



MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT

POLICY NOTE 2023-2024

Demand No. 34

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Minister for Municipal Administration

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GOVERNMENT OF TAMIL NADU
2023

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DEMAND NO.34

MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT

Policy Note – 2023-2024

VISION STATEMENT

Provide a decent quality of life, clean, green and sustainable environment, quality basic amenities, vibrant public spaces, induce economic growth, generate employment and mitigate poverty through responsive city governance leading to a decent quality of life for all by following a comprehensive, inclusive, integrated, transparent and participatory approach of urban development.

1. PREAMBLE

'Vision Tamil Nadu 2030' has laid the foundation for urban development with a mandate to target economic revitalisation through infrastructural development. Tamil Nadu is one of the most urbanized states in India with population projections estimating that about 60% of the population would reside in cities in the coming decade. The pace of urbanization makes urban governance and adequate planning increasingly urgent.

The state of Tamil Nadu is rightly aligned to making urban spaces, amenities and services inclusive and sustainable against the backdrop of the lived reality of climate change. The 74th Constitutional Amendment channelises the urban local bodies in improved financial management, prudent allocation of resources, participation in decision making and in overall governance.

Urban Amenities and Services

The positive effects of urbanization are attributed to technological and infrastructural advancements, improved transportation and communication and quality educational and medical facilities. The challenge is to keep pace with the increasing requirement of urban services such as assured and equitable quality water supply, drainage and solid waste management, commensurate with the growth in housing and transport sectors.

A pragmatic gap analysis, followed up by designing of city plans have charted the course in accessing the budgetary outlays of both Government of India sponsored and state schemes. Projects are grounded by effective fund allocation through co-financing and eliciting public participation.

While addressing the priority sectors of water supply and sanitation, a targeted focus is placed on climate resilient measures using technology and awareness creation. Preserving and restoring water bodies, utilizing used water, greening public spaces, promoting urban greening with native species are some of the strategies adopted to counter the environmental impact caused by climate change. The liveability of cities is also sought to be improved through funds specifically allocated for parks and playgrounds, urban space making, restoring heritage buildings, street lighting etc. These measures pave the way for Tamil Nadu to meet the challenges of urbanization and to be the symbol of a responsive state.

Water – the basis of all life

One of the main objectives of the department is to ensure clean, ample and affordable water supply to all. The requirement

has been identified through city water action plan for all urban local bodies. Crucial water supply projects are taken up under AMRUT 2.0 with corresponding source augmentation and targeted household connections.

Rejuvenation of severely polluted and silted water bodies is taken up under Kalaignar Nagarpura Mempattu Thittam (KNMT), Singara Chennai 2.0 and AMRUT 2.0.

Water conservation impetus is given to utilizing used water for industrial needs. The revenue thus realized enhances the financial strength of the urban local bodies besides improving the availability of water. The tertiary treatment reverse osmosis (TTRO) plants at Koyambedu and Kodungaiyur cater to the industrial water requirement of Chennai, obviating the need for scarce fresh water.

Waste Management – Indicator of Health

Sanitation and solid waste management have a direct bearing on the health and well being of residents. An integrated framework to address liquid and solid waste management has been initiated. All urban local bodies have prepared city sanitation plans under Swachh Bharat Mission 2.0.

The state is aiming to provide underground sewerage system under AMRUT 2.0 co-financed with assistance from external funding agencies and septage management under SBM 2.0. Similarly, concrete steps are taken to tackle legacy waste through bio-mining and addressing the wet waste through bio-remediation and bio-CNG plants.

Greater Chennai Corporation with an area of 426 sq km and a population of 71 lakh as per 2011 census is the largest urban local body in Tamil Nadu. The Government has been taking

efforts to improve the operation and maintenance of public toilets in urban areas. As a pilot project, construction of new public and community toilets, refurbishing of existing toilets and operation and maintenance of nearly 372 toilets have been taken up through PPP mode in Greater Chennai Corporation. Based on the success of this project, this will be further expanded to other corporations in the State.

Roads–for connectivity and communication

Burgeoning cities demand quality roads to the suburbs and hinterlands. Road network is the prime index of development. Steps have been taken to put in place all weather roads and to relay roads damaged by the implementation of water supply and underground sewerage scheme projects and due to rains. A dedicated scheme, Nagarpura Salai Mempattu Thittam (NSMT) has been launched dovetailing Tamil Nadu Urban Road Infrastructure Fund (TURIF), Singara Chennai 2.0

and Kalaignar Nagarpura Mempattu Thittam (KNMT). This scheme is set to improve nearly 21,000 km of roads at a cost of about Rs.9,600 crore over a period of four years including 2022-23.

Education and Employment

Urban local bodies are taking steps to improve the school infrastructure. Greater Chennai Corporation is developing its schools as model schools. Knowledge centres comprising modern libraries, reading rooms, e-learning material, training rooms etc. are being set up by urban local bodies, which will help the youth appearing in competitive exams.

Bus stands and Markets

Bus stands with modern facilities are essential to make the inter and intra city commuting comfortable. Modern bus stands and thriving markets are being set up in urban areas under KNMT and Capital Grant Fund.

Chennai – the Capital and Metropolis

Singara Chennai 2.0 is acting as a catalyst for Chennai's growth, and as an effort to make Chennai a modern functional and liveable city.

The Indo saracenic architecture of Victoria Public Hall is being restored to its glory thereby preserving a symbol of the city's heritage.

Chennai Sangamam – Namma Ooru Thiruvizha brings people together in celebration of the city and Tamil through lively performances.

The Chennai Book Fair, a much awaited event that has been running effectively for the past 45 years is also extended to other urban local bodies.

Greening Cities

Urban plantation provide the solution to the tradeoff between ecology and infrastructure development. The Government has given a thrust to increasing green cover through the schemes of

KNMT, Singara Chennai 2.0, Namakku Name Thittam and AMRUT 2.0. Planting native species, along with rejuvenation of water bodies effectively reduce carbon emissions to create better cities for tomorrow.

Other Infrastructure

Modern crematoria are being provided in urban local bodies under Kalaingar Nagarpura Mempoattu Thittam (KNMT) and Singara Chennai 2.0. Night shelters are being provided for homeless under National Urban Livelihood Mission.

People's participation and Capacity Building

Building on a long tradition of citizen engagement in the State, many urban challenges are addressed through the establishment of city councils and people's representatives. The local body elections have placed 12,837 ward members (councilors) and 649 Mayors/Chairmans at the helm of decision making. Sensitisation programs

have been conducted to provide necessary information on Government schemes and informing them of their duties and responsibilities.

1.1 Departments

For effective implementation of various schemes in the urban local bodies, the following departments are functioning under the aegis of Municipal Administration and Water Supply Department:

1. Directorate of Municipal Administration (DMA)
2. Greater Chennai Corporation (GCC)
3. Directorate of Town Panchayats (DTP)
4. Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)
5. Tamil Nadu Water Supply and Drainage Board (TWAD Board)
6. Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL)
7. Chennai Rivers Restoration Trust (CRRT)

8. Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited (TUFIDCO)
9. New Tirupur Area Development Corporation Limited (NTADCL)
10. Tamil Nadu Water Investment Company Ltd (TWIC)

1.2 Urban Local Bodies

There are 21 Corporations, 138 Municipalities and 490 Town panchayats under the administrative purview of this department as given in the table 1.1.

Table 1.1

Sl. No.	District	Corporations	Municipalities	Town Panchayats	Total
1.	Ariyalur	-	2	2	4
2.	Chennai	1	-	-	1
3.	Coimbatore	1	7	33	41
4.	Cuddalore	1	6	14	21
5.	Dharmapuri	-	1	10	11
6.	Dindigul	1	3	23	27

Sl. No.	District	Corporations	Municipalities	Town Panchayats	Total
7.	Erode	1	4	42	47
8.	Kancheepuram	1	2	3	6
9.	Chengalpattu	1	4	6	11
10.	Kanniyakumari	1	4	51	56
11.	Karur	1	3	8	12
12.	Krishnagiri	1	1	6	8
13.	Madurai	1	3	9	13
14.	Nagapattinam	-	2	4	6
15.	Mayiladuthurai	-	2	4	6
16.	Namakkal	-	5	19	24
17.	Nilgiris	-	4	11	15
18.	Perambalur	-	1	4	5
19.	Pudukkottai	-	2	8	10
20.	Ramanathapuram	-	4	7	11
21.	Salem	1	6	31	38
22.	Sivagangai	-	4	11	15
23.	Thanjavur	2	2	20	24
24.	Theni	-	6	22	28
25.	Thiruvallur	1	6	8	15
26.	Thiruvannamalai	-	4	10	14
27.	Thiruvarur	-	4	7	11
28.	Thoothukudi	1	3	18	22

Sl. No.	District	Corporations	Municipalities	Town Panchayats	Total
29.	Tiruchirappalli	1	5	14	20
30.	Tirunelveli	1	3	17	21
31	Tenkasi	-	6	17	23
32	Tiruppur	1	6	15	22
33	Vellore	1	2	4	7
34	Thirupathur	-	4	3	7
35	Ranipet	-	6	8	14
36	Villupuram	-	3	7	10
37	Kallakurichi	-	3	5	8
38	Virudhunagar	1	5	9	15
	Total	21	138	490	649

2. DIRECTORATE OF MUNICIPAL ADMINISTRATION

2.1 Administration

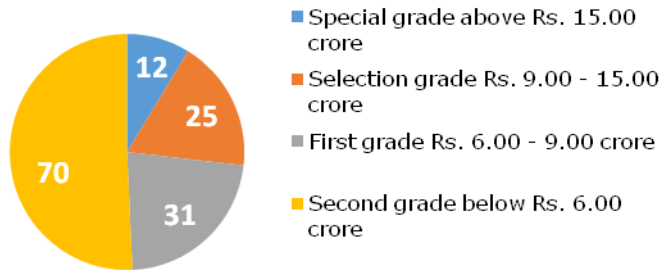
The administrative domain of the Directorate of Municipal Administration extends to 20 municipal corporations viz., Madurai, Coimbatore, Tiruchirappalli, Tirunelveli, Salem, Erode, Tiruppur, Thoothukudi, Vellore, Thanjavur, Dindigul, Hosur, Nagercoil, Avadi, Tambaram, Kancheepuram, Kumbakonam, Karur, Cuddalore, Sivakasi and 138 municipalities.

The Municipalities are classified based on their annual income as given in the table 2.1.

Table 2.1

Sl. No.	Category	Annual income (Rs. in crore)	Nos.
1	Special Grade	Above 15.00	12
2	Selection Grade	9.00 - 15.00	25
3	First Grade	6.00 - 9.00	31
4	Second Grade	Below 6.00	70
Total			138

Categories of Municipalities Based on Annual Income



Rationalisation of staff pattern in corporations and municipalities

Hitherto, the staff structure in various corporations was not according to the need and not based on any criteria. In some corporations, the sanctioned staff strength was less and not upto the basic required level. That led to much difficulties and deficiency in providing services to the people, implementing schemes and in general administration. In order to overcome the anomalies, the corporations are categorised into 4 groups based on population and the staff

structure is provided according to the category of the corporations. Necessary orders have been issued to this effect vide G.O.(Ms) No.152, Municipal Administration and Water Supply Department, dated 20.10.2022.

In case of municipalities, though the gradewisecategorisation already exist, the staff pattern was not as per the requirement and need. Hence in municipalities also, standard norms have been fixed for the staff based on the grade of the municipalities vide G.O.(Ms) No.10, Municipal Administration and Water Supply Department, dated 23.01.2023.

This rationalisation and standardization of staffing pattern based on the population of the corporations and category of the municipalities, will help in improving service delivery.

Functions of Urban Local Bodies (ULBs)

The urban local bodies in Tamil Nadu are discharging most of the functions stipulated under Article 243W and Twelfth Schedule of the Constitution of India, except census and fire service. The functions of ULBs are as given below:

- Urban planning including town planning.
- Regulation of land-use and construction of buildings.
- Planning for economic and social development.
- Roads and bridges.
- Water supply for domestic, industrial and commercial purposes.
- Public health, sanitation, conservancy and solid waste management.
- Urban forestry, protection of the environment and promotion of ecological aspects.
- Safeguarding the interests of weaker sections of society, including the differently abled and mentally challenged.
- Slum improvement and upgradation.

- Urban poverty alleviation.
- Provision of urban amenities and facilities such as parks, gardens, playgrounds.
- Promotion of cultural, educational and aesthetic aspects.
- Burials and burial grounds; cremations, cremation grounds and electric crematoriums.
- Cattle pounds; prevention of cruelty to animals.
- Vital statistics including registration of births and deaths.
- Public amenities including street lighting, parking lots, bus stops and public conveniences.
- Regulation of slaughter houses and tanneries.
- Library cum knowledge centres.
- Ensuring the services rendered by the Government reaches the citizens.

2.1.1 Common Act for Urban Local Bodies

The Chennai City Municipal Corporation Act was enacted in 1919 to administer the Chennai corporation. In 1971, the Madurai City Municipal

Corporation Act was enacted and the Coimbatore City Municipal Corporation Act was enacted in 1981 for the administration of the Madurai and Coimbatore corporations respectively. All the municipalities and town panchayats are governed under the Tamil Nadu District Municipalities Act, 1920.

The Tiruchirappalli, Tirunelveli and Salem City Municipal Corporation Acts were enacted in 1994, which are referential legislations and provisions of the Coimbatore City Municipal Corporation Act, 1981 were applicable *mutatis-mutandis* to these three newly created corporations.

The aforesaid Corporation Acts and the Tamil Nadu District Municipalities Act, 1920, which are sister enactments, consist of nearly 500 sections, 7 schedules and numerous rules made thereunder. During the year 1997, the Government decided to enact a comprehensive legislation, to be applicable to all urban local

bodies (ULBs) in the State, repealing the then existing 6 Municipal Corporation Acts and the Tamil Nadu District Municipalities Act, 1920.

Accordingly, by repealing the then existing Acts governing the six corporations, municipalities and town panchayats, the Tamil Nadu Urban Local Bodies Act, 1998 (Tamil Nadu Act 9 of 1999) was enacted. The Tamil Nadu Urban Local Bodies Rules, 2000 were also framed under the said Act; and the said Act and Rules were brought into force on 1st August, 2000.

In order to allow time for the urban local bodies to study the provisions of the said Act and Rules and to suggest changes, if necessary and to dispel the doubts that linger on, the Government suspended the operation of the said Tamil Nadu Urban Local Bodies Act, 1998 by enacting the Tamil Nadu Urban Local Bodies (Suspension of Operation) Act, 2000, and the repealed six Corporation Acts and the Tamil Nadu District

Municipalities Act, 1920 were revived and operationalised.

In the meantime, fifteen more corporations viz., Tiruppur, Erode, Vellore, Thoothukudi, Thanjavur, Dindigul, Hosur, Nagercoil, Avadi, Cuddalore, Kancheepuram, Sivakasi, Karur, Tambaram and Kumbakonam have been formed and separate Acts have been enacted for these corporations.

As per the 2011 population census, the percentage of urban population was 48.45. Now, the percentage of population living in urban areas to the total population is estimated to be around 55 percent. The process of rapid urbanization has created myriad challenges of more and better delivery of civic services.

Apart from engaging in a continuous process of transfer of functions, funds and functionaries to the urban local bodies, there is an urgent and imperative need to provide an

enabling environment through crucial legislative and institutional initiatives.

Considering the need and the advantages of a common Act applicable to all urban local bodies, the Government decided to revive the Tamil Nadu Urban Local Bodies Act, 1998, which is under suspension since 2000.

Accordingly, the Tamil Nadu Urban Local Bodies Act, 1998 has been amended suitably by the Tamil Nadu Urban Local Bodies (Amendment) Act, 2022 (Tamil Nadu Act 35 of 2022) in consonance with the 74th Constitutional Amendment Act. The Amendment Act received Assent on 17th June 2022 and published in an extraordinary issue of the Tamil Nadu Government Gazette, dated 20th June 2022. To operationalize the Tamil Nadu Urban Local Bodies Act, 1998, as amended by the Tamil Nadu Act 35 of 2022, necessary rules are being framed. The said Act and the rules will be brought into force very shortly.

2.2 Infrastructure Development

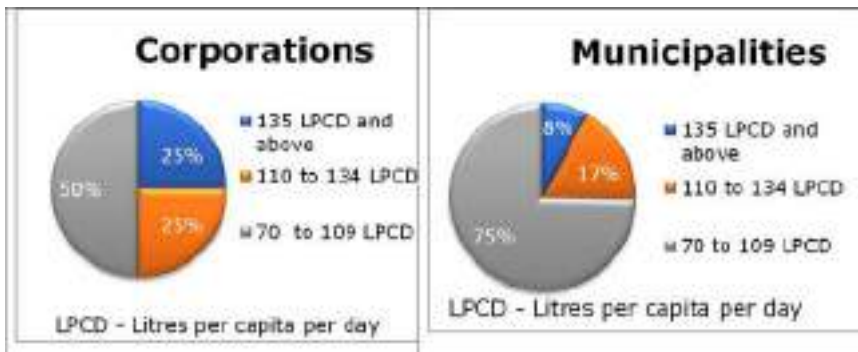
2.2.1 Water Supply

The Government aims to ensure daily water supply in all corporations and municipalities and also to increase the hours of water supply, by rehabilitating the existing infrastructure by integrating various schemes, identifying new sources and by completing the ongoing water supply schemes within the stipulated time.

The present status of water supply in corporations and municipalities is as given in the table 2.2.

Table 2.2

Category of ULBs	Water supply (LPCD)	No. of ULBs
Corporations	135 and above	5
	110 to 134	5
	70 to 109	10
Municipalities	135 and above	11
	110 to 134	24
	70 to 109	103
Total		158



The Government is committed to provide functional water tap connection to every household in urban areas. Action is being taken to supply water @ 135 LPCD in all corporations and municipalities having underground sewerage system and @ 90 LPCD in rest of the municipalities.

Rejuvenation of water bodies

The total number of water bodies available in the corporations and municipalities in the state as updated after a detailed survey is as given in the table 2.3.

Table 2.3

Category of ULBs	Water bodies (nos.)
Corporations	603
Municipalities	1,874
Total	2,477

Preventing dumping of solid waste and sewage into the water bodies, rejuvenation of inlet and outlet channels, desilting of water bodies and recycling of used water is being implemented effectively to increase the water storage.

Accordingly, rejuvenation of 269 water bodies, at an estimated cost of Rs.233.17 crore, has been taken up under Kalaingar Nagarpura Mempoattu Thittam (KNMT), Namakku Naame Thittam (NNT), Capital Grant Fund (CGF), 15th Finance Commission (15th CFC) grant and Atal Mission for Rejuvenation of Urban Transformation 2.0 (AMRUT 2.0) for the years 2021-22 and 2022-23.

2.2.2 Streetlights

A total number of 8.62 lakh streetlights are available in 20 corporations (other than Greater Chennai Corporation) and 138 municipalities. Further, additional streetlights are being provided wherever required to meet the norms of one streetlight for every 30 metres. Optimum and

efficient utilization of energy is the motto of Government. Based on this, action is being taken to convert all streetlights into energy efficient lights.

As per announcement made in the budget 2021-22, conversion of the existing 3,31,895 number of streetlights into energy efficient lights at an estimated cost of Rs.374.09 crore and 77,667 number of new energy efficient streetlights at an estimated cost of Rs.118.35 crore have been taken up in 16 corporations and 119 municipalities under State Urban Infrastructure Development Fund (SUIDF) and 15th Central Finance Commission grant 2021-22 and 2022-23.

Further, providing 33,660 numbers of new energy efficient lights at an estimated cost of Rs.64.81 crore in 6 corporations and conversion of the existing 17,704 numbers of streetlights into energy efficient lights at an estimated cost of

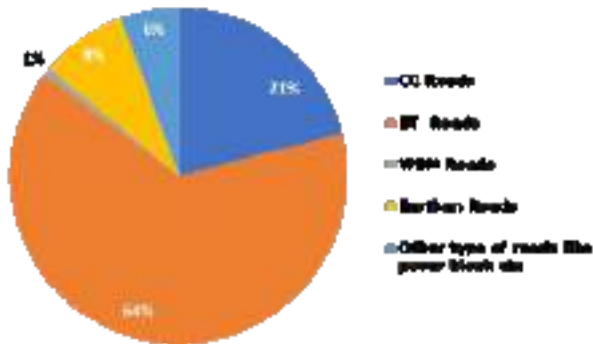
Rs.20.41 crore in 10 newly upgraded municipalities have been sanctioned under SUIDF and is in tender stage.

2.2.3 Roads

Roads play a major role in connecting various parts of the town and also improving the mobility and the quality of life in urban areas. The safe motorable roads are designed and built for the use of vehicular traffic and pedestrians by following the norms prescribed by the Ministry of Road Transport and Highways (MoRTH).

The corporations (except Greater Chennai Corporation) and municipalities maintain a total length of 29,603 km of roads. This include 6,204 km of cement concrete (CC) roads, 19,033 km of black top (BT) roads, 222 km of water bound macadam (WBM) roads, 2,491 km of earthen roads and 1,653 km of other type of roads like paver block roads etc.

Roads maintained by Corporations and Municipalities



A detailed survey was taken up and based on the survey, online register of assets, viz. roads, streets and lanes **has** been created for scientific selection and execution of works.

New Roads

Based on the budget announcement 2021-22, earthen roads for a total length of 400 km have been taken up for conversion into all weather roads i.e., BT roads, CC roads and paver block roads at an estimated cost of

Rs.332.26 crore, by utilizing funds under KNMT, CGF, 15th CFC, NNT and General fund.

Restoration of Damaged Roads

Roads are damaged due to execution of underground sewerage schemes, water supply improvement schemes, natural calamities and rains. For the convenience of the citizens, it is imperative to restore these damaged roads. Accordingly, 4,474 works for a total length of 811.11 km have been taken up for restoration at an estimated cost of Rs.655.17 crore during the year 2021-22 and 5,897 works for a total length of 1039.69 km have been taken up at an estimated cost of Rs.684.79 crore during the year 2022-23 under various schemes like Tamil Nadu Urban Road Infrastructure Fund (TURIF), CGF, TNSUDP and general fund of the urban local bodies.

2.2.4 Town Planning

In order to address the needs of common public and to ease the process of building plan approval, the Government introduced online services for submission of building application by simplifying the process for submission of documents. Documents related to approval of building plans can be uploaded through online. As soon as the building application files are approved, the demand for payment of fees is generated and sent to the applicant directly through SMS and e-mail and the applicant is also expected to remit such fee through online mode only. Since, the building plan approval is an end to end online service without human intervention, there is no need for public to visit the offices of municipalities / corporations under any circumstances.

