and Communication

vii. Record-keeping and Reporting (MIS)

21 clusters of Local Bodies have been identified based on the existing location of STPs. The local bodies have been grouped in such a way that all collections points are situated approximately at a radius of 18-20 kms from the designated STP.

The enumeration of existing Septic Tanks, identification of insanitary latrines and establishment of decanting facilities in functioning STPs are in progress.

2.6 Animal Birth Control (ABC) Programme

The Animal Birth Control (ABC) Programme is part of the Public Health function of Corporations and Municipalities. To implement the Animal Birth Control Programme in a humane manner, sanitary workers and municipal staff have been provided with training

from reputed NGOs. As per G.O. No 181 of M.A&W.S Department, dated: 5.4.2013, 60 permanent dog catching mini vans were provided to the ULBs for catching and transporting the dogs, at a cost of `3.00 crores. Out of the 80 permanent dog Shelters sanctioned at a cost of `2.4 crores, 50 dog shelters have been constructed in the ULBs so far.

Under ABC programme, the stray dogs in the ULBs (except Chennai) were enumerated as **2,78,850**. Upto May 2015, **1,95,946** dogs were sterilized at a cost of `7.64 Crore. Sterilisation procedure was done by outsourced veterinary surgeons. The dogs were maintained in well established dog shelters during the operative and post- operative periods and properly taken care of. They were given anti-

rabies vaccines also. The remaining street dogs will be sterilised in a phased manner.

2.7 Solid Waste Management

In Tamil Nadu, about 7597 MT of Municipal Solid Waste is being generated daily in 11 Corporations and 124 Municipalities. To strengthen primary collection and transportation of Municipal Solid Waste, the following vehicles and equipments have been procured under IUDM and Special SWM fund.

Sl. No	Details	Nos.	Cost in Lakhs
1	Push carts	5043	538.72
2	Tricycles	1292	258.48
3	Mini Autorickshaws	84	487.20
4	Tipper lorries	130	1860.72
5	Dumper Placer Lorries	180	3590.49
6	Compactor Vehicles	89	1749.60
7	Front End Loaders	60	1443.50
8	Tractors	13	66.04

9	Dumper Placer Bins	4784	2468.87
10	Street Bins	3279	560.72
11	Household bins	37500	21.00
12	Compactor Bins	3611	1306.15
	Total	56065	14351.49

Integrated Solid Waste Management (ISWM) projects have been taken up at a cost of `99.00 Crore for Tambaram, Pallavaram, Pammal, Anakaputtur, Sembakkam and Maraimalai Nagar Municipalities on a cluster basis at Vengadamangalam. Work has been completed and trial run of the Refuse Derived Fuel (RDF) Plant is in progress. Detailed Project Reports have been prepared for 5 clusters covering 29 (4 Corporations and 25 Municipalities) ULBs at an estimated cost of `631.00 Crore and financial tie up is being arranged. Out of 5 clusters, initially 2 clusters namely Vellore and Thiruchirapalli Detailed

Projects Reports have been prepared and the works will be undertaken in the near future.

2.7.1 Special Solid Waste Management fund

As per the directions of the Hon'ble Chief Minister, Special Solid Waste Management (SWM) Fund has been constituted with a sum of `100 Crore per year for financing the projects to weaker ULBs for implementation of ISWM projects. Under this project, 263 works have been taken up at an estimated cost of `211.18 crore.

2.7.2 Bio-Methanation Plants

Municipal Solid Waste consists of 50-60% of bio-degradable matter and the rest is recyclables and inerts. Of the total bio-degradable waste generated, approximately

20%–25% of waste comes from bulk waste generators viz., Hotels, Restaurants, Marriage Halls, Vegetable Markets, Slaughter Houses etc., In order to reduce and utilize Bio-Degradable waste from the Bulk Waste Generators, 33 Biomethanation plants of capacity 3 MT, 5MT and 10MT have been taken up in 8 Corporations and 23 Municipalities at a cost of `30.39 Crore with financial assistance through IUDM Scheme, Part-II scheme and SWM Fund. The Bio-Methanation Plant works at Pallipalayam, Pollachi, Kumbakonam, Mettur and Gobichettipalayam have been completed and trial run is in progress. Other Bio-methanation plants are at different stages of completion. All the Bio-methanation plants will be commissioned in the year 2015. The Bio-methanation plant of 3 MT capacity is already commissioned in Arcot and is generating 240 KWH electric energy per day.

After establishment of all the Bio-Methanation plants, the projected generation (net) of electric energy per year will be 49,71,300 Kwh and the projected Emission Reductions will be 4,225 tonnes **CO₂ per year**. About 59,860 tonnes of waste per annum will be reduced as a result of this initiative.

2.8 Roads

Roads form the backbone of the Urban Infrastructure development. Roads are designed for an intended span of life and are laid based on Ministry of Road Transport and Highways (MORTH) specifications taking their cost effectiveness into consideration.

The Corporations (except Chennai) and Municipalities maintain a total length of roads

amounting to 23349.93 km of which 5148.54 km are cement concrete roads, 14827.95 km are black topped roads, 1048.46 km are WBM roads, 2045.52 km are Earthen roads and 279.46 km are other roads like cut stone pavement, paver block etc.,

The maintenance of roads, restoring and relaying the damaged roads due to implementation of water supply schemes, under-ground sewerage schemes and natural calamities is supported under various schemes as detailed below.

2.8.1 Tamil Nadu Urban Road Infrastructure Programme (TURIP)

The Government puts much emphasis on improving roads damaged due to laying of sewer lines, water mains and natural calamities over a period of time and which require restoration to full width to make it motorable.

To this effect, the Government has announced an “Urban Road Infrastructure Programme”.

For the last four years under this programme, 1698 km length of roads damaged due to the implementation of Under Ground Sewerage Schemes, Water Supply Improvement Schemes and natural calamities were taken up at a sanctioned cost of `915.23 Crore comprising 4,266 works, of which 3,799 have been completed at a cost of `758.49 Crore as detailed below:-

Year	Sanctioned cost (` in crore)	Total Number of works		
		Taken up	Completed	Balance
(1)	(2)	(3)	(4)	(5)
2011-12	200.00	1035	1035	0
2012-13	186.50	1084	1076	8

Year	Sanctioned cost (` in crore)	Total Number of works		
		Taken up	Completed	Balance
(1)	(2)	(3)	(4)	(5)
2013-14	265.61	1063	1056	7
2014-15	263.12	1084	632	452
Total	915.23	4266	3799	467

For the year 2015-16, the works have been taken up at a cost of `620 Crore under Special Road Programme - 2015-16, to restore the damaged roads for which `258.29 Crore have been allocated as grants.

2.8.2 Integrated Urban Development Mission (IUDM)

Since the launch of IUDM, from the year 2011-12 to 2014-15, 1954.17 km length of roads were taken up at a sanctioned cost of `500.38 crore comprising 2114 works, of which 2099 have been completed at a cost of `510.92 Crore as detailed below:-

Year	Sanctioned cost (` in crore)	Length in Km	Total no of works		
			Take n up	Comple ted	Balan ce
(1)	(2)	(3)	(4)	(5)	(6)
2011-12	152.11	483.62	829	829	0
2012-13	172.19	495.87	976	976	0
2013-14	172.97	430.68	303	294	9
2014-15	3.11	1.80	6	0	6
Total	500.38	1411.97	2114	2099	15

2.8.3 Uniform Retro Reflective Road Signage

The Government has taken massive restoration and relaying of roads in the ULBs under various schemes. In order to enhance the utility and usefulness of these roads to the commuters and tourists by giving proper signage like names, cautions, tourist destination etc., a programme was taken up to provide uniform retro reflective road signage. There are totally 21,337 streets in Corporations and 41,720 streets in Municipalities. Major streets and junctions are covered with about 14,664 road fixtures in the Corporations and Municipalities. This will be continued while any road relaying or road improvement programmes are taken up for implementation.

2.8.4 Plastic Roads

Plastic waste poses a major threat to the environment. This Government has placed great

importance on the effective use of plastic waste to reduce environmental degradation. In order to ensure a plastic free environment, road laying in Corporations and Municipalities is being done based on plastic waste technology. Based on the Policy of the Government to use the available plastic waste to the maximum extent possible, a programme of laying the roads using plastic waste has been taken up in the Urban Local Bodies.

During the last four years, 871.44 Metric Tonnes of plastic waste has been utilized in laying 684.77 kilo-meters length of roads with a financial assistance of `52.93 crore from Environment Protection Renewable Energy Development (EPREDF) fund. To promote the collection, segregation and shredding of plastic waste, Self Help Groups (SHGs) are trained and engaged in these activities. During the year

2013-14, 14 Plastic waste collection centres with 43 shredding machines were established.

For the year 2014-15, ₹220.00 lakhs was sanctioned for establishing the Collection centres and installing shredding machines in 15 ULBs under Environment Protection Renewable Energy Development fund (EPREDF).

2.9 Street Lights

Street lighting is a basic amenity and one of the most important responsibilities of a local body. The 11 Corporations (except Chennai) and 124 Municipalities in the State maintain a total of 7.39 lakh Street lights. Street lighting expenditure constitutes 25-30% of the electricity bill of the urban local bodies, which is a heavy burden on the financial resources of the ULBs. This necessitated the implementation

of measures to increase energy efficiency in street lights.

On a pilot basis, energy efficiency measures, including Operation and Maintenance has been taken up in 9 Corporations and 35 Municipalities of Thanjavur and Tiruppur Region utilizing ESCO's. It is expected to bring about 25-35 % reduction in the electricity bill. For this project, a sum of `183.63 Crore has been allocated under IUDM during 2011-12, 2012-13, 2013-14 and 2014-15. The work of retrofitting 3,13,507 existing street lights with energy efficient LED fittings is in progress. Retrofitting of 98,740 numbers of existing street lights has been completed so far.

2.10 Special Infrastructure Programme

2.10.1 Modern Gasifier Crematorium

As a measure to protect the environment by reducing direct burning of wood, construction of crematoriums based on the Gasifier technology have been taken up in the urban local bodies. This reduces the use of firewood by more than 50%.

Accordingly, out of the 135 ULBs, the needy 86 ULBs were identified for construction of 100 modern gasifier crematorium and an allocation of `32.13 Crore has been made. Out of the gasifier Crematoriums available in the state, 61 are maintained by NGOs / Philanthropic Organisations. Constructions of the remaining crematoriums are in various stages of implementation.

2.10.2 Modern Slaughter Houses

In order to modernize the slaughter houses and to make them environmental friendly and free from health hazards, during the last four years, under Part-II and Infra Gap Filling Funds, 30 Modern Slaughter houses were taken up in 6 Corporations and 24 Municipalities at a cost of `7.17 Crore. 18 Slaughter houses have been completed and others are in various stages of implementation.

A Modern Abattoir at an estimated cost of `9.85 Crore has been sanctioned in 2013-14 for Tiruchirapalli Corporation with assistance from the Ministry of Food Processing Industries, Government of India. Another 5 modern abattoirs at Tiruppur and Coimbatore

Corporations at an estimated cost of `63.92 Crore are also proposed to be funded with assistance from GoI.

2.10.3 Solar Roof Tops

In order to fulfil the Hon'ble Chief Minister's vision to generate 3000 MW of power from Solar energy, this department is taking various steps. One of the steps taken is to enumerate the total number of buildings owned by the ULBs and to establish roof top solar panels on them to produce electrical energy and use it for office requirements and subsequently for street lights, water supply works in due course of time.

To train the ULB engineers on solar power technologies, a training programme with the assistance of Auroville on technology and management aspects of solar energy was

conducted and about 172 Engineers were trained. As a first stage, solar roof top photovoltaic panels have been established in the Directorate of Municipal Administration, Chennai to produce 50 KW power for office use and everyday, about 250 Kwh power is generated in the day time thereby reducing electricity charges considerably. The achievements made so far are detailed below:-

Sl. No	ULB	Number of installations	Capacity in KW
1	2	3	4
1	In 11 Corporations (except Chennai)	246	1432
2	In 124 Municipalities	198	716
3	DMA Office 6 th floor roof	1	50
	Total	445	2198

In continuation of this effort, it is proposed to establish roof top solar photovoltaic panel in all ULB buildings including water supply headworks, treatment plants, sewerage treatment plants, and compost yards in due course.

2.10.4 Non Motorized Transport

As most of our city roads and streets do not have dedicated facilities for pedestrians, cyclists and public transport system, the Directorate of Municipal Administration has prepared a project - "Sustainable Cities through Transport" and initiated the planning process to develop transport budgets for Coimbatore, Madurai, Tiruchirappalli, Tiruppur and Salem Corporations in partnership with the Institute for Transportation and Development Policies (ITDP) and with the support from ICLEI South Asia (ICLEI-SA). The project envisages a

more safe, convenient and equitable transport system for each of these cities. The planning process for the five cities has started with gathering of specific transport data and other information. The cities have prepared project plans with the objectives of improving public transport, supporting walking and cycling, improving safety on streets, enhancing public transport accessibility and improving air quality. This programme will be implemented in a phased manner commencing this year.

2.11 Infrastructure and O&M Gap Filling Fund

Based on the recommendations of the 4th State Finance Commission, Government has increased the share of Infra Gap and O&M Gap Filling Fund from 3% to 7% and 2% to 3% respectively. During the last 4 years, 4527 works have been taken up at an estimated cost

of `609.71 crore under Infra Gap Filling Fund, out of which 3716 have been completed and the balance works are in various stage of implementation. Under the Operations and Maintenance Gap filling funds, 267 works have been taken up at an estimated cost of `234.16 Crore of which 115 works have been completed and balance are in various stages of implementation.

For the year 2015-16, an amount of `188.51 and `80.79 Crore have been sanctioned under Infra Gap and O&M Gap Filling Fund respectively.

2.12 Construction of Office Buildings

Many of the Municipalities do not have sufficient office accommodation and due to paucity of funds, ULBs are unable to take up

construction of new buildings or upgrade their existing facilities. It is the intention of the Government to provide a better environment for the citizens and employees of the ULBs.

During the last four years, a grant of ₹87.76 Crore has been sanctioned to 62 ULBs under Infrastructure Gap Filling Fund, Operation and Maintenance Gap Filling Fund and Part-II scheme, out of which, 18 office buildings have been completed and remaining are in various stages of implementation.

2.13 Sanitary Workers Welfare

Sanitary workers constitute about 70% of the workforce (30109 persons out of total 43089 personnel) of the Urban Local Bodies. Their role is critical in maintaining basic sanitation and solid waste management services which is the core function of the ULBs.

It is important to make their profession dignified and to give them a safe and healthy working atmosphere.

In order to mechanize most of its operations, the ULBs have been provided with 33 Jet-Rodding machines and 46 De-Silting Machines. The ULBs are also providing safety gears. The government has sanctioned `36.11 Crore under IGFF, O&M GFF and Part II scheme during the last four years for 24 ULBs for construction of 702 quarters for sanitary workers, as detailed below:-

Year	No.of ULBs	No. of unit	Present Status	
			completed	progress
2011-12	3	72	24	48
2012-13	6	80	20	60

2013-14	11	336	0	336
2014-15	8	214	0	214
Total	28	702	44	658

2.14 Centrally Sponsored Schemes

2.14.1 Jawaharlal Nehru National Urban Renewal Mission (JnNURM)

The Jawaharlal Nehru National Urban Renewal Mission envisages an integrated approach to infrastructure development in the Mission Cities and their suburbs. In Tamil Nadu, Chennai, Madurai and Coimbatore are the Mission Cities. The development works are taken up under the following Sub Missions and Programmes:-

1. a. Urban Infrastructure and Governance (UIG)

- b. Basic Services to the Urban Poor (BSUP)
2. Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT)
 3. Integrated Housing and Slum Development Programme (IHSDP)

2.14.2 Urban Infrastructure and Governance (UIG)

Details of the works taken up under the UIG

(` in Crore)

SI No	Name of the scheme	No of ULBs	Sanctioned amount	Number of projects	
				Taken up	Completed
1	Water supply	5	589.27	9	5
2	Construction of Check dam	1	9.15	1	1
3	Storm Water Drains	2	528.31	2	2
4	Solid Waste Management	4	215.01	3	2

5	Under Ground Sewerage Scheme	4	925.49	4	0
	Total	15	2267.23	19	10

The above 19 projects have been taken up for implementation in Madurai and Coimbatore Corporations and the ULBs in their agglomeration and also in the Municipalities of Chennai Agglomeration, of which 9 projects have been completed and others are in various stages of implementation.

During the transition period of JnNURM, 24x7 Water Supply Scheme for Coimbatore Corporation and Water supply improvement scheme to Poonamallee and Anakaputhur municipalities were sanctioned at an estimated cost of `595.32 Crore, which are at tender stage.

For improving the performance of service delivery, a Capacity Building Plan has been sanctioned for TamilNadu at a cost of `64.28 Crore by the Central Sanctioning and Monitoring Committee and it is under progress.

The State Level Steering Committee has been constituted for Comprehensive Capacity Building Plan for Tamil Nadu vide GO(Ms). No. 129/MA&WS Dept., dated 03.09.2013.

One of the components of Comprehensive Capacity Building Plan is the setting up of State level Reforms and Performance and Management Cell (SRPMC) and Urban Management Cell (UMC) consisting of 6 Specialists. Each of these has been established from April 1st 2015. Based on the approval of Steering Committee, various training programmes are being conducted.

2.14.3 Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)

The UIDSSMT Scheme is being implemented in ULBs, which are not covered under the Urban Infrastructure & Governance (UIG). The admissible components under the scheme include all core urban infrastructure development projects such as Water supply, Sewerage, Solid Waste Management, construction and improvement of drains / Storm water drains, construction / up gradation of roads, Parking lots / spaces on Public Private Partnership (PPP) basis, Development of Heritage areas and Preservation of water bodies. Details of Projects taken up are as follows :-

(` in Crore)

SI No	Name of the scheme	No of ULBs	Sanctioned amount	Number of projects	
				Taken	Comple

				up	ted
1	Roads and Drains	16	69.41	16	16
2	Water supply	40	740.47	40	24
3	Under Ground Sewerage Scheme	11	607.54	11	1
4	Solid Waste Management	1	3.58	1	1
	Total	68	1421.00	68	42

2.14.4 Special package for Comprehensive Infrastructure Improvement in Madurai Corporation

Considering the poor infrastructure in Madurai City, as announced during the budget speech 2012-13, a sum of `250.00 Crore has been sanctioned as a Special Package by the Government for the comprehensive infrastructure improvement as one time grant. During the year 2012-13, a sum of `116.13

Crore has been released as first instalment. The balance amount of `133.87 Crore has been released during the year 2013-14. The amount is being utilized as urban local body contribution for the Under Ground Sewerage Scheme and Storm Water Drain works taken up under JnNURM. So far, `216.48 Crore has been utilized. Works are in advanced stages of implementation.

2.14.5 Housing for Urban Poor

The prime objective of the Government is to provide access to safe, healthy, affordable and sustainable housing for the urban poor. The Government of India under JnNURM launched the following sub-missions in the year 2006

- Basic Services to the Urban Poor (BSUP) in the Mission cities such as Chennai,

Madurai and Coimbatore Corporations and its agglomeration towns

- Integrated Housing and Slum Development Programme (IHSDP) in all other towns.

Basic Services to the Urban Poor (BSUP)

The BSUP projects are aimed at the provision of basic services to the urban poor including security of land tenure, affordable prices, improved housing and water supply while ensuring the convergence of existing services of the Government such as health, education, social security etc.,

Under this scheme, the Government of India has so far sanctioned 51 projects, at a project cost of `2339.08 Crore for construction of 89,720 dwelling units, out of which 56,713 have been completed. Balance 33,007 works are in various stages of implementation. Out of

3,852 infrastructure works, 3,727 have been completed. Balance 125 works are in advanced stages of implementation.

The details of the projects implemented by various agencies are as follows:-

Name of the Implementing Agency	Project cost (in Crore)	Housing units			Infrastructure works		
		Sanc tioned *	Completed	In Progress	Sanc tioned	Completed	In Progress
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
*TNSCB	1370.28	41478	24115	17363	65	30	35
CMA	679.51	42850	27300	15550	934	927	7
DTP	43.16	2348	2348	0	186	186	0
COC	223.07	3044	2950	94	2667	2584	83
Total	2316.02	89720	56713	33007	3852	3727	125

** The slum clearance board has surrendered 2552 housing units to GOI, resulting in a reduction in number of sanctioned units compared to last year*

Integrated Housing and Slum Development Programme (IHSDP)

The IHSDP projects aim at the holistic development of slums by providing adequate shelter and basic infrastructure facilities to the slum dwellers. The Government of India has approved 94 projects for a sum of `566.11 Crore. It is being implemented in 93 Towns with central assistance of `400.45 Crore.

Out of 37,720 Housing units sanctioned, 33,347 dwelling units have been completed and 4,373 units are under progress. Out of 2,233 infrastructure works sanctioned, 2,112 works have been completed and the balance works are under various stages of implementation. The details of the projects implemented by various agencies are as below :-

Time Impleme	Cost (in	Housing units	Infrastructure works
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		Sanc tioned	Completed	In Progress	Sanc tioned	Completed	In Progress
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TNSCB	20.09	1443	1443	0	-	-	-
CMA	486.57	31735	27362	4373	1957	1836	121
DTP	59.45	4542	4542	0	276	276	0
Total	566.11	37720	33347	4373	2233	2112	121

2.15 Urban Poverty Alleviation Programme

2.15.1 Amma Unavagams in Municipal Corporations / Municipalities

Based on the announcement made by the Hon'ble Chief Minister of Tamil Nadu on the floor of the Assembly, 90 "Amma Unavagams" – 10 each in 9 Corporations (except Chennai Corporation) have been inaugurated. Further, one Amma Unavagam in Government Rajaji

Hospital, Madurai has been inaugurated by the Hon'ble Chief Minister on 11.02.2014. Subsequently 7 Amma Unavagams, each one in Government General Hospitals in Coimbatore, Thanjavur, Dindigul, Trichy, Salem, Tiruppur and Erode Corporations and 4 Amma Unavagams in Public Places, one each in Coimbatore, Madurai, Thanjavur and Dindigul totaling 11 were operationlized. In total, 102 Amma Unavagams are functioning in 11 Corporations. On an average in each Amma Unavagam, breakfast and lunch are being prepared and sold for 300 persons. Upto 31.08.2015, 9,98,94,776 Idlies, 2,11,32,295 Sambar rice and 1,76,73,199 Curd rice have been supplied to the public.

Subsequently, as announced by the Hon'ble Chief Minister of Tamil Nadu on 01.06.2014, 32 Amma Unavagam have been opened in 16 District Head Quarters one each in

the Government Hospital and a Public Place in the Headquarters. In Avadi, Pallavapuram, Tambaram, Maraimalai Nagar and Hosur Municipalities, 10 Amma Unavagams, two each in Public Places have been opened. Remaining 103 Municipalities have been provided with one Amma Unavagam functioning in a Public Place. 145 Amma Unavagams have been opened on 24.05.2015 in the 124 Municipalities and are all functioning successfully. Upto 31.08.2015, 4,82,57,659 Idlies, 40,41,160 Sambar rice and 33,60,751 Curd rice has been supplied to the public at inexpensive rates. The opening of Amma Unavagams has benefited the public as it has enabled their access to hygienic and healthy food at inexpensive prices. Hence, all these centers have been received with overwhelming response and patronage from the people.