A Common Single Window Portal has been developed through TNeGA for issue of planning

permission by the Directorate of Town and Country Planning and Chennai Metropolitan Development Authority, for construction of buildings exceeding the delegation of powers given to the local bodies, and subsequently to issue building permits by urban local bodies through online. This will be implemented shortly.

Through continuous monitoring by the Directorate of Municipal Administration, delay in issuing building permits are avoided and issue of QR code enabled final orders are ensured within stipulated time.

2.2.5 Other Infrastructure

(i) Modern Bus Stands

A total of 184 bus stands are maintained by various corporations and municipalities, as given in the table 2.4.

Table 2.4

Grade of bus stand	Corporations (Nos.)	Municipalities (Nos.)	Total
A	21	14	35
B	11	42	53
C	5	63	68
D	6	22	28
Total	43	141	184

The Government has taken necessary steps to modernise all the bus stands in urban areas so as to provide adequate facilities to the public.

Based on the budget announcement 2021-22, construction of an integrated bus terminal with a commercial hub at a cost of Rs.350 crore is in progress at Tiruchirappalli. Further, construction of bus stand in Namakkal, Thiruthani, Tiruvannamalai, Tindivanam, Mayiladuthurai, Mannargudi, Ranipettai, Sankarankovil, Thirumangalam municipalities and Erode & Karur corporations are in progress.

As per the 2022-23 budget announcement, administrative sanction has been accorded for construction of 17 new bus stands under Infrastructure and Amenities fund and renovation of 16 bus stands have been taken up under KNMT and one bus stand renovation under progress in NNT.

During the last two years i.e. 2021 to 2023, 59 bus stands have been taken up for modernizing and infrastructure improvements. During the current year, necessary action will be taken to improve the remaining bus stands with modern facilities. In addition to the above, multi-level car parking facilities will be established at busy commercial centers/hubs, based on requirement.

(ii) Parks

Playgrounds and parks are maintained in urban local bodies for the benefit of the general

public, especially children. There are 8,575 play grounds and parks in corporations and municipalities as given in the table 2.5.

Table 2.5

Category of ULBs	Parks (nos)
Corporations	4,337
Municipalities	4,238
Total	8,575

During the years 2021-22 and 2022-23, a total of 307 parks at an estimated cost of Rs.111.02 crore have been taken up under KNMT, NNT, CGF, 15th CFC and AMRUT 2.0.

(iii) Crematoriums

Apart from burning sheds, the details of crematoriums maintained by the corporations and municipalities are as given in the table 2.6.

Table 2.6

Category of ULBs	Number of crematoriums						
	Existing modern crematoriums			Under construction LPG crematorium	Modernization of crematorium in 2022-23	Total (2+3+4+5+6)	Bio-mass gasifier to be converted as LPG in 2023-24
	Bio-mass gasifier	LPG gasifier	Electrical				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Corporations	9	51	7	16	-	83	9
Municipalities	8	59	1	54	16	138	8
Total	17	110	8	70	16	221	17

The Government is committed to improve the crematoriums by providing basic amenities like water supply, lights, pathway and sheds for funeral rites and also to convert all fuel wood based crematoriums into LPG/electrical crematoriums in a phased manner. As per announcement made in budget 2021-22 and 2022-23, 70 new LPG fired crematoriums at a cost of Rs.108.10 crore and modernisation of

16 crematoriums at a cost of Rs.5.76 crore have been taken up in corporations and municipalities under various schemes and the works are in progress. All these crematoria will be put to use during the year 2023-24.

20 ULBs are without crematorium facilities. Efforts are being taken up to construct new crematoriums or cluster with the existing crematorium in nearby ULBs.

(iv) Markets

Markets play a vital role in meeting the day-to-day needs of the public. Markets also contribute to the revenue of the urban local bodies. A total of 335 markets are being maintained by the corporations and municipalities as given in the table 2.7.

Table 2.7

Category of ULBs	Weekly market (Nos.)	Daily market (Nos.)	Total
Corporations	27	86	113
Municipalities	81	141	222
Total	108	227	335

It is essential to upgrade and modernize the daily and weekly markets. The markets located in congested areas in big cities need to be relocated to avoid crowding and also to facilitate handling of goods. Based on the announcement made during the demands for the year 2021-22 and 2022-23, construction of 40 new markets at a cost of Rs.219.07 crore and redevelopment of 20 existing markets at a cost of Rs.91.03 crore have been taken up in corporations and municipalities and the works are at various stages of implementation.

2.3 Urban Health Infrastructure

179 urban primary health centers (UPHCs) in corporations and 121 urban primary health centers in municipalities are being maintained. Steps are being taken to improve the UPHCs.

15th Finance Commission Health Grant

Under the 15thCFC, a sum of Rs.293.29 crore has been allocated as grant for improving the health and well being of people. Out of this, Rs.123.79 crore has been allocated for the construction of urban primary health centers, welfare centers, sub-centers etc. by the municipal corporations and municipalities. Of the total 453 welfare centers, 372 in 20 municipal corporations and 81 in 63 municipalities are being constructed at a cost of Rs.113.21 crore. Out of which, 320 centers have been completed and for the remaining centres work is in progress.

Also, 22 city public health laboratories in 14 municipal corporations, health sub-centers in 5 municipalities, urban primary health centre in Vadalur municipality and block public health units in 5 municipalities are being constructed and work is in progress.

In the financial year 2022-23, 54 urban health and wellness centres and 6 city public

health laboratories in 9 corporations and 24 municipalities have been sanctioned at an estimated cost of Rs.14.82 crore.

2.3.1 Sanitary Workers Welfare Scheme

The Sanitary workers play a significant role in maintaining cleanliness in the urban local bodies which is essential for a clean and pollution free environment. They provide an invaluable public service, vital to our daily lives and environment. These workers often work in conditions that expose them to health hazards. Hence, it is our responsibility to ensure their health, safety, security and dignity. Accordingly, the Government during the demand of Municipal Administration and Water Supply Department for the year 2022-2023, has announced the "Sanitary Workers Empowerment Scheme".

In order to improve their standard of living and ensuring safety, skill training in mechanized sanitary operations, provision and use of safety

equipments, health insurance, regular health checkups, skill training, micro credit for alternate livelihood activities etc., will be provided to the identified sanitary workers under this scheme. Further, existing schemes will be dovetailed in a focused manner to ensure that their children get good education.

The above scheme will cover all permanent, temporary, outsourcing workers in the ULBs and also the sanitary workers in informal sector both in Government and private institutions/ organisations.

The Hon'ble Chief Minister launched the Sanitary Workers' Empowerment Scheme on 09.12.2022 at Madurai. The scheme is being implemented with technical assistance of Urban Management Centre, Ahmedabad. Core sanitation workers engaged in the following sanitation services will be covered under the scheme:

- (i) Desludging of onsite sanitation systems such as septic tanks.
- (ii) Maintenance of sewerage network.
- (iii) Operation and maintenance (O&M) of sewage treatment plants / faecal sludge treatment Plants.
- (iv) O&M of institutional, public and community toilets.

Initially, the scheme is being implemented on pilot basis in five urban local bodies viz. Greater Chennai Corporation (zone-6), Madurai corporation (zone-3), Pudukottai municipality, Pollachi municipality and Cheranmahadevi town panchayat.

For the survey and identification of the core sanitation workers, a mobile App has been developed in a questionnaire form and the enumeration work is in progress. After the pilot study, scheme will be extended to all the urban local bodies in the state.

National Urban Health Mission (NUHM - 2022-23)

The National Urban Health Mission is being implemented since 2013, as a sub-mission of the National Health Mission (NHM). It focuses on the urban poor to meet the health needs of the urban population, especially the marginalized groups, such as people from economically weaker sections, street vendors, homeless etc. by providing essential primary health care services at low cost. It is implemented in state capitals, district headquarters and other cities with a population of 50,000 and above.

In the financial year 2022-23, new buildings have been taken up for construction in 22 existing urban primary health centres in 7 corporations and 13 municipalities at an estimated cost of Rs.13.50 crore and 4 urban primary health centres have been taken up for upgradation at an

estimated cost of Rs.2.40 crore in 2 corporations and 1 municipality under this scheme.

2.3.2 Underground Sewerage Scheme (UGSS) and Septage Management

Out of 20 corporations, UGSS has been taken up for implementation in 18 corporations. So far, UGSS has been completed in 17 corporations and put into use. In respect of the remaining two corporations viz. Hosur and Sivakasi, administrative sanction has been accorded for UGSS in Hosur at an estimated cost of Rs.574 crore under AMRUT 2.0 during the year 2022-23 and detailed project report for UGSS is under preparation for Sivakasi corporation, in addition to existing Fecal Sludge Treatment Plant (FSTP).

The Government is committed to provide UGSS in the left out areas of the cities where UGSS is already implemented. To ensure 100% coverage, projects have been taken up in the

added and uncovered areas of 10 corporations, under AMRUT, Smart Cities Mission and with financial assistance of the Asian Development Bank. The works are under various stages of implementation.

Status of UGSS in 138 Municipalities

- Out of 138 municipalities, 7 towns are having a population of more than 1 lakh, out of which UGSS has been completed in 5 towns, viz. Tiruvannamalai, Namakkal, Nagapattinam, Pudukottai and Karaikudi and in the remaining 2 towns viz. Ambur, and Rajapalayam, the scheme is under implementation.
- Out of the remaining 131 municipal towns, 54 towns have population between 50,000 to 1 lakh.
- UGSS has been completed in 20 towns, viz. Maraimalainagar, Tiruvallur, Chidambaram, Arakkonam, Tirupathur, Villupuram, Mettur, Rasipuram, Dharmapuri, Krishnagiri, Mayiladuthurai, Tiruvarur, Theni-Allinagaram, Bodinayakanur, Udumalaipettai, Ramanathapuram,

- Udhagamandalam, Virudhunagar, Pollachi and Mettupalayam and is under implementation in 1 town viz. Tindivanam.
- FSTP has been taken up for implementation in 21 towns in the year 2018-2019 and completed in 17 towns, viz. Idappadi, Thirumangalam, Dharapuram, Kovilpatti, Kadayanallur, Mannargudi, Pattukottai, Aruppukottai, Tiruchengode, Cumbum, Paramakudi, Gudiyatham, Sankarankovil, Tenkasi, Puliyangudi, Attur and Srivilliputhur and under progress in 4 towns, viz. Chengalpattu, Panruti, Virudhachalam and Vaniyambadi.
 - In case of the remaining 12 towns, DPR has been prepared for Palani, Ponnammallee and Tiruverkadu Municipalities and DPR is under preparation for Kallakurichi Municipality. Balance 8 municipalities viz. Arcot, Pernampattu, Ranipettai, Arani, Komarapalayam, Devakottai, Gobichettipalayam and Valparai will be covered either under FSSM or UGSS depending on the need, feasibility and financial capacity of the municipality.

- Out of 77 towns having a population of less than 50000:
- UGSS has been completed with partial coverage in 9 towns, viz. Perambalur, Ariyalur, Periyakulam, Chinnamanur, Sathyamangalam, Sivagangai, Ulundurpet, Tiruchendur and Sattur; and are under implementation in 2 towns viz. Rameswaram and Ponneri.
- FSSM has been taken up for implementation in 24 towns (to cover 26 towns) in the year 2018-19 and completed in 10 towns, viz. Kangeyam, Sengokottai, Vandavasi, Kulithalai, Koothanallur, Vickramasingapuram, Thuraiyur, Melur, Thiruthuraipoondi and Ambasamudram and is under progress in 14 towns, viz. Nellikuppam, Walajapet, Vedharanyam, Sirkali, Aranthangi, Jayamkondam, Gudalur(T), Keezhakarai, Coonoor, Kuzhithurai, Padmanabhapuram and alternate site identification in 2 towns viz. Manapparai and Colachal. Further, Narasingapuram clustered with already ongoing FSTP in Attur town; and 2 towns,

viz. Gudalur(C) and Madhuranthagam are clustered with the FSTPs in Periyannayakkanpalayam and Karunguzhi town panchayats respectively.

- The remaining towns will be covered under faecal sludge and septage management (FSSM).
- The Government will expedite the ongoing projects and will take up UGSS to cover the left over areas in all corporations and municipalities with a population of more than one lakh and every household will be connected to sewerage network.

Adequate number of equipments will be provided to all corporations and municipalities for the mechanized maintenance of sewerage schemes and FSTP activities.

2.4 Education and Youth Welfare

Necessary steps are being taken up to improve the quality of education in all municipal schools with focus on learning outcomes.

Vocational / skill training will be provided in higher secondary schools to enhance the employability of the students, in coordination with the industries.

2.4.1 Modern Libraries (Library cum Knowledge Centres)

Modern Libraries have a social function in making knowledge available to public. They play a pivotal role to serve as a local centre for information and knowledge besides being a gateway to national and global knowledge.

To equip students and job aspirants, in last two years 78 number of library cum knowledge centres have been sanctioned at an estimated cost of Rs.158.67 crore to municipalities and corporations under KNMT, CGF and Smart Cities Mission.

In order to facilitate an ample study environment for the aspiring youth, the knowledge centres are integrated with training rooms and modern facilities like reading hall,

library, computers with internet access. These knowledge centres will also be used by Employment and Training and Skill Development Department for arranging training programmes for the needy youth.

Three type designs of knowledge centres have been approved viz. Type-I:3,160 sq ft at an estimated cost of Rs.1.50 crore; Type-II:4,500 sq ft at an estimated cost of Rs.2.00 crore and Type-III:7,843 sq ft at an estimated cost of Rs.2.50 crore. A particular type design is selected based on requirement and availability of land.

So far, 89 knowledge centres have been sanctioned at an estimated cost of Rs.176.25 crore under KNMT, CGF and Smart Cities Mission in the state including 11 in town panchayats. Based on the locations and requirement, mapping of knowledge centres have been done and it is planned to take up another 11 knowledge centres in 2023-24.

2.5 Flagship Schemes

2.5.1 Kalaingar Nagarpura Mempattu Thittam

The Government, in order to fulfill the infrastructural gaps in municipalities and town panchayats have launched the flagship program of "Kalaingar Nagarpura Mempattu Thittam" (KNMT). The Guidelines for the scheme have been issued vide G.O.(Ms) No.70 Municipal Administration and Water Supply Department dated 13.09.2021.

The Government has also released Rs.1,000 crore for the implementation of the scheme for the year 2021-2022 vide G.O.(Ms) No.73, Municipal Administration and Water Supply Department dated 24.09.2021 and Rs.1,000 crore for the year 2022-2023 vide G.O.(Ms) No.87, Municipal Administration and Water Supply Department, dated 17.6.2022.

Under this scheme, water supply works, streetlights, improvement/development of roads, construction of community halls, markets and modern library cum knowledge centres, crematoria and other essential infrastructure like new bus stands and improvement to existing bus stands, rejuvenation of water bodies, solid waste management activities, parks and play fields etc. are taken up in municipalities.

The details of works taken up in various municipalities and 6 newly created corporations are as given in the table 2.8.

Table 2.8

Sl. No	Sector	2021-22		2022-23	
		No. of works	Approved cost (Rs. in crore)	No. of works	Approved cost (Rs. in crore)
1	Knowledge Centre	25	45.21	35	66.95
2	Market - New	7	39.37	30	158.90
3	Market - Renovation	16	64.17	4	27.97
4	Parks/ Equipments	81	45.59	105	36.68
5	Water bodies	89	99.91	76	37.37

Sl. No	Sector	2021-22		2022-23	
		No. of works	Approved cost (Rs. in crore)	No. of works	Approved cost (Rs. in crore)
6	Bus stand - Renovation	-	-	16	31.43
7	Crematorium New	36	53.29	18	26.27
8	Crematorium - Modernization	-	-	16	5.76
9	Roads	332	211.34	134	121.8
10	Water supply	-	-	19	69.06
Total		586	558.88	453	582.19

Out of 586 works sanctioned in 2021-22, 365 works have been completed and remaining works are under progress in various stages. And in respect of the 453 works sanctioned in 2022-23, 17 works have been completed and the remaining works are under progress in various stages.

2.5.2 Namakku Naame Thittam (Urban)

The Government, in order to improve the self-support mechanism of public and to enhance increased public participation in creating and

maintaining community infrastructure, have launched the flagship program of Namakku Naame Thittam (Urban). Guidelines for the implementation of the scheme have been issued vide G.O.(Ms) No.71 Municipal Administration and Water Supply Department, dated 13.09.2021.

Renovation of water bodies; formation, improvement and renovation of parks and play grounds; installation of traffic islands, fountains, streetlights and CCTV cameras; planting of trees and installation of tree-guards; construction and renovation of buildings for schools, colleges, hospitals, urban primary health centres, shopping complex and any other building of public benefit; construction of modern libraries / knowledge centres, bridges, culverts, new crematorium and stormwater drain; upgradation of earthen/ gravel/ WBM roads to all weather roads; and construction/ upgradation of community toilets/ public toilets and markets/ shops are taken up

under this scheme. Further, provisions are available for procurement of vehicles required for solid waste management under the scheme.

The minimum public contribution for any of the identified work, except renovation of water bodies should be one third of the estimate value. For the works relating to renovation of water bodies, the minimum public contribution should be 50%. There is no upper limit for public contribution.

A sum of Rs.150 crore has been sanctioned vide G.O.(Ms) No. 129, Municipal Administration and Water Supply Department, dated 20.12.2021 for the year of 2021-22. A total number of 688 projects at an estimated cost of Rs.84.08 crore have been taken up in municipalities, of which 497 completed; and 236 projects at an estimated cost of Rs.64.30 crore have been taken up and completed 101 projects in corporations (other than GCC). The total public

contribution made during 2021-22 is Rs.60.38 crore.

A sum of Rs.200 crore has been sanctioned vide G.O.(Ms) No. 100, Municipal Administration and Water Supply Department, dated 21.7.2022 for the year 2022-23. A total number of 438 projects at an estimated cost of Rs.49.37 crore have been sanctioned in municipalities and 63 projects at an estimated cost of Rs.16.55 crore have been sanctioned in corporations (other than GCC) so far. The total public contribution made during 2022-23 is Rs.23.36 crore.

2.5.3 Tamil Nadu Nagarpura Velaivaippu Thittam

The Government, in order to provide employment to urban poor by engaging them in the creation and maintenance of public assets like parks, play fields, stormwater drains, tree plantation and rejuvenation of water bodies, have

launched the Tamil Nadu Nagarpura Velaivaippu Thittam on a pilot basis, with an initial budgetary allocation of Rs.75 crore for the year 2021-22. An amount of Rs.25.00 crore has been earmarked for 2022-23. At present, the scheme is being implemented on a pilot basis in 2 zones in Greater Chennai Corporation, 1 zone each in 14 corporations, 7 municipalities (1 in each region) and 37 town panchayats (1 in each district).

Wage rate adopted under the scheme is as given in the table 2.9.

Table 2.9

ULBs	Wage rate (Rs./day)
Greater Chennai Corporation, Coimbatore and Avadi corporations	382
Other corporations	363
Municipalities	342
Town panchayats	300

Out of 208 works taken up, 76 works have been completed and nearly 2.53 lakh man-days have been generated so far. In order to expand the scheme to more number of ULBs, an impact assessment study has been conducted by the State Planning Commission. Based on the outcome of the study, a decision will be taken on expansion of the scheme.

2.6 Schemes under Implementation

2.6.1 Government of India Schemes

(i) Smart Cities Mission

The Smart Cities Mission has been launched by Government of India in 2015, with the object of promoting the cities that provide core infrastructure, a clean and sustainable environment and a decent quality of life to all citizens. Smart Cities Mission provides application of smart solutions in providing service delivery on sustainable and inclusive basis. The idea is to look

at compact areas, create a replicable model, which will act as a light house to other aspiring cities.

The Smart Cities Mission is being implemented in 11 corporations of the state, viz. Chennai, Coimbatore, Madurai, Salem, Thanjavur, Vellore, Thoothukudi, Tirunelveli, Tiruppur, Tiruchirappalli and Erode. Under the Mission, each city is provided with a financial assistance of Rs.1,000 crore, shared between the Government of India and the state in the ratio of 50:50.

In 10 corporations (except Chennai), 636 works at an estimated cost of Rs.9,700.94 crore have been taken up so far. Of which, 442 works at a cost of Rs.4,761.40 crore have been completed and remaining works are at various stages of implementation.

(ii) Atal Mission for Rejuvenation and Urban Transformation Scheme (AMRUT)

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) aims to ensure the basic infrastructure such as drinking water facilities, sewage and septage management, stormwater drains, non-motorized transport, parks and green spaces. Cities having a population of more than 1 lakh and towns of religious and tourist importance have been included in the Mission. In Tamil Nadu, the Mission is being implemented in 28 cities viz., 26 cities with a population of more than 1 lakh and in 2 towns of religious and tourist importance, namely, Velankanni and Rameswaram. The funding pattern details are as given in the table 2.10.

Table 2.10

City / Town Population	GoI Share	GoTN Share	ULB Share
More than 10 lakh	33%	20%	47%
Less than 10 lakh	50%	20%	30%

Under the mission, 385 projects at an estimated cost of Rs.9,977.37 crore have been taken up in 26 corporations/ municipalities (other than GCC) and 1 town panchayat. So far, 368 projects have been completed and 17 are under implementation. Funding towards ULB contribution for water supply and UGSS projects has been arranged under ADB/ KfW/ TNSUDP/ IUDM/ CGF assistance. The summary of ongoing projects is as given in the table 2.11.

Table 2.11

Sector	Number of projects	Estimate cost (Rs.in crore)	Completed projects	Ongoing projects
Water supply	14	5,870.22	8	6
Underground sewerage scheme	13	3,912.89	2	11
Green spaces	358	194.26	358	-
Total	385	9,977.37	368	17

(iii) Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0

The Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) has been launched by the Union Government on 1stOctober, 2021 for a period of 5 years. AMRUT 2.0 aims to provide complete water security for all cities or towns in India based on the achievements of AMRUT in 500 cities. In order to promote the circular economy of water, the mission will address water needs, rejuvenate water bodies, improve aquifer management and explore sustainable ways to reuse the used water through appropriate treatment. The total allocation of Union Government for project implementation under the mission is Rs.76,760 crore of which Rs.4,942 crore is allocated to Tamil Nadu. The funding pattern is given in the table 2.12.

Table 2.12

City / Town Population	GoI share	State share	ULB share
More than 10 lakh	25%	30%	45%
10 lakh to 1 lakh	33%	30%	37%
Less than 1 lakh	50%	30%	20%

Focus on Universal Coverage: As part of AMRUT 2.0, all households in the ULBs will have access to 100 percent water supply. The mission will also ensure 100 percent coverage for sewage and septage management in 28 AMRUT cities.

City Water Balance Plan has been prepared for all the 158 ULBs (20 corporations and 138 municipalities) under the administrative purview of Director of Municipal Administration and projects have been identified for universal coverage of water supply and sustainable management of water bodies in all ULBs and 100% coverage of UGSS in AMRUT cities.

Promotion of Public Private Partnership

All cities with more than 10 lakh population should take PPP projects worth atleast ten percent of their total project fund allocations.

Reforms

AMRUT 2.0 has a strong reform agenda that stresses the necessity of strengthening ULBs and providing cities with complete water security.

Mission has a **reform agenda** which needs to be implemented in first four years of Mission. There are two types of reforms, namely,

(i) Mandatory reforms and (ii) Incentive based reforms

- **Mandatory reforms** on property tax and user charges.
- **Effective system for grievance redressal** be put in place in ULBs.
- **Incentive based reforms** on water conservation, urban governance and energy efficiency.

Details of Projects sanctioned

Under the Mission, 320 Projects at an estimated cost of Rs.2,746.16 crore are under implementation in the ULBs under the administrative purview of the Directorate of Municipal Administration. Funding towards ULB contribution for Water Supply and UGSS Projects has been tied-up under KfW/ TNCRUDP/ CGF/ KNMT/ SUIDF assistance. The mission period is 5 years, i.e. upto October, 2026. The abstract of the projects sanctioned so far is as given in the table 2.13.

Table 2.13

Sector	No. of Projects	Estimated cost (Rs. in crore)	AMRUT 2.0		ULB Share		EAP	
			GoI	GoTN	KNMT	SUIDF	WB	Kfw
Water supply	24	1,129.59	534.69	329.12	137.02	69.00	73.62	0.00
Underground seweragescheme	5	1,658.90	510.92	497.68	0.00	0.00	268.15	454.69
Total	29	2,788.49	1,045.61	826.80	137.02	69.00	341.77	454.69

(iv) Swachh Bharath Mission (U)

The main objectives of the SBM (U) are to make all the cities Garbage free and open defecation free. Under SBM(U), 135 ULBs have been declared as Open Defecation Free (ODF).

Under the mission, 5,07,143 Individual House Hold Latrines (IHHL), and 22,337 seats of community toilets have been constructed so far. For scientific processing of solid waste, procurement of primary collection vehicles such as battery operated vehicles, light commercial vehicles and tipper lorries, construction of Micro composting centres, Resource recovery centres and other infrastructure works have been taken up and completed.

Swachh Bharat Mission 2.0 has been launched on 1st October, 2021 with a vision to make all the cities garbage free by 2026. The mission period is 5 years, i.e. upto October, 2026. The Government is committed to make all

the cities truly open defecation free by providing universal access to toilets and garbage free by creating adequate processing capacities and required infrastructure for solid waste management in all the ULBs.

Objectives of the SBM (U) 2.0

Objectives of the SBM (U) 2.0 are,

(i) to sustain Open Defecation Free status in all statutory towns and to ensure that no untreated faecal sludge or used water is discharged into the environment and all used water (including sewage and septage, grey water and black water) is safely contained, transported and treated, along with maximum reuse of treated used water, in all cities with less than 1 lakh population; and

(ii) make all cities clean and garbage free, with 100% scientific processing of municipal solid

waste, source segregation, effective management of construction and demolition waste, plastic waste management and remediation of all legacy waste dumpsites.

The fund sharing pattern under the mission is as given in the table 2.14.

Table 2.14

City / Town population	GOI share	State/ ULB share
More than 10 lakh	25%	75%
10 lakh to 1 lakh	33%	67%
Less than 1 lakh	50%	50%

Sanitation

The ULB wise action plan has been prepared based on the requirement of existing and projected 2025 population for sanitation and solid waste management as per the SBM 2.0 guidelines. To sustain the Open Defecation Free status in all statutory towns, 11,508 nos. of Individual House Hold Latrines (IHHL) have been

sanctioned during 2022-23. Of which 3,125 units have been completed. Remaining 8,383 units of IHHL are in various stages of construction and will be completed by April - May 2023.

Community toilets are constructed for providing sanitation facilities to the households without land for the construction of IHHL. To ensure easy access to toilets in public places, a public toilet has to be provided within every 500 meter distance in all ULBs as per SBM 2.0 guidelines. Based on the gap analysis, 170 community toilets, 130 public toilets and 110 urinals have been sanctioned at an estimated cost of Rs.86.86 crore during the years 2021-22 and 2022-23 and all works are under various stages of implementation.

Solid Waste Management

The Government is committed to make all the cities garbage free by segregating the

garbage at source and converting the bio-degradable waste into manure or generating biogas. Scientific management of solid and liquid waste in an environment friendly manner is an important duty of urban local bodies.

Over 7,500 MT of solid waste per day is being generated in 20 corporations and 138 municipalities. Out of this, nearly 54% is wet waste and 46% is dry waste. The wet waste is scientifically processed through micro composting centres, bio-methanation plants, windrow composting and on-site composting centres and converted into manure. Similarly, the dry waste is being collected and transported to resource recovery centres (RRC) and the recyclable waste is disposed through identified vendors for recycling. The non-recyclable and combustible waste is separated and transported to nearby cement plants, for use as refuse derived fuel (RDF) in co-processing.

Action is being taken to scientifically process and dispose the legacy waste dumped at various locations in an environment friendly manner through bio-mining. The Government intends to use the retrieved land for creating urban infrastructure and urban green spaces or parks depending on the requirement and nature and condition of the land.

Based on the SBM 2.0 guidelines, City Solid Waste Action Plan (CSWAP) has been prepared for all the 158 ULBs and gap has been arrived for the projected waste generation in the year 2026. The State High Powered Committee of SBM (U) 2.0 headed by the Chief Secretary to the Government has approved the City Solid Waste Action Plan to establish various infrastructure facilities like micro composting centres (80 nos.), bio-methanation plants (9 nos.), bio-CNG plants (11 nos.), manual material recovery facilities (108 nos.), fully automated material recovery facilities (7 nos.), transfer station (3 nos.) and

scientific landfill (4 nos.) for processing of both wet and dry waste.

To process the construction and demolition waste, processing facilities have been sanctioned to 6 corporations viz. Coimbatore, Madurai, Tiruchirappalli, Salem, Thoothukudi and Tiruppur.

In order to prevent the dust and air pollution, road sweeping machines have been sanctioned to 5 corporations viz, Coimbatore, Madurai, Tiruchirappalli, Salem and Thoothukudi.

Bio-mining of Legacy Waste

Reclamation of dump yards filled with legacy waste through bio-mining is under progress in various ULBs. The total quantity of legacy waste accumulated in 122 ULBs under the administrative purview of Directorate of Municipal Administration is 106 lakh cu mt.

Under SBM-1(U), bio-mining work has been taken up in 18 corporations and 93 municipalities at an estimated cost of Rs.600.48 crore to dispose

93 lakh cumt of legacy waste. After completion of the bio-mining work, about 950 acre of land will be retrieved.

So far, bio-mining works have been completed in 64 ULBs and 48 lakh cumt of legacy waste have been processed and 491 acre of land has been retrieved. In 58 ULBs, bio-mining work is in progress.

Steps are being taken to complete the remaining bio-mining works at the earliest. A portion of the retrieved land in various cities will be used for setting up solid waste processing facilities and remaining land will be used for public purposes, which include developing parks and urban green spaces.

During the year 2022-23, additional bio-mining work has been sanctioned in 6 corporations and 32 municipalities at an estimated cost of Rs.92.77 crore.

Urban Forests

So far, bio-mining work has been completed in 64 ULBs and 491 acre of land has been retrieved. In the retrieved land, urban greening projects have been taken up. So far, 53,589 tree saplings have been planted and nearly 127 acre of green space have been developed during 2022 -23.

People's Movement for Clean Cities (Clean city campaign)

The Government is according utmost importance to the cleanliness of cities and all out efforts are taken to create necessary infrastructure for solid waste management, used water management and sanitation. As it is envisaged that the efforts of Government supplemented with large scale participation of citizens will make our cities clean, a campaign by name, 'People's Movement for Clean Cities', has

been launched by the Honourable Chief Minister on 03.06.2022.

The Fundamental objective of the scheme is to sensitize every citizen about solid waste management, especially source segregation of waste and to bring behavioral change. The campaign revolves around the theme "My Waste, My Responsibility" i.e. "எனது சூப்பை, எனது பொறுப்பு".

The campaign is carried out on every 2nd and 4th Saturdays of the month in all urban local bodies. The activities are designed under the following 7 major themes:

- (a) Mass cleaning of public areas.
- (b) Sensitizing about source segregation
- (c) Cleaning of water bodies/ storm water drains and mass tree planting
- (d) Removal of unauthorized hoardings / boards/condemned vehicles/ damaged street furniture

- (e) Felicitate the workers and volunteers
- (f) Removal of unauthorizedly dumped construction and demolition waste, wall posters, etc.

On every third Wednesday, awareness campaigns are conducted in Schools and Colleges about solid waste management and sanitation.

So far, nearly 8 lakh volunteers and 9,454 elected representatives have participated in the campaign; and 3,000 garbage hot spots have been cleared and put into alternative use or beautified; and 4,348 water bodies and 6,170 km length of storm water drains have been cleaned and 12,000 cleanliness workers/volunteers have been felicitated during the campaign.

Social Media Accounts

It is imperative to reach out to the people directly and elicit their views about various

activities relating to solid waste management, used water management and sanitation. Therefore, social media handles and accounts have been created in Twitter (@MawsTamilNadu) and Instagram (Municipaladmin_tamilnadu). The important information and activities are periodically shared with the public.

SBM Portal

An exclusive portal for Swachh Bharat Mission has been created. The user manual and many circulars, case studies etc., which would benefit the urban local bodies are uploaded. The portal has been designed in such a way that every urban local body can upload articles about the best/innovative practices followed by them in waste management. Besides this, citizen can also upload any article or news item about best practices followed in their city or town.

Ezhilmigu Nagaram – e-Magazine

An e-magazine named 'Ezhilmigu Nagaram' has been launched during August 2022 with a view to publish the outcomes of solid waste management and sanitation under Swachh Bharat Mission. The guidelines, standard operating procedures and circulars issued by the Government are also conveyed through articles in the magazine. Magazine is designed on specific cleanliness related themes every month, with a vision for outreach of large number of readers. The magazine is published in electronic form also. So far, four editions of this magazine have been published.

Branding of Manure – Sezhippu

The wet waste generated in urban local bodies is converted into organic manure in the micro composting centres and on-site composting centres. The manure is scientifically analysed for the NPK content and presence of heavy metals as

per the specification of Fertilizer Control Order, 1985. The manure so produced will be supplied to farmers and kitchen gardens under the common brand name "**Sezhippu**", in all the urban local bodies in the state.

(v) National Urban Livelihoods Mission (NULM)

Under the National Urban Livelihoods Mission, the components of support to urban street vendors and shelter for the urban homeless are being implemented through the Directorate of Municipal Administration.

Shelter for Urban Homeless (SUH)

The policy of the Government is to provide night shelters with all basic amenities to the street dwellers in all the municipalities and corporations.

Under the shelter for urban homeless component (SUH) construction of shelters for the

benefit of street dwellers have been completed as follows:

- 55 new shelters at a cost of Rs.33.27 crore, in GCC
- 107 new shelters and refurbishing of 35 old shelters at a cost of Rs.73.42 crore in 20 corporations and 66 municipalities.
- 35 new shelters at a cost of Rs.12.90 crore in 35 Town Panchayats.
- During 2022-23, 5 new shelters have been sanctioned and are under construction.

Support to Street Vendors (SUSV)

Under the support to urban street vendors (SUSV) component, vending carts are provided free of cost to the street vendors, doing vending activities in the streets of corporations and municipalities. In GCC, 900 vending carts at a cost of Rs.13.92 crore have been procured. Sanction has been given to Madurai, Erode corporations and 26 municipalities for

procurement of 3,772 vending carts at a cost of Rs.28.95 crore. All vending carts have been procured and distributed to the street vendors. In town panchayats, 228 vending carts at a cost of Rs.1.88 crore have been procured. During the year 2022-23, 805 vending carts have been sanctioned for 30 municipalities and 2 corporations.

PM-SVANidhi

The eligible street vendors are provided loan through banks with 7% interest subsidy. So far, Rs.134.09 crore has been provided as 1st loan to 1,34,097 street vendors @ Rs.10,000 each; Rs.74.71 crore has been provided as 2nd loan to 37,355 street vendors @ Rs.20,000 each; and Rs.1.78 crore has been provided as 3rd loan to 356 street vendors@ Rs.50,000 each.

2.6.2 State Schemes

(i) Capital Grant Fund (CGF)

Under CGF, during the year 2021-22, 1,084 basic infrastructure works have been taken up in corporations and municipalities at a total cost of Rs.499.35 crore.

As per the 6th State Finance Commission recommendation, for the year 2022-23 an amount of Rs.335 crore (corporations - 31% - Rs.155 crore and municipalities 36% - Rs.180 crore) has been allocated for infrastructure works such as water supply, underground sewerage, bridges, culverts and storm water drainage works, modernization of bus stands, parks and canals and other essential infrastructure works.

(ii) Operation and Maintenance (O & M) Gap Filling Fund

During the year 2021-22, an amount of Rs.165.54 crore has been sanctioned under

Operation and Maintenance (O&M) Gap Filling Fund. An amount of Rs.93.39 crore has been paid to TWAD Board towards water charges due of corporations and municipalities and an amount of Rs.70.36 crore has been paid to TANGEDCO towards pending electricity consumption charges of corporations and municipalities.

For the year 2022-23, as per the 6th State finance commission recommendation, an amount of Rs.134 crore (corporations - 31 % - Rs.62.00 crore and municipalities 36% - Rs.72.00 crore) has been allocated for paying water supply charges to TWAD Board; electricity consumption charges to TANGEDCO; and O&M of water supply systems, roads, bridges, bus stands, parks etc.

(iii) Tamil Nadu Urban Roads Infrastructure Programme (TURIP)

Roads that are damaged during the execution of water supply and sewerage projects

and by natural calamities, are being taken up for restoration under the Tamil Nadu Urban Roads Infrastructure Programme.

Under the TURIP, during the year 2021-22, 1,810 road works have been taken up in 13 corporations and 21 municipalities, out of which, 1,624 works have been completed at an estimated cost of Rs.244.68 crore. During the year 2022-23, 5,897 road works have been taken up at an estimated cost of Rs.684.77 crore in 15 corporations and 20 municipalities.

iv) Nagarpura Salai Mempattu Thittam (NSMT)

The Hon'ble Chief Minister of Tamil Nadu made an announcement on 19.10.2022 on the floor of the Legislative Assembly to restore 20,990 km length of roads in 649 urban local bodies, which were damaged due to the implementation of water supply/underground sewerage scheme works, natural calamities/ rains

and surface worn outs, which were laid before 2016-17.

Out of the 20,990 km of road length proposed for restoration in four years, about 16,370 km length of roads are proposed for restoration under various schemes. The Government has created a special fund and earmarked Rs.2,200 crore to this fund for restoration of 4,620 km of damaged roads as given in the table 2.15.

Table 2.15

Sl. No.	Year	Damaged roads to be taken up under existing schemes (km)		Roads to be taken up under special fund		Total length of roads to be developed/ improved	
		Road Length (km)	Amount (Rs. in crore)	Road Length	Amount (Rs. in crore)	Road Length	Amount (Rs. in crore)
1	2022-23	4,289	1,775	1,620	655	5,909	2,430
2	2023-24	4,330	1,838	1,822	872	6,152	2,710
3	2024-25	3,986	1,881	757	414	4,743	2,295
4	2025-26	3,765	1,894	421	259	4,186	2,153
	Total	16,370	7,388	4,620	2,200	20,990	9,588

In case of 20 corporations (other than Greater Chennai Corporation) and 138 municipalities, about 11,872 km length of damaged roads will be restored/ developed in four years. Of the 11,872 km length of damaged roads, 9,346 km length of roads are proposed for restoration under various existing schemes (TURIF, KNMT, SFC, and 15th CFC fund). The remaining damaged roads for a length of 2,526 km will be restored at a cost of Rs.1,000 crore under the special fund over a period of four years. Year wise abstract of the roads is given in the table 2.16.

Table 2.16

Sl. No	Year	Damaged Roads to be taken under existing schemes (km)		Roads to be taken under special fund		Total length of roads to be developed/ improved	
		Road Length (km)	Amount (Rs. in crore)	Road Length	Amount (Rs. in crore)	Road Length	Amount (Rs. in crore)
1	2022-23	2,623	911	1,008	350	3,631	1,261
2	2023-24	2,566	924	919	350	3,485	1,274
3	2024-25	2,189	939	315	150	2,504	1,089
4	2025-26	1,968	925	284	150	2,252	1,075
	Total	9,346	3,699	2,526	1,000	11,872	4,699

In the year 2022-23 in 20 corporations (other than Greater Chennai Corporation) and 138 municipalities, about 3,631 km length of damaged roads are taken up for restoration, of which about 2,623 km length of roads has been taken up for restoration/development under various existing schemes (TURIF, KNMT, SFC, and 15th CFC fund). The remaining 1,008 km length of damaged roads has been taken up for restoration under special fund at an estimated cost of Rs.350 crore.

2.7 Externally Aided Projects

Many infrastructure projects are being implemented by the Government of Tamil Nadu funded through external agencies.

2.7.1 German Development Bank (KfW) assisted Sustainable Municipal Infrastructure Financing – Tamil Nadu (SMIF-TN) Program

With financial assistance of German Development Bank (KfW), 35 schemes viz., road improvement works, stormwater drains,

rejuvenation of water bodies, water supply, development of parks and play fields and underground sewerage schemes have been taken up in 37 urban local bodies, at an estimated cost of Rs.3,062.51 crore. Out of these, 34 schemes at an estimated cost of Rs. 2,832.51 crore have been completed and put into public use and the remaining schemes are at various stages of implementation. The Government is taking steps to expedite the pending works and put to public use at the earliest.

Pipeline projects are under finalization for availing new line of credit from KfW assisted SMIF-TN-3 to the tune of Euro 500 Million (Approximately Rs.4,250 crore).

2.7.2 The World Bank assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP)

The World Bank assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP) is being implemented at a cost of Rs.3,831 crore.

The project implementation period is scheduled to be over by 31st March, 2023.

This project consists of 3 components viz., (i) Result based grants for urban governance component; (ii) urban sector technical assistance component; and (iii) Investment in urban services component.

Of the above three components, the urban governance (model city) component and urban sector technical assistance component are being implemented by the Directorate of Municipal Administration. The investment in urban services component is being implemented through Tamil Nadu Urban Infrastructure and Financial Services Limited.

(i) Result based grants for Urban Governance Component

The main objective of this component is to demonstrate effective models of urban management.

Erode, Vellore and Hosur municipal corporations were selected as model cities under

this component. These model cities are envisaged to become role models for ULBs across Tamil Nadu in terms of urban management and governance. A sum of Rs.383.10 crore was earmarked for the entire project period of 7 years to improve urban management practices in these cities. A sum of Rs.356.48 crore has been released to 3 corporations towards their achievements up to 2021-2022.

(ii) Urban Sector Technical Assistance (TA) Component

a) Municipal e-governance

Under the urban sector technical assistance (TA) component, a major e-Governance project namely "Centralized Web Based Software Application for all Urban Local Bodies" was taken up for implementation at a cost of Rs.18.31 crore and all the municipal e-governance modules have been rolled out in all 20 corporations and 138 municipalities.

Asset Management

- ✓ As part of the e-Governance initiatives in Municipal Administration Department, major functions like maintenance of accounts, bill processing, and related activities have been brought under the 'Urban Tree Information System (UTIS)' in all corporations and municipalities and all payment vouchers are prepared online. After making the final payment, details of the assets are automatically updated in the respective registers and once the asset register is updated, they will be maintained online, providing real time information about assets.

The screenshot displays the 'Asset Mapping Register' web application. The header includes the logo of the Commissionerate of Municipal Administration and the text 'COMMISSIONERATE OF MUNICIPAL ADMINISTRATION'. The main content area is titled 'Asset Mapping Register' and 'Asset Mapping Register Report'. The interface features a sidebar with navigation options such as 'Home', 'Asset Mapping Register', and 'Reports'. The main form contains several input fields: 'Page No.', 'Page Size', 'Page', 'Page Count', 'Page Range', 'Page Start', 'Page End', 'Page Total', 'Page Count', 'Page Range', 'Page Start', 'Page End', 'Page Total', 'Page Count', 'Page Range', 'Page Start', 'Page End', 'Page Total'. There are also buttons for 'Print' and 'Close'.

Online Scheme Monitoring System

- ✓ A new module for monitoring / reviewing the status of implementation of various infrastructure schemes has been developed along with graphical dashboard and the implementation of schemes are being monitored through this module.
- ✓ Further, all scheme works taken up by the line departments under the control of Municipal Administration and Water Supply Department viz., Greater Chennai Corporation, Directorate of Town Panchayats, Tamil Nadu Water Supply and Drainage Board and Chennai Metro Water Supply and Sewerage Board are updated and monitored through this scheme dashboard.



Namadhu Sevayil Nagaratchi & Makkal Sevayil Managaratchi

- ✓ The Government has launched the “Namadhu Sevayil Nagaratchi and Makkal Sevayil Managaratchi” to ensure delivery of all urban services at the door-steps of the citizen. The objective of the e-Governance in municipalities is to bring home all the services provided to the people by the urban local bodies with the assistance of information and telecommunication technology in a simple manner, in real time. This will increase people's participation in governance and pave the way for better transparency and better implementation, besides improving ease of doing business.



- ✓ With a view to improve the quality of essential services such as public/community toilets, parks, bus stands, municipal offices, collection centers, crematoriums, urban health centers, markets, community halls etc, it has been proposed to implement QR code based monitoring and feed back system to quickly receive the feedback from the public so as to redress the grievances and to improve the services. In this regard, a pilot study is under implementation in Thoothukudi corporation. Upon successful outcome of this pilot study, this will be extended to all corporations and municipalities.

- ✓ Further, it is proposed to affix QR code in all houses so as to enable the citizens to avail municipal services from their door step. Using this facility, citizens can also pay their dues online.

(b) Training Programmes

Under the “Knowledge and Institutional Strengthening” sub component, training and capacity building programmes have been completed at a cost of Rs. 9.86 crore, benefiting

41,200 staff and officers and elected representatives of ULBs.

Orientation training programme to Elected Representatives of ULBs

One day workshop for the Mayors and Deputy Mayors of 21 corporations and Chairpersons and Vice Chairpersons of 138 municipalities was conducted on 13.04.2022. Further, this one day workshop for the Chairpersons and Vice Chairpersons of 490 town panchayats was conducted on 18.04.2022. Totally, 1,298 Chairpersons and Vice Chairpersons participated in the workshops. Hon'ble Chief Minister and other eminent personalities participated in the workshops and explained the duties and responsibilities of the Mayors and Deputy Mayors of corporations and Chairman and Vice Chairman of municipalities and town panchayats and shared their experience in improving the functions of ULBs.