National Urban Livelihood Mission

(NULM)

The Ministry of Housing and Urban Poverty Alleviation, Government of India has launched NULM and the scheme is implemented in place of SJSRY from the year 2014-15. The components of NULM:

1. Social Mobilization and Institution Development.
2. Capacity Building and Training
3. Employment through Skills Training and Placement.
4. Self Employment Programme.
5. Support to Urban Street Vendors.
6. Scheme of Shelter for Urban Homeless

The total State and Central funds allocation for NULM Scheme is `143.36 Crore. This scheme is implemented in 40 ULBs having more than one lakh (1 Lakh) population and District Head quarter towns. The remaining Urban Local Bodies will be covered under Tamil

Nadu Urban Livelihoods Mission (**TNULM**). The Government of India has released `64.40 crore so far.

Under the component of Social Mobilization and Institution Development, 350 groups have been assisted with revolving fund of `70.00 Lakh.

Under the Self Employment Programme component 2451 individuals and 150 groups have been assisted for setting up micro enterprises at an estimated project cost of `29.01 Crore and further 5329 individuals and 950 groups have been identified for such Micro Enterprises activities in the future. In NULM, interest subvention is contemplated as against the direct subsidy method provided under the erstwhile poverty alleviation schemes.

Under the Employment through skills training and placements component, so far, 83,856 beneficiaries have been trained in skill training and 20,487 are undergoing training currently.

The scheme of urban street vendor is another component of NULM. Under this sub component, the survey of street vendors is in progress and so far, 39,062 street vendors have been identified. A state Project Sanctioning Committee (PSC) for approval of projects has been formed vide G.O.No.83 dated 14.07.2014.

Under the Shelter for Urban Homeless component, 12,000 homeless persons have been identified so far and 95 Shelter units have been sanctioned covering 4127 Homeless at a total estimated cost of `18.63 Crore. 30 of these shelters are already in

operation. For the remaining 65 shelters which are designed to accommodate 2953 inmates, works are under progress.

2.16 Financial Resources

The sources of revenue for Urban Local Bodies include taxes, shared revenue, charges and fees, loans and grants from the Central and State Governments. The major sources of income to the ULBs are:-

- Tax and non-Tax items of Revenue (Self-Generated Income)
- Devolution from the State Government (SFC Grant)
- Central Finance Commission Grant (13th / 14th CFC Grant)
- Specific grants sanctioned by GoI and State Government
- Loans from funding agencies and Government

The financial resources for 11 Corporations and 124 Municipalities during the year 2014-15 is `5796.68 crore. This includes the following sources:-

Sl. No	Sources	(` in Crore)
1	2	3
1	Own Income	1947.14
2	State Finance Commission Grant	1989.03
3	State Grant for developmental works	800.58
4	13th Central Finance Commission Grant	319.25
5	Grant for Centrally Assisted Schemes	390.67
6	Loans	349.41
	Total	5796.68

2.16.1 State Finance Commission

In accordance with Article 243Y of the Indian Constitution, the Finance Commission

constituted shall also review the financial position of the Municipalities and make recommendations towards,

- (i) the distribution between the State and the Municipalities of the net proceeds of taxes, duties, tolls and fees leviable by the State which may be divided between them and the allocation between the Municipalities at all levels of their respective shares of such proceeds.
- (ii) the determination of taxes, duties, tolls and fees which may be assigned to, or appropriated by the Municipalities
- (iii) the grants-in-aid to the Municipalities from the consolidated Fund of the State
- (iv) the measures needed to improve the financial position of the Municipalities; and
- (v) Any other matter referred to the Finance Commission in the interests of sound finance of the Municipalities.

The recommendations of the Fourth State Finance Commission cover the period 2012-2017. Based on the recommendations of the Fourth State Finance Commission, the vertical sharing ratio of the funds from SFC Grant between rural and urban local bodies has been fixed as 58:42.

The devolution from State's Own Tax Revenue (SOTR) from 2011-2012 to 2014-15 apportioned to the Corporation and Municipalities are as follows:-

Year	Granted Devolution	Devolved SOTR (` in Crore)
1	2	3
2011-2012	10%	1358.08
2012-2013	10%	1664.08
2013-2014	10%	1532.08
2014-2015	10%	1989.03

An allocation of `2129.48 Crore is made in the Budget Estimate for the year 2015-16 to all Corporations and Municipalities.

2.16.2 13th Central Finance Commission Grant

As per the recommendations of the 13th Finance Commission, the Union Government has sanctioned grants to all Corporations and Municipalities in the State of Tamil Nadu for the period from 2010-11 to 2014-15. The total allocation of grants earmarked to the Municipalities and Corporations are as follows:-

Sl. No.	Grant	` in Crore
1	2	3
1.	General Basic Grant	1,464.02
2.	General Performance	821.12

Sl. No.	Grant	` in Crore
1	2	3
	Grant	
	Total	2,285.14

An amount of `179.86 crore was released to all Corporations and `139.39 Crore to the Municipalities during the year 2014-15.

2.16.3 14th Central Finance Commission grant

As per the recommendations of the 14th Finance Commission, the Union Government has sanctioned grants to all Corporations and Municipalities in the State of Tamil Nadu for the period from 2015-16 to 2019-20. The total allocation of grants earmarked to the Municipalities and Corporations are as follows:-

Year	General Basic	General
-------------	----------------------	----------------

	Grant (` in Crore)	Performance Grant (` in Crore)
2015-16	790.04	-
2016-17	1093.95	322.87
2017-18	1263.96	365.37
2018-19	1462.18	414.92
2019-20	1975.71	543.31
Total	6585.84	1646.47

An amount of `280.46 crore has been released as first instalment to all Corporations and Municipalities for the year 2015-16. This fund should be utilised for payment of electricity and water charges, solid waste management work, improvement of roads and pathways, construction of parks and playgrounds and improvement of burial grounds.

2.17 External Aided Projects

The Government of Tamil Nadu is implementing two external aided projects namely

1. Japan International Cooperation Agency (**JICA**) assisted **TNUIP** and
2. German Development Bank (**KfW**) assisted **SMIF**

In addition to this, the World Bank assisted Tamil Nadu Sustainable Urban Development Programme (**TNSUDP**) is expected to be implemented from the year 2015-16 with an outlay of `3600 Crore for the programme period.

2.18 E-governance in Urban Local bodies

2.18.1 E-governance

The government is giving a major thrust to e-Governance systems in Municipal

Administration. The Commissionerate of Municipal Administration has set ambitious goals of anywhere-anytime citizen services through web and mobile applications. A number of applications have been developed to bring uniformity, ease of access and usability for officials of the ULBs and citizens.

Under TNUDP-III, more than 600 computer systems and associated hardware have been purchased and Tamil Nadu State Wide Area Network (TNSWAN) has been established in 56 ULBs, thus improving the computer infrastructure and connectivity. The following applications have been implemented by the Commissionerate of Municipal Administration during the previous year

1. Web Portal with improved usability and same look and feel across all ULBs.

2. Web based Project Management to help keep track of the project status, time and cost overruns.
3. Dengue Vector Surveillance to improve in-field data capturing accuracy for Anti-Larval and Source Reduction activities for Dengue Vector surveillance.
4. Water Supply Monitoring to improve daily reporting of ULB Water Supply across from Municipalities and Corporations.

Continuous capacity building exercise has been taken up to provide training to staff and officials in various skill sets.

Under JnNURM, a Detailed Project Report of approximately `18.06 crore has been approved by the Ministry of Urban Development for e-Governance. 29 Modules including birth and death, property tax, water tax and office administration are under preparation. The same

will be rolled out before end of this year in all the urban local bodies.

2.18.2 Geographical Information System (GIS)

The door-to-door survey of properties, preparation of Base Map and Utility Mapping using Geo-spatial techniques was taken up in 7 Corporations and 10 Municipalities under TNUDP-III. This survey will be taken up in 118 ULBs under Tamil Nadu Sustainable Urban Development Project from the year 2015-16.

2.19 Tamil Nadu Institute of Urban Studies (TNIUS)

Tamil Nadu Institute of Urban Studies, Coimbatore was established in 1981 with a view to achieve greater efficiency in the functioning of the administration of ULBs. A new Hostel has been constructed to improve the residential

training programmes. Various training programmes such as orientation training for Elected Representatives and comprehensive and refresher training course for officials and staff of ULBs are conducted. 737 officials were trained during the year 2014-15.

A post graduate Diploma in Finance Account Management for 114 persons in 4 batches and Post Graduate Diploma in Solid Waste Management with an International exposure visit for 72 persons in 3 batches has been completed.

Research Studies like the Slum Profile Analysis Report under the Urban Statistics for HR and Assessments [USHA] Survey Analysis for 25 cities, Perspective Plan for Tiruchirapalli Corporation, ULB Performance Ranking and Development of IEC activity and Strategy for

Solid Waste Management have also been undertaken by the institute.

The Institute has signed Memorandum of Understandings (MoU) with the reputed State, National Training and Research Institutions viz., Engineering Staff College of India (ESCI) - Hyderabad, Indian Institute of Human Settlement (IIHS) - Bengaluru and ICT Academy of Tamil Nadu - Chennai for collaborative learning in the field of Urban Governance, Engineering and ICT.

In order to enhance the knowledge and skills of the ULB personnel to international standards, MoU has been signed with Public Enterprises Agency (PEA), Kanagawa Prefectural Government – Japan for capacity building specifically in the water supply sector including exposure visits and establishment of technical cooperation facility. Water treatment,

distribution, leak detection and reduction of Non Revenue Water (NRW) etc., would be focus area of this cooperation in capacity building.

TNIUS was named as the Nodal agency for the implementation of Comprehensive Capacity Building programme of JnNURM sanctioned at a cost of `64.28 Crore to conduct various capacity building programmes.

2.20 Corporations

2.20.1 Madurai Corporation

Madurai Corporation was constituted on 01.05.1971. The population of Madurai Corporation as per 2011 census is 15,61,129, and the extent is 147.99 sq.km. It has an average annual income of `298.85 Crore.

During the year 2014-15, the following projects were taken up for implementation:

- Under Tamil Nadu Urban Road Infrastructure Project, for the year 2014-15, `8.00 crore has been allotted to restore 18.34 km of roads.
- Under Infra Gap filling fund, a sum of `1.16 crore was sanctioned for the construction of New toilets and Amma Unavagam.
- Under IUDM, a sum of `43.93 Crore was sanctioned for Improvements to water supply scheme.

2.20.2 Coimbatore Corporation

Coimbatore Corporation was constituted on 01.05.1981. The population of Coimbatore Corporation as per 2011 census is 16,01,438 and the extent is 265.36 sq.km., with an average annual income of `543.40 Crore.

During the year 2014-15, the following projects were taken up for implementation:-

- Under a scheme of the Ministry of Food Processing, a sum of `33.42 Crore was sanctioned for Modernisation of Abattoirs at Thudiyalur and Ukkadam.
- Under Solid Waste Management Special Fund, `1.69 crore was sanctioned for construction of Bio-Methanation plant at NanjundaPuram Crematorium and R.S Puram Boy's High School. Also, `11.32 crore was sanctioned for construction of 100 Metric Tonne per day Construction & Demolition (C&D) waste processing facility.
- Under Infra Gap Filling Fund, `5.80 Crore was sanctioned for construction of New toilets, Amma Unavagam and Zonal Office buildings.
- Under Operation & Maintenance Gap Filling Fund, `5.05 crore was sanctioned for improvements of burial ground and Water Supply works.
- Under the Infrastructure and Amenities Fund, a Sum Of `3.55 crore has been sanctioned for the Work of Construction of Bus Terminal at Vadavalli.

- Under UIG of JnNURM, a project for (24X7) water supply system at a cost of `556.57 crore has been sanctioned.
- Under TURIP 2014-15, a sum of `12.00 crore has been sanctioned to restore a length of 26.513 km of roads.
- Under IUDM 2014-15, a sum of `18.00 Crore has been sanctioned to restore a length of 32.224 km of roads.

2.20.3 Tiruchirappalli Corporation

Tiruchirappalli Corporation was constituted on 01.04.1994. The population of Corporation as per 2011 census is 9,16,674 and extent is 167.23 sq.km. with an average annual income of `238.76 Crore.

During the year 2014-15, the following projects were taken up for implementation:-

- Under Integrated Urban Development Mission 2014-15, `10.50 Crore for Road

works and for Eradication of open defecation has been sanctioned.

- Under Infra Gap Filling Fund, `2.15 Crore was sanctioned for construction of New toilets and construction of Amma Unavagam.
- Under TURIP 2014-15, `15.00 Crore has been sanctioned to restore a length of 43.742 km of roads.

2.20.4 Salem Corporation

Salem Corporation was constituted on 01.06.1994. The population as per 2011 census is 8,31,038 and the extent is 91.34 sq. km. with an average annual income of `143.36 Crore.

During the Year 2014-15 the following projects were taken up for implementation:-

- Under IUDM, a sum of `16.19 Crore for Road works and `1.00 Crore for

Eradication of open defecation has been sanctioned. A sum of `108.58 Crore has been sanctioned towards the contribution to dedicated Water Supply Scheme and UGSS projects.

- An amount of `11.22 crore has been sanctioned to restore the roads to a length of 18.127 km under TURIP 2014-15.
- Under Infra gap filling fund, a sum of `8.25 Crore has been sanctioned for construction of new toilets, Amma Unavagam, Ward Office building and installation of Variable Frequency Drive in Water Supply Schemes.
- Under Operation & Maintenance gap filling fund an amount of `1.70 Crore was sanctioned for the improvement of burial ground and construction of maternity center.

2.20.5 Tirunelveli Corporation

Tirunelveli Corporation was constituted on 01.06.1994. The population as per 2011 census

is 4,74,838 and the extent is 108.65 sq. km. with an average annual income of 133.55 Crore.

During the Year 2014-15, the following projects were taken up for implementation:-

- Under Infra Gap Filling Fund, a sum of `4.85 crore was sanctioned for construction of new toilets, Sanitary workers Quarters and Zonal Office buildings.
- Under Operation & Maintenance gap filling fund, a sum of `4.70 crore was sanctioned for improvement of burial ground and construction of storm water drain.
- Under Solid Waste Management fund, `6.53 crore was sanctioned for scientific closure at Ramayanpatti dumping site.
- An amount of `8.00 crore has been sanctioned to restore the roads to a length of 23.37 km under TURIP 2014-15
- Under Kfw fund, an amount of `35.24 crore has been sanctioned for Roads with storm water drains.

2.20.6 Erode Corporation

Erode Corporation was constituted on 01.01.2008. The population as per 2011 census is 4,98,129 and the extent is 109.52 sq.km. with an average annual income of `127.75 crore.

During the year 2014-15, the following projects have been taken up for implementation:-

- Under Tamil Nadu Urban Road Infrastructure Project, `7.00 crore has been allotted for the year 2014-15 to restore 12.99 km of roads.
- Under Infra gap filling fund, an amount of `1.95 crore was sanctioned for construction of new toilets, Amma Unavagam and Installation of Solar plant.
- Under Operation & Maintenance gap filling fund, an amount of `1.65 crore was sanctioned for improvement of burial

ground, construction of bridges and Improvement of bus stand.

- Under IUDM, `7.20 crore has been allotted for the year 2014-15 for road works.

2.20.7 Tiruppur Corporation

Tiruppur Corporation was constituted on 01.01.2008. The population as per 2011 census is 8,77,778 and the extent is 159.35 sq. km. with an average annual income of `159.44 crore.

During the year 2014-15, the following projects were taken up for implementation:-

- Under Integrated Urban Development Mission, `17.70 crore was sanctioned for water supply improvement scheme.
- Under TURIP, `8.00 crore has been allotted to restore 23.375 km of roads.

- Under Infra Gap Filling Fund, `2.65Crore was sanctioned for construction of New toilets, Amma Unavagam and Water Supply works.
- Under Operation & Maintenance Gap Filling Fund, `12.40 crore was sanctioned for improvements of burial ground, Water Supply, construction of bridges and Strom Water Drain.

2.20.8 Vellore Corporation

Vellore Corporation was constituted on 01.08.2008. The population as per 2011 census is 5,04,079 and the extent is 87.91 sq. km. with an average annual income of `73.83 Crore

During the year 2014-15, the following projects were taken up for implementation :-

- An amount of `2.36 Crore sanctioned under Special Solid Waste Management Scheme for purchase of primary and secondary collection vehicles.

- Under TURIP, `5.00 Crore has been sanctioned to restore the roads damaged due to the implementation of CWSS to a length at 17.870 km.
- Under Integrated Urban Development Mission, `17.95 crore has been sanctioned towards the contribution to Combined Water Supply scheme and for improvement to existing Toilets.
- Under Infra Gap Filling Fund, a sum of `4.10 Crore was Sanctioned for construction of New toilets and construction of Zonal Office buildings.
- Under Operation & Maintenance Gap Filling Fund, `8.80 crore was sanctioned for improvements of burial ground and water supply works.

2.20.9 Thoothukudi Corporation

Thoothukudi Corporation was constituted on 05.08.2008. The population of Corporation as per 2011 census is 3,70,896 and the extent

is 90.63 sq. km. with an average annual income of `54.40 crore.

During the Year 2014-15, the following projects were taken up for implementation:-

- Under TURIP, `8.00 crore has been allotted to restore 6.045 km of roads damaged due to the implementation of UGSS.
- Under Infra Gap Filling Fund, `2.60 Crore was sanctioned for construction of new toilets and Zonal Office buildings.
- Under Operation & Maintenance Gap Filling Fund, `3.80 crore was sanctioned for improvements of burial ground, construction of bridges and maternity centre.
- A sum of `72.98 crore has been sanctioned under IUDM as ULB contribution towards water supply schemes.

2.20.10 Thanjavur Corporation

Thanjavur Corporation was constituted by Hon'ble Chief Minister of Tamil Nadu on

19.2.2014. The population as per 2011 census of 2,22,943 and the extent is 36.31 sq.km., with an annual average income of `57.82 Crore.

During the Year 2014-15, the following works have been taken up for implementation:-

- Under TURIP, `10.00 crore has been allotted to restore 20.14 km of roads.
- Under Infra Gap Filling Fund, `7.30 Crore was Sanctioned for construction of new toilets, Amma Unavagam and street lights.
- Under Operation & Maintenance Gap Filling Fund, `2.95 crore was sanctioned for improvements of Water Supply and burial ground.
- Under IUDM, `42.70 crore was sanctioned for improvements of Water Supply, Road and Street lights.
- Under SWM Fund, `10.67 Crore was sanctioned for purchasing primary and

secondary collection vehicles, composting plant and construction of sanitary land fill.

2.20.11 Dindigul Corporation

Dindigul Corporation was constituted by Hon'ble Chief Minister of Tamil Nadu on 19.2.2014. The population of as per 2011 census is 2,07,327 and the extent is 14.01 sq. km. with an average annual income of `40.27 crore.

During the year 2014-15, the following works have been taken up for implementation:-

- Under TURIP, `2.75 cores has been allotted for Installation of Retro reflective signage's in the Towns. An amount of `7.50 crore has been allotted for Restoration of damaged roads at a length of 9.22 km due to laying of sewer lines.
- Under IUDM, `9.85 Crore has been sanctioned for construction of storm water drains.

- Under Infra Gap Filling Fund, `7.15 Crore was Sanctioned for construction of New toilets, Amma Unavagam, for rejuvenation and beautification of tanks and ponds and development of Rain Water Harvesting Structures and construction of Office buildings.

2.21 Honourable Chief Minister's Best ULB Award

In the year 2012-13, the Government instituted "Hon'ble Chief Minister's Award" to be presented to the best performing Municipal Corporation / Municipalities.

For the year 2014-15, the Madurai Corporation was adjudged the best among the Corporations (Cash Prize of `25 lakhs) and Pudukottai, Mannargudi and Gobichettipalayam Municipalities were declared first, second and third respectively among the Municipalities

(Cash Prize of `15 lakhs, `10 lakhs and `5 lakhs respectively)

The Hon'ble Chief Minister distributed the cash prizes with a citation to the ULBs during the Independence Day Celebrations for the year 2015.

3. Corporation of Chennai

The Corporation of Chennai, established on 29th September 1688, is the oldest Municipal Institution in the Country and second oldest in the world. The population of Chennai Corporation as per 2011 census is 67.27 lakhs. With the expansion of area from 174 Sq.kms. to

426 sq.kms. in 2011 by the inclusion of 42 local bodies, it has become the 4th largest Municipal Corporation in the country. With its 325 years of history, it carries a good mix of heritage as well as modern infrastructure facilities. It derives its statutory authority from the Chennai City Municipal Act, 1919. It is governed by an elected Council which is headed by a directly elected Mayor.

The 155 Divisions which were in existence prior to this expansion have been reorganised into 107 Divisions and newly included local bodies have been organised into 93 Divisions thereby totalling 200 Divisions. Also, the existing 10 Zones have been reorganized into 7 Zones and the recently added 42 local bodies have been divided into 8 new Zones; thus taking the total number of Zones from 10 to 15. For administrative convenience, these zones have been organised into 3 Regions, namely,

North Region, Central Region and South Region each comprising of 5 Zones and headed by I.A.S. Officers in the rank of Deputy / Joint / Additional Commissioners.

In addition to this, Government have sanctioned the creation of 784 additional posts subsequent to this expansion to augment the human resources for catering to additional responsibilities in an effective manner. This has facilitated quick response in decision making as well as grievance redressal to the satisfaction of public.

The number of assessees of Property Tax is 11,87,130 and that of Professional Tax is 1,44,324. Target for property tax in Chennai Corporation is `600 crores. The overall revenue

receipts in the year 2014-15 is `2195.90 crores, of which property tax collection is `581.63 crores, compared to `469.42 crores in 2013-14. Due to various initiatives and responsibilities of Corporation, the capital expenditure of Corporation has reached an unprecedented level of `1672.92 crores during 2014-15 as against `1393 crores in 2013-14.

Income of the Corporation over the past four years is given in the table below:-

YEAR	INCOME (IN CRORE)	% INCREASE
2011 - 12	1239.13	17.37
2012 - 13	1591.41	28.43
2013 - 14	2066.13	29.83

2014-15	2195.90	6.28
AVERAGE	1773.14	20.48

3.1 Amma Unavagam

In order to provide nutritious food in hygienic environment to the poor and vulnerable people at subsidised price, the Corporation of Chennai has set up 245 Amma Unavagams till date, in the 200 wards of the Corporation and in 7 Government Hospitals. In Amma Unavagams, one Idly is sold at `1/-, Pongal and variety rice at `5/- each and 2 Chappathis with Dhal at `3/- for dinner. Amma Unavagam has been welcomed by everyone, especially the poor people due to its affordability during the trying times of ever rising inflation. Till 31.08.2015, 24,01,21,825

Idlies, 10,31,85,636 Chappathis, and 9,79,87,384 variety rice have been provided through these centres. About 3 Lakh people are benefitted everyday under this scheme. Many experts world over have showered their praise on this scheme as an outstanding scheme due to the boost it has given to the overall socio-economic development.