The orientation training programme to all the 12,638 elected representatives of corporations, municipalities and town panchayats will be completed so as to build their capacity in the administration of ULBs.

Public Finance Management Reform Cell

A Public Finance Management Reform Cell has been established in July 2022 in the Directorate of Municipal Administration to provide strategic inputs and technical support to the Directorate for implementing and sustaining public finance related reforms in the ULBs.

World Bank Assisted Tamil Nadu Climate Resilient Urban Development Project

In continuation to the World Bank assisted Tamil Nadu Sustainable Urban Development Project (TNSUDP), a new World Bank project namely Tamil Nadu Climate Resilient Urban Development Project (TNCRUDP) is under appraisal by the World Bank. The estimated total

outlay of the project is Rs.3,350.25 crore. It is expected to be launched during the financial year 2023-24.

2.8 Financial Management

2.8.1 Sixth State Finance Commission

The Government has considered the recommendations of the 6th State Finance Commission and issued orders vide G.O.(Ms)No.60, Finance (SFC-MC) Department, dated 28.02.2023 on the recommendations of the commission, the salient features of which are as follows:

- Total devolution to local bodies at 10% of State's Own Tax Revenue.
- Sharing between urban and rural local bodies in the ratio of 49:51.
- 16% of the urban share to be devolved to Metropolitan city i.e. to GCC and CMWSSB.
- 84% of the urban share for other corporations, municipalities and town

panchayats.

- Devolution fund to be shared in the ratio of 31:36:33 among corporations (except Greater Chennai Corporation), municipalities and town panchayats.
- The 6th state finance commission adopted the following criteria and weightages for sharing of SFC devolution among urban local bodies.

CORPORATIONS (31%)				MUNICIPALITIES (36%)			
a)	Population as per 2011 Census	:	65%	a)	Population as per 2011 Census	:	60%
b)	Area	:	15%	b)	Area	:	20%
c)	Slum Population	:	20%	c)	Slum Population	:	20%

- Allocation of Capital Grant Fund (CGF) of Rs.500 crore for the year 2022-2023, of which Rs.335 crore is for corporations (other than GCC) and municipalities.
- Allocation of Operations, Maintenance and Deficit Grant Fund (OMDGF) of Rs.200 crore for the year 2022-23, of which Rs.134 crore

is for corporations (other than GCC) and municipalities.

- Special grants for urban local bodies for specific purposes.

Table 2.17

Special grants as per 6thSFC for the year 2022-23

Sl.No.	Schemes	Amount (Rs. in crore)
1.	Grants to Sanitary Workers Welfare Board	10.00
2.	Advance Library Cess	60.00
3.	Advance Cess to Public Library	90.00
4.	Grants for GIS Mapping	10.00
5.	Grants for Study and Documentation	5.00
6.	Grants to TNIUS for Training need	5.00
	Grants for Tourism	
7.	Fixed Grants	15.00
8.	Variable Grants	5.00
	School Improvement	
9.	a) Infrastructure	100.00
10.	b) O&M	60.00
11.	Urban Road Development Fund	200.00
12.	Grants to newly upgraded Local Bodies	60.00

The details of allocation and release of grants to the municipal corporations and municipalities for the financial years 2022-23 and 2023-24 as per the recommendations of

the 6th State Finance Commission are as given in the table 2.18.

Table 2.18

(Rs.in crore)

	2022-23		2023-24	
Corporations	Allocation	Released	Allocation	Released
SFC	1,432.80	1,432.80	1,676.69	--
CGF	155.00	155.00	170.50	--
O&M Gap Filling	62.00	62.00	68.20	--
Municipalities				
SFC	1,663.89	1,663.89	1,947.12	--
CGF	180.00	180.00	198.00	--
O&M Gap Filling	72.00	72.00	79.20	--

2.8.2 15th Finance Commission (15th CFC)

The 15th Finance Commission was constituted under Article 280 of the constitution of India to make recommendations for devolution of central taxes to state Governments and local bodies. The award period of 15th Finance Commission is from 2020-21 to 2025-26.

The 15th Finance Commission has divided

the ULBs into two categories, viz, million plus cities and non-million plus cities. The corporations of Greater Chennai, Coimbatore, Madurai and Tiruchirappalli are under the category of million plus cities and all other corporations, municipalities, town panchayats and the cantonment boards of St.Thomas Mount and Wellington are under the category of non-million plus cities.

On the basis of 15th Finance Commission recommendations, the Union Government provides tied and untied grants to ULBs. The 15th Finance Commission has recommended grants on population basis for the cantonment boards also. The details of funds released for the year 2021-2022 and 2022-23 are as given in the table 2.19.

Table 2.19

(Rs. in crore)

Type of Grant	2021-22		2022-23	
	Allocation	Received	Allocation	Received
Million plus cities ambient air quality (GCC, Madurai & Tiruchirappalli)	117.00	117.00	122.00	122.00
Million plus cities Solid waste management (including GCC)	303.00	303.00	313.00	-
Non million plus cities (Tied) (including, DMA, DTP and Cantonment Boards)	535.80	535.80	555.00	277.50
Non million plus cities (Untied basic grants) (including, DMA, DTP and Cantonment Boards)	357.20	357.20	370.00	185.00

Million Plus Urban Agglomeration Cities

Larger cities will have tendency to grow faster and grants are provided with special emphasis on meeting the challenges of improving the measures of ambient air quality, improving conservation of ground water and efficient solid waste management and

sanitation. Fifteenth Finance Commission has recommended only tied grants for million plus cities, which are disbursed on fulfilling certain criteria.

Government of India has appointed the Ministry of Housing and Urban Affairs (MoHUA) and the Ministry of Environment Forest and Climate Change as the nodal ministries for recommending the grants for water, sanitation, solid waste management; and ambient air quality respectively. These ministries have fixed service level bench marks and certain criteria for recommending disbursement of grants to such cities.

Under water, sanitation and solid waste management fund in the financial year 2021-22, bio-mining, procurement of vehicles for solid waste management and operation and maintenance of water supply and sewerage systems have been taken up. Totally, 34 works

have been taken up at an estimated cost of Rs.120.00 crore (except GCC).

Under ambient air quality fund in the financial year 2021-22, laying of end to end roads, purchase of road sweeping machines, source apportionment study, construction of e-charging stations and other works have been taken up. Totally, 80 works have been taken up at an estimated cost of Rs.25.73 crore (except GCC).

In 2022-23, under the solid waste management component, the eligible works like rejuvenation of water bodies, recycling of used water, water supply, procurement of vehicles, operation and maintenance of water supply and solid waste management etc. have been taken up. Under ambient air quality fund, laying of end to end roads and other works have been taken up at an estimated cost of Rs.10.86 crore.

Non-Million Plus Cities:

For Non million plus cities, 60% of the grants are **tied** and can be used only for the basic services of (a) sanitation and maintenance of open defecation free (ODF) status and (b) supply of drinking water, rain water harvesting and water recycling. The local bodies shall, as far as possible, earmark one half of these **tied** grants each to these two critical services. However, if any local body has fully saturated the needs in one category, can utilize the funds for other category.

40% of the basic grant is **untied**, which can be used for any component, for location-specific development like, regulation of land use, urban planning, fire services, water supply, public health, sanitation, roads, drains and culverts, burial grounds' improvements, slaughter house and tanneries regulations, public amenities including street lighting,

parking spaces, bus stops etc., except for salary or other establishment expenditure.

During the year 2021-22, under tied grant component, procurement of vehicles for solid waste management and construction of stormwater drains and culverts, renovation of toilets, etc., have been taken up. Likewise, procurement of vehicles for water supply, construction of OHTs, procurement of motors, laying of distribution line and pumping main have been taken up. Totally, 1,481 works have been taken up at an estimated cost of Rs.361.91 crore.

Under untied grant component, laying and renovation of roads, construction and improvement of parks, rejuvenation of water bodies, installing energy efficient streetlights and other maintenance works have been taken up. Totally, 1,047 works have been taken up at an estimated cost of Rs.258.98 crore.

During the year 2022-23, under tied grant component, water supply, urban greening, procurement of vehicles and dovetailing of some fund for SBM components like community/public toilets, etc., have been taken up and these works are in progress.

Under untied grant component, installation of energy efficient streetlights and conversion of existing streetlights into energy efficient lights, laying of roads and other works have been taken up and the works are in progress.

Urban Health and Wellness Centre and City Public Health Lab:

The 15th Finance Commission has provided specific grants for strengthening the public health infrastructure and improving service delivery.

With a focus on comprehensive primary health care, 15th CFC has sanctioned diagnostic infrastructure in sub centres and public health centres in rural areas and for urban PHCs as well.

Following works have been sanctioned in corporations and municipalities for the financial years 2021-22 and 2022-23 and are at various stages of progress as given in the table 2.20.

Table 2.20

Sl. No.	Component	No. of works sanctioned	Estimated cost (Rs. in crore)
1.	Wellness Centers	507	126.75
2.	City public Health Lab	28	5.60
Total		535	132.35

2.9 Tamil Nadu Institute of Urban Studies (TNIUS)

The Tamil Nadu Institute of Urban Studies (TNIUS), Coimbatore was established in 1981, with a view to achieve greater efficiency in the functioning and administration of urban local bodies. The following are the objectives of the Institute:

- To create awareness on latest management techniques in various branches of municipal administration.

- To disseminate knowledge on urban issues and urban development through training programmes, seminars, conferences, publications etc.,
- To conduct research studies and consultancy services in urban development, municipal administration and related disciplines.
- To assist in the development of urban infrastructure.
- The annual contributions collected from the municipal corporations, municipalities and town panchayats constitute a major source of revenue for the operations of TNIUS.

2.10 Chief Minister's Breakfast Scheme

Morning breakfast scheme to school children was announced by Hon'ble Chief Minister on the floor of the Legislative Assembly on 07.05.2022, following which Government has issued orders vide G.O.(Ms)No.43, Social Welfare and Women Empowerment Department, dated: 27.07.2022 in which a sum of Rs.15.43 crore was allocated to the Directorate of Municipal Administration.

The Chief Minister's Breakfast Scheme for primary school children of Classes 1 to 5 was launched on 15.09.2022 on pilot scale by Hon'ble Chief Minister. In urban areas, the scheme is launched in 15 corporations and 23 municipalities covering 55,071 students in 539 schools from 46 cooking centres. The Chief Minister's breakfast scheme is monitored through website <http://cmbfs.tnega.org> by state level, regional level and district level nodal officers. An exclusive mobile app has also been launched for day to day real time monitoring of the scheme.

Experimental implementation of this flagship scheme has been widely appreciated and welcomed by most of the people and there is a gradual increase in the attendance of the students.

In phase-II, which was launched on 28.02.2023, this scheme has been extended to 433 left out schools covering 56,098 children in the 36 pilot ULBs with an additional fund of Rs.4.66 crore.

2.11 The Financial position of Corporations and Municipalities

The abstract of income and expenditure of corporations and municipalities, is given in the table 2.21 and 2.22.

Table 2.21
Revenue

(Rs.in crore)

Sl. No.	Description	Corporations		Municipalities	
		2021-22	2022-23	2021-22	2022-23
Income					
1.	Tax revenue	714.92	1,147.62	414.11	612.08
2.	Non-tax revenue	458.71	534.00	229.73	315.00
3.	Assigned revenue	102.99	322.65	138.78	185.00
4.	SFC / CFC grants	1,122.29	2,237.80	1,140.81	1,932.14
Total revenue receipts (A)		2,398.91	4,242.07	1,923.43	3,044.22
Expenditure					
1.	Establishment, administrative and operation and maintenance expenses	2,584.11	3,968.13	2,137.00	2,859.00
Total		2,584.11	3,968.13	2,137.00	2,859.00
Surplus / Deficit		-185.20	273.94	-213.57	185.22

Table 2.22
Capital

(Rs.in crore)

Sl. No.	Description	Corporations		Municipalities	
		2021-22	2022-23	2021-22	2022-23
1	Capital income	2,275.75	2,440.31	714.93	1,123.00
2.	Capital expenditure	2,235.94	3,248.24	1,050.57	1,848.48

2.12 Corporations under the administrative purview of Directorate of Municipal Administration

I. Madurai Corporation

Madurai Corporation was established on 01.05.1971. The area of the corporation is 147.99 sq km. The population as per 2011 census was 15,73,616 and the present population is around 20 lakh. The average annual income of the corporation is Rs 530.994 crore inclusive of tax, non-tax and devolution grants.

Water Supply: Water supply sources of the city are Vaigai-I, Vaigai-II, Cauvery and local sources from which 160.84 MLD of water is drawn. Total

water requirement of the city is 235 MLD and the total supplied quantity is 160.84 MLD. Out of 3,35,801 households, 1,65,011 are provided with house service connections. On completion of the Mullai-Periyar water supply improvement scheme, water supply will increase to 310 MLD.

Underground Sewerage Scheme (UGSS): The city has 2 sewage treatment plants with a capacity of 172.70 MLD. Nearly 79 MLD of sewage is generated and currently it is disposed for grass cultivation after treatment. Totally 1,66,722 sewerage connections have been effected so far out of 3,35,801 households. Of the total 100 wards, 63 wards are covered with UGSS and in another 20 wards, work is in progress. A detailed project report has been prepared for providing UGSS in the left out areas in the north and south of River Vaigai at an estimated cost of Rs.684.36 crore and will be taken up for

implementation. In order to rehabilitate the erstwhile UGSS, a DPR is under preparation.

Solid Waste Management: Total solid waste generated in the city is 850 - 900 TPD of which nearly 50 - 55 % is wet waste. The city has 38 micro composting centres (MCCs) for processing wet waste and one resource recovery centre (RRC) for processing dry waste.

Roads: The city has 1,687 km of roads. Continuous efforts are being made to improve damaged roads. In this direction, 211 km of roads have been laid during the year 2021-22 and 2022-23 and it is proposed to relay 171 km of roads during the year 2023-24.

Streetlights: The city has 57,877 streetlights. It is planned to install 2,882 energy efficient streetlights in the year 2023-24.

Own Source of Revenue: Property tax (Rs.212.78 crore), vacant land tax (Rs.16.27 crore), profession tax (Rs.14.11 crore), water charges (Rs.14.91 crore) and non-tax revenue (Rs.22.95 crore) are the main sources of corporation's own revenue, amounting to a total of Rs.281.02 crore.

Major Ongoing Projects

- Water supply improvement scheme with source from Mullai Periyar River at an estimated cost of Rs.1,295.79 crore under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and ADB assistance is in progress and will be completed by June 2023.
- Implementation of a pressurised continuous water supply project in Madurai city municipal corporation core city area at an estimated cost of Rs.357.45 crore under

ADB Tranche III is in progress and will be completed by December 2025.

- In pursuance to the announcement made by the Hon'ble Chief Minister, a detailed project report (DPR) has been prepared for providing UGSS in the added areas of Madurai corporation at an estimated cost of Rs. 684.36 crore. It will be proposed for funding under AMRUT 2.0.
- Road works have been taken up for an amount of Rs. 90.44 crore for a length of 157.00 km under TNSUDP, TURIP Phase I and II, NSMT schemes and conversion of earthen roads to BT roads for a length of 19.08 km at an estimated cost of Rs.18.35 crore has been taken up under State Finance Commission (SFC) grants.
- Construction of gasifier crematorium at an estimated cost of Rs.3.00 crore under CGF scheme is in progress and it will be completed by April 2023.

New Projects Sanctioned:

- Administrative sanction has been accorded for Rs.10.30 crore for shifting of onion market and the work will be commenced shortly.
- Administrative sanction has been accorded for Rs.50.00 crore to take up eco-restoration/rejuvenation & beautification of Vandiyur tank, and the work will be commenced shortly.
- The following projects are sanctioned under CGF 2022-23:
 - Improvement works to Thayir market at East Marret street at an estimated cost of Rs.1.53 crore.
 - Reconstruction of Vegetable market at Subramaniyapuram at an estimated cost of Rs.1.99 crore.
 - Special improvement works at Arapalayam bus stand at an estimated cost of Rs.1.07 crore.
 - Special improvement works at Mattuthavani Dr.M.G.R bus stand

building and Omni bus stand at an estimated cost of Rs.11.75 crore.

II. COIMBATORE CORPORATION

Coimbatore corporation was established on 01.05.1981. The area of the corporation is 257.04 sq km. The population as per 2011 census was 16,04,925 and the present population is about 22.88 lakh. The average annual income of the corporation is Rs.1,110.47 crore inclusive of tax, non-tax and devolution grants.

Water Supply: Water supply sources of the city are Siruvani, Pillur-1, Pillur-2, Aliyar and Bhavani (Kavundampalayam Vadavalli Veerakeralam-KVV CWSS), from which nearly 214 MLD of water is drawn. Total water requirement of the city is 250 MLD and the total supplied quantity is 190 MLD. Out of 5,41,312 households, 3,21,560 are provided with house service connections. On Commissioning of Pillur-III water

supply scheme, the daily water supply to the city will be stepped upto 392 MLD.

Underground Sewerage Scheme (UGSS): The city has 3 sewage treatment plants with a total capacity of 170 MLD. Totally 40,981 sewage service connections have been effected so far out of 5,41,312 households. Of the total 100 wards, 43 wards are covered with UGSS and in another 31 wards work is in progress.

Solid Waste Management: Total solid waste generated in the city is around 1,200 TPD of which nearly 600 - 650 TPD is wet waste and balance is dry waste. Totally, 36 micro composting centres for processing wet waste and 6 resource recovery centres for processing dry waste are functional.

Roads: The city has 2,733 km of roads. Steps are being taken to improve the roads. In this

direction, 345 km of roads have been laid during the year 2021-22 and 2022-23 and it is proposed to relay 172 km of roads during the year 2023-24.

Streetlights: The city has 95,602 streetlights. Another 7,701 new energy efficient streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.490.88 crore), vacant land tax (Rs.130.22 crore), profession tax (Rs.52.40 crore), water charges (Rs. 91.18 crore) and non-tax revenue (Rs.77.74 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Administrative sanction has been accorded at an estimated cost of Rs. 715.67 crore for implementation of UGSS in Vellakinaru, Chinnavedampatti and Saravanampatti

added areas. The scheme will be commenced shortly.

- 24x7 water supply work in core city under PPP mode is in progress and will be completed by June 2023.
- Pillur-III water supply scheme under AMRUT is under implementation at an estimated cost of Rs.706.24 crore. All pending issues relating to land acquisition and fund tie up have been resolved. This scheme is likely to be completed by June 2023.
- DPR has been prepared for the first phase of the 'Semmozhi Poonga' for development of a botanical garden and other facilities spanning 45 acres at a total cost of Rs.172.21 crore and the work is expected to be commenced shortly.
- 649 road works have been taken up to restore nearly 154 km of roads at an

estimated cost of Rs.105.41 crore under TNSUDP and TURIP.

- UGSS for Kurichi – Kuniyamuthur area is under implementation by TWAD board at an estimated cost of Rs.591.14 crore and it is expected to be completed by September 2023.

New Projects Sanctioned:

- To cover the left out areas of erstwhile corporation area and 9 wards of added areas, a detailed project report for implementation of UGSS has been prepared at an estimated cost of Rs.197 crore and Rs.296 crore respectively under AMRUT 2.0 and EAP. Administrative sanction has been accorded and works will be commenced shortly by TWAD board.
- Administrative sanction has been accorded for provision of UGSS to added areas of Vadavalli, Veerakeralam, Kavundapalayam

and Thudiyalur at an estimated cost of Rs.935 crore and the works will be commenced shortly.

- To avoid flooding in Tiruchirappalli road during excessive rains, a flood channel from Valankulam lake to Sanganoor channel has been sanctioned at a cost of Rs.9 crore under Infrastructure and Amenities fund.
- To relieve the people from distress of water stagnation due to excessive seepage from Senkulam tank a storm water drain work has been sanctioned under CGF for about Rs.7.00 crore
- To improve the infrastructure in markets, under CGF, Rs.7.58 crore has been sanctioned for the renovation of Anna market, MGR market and Sundarapuram tomato market.

III. TIRUCHIRAPPALLI CITY CORPORATION

Tiruchirappalli city corporation was established on 01.06.1994. The area of the corporation is 167.23 sq km. The population, as per 2011 census was 9,15,569 and the present population is about 10.50 lakh. The average annual income of the corporation is Rs. 451.86 crore inclusive of tax, non-tax and devolution grants.

Water Supply: The city has 10 water supply sources, from which 141.67 MLD of water is drawn. Total water requirement of the city is 141 MLD and the total supplied quantity is 137.14 MLD on daily basis. Out of 2,36,022 households, 1,22,965 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 58.64 MLD. Nearly 56.36 MLD of sewage is generated and disposed into Koraiyar

river after treatment. Totally 65,113 sewerage service connections have been effected so far, out of 2,36,022 households. Of the total 65 wards, 29 wards are covered fully and 20 wards partially. Work is in progress in 9 wards fully and in 31 wards partially with a new 37 MLD STP under AMRUT, Phase II and III. In order to cover the remaining wards, a DPR is being finalised.

Solid Waste Management: Total solid waste generated in the city is 470 TPD, of which nearly 250 TPD is wet waste and balance is dry waste. 40 micro composting centres for processing wet waste and 5 resource recovery centres for processing dry waste, are available.

Roads: The city has around 1,443 km of roads. Steps are being taken to improve the damaged roads. In this direction, 337 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to improve/relay 190 km of roads during the year 2023-24.

Streetlights: The city has 41,615 streetlights. Additional 6,264 energy efficient streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.151.28 crore), vacant land tax (Rs.17.29 crore), profession tax (Rs.24.76 crore), water charges (Rs.60.36 crore) and non-tax revenue (Rs.20.34 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- An integrated bus terminal with truck terminal and multi-use facility centre (MUFC), at Panjappur at an estimated cost of Rs.349.58 crore is under implementation and it is expected to be completed by December, 2023.
- In pursuance to the announcement made by the Hon'ble Chief Minister, a DPR has been prepared for providing UGSS in added areas

of Tiruchirappalli corporation at an estimated cost of Rs.200 crore and for establishment of a 100 MLD sewage treatment plant in Panjappur at an estimated cost of Rs.220.62 crore. The process of financial tie-up is in progress.

- To restore 331 damaged roads (length 51.82 km), an amount of Rs.54.02 crore has been sanctioned under TURIP.

New Projects Sanctioned:

- A rail over-bridge at an estimated cost of Rs.34.10 core at Maris theatre road has been sanctioned under Infrastructure and Amenities fund and the project is in progress.
- Improvement and renovation of Kollankulam lake will be taken up at an estimated cost of Rs. 27.00 crore under CGF.