3.2 Shelter for Urban Homeless

As per the guidelines of the Hon'ble Supreme Court, the Corporation of Chennai has established 28 shelters for urban homeless since June 2013 which are run by Non Governmental Organizations

Current status

S.No	Types of Shelters	No. of Shelters
1.	Men & Women	4
2.	Men	10
3.	Women	6
4.	Children	6

5	Mentally ill Men	1
6	Mentally ill Men & Women	1
Total		28

A total of 3905 people have been benefited by these shelters and 978 beneficiaries are staying in these shelters presently. In the year 2014-15, the Chennai Corporation has initiated action to start 42 New Shelters to fulfill the requirement as per Hon'ble Supreme Court's directions.

HUDCO has sanctioned ₹116.65 lakhs to Chennai Corporation to establish 3 shelters and the construction of these shelters are under progress.

3.3. Animal Birth Control

Animal Birth Control Programme is being implemented by Corporation of Chennai. The stray dogs are caught based on specific

complaints from the public and the Animal Birth Control Surgeries conducted by the ABC Centers of Corporation of Chennai at Kannammappet, and Lloyds Road and also handed over to NGO's like Society for Prevention of Cruelty to Animals (SPCA), Blue Cross of India and People for Animals. They conduct sterilization; post operative care, immunization against rabies and 3 days later, the dogs are then released in the same area they were picked up from after marking necessary ear-clipping as an identification mark.

A total of 14 dog catching vehicles are deployed for dog catching operations. Private dog catchers are engaged for catching and relocating.

As a Special program, immunization against Rabies for 38,403 stray dogs has been successfully completed.

3.4 Chennai Mega City Development Mission

With the view of achieving the vision of developing Chennai as a world class city with infrastructure of international standard, the Hon'ble Chief Minister has announced a path breaking scheme called Chennai Mega city Development Mission (CMCDM).

Under this special scheme, the Government has sanctioned an unprecedented amount of `1488 crores over the last 4 years to the Corporation of Chennai for taking up roadwork, storm water drain network, footpaths, streetlights, procurement of various modern vehicles and equipments for solid waste management. Till date, roads to a length of 916

km, storm water drain network for a length of 156 km and footpaths for a length of 230 km besides installation of 11,939 LED streetlights have been completed at a cost of `1073.83 crore. All the balance interior road works will be completed and put to use for the citizens within a period of two months. Further, 149 Bus Route Roads to a length of 127.41 Km have been taken up and is under progress at an estimated cost of `323.42 Crore. Due to effective and speedy implementation of this scheme, the long awaited aspirations of the people living in the extended areas of Chennai Corporation of having infrastructure on par with the core city areas are being fulfilled adequately.

3.5 Road Maintenance Programmes

The Corporation of Chennai maintains 471 Bus Route Roads for a length of 387.39 km and 33,374 Interior Roads for a length of 5525 km.

During the last 4 years, the Corporation of Chennai has completed the restoration of 235 Bus Route Roads for a length of 149.70 km at a cost of `98.41 crores under Tamil Nadu Urban Road Infrastructure Project (TURIP) and 93 Bus Route Roads for a length of 40.15 km at a cost of `30.12 crores under Capital Funds of Corporation. Strengthening and relaying of 45 Bus route roads to a length of 40.47 Km has been taken up and is under progress at an estimated cost of `91.17 Crore under TURIP 2014-15.

For the current financial year, Government has accorded approval for relaying 92 bus route roads to a length of 72.65 km at

an estimated cost of `161.70 crore under TURIP 2015-16.

In the last 4 years, for the first time in the history of Corporation of Chennai, 17,366 damaged roads were taken up for relaying out of 33,374 interior roads at an estimated cost of `2468 crore. So far, 16,728 road works have been completed at the cost of `2441.71 crore. Remaining works will be completed during 2015-16.

Further, it is proposed to improve 4127 interior roads to a length of 626 km at an estimated cost of `393.97 crore in the financial year 2015-16.

3.6 Promotion of Non Motorised Transport

In order to promote Non Motorised Transport (NMT) to reduce pedestrian-vehicle conflict, pollution and traffic congestion, Corporation of Chennai has undertaken a project for widening the footpaths from 5 feet to 10 feet to meet international standards. To ensure the rights of pedestrians, especially the vulnerable sections of the society such as elderly, women, children, students and differently abled, the Corporation has completed in the first phase, footpath improvement along 26 Bus Route Roads which is well appreciated by society and 20 footpaths are in progress.

Action has already been initiated to take up cycle sharing concept and Parking Management Systems under PPP mode with latest technology. Consultant for preparation of feasibility, financial plan and Transaction advisory services for cycle sharing concept and

Parking Management Systems have been selected and Letter of acceptance has been issued. Period of Consultancy is six months.

With these initiatives, Chennai Corporation is moving in the direction of becoming the first Municipal Corporation in India to adopt and implement Non-Motorised Transport (NMT) Policy.

3.7 Special Project - Ongoing Works

3.7.1 Upgradation of Harrington road

Upgradation of Harrington road at Chetpet was proposed at an estimate cost of `9.92 crores. The main objective of the work is to provide good infrastructural facility by way of constructing cement concrete pavement, providing pedestrian friendly foot path which would be easily accessible to physically challenged people and also to school going

children. The work in all respects will be completed before September 2015.

3.7.2 Marina Beautification Project

As part of the overall comprehensive redevelopment of Marina beach, it was proposed to reconstruct the existing compound wall on the western side corridor of Kamarajar Salai. The existing damaged, partially buried heritage pillars are being relocated with new heritage pillars so as to give a timeless elegance to the space. It is also proposed to fix cast iron grill work between the pillars which would be non-corrosive in nature. The existing footpath abutting the compound wall is also to be relaid. The total cost of the project is `33.10 crore. The work is under progress and will be completed by December 2015.

3.8 Work to be taken up during 2015-16

3.8.1. Pedestrian Plaza at Thiyagaraya

Road

Pondy Bazar area is one of the most popular shopping avenues in Chennai city and it is being redesigned and developed as an exclusive pedestrian zone. This would be achieved by restricting the existing vehicular traffic flow and it is also envisaged to provide a continuous pathway and cycle track all along the street with an exclusive dedicated bus service corridor which will negate the need for cars to commute to the market. The street will be accessible to all, especially to disabled persons. Street furniture, signage boards and a multi-level car parking are proposed as part of this project. The estimated cost of the project is `83.00 crores. This project will be executed under Tamil Nadu Sustainable Urban Development Project (TNSUDP). As per the requirement of the World Bank, the Traffic impact assessment report, Social impact

assessment report and Environmental impact assessment report are being prepared by the Consultant.

3.8.2 International Standard Roads

The main arterial roads in Ashok Nagar (i.e.) Dr. Ambedkar Road, Ashok Nagar 4th Avenue, Ashok Nagar 1st Avenue and Ashok Nagar 11th Avenue are to be re-developed to provide world class infrastructure facilities. It is envisaged to provide cement concrete pavement for the main carriage way. For the first time, provisions are given in the estimate for shifting the utilities by Metro Water, TANGEDCO and other agencies to avoid future road cuts. As part of the re-development, the existing intersection shall be redesigned for smooth flow of traffic. The total cost of the project is `135.00 crores. This project will be

executed under Tamil Nadu Sustainable Urban Development Project (TNSUDP).

3.9 Buildings

For providing a proper avenue for catering to the cultural and recreational needs of the people, the Corporation of Chennai has constructed a 900 seat state-of-the-art air-conditioned auditorium at Shenoy Nagar at a cost of `18.05 crores. Communicable Diseases Hosital at Tondiarpet has been renovated at a cost of `17.00 crores and has been put to public usage.

An office complex having basement, ground plus 5 floors is completed at the cost of `39 crores in the Ripon Building complex. The building has been named as "AMMA MAALIGAI".

A commercial complex cum Multi-Level Car Parking (MLCP) at Wallace Garden, Nungambakkam under PPP mode has been completed. MLCP has a capacity of 249 cars and 230 two wheelers.

Besides this, the buildings department has also completed various buildings for the benefit of people at a cost of `139.54 crores over the last four years.

Also for the current year 2015-16, various buildings are proposed at an estimated cost of `126 crore.

3.10 Eradication of Open Defecation

After a lot of concerted efforts taken by Corporation of Chennai, open defecation has been controlled in Chennai City, except in a few pockets. At present, 866 Public Conveniences

are maintained by Corporation of Chennai, mostly in slum areas, abutting slum clearance board tenements and near bus stands, railway stations and market areas. To eradicate open defecation in Chennai, 348 sites have been identified and work is under progress. These works will be completed by September 2015. In continuation, a scientific survey will be done for the remaining open defecation areas and required toilets will be constructed before December 2015 to completely eradicate open defecation in Chennai.

3.11 Bridges

In order to ensure hassle free movement of traffic, the Corporation of Chennai maintains Bridges, Culverts, Footover bridges and Causeways across major Rivers and Canals, Rail Over Bridge across Railway crossings, Flyovers across road intersections in total 243 locations

and 16 Subways in Railway crossings, 6 Pedestrian Subways in important Bus Route Roads. During the last 4 years, Chennai Corporation has completed construction of 32 bridges, culverts, subways and improvements to the existing flyover / bridges in various locations at an estimated cost of ₹7.59 crore. Further, construction and renovation of 4 bridges at an estimated cost of ₹24.88 crores are under progress and will be completed by March 2016.

3.12 Street Lighting

The total number of street lights maintained by Chennai Corporation is 2,48,467. The objective is to provide uniform street lighting with energy saving fittings, throughout the city for the safety of women, elderly persons and other road users. Street lighting in

the newly added areas are being provided as per the norms followed in the core city. LED street light fittings which consume 40% lesser power than sodium vapour lamp street light fittings are being provided in the newly added areas. The project of providing 1,10,000 LED street light fittings at a total cost of `322 crore for the newly added areas has commenced and 48,034 such new street lights have already been installed at a total cost of `145.85 crore. It is worth mentioning that no other municipal corporation in the country has installed such large numbers of LED street light fittings as in Chennai. The installation of the balance 61,966 LED Street lights will be completed before March 2016.

3.13 Storm Water Drains

In order to prevent flooding in Chennai City, Corporation of Chennai maintains a total Storm Water Drain Network of 1894.82 km comprising of 7351 drains. Besides this, the Corporation also maintains 30 numbers of canals for a total length of 48.803 km that include Kodungaiyur Canal (5.28 km), Captain Cotton Canal (3.04 km), Padi Kuppam Canal (2.778 km) to mention a few.

The Storm Water Drain network which was about 850 km in the erstwhile Chennai city was taken up for expansion under JnNURM by the Chennai Corporation in association with the Public Works Department at a cost of `1448 crore of which the Corporation component was `704.80 crore. The progress under this scheme for the Corporation Component is shown below:-

Name	Project	Executable	Works	Works in
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of Basin	Cost ('cr)	Balance Works		Completed		progress	
		Length (km)	Amt (Cr.)	Length (km)	Amt (Cr.)	Length (km)	Amt (Cr.)
Northern	231.02	119.00	181.32	115.73	157.20	1.96	16.81
Central	247.59	78.69	185.15	75.60	172.09	3.09	8.84
Eastern	119.26	82.38	110.01	82.38	108.24	-	-
Southern	106.93	65.00	106.93	55.34	84.11	4.90	17.21
Total	704.80	345.07	583.41	329.05	521.64	9.95	42.86

As a result of adding 329.05 km network of storm water drains over last 4 years at a cost of `521.64 crore, the number of flood prone areas in the Chennai Corporation has reduced to below hundred from about 300 earlier.

In accordance with the policy of Corporation of Chennai to provide adequate infrastructure facilities on par with erstwhile city area in the expanded areas; and with the objective of avoiding water inundation by safe disposal of rainwater, integrating the available tanks and lakes for disposal of the rainwater,

rainwater Harvesting and recharging of ground water, up-gradation in environmental conditions and improvement in overall hygiene for sound health, the Corporation has prepared a Detailed Project Report for Kosasthalaiyaru, Cooum, - Adayar and Kovalam Basin for the length of 1069.40 km of Integrated storm water drain network at a project cost of `4034.30 crore.

It is proposed to execute the work in Zone-7, 11 and 12 of Corporation of Chennai, in first phase, in Cooum and Adayar basin, for 270 km, at a project cost of `1101.43 crores, with World Bank funding, under Tamil Nadu Sustainable Urban Infrastructure Development Project (TNSUDP).

3.13 Solid Waste Management

The generation of Municipal Solid Waste in Chennai city has increased to 5000 metric

tonne per day. At present the primary collection i.e., door to door collection is done using 7000 tricycles, the corporation is managing the secondary collection of solid waste by deploying 331 compactors, (LMV / HMV) 37 haulage tipper trucks, 177 tipper lorries, 12 mechanical sweepers, 57 skid steer loaders and 25 front end loaders.

During the years 2011-14, `44.26 crore have been allotted under Chennai Mega City Development Fund and 88 Compactors, 100 Tipper, 8 Mechanical Sweeper, 27 Skid Steer Loaders, 16 Front End Loaders, 9 Hydraulic Excavators and 2 Bulldozer have been purchased using this fund.

The Corporation deploys approximately 17026 conservancy workers. The attendance of conservancy workers is monitored through Bio Metric system which has been introduced in

four zones as a first phase. A detailed route chart for compactor vehicles and tricycles has been drawn up to effectively supervise solid waste management activities. In order to ensure safe working conditions for the sanitary workers, they have been provided with masks, gloves and reflective dresses for night conservancy etc.,

To improve the monitoring of conservancy activities smart phones are provided to all conservancy inspectors to take photos of every bin after clearance which, on uploading can be monitored from Head Quarters. Walky-talky has been issued to all the Technical Staff, Conservancy Inspectors and Conservancy Supervisors to monitor the Conservancy Operations.

Nodal Officers have been appointed as a dedicated team at the level of Superintending

Engineers from Head Quarters to monitor and super-check the inspecting officers appointed for supervision of Conservancy operations in each division.

Bio-gas plants have been commissioned at a cost of `1.80 crore and are in operation at 9 locations each having feeding capacity of 0.75 tonne of bio degradable waste which produces around 40 kg of bio-gas in each plant. A total of 360 kg, thus generated, is being used for cooking at Amma Unavagams. Further similar such plants are under construction at 8 locations at an estimated cost of `1.60 crores.

Biomethanation Plant for generation of electricity production of 40 Kw using BARC technology having a feeding capacity of 2 MT of bio-degradable waste has been commissioned and is in operation at Zone 6, Ward 77,

Pulianthope. The electricity produced is used for lighting nearly 40 Sodium vapour lamps of 250W for 12 hrs everyday. Similar 3 plants are under construction at Athipattu transfer station, Velangadu burial ground and Otteri Burial ground at a total cost of `1.5 crores each having feeding capacity of 3 MT. The gas produced at Velangadu and Otteri burial ground are used as fuel for gasifier and at Athipattu transfer station, it is used for lighting lamps.

Improvement works at dumping ground in Kodungaiyur and Perungudi like laying of cement concrete road to facilitate dumping of garbage to reach the extreme end, surveillance cameras at various locations, deployment of security guards 24 hrs, installation of high mast lights, and provision of high efficient motors for water jet have been facilitated.

In order to ensure the overall efficiency through supervision by the people themselves, the Corporation has also started a unique initiative called 'rate your conservancy' on its website.

4. Directorate of Town Panchayats

Town Panchayats form the third tier of Urban Administration. The population of the Town Panchayats, as per Census 2011, is 80,90,847, accounting for 11.21% of the total population of the State and 23.17% of the urban population. The annual growth rate of population is 1.45%. The total area under the Town Panchayats is 6388.20 sq.km. which constitutes 62.56% of the total urban area of the State.

The Town Panchayats Administration is striving to improve the standard of living of the people in Town Panchayats by providing better civic services, development of infrastructure facilities and promotion of employment opportunities in view of the rapid growth of urban population.

4.1 Administrative Setup

There are 528 Town Panchayats in the State and they are governed by the Tamil Nadu District Municipalities Act, 1920. The Town Panchayats are classified into four grades based on their annual income and population as depicted below:-

Sl. No.	Grade	Annual Income (` in Lakh)	No. of Town Panchayats
1.	Special Grade	Above ` 20.00 lakh	12
2.	Selection Grade	Above ` 16.00 lakh	222

		upto `20.00 lakh	
3.	Grade- I	Above ` 8.00 lakh upto `16.00 lakh	214
4.	Grade-II	Above ` 4.00 lakh upto `8.00 lakh	80
		Total	528

The Director of Town Panchayats is the Head of the Department. 17 Assistant Directors of Town Panchayats are looking after the administration at the zonal level and the Collectors of the respective Districts are entrusted with supervising the affairs of the Town Panchayats. Many of Town Panchayats are of tourism, pilgrimage and heritage importance.

As per G.O.(MS)No.142 Municipal Administration and Water Supply Department, (TP1) Dated.21.11.2014, the Town Panchayats

are re-classified in to four grades based on their annual income as depicted below:-

Sl. No.	Grade	Annual Income (in Lakh)
1.	Special Grade	Exceeding ` 200.00 lakhs
2.	Selection Grade	Exceeding ` 100.00 lakhs but not exceeding ` 200.00 lakhs
3.	Grade- I	Exceeding ` 50.00 lakh but not exceededing ` 100.00 lakhs
4.	Grade-II	Not exceeding ` 50.00 lakhs

4.2 Elected Representatives in Town Panchayats

In tune with the 74th Amendment of Constitution of India, Elections to Town Panchayats were held on the 17th and 19th of October 2011. Chairpersons of the Town Panchayats are being directly elected by the electors. 528 Chairpersons comprising of 56 SC (General), 28 SC (Women), 2 ST (General),

1 ST (Women), 148 Women (General) and 293 others were elected and assumed office on 25.10.2011. Similarly, in 8288 Wards, 735 SC (General), 670 SC (Women) 3 ST (General), 22 ST (Women), 2086 Women (General) and 4769 Others were elected as ward members. 3 ward members positions are vacant.

4.3 Functions and Core Services

Town Panchayats play a vital role in rendering civic services to the public. They provide a wide range of civic services to the public such as drinking water, street lights, sanitation, solid waste management, road connectivity, drains and pavements, burial grounds and slaughter houses. This apart, construction and maintenance of bus stands, community halls and markets are also undertaken by Town Panchayats. Issuing birth and death certificates and trade licenses, levy and

collection of taxes and fees, approval of building plans are the other primary statutory functions of the Town Panchayats.

4.4 Financial Resources

Property Tax, Professional Tax, Fees, Lease, Rents and User charges etc., are the major sources of revenue of the Town Panchayats. The other important sources of assigned revenue are Surcharge on Stamp duty, apportionment of entertainment tax, State and Central Finance Commission Devolutionary Grants. These apart, grants from various schemes make substantial contribution to the total revenue of the Town Panchayats.

Foremost among the schemes is the Integrated Urban Development Mission, an exemplary scheme announced by the Hon'ble Chief Minister especially for creation of urban infrastructure. Other schemes include Tourism

Development Projects, Hill Area Development Programme, Western Ghats Development Programme, NABARD Assistance, Solid Waste Management Fund, TURIP etc.,

4.5 Financial Outlay

The financial outlay for the year 2014-15 for 528 Town Panchayats comes to `2133.90 crore which consists of SFC Devolution grant of `1090.22 crore, Development schemes of `542.12 crore, Salaries and allowances to Directorate of Town Panchayats and Assistant Director of Town Panchayats `8.12 crore, Own Revenue of Town Panchayats `493.26 crore and allotment towards Hon'ble CM Award `18.00 lakh.

Total income of the Town Panchayats during the last 5 years is as follows:-

Year	Total income (` in crore)	% Increase
2010-11	1138.31	23.56
2011-12	1757.71	54.41
2012-13	1939.44	10.34
2013-14	2031.27	4.73
2014-15	2133.90	2.87

From the year 2011-2012, per capita income increased due to grants received from the schemes such as IUDM, NABARD, EPRED and TURIP.

4.6 Infrastructure Development

Rapid urbanization and a high growth rate of urban population due to the migration from the neighboring rural areas in search of employment, education, health and quality of life has resulted in increased demand for the

provision of basic amenities such as water supply, solid waste management, underground sewerage schemes, roads, street lights, crematoriums, slaughter houses, parks and playfields etc., in Town Panchayats. Apart from encouraging the urban local bodies to improve their own resource base, the state government additionally is also transferring SFC devolution and supporting creation of urban infrastructure projects through its flagship mission mode programmes viz., Integrated Urban Development Mission (IUDM), NABARD Loan assistance, Minimum Needs Programme etc.,

4.7 Integrated Urban Development Mission (IUDM)

The Hon'ble Chief Minister has unveiled the Flagship Scheme of IUDM during the year 2011 to cater to the infrastructure needs of the Urban Local Bodies.

All type of infrastructure works required for Town Panchayats are being implemented through Integrated Urban Development Mission. A sum of `899.66 crore has been provided to Town Panchayats for taking up various infrastructure works required during the years 2011-2012 to 2014-2015 covering UGSS, Water Supply Improvement, Road improvement and Storm Water Drain works under the above programme as follows:-

Year	No of Works		Amount Sanctioned (` in crore)
	Taken up	Completed	
2011-12	5275	5275	250.00
2012-13	569	547	248.04
2013-14	1043	877	284.96
2014-15	235	26	116.66
Total	7122	6725	899.66

For the year 2015-16, a sum of `250 crore is allocated.

4.8 Water Supply

The Government is committed to provide minimum 70 LPCD of protected drinking water supply to the people in all Town Panchayats. The Town Panchayats maintain stand alone water supply schemes. The combined water supply schemes are being maintained by TWAD Board.

Out of 528 Town Panchayats, 525 Town Panchayats are supplying 70 LPCD, 3 Town Panchayats are supplying between 50 LPCD to 55 LPCD drinking water on a daily basis. The following are the details of Water Supply levels in Town Panchayats:-

Sl. No	LPCD supplied per day	No of Town Pts.,	Demand (MLD)	Supply (MLD)	Gap (MLD)
1	50-55	3	4.79	3.83	0.96
2	Above 70	525	681.90	689.25	

Year wise additional capacity provided

Sl. No	Year	No of Town Panchayats	Demand (in MLD)	Supply (in MLD)	Additional capacity (in MLD)
1	2	3	4	5	6
1	2011-12	529	564	568.97	11.05
2	2012-13	529	564	589.20	20.23
3	2013-14	528	568	610.70	21.50
4	2014-15	528	568	689.25	78.55
	Total		2264	2409.37	131.33

Measures have been taken to improve Water Supply in below 70 LPCD Town Panchayats.

Further, in the year 2014-15, 320 works have been taken up under various schemes at an estimated cost of `100.24 crore. Out of these, 190 works have been completed and 130 are under progress. On completion of all these works, an additional capacity of 7.26 MLD will be added.

4.9 Sanitation

In 528 Town Panchayats sanitation is being maintained effectively in two modes. One is networking system i.e., under ground sewerage system, another one is non-networking system i.e., Septage management system.