- Restoration of 65.68 km of roads has been sanctioned under NSMT at an estimated cost of Rs.25.00 crore. Likewise, 22 km of earthen roads are to be upgraded at an estimated cost of Rs.15 crore.
- To improve water supply, construction of a collection well with sluice valve at Cholamparai channel has been proposed at an estimated cost of Rs.2.46 crore under Infrastructure and Amenities fund.

IV. TIRUNELVELI CORPORATION

Tirunelveli corporation was established on 01.06.1994. The area of the corporation is 108.65 sq km. The population as per 2011 census was 4,74,838 and the present population is about 5.40 lakh. The average annual income of the corporation is Rs.223.28 crore.

Water Supply: The city has fifteen water supply sources, from which 48 MLD of water is presently

drawn. Total water requirement of the city is 70.51 MLD and the total water supplied is 48 MLD from 15 Head Works and 25 MLD from the ongoing 50 MLD water supply improvement scheme. 83,313 house service connections have been provided so far and about 60,000 house service connections will be provided in the year 2023-24.

Underground Sewerage Scheme (UGSS): Out of the total 55 wards, UGSS has been partially implemented in 35 wards. Works are in progress for the remaining uncovered areas of the city in two phases. The city has one sewage treatment plant with a capacity of 24.20 MLD. Presently 10 MLD of sewage is treated and is disposed into Kodagan channel. Totally 26,783 service connections have been given and about 54,000 and 43,500 service connections will be effected in years 2023-24 and 2024-25 respectively.

Soild Waste Management: Total solid waste generated in the city is around 230 TPD of which nearly 140 TPD is wet waste and 90 TPD is dry waste. 47 micro composting centres for processing of wet waste and 4 resource recovery centres for processing dry waste are available.

Roads: The city has 920.18 km of roads, of which 807.53 km belongs to corporation, 112.65 km belongs to State Highways. Steps are being taken to improve the road network. 83 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 101 km of roads during the year 2023-24.

Streetlights: The city has total number of 29,145 streetlights. Further, another 1,968 new energy efficient streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.81.72 crore), vacant land tax (Rs.15.3 crore),

profession tax (Rs. 11.87 crore), water charges (Rs.27.72 crore) and non-tax revenue (Rs.11.77 crore) are the own sources of corporation's revenue.

Major Completed Projects

- Modernisation of Dr. M.G.R. new bus stand and development of Palayamkottai bus stand at a cost of Rs.86.78 crore.
- Modernization of V.O.C. stadium with additional stand at a cost of Rs.15.12 crore.
- 5 MWh solar power plant at Ramayanpatti dump yard at a cost of Rs.25.00 crore.
- Providing additional facilities like discovery centre with IoT and supporting infrastructure in the Techno park and providing science park near new bus stand at a cost of Rs.10.71 crore.
- Development of trade centre at S.N. high road at a cost of Rs.56.71 crore.

- Construction of Wholesale market in Palayapettai near truck terminal at a cost of Rs.13.61 crore.
- Development of Nehruji Kalaiarangam at a cost of Rs.11.97 crore.
- Development of green spaces at seven locations at a cost of Rs.9.76 crore.
- Two shelters for homeless, sanctioned in 2021-22 under NULM at an estimated cost of Rs. 1 crore.

Major ongoing projects

- The water supply improvement scheme with Ariyanayakipuram dam as a source, at an estimated cost of Rs.295 crore, is under implementation through TWAD Board with KfW assistance and is expected to be completed by May, 2023.
- The implementation of UGSS (phase-II) at an estimated cost of Rs.296.11 crore is

under progress and expected to be completed by September, 2023.

- The implementation of UGSS at an estimated cost of Rs.643 crore with the financial assistance of AMRUT and ADB has been sanctioned.
- Restoration of 44.88 km of roads, at an estimated cost of Rs.28.61 crore has been sanctioned under TURIP and works are under progress.
- Modernization of existing Periyar bus stand at Town Junction with underground parking at a cost of Rs.85.56 crore.
- Construction of Mahatma Gandhiji Commercial Complex at Palayamkottai at a cost of Rs.40.04 crore.
- Rejuvenation of two water bodies at an estimated cost of Rs.263.40 lakh under AMRUT 2.0 are in progress.

New Projects Sanctioned

- 40 number of works like stormwater drain, crematorium, water supply projects etc., at an estimated cost of Rs.39.73 crore, have been sanctioned under 15th CFC.
- A new water supply project for uncovered areas of the corporation, at an estimated cost of Rs.40 crore, has been sanctioned, out of which Rs.20 crore has been allotted under 15th CFC grant.
- Under SBM 2.0, community toilets, aspirational toilets and urinals have been sanctioned at a cost of Rs.1.40 crore.
- A common service centre at a cost of Rs.1.40 crore has been sanctioned under Pradhan Mantri Jan Vikas Karyakram Scheme.
- 20 Urban health and wellness centres have been sanctioned at an estimated cost of Rs.4.94 crore and the works are nearing completion.

V. SALEM CORPORATION

Salem Corporation was established on 01.06.1994. The area of the corporation is 91.34 sq km. The population as per 2011 census was 8,29,267 and the present population is about 11 lakh. The average annual income of the corporation is Rs.385.09 crore.

Water Supply: Cauvery River is the source of water supply to the city, from which 130 MLD of water is drawn. Total water requirement of the city is 130 MLD. Out of 2,07,570 households, 1,17,228 are provided with house service connections.

Underground Sewerage Scheme (UGSS): Out of 60 wards, UGSS is available in 20 wards and for 23 wards UGSS work is in progress. The city has 4 sewage treatment plants with a capacity of 98 MLD. Nearly 47 MLD of sewage is treated and currently disposed into Thirumanimuthar river.

Totally 5,292 service connections have been given so far, out of 2,07,570 households.

Solid Waste Management: Total solid waste generated in the city is around 550 TPD, of which nearly 320 TPD is wet waste and balance is dry waste. Totally 28 micro composting centres are functioning for processing wet waste.

Roads: The city has 1,040 km of roads. Continuous efforts are being taken to improve the roads. In this direction, 150 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 96 km of roads during the year 2023-24.

Streetlights: The city has 41,695 streetlights. Additional 800 streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.112.21crore), vacant land tax (Rs.7.9crore),

profession tax (Rs.22.35crore), water charges (Rs.68.73crore) and non-tax revenue (Rs.50.94crore) are the main sources of corporation's own revenue.

Major ongoing projects

- In order to provide sewage system in 14 wards fully and left out streets of 17 wards, a sum of Rs.548 crore has been sanctioned under AMRUT 2.0. The works will be taken up shortly.
- To provide 24x7 water supply, on a pilot basis, a DPR has been prepared on PPP mode and preparatory works for calling bids are under progress.
- Two water body rejuvenation works have been taken up at an estimated cost of Rs.92.44 lakh under AMRUT 2.0 and the work is in progress.
- Under Smart Cities Mission, 24 works at an estimated cost of Rs.544.42 crore are in progress.

New projects sanctioned:

- In order to rejuvenate and beautify the Mookaneri, Bodinayakampatti lake and Allikuttai lake, sanction has been accorded for an estimated cost of Rs.23 crore, Rs.19 crore and Rs.10 crore respectively under Infrastrucutre and Amenities fund. Works will be commenced shortly.

VI. ERODE CORPORATION

Erode corporation was established on 01.01.2008. The area of the corporation is 109.52 sq km. The population as per 2011 census was 4,98,121 and the present population is about 6 lakh. The average annual income of the corporation is Rs.176.92 crore inclusive of tax, non-tax and devolution grants.

Water Supply: Water supply source of the city is Cauvery river, from which 83.00 MLD of water is drawn. Total water requirement of the city is

79.20 MLD and the supplied quantity is 79.20 MLD. Out of 1,69,912 households, 1,05,000 are provided with house service connection.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 50.55 MLD. Nearly 5 MLD of sewage is generated and currently it is disposed into Cauvery River after treatment. Totally 17,557 UGD service connections have been given so far out of 1,69,912 households. Of the total 60 wards, UGSS is available in 34 wards and work is ongoing in 19 wards.

Solid Waste Management: Total solid waste generated in the city is around 200 TPD, of which nearly 90 TPD is wet waste and balance is dry waste. Totally 24 micro composting centres for processing wet waste and 3 resource recovery centre for processing dry waste are available.

Roads: The city has around 800 km of roads. Continuous efforts are being taken to improve the roads. 70 km length of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 45 km of roads during the year 2023-24.

Streetlights: The city has 23,721 streetlights. Additionally, 5,431 streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.53.25 crore), vacant land tax (Rs.7.15 crore), profession tax (Rs.12.25 crore), water charges (Rs.7.28 crore) and non-tax revenue (Rs.9.82 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Construction of a new bus stand at Solar at an estimated cost of Rs.63.50 crore with the

financial assistance under I&A fund is in progress.

- 32 solid waste management and water supply related works have been taken up at a cost of Rs.27.27 crore under 15th Finance Commission grant.
- Two material recovery facilities, four micro compost centres have been taken up at an estimated cost of Rs.10.80 crore under SBM (U) 2.0 and are in progress.
- Two water bodies rejuvenation works have been taken up at an estimated cost of Rs.1.58 crore and are in progress.
- 13 works are under progress at an estimated cost of Rs.446.11 crore for various sectors like UGSS, ICC, Perumpallam Odai, market, bus terminal, complex under Smart Cities Mission.

VII. TIRUPPUR CORPORATION

Tiruppur corporation was established on 01.01.2008. The area of the corporation is 159.35 sq km. The population as per 2011 census was 8,77,778 and the present population is around 13.90 lakh. The average annual income of the corporation is Rs.310.43 crore inclusive of tax, non- tax and devolution grants.

Water Supply: The city has 2 water supply sources, from which 135 MLD of water is drawn. Total water requirement of the city is 189 MLD and the total supplied quantity is 135 MLD. Out of the total 3,15,732 households, 1,27,062 are provided with house service connections. Works are in progress to provide additional 1,05,000 house service connections before July, 2023.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant (STP) with a

capacity of 15 MLD. Nearly 8.2 MLD of sewage is generated and disposed into Nallaru Odai after treatment. Totally 54,339 service connections have been given so far out of 3,15,732 households. Works are in progress to cover an additional 36,800 households before July, 2023. Out of the total 60 wards, UGSS is available in 22 wards and works are on-going in 16 wards. To cover the balance wards, DPR is prepared at an estimated cost of Rs.200 crore.

Solid Waste Management: Total solid waste generated in the city is around 700 TPD of which nearly 320 TPD is wet waste and balance is dry waste. Totally 26 micro composting centres, for processing wet waste and 4 resource recovery centre, for processing dry waste are available.

Roads: The city has around 1,400 km of roads. Continuous efforts are being taken to improve the roads in the corporation. In this aspect, 190 km of roads have been laid during the years

2021-22 and 2022-23. A total of 171 km of roads are proposed for relaying and improvement during the year 2023-24.

Streetlights: The city has 35,213 existing streetlights. It has been proposed to install 8,681 new streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.100.8 crore), vacant land tax (Rs.10.11 crore), profession tax (Rs.3.42 crore), water charges (Rs.19.7 crore) and non-tax revenue (Rs.16.20 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- The implementation of a dedicated water supply scheme with river Bhavani as source, at an estimated cost of Rs.992.40 crore, under AMRUT is in progress and is expected to be completed by May 2023.

- An UGSS scheme is under implementation at an estimated cost Rs.525 crore under AMRUT, to cover 16 wards and 14,230 households and is expected to be completed by July 2023.
- To restore 385 damaged roads, restoration works have been taken up at a cost of Rs.70.00 crore under TURIP (phase I & II) during the financial year 2021-22.
- 2 works have been taken up at a cost of Rs.0.51 crore under SBM 2.0 in the year 2021-22 and are in progress.
- 2 works have been taken up at a cost of Rs.1.05 crore under AMRUT 2.0 for water body rejuvenation in the year 2021-22 and works are under progress.
- 4 new bridges at a total cost of Rs.36.30 crore across Noyyal river, to improve road connectivity have been taken up under Infrastructure and Amenities fund

(I&A) for the year 2022-23. The works are under progress.

- A new bus stand at Kovilvazhi is sanctioned with the financial assistance under Infrastructure and Amenities fund (I&A) for the year 2022-23 at a cost of Rs.26 crore to improve bus commutation facilities in the city. The work is under progress.
- Improvement to 12.96 km of damaged roads has been taken up under TURIP at a cost of Rs.9.95 crore for the year 2022-23. The works are under progress.
- Relaying of a total length of 59.51 km of roads has been sanctioned under NSMT at a cost of Rs.21 crore for the year 2022-23. The works are under progress.

VIII. THOOTHUKUDI CORPORATION

Thoothukudi corporation was established on 05.08.2008. The area of the corporation is 90.66 sq km. The population as per 2011 census was 3,72,408 and the present population is around 5 lakh. The average annual income of the corporation is Rs.146.75 crore inclusive of tax, non-tax and devolution grants.

Water Supply: Water supply source of the city is Tamirabarani, from which 67 MLD of water is drawn. Total water requirement of the city is 66.20 MLD and supplied quantity is 66.20 MLD. Out of 1,52,673 households, 88,168 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 28 MLD. Nearly 9 MLD of sewage is generated and currently, it is disposed into a nearby canal after treatment. Totally

9,427 service connections have been given so far, out of 1,52,673 households. Out of the total 60 wards, UGSS is available in 27 wards and work is ongoing in 8 wards. An amount of Rs.137 crore has been additionally sanctioned under AMRUT 2.0 to provide UGSS to left out areas (5 wards).

Solid Waste Management: Total solid waste generated in the city is around 180 TPD, of which nearly 100 TPD is wet waste and balance is dry waste. Totally 16 micro composting centres for processing wet waste and 2 resource recovery centres for processing dry waste, are available.

Roads: The city has around 665 km of roads. Continuous efforts are being taken to improve the roads. In this direction, 188 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 78 km of roads during the year 2023-24.

Streetlights: The city has 18,222 existing streetlights. Additional 2,887 streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.51.13 crore), vacant land tax (Rs.8.43 crore), profession tax (Rs.9.27 crore), water charges (Rs.39.56 crore) and non-tax revenue (Rs.8.80 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Stormwater drains to a length of 43.50 km at a cost of Rs.45.19 crore have been taken up under I&A fund and works are under progress.
- Improvement of roads to a length of 44.38 km have been taken up under TURIP at a cost of Rs.34.50 crore and works are under progress.
- An amount of Rs.37.43 crore has been sanctioned for providing energy efficient

streetlights, road works, solid waste management works and water supply works under 15th CFC grant.

New Projects Sanctioned:

- In order to mitigate the inundation of areas of north zone, stormwater drains (SWD) to a length of 36.36 km, at an estimated cost Rs.82.98 crore, has been sanctioned under ADB funding. The work will be commenced shortly.
- With the view to cover some added areas of the corporation, administrative sanction for implementation of UGSS has been accorded at a cost of Rs.137 crore. The implementation will be taken up by TWAD board.
- 2 rejuvenation of water body works at an estimated cost of Rs.3.03 crore under AMRUT 2.0 are in progress.

IX.VELLORE CORPORATION

Vellore corporation was established on 01.08.2008. The area of the corporation is 87.915 sq km. The population as per 2011 census was 5,04,079 and the present population is around 6.04 lakh. The average annual income of the corporation is Rs.223.08 crore inclusive of tax, non-tax and devolution grants.

Water Supply: The city has 11 water supply sources, from which 62 MLD of water is drawn. Total requirement of water supply for the city is 61.50 MLD and supplied quantity is 61.50 MLD. Out of 1,49,261 households, 63,401 are provided with house service connections.

Underground Sewerage Scheme (UGSS): Out of the total 60 wards, UGSS is available in 14 wards and it is ongoing in 34 wards. The city has one sewage treatment plant with a capacity of 10.28 MLD. Nearly 7.50 MLD of sewage is treated

and disposed into Velavadieri at Rangapuram after treatment. Totally 4,990 service connections have been given so far out of 1,49,261 households.

Solid Waste Management: Total solid waste generated in the city is around 241 TPD, of which nearly 128 TPD is wet waste and balance 113 TPD is dry waste. Totally 50 micro composting centres for processing wet waste and one resource recovery centre for processing dry waste are available.

Roads: The city has around 565 km of roads. Continuous efforts are being taken to improve the roads. In this direction, 120 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 87 km of roads during the year 2023-24.

Streetlights: The city has a total number of 28,600 streetlights. Additional 653 streetlights will be installed during the year 2023-24.

Own Source of Revenue: Property tax (Rs.64.41 crore), vacant land tax (Rs.8.91 crore), profession tax (Rs.10.94 crore), water charges (Rs.39.13 crore) and non-tax revenue (Rs.24.23 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Under AMRUT/ADB funding implementation of UGSS in two phases is under progress at an estimated cost of Rs.379.55 crore and Rs.311.36 crore respectively. The implementation is in advanced stage and expected to be completed by July 2023.
- Water supply improvement scheme at an estimated cost of Rs.234.93 crore under AMRUT has been sanctioned and is nearing

completion stage. On completion, water supply will be given daily in all wards.

- To restore 200 damaged roads (length 34.52 km), restoration works have been taken up at an estimated cost of Rs.24.60 crore under TURIP and 15th CFC grant.
- Rs.85.00 lakh has been sanctioned for construction of material recovery facility under SBM 2.0.
- Rs.2.25 crore for rejuvenation of 2 water bodies has been sanctioned under AMRUT 2.0.
- Under Smart Cities Mission, 13 number of works are in progress at an estimated cost of Rs.279.50 crore.

X. THANJAVUR CORPORATION

Thanjavur corporation was established on 19.02.2014. The area of the corporation is 36.31 sq km. The population as per 2011 census

was 2,22,934 and the present population is around 2.45 lakh. The average annual income of the corporation is Rs.101.70 crore inclusive of tax, non-tax and devolution grants.

Water Supply: The source of water supply is from Kollidam river, from which 24.00 MLD of water is drawn. Total water requirement of the city is 30.00 MLD and the total supplied quantity is 27.50 MLD. Out of 48,829 households, 29,656 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with the capacity of 28.05 MLD. Nearly 14.05 MLD of sewage is treated and currently it is disposed into Vadavaru river. Totally 24,682 service connections have been given so far out of 48,829 households.

Solid Waste Management: Total solid waste generated in the city is 107 TPD of which, 64 TPD is wet waste and 43 TPD is dry waste. Totally, 10 micro composting centres are available for processing wet waste.

Roads: The city has 358.17 km of roads. Continuous efforts are being made to improve damaged roads. 55.7 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to improve 60 km of damaged roads during the year 2023-24.

Streetlights: The city has 13,486 streetlights. All are in good condition.

Own Source of Revenue: Property tax (Rs.26.62 crore), vacant land tax (Rs.4.88 crore), profession tax (Rs.6.78 crore), water charges (Rs.8.05 crore), UGSS charges (Rs.11.60 crore) and non-tax revenue (Rs.16.47 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- The underground sewerage scheme for left out areas of the corporation at an estimated cost of Rs.99.60 crore under Smart Cities Mission is in progress.
- The water supply improvement scheme at an estimated cost of Rs.204.46 crore under Smart Cities Mission is in progress.
- Seventy eight works at an estimated cost of Rs.27.53 crore, under 15th CFC grant are in progress.
- Construction of 8 urban health and wellness centers and city public health laboratory at an estimated cost of Rs.2.22 crore under 15th CFC are under progress.
- 112 km of BT, paver block and CC roads at an estimated cost of Rs.151.73 crore have been sanctioned under Smart Cities Mission, TURIP and 15th CFC grant.

- Construction of a commercial complex at Gandhiji Road at an estimated cost of Rs.15 crore under Smart Cities Mission is nearing completion.
- Construction of a commercial complex at Annasalai at an estimated cost of Rs.3.00 crore and convention centre at an estimated cost of Rs.60.00 crore have been taken up under Smart Cities Mission and works are nearing completion.

XI. DINDIGUL CORPORATION

Dindigul corporation was established on 19.02.2014. The area of the corporation is 14.01 sq km. The population as per 2011 census was 2,07,225 and the present population is around 2.26 lakh. The average annual income of the corporation is Rs.95.06 crore inclusive of tax, non-tax and devolution grant.

Water supply: Water supply sources of the city are Aathoor dam and river Cauvery, from which 19.65 MLD of water is drawn. Total water requirement of the city is 29.03 MLD and the total supplied quantity per day is 19.20 MLD. Out of 46,416 households, 31,906 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 13.65 MLD. Nearly 3.5 MLD of sewage is generated and after treatment the treated used water is supplied to M/s Talco-Dindigul Tanners for dilution purpose. Totally 11,686 service connections have been given so far, out of 46,416 households. Of the total 48 wards, UGSS (phase-I) coverage is there in 13 wards fully and 13 wards partially. In phase-II, it has been proposed to cover 22 wards and left out areas of phase-I.

Solid Waste Management: Total solid waste generated in the city is around 92 TPD of which, nearly 50 TPD is wet waste and balance is dry waste. Totally 9 micro composting centres for processing wet waste are available.

Roads: The city has around 256 km of roads. Steps are being taken to improve roads. In this direction, 32.93 km of roads have been laid during the years 2021-22 and 2022-23. A total length of 37.89 km roads at an estimated cost of Rs.19.68 crore have been taken up under CGF. 16 roads with length of 3.57 km have been taken up under 15th CFC grant at an estimated cost of Rs.0.93 crore. Under NSMT, it has been proposed to take up 21.13 km of roads at an estimated cost of Rs.6.73 crore.

Streetlights: The city has 6,791 streetlights. It has been planned to install 869 additional energy efficient streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.28.42 crore), vacant land tax (Rs.0.47 crore), profession tax (Rs.3.07 crore), water charges (Rs.17.31 crore) and non-tax revenue (Rs.11.58 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Restoration of 143 damaged roads to a length of 17.59 km at an estimated cost of Rs.11 crore and construction of steel market and weekly market at an estimated cost of Rs.15 crore under Capital Grant Fund are in progress.
- A sum of Rs.6.55 crore has been sanctioned for conversion of streetlights into energy efficient lights and for providing new energy efficient streetlights under 15th Finance Commission untied grant. The works are in progress.

- A sum of Rs.10 crore has been sanctioned under SBM 2.0 for removal of additional legacy waste through bio-mining process and construction of 3 material recovery facilities, each of 10 TPD capacity.
- An amount of Rs.2.50 crore has been sanctioned for construction of knowledge centre and the work will be completed shortly.

New Projects:

- Rejuvenation of 2 water bodies have been taken up at an estimated cost of Rs.2.34 crore under AMRUT 2.0.
- To rejuvenate the existing combined water supply scheme maintained by TWAD Board, an amount of Rs.49.07 crore has been sanctioned and Rs.20 crore has been allocated as first installment under CGF 2022-23.