4.9.1 Under Ground Sewerage System (UGSS)

Provision of the underground sewerage system is indispensable for upkeep of sanitation and protection of environment in Town Panchayats which endeavor to provide safe sanitation to the residents. Hence, Under Ground Sewerage Schemes are being taken up in Town Panchayats in a phased manner by availing financial assistance from various sources such as Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Urban

Development Mission (IUDM). During the year 2011-2012, UGSS works have been taken up in 5 Town Panchayats viz., Mamallapuram, Thirumazhisai, Thiruchendur, Orathanadu and Sriperumbudur at an outlay of `149.16 crore. In Mamallapuram, Orathanadu, Thiruchendur Town Panchayats, work has been completed. In remaining 2 Town Panchayats viz., Thirumazhisai and Sriperumpudur, works are under progress at advance stages of completion.

Conventional UGSS has been taken up in 11 Town Panchayats viz., Thiruporur, Ponneri, Ulundurpettai, Periya-naickanpalayam, Perundurai, Manachanallur, Ayakudi, Vallam, Vellankanni, Palanichettipatti and Kanyakumari at a cost of `391.58 crore through TWAD Board. Action is being taken to float tender in above Town Panchayats.

4.9.2 Septage Management

In view of the small size of the population It is proposed to take up Septage Management in 18 Town Panchayats Viz., Alwarthirunagari, Chengam, Alangayam, Pennagaram, Kaveripattinam, Jalagandapuram, Alampalayam, Kunnathur, Needamangalam, Kurumbalur, Paravai, Mudhukulathur, Seithur, Sambavarvadakarai, Pennadam, TNPL pugalur, and Mamallpuram (Extended area)

For the above 18 Town Panchayats, Septage management works will be taken up at a cost of `203.85 crore.

4.9.3 Eradication of Open defecation

Open defecation affects public hygiene and sanitation besides offending human dignity. The Government is determined to make Tamil Nadu an **open defecation free State**. To

achieve this objective, the Town Panchayats have undertaken a massive programme of construction of community toilets, repairs to existing toilets as well as an effective IEC campaign. During the surveys conducted by Town Panchayats, open defecation has been noticed at 1095 locations.

The details of works taken up under various schemes are as follows:-

Sl. No	Year	Scheme	Const. of New Toilets	Renovation of Toilets	Project Cost (` in crore)
1	2011-12	Open defecation free toilet scheme	52	75	5.53
2	2011-12	IUDM	80		6.04
3	2012-13	Open defecation free toilet scheme	160	221	22.60
4	2012-13	NABARD (RIDF) Scheme	376		45.20
5	2013-14	Open defecation free toilet scheme	174		22.60
6	2013-14	Government funds	77		10.00
7	2013-14	General fund		401	8.01

Sl. No	Year	Scheme	Const. of New Toilets	Renovation of Toilets	Project Cost (in crore)
8	2014-15	Open defecation free toilet scheme	183		22.60
		Total	1102	697	142.58

Out of 1102 new community toilets, 916 community toilets have been completed and remaining 186 are under progress at various stages. Similarly, 697 renovations of toilets have been completed and put into use.

This scheme will be dovetailed with the Swachh Bharat Mission of the Government of India.

4.10 Roads

Town Panchayats maintain 19,334.56 km of various types of roads which are as follows:-

Sl.	Type	Length (Km)
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No.		
1	BT Roads	9835.77
2	CC roads	4993.01
3	WBM Roads	1008.23
4	Gravel Roads	494.56
5	Earthen roads	3002.99
	Total	19334.56

During the period 2011-2012 to 2014-15, improvement of roads have been taken up under various schemes as detailed below:-

SI No.	Year	Total No. of Roads	Total length (in Km)	Amount (in crore)
1	2011-12	1908	1560.98	284.56
2	2012-13	1022	1165.96	334.40
3	2013-14	768	807.90	248.29
4	2014-15	652	743.33	230.57
	Total	4350	4278.17	1097.82

Out of 4350 road works, 3845 works have been completed and put in use for public. Remaining 505 works are under progress at various stages. Totally **4278.17** km of roads

have been upgraded as BT, CC, and paver block road.

4.10.1 NABARD RIDF – Rural Infrastructure Development Fund

During the years 2011-2012 to 2014-15, ₹531.51 crore has been allocated for 2076 works such as Improvement of Road, Construction of Bridge, Storm Water Drain, construction of sanitary complex, improvement of water bodies and construction of slaughter house under this scheme as follows:-

SI No	Year	No. of works	Amount (₹ crore)	Remarks
1	2011-12	419	97.90	All the works completed
2	2012-13	975	200.14	All the works completed
3	2013-14	381	118.40	367 works completed. Remaining 14 works under progress
4	2014-15	301	115.07	25 works completed. Remaining 276 works under progress

	Total	2076	531.51	
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During the year 2015-16, it is proposed to allocate `100.32 crore.

4.10.2. The Tamil Nadu Urban Road InfraStructure Project (TURIP)

With a view to upgrade the urban roads in the State to International standards, "Tamil Nadu Urban Roads Improvement Project" is being implemented since 2011-2012. Under this scheme, in addition to improving all roads in Town Panchayats, roads have been provided with pavements and storm water drainage.

During the period 2011-2012 to 2014-15, Improvement of roads to the length of 825.78 Km has been taken up at a cost of `232.61 crore, out of which 808 works have been completed and remaining 97 works are under

progress. The work will be completed by 31.10.2015.

Sl No	Year	No. of Roads	Length (in Km)	Amount (` crore)
1	2011-12	339	247.00	50.57
2	2012-13	191	221.56	50.00
3	2013-14	147	159.39	50.57
4	2014-15	228	197.83	81.76
	Total	905	825.78	232.90

A sum of `81.76 crore is provided during the year 2015-2016.

4.10.3. Plastic Roads

Plastic in different forms is found to be almost 5% in solid waste, which is toxic in nature. It is a common sight in both urban and rural areas to find empty plastic bags and other type of plastic packing material littering the roads as well as drains. Due to its poor biodegradability, it creates stagnation of water and

associated hygiene problems. In order to curtail this problem, Plastic waste has been used in laying of Roads.

From the year 2011-2012 to 2013-14, a sum of `44.50 crore was allotted to 181 Roads for laying 236.154 Km of plastic roads under Environmental Protection and Renewable Energy Fund.

Sl. No.	Year	No. of Roads	Length (in Km)	Amount (` crore)
1	2011-2012	90	108.756	18.00
2	2012-2013	69	96.748	20.00
3	2013-2014	22	30.650	6.50
	Total	181	236.154	44.50

Further, 626 Plastic Roads at an estimated cost of `158.70 to a length of 510.87 km has been upgraded as plastic road by using of

Plastic by dovetailing various schemes such as IUDM, TURIP and General fund.

Hence, a total of 1009 Plastic Roads have been laid using 900.25 MT of plastics to a length of 929.46 km at an estimate cost of `279.50 crore in Town Panchayats. Town Panchayats have earned a sum of `2.38 crore by selling plastic shed waste.

4.11.1 Solid Waste Management

At present, 1967 MT garbage is generated per day in the Town Panchayats of which organic waste constitutes 925 MT, in-organic waste 747 MT the remaining 295 MT is Silt waste. The per capita generation of waste varies from 250 grams to 300 grams per day. The physical composition of the garbage in

various Town Panchayats has been analyzed and the ranges are tabulated below:-

Sl. No.	Type of Waste	In percentage
1	Biodegradable	47-60
2	Plastics	4 – 8
3	Paper	2 – 5
4	Rubber	1 – 2
5	Glass	1 – 3
6	Silt	15 – 20
7	Metal	2 – 3
8	Cloth	3 – 5

For effective implementation of SWM in Town Panchayats, 7877 SHG members are involved in both Collection and Segregation of waste and 6846 sweepers are deployed in street sweeping / Collection of Solid Waste in Town Panchayats.

4.11.2 Bio / Vermi Composting

At present, Bio composting is being done successfully in 461 Town Panchayats. Every

month, 493.73 MT of Bio compost is produced of which 217.11 MT is being sold for `4.34 lakhs per month and each year `52.08 lakhs is earned by Town Panchayats. Totally, 1595 MT of Bio-Compost stock is available in the Town Panchayats.

Vermi composting is being done successfully in 132 Town Panchayats. Every month, 47.14 MT of Vermi compost is produced of which 23.88 MT is being sold for `1.20 lakhs per month and each year `14.40 lakhs is earned by Town Panchayats. Totally 119.92 MT of Vermi compost stock is available in the Town Panchayats. Vermi composting method will be extended to other Town Panchayats during this year.

4.11.3 Special Solid Waste Management Fund

During the year 2013-14, 77 Town Panchayats which are generating more than 5 MT per day of solid waste, have been sanctioned comprehensive solid waste management projects involving door to door collection, segregation, composting, and scientific land fill. Government have sanctioned a sum of ` 43.728 crore under the Special Solid Waste Management fund out of which `12.245 Crore has been spent for procurement of materials, vehicles and infrastructure works.

4.12 Infrastructure Gap Filling Fund

The financial allocation under above programme aims to bridge the gap in providing Infrastructure facilities in Town Panchayats.

During the years 2011-2012 to 2014-15, a sum of `201.44 crore has been allocated for 664 works such as construction of office

buildings, water supply works, Solid Waste Management, Storm Water Drain, Slaughter House, Crematorium, Community hall, Shandy Improvement, Bus stand, Burial ground Improvement and ULB Contribution to the water supply / UGS scheme etc.,

The details are as follows:-

Year	No. of works	Amount (` crore)	Remarks
2011-12	155	20.99	All the works completed
2012-13	94	25.62	
2013-14	185	69.45	183 works completed and remaining 2 works under progress.
2014-15	230	85.38	Work under progress in

			various stages.
Total	664	201.44	

A sum of `76.99 crore has been provided in the Budget Estimate 2015-16 under this Scheme.

4.13 Operation and Maintenance Gap Filling Fund

Financial allocation is made from out of the Devolution Grant to bridge gap under above funds by way of providing Infrastructure facilities to Town Panchayats.

During the year 2011-2012 to 2014-15, a sum of `92.75 crore has been allocated for 476 works such as construction of office building, water supply works, Solid Waste Management, Storm Water Drain, Road, Community hall, Bus

stand, Improvement of Burial ground and ULB Contribution to the water supply scheme etc., under this scheme as follows:-

Year	No. of works	Amount (` crore)	Remarks
2011-12	84	13.99	All the works completed
2012-13	169	17.09	
2013-14	112	27.42	
2014-15	111	34.25	Work under progress in various stage.
Total	476	92.75	

A sum of `32.99 crore has been provided in the Budget Estimate for the year 2015-16 under this Scheme.

4.14 13th Finance Commission Grant

The 13th Finance Commission grant is being allotted annually by Government of India to the Town Panchayats for the period from

2010-11 to 2014-15. The allotment has been provided by way of two components, viz., General Basic Grant and General Performance Grant. During the year 2014-15, sum of `124.06 crore under Basic Grant and `82.89 crore under Performance Grant has been provided in the Budget Estimate 2014-15. Out of which, a sum of `114.99 crore was released under Basic Grant and `15.40 crore was release under performance grants. The above grant was utilized towards payment of contribution to Water supply, UGSS, payment of E.B. Charges and payment of water charges.

4.14.1 14th Finance Commission Grant

The 14th Finance Commission grant is being allotted annually by Government of India to the Town Panchayats for the period from 2015-16 to 2019-20. The allotment has been

provided by way of two components, viz., General Basic Grant and General Performance Grant. During the year 2015-16, a sum of ₹229.11 crore is provided in the Budget Estimate, out of which, a sum of ₹114.56 crore was released as first installment under Basic Grant. The above grant was utilized towards payment of contribution to Water supply, UGSS, payment of E.B. Charges, payment of water charges, Solid waste Management, Laying of Road and footpath and Park Improvement.

4.15 Rain Water Harvesting

Rain Water Harvesting Programme launched in 2001 has created impressive impact in ground water recharging. Amendments made to Section 215 (a) of the Tamil Nadu District Municipalities Act, 1920 and Building Rules 1973, have made it mandatory to provide RWH structures in all new buildings. To

consolidate the gains, various measures have been taken up for rejuvenation of RWH structures created already in both public and private buildings, besides creating new ones. IEC activities will be continued in the Town Panchayats to sensitize all the stake holders to sustain the momentum.

There are 1916 water bodies maintained by Town Panchayats with an extent of 6286.84 acres. Total number of buildings in Town Panchayats is 24,11,699 out of which 23,45,260 buildings are provided with Rain Water Harvesting facilities as mentioned in the following table:-

Sl. No	Type of Buildings	No. of Buildings	No. of Buildings having RWH Structures
1.	Government Buildings	24,226	23,230
2.	Residential	22,26,756	21,63,886

Sl. No	Type of Buildings	No. of Buildings	No. of Buildings having RWH Structures
	Buildings		
3.	Commercial Buildings	1,48,785	1,46,212
4.	Industrial Buildings	11,932	11,932
	Total	24,11,699	23,45,260

In order to restore the 243 water bodies `55.52 crore has been allocated for the years 2011-12 and 2012-2013 under IUDM and NABARD.

Sl. No	Name of the Scheme	Year	No.of works taken up	Amount allotted (` in crore)
1.	IUDM	2011-12	9	1.20
2.	NABARD	2012-13	234	54.32
		Total	243	55.52

Similarly, during 2013-2014, 561 improvement works such as desilting and strengthening of bund and sluice works have been taken up at a cost of `18.40 crore under General fund.

During 2014-2015, a sum of `4.50 crore has been sanctioned for restoration of Eri in Perundurai and Karumandichelli- palayam Town Panchyats under Environmental Protection and Renewable Energy Fund.

Out of 1916 water bodies, 804 water bodies have been renovated. Remaining 1112 water bodies will be renovated in a phased manner. Due to the above efforts, the ground water recharge potential is 4.13 TMC.

4.16 Animal Birth Control

The Government of India notified the Animal Birth Control (Dogs) Rules 2001 as

required under sub-section 1(9) of section 38 of the Prevention of Cruelty to Animals Act, 1960.

In order to implement these Rules in letter and spirit, a survey was conducted and stray dogs in all the Town Panchayats were estimated as 98,580. Out of these, 83,975 were sterilized upto 2014-15. During 2015-16, action is being taken to sterilize and vaccinate the remaining 14,605 dogs.

4.17 Satellite Town

Sriperumbudur Town Panchayat of Kancheepuram District has been selected as a Satellite Town under the Centrally Sponsored Scheme of Urban Infrastructure Development Scheme for Satellite Town (UIDSST). The objectives of the scheme are to reduce pressure on million plus Urban Agglomerations by

developing infrastructure facilities in the Satellite Towns and to sustain them by implementing reforms such as energy audit, water audit, introduction of cost effective technologies and capacity enhancement for improved Operation & Maintenance. Reservation of 10-15% of housing sites for the urban poor and promotion of the urban local body level reforms are the other objectives of the scheme. Under the scheme, 3 projects covering the core sectors of water supply, UGSS

and Solid Waste Management have been taken up at a cost of `123.75 crore and all the works are in progress at various stages.

Sl. No.	Name of the work	Project Cost (` in crore)	Stage of Progress
1	Solid Waste Management infrastructure	4.44	completed
2	Comprehensive Water Supply Scheme	42.20	Works will be completed by October 2015
3	Comprehensive Sewerage Scheme	77.11	
	Total	123.75	

4.18 Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

The Mission provides for infrastructure development in 500 Cities / Towns in India in order to improve delivery of services to citizens.

Main objective of the scheme is providing basic services such as Water Supply, Sewerage to households and to build amenities in cities which will improve the quality of life for all, especially the poor. As a first phase, **Velankanni Town Panchayat** has been selected under this scheme and action is being taken to prepare the Service Level Improvement Plan (SLIP).

4.19 Green House Scheme

The Hon`ble Chief Minister has announced an ambitious goal of **Slum Free Cities** under **VISION 2023**. As part of this programme, the Hon`ble Chief Minister has announced the construction of 20,000 concrete houses with solar light installations. Each beneficiary will be eligible for a financial assistance of `2.10 lakh. The eligible families are the families belonging to Economically

Weaker Section (EWS) living in Huts / Mud houses / Thatched houses in 528 Town Panchayats of Tamil Nadu. The total allocation for the scheme is Rs 420.00 Crore. In this regard, the Government have issued orders in G.O. (Ms.) No.75, Housing & Urban Development Department, Dated: 24.05.2015. The scheme will be implemented by getting financial source from HUDCO through the Tamil Nadu Slum Clearance Board. Further, action is being taken to implement the above scheme dovetailing with "Housing for All by 2022 Mission".

4.20 Implementation of GIS based Property Tax in Town Panchayat

As a prelude to the implementation of e-governance in Town Panchayats, Government in-principle have introduced GIS based on property tax system with a view to augment the

property tax source by way of identifying un-assessed and under-assessed properties for improving collection of tax through GIS and have sanctioned a sum of ₹32.84 lakh during the year 2013 for implementation of GIS based property tax in Ponneri Town Panchayat on a pilot basis. Survey work and software developing works have been completed. Security Audit also has been completed and the software has been put to use. Identification of unassessed houses and under-assessed properties is under progress. Due to above activities, an additional income of Rs 6.00 lakhs is expected to be realised to the Town Panchayat per annum. Subsequently, GIS system will be implemented in other Town Panchayats.

4.21 Street Lights

There are 3,91,025 street lights including 906 High mast lights, 3144 mercury lights, 41,321 sodium lights, 2,63,921 Tube lights, 64,786 CFL lights, 2443 Solar lights and 14,504 LED lights being maintained by Town Panchayats. All the street lights will be replaced by energy efficient lights in a phased manner.

Action is being taken to replace the existing street light with LED street light in 101 Town Panchayats covering 4 districts namely Erode, Tiruppur, Coimbatore and The Nilgiris at an estimate cost of ` 60.90 crore. Detailed Project Report for converting all the street lights into LED is under preparation and action will be taken accordingly.

4.22 Award

Government with a view to motivate the Town Panchayats to achieve bench mark service levels in provision of sanitation, water supply, solid waste management and other urban services, have instituted Awards to the best three Town Panchayats with an Award money of `10.00 lakh, `5.00 lakh and `3.00 lakh respectively.

In the year 2014-15, the first 3 prizes have been awarded to Tharangambadi Town Panchayat of Nagapattinam District, Thiruvaiyaru Town Panchayat of Thanjavur District and Sirugamani Town Panchayat of Thiruchirappalli District respectively.

5. Chennai Metropolitan Water Supply and Sewerage Board

Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) was constituted in August 1978. CMWSSB is vested with the responsibility of promoting and securing the planned development of water supply and sewerage services, operation, maintenance and creation of the required infrastructure and implementation of prospective plans to meet the requirements of Chennai Metropolitan area for the present and future.

Chennai Metropolitan Water Supply and Sewerage Board is currently providing services through 15 Area Offices and 200 Depot Offices covering an area of 426 Sq.Km with a population of 67.27 lakhs (as per 2011 census). It also serves some local bodies, bulk and industrial consumers.

Local bodies and major bulk consumers of CMWSSB

Sl. No.	Local bodies and Bulk consumers	Water supplied (in Million Litres per day)
1	Pallavaram Municipality	2.90
2	Pammal Municipality	3.00
3	Anakaputhur Municipality	1.90
4	Avadi Municipality	1.10
5	Pozhichalur Village Panchayat	1.20
6	Cowl Bazar Village Panchayat	0.25
7	Railways & Government Hospital	10.00
8	Aavin	0.40
9	Cantonment – (Defence Offices & Quarters)	1.60
10	Industrial consumers	22.88
Total		45.23

5.1 Sources of Drinking Water for Chennai City

Chennai city draws water from surface sources, desalination plants and ground water to meet its water requirement.

5.1.1 Surface Water

Surface water is one of the main sources for Chennai. The reservoirs at Poondi, Redhills (Puzhal), Chembarambakkam and Cholavaram near Chennai city, Veeranam lake in Cuddalore district and the Telugu Ganga Project are the main surface water sources.

Storage capacity of reservoirs supplying water to Chennai

Sl.No	Reservoir	Storage Capacity (in Mcft)
1	Poondi	3,231
2	Redhills (Puzhal)	3,300
3	Chembarambakkam	3,645
4	Cholavaram	881
5	Veeranam	1,465
	Total	12,522

New Veeranam water supply project was commissioned in 2004 as an additional source

of water to Chennai city. It supplies 180 MLD of water to the city from Veeranam lake throughout the year.

Krishna water is being received for Chennai city from Kandaleru reservoir situated in Andhra Pradesh under Telugu Ganga Project. As per the agreement signed between the Governments of Tamil Nadu and Andhra Pradesh, 12 TMC of water per annum is to be supplied to Chennai for its drinking water needs. The water receipts have been between 4.5 TMC to 8.2 TMC during the past many years. In 2014-15, the receipt of water till 31.08.2015 is 5.569 TMC.

During the past three years, rainfall has been less than normal and this is the third consecutive year of deficit rainfall in the catchment areas of reservoirs. This has caused

a serious strain on the ability of the Board to maintain city water supply.

Rainfall in the catchment areas of the city reservoirs

Year	Rainfall in mm		Deficit in %
	Normal	Actual	
2012	1293.42	981.80	-24.09
2013	1297.50	1064.87	-17.93
2014	1286.21	1025.80	-20.25

5.1.2 Desalination Plants

The availability of surface water is mainly dependent on the monsoon. Failure of monsoons leads to acute shortages in reservoir levels and affects water supply to Chennai city. The non-availability of perennial rivers near Chennai adds to the challenge. To drought proof the growing metropolis, the Hon'ble Chief Minister in a far sighted move, announced the

setting up of desalination plants in 2003-04. The Government has established two 100 MLD desalination plants which are currently operational. These plants now contribute about 1/3rd of the city's supply.

5.1.2.1 Desalination plant at Kattupalli, Minjur

A 100 MLD (Million litres per day) desalination plant at Kattupalli, Minjur, built on Design, Build, Own, Operate and Transfer (DBOOT) basis is under operation and supplies water to the northern parts of Chennai city viz., Manali, Madhavaram, Ennore, Kathivakkam, Thiruvottiyur, Tondiarpet and Vyasarpadi.

5.1.2.2 Desalination plant at Nemmeli

A 100 MLD desalination plant was constructed at Nemmeli at a cost of `805.08 crore with assistance from Government of India

and Government of Tamil Nadu. The plant was inaugurated on 22.02.2013 by the Hon'ble Chief Minister. The plant is under operation and water from this plant is being supplied to the southern parts of Chennai viz., Sholinganallur, Neelangarai, Injambakkam, Karapakkam, Semmancherry, Thoraipakkam, Perungudi, Kottivakkam, Palavakkam, Thiruvanmiyur, Velachery, Taramani, Pallipattu, Adyar, Besant Nagar, Nandanam, MRC Nagar, Raja Annamalaipuram and Mylapore.

Deficit monsoons for the past three years in the catchment areas have increased our reliance on desalination plants and these have helped ease the water supply situation in the city.

5.1.3 Ground water

Ground water aquifers at Minjur, Tamaraipakkam, Poondi and Neyveli supply about 60 MLD of water to the city.