- In order to provide UGSS to uncovered areas and leftout wards in the corporation, a DPR has been prepared for Rs.209 crore. The process of financial tie-up under AMRUT 2.0 and EAP is under progress.
- Construction of stormwater drains at an estimated cost of Rs.19.68 crore has been sanctioned under CGF 2022-23.

XII. HOSUR CORPORATION

The Hosur corporation was established on 01.03.2019. The area of the corporation is 72.41 sqkm. The population as per 2011 census was 2,45,354 and the present population is around 3.80 lakh. The average annual income of the corporation is Rs.120.91 crore inclusive of tax, non-tax revenue and devolution grants.

Water Supply: The main water supply source of the city is Hogenakkal water supply scheme, from which an average of 10 MLD of water is

drawn. Total water requirement of the city is 27 MLD and the total supplied quantity is 27 MLD. Out of 1,08,491 households, 38,636 are provided with house service connections.

Underground Sewerage Scheme (UGSS):

Administrative sanction has been accorded for Rs.574.96 crore under AMRUT 2.0. It is proposed to cover 26 wards (fully) and 12 Wards (partly) in Phase-I out of total 45 wards, and the remaining areas in Phase-II.

Solid Waste Management: Total solid waste generated in the city is around 114 TPD, of which nearly 65 TPD is wet waste and balance is dry waste. There are 11 micro composting centres for processing wet waste and 2 resource recovery centres for processing dry waste. Works on 3 RRCs and 2 material recovery facilities are under progress, and will be completed shortly.

Roads: The city has 635.25 km of roads. Continuous efforts are being made to improve roads. In this direction, 32.57 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to improve and relay 25 km of roads during the year 2023-24.

Streetlights: The city has 13,234 streetlights. It is planned to install 3,000 new streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.43.98 crore), vacant land tax (Rs.9.31 crore), profession tax (Rs.10.69 crore), water charges (Rs.9.33 crore) and non-tax revenue (Rs.11.90 crore) are the main sources of the corporation's own revenue.

Major ongoing projects

- A shopping complex at a cost of Rs.19.50 crore has been sanctioned under CGF, and work has commenced.

- At a cost of Rs.33.98 crore rejuvenation of four lakes namely, Kalkeri Eri, Karnoor Eri, Anthivadi Eri, Ramanaikken Eri, and the interlinking channel of 4 km are sanctioned under the TNSUDP (Model City), and works have commenced.
- An amount of Rs.6.95 crore has been sanctioned for 15 works under 15th CFC grant.

New Projects Sanctioned:

- An amount of Rs.30.00 crore has been sanctioned for construction of bus stand under the Infrastructure and Amenities fund.
- Implementation of UGSS for core city is proposed to be taken up at an estimated cost of Rs.574.96 crore under AMRUT 2.0. The implementation of the project will be taken up by the TWAD Board.

XIII. NAGERCOIL CORPORATION

Nagercoil corporation was established on 01.03.2019. The area of the corporation is 63.15 sqkm. The population as per 2011 census was 2,89,916 and the present population is around 3.87 lakh. The average annual income of the corporation is Rs.107.95 crore inclusive of tax, non- tax and devolution grants.

Water Supply: Water supply source of the city is from Mukkadal dam, from which 21.00 MLD of water is drawn. Total water requirement of the city is 24.65 MLD and the total supplied quantity is 24.65 MLD. Out of 99,396 households, 47,055 provided with house service connections.

Underground Sewerage Scheme (UGSS): UGSS is under implementation in Nagercoil corporation including one sewage treatment plant

of 17.77 MLD capacity. Efforts are being taken to complete the pending works at the earliest. On completion of this scheme, 15,575 service connections will be effected and the sewage will be conveyed to the STP and the treated water will be disposed into Thengamputhoor ayacut after treatment. On completion of the project, out of total 52 wards, 18 wards will be fully covered and 17 wards will be partially covered. For the remaining wards, investigation and project preparation works is in progress.

Solid Waste Management : Total solid waste generated in the city is around 150 TPD, of which nearly 90 TPD is wet waste and balance is dry waste. Totally 11 micro composting centres for processing wet waste and 3 resource recovery centres for processing dry waste are available.

Roads: The city has around 900 km of roads. Steps are being taken to improve the roads. In

this direction, 118 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 103 km of roads during the year 2023-24.

Streetlights: The city has 19,891 streetlights. It is planned to install additional 1,046 energy efficient streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.34.46 crore), vacant land tax (Rs.2.67 crore), profession tax (Rs.6.53 crore), water charges (Rs.6.63 crore) and non-tax revenue (Rs.8.65crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- A water supply improvement scheme is under implementation by TWAD Board at a cost of Rs.296.08 crore under AMRUT and is expected to be completed by July 2023.

After completion, the new scheme will supply 40 MLD of water to more than 80,000 households.

- UGSS is under implementation by TWAD Board at an estimated cost of Rs.129.94 crore and is expected to be completed by May 2023. On completion of this scheme, 15,575 house service connections will be given. The treated water will be safely disposed into the Thengamputhoor Ayacut.
- 148 damaged roads to the length of 48.32 km have been taken up for restoration at an estimated cost of Rs.29.99 crore under TURIP and works are in progress.
- A sum of Rs.7.85 crore is allocated for renovation of three existing bus stands in Nagercoil under CGF and work is progressing and will be completed by April 2023.

- A sum of Rs.11.50 crore has been allocated under the CGF scheme for various infrastructure development projects such as construction of knowledge centre at a cost of Rs.2.50 crore; development of eight parks at a cost of Rs.1.00 crore; redevelopment of urban primary health centre at Krishnankovilat a cost of Rs.2.00 crore; construction of additional building at Thollavilai UPHC at a cost of Rs.1.00 crore; construction of modern commercial complex at Saraloorat a cost of Rs.1.50 crore and construction of stormwater drain with footpath and cycling track facilities along Court road and WCC road for Rs.3.50 crore.
- 40 roads of 21 km length have been taken up at an estimated cost of Rs.27.50 crore under CGF.
- A sum of Rs.77.60 lakh has been allocated for the rejuvenation of two water bodies

viz. Surya Nagar Kulam and Bethesta Kulam under AMRUT 2.0.

- Sanction has been given under National Urban Health Mission 2022-23 for construction of urban primary health centre at Vadiveeswaramat an estimated cost of Rs 1.20 crore.

XIV. AVADI CORPORATION

Avadi corporation was established on 17.06.2019. The area of the corporation is 65.00 sq km. The population as per 2011 census was 3,44,701 and the present population is around 5.63 lakh. The average annual income of the corporation is Rs.108.17 crore inclusive of tax, non-tax and devolution grants.

Water Supply: The city has one water supply source from which 18.5 MLD of water is supplied. Total water requirement of the city is 76.05 MLD. The balance demand is met by local

ground water sources. Out of 82,557 households, 3,886 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has 2 sewage treatment plants with a total capacity of 40 MLD. Nearly 5.6 MLD of sewage is generated and currently it is disposed into Cooum river after treatment. Totally 5,567 service connections have been given so far, out of 82,557 households. Of the total 48 wards, UGSS is available in 47 wards (partially).

Solid Waste Management: Total solid waste generated in the city is around 180 TPD, of which nearly 90 TPD is wet waste and balance is dry waste. Totally 15 micro composting centres for processing wet waste and one resource recovery centre for processing dry waste are available.

Roads: The city has 718 km of roads. Steps are being taken up to improve roads. In this direction, 79.21 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 94.08 km of roads during the year 2023-24.

Streetlights: The city has 21,538 streetlights. It is planned to install additional 4,445 energy efficient streetlights in the year 2023-24 at an estimated cost of Rs.7.91 crore.

Own Source of Revenue: Property tax (Rs.37.23 crore), vacant land tax (Rs.15.17 crore), profession tax (Rs.5.61 crore), water charges (Rs.1.00 crore) and non-tax revenue (Rs.1.35 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Water supply internal plumbing work for providing nearly 32,700 house service

connections at an estimated cost of Rs.16.10 crore is in progress.

- UGSS pipeline to un-sewered areas at an estimated cost of Rs.3.50 crore under SFC grant is in progress.
- Rejuvenation of two water bodies at an estimated cost of Rs.1.47 crore under AMRUT 2.0 is in progress.
- Restoration of 149 damaged roads to a length of 30.07 km have been taken up at a cost of Rs.17.10 crore under TURIP.
- An amount of Rs.14.19 crore has been sanctioned for conversion of conventional streetlights into energy efficient lights under State Urban Infrastructure Development Fund (SUIDF).
- Construction of stormwater drains for a length of 3.70 km at an estimated cost of Rs.11.80 crore under SDRF are in progress and will be completed shortly.

- Construction of cut and cover stormwater drain for a length of 2.61 km at an estimated cost of Rs.21.90 crore under NABARD loan assistance and 50% under Capital Grant Fund is in progress.

New Projects:

- To provide 135 LPCD of drinking water, a detailed project report has been prepared for an estimated cost of nearly Rs.417 crore. The appraisal and financial tie up is in progress.
- To cover the partially seweraged wards and un-seweraged wards, a DPR for provision of UGSS has been prepared at a cost of Rs.980 crore and it is proposed to take up in phase I, to utilize the constructed two STPs fully, at an estimated cost of Rs.113.54 crore.
- Construction of stormwater drains to the length of 7.30 km at an estimated cost of

Rs.32.60 crore has been sanctioned under SDRF.

XV. TAMBARAM CORPORATION

Tambaram corporation was established on 03.11.2021. The area of the corporation is 87.64 sqkm. The population as per 2011 census was 7,23,017 and the present population is around 10.11 lakh. The average annual income of the corporation is Rs.305.85crore inclusive of tax,non-tax and devolution grants.

Water Supply: The city has five water supply sources from which 61.95 MLD of water is being drawn. Total water requirement of the city is 118 MLD and the quantity supplied is 61.95 MLD. Out of 2,52,830 households, 73,913 are provided with house service connections

Underground Sewerage Scheme (UGSS): The city has a sewage treatment plant (STP) at Tambaram with a capacity of 30 MLD. In addition

to that 12 MLD of sewage from Pallavaram is being pumped into the sewage treatment plant of CMWSSB at Perungudi. Totally 41,489 service connections have been given so far, out of 2,52,830 households. Of the total 70 wards, UGSS is available in 35 wards and work is in progress in 11 wards.

Solid Waste Management: Total solid waste generated in the city is around 400 TPD, of which nearly 160 TPD is wet waste and balance is dry waste. Totally 26 micro composting centres for processing wet waste and 6 resource recovery centre for processing dry-waste are available.

Roads: The city has 991.64 km of roads. Continuous efforts are being made to improve roads. In this direction, 56.46 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 50 km of roads during the year 2023-24.

Streetlights: The city has 42,902 streetlights. It is planned to convert 37,803 streetlights into energy efficient lights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.135.62 crore), vacant land tax (Rs.9.86 crore), profession tax (Rs.22.54 crore), water charges (Rs.16.15 crore) and non-tax revenue (Rs.4.23 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- An amount of Rs.31.63 crore has been sanctioned for purchase of vehicles for solid waste management, water supply improvement scheme and construction of urban health centres and laboratory under 15th CFC grant.

- Rejuvenation of three water bodies at an estimated cost of Rs.1.69 crore under AMRUT 2.0 is in progress.
- An amount of Rs.9.90 crore has been sanctioned under TURIP for restoration and improvement of 78 damaged roads, for a length of 12.42 km.
- An amount of Rs.48.33 crore has been sanctioned for conversion of existing streetlights into energy efficient lights under State Urban Infrastructure Development Fund (SUIDF).

New Projects:

- A DPR is being prepared for comprehensive UGSS to the added areas of Tambaram corporation. The DPR is expected to be ready by December 2023.
- Construction of stormwater drains to the length of 11.53 km has been sanctioned at

an estimated cost of Rs.37.40 crore under SDRF fund.

- An amount of Rs.10 crore has been sanctioned for the construction of a new office building for the corporation.
- Two gasifier crematoriums at an estimated cost of Rs. 5.00 crore, one knowledge centre at an estimated cost of Rs.1.50 crore and shopping complex at an estimated cost of Rs.1.00 crore have been sanctioned under CGF and projects are in progress.
- 17 numbers of roads have been sanctioned at an estimated cost of Rs.1.60 crore under KNMT and are under progress.
- A park, one crematorium and one daily market have been sanctioned at an estimated cost of Rs.3.94 crore and the projects are under progress.

XVI. KANCHEEPURAM CORPORATION

Kancheepuram corporation was established on 21.10.2021. The area of the corporation is 36.14 sqkm. The population as per 2011 census was 2,32,816 and the present population is around 2.84 lakh. The average annual income of the corporation is Rs. 87.30 crore inclusive of tax, non-tax and devolution grants.

Water Supply: Water supply source of the city is Palar river, from which 23.50 MLD of water is supplied. Total water requirement of the city is 31.43 MLD. Out of 51,186 households, 32,620 have been provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 14.70 MLD. Nearly 14.70 MLD of sewage is generated and the treated water is disposed into Nathapettai lake. Totally,

21,201 service connections have been given so far, out of 51,186 households. Out of the total 51 wards, UGSS is available in 36 wards.

Solid Waste Management: Total solid waste generated in the city is around 100 TPD, of which nearly 50 TPD is wet waste and balance 50 TPD is dry waste. Totally, 4 micro composting centres are available for processing wet waste.

Roads: The city has 379 km of roads. Continuous efforts are being made to improve damaged roads. In this direction, 30.94 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 27.50 km of roads during year 2023-24.

Streetlights: The city has 12,276 streetlights. It is planned to install additional 709 energy efficient streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.23.44 crore), vacant land tax (Rs.4.42 crore), profession tax (Rs.3.59 crore), water charges (Rs.8.34 crore) and non-tax revenue (Rs.6.37 crore) are the main sources of own revenue of the corporation.

Major Ongoing Projects

- Water supply improvement works, solid waste management, wellness centres and road works, at an estimated cost of Rs.10.19 crore under 15th CFC is in progress.
- Construction of knowledge centre at an estimated cost of Rs.2.50 crore under KNMT.
- Construction of Rajaji and Jawaharlal Nehru market at an estimated cost of Rs.11.60 crore under KNMT.
- Conversion of conventional streetlights into energy efficient streetlights at an estimated cost of Rs.12.51crore under SUIDF.
- A new office building for the corporation at

an estimated cost of Rs.10.00 crore under special fund.

- A new gasifier crematorium at an estimated cost of Rs.2.00 crore under NNT.
- Bio-mining of existing legacy waste in the Nathepattei compost yard at an estimated cost of Rs.2.07 crore under SBM 2.0.
- Four material recovery facility centres with a total capacity of 20 MT at an estimated cost Rs.1.70crore under SBM 2.0.
- Two micro composting centres with a total capacity of 10 MT, at an estimated cost of Rs.1.15 crore under SBM 2.0.
- Rejuvenation of two water bodies (Upperi Kulam and Orikkai Lake) at an estimated cost Rs.1.06 crore under AMRUT 2.0.
- Construction of six community and public toilets at an estimated cost of Rs.1.56 crore under SBM 2.0. are in progress.

New Projects:

- A DPR, to improve the existing water supply scheme has been prepared at an estimated cost of Rs.298.60 crore.
- A DPR for provision of UGSS to un-sewered areas of the corporation has been prepared at an estimated cost of Rs.339.08 crore.
- Restructuring and strengthening of Manjalneer canal sanctioned at an estimated cost of Rs.40.00 crore under I&A fund.
- Widening and strengthening of the existing road from Kavalangate to Sevilimedu and a bridge across Vegavathi river is sanctioned at an estimated cost of Rs.5.00 crore under I&A fund.

XVII. CUDDALORE CORPORATION

Cuddalore corporation was established on 08.10.2021. The area of the corporation is 27.69 sq km. The population as per 2011 census

was 1,73,636 and the present population is around 1.98 lakh. The average annual income of the corporation is Rs.111.97 crore inclusive of tax, non- tax and devolution grants.

Water Supply: Water supply of the city is from four sources, from which 17.85 MLD of water is drawn. Total water requirement of the city is 26.86 MLD. Out of 49,515 households, 11,517 have been provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 12.25 MLD. Nearly, 6 MLD of sewage is generated and being treated and disposed scientifically. Totally 9,400 service connections have been given so far, out of 49,515 households. Of the total 45 wards, UGSS is available in 33 wards.

Solid Waste Management: Total solid waste generated in the city is 59.40 TPD, of which 29.70 TPD is wet waste and 29.70 TPD is dry waste. 3 micro composting centres for processing wet waste and one resource recovery centre for processing dry waste are available.

Roads: The city has 313.75 km of roads. Steps are being taken to improve roads. In this direction, 83.04 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 20 km of roads during the year 2023-24.

Streetlights: There are 8,570 streetlights in the city. It is planned to convert all conventional streetlights into energy efficient lights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.35.48 crore), vacant land tax (Rs.4.05 crore), profession tax (Rs.4.05 crore), water charges

(Rs.4.47 crore) and non-tax revenue (Rs.30.94 crore) are the main sources of own revenue of the corporation.

Major Ongoing Projects

- Restoration of 52 numbers of damaged roads (15.9 km) at an estimated cost of Rs.8.46 crore has been sanctioned under TURIP, 2022-23.
- Conversion of 8,570 numbers of streetlights into energy efficient lights at a cost of Rs.8.80 crore has been sanctioned under SUIDF.
- An amount of Rs.17.90 crore has been sanctioned under KNMT 2022-23 for the construction of Old Town Bakthavatchalam market, Manjakuppam Anna Market and Thirupapuliyur Panpari market.
- Rs.0.74 crore has been sanctioned under Swachh Bharat Mission 2.0 to dispose the legacy waste through bio-mining and to

reclaim the land at Kammiyampettai yard by processing 11,673 cumtof legacy waste.

- Rs.0.85 crore has been sanctioned under Swachh Bharat Mission 2.0 for construction of materials recovery facilities.
- Rs.1.45 crore has been sanctioned for 4 water supply works under 15th CFC grant.
- Rs.0.97 crore has been sanctioned for construction of 3 urban health wellness centers and construction of one city public health laboratory under 15th CFC grant.
- Rs.10.00 crore has been sanctioned under special grant for construction of four zonal office buildings.
- Rs.0.94 crore has been sanctioned under AMRUT 2.0 for rejuvenating 2 water bodies.
- Rs.1.05 crore has been sanctioned under Namakku Naame Thittam 2022-23 for the projects of maintenance of crematorium, construction of tennis court and for purchase of decanting machine.

- Rs.14.45 crore has been sanctioned under State Disaster Relief Fund (SDRF), 2022-23 for construction of stormwater drains for a length of 17.60 km.

New Project:

- It is proposed to provide UGSS to uncovered areas of 12 wards and leftout areas of existing 33 wards. A DPR has been prepared at an estimated cost of Rs.185.30 crore and financial tie up is being made.

XVIII. KUMBAKONAM CORPORATION

Kumbakonam corporation was established on 24.12.2021. The area of the corporation is 14.68 sq km. The population as per 2011 census was 1,55,482 and the present population is around 1.98 lakh. The average annual income of the corporation is Rs.79.28 crore inclusive of tax, non-tax and devolution grants.

Water Supply: River Cauvery is the main water supply source of the city, from which 20.58 MLD of water is supplied. Total water requirement of the city is 20.58 MLD and is being supplied. Out of 34,140 households, 18,364 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 17 MLD. Nearly, 13 MLD of sewage is generated and it is disposed into Karikulam after treatment. Totally 20,407 service connections have been given so far, out of 34,140 households. Of the total 48 wards, UGSS is available in 43 wards.

Solid Waste Management: Total solid waste generated in the city is 78TPD, of which 42 TPD is wet waste and 36 TPD dry waste. Totally, 5 micro composting centres for processing wet waste and

one resource recovery centre for processing dry waste are available.

Roads: The city has 180.97 km of roads. Steps are being made to improve damaged roads. In this direction, 54.14 km length of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 10 km of roads during the year 2023-24.

Streetlights: The city has 5,710 streetlights. It is planned to install additional 223 energy efficient streetlights in the year 2023-24.

Own Source of Revenue: Property tax (Rs.23.20 crore), vacant land tax (Rs.0.48 crore), profession tax (Rs.1.50 crore), water charges (Rs.1.10 crore) and non-tax revenue (Rs.1.57 crore) are the main sources of own revenue of the corporation.

Major Ongoing Projects

- Development of parks and green spaces at an estimated cost of Rs.0.48 crore, improvement of TB Kulam at an estimated cost of Rs.1.26 crore and Thamarai Kulam at an estimated cost of Rs.1.17 crore, construction of modern gasifier crematorium at Anaikaranpalayam at an estimated cost of Rs.1.50 crore and conversion of earthen roads to BT roads to the length of 3.62 km at an estimated cost of Rs.3.83 crore have been sanctioned under KNMT and projects are in progress at various stages.
- Construction of retaining toe wall, desilting and provision of slab at both sides of Olaipattinam Canal has been sanctioned under Infrastructure and Amenities fund 2022-23 at an estimated cost of Rs.13.98 crore.

- Construction of shopping complex at Nageswaran Thirumanjana Veethi under Capital Grant Fund, 2021-22, at an estimated cost of Rs.1.60 crore.
- Rs.20.00 crore has been sanctioned under TURIP 2021-22 for taking up improvement of roads, damaged due to water supply and underground drainage scheme works.
- Rs.10.00 crore has been sanctioned under TURIP 2022-23 for taking up improvement of roads, damaged due to water supply and underground drainage scheme.
- Construction of new zonal office building at an estimated cost of Rs.11.40 crore has been sanctioned.

XIX. KARUR CORPORATION

Karur corporation was established on 21.10.2021. The area of the corporation is 53.26 sq km. The population as per 2011 census was 2,14,412 and the present population is

around 2.51 lakh. The average annual income of the corporation is Rs.95.73 crore inclusive of tax, non-tax and devolution grants.

Water Supply: River Cauvery is the main water supply source of the city, from which 33.65 MLD of water is drawn. Total water requirement of the city is 34.01 MLD and the required quantity is being supplied. Out of 81,118 households, 52,445 are provided with house service connections.

Underground Sewerage Scheme (UGSS): The city has one sewage treatment plant with a capacity of 15 MLD. Nearly, 6.5 MLD of sewage is generated and currently it is disposed into Panchamadevi channel after treatment. 17,341 service connections have been given so far, out of 81,118 households. Of the total 48 wards, UGSS coverage is available in 32 wards. A detailed project report has been

prepared for the remaining 16 wards at an estimated cost of Rs. 476.11 crore.

Solid Waste Management: Total solid waste generated in the city is 110 TPD, of which 62 TPD is wet waste and 48 TPD dry waste. Totally, 12 micro composting centres are available for processing wet waste and 2 resource recovery centre for dry waste.