5.1.4 Operations and Maintenance of water supply

The City's water supply has been reorganised due to the continuous failure of the monsoon in the years 2012 - 2014. Presently, the Board is supplying 540 MLD (Million litres per day) of water to Chennai city. Various projects have been taken up by CMWSSB to provide comprehensive water supply and sewerage services to the city's newly added areas.

CMWSSB operates water treatment plants at Kilpauk, Redhills, Chembarambakkam, Surapattu, Vadakuthu and desalination plants

at Kattupalli-Minjur and Nemmeli for providing safe and potable water to the city.

Treatment capacity of water treatment plants

Water treatment plants	Treatment capacity in MLD
Kilpauk	270
Redhills	300
Chembarambakkam	530
Vadakuthu	180
Surapattu	14
Desalination plants at Kattupalli-Minjur and Nemmeli	200
Total	1494

Since its inception in 1978, the Board's water supply operations have seen a manifold increase.

Growth in Water supply operations

Description	In 1978	In 2015
Operational area (sq.km)	174	426
Population (in lakh)	28.60	71.88
Water Supply (MLD)	240	540
Length of water mains (Km)	1,250	6,520
Distribution stations	3	74
Water treatment capacity (MLD)	182	1,494
No. of consumers	1,16,000	6,61,405

The total revenue expenditure for the year 2014-15 is estimated at `987.26 crore. The total income of the Board is estimated at `497.53 Cr. Of this, the income from Water and Sewerage Taxes is `119.10 crore, water and sewerage charges is `335.65 crore and other

income is `42.78 crore. The Government of Tamil Nadu provides grants to the Board for purchase of desalinated water and other purposes. CMWSSB received a sum of `227.80 crore as grant during the year 2014-15.

5.2 Water supply – New Schemes

For augmenting water supply to under served areas with special attention on covering the 42 newly added areas to Chennai Corporation, CMWSSB is taking up various schemes.

Stage of Water supply schemes in 42 added areas

Total No. of added areas	Water supply works completed	Works under Progress	Works to be taken up
42	8	28	6

Water supply schemes have been completed in 8 added areas viz. Kathivakkam, Valasaravakkam, Porur, Thiruvottiyur, Ambattur, Maduravoyal, Alandur and Meenambakkam.

In 28 added areas namely Nerkundram, Ullagaram-Puzhuthivakkam, Madhavaram, Ramapuram, Nolambur, Karambakkam, Manapakkam, Nandam-bakkam, Sholinganallur, Karapakkam, Injambakkam, Okkiyum Thoraipakkam, Edayanchavadi, Sadayan-kuppam, Kadapakkam, Theeyambakkam, Vadaperumbakkam, Manali, Surapattu, Kathirvedu, Puthagaram, Puzhal, Pallikaranai, Kottivakkam, Chinnasekkadu, Mugalivakkam, Perungudi and Palavakkam, water supply schemes are in progress.

Water supply schemes in 6 added areas namely Mathur, Jalladampettai, Madipakkam,

Neelankarai, Semmancheri and Uthandi will be taken up with Government of India / Chennai Mega City Development Mission funds shortly.

5.2.1 Desalination Plants Announced 400 MLD Desalination Plant at Perur along ECR, Chennai

The Hon'ble Chief Minister of Tamil Nadu has announced on the floor of assembly in 2013 that a 400 MLD desalination Plant would be constructed at Pattipulam along the East Coast Road in South Chennai. As the land proposed for the project was found to have some legal problems, the location was shifted to a nearby site at Perur on the East Coast Road.

The Detailed Project Report for setting up the 400 MLD capacity SWRO desalination plant at Perur, has been prepared at a cost of ₹4070.67 Cr. This includes the product water

conveyance main also. The DPR has been sent to Government of India to be posed for funding under JICA, and is under process.

5.2.2 150 MLD Desalination Plant at Nemmeli along ECR Chennai

An announcement under rule 110 by the Hon'ble Chief Minister was made on the floor of assembly on 16.04.13 that another 150 MLD capacity desalination plant will be set up in the vacant land of 10.50 acres available in the premises of the 100 MLD desalination plant at Nemmeli.

The Detailed Project Report for setting up 150 MLD capacity desalination plant in the available vacant land of the existing Nemmeli desalination plant has been prepared at a cost of `1371.86 Cr. This includes the product water conveyance Main also. The Government of Tamil Nadu has accorded Administrative

sanction for DPR. The DPR has been sent to Government of India for seeking funds from Government of India and assistance from KfW and the tender will be invited shortly.

5.2.3 Laying of water supply transmission main to Tambaram, Pallavaram and Pammal areas

A project to lay a 1200 mm transmission main from Poonamallee bye-pass junction to Tambaram for a length of 22 kms, to extend water supply to Tambaram, Pallavaram, Pammal and other local bodies has been sanctioned by Government at a cost of `93.48 Cr. from the Infrastructure and Amenities Fund. This work is under progress and is likely to be completed in the year 2015-16.

5.2.4 Laying second water transmission main from Chembarambakkam to Poonamallee bye-pass junction

The work of laying, a second pipe line of 2000 mm diameter from Chembaram-bakkam Water Treatment Plant to Poonamallee by-pass junction for a length of 6.5 Kms to convey the full quantity of 530 MLD of treated water from Chembarambakkam to the city, at an estimated cost of `41.35 Cr. is under progress and likely to be completed in the year 2015-16.

5.2.5 Laying of pipeline from the newly formed reservoir at Kannankottai and Thervoykandigai to convey water to the poondi reservoir

The work of laying 900 mm dia. pumping main for transmission of water from the proposed Thervoykandigai reservoir to Krishna canal for a length of 17 Km is under progress and is likely to be completed in the year 2016-17. The estimated cost is `93.77 crore.

5.2.6 Water Supply Schemes under the Chennai Mega City Development Mission (CMCDM)

The Chennai Mega City Development Mission to improve infrastructure and basic amenities in Chennai city with special focus on the newly added areas was launched by the Hon'ble Chief Minister. The status of the works taken up under the scheme is as follows :-

Water supply works taken up under CMCDM

Sl. No	Name of the scheme	Est. cost (` in Cr)	Status of works
2011-12			
1	Laying of water supply lines in uncovered areas of Slums	23.56	Works completed
2	Providing Under Ground Tanks and Water filling points in Newly Added areas	12.23	

3	Replacement of choked water mains / PVC mains	20.71	
2012-13 Water Supply Schemes			
4	Nolambur	18.00	Works will be completed in 2015-16.
5	Karambakkam	20.56	
6	Ramapuram	32.54	
7	Manapakkam	10.92	
8	Nandambakkam	6.00	
9	Okkiyam-Thoraipakkam	46.00	
10	Injambakkam	22.30	
11	Sholinganallur-Karapakkam	35.70	
2013-14 Water Supply Schemes			
12	Sadayankuppam	28.21	Works will be completed in 2016-17.
13	Edayanchavadi		
14	Kadapakkam		
15	Manali	21.33	
16	Pallikaranai	42.82	
17	Mugalivakkam	31.37	

18	Chinnasekkadu	11.00	
19	Kottivakkam	23.00	Works will be completed in 2015-16.
20	Perungudi	45.00	
21	Palavakkam	30.00	
22	Vadaperumbakkam & Theeyambakkam	20.00	Works will be completed in 2016-17.
23	Surapattu	82.61	
24	Kathirvedu		
25	Puthagaram		
26	Puzhal		
Total		583.86	

5.2.7 Jawaharlal Nehru National Urban Renewal Mission (JnNURM)

Under the Jawaharlal Nehru National Urban Renewal Mission, the Government of India was giving a grant of 35% and the State Government was contributing 15% of the project cost as an interest free loan. The status of the works taken up under the scheme are:-

Sl. No	Name of the scheme	Est. cost (in Cr.)	Status of works
1	Improvement works to water supply system in Chennai city	322.00	Works completed
Water Supply Schemes			
2	Maduravoyal	23.30	
3	Thiruvottiyur	85.11	Work completed
4	Ambattur	267.08	
5	Alandur improvement works	64.39	
6	Ullagaram-Puzhuthivakkam	24.24	Works will be completed in 2015-16.
7	Nerkundram	19.17	
Total		805.29	
Deposit works for other Local Bodies			
1	Avadi	103.84	Works will be

			completed in 2015-16.
2	Sriperumbudur	42.20	
Total		146.04	

JnNURM scheme has since been discontinued by the Government of India.

5.2.8 Japan International Cooperation Agency (JICA)

Madhavaram water supply scheme has been taken up with JICA assistance. The details are as follows:-

Scheme	Est. cost (` in Cr.)	Status of works
Madhavaram	55.00	Works will be completed in 2015-16.

5.2.9 Tamil Nadu Urban Development Project – III (TNUDP-III)

Sl. No.	Scheme	Est. cost (in crore)	Status of works
1	Pammal	43.10	Works will be completed in 2015-16.
2	Pallavaram	99.95	
Total		143.05	

5.3 Sewerage services

CMWSSB is providing sewerage services to Chennai city including waste water treatment, reuse of treated water and power generation from Sewage Treatment Plants. Sewage Treatment Plants at Chennai have an installed capacity of 769 MLD.

Sewage generated from houses and other buildings is collected through the sewerage system of a length of 3,994 kms. This sewage is taken to 228 sewage pumping stations. The sewerage system of the city is divided into

5 zones with independent zonal collection, conveyance, treatment and disposal facilities. The collected sewage from pumping stations is conveyed to 13 Sewage Treatment Plants.

Capacity of Sewage Treatment Plants

Sl. No.	Treatment Plant	Capacity in mld
1	Nesapakkam (3 units : 23+40+54 mld)	117
2	Kodungaiyur (3 units : 110+80+80 mld)	270
3	Koyambedu (3 units : 34+60 +120 mld)	214
4	Perungudi (2 units : 79+72 mld)	151
5	Villivakkam (1 unit : 5 mld)	5
6	Alandur (1 unit : 12 mld)	12
Total - 13 units		769

Sewage Treatment Plants under construction

Sl. No.	Location	Capacity in mld	Estimate cost (` in cr.)	Present stage
1	Thiruvottiyur	31	26.33	Works will be completed in 2015-16.
2	Sholinganallur	18	33.71	
Total		49	60.04	

The sewerage services of the Board have increased manifold since its inception in 1978.

Improvements in sewerage services

Sl. No.	Description	In 1978	In 2015
1	Length of sewer mains (in Km)	1,223	3,994
2	No. of pumping stations	58	228
3	Sewage treatment capacity (MLD)	57	769

4	No. of consumers	1,14,000	7,78,488
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5.3.1 Sewerage Schemes taken up under the Chennai Mega City Development Mission (CMCDM)

Under this fund, the following schemes have been taken up in the newly added areas:-

Stage of Under ground Sewerage Schemes in 42 added areas

Total No. of added areas	Works completed	Works in progress	Works to be taken up	
			DPRs completed	DPRs under preparation
42	4	16	10	12

Under ground sewerage schemes have been completed in 4 of the 42 added areas. They are Valasaravakkam, Alandur, Madhavaram and Meenambakkam.

In 16 added areas namely Maduravoyal, Perungudi, Porur, Ullagaram-Puzhuthivakkam, Pallikaranai, Ambattur, Thiruvottiyur, Kathivakkam, Ramapuram, Sholinganallur, Karapakkam, Surapattu, Puthagaram, Kathirvedu and Nolambur under ground sewerage schemes are under progress. The UGSS for Mugalivakkam is in tender stage.

10 added areas namely Manapakkam, Injambakkam, Okkiyam-Thoraipakkam, Manali, Chinnasekkadu, Edayanchavadi, Sadayan-kuppam, Karambakkam, Jalladam- pettai and Kadappakkam will be taken up with Government of India / Chennai Mega City Development Mission funds shortly.

The Balance of 12 added areas viz. Nandambakkam, Nerkundram, Kottivakkam,

Palavakkam, Neelankarai, Madipakkam, Puzhal, Mathur, Theyyambakkam, Vadaperumpakkam, Semmencherry and Uthandi, will be taken up for providing under ground sewerage schemes after finalisation of land required for the construction of sewage pumping stations.

**Sewerage schemes taken up under
CMCDM**

Sl. No	Name of the scheme	Estimate Cost (` in Cr.)	Status of works
2011-12			
1	Laying of force mains between pumping stations	9.26	Works completed
2	Enlargement of Sewage Pumping Mains	20.39	
3	Insertion of UGSS openings in Mogappair,	14.08	

	construction of Roadside pumping stations with submersible pumpsets		Works completed
4	Improvement to existing Sewage Pumping stations	11.24	
5	Enlargement of sewer mains	31.18	
6	Procurement of sewerage maintenance equipments	9.90	Machines purchased and deployed
7	Re-routing and enlargement of Sewage Pumping Mains and allied works	36.55	Works will be completed in 2015-16.
2012-13 Under Ground Sewerage Schemes			
8	Kathivakkam	86.15	Works will be completed in 2015-16.
9	Sholinganallur-Karapakkam	110.90	

10	Ramapuram	48.50	Works will be completed in 2016-17.
11	Procurement of sewerage maintenance equipments	15.20	Machines purchased and deployed
2013-14 Under Ground Sewerage Schemes			
12	Thiruvottiyur (Annai Sivagami Nagar)	8.51	Works will be completed in 2015-16.
13	Nolambur	26.01	Works will be completed in 2017-18.
14	Surapattu	35.00	
15	Puthagaram & Kathirvedu	60.00	
16	Mugalivakkam	54.79	Under tender stage
	Total	577.66	

5.3.2 Jawaharlal Nehru National Urban Renewal Mission (JnNURM)

Under the Jawaharlal Nehru National Urban Renewal Mission, the Government of India was giving a grant of 35% and the State Government contribution is 15% as an interest free loan. The works taken up under the scheme are:-

Sl. No	Name of the Scheme	Est. cost (in Cr.)	Status of works
1	Providing water supply and sewerage facilities along Rajiv Gandhi Salai	41.77	Works completed
Under Ground Sewerage Schemes			
2	Ullagaram-Puzhuthivakkam	28.08	Works will be completed in 2015-16.
3	Ambattur	130.91	

4	Maduravoyal	57.45	
5	Porur	38.29	
6	Perungudi	20.19	
7	Pallikaranai	58.61	
Total		375.30	

Deposit works for other local bodies			
8	Avadi Municipality	158.05	Works will be completed in 2015-16.
9	Tambaram Municipality	160.97	
10	Thirumazhisai Town Panchayat	20.47	
11	Sriperumbudur Town Panchayat	47.40	
Total		386.89	

5.3.3 Tamil Nadu Urban Development Project – III (TNUDP- III)

Under this scheme, assistance has been provided for the following three works:-

Works Taken up under TNUDP-III

Sl. No	Name of the Scheme	Est. cost (in Cr.)	Status of works
1	Madhavaram – UGSS	50.22	Works completed
2	Thiruvottiyur – UGSS	87.63	Works will be completed in 2015-16.
3	Ambattur Phase – I – UGSS	65.75	Works will be completed in 2015-16.
Total		203.60	

5.3.4 Power generation from Sewage treatment plants

In the last 8 years, CMWSS Board has commissioned 6 Nos. of Sewage Treatment Plants (STPs) with a total capacity of 378 MLD. In these plants, electricity is generated by using Biogas produced from the plants. This generated power is used to operate the sewage treatment plants.

Power generation from Sewage Treatment Plants 2014-15

Sl. No.	Sewage treatment plant	Treat ment capa city in mld	Average Power Produced in Kwh/day	Total power require ment in Kwh/ day	Percentage of power requirement met through in house production
1	Kodungaiyur	110	14,000	13,500	103.70
2	Koyambedu	60	5,000	9,000	55.55
3	Nesapakkam-I	40	5,800	5,800	100.00
4	Nesapakkam-II	54	3,000	9,000	33.33
5	Perungudi I	60	7,200	8,500	84.71
6	Perungudi II	54	7,000	8,500	82.35
Total		378	42,000	54,300	77.35

This has reduced the dependence of the STPs on electricity drawn from the TANGEDCO Grid by about 77%. In the last 8 years, electricity worth `39.60 Crore has been produced. In 2014-15, the value of electricity produced is `6.25 Cr. This initiative is proposed to be continued in the upcoming Sewage Treatment Plants wherever feasible.

The utilization of biogas for production of power reduces the emission of green house gases such as Methane (CH₄) and Carbon dioxide (CO₂) into the atmosphere and also consumption of Electricity from TANGEDCO.

5.3.5 Mechanisation of sewer cleaning operations

The Board has mechanized the operation and maintenance of the city's sewerage system. CMWSSB has procured adequate number of

machines and is presently operating 119 Jet Rodding machines, 241 Desilting machines, 28 Jetting cum suction machines and 43 Super Sucker machines for effective maintenance of its sewer system.

5.3.6 Preventive maintenance of sewer system

CMWSSB is maintaining sewer lines of 3994 kms. to serve a total 7,78,488 consumers which includes 6,61,405 consumers having water connections. Chennai city has a flat terrain and this is a challenge.

CMWSSB has now implemented preventive maintenance for its sewer network. According to the field conditions, sewers have been classified depending on the periodicity of maintenance required. Accordingly, the equipment is deployed and the sewer network is maintained by the Board.

The number of sewer blocks in the city has considerably reduced due to the implementation of Preventive maintenance. The number of sewer block complaints has come down by 38.87%.

5.3.7 Plugging of sewage outfalls

During the Budget 2012-13, it was proposed to plug 337 sewage outfalls at a cost of `300 Crore. This would prevent untreated sewage from entering Chennai city water ways. This sewage would be appropriately treated and disposed.

In the first phase, works for plugging 179 of the 337 outfalls were taken up and are in progress. An amount of `150 Crore was sanctioned under Infrastructure and Amenities Fund. These works will be completed by January 2016.

In the second phase, to carry out the balance works for plugging, 158 sewage outfalls, Government has sanctioned `163 crore vide G.O.(Ms)No.158, MA&WS (MW) Dept. Dated 11.12.2014 and the works have commenced.

5.3.8 Reuse of raw sewage and secondary treated water in Industries

CMWSSB is also supplying 36 MLD of secondary treated water to M/s. Chennai Petroleum Corporation Ltd., M/s. Madras Fertilizer Ltd., and M/s. Manali Petro Products Ltd. The revenue accrued to the Board is `13.50 crore for the year 2014-15.

5.3.9 New Proposals

5.3.9.1 Recycling of waste water - 45 MLD TTRO Plant at Koyambedu

Administrative sanction has been accorded by the Government of Tamil Nadu for

construction of a 45 MLD capacity Tertiary Treatment Reverse Osmosis (TTRO) plant at Koyambedu to supply treated water to the industries at Irungakattukottai / Sriperumbudur / Oragadam etc. at a cost of `394 crore. Tender for the above work has been received and is under evaluation.

5.3.9.2 Recycling of waste water - 45 MLD TTRO Plant at Kodungaiyur under TNSUDP

The Hon'ble Chief Minister of Tamil Nadu has announced on the floor of the Assembly that Government would promote reuse of treated waste water for industrial purposes in place of fresh water. To cater to the Industries and Power plants in North Chennai, another 45 MLD TTRO Plant would be set up at Kodungaiyur at a cost of `255 crore with funding from TNSUDP. Administrative approval

has been accorded by Government of Tamil Nadu and the work on this project will commence in 2015-16.

5.4 Rain Water Harvesting

Thanks to the vision and efforts of the Hon'ble Chief Minister, CMWSSB started implementing the rain water harvesting programme in 2002. This made Chennai a pioneer in Rain water harvesting. The Board has taken the following steps to popularise rainwater harvesting in Chennai.

To avail new/renewal of water and sewer connections, installation of Rain Water Harvesting structures has been made mandatory for all buildings irrespective of size and area.

In Chennai city about 7,20,000 buildings exist with a total no. of 8,27,800 RWH

structures. During the year 2014-15, a total number of 8,615 rainwater harvesting structures were constructed. Recharge potential from Rain Water Harvesting structures is 2.30 TMC. Awareness campaigns and special camps are conducted before monsoon every year to encourage consumers to maintain the structures properly. The Area / Depot Engineers are monitoring the installation and maintenance of Rainwater Harvesting Structures in Chennai city.

Following the implementation of the Rain Water Harvesting scheme, ground water levels and its quality is improving every year, especially during the monsoon period.

5.5 Maintenance of Lakes

There are 21 lakes in the Chennai city area with a water spread area of 641.58 Hectares. Lakes serve the important function of impounding rain water and recharging the

under ground water table. The recharge potential of these lakes is 1.05 TMC. CMWSSB intends to ensure the integrity of these lakes so that their recharge potential is fully harnessed.

5.6 Grievance Redressal

The Board has taken the following steps to improve service delivery, ensure transparency and speedily redress grievances of consumers.

5.6.1 24x7 Complaints Registration & Monitoring System

A 24x7 complaint cell is functioning at the CMWSSB Head Office to receive, register and monitor the grievances of the consumers. Consumers can register their complaints / grievances either in person or by dialing 45674567. The registered complaints are immediately transferred online and also by SMS

to the respective Depot Engineer to rectify the defects. Accordingly, rectification of the defects is being attended to immediately. On an average, 85 complaints are being registered in the compliant cell daily. The grievance redressal system has been revamped to make it user friendly. A separate grievance redressal and facilitation office has been set up to serve the consumers.

CMWSSB has implemented Short Message Service (SMS) to enable the consumer can register a complaint over mobile phone and get an acknowledgement for the complaint from the Board through SMS. Action taken is informed to the consumer through SMS after redressal of the complaint.

5.6.2 Complaint redressal through website

CMWSSB has a website www.chennaietrowater.tn.nic.in Consumers can register their complaints through the Boards website. The complaints registered are forwarded to the respective Area Offices and the same are redressed as per the Citizens' Charter.

5.6.3 Open House Meeting

The Board conducts Open House Meetings in all the Area Offices between 10.00 A.M. and 1.00 P.M. on the 2nd Saturday of every month to improve service delivery. The Senior Officers of the Board preside over these meetings. The complaints / grievances / suggestions received during these meeting are also attended to immediately.

6. Tamil Nadu Water Supply and Drainage Board

Tamil Nadu Water Supply and Drainage Board was formed as a statutory body on 14.04.1971 with the objective of providing protected water supply to the Rural and Urban population as well as Under Ground Sewerage Schemes to the urban local bodies in Tamil Nadu excluding Chennai Corporation. The Board office at Chennai is headed by the Managing Director supported by Technical, Financial and Administrative Wings. At present, the TWAD Board has four Chief Engineers with Headquarters at Vellore, Thanjavur, Coimbatore and Madurai and one Project Chief Engineer at Dharmapuri.

6.1 Activities of TWAD Board

- a. Planning, Investigation, Design, Implementation and Commissioning of

Water Supply and Sewerage Schemes in Rural and Urban areas.

- b. Operation and Maintenance of Combined Water Supply Schemes.
- c. Water Quality Monitoring and Surveillance Programme.
- d. Sustainability of Drinking Water Sources.
- e. Training Activities.