Roads: The city has a total length of 412.24 km of roads. Continuous efforts are being made to improve roads. In this direction, 59.42 km of roads have been laid during the years 2021-22 and 2022-23 and it is proposed to relay 71.5 km of roads during the year 2023-24.

Streetlights: The city has 11,875 streetlights. It is planned to install additional 1,507 energy efficient streetlights during the year 2023-24.

Own Source of Revenue: Property tax (Rs.31.58 crore), vacant land tax (Rs.3.00 crore), profession tax (Rs.3.68 crore), water charges (Rs.11.43 crore) and non-tax revenue (Rs.6.50 crore) are the main sources of corporation's own revenue.

Major Ongoing Projects

- Rs.40.00 crore has been sanctioned for construction of new bus stand at Thirumanilaiyur with financial assistance from Infrastructure and Amenities fund.
- Rs.20.13 crore has been sanctioned under I&A fund for laying of roads and construction of stormwater drainage and works are nearing completion.
- Rs.2.96 crore has been sanctioned under Infrastructure and Amenities fund for formation of the link road.
- Rs.13.00 crore has been sanctioned under Infrastructure and Amenities fund for

improvement of the link road from Mohanur-Vangal road to old NH road.

- Rs.6.75 crore has been sanctioned under KNMT for re-development of Kamaraj daily market.
- Rs.7.50 crore has been sanctioned under SGF for construction of new zonal office building.
- Rs.6.46 crore under KNMT has been sanctioned for construction of fish market at Sungagate and conversion of earthen to BT roads to a length of 5.72 km.
- Rs.9.46 crore has been sanctioned under SUIDF for conversion of 8,849 conventional streetlights into energy efficient lights.
- Rs.8.85 crore has been sanctioned under SBM 2.0 for bio-mining, material recovery facility (MRF) and community toilet at Thanthonikudi street and public toilet at Karur bus stand.

New Projects:

- A DPR for provision of water supply to uncovered areas of the corporation and integration of existing schemes has been prepared at an estimated cost of Rs.116.00 crore.
- A DPR for provision of UGSS to un-sewered areas of the corporation has been prepared at an estimated cost of Rs.476.11 crore.

XX. SIVAKASI CORPORATION

Sivakasi corporation was established on 21.10.2021. The area of the corporation is 19.89 sq km. The population as per 2011 census was 1,26,402 and the present population is around 1.40 lakh. The average annual income of the corporation is Rs.31.32 crore inclusive of tax, non- tax and devolution grants.

Water Supply: Water supply sources of the city are Vembakottai and Manoor CWSS, from which

4.08 MLD of water is drawn. Total water requirement of the city is 12.66 MLD and the total supplied quantity is 8.83 MLD. Out of 44,597 households, 19,233 are provided with house service connections.

Faecal Sludge Treatment Plant (FSTP):

40 KLD capacity FSTP at an estimated cost of Rs.4.86 crore is in progress. On commissioning of this plant, septage/ sludge from the onsite sanitation facilities will be treated and disposed off in a scientific manner.

Solid waste management: Total solid waste generated in the city is 52.70 TPD, of which 31.60 TPD is wet waste and 21.10 TPD is dry waste. Totally, 8 micro composting centres are available for processing wet waste and 4 resource recovery centres for dry waste. Construction work for 2 micro composting centres is under progress.

Roads: The city has 174.91 km of roads and 85.98 km of roads have been laid during the years 2021-22 and 2022-23. Relaying of 43.86 km of roads have been proposed during the year 2023-24.

Streetlights: The city has 4,876 streetlights, out of which 4,423 number of lights have been proposed to be converted into energy efficient lights. In addition to that 638 new energy efficient streetlights have been sanctioned.

Tax Collection:Property tax (Rs.21.84 crore), vacant land tax (Rs.1.23 crore), profession tax (Rs.1.96 crore), water charges (Rs.2.04 crore) and non-tax revenue (Rs.2.31 crore) are the main sources of corporation's own revenue.

Major Projects taken up

- The implementation of Sankarankoil CWSS at a cost of Rs.206.88 crore under

TNSUDPis nearing completion. After completion of the above project, Sivakasi will get additional 16 MLD of water.

- Construction of a new LPG crematorium at an estimated cost of Rs. 1.50 crore and improvement to 3 water bodies at an estimated cost of Rs.3.57 crore under KNMT are in progress.
- 54 works are in progress at an estimated cost of Rs.49.02 crore under Centenary Scheme, 2020-21.
- 30 works at an estimated cost of Rs.5.49 crore under 15th Finance Commission grants are in progress.
- 139 road works are in progress at an estimated cost of Rs.10.48 crore under TURIP, 2022-2023.
- 56 road works in 6 packages are in progress at an estimated cost of Rs.8.34 crore under KNMT, 2022-2023.

- 3 Material Recovery Facilities are in progress at an estimated cost of Rs.2.55 crore under SBM 2.0.
- One public health laboratory and an urban primary health centre have been sanctioned at a total estimated cost of Rs.0.47 crore during 2022-23 and the works are in progress.
- A shopping complex, at an estimated cost of Rs.5.00 crore, has been sanctioned under CGF Grant 2021-2022.
- A knowledge centre, at an estimated cost of Rs.2.61 crore has been sanctioned under KNMT 2022-2023.
- An amount of Rs.10.00 crore has been sanctioned under special fund 2022-2023 for construction of a new office building.

3. GREATER CHENNAI CORPORATION

The Corporation of Chennai was established as a local body on 29th September, 1688. It is the oldest municipal institution in the country and the second oldest in the world. The Greater Chennai Corporation has an area of 426 sq km and a population of 66.72 lakh as per 2011 census and projected population of 87.1 lakh in the year 2022.

For administrative convenience, Greater Chennai Corporation is divided into 15 zones having 200 divisions. These 15 zones are organized into three regions.

Salient features of the Greater Chennai Corporation are given in the table 3.1.

Table 3.1

Area	Population	Households	Zones	Wards/ Divisions	Sanctioned staff
426 sq.km	66.72 lakh (as per 2011 Census) 87.1 lakh* (2022)	13,19,149	15	200	23,917
Roads	Bridges	Stormwater Drains	Streetlights	Schools	Parks
5,657 km	286	2,623.56 km	2.91 lakh	281**	786
Play- fields	UPHC	UHC/ Maternity centres	ICDS/ Balwadis/ Anganwadis	Community toilets	Cremation sheds/ Burial grounds
222	141	16/3	1,806	1,384	211
<p>* Estimated figure</p> <p>** As per G.O.(Ms) No.48, School Education department, dated: 01.03.2022, 139 schools in extended areas will be handed over to Greater Chennai Corporation. Hence, total number of schools will be 281+139=420 from 2023-24 onwards.</p>					

3.1. Infrastructure

3.1.1 Roads

(i) Bus Route Roads and Interior Roads

The Greater Chennai Corporation (GCC) maintains 471 bus route roads, to a length of 387 km and 34,640 interior roads, to a length of 5,270 km.

The maintenance of bus route roads and interior roads is taken up with the grants provided under Tamil Nadu Urban Road Infrastructure Programme (TURIP), Singara Chennai 2.0, Greater Chennai Corporation capital funds and through various Externally Aided Projects.

During the year 2022-23, 452 roads to a length of 78.29 km have been taken up at an estimated cost of Rs.55.61 crore under Singara Chennai 2.0 and works are under progress.

Under TURIP, 705 interior roads to a length of 126.53 km have been taken up at an estimated cost of Rs.69.08 crore and works are under

progress. Another 630 roads will be taken up under this scheme at an estimated cost of Rs.80.45 crore.

Under Nagarpura Salai Mempoattu Thittam (NSMT), 1,366 roads to a length of 219.09 km have been sanctioned in 2022-23 at an estimated cost of Rs.151.00 crore as Phase-I. Further, in Phase-II, Rs. 370.00 crore have been allocated to GCC under this scheme for taking up additional roads. Under SFC funds for the year 2022-23, an amount of Rs.150 crore has been allocated for improvement of roads.

Under Singara Chennai 2.0 during 2022-23, works have been taken up to give facelift to the flyovers by providing fountains, ornamental lightings and vibrant urban green spaces at an estimated cost of Rs.9.47 crore and are in progress.

(ii) Bus Shelters

GCC maintains 1,416 bus shelters built under various schemes, including 637 bus

shelters set up under a Build Operate Transfer (BOT) model. Under Public Private Partnership (PPP) mode, selection of concessionaire is under progress for renovation, operation and maintenance of 844 modern bus shelters of Greater Chennai Corporation on Rehabilitate- Operate-Transfer (ROT) basis for a period of 4 years. Expected revenue generation for the first year is Rs.20.14 crore.

(iii) Traffic Islands and Centre Medians

Greater Chennai Corporation maintains 128 traffic islands and 173 centre medians.

Existing centre medians on main arterial roads will be given a facelift and beautified with ornamental plants by dovetailing Namakku Naame Thittam as well as through adoption by citizen groups.

3.1.2 Bridges

Greater Chennai Corporation maintains 26 major bridges (14 flyovers and 12 railway over

bridges), 16 vehicular subways, 5 pedestrian subways, 5 foot over bridges and 234 minor bridges. Major bridge projects, currently under execution are given in the table 3.2.

Table 3.2

Sl. No	Name of the work	Source of fund	Estimated cost (Rs. in crore)
1	Bridge across Puzhal surplus water canal at Vadaperumbakkam	CMCDM	19.33
2	Skywalk with escalators from Mambalam railway station to T. Nagar bus terminus	Smart Cities Mission	28.45
3	ROB in place of the existing LC-1 at Kolathur - Villivakkam (near ICF gate)	CGF	61.98
4	Reconstruction of a ROB at Elephant Gate road (GCC portion only)	CGF	30.78
5	Demolition and reconstruction of bridge at Stephenson road across Otteri Nullah	CGF	43.46

Sl. No	Name of the work	Source of fund	Estimated cost (Rs. in crore)
6	Retrofitting and rehabilitation of M.K.B Nagar bridge	O & M Gap Filling Fund	1.92
7	Retrofitting and rehabilitation of Vaidyanathan bridge	O & M Gap Filling Fund	5.01
8	Construction of flyover over in the existing subway at Ganesapuram	I & A Fund	142.00
9	Construction of flyover along South Usman road and CIT Nagar 1st main road	I & A Fund	131.00
10	Construction of limited use subway at the level crossing (LC) No.11A at Bojaraja Nagar	CGF	13.41
11	Construction of ROB in lieu of existing LC No. 2B at Manali road	I & A Fund	96.04
12	Construction of bridge across Adambakkam lake at Jeevan Nagar 2nd street	I & A Fund	5.00

Sl. No	Name of the work	Source of fund	Estimated cost (Rs. in crore)
13	Demolition and reconstruction of bridge across Otterinullah connecting AspiranGarden II street and Kilpauk Garden road	I & A Fund	6.20
Total			584.58

Skywalk at Mambalam, LC-1 at Kolathur – Villivakkam bridge and Stephenson road bridge will be brought to public use within a short time.

To facilitate free flow of traffic and provide sustainable traffic management for future, GCC has proposed construction of flyover / bridges at the following 3 locations at an estimated cost of Rs.250.36 crore under the Infrastructure and Amenities (I & A) fund as given in the table 3.3.

Table 3.3

S. No	Name of Work	Source of Fund	Estimated cost (Rs. in crore)
1	Construction of high level bridge across Cooum river connecting Poonamallee High road and Union road at Sannathinagar 1 st cross street	I & A Fund	31.65
2	Construction of high level bridge across Cooum river connecting Poonamallee high road and Union road at Chinna Nolumbur	I & A Fund	42.71
3	Construction of flyover at Valluvar Kottam junction	I & A Fund	176.00
Total			250.36

The construction of flyover at ValluvarKottam junction will be commenced after the land acquisition process is completed.

3.1.3 Stormwater Drains

Greater Chennai Corporation maintains nearly 2,624 km long stormwater drain (SWD) network comprising 11,516 stormwater drain structures, as given in the table 3.4.

Table 3.4

Sl. No.	Zone No.	Zone Name	No. of SWDs	Length of existing SWDs (km)
1	I	Thiruvotriyur	550	98.93
2	II	Manali	421	108.16
3	III	Madhavaram	531	168.57
4	IV	Tondiarpet	423	117.01
5	V	Royapuram	377	119.71
6	VI	Thiru Vi Ka Nagar	586	140.08
7	VII	Ambattur	1299	326.04
8	VIII	Anna Nagar	711	184.36
9	IX	Teynampet	754	177.65
10	X	Kodambakkam	763	214.23
11	XI	Valasaravakkam	1483	282.00
12	XII	Alandur	1267	211.06
13	XIII	Adyar	784	210.50
14	XIV	Perungudi	1255	204.83
15	XV	Sholinganallur	312	60.43
Total			11,156	2,623.56

GCC also maintains 33 canals with a length of 53.42 km, as given in the table 3.5.

Table 3.5

Sl.No	Zone No.	Name of the canal	Length (meter)
1	I	Thamaraikulam canal	500
2	II	Old Napalayam canal	1299
3	II	Thulasi nagar canal	2043
4	II	Manali PudurTNHB canal	1121
5	II	PeriyaEachankuzhi canal	257
6	II	Kadapakkam lake surplus canal	952
7	II	Madhavaram - Manali lake canal	1266
8	IV	Captain Cotton canal	3040
9	IV	Kodungaiyur canal (North)	1150
	IV	Kodungaiyur canal (South)	1675
	IV	Kodungaiyur canal (Main)	2575
10	IV	Link canal	530
11	IV	Vyasarjadi canal	1350
12	IV	Jawahar canal	750

Sl.No	Zone No.	Name of the canal	Length (meter)
13	VI	EKANGIPURAM canal	1530
14	VII	North Avenue canal	2900
15	VII	Ambattur Sidco canal	1320
16	VII	Padikuppam canal	2120
17	VIII	TVS canal	910
18	VII&XI	Nolambur canal	2480
19	IX	Nungambakkam canal	900
20	IX	Nandanam canal	1060
21	IX	Trustpuram canal	1500
22	IX&XIII	Mambalam canal	5800
23	X	Reddykuppam canal	500
24	X	MGR canal	1800
25	X	Jafferkhanpet canal	600
26	XI&XII	Nandambakkam canal	3240
27	XII	Adambakkam canal	927
28	XIII	Chellammal College canal	700
29	XIII	Guindy Industrial Estate canal	1600
30	XIII	Rajbhavan canal	1100
31	XIV	Pallikaranai canal (Mayilai Balaji canal - 1 & 2)	342

Sl.No	Zone No.	Name of the canal	Length (meter)
32	XV	Secretariat colony canal	1084
33	XV	Semmencheri canal	2500
Total			53,421

Chennai city faces the challenge of urban flooding during North East monsoon. Due to efficient planning and construction of stormwater drain infrastructure by Greater Chennai Corporation, the city did not experience any major flooding or inundation during North East monsoon, 2022. The flood mitigation and stormwater drain works were taken up under Singara Chennai 2.0, SDRF and Externally Aided Projects with funding from ADB, KfW and World Bank.

The Kosasthalaiyar Basin Integrated Stormwater Drainage (ISWD) project funded under ADB, addresses the long-pending demand

for stormwater drains in North Chennai to mitigate the risk of flooding during monsoons.

The construction of integrated stormwater drains in the Kosasthalaiyar basin for a length of 769 km at an estimated cost of Rs.3,220 crore is progressing at a good pace. So far, 45% of the work has been completed. Efforts are being made to complete the project expeditiously. About 30 lakh people living in Ambattur, Manali, Madhavaram and Thiruvotriyur Zones will benefit from this project.

With respect to the construction of integrated stormwater drains in Kovalam Basin, at an estimated cost of Rs.1,714 crore in the first phase, work is being carried out to a length of 39.78 km at an estimated cost of Rs.150.45 crore. So far, 15% of the work has been completed. In Phase II, a length of 120.55 km at an estimated cost of Rs.447.03 crore has been taken up. For Phase III projects, the design work is in progress.

About 9 lakh people living in Perungudi, Sholinganallur and part of Alandur zones will benefit from this project.

Construction of stormwater drains in core city to a length of 40.79 km at an estimated cost of Rs.184.65 crore, under Singara Chennai 2.0, Phase I, is in progress. Under Singara Chennai 2.0, Phase II, construction of stormwater drains to a length of 17.89 km at an estimated cost of Rs.70 crore is in progress. In continuation of the efforts to create a robust stormwater drain infrastructure in the city, additional stormwater drains are proposed to a length of 60.53 km.

Restoration and rejuvenation of 12 waterbodies taken up under Singara Chennai 2.0 is in progress. Under AMRUT 2.0, rejuvenation of 5 waterbodies will be taken up at an estimated cost of Rs.9.66 crore.

3.1.4 Special projects

(i) Installation of Chennai Metropolitan Area Intelligent Transport Systems

The Chennai Metropolitan Area Intelligent Transport Systems project is being implemented at an estimated cost of Rs.904.88 crore with loan assistance from the Japan International Co-operation Agency (JICA). The project is expected to create an efficient traffic management system to meet increasing traffic demands in the Chennai Metropolitan Area. Major components proposed to include;

- (a) Adaptive Traffic Signal Control System
- (b) Chennai Traffic Information and Management System
- (c) City Bus System

(ii) Chennai City Partnership Programme

Chennai City Partnership Programme will focus on enhancing the resilience of Chennai city and improving service delivery in the Chennai Metropolitan Area for key services. It is a

USD 1 Billion (nearly Rs.7,500 crore) programme to be executed in 3 phases. GCC is one of the major stakeholders in this programme.

In phase I, the Government of Tamil Nadu will receive USD 300 million (nearly Rs.2,250 crore) from the World Bank over a period of 5 years starting from 2021. GCC will receive around USD 90 million (nearly Rs.675 crore) over a period of 5 years on the successful completion of 4 DLIs (Disbursement Linked Indicators). In addition to the 4 DLIs, GCC will also have to achieve the Result Framework Indicators (RFI) as agreed to with the World Bank.

The 4 DLIs are - reduction in vacancy rates in professional cadres of GCC; enhanced efficiency and transparency of public procurement of GCC; strengthening GCC's health system; and increased annual own-source revenue of GCC. The RFIs are - reduction in women feeling unsafe in buses and public spaces; increased availability of

pedestrian-friendly multi-utility streets; improved solid waste management efficiency; citizen and customer feedback for improved accountability of service delivery institutions.

Mega Streets Programme

A key component of the City Partnership Program is mega streets. To further its efforts in creating high-quality and equitable streets for all, GCC has launched the Mega Streets Programme to re-imagine the city's arterial roads as "complete streets," taking into account the needs of all street users and uses. The new designs would include continuous footpaths, streamlined carriageways, organised on-street parking and well-planned underground utilities. The design also integrates bus stops, street vending and all other street furniture, locating them carefully such that they do not hinder the walking experience of pedestrians. The first phase of this programme is taken up as a project spanning over 70 sq km, covering a road length of 111 km.

(iii) Operation and Maintenance of Toilets under PPP mode

GCC has selected private concessionaire through an open-bidding process who will “Design, Build, Finance, Operate and Transfer” the toilets. It is a 9-year project where 1 year will be given for designing, building and commissioning, and 8 years for operation and maintenance. The project is structured as a Hybrid Annuity Model – Public Private Partnership with the annuity payments to the concessionaire based on Key Performance Indicators. This project would be rolled out from 01.04.2023 and the end date would be 30.03.2032. The details of toilets to be taken up in Zones 5, 6 and 9 (Marina Beach) are as given in the table 3.6.

Table 3.6

Description	Zone – 5		Zone – 6		Zone – 9 (Marina)		Total	
	Locations	Seats	Locations	Seats	Locations	Seats	Locations	Seats
New Construction	51	365	36	281	3	16	90	662
Major refurbishment	71	396	17	46	-	-	88	442
Minor refurbishment	105	1,398	81	661	8	107	194	2,166
Total	227	2,159	134	988	11	123	372	3,270

In the second phase, the public toilets in Zones 7, 8, 9 and 10 would be taken up for comprehensive operation and maintenance work, similar to Phase 1. The preliminary works have been completed and the preparation of Request for Qualification is under process.

(iv) Smart Cities Mission

Under the Smart Cities Mission, 43 works have been completed at the cost of Rs.827.54 crore. These include major initiatives like pedestrian plaza, multi-level car parking,

smart water meter, restoration of waterbodies and integrated command and control centre (ICCC). Five works at an estimated cost of Rs.269.41 crore are under progress and will be completed during 2023-24.

(v) Restoration of Victoria Public Hall

Victoria Public Hall is a heritage building built in 1890 and is a major landmark in Chennai city. Greater Chennai Corporation has taken up the work of conservation, revitalization and seismic retrofitting of Victoria Public Hall under Singara Chennai 2.0 at an estimated cost of Rs.32.62 crore. After rehabilitation of Victoria Public Hall, it will have a prominent museum space and become an important cultural venue for Chennai city.

(vi) Eco Restoration of Villivakkam tank

It is proposed to develop an additional pond with holding capacity of 50,000 cu mt of water, adjacent to the existing lake at Villivakkam at an estimated cost of Rs. 11.38 crore. The Project is

sought to be funded under KfW, SMIF grant through TNUIFSL.

(vii) Multi-modal integrated bus stand in Broadway

A Multi-Modal Facility Complex (MMFC) has been proposed at Broadway bus stand by integrating multiple transit nodes, enhancing the facilities and amenities of the existing bus stand, multi-level car parking facility, commercial complex and with supportive infrastructure including last mile connectivity. The project would be taken up through Viability Gap Funding (VGF) model.

3.1.5 Buildings

Greater Chennai Corporation maintains 2,813 buildings like schools, hospitals, community halls as given in the table 3.7.

Table 3.7

Sl. No	ZONE	UHC	UPHC	School Buildings	Community Centre	Night Shelter	Office buildings	Other buildings	Total
1	Thiruvotriyur	1	6	-	1	2	14	176	200
2	Manali	1	2	-	1	1	7	56	68
3	Madhavaram	1	4	-	3	2	14	144	168
4	Tondiarpet	1	15	46	4	6	16	122	210
5	Royapuram	1	14	42	7	16	38	195	313
6	Thiru-Vi-Ka Nagar	1	14	51	8	7	19	184	284
7	Ambattur	1	9	-	1	2	8	122	144
8	Anna Nagar	1	15	28	8	6	8	224	289
9	Teynampet	1	16	53	13	10	18	35	146
10	Kodambakkam	1	15	37	6	2	18	191	270
11	Valasavakkam	1	5	-	1	2	12	19	40
12	Alandur	1	5	-	4	1	14	180	205
13	Adyar	1	11	24	3	4	6	326	375
14	Perungudi	1	5	-	4	-	12	51	73
15	Sholinganallur	2	5	-	2	2	13	4	28
TOTAL		16	141	281	66	63	217	2,029	2,813

During the year 2022-23, construction of 16 schools at an estimated cost of Rs.56.23 crore and upgradation of 28 crematoriums at an estimated cost of Rs.23.86 crore have been taken up under Singara Chennai 2.0.