6.2 Rural Water Supply Programme

The Government of India, considering that 40 lpcd has been the norm over the last 40 years, as an interim measure has enhanced the service level to 55 lpcd for the 12th Five year Plan. By 2017, it is targeted that at least 50% of Rural Population in the Country shall have access to 55 lpcd within their household premises or within 100 metres radius (and within 10 metres elevation in hilly areas) from their households.

Water Supply schemes to Rural Habitations are implemented based on surveys to assess the gap between current supply and the service standard. Rural Water Supply Schemes are being implemented with State Government Funds under the Minimum Needs Programme (MNP) and with the Central Government Funds under the National Rural Drinking Water Programme (NRDWP).

The Rural water supply includes implementation of Individual Power Pump schemes for the prioritized Rural Habitations involving creation of water source (borewell/open well), construction of Service Reservoir and laying of pipe line for transmission and distribution. When the beneficiary is an individual local body, the scheme is handed over to the local body for maintenance on completion of the scheme and when the scheme is meant for more than one

local body, the scheme is maintained by TWAD Board. Besides providing water supply schemes to rural habitations, TWAD Board is also implementing schemes to provide water supply to Government Schools, Anganwadis, Government Hostels and Primary Health Centres in rural areas.

In Tamil Nadu, as on 01.04.2014, there are 1,00,018 rural habitations. Out of this, 85,946 habitations are fully covered with water supply at 40 lpcd and the balance 14,072 habitations are partially covered, including 415 Quality affected habitations. During 2014-15, 4,510 partially covered habitations have been taken up for full coverage with water supply at 55 lpcd including 61 quality affected habitations. 5,815 partially covered habitations (including 354 quality affected habitations) have already been taken up in the ongoing

Combined Water Supply Schemes. It is proposed to cover the remaining 3,747 partially covered habitations during 2015-16.

6.3 Rural Water Supply during 2014-15

During 2014-15, 4,805 partially covered Rural Habitations have been taken up at a cost of `831.83 Crore and 4,510 Rural Habitations have so far been covered. The details are given below:-

Sl. No.	Description	Habitations covered
1.	Coverage through Individual Power Pump Schemes	1,449
2.	Coverage of Quality Affected Habitations	61
3.	Coverage through Combined Water Supply Schemes	3,000
Total		4,510

The remaining 295 Quality affected Habitations which are proposed to be covered in Major Combined Water Supply Schemes in Nagapattinam District will be completed during 2015-16.

6.4 Rural Water Supply Programme for 2015-16

During the year 2015-16, **4,500** Rural habitations are proposed to be covered through ongoing Major Combined Water Supply Schemes and other than Major Combined Water Supply Schemes at a cost of ` **1281.32 Crore**.

Sl. No.	Description	Habitations to be covered
1.	Coverage through Combined Water Supply Schemes	663
2.	Coverage through Major Combined Water Supply Schemes	3,837
	Total	4,500

6.5 Source Sustainability

Besides implementation of water supply schemes, TWAD Board has taken measures to augment ground water sources towards source sustainability by creating recharge structures such as check dam, recharge shafts, percolation ponds etc., under Government of India and State Government Assisted Programmes.

During the years 2011-12, 2012-13 and 2013-14, **2,667** Recharge Structures have been constructed at a cost of `**172.10 Crore**. During the year 2014-15, **681** Recharge Structures were taken up at an estimated cost of `**56.14 crore** and have been completed.

6.6 Combined Water Supply Schemes

In order to provide sustainable and potable water supply to the public, TWAD Board

formulates and implements Combined Water Supply Schemes in coastal, quality affected and needy areas by combining more than one local body and based on common source of water supply viz., Rivers, Dams and Reservoirs. Combined Water Supply Schemes are implemented by TWAD Board benefitting both urban and rural local bodies.

During 2014-15, **38** such schemes were under implementation at an estimated cost of **`1078.37 crore** to benefit **35.76 lakh** people with financial assistance from the Minimum Needs Programme (MNP), the National Rural Drinking Water Programme (NRDWP), Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) etc.,

The following **12 Combined Water Supply Schemes**, have been completed at an estimated cost of ` **199.15 crore**, benefiting **8.89 lakh** people:-

Sl. No.	Name of scheme	Estimate amount (in crore)	Population benefitted (in lakh)
1	CWSS to 254 Rural habitations in Vadamadurai and Vedasandur Unions Under Dindigul CWSS in Dindigul District	9.91	0.95
2	CWSS to Koodappalli and 129 habitations of Musiri and Manachanallur Unions in Trichy District	16.16	0.73
3	CWSS to 40 Habitations in Pallapalayam, Andankoil East, and Andankoil West Panchayats in Thanthoni Union of Karur District	6.43	0.29

Sl. No.	Name of scheme	Estimate amount (in crore)	Population benefitted (in lakh)
4	CWSS to 23 Habitations in Painkulam Panchayat in Kanyakumari District	0.92	0.26
5	CWSS to 116 Quality affected habitations of Kumbakonam and Thiruvudaimaruthur Unions in Thanjavur District	17.00	0.69
6	CWSS to 6 Habitations of Keelanatham Panchayat in Tirunelveli District	0.99	0.09
7	CWSS to Uthukuli Town Panchayat and 238 rural habitations in Uthukuli union in Tiruppur District	27.57	0.56
8	CWSS to 130 habitations in Perundurai and Chennimalai Unions in Erode District.	14.94	0.29
9	CWSS to Vendasandur, Palayam, Oddanchatram (now upgraded as Municipality) Kannivadi, Srirampuram Town Panchayats with bulk provision to 739 rural habitations in Dindigul District and 25 rural habitations in Karur District. (Phase -I)	38.01	3.58

Sl. No.	Name of scheme	Estimate amount (` in crore)	Population benefitted (in lakh)
10	CWSS to 327 Rural Habitations in Edapadi, Konganapuram and Magudanchavadi Unions of Salem District	46.45	0.91
11	CWSS to 93 Habitations in Erode Union in Erode District	11.30	0.48
12	Improving the existing CWSS to 43 and 45 habs with river Tamiraparani as source to enhance the water supply to the existing beneficiaries and to provide water supply to 1196 Tsunami houses in Mappillaiyoorani Panchayat in Thoothukudi District	9.47	0.06
	Total	199.15	8.89

Further, the following **24 Combined Water Supply Schemes** at a cost of **₹735.31** crore to benefit a population of **23.46 lakh** are in progress:-

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
1	CWSS to 306 rural habitations in Perambalur, Veppanthattai, and Alathur Unions, Arumbavur and Poolambadi Town Panchayats in Perambalur District	61.11	2.57	93% works completed
2	CWSS to 212 Rural Habitations in Andhanallur, Manikandam and Manapparai Unions in Trichy District	48.67	1.14	93% works completed
3	CWSS to Udangudi TP and 30 Habs in Alwarthirunagari (Part), Thiruchendur (part), Sathankulam (part) and Udangudi (part) Unions in Thoothukudi District	9.19	0.30	80% works completed

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
4	CWSS to 90 Rural Habitations in Karungulam (Part), Srivaikundam (Part) and Thoothukudi (Part) Unions in Thoothukudi District	17.17	0.48	70% works completed.
5	CWSS to Zamin Uthukuli Town Panchayat and 63 Rural Habitations in Coimbatore District	15.47	0.39	68 % works completed
6	CWSS to 34 Rural Habitations in Manur and Palayamkottai Unions in Tirunelveli District	6.35	0.22	65% works completed.
7	CWSS to 248 rural habitations in Kovilpatti (Part), Kayathar (Part), Ottapidaram (part), Vilathikulam (part) and Pudur (Part) unions in Thoothukudi District.	94.04	1.25	60% works completed.

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
8	CWSS to 158 Rural Habitations in Gudimangalam and Udumalaipettai Unions in Tiruppur District	54.14	1.23	60% work completed
9	CWSS to Vellakoil, Kangayem Municipalities and 528 Rural habitations in Erode and Tiruppur Districts.	91.40	4.72	58% works completed.
10	Augmentation of Water supply to 147 Rural Habitations of Alangulam-Sankarankoil Unions in Tirunelveli District	31.32	1.56	50% works completed.
11	Augmentation of water supply to 185 habitations in 9 village panchayats of Karamadai union in Coimbatore District	42.94	0.81	45 % works completed
12	CWSS to Keelapavoor Town Panchayat (Part) and 163 Rural Habitations in Pappakudi (Part), Kadayam and Keelapavoor Unions in Tirunelveli District	46.55	1.55	43% works completed.

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
13	CWSS to 170 Rural Habitations in Manur union (Part) and Palayamkottai Union(Part) in Tirunelveli District	32.40	1.13	37% works completed.
14	CWSS to Mulligur and 54 rural habitations in Mulligur, Italar and Nanjanadu Village Panchayats in Udthagamandalam union in Nilgiris District	25.85	0.30	10% works completed
15	CWSS to 60 quality affected and 59 wayside habitations in Kattumannarkoil Union and Lalpettai Town Panchayat in Cuddalore District	18.16	0.60	8% works completed.
16	CWSS to Koodankulam and 12 other Village Panchayats (100 Habitations) of Radhapuram and Valliyoor Unions situated around Koodankulam Nuclear Power Plant	68.10	0.88	8% works completed.

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
17	CWSIS to 88 habitations in Karapadi and 5 other Village Panchayats, in Bhavanisagar and Nambiyur Unions.	11.72	0.19	5% works completed.
18	CWSS to Athangaraipatty and 14 Habitations in Kadamalaikundu - Mayiladumparai Unions	2.65	0.07	Work order issued on 07.08.15 & work commenced
19	CWSS to 101 rural habitations in Thoppampatti Union (under Vendasandur CWSS in Dindigul District)	4.11	0.43	Works restarted on 07.10.2014. Water reached Navagani sump from where trial run under progress & water supply effected to 3 Habitations

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
20	CWSS to 235 habitations in Gujiliamparai, Vedesandur and Oddanchatram Unions in Dindigul District (under Vedesandur CWSS in Dindigul District)	5.50	0.73	Works restarted on 17.10.2014. Trial run under progress & water supply effected to 180 Habitations
21	CWSS to 93 habitations in Oddanchatram union (under Vedesandur CWSS in Dindigul District)	9.37	0.37	Works restarted on 16.10.2014. Trial run under progress & water supply effected to 87 Habitations

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
22	CWSS to 109 rural habitations in Oddanchatram Union (under Vedasandur CWSS in Dindigul District)	4.08	0.59	Works restarted on 10.10.2014. Trial run under progress & water supply effected to 36 Habitations
23	CWSS to 201 rural habitations in Reddiarchatram Union (under Vedasandur CWSS in Dindigul District)	8.96	0.86	Works restarted on 13.10.2014. Trial run under progress & water supply effected to 58 Habitations

Sl. No.	Name of Scheme	Estimate Amount (in Crore)	Population (in Lakh)	Physical progress
24	CWSS to 281 rural habitations of Jeyankondam Union in Ariyalur District	26.06	1.09	Works restarted on 09.12.2014 & 34% works completed
	Total	735.31	23.46	

The following **2 Combined Water Supply Schemes** at a cost of ` **143.91 crore** to benefit a population of **3.41 lakh** are under Tender Stage:-

Sl. No.	Name of Scheme	District	Estimate amount (` in crore)	Population (in lakh)
1	CWSS to 253 rural habitations in Kulithalai and Thogamalai Unions	Karur	52.75	0.69
2	CWSS to 1262 Habitations in Vellakoil, Mulanur, Dharapuram, Kundadam. Kangayam Unions in Tiruppur District and Chennimalai Union in Erode District - Phase - II	Tiruppur and Erode	91.16	2.72
	Total		143.91	3.41

6.7 Major Combined Water Supply Schemes

During 2014-15, 17 major combined water supply schemes were under implementation at an estimated cost of **₹5825.18 crore** to benefit **135.21 lakh** people with financial assistance from the Minimum Needs Programme (MNP), the National Rural Drinking Water Programme (NRDWP), Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), Integrated Urban Development Mission, KfW and HUDCO loan assistance.

The following **3 Major Combined Water Supply Schemes**, have been completed at an estimated cost of **`633 crore**, benefiting **22.15 lakh** people:-

Sl. No.	Name of Scheme	Estimate Cost (` in crore)	Population (in Lakh)	Physical progress
1	Combined Water Supply Scheme to Attur & Narasingapuram Municipalities, 20 Town Panchayats and 1345 Rural Habitations in Salem District.	270.00	13.09	Scheme completed and inaugurated by the Hon'ble Chief Minister on 29.05.2015
2	Combined Water Supply Scheme to 7 Town Panchayats and 395 Rural Habitations in Virudhunagar District.	173.00	4.82	
3	Combined Water Supply Scheme to 637 Rural Habitations in Virudhunagar District	190.00	4.24	
	Sub Total - I	633.00	22.15	

The following **8 Major Combined Water Supply Schemes** at a cost of **`3783.06** crore to benefit a population of **85.40 lakh** are in progress and it is programmed to complete in 2015-16:-

Sl. No.	Name of Scheme	Estimate Cost (in crore)	Population (in Lakh)	Physical progress
	Schemes to be completed during 2015-16			
1	Combined Water Supply Scheme to Melur, 2 Municipalities, 6 Town Panchayats and 1430 Rural Habitations in Madurai District and Singampunari Town Panchayat in Sivagangai District	784.00	15.92	97% works completed and under Trial run

Sl. No.	Name of Scheme	Estimate Cost (in crore)	Population (in Lakh)	Physical progress
2	Combined Water Supply Scheme to Vellore Corporation, 11 Municipalities, 5 Town Panchayats and 944 Wayside Rural Habitations in Vellore District.	1295.00	24.46	96% works completed and under Trial run
3	Augmentation of Water Supply to Palladam Municipality, 23 Town Panchayats and 965 Rural Habitations in Coimbatore and Tiruppur Districts	224.92	12.29	95% works completed and under Trial run
4	CWSS to 1751 Rural Habitations in Pudukottai District and Vallam Town Panchayat in Thanjavur District	315.70	7.63	81% works completed.
5	CWSS to 1766 Rural Habitations in Pudukottai District and 125 Habitations in Sivagangai District.	301.50	6.65	73% works completed.

Sl. No.	Name of Scheme	Estimate Cost (in crore)	Population (in Lakh)	Physical progress
6	CWSS to Cuddalore Municipality, Bhuvanagiri and Parangipettai Town Panchayats and 812 Rural Habitations in Cuddalore District	260.54	7.75	69% works completed.
7	Combined Water Supply Scheme to 295 Quality affected Habitations and 315 wayside Habitations in Nagapattinam District	105.70	3.70	56% works completed.
8	CWSS to 1153 Rural Habitations and Peravurani, Adhiramapattinam and Perumagalur Town Panchayats in Thanjavur District	495.70	7.00	38% works completed.
	Sub Total - II	3783.06	85.40	

Further, the following **6 Major Combined Water Supply Schemes** at a cost of `1409.12 crore to benefit a population of **27.66 lakh** are in progress and it is programmed to complete in 2016-17:-

Sl. No.	Name of Scheme	Estimate Cost (` in crore)	Population (in Lakh)	Physical progress in Percentage
Schemes to be completed during 2016-17				
1	Combined Water Supply Scheme to 755 Rural Habitations in Virudhunagar District	234.00	6.51	33% works completed.
2	CWSS to Natham, 2 Town Panchayats & 1276 Rural Habitations with bulk provision to 2 Town Panchayats & 354 Rural Habitations in Dindigul	636.00	10.94	Works commenced

Sl. No.	Name of Scheme	Estimate Cost (` in crore)	Population (in Lakh)	Physical progress in Percentage
	District & 135 Rural Habitations in Trichy District			
3	CWSS to Thondamuthur, 6 Town Panchayats and 134 Rural Habitations in Coimbatore District	130.46	1.83	Tender finalised and work order issued
4	CWSS to Azhagiyapandipuram, 8 Town Panchayats and 246 Rural Habitations in Kanyakumari District	109.80	2.96	Tender finalised and work order issued

Sl. No.	Name of Scheme	Estimate Cost (` in crore)	Population (in Lakh)	Physical progress in Percentage
5	CWSS to 698 Rural Habitations in Nangavalli and Mecheri unions with bulk provision to 6 Town Panchayats in Salem District	158.64	3.93	Tender finalised and work order issued
6	CWSS to 293 rural Habitations in Thathaiyangarpettai, Thuraiyur and Uppiliyapuram Unions of Trichy District.	140.22	1.49	Tender Stage
	Sub Total - III	1409.12	27.66	
	Grand Total	5825.18	135.21	

6.8 Revamping of Combined Water Supply Schemes

Revamping works are taken up in the age-old Combined Water Supply Schemes maintained by TWAD Board in which a reduction in yield of sources or a decrease in the efficiency of pumpsets and damages in pipe lines, valves due to road widening etc., are encountered. These revamping works are carried out to make the CWSS fully functional and to enhance the supply to the designed level to the beneficiaries. During 2014-15, **₹55.12 crore** has been allotted for **746 revamping works** under NRDWP / SMS and the works were completed.

The category wise works are as below:-

Sl. No.	Category	No. of works taken up	Estimate cost (in crore)
1	Source Improvement	32	4.17
2	Booster Pumping Stations	6	0.67
3	Sumps	8	0.57
4	Replacement of aged Pumpsets	138	5.57
5	Valves	163	3.19
6	Replacement of dilapidated Over Head Tanks	6	0.35
7	Replacement of Pipelines damaged due to road widening	322	34.96
8	Providing Separate Power Feeder Mains/ 4 th Wire	7	3.43
9	Providing Surge Protection System	2	0.10
10	Providing Water Meter	55	1.66
11	Revamping works of Water Treatment Plants, providing compound wall at Booster Stations.	7	0.45
	Total	746	55.12

6.9 Special Programmes

Provision of safe drinking water to Government Schools, Anganwadis, Government Hostels and Primary Health Centres is the avowed policy of the Government. The achievement under this programme during 2014-15 is as mentioned below:-

- Water supply to 578 Anganwadis.
- Water Supply to 287 Government Schools in Rural Areas.
- Water supply to 13 Primary Health Centres in Rural Areas.
- Water supply to 5 Government Hostels in Rural Areas.

It is proposed to take up new schemes during 2015-16 as and when the requirement arises for the concerned Departments.

6.10 Water Quality Surveillance and Monitoring

In order to achieve the objective of ensuring safe water supply to the public, TWAD Board has established one State level, 31 District level and 51 sub division level laboratories. These laboratories have facilities for testing all the basic chemical and bacteriological water quality parameters and for effective surveillance and monitoring of water supply sources in both Rural and Urban areas. It is pertinent to note that the State Level Laboratory is graded as an ISO 9001: 2008 certified Laboratory. This laboratory has been recognized as State Referral Institute for Tamil Nadu by the Government of India.

During the year 2014-15, 75,000 water samples have been tested in state and district laboratories with State funds. In

addition 2.46 lakh water samples have been tested in the sub-division laboratories under NRDWP. 12,524 Field water testing kits were supplied to the Panchayats. 15,000 grass root level workers were trained for using Field water testing kits.

During 2015-16, it is proposed to test nearly 75,000 water samples in state and district laboratories with State funds. It is also proposed to test 2.46 lakh water samples in the sub-division laboratories under NRDWP. 12,524 Field water testing kits will be supplied to panchayats. It is proposed to give training for 15,000 grass root level functioneries for using Field water testing kits.

6.11 Drinking water Safety Week Campaign

Considering the safety of human life by ensuring quality of drinking water, the

Government of Tamil Nadu have decided to conduct a week long campaign on water quality every year.

During 2014-15, Drinking Water Safety Week Campaign was conducted from 16.03.2015 to 22.03.2015. 31 District rallies, 385 Block rallies, 12,524 Panchayat rallies/meetings took part in the campaign for creating water quality awareness. 13,524 Field water testing kits were given free of cost to all panchayats. 26,374 teachers were trained for water testing and 26,374 pump operators / Anganwadi workers were trained for water sample collection. Nearly 5 lakh water samples were collected and tested.

6.12 Urban Water Supply Programme

The Urban water supply include implementation of stand-alone water supply

scheme to the urban local bodies involving creation of water source, construction of Service Reservoirs, laying of pipeline for transmission and distribution according to the population. The maintenance of the urban water supply scheme is decided depending upon the number of beneficiary local bodies.

6.12.1 Urban stand alone Water Supply Improvement Schemes under Implementation

In the year 2014-2015, Water Supply Improvement Schemes were under implementation in **41** Urban local bodies covering **18** Municipalities and **23** Town Panchayats, to benefit a population of **16.14 lakh**, at a total cost of **`579.77 crore**. So far, **21** Water Supply Improvement Schemes benefiting a population of **4.89 lakh** in **4**

Municipalities and **17** Town Panchayats at an estimated cost of **`129.96 crore** have been completed. Balance, **20 Urban** Stand alone Water Supply Improvement Schemes to benefit a population of **11.25 lakh** in **14** Municipalities and **6** Town Panchayats at a cost of **`449.81 crore** are in various stages of progress.

In addition, Water Supply Improvement Scheme to Kodaikanal Municipality to benefit a population of 36,501 at an estimate cost of `46.31 crore has been taken up and is under tender stage.

6.13 Hogenakkal Water Supply and Fluorosis Mitigation Project

6.13.1 Water Supply Component

The successful Completion of the Hogenakkal Water Supply and Fluorosis Mitigation Project is a major achievement and a boon to the people living in the fluoride affected areas of Dharmapuri and Krishnagiri Districts. This project is meant to cover **3 Municipalities, 17 Town Panchayats** and **6,755 Rural habitations** in **18 Panchayat Unions** in both the Districts to benefit a population of **33.87 Lakh** (Census-2011) at an estimated cost of **₹1,928.80 Crore**. Subsequently, 961 **new rural habitations** have been added to this Project and the total rural beneficiary will now be **7,716 habitations**.

This project has been inaugurated by the Hon'ble Chief Minister on 29.5.2013. Presently water supply is being provided to **3 Municipalities, 17 Town Panchayats** and

6,675 Rural habitations benefiting a population of **32 lakh**. On an average 120 Million litres of water is being supplied every day under this project. For **184 habitations** in Thally and Kelamangalam forest areas, works are under progress and water supply will be effected by October 2015. The works pertaining to supply of water to **960** habitations in Bargur Union which was delayed due to widening of National Highway will be completed by October 2015.

6.13.2 Fluorosis Mitigation Component

Fluorosis Mitigation Component is implemented on a comprehensive three-pronged strategy i.e., Hospitals, Schools and Community based approaches in coordination with Medical and Education Departments along with the District Administration to

assess the level of incidence of Dental, Skeletal and Non-Skeletal fluorosis among the public in both Dharmapuri and Krishnagiri districts and to undertake mitigation measures through awareness and life style modification, nutritional supplementation and medical treatment.

All 840 Government Doctors in both the Districts have been trained to diagnose the fluorosis among the patients and to prescribe preventive measures. 3,785 trained School teachers conducted survey on the prevalence of dental fluorosis among 4,24,713 students. 100% household health survey on prevalence of fluorosis in 6,54,551 households covering the present population of 33 lakh in both Dharmapuri and Krishnagiri districts was completed by engaging 418 trained Village Health Nurses

and 1,887 trained Village Voluntary members from NGOs.

Micro nutrient tablets of 106 lakh numbers procured at a cost of `11.52 lakhs have been supplied to the Public Health Centres and are now being distributed to the Fluorosis affected persons. 6 Ion meters and chemicals to test urine and serum have been distributed to the 4 Government Hospitals in Dharmapuri and Krishnagiri Districts at a cost of `32.50 lakh.

It has also been planned to procure Medical Equipments through Tamil Nadu Medical Services Corporation at an estimated cost of `2.40 crore so as to distribute the same to the Government Hospitals and Primary Health Centres functioning in these two districts. Nearly 124 Nos. of equipments

are required for Dental and Ortho Surgery, such as Dental Arm Chair, Fully Automated Analyser, Dental Oral Imaging system, Dental X-Ray Unit, Digital X-ray Unit, Autoclave, Ultrasonic equipment and other related equipments. At present, 14 Dental Arm Chairs have been procured and issued to the concerned hospitals. The balance equipments will be distributed before October 2015.

It has been programmed to conduct 36 Medical camps in 18 Panchayats Unions in Dharmapuri and Krishnagiri Districts to carry out screening of 1,76,253 Dental Fluorosis and 22,056 Skeletal Fluorosis affected person identified under the completed Health Survey for treatment through surgical interventions. So far 8 camps completed and core committee have identified 45 skeletal Fluorosis affected patients. The balance

medical camps is planned to be completed by October 2015. Necessary fund allocation has been made for the treatment to the affected persons.

The Core Committee of Specialist Doctors formed have identified Indian Dental Academy, Hyderabad, to provide special training to the field level Doctors on treatment for dental fluorosis. Specialized Training to cover 30 Dentists in both Dharmapuri and Krishnagiri Districts has been started from July 2015 onwards. So far 10 Doctors have been trained and the balance 20 Doctors will be provided training before December 2015.

Rehabilitation measures and surgical interventions for the identified dental and skeletal fluorosis cases in the planned

medical camps in both districts are proposed to be completed by March 2016.

6.14 Operation and Maintenance of

CWSS

The CWSS covering more than one local body are being maintained by TWAD Board as per G.O. (Ms) No.84, Municipal Administration and Water Supply Department, dated 10.03.1994. As on 01.04.2014, **545** Combined Water Supply Schemes were under the maintenance of TWAD Board. At present, taking into account of 7 schemes which were handed over to local body, 8 schemes which were merged with other CWSS and 2 schemes which were taken over for maintenance on completion, **532** Combined Water Supply Schemes are under maintenance. At present 200 MLD for

7 Corporations, 172 MLD for **52 Municipalities**, 241 MLD for **281 Town Panchayats**, 797 MLD for **32920 Rural habitations** and 90 MLD for **532 Industries/Institutions** totally 1,520 MLD water is supplied daily through 532 CWSS benefitting a population of benefiting a population of **3.42 crore**.

The expenditure for the Operation & Maintenance during the year 2014-15 is **`466.79 crore**. The Revenue collected through water charges is **`220.38 crore**.

6.15 Investigation and Preparation of Detailed Project Reports for Water Supply Schemes

6.15.1 Combined Water Supply Schemes

TWAD Board has taken up investigation for providing 42 Water Supply Schemes during 2014-15 at an estimated cost of `7563.29 crore to benefit a total population of 82.07 Lakh.

Out of 42 Schemes, tenders are to be called for, for 5 Water Supply Schemes covering 2 Municipalities, 16 Town Panchayats and 1,479 Rural Habitations, to benefit a population of 12.08 Lakh, sanctioned at a total cost of `905.01 crore.

15 Schemes covering 8 Municipalities, 18 Town Panchayats and 2489 Rural Habitations to benefit a population of 18.63 Lakh at an estimated cost of `1982.21 crore are in various stages of sanction. Detailed Project Report for 22 Water Supply Schemes to cover 2 Corporations, 6 Municipalities, 19

Town Panchayats and 5,500 Rural Habitations to benefit a population of 51.36 Lakh are under preparation at a tentative cost of `4676.07 crore.

6.15.2 Desalination Plants

Considering the existing scenario of non sustainable supply and the prevailing drinking water quality problems in Ramanathapuram and Thoothukudi Districts and with an objective of providing permanent measure to provide enhanced supply of 55 lpcd in Rural Habitations and 135 lpcd in Urban areas, in all seasons, it was announced to install Desalination Plants in these Districts.

Administrative Sanction has been accorded for `**1355 crore**, for setting up of Desalination Plants of **60 mld** capacity each

at Kuthiraimozhi in Ramanathapuram District and at Alanthalai in Thoothukudi District, benefiting a population of **3.20 Lakh** in Ramanathapuram District and **8.05 Lakh** in Thoothukudi District.

6.15.3 Formation of Water Supply Grid between Chennai & Bangalore exclusively for Industrial needs

To meet out the industrial Water Supply needs and to encourage setting up of new industries along Chennai-Bangalore Industrial Corridor, TWAD Board had carried out detailed investigation. In all, 10,881 industries have been identified between Chennai and Hosur and grouped into 46 industrial clusters. To cater to the Water Supply needs of these industrial clusters, a Pre-Feasibility Report has been prepared.

As directed by the Tamil Nadu Infrastructure Development Board (TNIDB), Detailed Project Report for Ponneri and Hosur Industrial nodes are under preparation, as Phase-I.

6.16 Under Ground Sewerage Schemes

TWAD Board is implementing Under Ground Sewerage Schemes in selected District Head quareters and other than District Head quareter towns.

In line with the objective of the Tamil Nadu Government to provide Under Ground Sewerage Scheme to all the Urban Local Bodies, TWAD Board has prepared **636** Detailed Project Reports at an estimated cost of **`20,820 Crore** to provide UGSS to **3 Corporations, 117 Municipalities and 516 Town Panchayats.**

6.16.1 New UGSS for Corporations and Municipality

During 2014-15 Detailed Project Reports for providing Under Ground Sewerage Schemes in **2 Corporations** benefiting a population of **6.77 lakh** have been prepared at a total cost of **₹972.32 Crore** and action is now being taken to finalise the fund tie-up.

Sl. No	Name of Town	DPR Cost (in Crore)	Population (in Lakh)	Present Stage
1	Thoothukudi Corporation (Added area)	284.92	1.47	Fund tie-up to be made
2	Coimbatore Corporation			
	a. Omitted areas	216.40	2.15	
	b. Kurichi and Kuniyamuthur added area	471.00	3.15	
	Total	972.32	6.77	

DPR for providing UGSS to the balance 9 added areas of Coimbatore Corporation, benefiting a population of 2.98 lakhs is under preparation. The tentative cost of the project is `700.00 crores.

6.17 Status of the Underground Sewerage Schemes under implementation by TWAD Board

- **During the year 2014-15, Underground Sewerage Schemes to Thiruvarur and Villupuram Municipalities** benefiting a population of **1.72 lakh** at an estimated cost of **`102.43 Crore** have been completed.
- **During the year 2015-16, Underground Sewerage Schemes to Theni-Allinagaram Municipality and Mamallapuram, Tiruchendur and Orathanadu Town Panchayats** benefiting a population of 1.37 lakh at an estimated cost of **`83.54 Crore** have been completed.

- **During the year 2015-16, Underground Sewerage Scheme to Cuddalore Municipality** benefiting a population of 1.59 lakh at an estimated cost of **`65.14 Crore** have been completed and under trial run.
- **Currently, 26 Underground Sewerage Schemes** benefiting a population of **19.18 lakh** at an estimated cost of **`1455.70 Crore** are in various stages of progress.

6.18 Hydrogeological Activities

Scientific Source Finding Activities are carried out for identification of sources for providing Water Supply to the various schemes taken up and implemented by TWAD Board. The State of Art of Technology – Remote Sensing and GIS (Geographical Information Systems) are extensively utilized in Scientific Source Finding Activities and identification of suitable locations for

Recharge Structures to be taken up under Sustainability Component.

The Project on Ground Water Prospect Maps sanctioned by the Ministry of Drinking Water and Sanitation, Government of India has been taken up and District-wise ATLAS for Tamil Nadu was completed. Further, the District wise Groundwater Quality Maps are under preparation and will be completed before October 2015.

During the year 2014-2015, TWAD Board has taken up a Research and Development project for Tamiraparani River Basin falling part of Tirunelveli and Thoothukudi Districts for the Sustainability of Drinking water sources for future requirement. This project will be implemented at a cost of `2.75 Crore over a period of 3 years under GOI Funds.

Also, during the year 2014-2015, TWAD Board has taken up a feasibility study to utilize the defunct Quarry as rain water harvesting cum water supply pond in Tamil Nadu. This project will be implemented at a cost of `48.20 lakh over a period of 18 months. The project is funded by Government of Tamil Nadu.

6.19 Management Information System

The Tamil Nadu Water Supply and Drainage Board has implemented TWAD Board integrated E-Governance System (TWAD NEST) to manage data flow relating to all its schemes, Project Management, Financial Accounting, Human Resource, Billing etc. Online information is provided for physical and financial progress and performance of all water supply and sewerage, maintenance schemes, recharge

structures etc. The daily pumping quantity, from the Head works of various water supply schemes maintained by TWAD Board is also uploaded and monitored through online.

Online e-tenders submission is being implemented in TWAD Board. CAD Software for the design of water supply distribution network, sewer network design and analysis, Structural Analysis, etc. are used for the purpose of optimum planning and design.

The TWADNEST is enhanced from time to time based on the current requirement of the Board. Further the existing hardware and software are maintained and upgraded.

TWAD Board, Head office and five Chief Engineer's offices in Vellore, Madurai, Thanjavur, Coimbatore, Dharmapuri and four Superintending Engineers offices in

Cuddalore, Trichy, Salem, Tirunelveli are interconnected through Video Conference (VC) System for effective review of works executed by TWAD Board all over the state. This makes better coordination and effective monitoring of all the activities of the TWAD Board.

Mobile based online inspection monitoring system is implemented for effective monitoring of scheme progress. A web based online monitoring system has been implemented for effective monitoring of material quality testing in regional laboratories.

7. Tamil Nadu Urban Development Fund (TNUDF)

Tamil Nadu Urban Development Fund (TNUDF) was established as a Trust in the year 1996, on a public- private partnership mode with the participation of ICICI Bank Limited (ICICI), Housing Development Finance Corporation Limited (HDFC) and IL & FS Financial Services Limited (IL & FS).

The Vision of TNUDF is "To be a sustainable financial intermediary that enhances the flow of private capital to the urban sector in the State of Tamil Nadu and facilitates urban local bodies to become capable and sustainable organizations, sensitive to stake holders in providing the highest quality of urban services."

The Mission of TNUDF is “To contribute to improvement in urban quality of life in Tamil Nadu by facilitating efficient urban infrastructure asset creation and provision of urban services through innovative project development, independent appraisal and sustainable financing.”

The objectives of TNUDF are as follows:-

- Finance urban infrastructure projects, which improve the living standards of the urban population.
- Facilitate private sector participation in infrastructure through joint venture and public –private partnership.
- Improve the financial management of urban local bodies and enabling them to access debt finance from markets.

TNUDF finances basic service projects such as roads, bridges, storm water drains, sewerage & sanitation, water supply, solid

waste management etc., and commercially viable remunerative projects such as bus stands, market complexes etc, executed by ULBs. It is managed by a corporate trustee viz., Tamil Nadu Urban Infrastructure Trustee Company Limited (TNUITCL) and is operated by a Fund Manager viz., the Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL).

The total corpus of the Fund is `199.60 crores, of which a sum of `142.91 crore has been contributed by Government of Tamil Nadu and the balance amount of `56.69 crore has been contributed by ICICI, HDFC and IL & FS.

2. External Aided Projects

TNUDF is operating five external lines of credit, viz, the Sustainable Municipal Infrastructure Financing –Tamil Nadu (SMIF-TN) Programs (Phase I, Phase-II-Part-1 and Phase-II-Part-2) assisted by KfW, Tamil Nadu Urban Infrastructure Project (TNUIP) assisted by the Japan International Cooperation Agency (JICA) and the World Bank assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP). The total fund made available under the above lines of credit is `6131.25 crore (Table 1). Of the above, a sum of `3759.67 crore has already been committed to various projects.

Table: 1 Size of External Lines of Credit

(in crores)

Sl. No.	Components	TNSUDP	SMIF-TN			TNUIP	Total
			Phase-I	Phase-II Part 1	Phase-II Part 2		
1	Loan to ULBs	1225.92	271.20	289.08	407.15	180.50	2373.85
2	Capital Grants to ULBs	1225.92	150.80	289.08	407.15	102.73	2175.68
3	Grant to Model Cities	389.48	0	0	0	0	389.48
4	Technical Assistance Grant	344.80	13.00	0	22.39	27.40	407.59
5	Bonds and others	644.88	65.00	0	40.70	34.07	784.65
	Total	3831.00	500.00	578.16	877.39	344.70	6131.25

a) KfW assisted projects

i) Sustainable Municipal Infrastructure Financing – Tamil Nadu (SMIF – TN) Program

The Sustainable Municipal Infrastructure Financing –Tamil Nadu (SMIF – TN) Program with the assistance of KfW, the German funding agency, was launched with the objective of improving the living conditions of residents in urban areas by constructing and improving water supply, sewerage and other urban facilities. Considering the time required for completion of projects under implementation, the completion period of the project has been extended up to 31st December 2014.

The total outlay of the project is `500 crore (Euro 77 million) consisting of `422

crore (Euro 65 million) development loan for financing of urban infrastructure projects to be passed on to ULBs as loan and capital grant and `13 crore (Euro 2 million) towards assistance for strengthening the technical capabilities of the ULBs. A sum of `65 crore (Euro 10 million) is earmarked for the Water and Sanitation Pooled Fund for development of Municipal Bond.

Of the above Euro 75.61 million (Euro 65 million for implementation of urban infrastructure projects, Euro 1.36 million for technical assistance component and Euro 9.25 million for Municipal Bond component) has been utilized. In order to utilize the balance amount available for the technical assistance component and the Municipal Bond component, the funding for the SMIF-

TN Program has been extended up to 31.12.2015.

ii. Sustainable Municipal Infrastructure Financing in Tamil Nadu Phase II – Part-1 (SMIF-TN II-1) Program

The Sustainable Municipal Infrastructure Financing –Tamil Nadu Phase-II – Part-1 (SMIF – TN-II-1) Program with the assistance of KfW, the German funding agency, was launched in 2012 with an objective to contribute towards improvement of environment and preservation of natural resources and the living conditions of the urban population. The project implementation period is from December 2012 to June 2018.

The total outlay of the project is Euro 80 million (equivalent to about `578.16 crores) towards development loan for

financing of urban infrastructure projects, to be passed on to ULBs as loan and capital grant.

iii. Sustainable Municipal Infrastructure Financing in Tamil Nadu Phase II – Part 2 (SMIF-TN II-2) Program

The Sustainable Municipal Infrastructure Financing –Tamil Nadu Phase-II – Part-2 (SMIF – TN-II-2) Program with the assistance of KfW, the German funding agency, was launched in 2014 with an objective to contribute towards improvement of environment and preservation of natural resources and the living conditions of the urban population. The project implementation period is from June 2014 to December 2019.

The total outlay of the project is ₹877.39 crore (Euro 107.75 million)

consisting of ₹814.30 crores (Euro 100 million) development loan for financing of urban infrastructure projects to be passed on to ULBs as loan and capital grant and ₹22.39 crore (Euro 2.75 million) towards assistance for strengthening the technical capabilities of the ULBs. A sum of ₹40.70 crore (Euro 5 million) is earmarked as loan for Water and Sanitation Pooled Fund for development of Municipal Bond.

Considering the project outlay of SMIF-TN Program, SMIF-TN-II-1 Program and SMIF-TN-II-2 Program a sum of ₹1204.32 crore has been committed for 27 projects.

b. Tamil Nadu Urban Infrastructure Project (TNUIP)

The Tamil Nadu Urban Infrastructure Project (TNUIP), was launched with the assistance of Japan International Cooperation Agency (JICA).The objective of the project is to provide safe and reliable water supply in ULBs. The project provides long-term financial assistance to ULBs through the TNUDF.

The total outlay of the scheme is `345 crore (JPY 9824 million), of which the JICA line of credit is `300.04 crores (JPY 8551 million). Considering the project outlay and exchange rate variation, a sum of `473.21 crores has been committed for 10 water supply projects under TNUIP.

c.World Bank assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP)

The Tamil Nadu Urban Development Project-III (TNUDP-III) which was launched on 19.10.2005 was completed on 31.03.2014. The total out lay of TNUDP-III was ` 1996.40 crores (US \$ 434 mn) of which the World Bank funding is `1380 crores (US \$ 300 mn). Of the World Bank assistance of `1380 crores(US \$ 300 mn), US \$ 290.87 mn has been utilized.

Considering the fund requirement for implementing urban infrastructure projects, financial assistance from World Bank under “Tamil Nadu Sustainable Urban Development Project (TNSUDP)” with an outlay of `3831 crore (US\$ 600 million) of which the World Bank assistance is `2554 crore (US \$ 400 million) has been approved by the World

Bank on 31.03.2015. The loan documents for availing assistance from World Bank under TNSUDP have been executed on 03.06.2015. The project implementation period is from June 2015 to March 2022.

As per the norms of Government of India, the World Bank has requested to identify sub-projects for 30% of total funding, before negotiation. Accordingly, the Government has accorded Administrative Sanction for 13 sub-projects costing `2212.89 crore (9 new projects costing `1906.53 crores and 4 spill over projects costing `306.36 crores from TNUDP-III) under TNSUDP.

3. Water and Sanitation Pooled Fund (WSPF)

Water and Sanitation Pooled Fund (WSPF), a fully owned Government Trust,

has been created in the year 2002 to cater to the civic needs like water and sanitation in small and medium towns and raising resources from capital markets. This Trust has been created as a not-for-profit entity.

The objectives of WSPF are:

- Provide financial assistance for setting up infrastructure projects,
- Mobilize resources from the capital market under pooled finance structure,
- Facilitate the participation of private sector in water and waste water sectors through direct investment and public private partnership,
- Enable urban local bodies to access debt finance from markets and
- Act as the Nodal Agency on behalf of Central and / or State Government for

water, sanitation and / or any other infrastructure projects.

A sum of `222.30 crores (Table-2) has been mobilized by way of issue of bonds by WSPF.

Table: 2 Details of resources mobilized by issue of Bonds

Sl. No.	Details	in crores
1	<p>9.20%, 15 year Non-Convertible Redeemable Bonds Taxable bonds issued by pooling the requirements of 13 ULBs in the year 2002.</p>	30.41
2	<p>7.25%, 10 year Tax Free Non-Convertible Redeemable Bonds under PFDF Scheme Tax free bonds (first tranche) issued by pooling the requirements of 7 ULBs under the Pooled Finance</p>	6.70

	Development Fund (PFDF) scheme of Government of India in the year 2008.	
3	7.50%, 10 year Tax Free Non-Convertible Redeemable Bonds under PFDF Scheme Tax free bonds (second tranche) issued by pooling the requirements of 7 ULBs under the PFDF scheme of Government of India in the year 2010.	83.19
4	10.60%, 10 year Non-Convertible Redeemable Bonds Taxable bonds (first tranche) issued by pooling the requirements of 10 ULBs in the year 2012 under SMIF-TN Program	51.00
5	8.71%, 10 year Non-Convertible Redeemable Bonds Taxable bonds (second tranche) issued by pooling the requirements of 10 ULBs in the year 2013 under SMIF-TN Program	51.00
	Total	222.30

Further, it is proposed to mobilize bonds of `80 crores under the KfW assisted

SMIF-TN-II-2 Program during the financial year 2015-16.

4. Chennai Mega City Development Mission

The Government has launched the Chennai Mega City Development Mission (CMCDM) and has designated the Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) as the Nodal Agency for CMCDM. The funds under CMCDM will be made available to Corporation of Chennai (COC) and Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) to implement various urban infrastructure and basic services projects like roads, storm water drains, street lighting, water supply and sanitation in Chennai and its suburban areas. The fund is provided through

budgetary provision every year by the Government.

The project costing `2643.19 crores has been sanctioned for which grant of `2000 crores has been provided by the Government for the financial years 2011-12 to 2015-16 of which a sum of `1500 crore has been withdrawn from Government. A sum of `1418.60 crores has been disbursed to Corporation of Chennai and CMWSSB (Table 3).

Table: 3 Funds committed under CMCDM

(` in crores)

Sl. No	Name of the Agency	No. of projects / Roads / Equipments	Project Cost	Grant Committed	Grant Disbursed
1	COC	5654	1487.99	1274.57	872.08
2	CMWSSB	44	1155.20	1092.63	546.52

	Total	5698	2643.19	2367.20	1418.60
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5. Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL)

Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) is a public limited company formed in the year 1996 under the Indian Companies Act, 1956, with an authorized capital of `2.00 crores. The paid-up share capital of the company is `1 crore, of which a sum of `49 lakhs is contributed by the Government of Tamil Nadu. The other shareholders are ICICI Bank Limited, Housing Development Finance Corporation Limited and IL & FS Financial Services Limited.

TNUIFSL manages the Tamil Nadu Urban Development Fund, Water and

Sanitation Pooled Fund and various Government Grant Funds. TNUIFSL undertakes the functions of project development, project appraisal, project structuring, resources mobilization and fund management.

TNUIFSL provides a total solution for the promotion of urban infrastructure development, from concept to commissioning of the projects. The Company has been running profitably since its inception and is declaring a dividend regularly.

8. Chennai Rivers Restoration Trust

Chennai Metropolitan Area is abound with waterbodies and waterways and historically viewed as a natural and cultural

heritage. In recent decades, urban development has caused a progressive deterioration of the environmental quality of the water sources and has also diluted linkages that traditionally humans have had with the waterbodies. The State Government is committed to restore this linkage and CRRT carries the function of an intermediary in realizing this objective. In order to protect the waterbodies and waterways, and to carry forward its commitment, the Government of Tamil Nadu in its budget speech 2014-15 announced that the State is committed to improve the ecological conditions of rivers and water bodies i.e., Cooum, Adyar and Kosasthalaiyar rivers, the Buckingham Canal along with other smaller canals and water bodies in the Chennai Metropolitan Area.

The Government of Tamil Nadu has directed Chennai Rivers Restoration Trust to carry on its primary function of identifying, planning, coordinating and monitoring along with arranging for funds for the restoration activities of rivers and water bodies within Chennai Metropolitan Area. The Government of Tamil Nadu has directed that the approach to restoration of water bodies and rivers has to be an integrated one and all the Line Departments have to be involved in restoration process. To achieve the goal set for it, Chennai Rivers Restoration Trust has taken various initiatives.

Ecological Restoration of Adyar Creek – Phase I

The Government of Tamil Nadu conceived an ambitious and pioneering project in wetland conservation in the

restoration of 358 acres Adyar creek and estuary. Initially restoration activities were undertaken in 58 acres of Adyar Creek.

The eco-park is functioning as a centre for environmental education and research activities. To impart knowledge on environment to the community, particularly for school children, regular environmental education programmes are being conducted. Till 10th September 2015, a total of 50,034 students and 3190 teachers from 737 schools have visited the Eco-park and experienced the concept of eco restoration. Further, a Corporate Social Responsibility (CSR) fund has been received from TNUIFSL for conducting education programmes at Adyar Ecopark. In future, public sector undertakings will be approached for CSR

funds for conducting education related programmes at Adyar Ecopark.

To impart environmental awareness and the efforts taken by Government in field of conservation and protection, Adyar Ecopark is open to interested general public from 11.7.2014 on every Tuesday and Thursday after online advanced booking. So far, a total of 1142 visitors have visited the Ecopark between July 2014 and 10th September 2015.

In order to evaluate the progress of restoration, regular ecological and biodiversity monitoring is being taken up. Periodical water quality monitoring is being conducted. The restoration process of Adyar Poonga, has to comply with Best-Designated-Use Class 'D' which according to the CPCB guideline would allow propagation of wildlife

and fisheries. The results indicate that the water quality is in class 'D' Best-Designated-Use that allows propagation of wildlife and fisheries.

Faunal Diversity in Adyar Poonga

Fauna	2007-08	2009-10	2011-12	2013-14	2014-15
Molluscan	-	-	-	6	6
Crabs	-	-	4	9	9
Dragonflies	-	-	12	15	17
Butterflies	-	-	51	55	56
Fishes	14	27	27	10	10
Amphibian	7	10	10	10	10
Reptiles	19	19	19	19	19
Birds	88	90	98	100	97
Mammals	13	13	13	15	15
Total	141	159	234	239	239

Eco-restoration plan for Adyar Estuary (300 acres) Phase II

In continuation of the restoration activities, the Government of Tamil Nadu has

accorded sanction to restore the Phase II Adyar Creek and Estuary (300 acres) for the estimated cost of `24.93 crore vide G.O (D) No.106, Municipal Administration and Water Supply (MC-1), dated 01.03.2013. An eco-restoration plan has been prepared and the important activities proposed are to remove the debris, plastics and sludge from the creek, plantation of mangroves and native species, bioengineering technique to stabilize bunds and to enhance the biodiversity in the Adyar Creek and Estuary. Necessary clearance has been obtained from National Coastal Zone Management Authority, MoEF, GoI. As part of restoration activities, excavation of debris, plastics and sludge to enhance the tidal interaction and to increase the water spread in the degraded creek is in process. For plantation of native species,

removal of exotic and invasive species like *Prosopis juliflora* and bund stabilization is in process. The project completion is anticipated by March 2016.

Integrated Cooum River Eco-Restoration Plan

The ecorestoration plan for the stretch of the river between Paruthipattu and the river mouth is prepared and the major components proposed are interception and diversion of wastewater, solid waste management, flood management, rehabilitation and resettlement, biodiversity management and riverfront development.

The project is proposed to be implemented in three phases. The Short Term Plan covers a period of three years from 2014-15 to 2016-17 which will see the

completion of the largest number of sub projects. The Short term proposals were proposed by line departments for an amount of 1646.52 crore consisting of 60 sub projects. Administrative sanction for the short term proposals has been issued for Government Order such projects at a cost of `604.77 crore. Implementation of the sub projects has commenced through line Departments viz., Public Works Department, Corporation of Chennai, Commissionerate Municipal Administration, Directorate of Rural Development, Chennai Metropolitan Water Supply and Sewerage Board.

Master Plan for Phase III Adyar River Restoration from Origin to Mouth

Adyar River has been under heavy anthropogenic disturbance for a very long

duration and is highly degraded. The ecorestoration plan for the stretch of the river from Adhanur tank to the River mouth is being prepared and the major components proposed are sewage management, solid waste management, flood management, rehabilitation and resettlement, biodiversity management and riverfront development. The Draft Final report of the Master Plan has been prepared. The Final report of the Phase III Adyar River Restoration from Origin to Mouth is expected by September 2015.

Master Plan for Waterways and Water bodies in Chennai Metropolitan Area

For a holistic approach in restoring the degraded water bodies & waterways, CRRT has commissioned a study to prepare Master Plan for Restoration and Protection of Water bodies & Waterways within Chennai

Metropolitan Area covering an area of about 1189 sq.km.

There are 280 water bodies in the Chennai Metropolitan Area. The study has reached Interim report stage and is expected to be completed by December 2015.

Detailed Project Report for Restoration and Protection of Water bodies

The Government of Tamil Nadu has taken up an initiative to revive and rejuvenate the following water bodies in Chennai Metropolitan Area and Detailed Project Reports are being prepared for the same as shown below:-

Implementing Department/ Organization	Name of the Waterbodies	Status
Public Works Department	Madhavaram, Ambattur and	Sanctioned under Environment protection

	Korattur Eri	and Renewable Energy Department fund and under progress.
Corporation of Chennai and Pallavaram ULB	Narayanapuram Eri	The projects are proposed under the World Bank funded "Tamil Nadu Sustainable Urban Development Fund (TNSUDP)" for implementation.
Pallavaram Municipality	Zamin Pallavaram, Periya Eri and Kilkattallai Eri	
Chennai Metropolitan Water Supply and Sewerage Board	Restoration of Paruthipattu Lake, Avadi	The Detailed Project Report is expected in September 2015.
Corporation of Chennai	Kadambakkam Lake, Nesavalur Nagar Lake	The Interim report submitted by the consultant. The final report is expected in December 2015.
Chennai Metropolitan Water Supply and Sewerage Board	Kolathur Lake, Velachery Lake	
Chennai Metropolitan Development Authority	Nanmangalam Eri, Kovilambakkam Eri	

9. Tamil Nadu Urban Finance and Infrastructure Development Corporation

Tamil Nadu Urban Finance and Infrastructure Development Corporation (TUFIDCO) was registered as a company under the Companies Act in 1990 to fulfil the needs of infrastructure development in the Urban Local Bodies of the State. The State Government has appointed TUFIDCO as the State Level Nodal Agency for the following schemes:-

1. Jawaharlal Nehru National Urban Renewal Mission – Urban Infrastructure and Governance (JnNURM-UIG).
2. Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT).
3. Urban Infrastructure Development Scheme for Satellite Towns (UIDSST).
4. Metropolitan Infrastructure Development Fund (MIDF).
5. Integrated Urban Development Mission (IUDM).

The Government of Tamil Nadu has also appointed TUFIDCO as a Fund Manager for the Entertainment Tax Compensatory Fund (ETCF), Education Fund (Corporation / Municipality School Student Fund), Infrastructure Gap Filling Fund (IGFF) and Operation and Maintenance Gap Filling Fund (O&MGFF).

Jawaharlal Nehru National Urban Renewal Mission (JnNURM)

The Government of India had launched the JnNURM scheme on 03.12.2005 having the following 3 sub-missions and programmes :-

1. a. Urban Infrastructure and Governance (UIG)
- b. Basic Services to the Urban Poor (BSUP)

2. Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT)
3. Integrated Housing and Slum Development Programme (IHSDP)

1. Urban Infrastructure and Governance (UIG)

Throughout India, 67 cities have been identified under Urban Infrastructure and Governance component to develop infrastructure for a period of 9 years from 2005-06 to 2013-14. 3 Mission cities namely Chennai, Madurai, Coimbatore and their Urban Agglomeration have been taken up under this programme in Tamil Nadu.

The Government of India sanctioned 48 projects at an estimated cost of `5250.15 crore under this programme.

(` In crore)

Mission City	No. of projects sanctioned	Project Cost	GOI Share	GoTN Share	ULB/ para stal agency Share
Chennai	35	3585.43	1294.40	533.42	1757.61
Madurai	8	838.52	419.26	167.70	251.56
Coimbatore	5	826.20	413.10	165.24	247.86
Total	48	5250.15	2126.76	866.36	2257.03

Out of the sanctioned 48 projects, 27 projects have been completed and the remaining 21 projects are under implementation.

Transition Phase Projects

17 projects have been sanctioned for an approved cost of `867.83 crore under JnNURM – UIG during the transition phase. (Period between JnNURM Scheme and New Scheme)

Out of the sanctioned 17 projects, 14 projects are under implementation and 3 projects are in the tender stage.

2. Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT)

The objective of the Urban Infrastructure Development Scheme for Small and Medium Towns is to develop infrastructure in all the towns except 67 Mission cities covered under the JnNURM-UIG component. The Mission period of the scheme was from 2005-06 to 2013-14.

122 projects at a cost of `882.73 Crore have been sanctioned under this scheme. Out of 122 projects sanctioned, 106 projects have been completed and the remaining 16 projects are under implementation.

Transition Phase Projects

In the Transition phase (Period between JnNURM Scheme and New Scheme), the Government of India approved 13 projects for the cost of `507.41 crore under UIDSSMT.

Out of sanctioned 13 projects, 9 projects are under implementation and 3 projects are in the tender stage. Site has to be identified for sewerage treatment plant for the remaining 1 project.

3. Urban Infrastructure Development Scheme for Satellite Town (UIDSST)

The Government of India launched an Urban Infrastructure Development Scheme for Satellite Town during 2009 to create infrastructure in Satellite Towns situated near large Urban Centres – Mother towns.

In Tamil Nadu, Sriperumbudur has been approved under the UIDSSST scheme. 3 projects have been sanctioned under this scheme. The project details are as below:-

(` In crore)

Sl.No	Name of the Project	Approved Cost
1	Water Supply Scheme	40.71
2	Underground Sewerage Scheme	56.22
3	Solid Waste Management	4.43
	Total	101.36

All the 3 projects are under implementation.

4. Metropolitan Infrastructure Development Fund (MIDF)

The Metropolitan Infrastructure Development Fund has been created out of the revolving fund of the phased out Megacity programme which was intended to develop infrastructure in Chennai Metropolitan Area. TUFIDCO has created a revolving fund of `1775.07 Crore under Megacity programme and it is the source fund for the MIDF.

Under this programme 33 projects have been sanctioned for an estimated cost of `1063.43 crore. Among the sanctioned projects, 17 projects have been completed and the remaining projects are in progress.

5. TUFIDCO Infrastructure Funding

Scheme

TUFIDCO has created an Infrastructure Funding Scheme to the Urban Local Bodies and Government Agencies for financing infrastructure projects. The source fund for this scheme is the Share Capital, Reserves and Surplus of TUFIDCO and loans from Banks.

During 2015-16, 2 projects worth of ₹4.00 crore have been sanctioned under this programme.

6. Integrated Urban Development Mission (IUDM)

Considering the need for improvement of infrastructure in urban areas, the State Government has launched a flagship programme called "Integrated Urban Development Mission (IUDM)" in the year 2011.

Projects sanctioned

From the year 2011-12 to 2015-16, ₹10773.22 crore worth of projects have been sanctioned (fully funded/partly funded) to the Urban Local Bodies to meet their infrastructure needs. The details are as below:-

Sector	Total No. of works	` in crore		
		Project	ULB Share / Others	IUDM Share sanctioned
Water Supply	1061	3900.83	2558.47	1342.36
Sewerage	66	4589.96	3587.92	1002.04
Roads	3713	923.13	82.51	840.62
Storm Water Drains	2078	366.42	63.24	303.18
Solid Waste Management	1091	231.30	4.93	226.37
Street Lights	2963	551.80	315.87	235.93
Eradication of Open Defecation	2066	160.10	105.65	54.45
Others	407	49.68	6.44	43.24
Total	13445	10773.22	6725.03	4048.19

7. Fund Manager for the State Government Schemes

In order to improve the Infrastructure in Urban Local Bodies of the State, Government of Tamil Nadu has formulated Entertainment Tax Compensatory Fund, Education Fund (Corporation/Municipality School Student Fund), Infrastructure Gap Filling Fund and Operation and Maintenance Gap Filling Fund.

TUFIDCO has been appointed as a Fund Manager for these schemes by the Government of Tamil Nadu. The fund released for the above schemes during 2015-16 is as follows :-

(` In crore)

Sl.No	Name of the Scheme	Amount released during 2015-16
1	Infrastructure Gap Filling Fund	159.67
2	Operation and Maintenance Gap Filling Fund	82.30

8. Smart Cities

The Government of India launched Smart Cities Mission on 25.06.2015. The objective of the Smart Cities Mission is to create world class cities as per the the aspirations and needs of the citizens.

The programme intends to provide core infrastructure to the citizens along with the application of 'Smart' Solutions.

The Government of India have proposed to create 100 Smart Cities and its duration will be five years. In 2015-16 Government of India have proposed to sanction 20 Smart Cities, and in the subsequent years, 40 Smart Cities per year for the Country.

The Government of India have allocated 12 Smart Cities for Tamil Nadu.

The Government of Tamil Nadu have recommended 12 Municipal Corporations to Government of India under the Smart Cities Mission after stage-1 "Intra-State Competition".

In the second stage of the competition, the Government of India will select 20 Cities for the first year based on the "City Challenge Competition". The 12 Corporations selected in Tamil Nadu will have to prepare a "Smart City Proposal" in order to compete among the 100 Smart Cities throughout the Country.

The Government of India have instructed the States/Cities to prepare "Smart City Proposal" within 3 months time

with the assistance of the consultants in order to participate in the “City Challenge Competition”.

The “Smart City Proposal” for the 12 Corporations are under preparation.

9. Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

The Government of India launched **Atal Mission for Rejuvenation and Urban Transformation** on 25.06.2015. The cities having more than one lakh population are selected for implementation under this scheme. In Tamil Nadu the following 32 towns have been selected in this scheme.

Sl. No	Name of the ULBs	Sl. No	Name of the ULBs
1.	Chennai Corporation	17.	Tambaram
2.	Coimbatore Corporation	18.	Cuddalore

3.	Madurai Corporation	19.	Alandur
4.	Trichy Corporation	20.	Kancheepuram
5.	Salem Corporation	21.	Erode Corporation
6.	Tirunelveli Corporation	22.	Tiruvannamalai
7.	Ambattur	23.	Kumbakonam
8.	Tiruppur Corporation	24.	Rajapalayam
9.	Avadi	25.	Kurichi
10.	Tiruvottiuyur	26.	Madavaram
11.	Thoothukudi Corporation	27.	Pudukottai
12.	Nagercoil	28.	Hosur
13.	Thanjavur Corporation	29.	Ambur
14.	Pallavapuram	30.	Karaikudi
15.	Dindigul Corporation	31.	Nagapattinam
16.	Vellore Corporation	32.	Velankanni

The Mission will focus on the following thrust areas :-

1. water supply
2. sewerage facilities and septage management
3. storm water drains
4. pedestrian, non-motorized and public transport facilities, parking spaces
5. creating and upgrading green spaces, parks and recreation centers, especially for children.

All the above cities are preparing Service Level Improvement Plan (SLIP) as per the prescribed guideline.

10. New Tirupur Area Development Corporation Limited

The first Public Private Partnership project in the country was proposed in Tiruppur for provision of Water Supply and Sewerage to Tiruppur Municipality, adjacent area and industries. Government signed a Concession Agreement with the then Tiruppur Municipality (now Corporation) and the Special Purpose Vehicle, New Tirupur Area Development Corporation Limited (NTADCL). The Agreement was to implement a 185 million litre per day (mld) water supply project mainly for meeting the requirements of knitting industries in and around Tiruppur. **The foundation Stone was laid on 20/06/2002 by the Hon'ble Chief Minister and the project was inaugurated in February 2006.**

**Cost of the project is `1023 crores.
Equity contributed by 15 institutions is
`322.70 crores and debt funded by 19
financial institutions is `700.30 crores**

This water supply project is catering to the domestic water supply requirements of Tiruppur Corporation (about 38.2 MLD). In addition, 8 Village Panchayats and about 600 rural habitations covered in 5 Panchayat Unions on the wayside are benefitted by the project (about 17 MLD). A domestic sewerage system in major parts of Tiruppur Corporation has also been completed and functioning. Presently, around 6 MLD of sewer received from 14627 sewer connections is being treated. Low cost sanitation facilities (31sanitary complexes)

have also been implemented for the urban poor.

The water demand for industries in Tiruppur had substantially reduced since February 2011 consequent to closure of dyeing and bleaching industries due to Hon'ble Madras High Court Order dated 31.01.2011 and subsequent introduction of common effluent treatment facilities resulting in reuse of water. Notwithstanding this, NTADCL has been maintaining its committed quantum of supply to the domestic sector – both to Tiruppur Corporation and wayside villages.

The poor financial situation of New Tirupur Area Development Corporation Limited, resulting from low offtake of water by industries, has been tackled through the Corporate Debt Restructuring (CDR)

package, under which the lenders rescheduled the debt, reduced the interest rate and converted 15 per cent of the debt into equity and the Government assured to buy up to 100 mld of water additionally for domestic usage from the company. Presently, around 45 MLD of additional water is being supplied to Tiruppur Corporation.

Government had agreed for a capital infusion by way of equity share capital of `150 crores. Out of `150 crores released, `24 crores has been retained in the P.D.Account.

Government had permitted the Company to expand its water distribution network in selected area outside TLPA. Accordingly, Company had identified customers in Palladam in Tiruppur district and Perundurai in Erode district. In addition,

TWAD Board is implementing three (3) schemes to cover 461 habitations under 68 Village Panchayats in Erode, Perundurai, Chennimalai and Uthukuli Unions of Erode and Tiruppur Districts. These schemes are implemented in Konavaikal, Gangapuram, Vavikadai, Saralai, Perundurai, Vijayamangalam, Pallagoundanpalayam, Chengappalli, Sarkarperiapalayam and Agarharaperiapalayam and are expected to be completed by April 2015 resulting in additional domestic consumption of 7.7 MLD.

The industrial / institutional water supply is 25 MLD currently and is slowly picking up.

The assistance provided by the Government of Tamil Nadu in the form of equity capital infusion, purchasing additional quantity of water of around 45 MLD by

Tiruppur Corporation, and the decision of allowing the company to meet the industrial demand outside the TLPA by increasing the project service area has paved the way for the Company to revive itself. This has enabled the Company to serve the public in the area continuously.

NTADCL is also preparing a Detailed Project Report (DPR) to augment the water supply and sewerage facilities in Tiruppur Corporation.

11. Tamilnadu Water Investment Company Limited

Tamilnadu Water Investment Company Limited was formed as a Special Purpose Vehicle on 27.01.2000 under Companies Act, 1956 by Infrastructure Leasing and Financial Services Limited (ILFS) and Government of Tamil Nadu as an investment Company to implement an Integrated Water Supply and Sewerage Project and to promote infrastructure development projects jointly with Government Institutions and Local Bodies. Tamil Nadu Water Investment Company Limited is the promoter of New Tiruppur Area Development Corporation Limited. Government of Tamil Nadu holds 46.15% of Share Capital of Tamilnadu Water Investment Company Limited. In addition to

investment in New Tirupur Area Development Corporation Limited, the Tamil Nadu Water Investment Company Ltd may invest in other institutions implementing infrastructure projects. The objectives of the Tamil Nadu Water Investment Company Limited are to provide for carrying on other water related activities in addition to the business of merely an investment company, developing and financing of infrastructure projects (including Public Private Projects) in the water and waste water sector.

The Company provides Operation & Maintenance services to six Zero Liquid Discharge (ZLD) Common Effluent Treatment Plants (CETPs – Arulpuram, Rayapuram, Murugampalayam, Chinnakarai, Kasipalyam, Kunnakalpalayam) in Tirupur. Tamil Nadu Water Investment Company Limited has

gained rich experience in the area of effluent treatment, water supply and sewerage systems.

The Government of Tamil Nadu have decided that the expertise gained by the Company in the area of water supply and waste water management projects should be utilised and vide G.O (MS.) No. 132 dated 31.12.2012, Government of Tamilnadu ordered to nominate the Tamilnadu Water Investment Company Limited as Programme Management Agency (PMA) for implementing on behalf of the Government of Tamilnadu for the following:-

- a. Dedicated Agency for development and operation and maintenance of Common Effluent Treatment Plants
- b. Industrial Water Supply through reuse of sewerage water and desalination.

The turnover of the company from Operation and Maintenance Contract has gone up from `12.67 crore in the year 2013-14 to `12.90 crore in the year 2014-15. Further, the turnover from consultancy services has gone up from `2.34 crore in 2013-14 to `4.11 crore in 2014-15.

S.P. VELUMANI,
Minister for Municipal Administration,
Rural Development, Law,
Courts and Prisons.

DEMAND No.34

MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT
Estimate of the amounts required for Expenditure in 2015-2016

BUDGET ESTIMATE 2015-2016

(` in Thousands)

	Revenue	Capital	Loan	Total
DEMAND FOR GRANT - Voted	6,594,39,56	4,646,84,84	270,05,54	11,511,29,94
APPROPRIATION - Charged	3	-	-	3

Net Expenditure Rupees in Thousands

Head of Account		2013-2014 Accounts	2014-2015 Budget Estimate	2014-2015 Revised Estimate	2015-2016 Budget Estimate
2215	Water Supply and Sanitation	408,78,74	287,96,59	281,66,85	301,42,50
2217	Urban Development	1,140,51,50	1,223,93,33	1,740,09,94	252,49,74
2251	Secretariat – Social Services	7,24,35	7,67,99	7,18,26	7,58,48
2515	Other Rural Development Programmes	15,51,95	7,74,50	8,12,34	8,66,62
2551	Hill Areas	---	1	1	---
3475	Other General Economic Services	74,51,45	36,03,37	42,89,35	257,46,61
3604	Compensation and Assignments to Local Bodies and Panchayat Raj Institutions	3,857,36,63	5,147,12,68	4,910,86,78	5,423,15,28

4215	Capital Outlay on Water Supply and Sanitation	1,238,32,15	1,281,06,58	1,591,22,67	1,419,48,76
4217	Capital Outlay on Urban Development	1,355,91,90	1,907,14,04	1,907,18,03	2,887,04,07
4515	Capital Outlay on Other Rural Development Programmes	163,32,52	1,30,00,00	126,50,00	140,32,00
6215	Loans for Water Supply and Sanitation	131,44,97	22,66,74	63,36,74	17,28,54
6217	Loans for Urban Development	276,88,00	125,00,00	272,93,85	251,47,00
7610	Loans to Government Servants etc.	...	50,00	60,00	50,00
7615	Miscellaneous Loans	---	80,00	80,00	80,00

DEMAND No.34
MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT
BUDGET ESTIMATE 2015 -2016

(` In Thousands)

(Gross)

Sl. No	Head of Department		Revenue	Capital	Loan	Total
1	34 01 Secretariat	Charged	1	...	...	1
		Voted	7,67,59	...	50,00	8,17,59
2	34 02 Commissionerate of Municipal Administration	Charged	1	...	...	1
		Voted	4,675,36,44	2,887,04,10	252,27,00	7,814,67,54
3	34 03 Directorate of Town Panchayat	Charged	1	...	...	1
		Voted	1,604,94,84	140,32,00	.....	1,745,26,84
4	34 04 Tamil Nadu Water Supply and Drainage Board	Voted	45,03	1,323,52,01	17,28,54	1,341,25,58

5	34 05 Chennai Metropolitan Water Supply and Sewerage Board	Voted	212,12,86	295,96,73	....	508,09,59
6	34 06 Tamil Nadu Urban Finance & Infrastructure Development Corporation	Voted	93,82,80	....	....	93,82,80
	Total	Charged	3	...	...	3
		Voted	6,594,39,564	6,46,84,84	270,05,54	11,511,29,94