Construction of 15 urban primary health centers at a cost of Rs.62.65 crore will be completed by 2023-2024.

Under Swachh Bharath Mission, Nirbhaya and GCC's own funds, 2,020 aspirational toilets and 600 urinals are being constructed at an estimated cost of Rs.105.50 crore in a phased manner. In total, 844 water closets and 942 urinals in 492 locations have been taken up so far. Out of 492 locations, toilets in 292 locations are complete and work in the balance 200 locations is in progress.

3.1.6 Electrical

Streetlights

The Greater Chennai Corporation provides uniform street lighting in all the bus route roads and interior roads for the safety of commuters. All bus route roads and interior roads are provided with adequate streetlights. The corporation maintains 2.91 lakh streetlights. All the streetlights are energy-efficient LED lights. 435 high mast lights have been erected at vital locations such as major road junctions, beaches and parks. The details of the streetlights are as given in the table 3.8.

Table 3.8

Sl. No.	Zone	Name of the Zone	No. of streetlights	No. of high mast lights
1	I	Thiruvotriyur	13,475	23
2	II	Manali	12,293	10
3	III	Madhavaram	18,767	33
4	IV	Tondiarpet	18,603	32
5	V	Royapuram	15,193	37
6	VI	Thiru-Vi-Ka-Nagar	17,760	32
7	VII	Ambattur	27,091	49

Sl. No.	Zone	Name of the Zone	No. of streetlights	No. of high mast lights
8	VIII	Anna Nagar	20,404	29
9	IX	Teynampet	22,233	52
10	X	Kodambakkam	24,165	34
11	XI	Valasaravakkam	20,692	17
12	XII	Alandur	15,772	20
13	XIII	Adyar	23,098	32
14	XIV	Perungudi	22,157	18
15	XV	Sholinganallur	19,712	17
Total			2,91,415	435

In general, streetlights in Chennai are provided at every 25 mt. new energy efficient streetlights are being provided under Nirbhaya fund at an estimated cost of Rs.60.84 crore for the safety of women in newly developed locations in extended areas, particularly, in dark spots and locations which require additional illumination.

3.1.7 E-Governance

The Greater Chennai Corporation offers online services to citizen like payment of property tax, birth and death registration, town planning,

public grievance redressal, Namma Chennai App, WhatsApp services, 1913 call centre etc.

An elaborate Enterprise Resource Planning System (ERP) is also under use within GCC for works management, legal case management, personnel management and pension management, etc.

3.1.8 Parks and Playfields

Greater Chennai Corporation maintains 786 parks, 104 centre medians, 113 traffic islands and 163 roadside parks. Out of these 786 parks, 584 parks are maintained by private contractors, 145 parks are maintained by GCC through park labours and 57 parks are maintained by way of adoption by citizen groups. GCC also maintains 222 playgrounds and other sports facilities, as given in the table 3.9.

Table 3.9

Zone	Name of the Zone	No. of Parks	No. of Playfields	No. of Children Playgrounds
I	Thiruvotriyur	8	1	-
II	Manali	32	8	28
III	Madhavaram	51	10	2
IV	Tondiarpet	54	24	37
V	Royapuram	27	10	-
VI	Thiru-Vi-Ka Nagar	47	22	3
VII	Ambattur	72	8	1
VIII	Anna Nagar	42	42	9
IX	Teynampet	39	13	5
X	Kodambakkam	59	17	54
XI	Valasaravakkam	84	6	6
XII	Alandur	70	2	4
XIII	Adyar	70	50	29
XIV	Perungudi	63	8	4
XV	Sholinganallur	68	1	22
TOTAL		786	222	204

(i) Parks and Playfields Renovation

During the financial year 2022-23, creation of new parks in the vacant open space

reservation (OSR) lands vested with Greater Chennai Corporation has been taken up. Open-air gym equipment are being installed in some of the parks under development. All the newly developed parks are designed as differently-abled friendly. Further, the new parks will have minimal use of concrete and plentiful greenery so that they act as sponge parks in the rainy season.

Under the Chennai Rivers Restoration Trust (CRRT), the work of formation of a new park and playfields at the Adyar river bank, Kotturpuram has been completed at a cost of Rs.9.41 crore.

In continuation to this, formation of a playground and a dense urban forest is completed at a cost of Rs.1.99 crore at Canal Bank road, Kotturpuram and Adyar (abutting St.Patrick college).

During the year 2022-23, under Singara Chennai 2.0, a total of 141 parks and 51 playfields have been sanctioned at an estimated cost of Rs.36.46 crore and

Rs.16.33 crore respectively. It is proposed to take up more parks and playgrounds during 2023-24 under Singara Chennai 2.0 and Namakku Naame Thittam.

(ii) Urban Greening

Greater Chennai Corporation is making sustained efforts to increase the green cover in Chennai city by planting native tree saplings in various parts of the city. Over 2.58 lakh tree saplings have been planted during the year 2022-23. It is proposed to continue to take up tree planting with community participation, in coordination with the Residential Welfare Associations.

3.2 Health and Sanitation

3.2.1 Solid Waste Management

On an average, 5,500 MT of solid waste is generated daily in Greater Chennai Corporation. It is collected at the household level. The source segregated wet and dry waste are channelized to

the decentralized processing facilities, and the remaining waste is transferred to the processing sites at Perungudi and Kodungaiyur.

At present, solid waste management activities are being carried out in five out of fifteen zones by Greater Chennai Corporation and in the remaining ten zones through private concessionaires.

(i) Infrastructure

Solid Waste Management involves the collection of waste at the point of waste generation, transportation to the respective processing centres, and further processing.

For carrying out these activities, the GCC operates 2,041 battery-operated vehicles (BOVs), 95 battery operated tricycles, 609 tricycles, 171 HMV/LMV compactors, 114 HMV/LMV tippers, 16 mechanical sweepers etc. Likewise, the private

concessionaires operate 3,437 BOVs, 133 HMV/LMV compactors, 105 HMV/LMV tippers and 48 mechanical sweepers.

The GCC employs 5,088 permanent, 479 NMR workers and 4,379 NULM contract workers for solid waste management activities. Further, the private operators have 9,143 workers for carrying out these conservancy operations.

(ii) Wet and Dry Waste Processing

In line with SWM Rules 2016, the Greater Chennai Corporation initiated decentralised facilities to process the source segregated wet and dry waste.

At present, there are 200 wet waste processing facilities such as micro composting centres, windrow composting centres, Bio-CNG plants and garden waste processing centres having a capacity of handling 1,021 metric tonnes per day (TPD) of wet waste. From the wet waste

processing units, presently, 720 MT of manure is produced every month and 562 MT bio-CNG gas has been produced so far.

Two Bio-CNG plants of 100 TPD capacity each, are in operation at Chetpet and Madhavaram. Additional five bio-CNG plants, with a total capacity of 500 TPD are being set up to process the wet waste and are under various stages of construction. The details of the wet waste processing facilities are as given in the table 3.10.

Table: 3.10

Sl. No.	Description	Numbers	Capacity in TPD
1	Micro compost yards	194	560
2	Windrow method	2	100
3	Garden waste processing centres (Rs.660/MT)	2	160
4	Bio-CNG plants	2	200
	Total	200	1,020

Further, there are 143 dry waste processing centres, such as material recovery facilities,

resource recovery centres, incinerators etc., having a combined capacity of handling 560 TPD.

In addition to this, the non-recyclable combustible dry waste (50 MT) is sent to cement industries for co-processing every week from baling centres available at four locations, viz. Madhavaram, Mint, Otteri and Pallikaranai.

The dry waste processing facilities available with GCC are as given in the table 3.11.

Table: 3.11

Sl. No.	Method Of Processing	Total Number	Capacity in MT
1	RRC/MRF	136	415
2	Incinerator	3	65
3	Bailing Centre	4	80
	Total	143	560

(iii) Disposal of legacy waste

a. Perungudi

The Perungudi site is located in the southern part of the city, spread over an area of 225.16 acre and has been in use for more than 35 years as a disposal site. Solid waste from Zones 9 to 15 is sent to the Perungudi site.

The estimated volume of legacy waste above ground level is around 34.02 lakh cu mt. The Greater Chennai Corporation has initiated reclamation of the Perungudi site through the bio-mining process under 6 packages, at a project cost of Rs.350.65 crore, under the Swachh Bharat Mission (SBM). Bio-mining work has commenced, and the project is expected to be completed by June 2024. So far, around 20.54 lakh cubic metres of legacy waste has been processed. Further, an additional quantity of 2.5 lakh cu mt of waste will be taken up for

bio-mining under SBM 2.0 fund for which DFR is under preparation. After completion of the project, 200 acre of land will be reclaimed. A part of the reclaimed land is proposed to be used for setting up an eco-park on the lines of Tholkappiapoonga.

b. Kodungaiyur

The Kodungaiyur site located in the northern part of the city, has an extent of 342.93 acre and has been in use for more than 40 years. Zones 1 to 8 use this facility. The estimated quantity of legacy waste above ground level is around 66.52 lakh MT. The Government vide G.O. (D) No.15, Municipal Administration and Water Supply department, dated 19.01.2023, has accorded administrative sanction for disposal of the legacy waste at Kodungayur dumpsite through bio-mining at an estimated cost of Rs.640.83 crore under SBM 2.0. Tenders have been invited and work will commence shortly.

After completion of the project, 252 acre of land will be reclaimed.

(iv) Construction and Demolition (C&D) Waste Management

Presently, the construction and demolition waste collection in Chennai is around 800 TPD. To improve the service delivery, the collection and transportation of construction and demolition waste has been outsourced, and operations have commenced.

GCC has installed two facilities for processing construction and demolition waste on PPP basis, one at Kodungaiyur and another at Perungudi, which have started the processing work. So far, 2,41,744 MT of construction and demolition waste has been processed with an average of 250 MT in each location daily. Final products such as coarse and fine aggregates are used in construction activities.

(v) Mechanical Infrastructure

The Mechanical Engineering Department has a total fleet strength of 3,045 vehicles, which include vehicles for transportation of solid waste and construction and demolition waste, such as battery-operated vehicles, compactors, HMTV/LMTV tippers, front end loaders, bulldozers and hydraulic excavators, etc.

GCC has special equipments also, such as 2 amphibian vehicles, 4 robotic multipurpose excavators, 3 mini amphibians for clearing floating garbage and water hyacinth in canals and 7 vehicle-mounted high capacity suction cum jetting machines with water recycling facility for clearing stormwater drains. 6 hydraulic-operated tree-pruning machines are also deployed to remove the over hanging tree branches, on need basis, and to clear fallen trees, poles etc., during disasters. To clear the sandy area in beaches, and

make it litter free, 8 tractor driven beach cleaning machines are deployed at Marina beach, Besantnagar beach, Palavakkam beach and other beaches in GCC area.

Further, 78 mechanical sweepers (including concessionaire vehicles) are used to clean the sand accumulated on the roads.

In order to increase the efficiency of door-to-door collection of garbage, a huge fleet consisting of 5,478 battery operated vehicles (including concessionaire vehicles) are being deployed in all the 15 Zones.

GCC has recently procured 3,850 compactor bins and placed in Zones 4,5,6,7 and 8 for collection of garbage and all the bins are periodically washed.

(vi) Information, Education and Communication (IEC)

The Government is aware that for achieving the goal of garbage free and clean city, it is imperative to sensitize the citizens about the solid waste management and sanitation.

Therefore, on 03.06.2022, the Hon'ble Chief Minister launched the People's Movement for clean cities- an awareness campaign – to elicit people's active participation in the efforts of urban local bodies to make the cities clean and garbage free. As a part of this awareness movement, the Greater Chennai Corporation is organizing special campaign on every 2nd and 4th Saturdays of a month. During the campaign, various activities such as mass cleaning of public places; cleaning of water bodies; removal of damaged road furniture, vehicles and other scrap from road sides; arranging visits for RWAs and students to solid waste processing facilities; awareness about source segregation; etc. are organized.

SBM animators and the staff of concessionaires also visit door-to-door to create awareness about solid waste management.

3.2.2 Public Health

(i) Public Health Services

The Public Health Department provides comprehensive public health, preventive and treatment services to the people of Chennai city including healthcare services, vector control and implementation of various national programs, registration of births and deaths. Public Health Department also maintains shelters for the urban homeless. It has the regulatory function to implement the Chennai City Municipal Corporation Act and the Tamil Nadu Public Health Act for disease prevention and public health.

The Greater Chennai Corporation has a well-established health infrastructure that provides comprehensive health care services, such as antenatal and postnatal care, child health

care, basic diagnostics, and treatment for communicable and non-communicable diseases under one roof. The health care services are provided through a network of 140 urban primary health centres (UPHC), 16 urban community health centres (UCHC) and 3 Maternity hospitals. The GCC is running seven dialysis centres and 40 polyclinics, which provide specialised medical care for early detection and treatment of diseases to the citizens, especially from economically weaker sections.

The Greater Chennai Corporation has an exclusive Communicable Diseases Hospital at Tondiarpet, which was established in 1914. It is a 360 bedded hospital with OPD, IP and various diagnostic services. This centre also has a well-furnished PCR lab facility for COVID-19 testing.

GCC has established 140 urban health and wellness centres and other facilities at a cost of Rs.88.30 crore under the 15th Finance

Commission grant to strengthen the health care delivery system in the city.

The Greater Chennai Corporation implements Blindness Control Programme through District Blindness Control Society. In the year 2022-23, free spectacles for refractive errors have been provided to 1,325 students in Chennai Schools, Government and Government aided schools. Similarly, 12,296 free cataract surgeries have been performed and 1,564 eyeball collections through eye banks have been done.

The National Tuberculosis Elimination Programme aims at eliminating tuberculosis (TB), by 2025. TB diagnosis and treatment services are available in all the UPHCs. GCC offers free CBNAAT and truenat services for all patients. For this purpose, 13 CBNAAT and 13 truenat sites are functional in Chennai. During the year 2022, 2,36,933 individuals were tested for TB out of which 10,549 patients from public sector and

4,390 patients from private sector were diagnosed and treated.

GCC has nine standalone Ayush/Siddha clinics and three integrated Ayush clinics.

(ii) Birth and Death Registration

The birth and death certificates have been made online and free of cost (www.chennaicorporation.gov.in) since 7.09.2008. All the birth and death records, since the year 1930, have been computerised in Greater Chennai Corporation.

(iii) Vector Control Activities

Anti-mosquito activities, such as fogging operations, are carried out using 68 vehicle-mounted fogging machines and 240 handheld fogging machines. Additionally, 424 handheld spraying machines, 300 battery sprayers, 8 mini fogging machines and 120 power sprayers are used to spray larvicide in stormwater drains, open drains and canals. The Greater

Chennai Corporation has engaged 3,312 workers for vector control activities. To create “mosquito menace free Chennai”, GCC has procured 6 Nos. of hybrid Drones to spray larvicide in waterways.

iv) Night Shelters

In order to provide special care to the homeless, Greater Chennai Corporation has established 50 night shelters, which are run through NGOs. Out of this, 38 shelters are for the urban homeless and 12 are for attenders of in-patients in Government Hospitals (special shelters).

(v) Animal Welfare

The Greater Chennai Corporation is running 3 Animal Birth Control (ABC) centres to control the population of stray dogs. These are being revamped and two more new Animal Birth Control centres are being established at a cost of Rs.81 lakh under Singara Chennai 2.0. During the

year 2022, 16,531 stray dogs have been sterilized and ARV vaccination given.

Pet clinics of GCC are functioning at Nungambakkam, TVK Nagar, Meenambakkam and Kannamapet. During the year 2022, 25,136 pets have been treated, and 1,565 licenses have been issued in these centers.

Stray cattle depots are functioning at Pudupet and Perambur. During the year 2022, 7,021 cattle were impounded and Rs.1.14 crore was levied as impounding charges. This is much higher than the previous year figures of 1,823 cattle and fine of Rs. 27.64 lakh.

3.3. Revenue

It is essential to have adequate resources to implement schemes and programmes to improve the liveability of the city and enhance the quality of life for the citizens. Keeping this in mind, GCC takes various efforts to improve revenue

collection by enhancing efficiency through innovation and technological solutions.

GCC has a budget of nearly Rs.5,330 crore. The actual figures as per audited accounts for financial year 2021-22 are given in the table 3.12.

Table 3.12

Account head	Actuals 2021-22 (Rs. in crore)
Revenue Account	
Receipts	2,984.62
Expenditure	3,246.04

A breakup of the different sources of income/revenue receipts and revenue expenditure of GCC is given in Figures 1 and 2 below respectively.

Figure – 1: Category-Wise Revenue Receipts

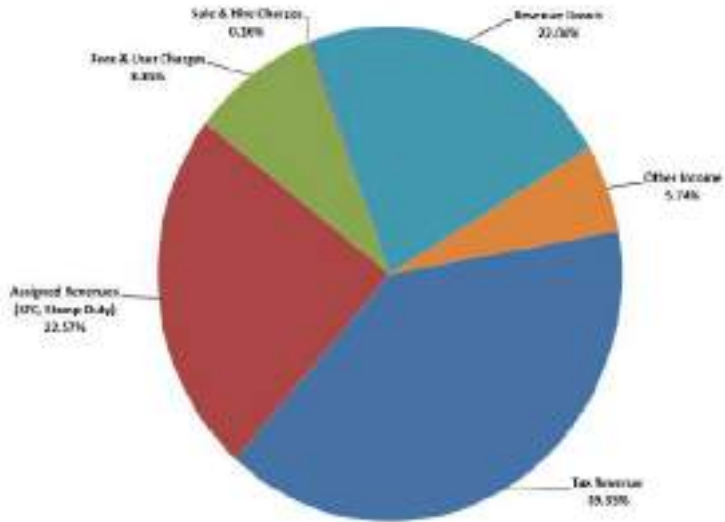
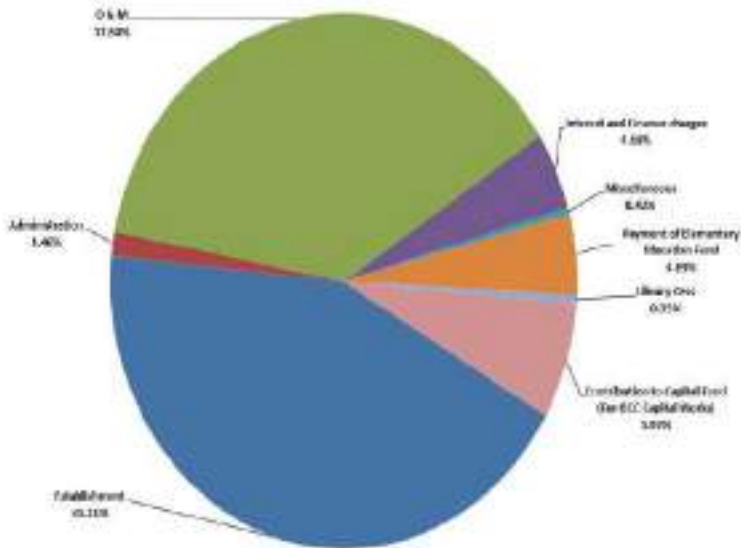


Figure – 2: Category-Wise Revenue Expenditure



3.3.1. Revenue Department

Revenue Department is responsible for the collection of property tax, profession tax, company tax, entertainment tax, trade license fee and rent on shopping complexes. Category-wise demand is given in the table 3.13.

Table 3.13

Sl.No.	Category	Yearly demand FY 2023-24 (tentative) (Rs. in crore)
1	Property tax	1,500
2	Profession tax	500
3	Company tax	2
4	Entertainment Tax	40
5	Trade License fee	20
6	Rent on Shopping Complexes	20
Total		2,082

3.3.2 Improving Collection Efficiency through Technology

Greater Chennai Corporation has been taking efforts to improve tax collection efficiency through new and innovative solutions.

The Geographical Information System (GIS) and drone survey project (Phase-I) was initiated by GCC under the World Bank assisted TNSUDP, at a cost of Rs.6.44 crore (Phase-I) and is expected to be completed by March 2023.

One of the objectives is to identify unassessed and under-assessed properties. Field survey is completed for all the 200 wards and all efforts are being taken to improve the financial position by bringing all under / unassessed properties into the property tax net.

Greater Chennai Corporation has floated tenders to hire professional firms to re-assess nearly 3 lakh properties identified as under-assessed in the drone survey. The re-assessment will be completed in one year and is expected to fetch an additional annual property tax demand of nearly Rs.200 crore.

3.3.3 Financial Position of GCC

After the implementation of general revision of property tax, the financial position of GCC has improved. However, several statutory and contractual liabilities, accumulated over the past years, need to be settled in the coming years.

GCC has an outstanding loan of Rs.2,573.54 crore, contractor payment dues of Rs.140 crore and Rs.728 crore in statutory liabilities.

Apart from this, the GCC is incurring additional expenditure towards implementing the solid waste management project in 11 Zones, i.e., collection and transportation of solid waste in PPP mode. The monthly outgo to the concessionaires is about Rs.53 crore. Further privatization of Operating and Maintenance of Toilets under PPP Mode in Zones 5, 6 and 9 (part) and similar projects will add to the revenue expenditure, though these services are for the benefit of the common public.

3.4 Education

The Education Department of Greater Chennai Corporation strives to provide quality education, enriched with life skills to children through the Chennai schools.

Presently, GCC has 281 schools and 2,731 teachers under its administration, as given in the table 3.14. Further, as per G.O.(Ms) No.48 School Education department, dated: 01.03.2023, 139 schools in extended areas will also be handed over to GCC by the School Education department with effect from 01.04.2023.

Table 3.14

Type of school	Number as on date	Number w.e.f. 01.04.2023
Primary school with KG section	119	209
Middle school with KG section	92	130
High school	38	46
Higher secondary school	32	35
Total	281	420

3.4.1 Students Enrolment and Attendance

During the present academic year i.e. 2022-2023, the enrolment of students in Chennai schools is 1,32,975. The student attendance is about 90.32% as per February, 2023 data. The

attendance of students has shown significant improvement, compared to last year as given in the table 3.15.

Table 3.15

Attendance during 2021-22				Attendance during 2022-23			
Nov 2021	Dec 2021	Jan 2022	Feb 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023
62.58%	65.39%	27.55%	79.08%	87.49%	89.77%	88.59%	90.32%

3.4.2 Areas of Special Focus

Weekly reviews are conducted by GCC administration to monitor students attendance and weekly tests are conducted and subsequent results are compiled and analyzed. Based on the test scores, student performance in remedial class is monitored every week. Competency in spoken english through two days of compulsory morning prayer in english and communication in english during english classes is insisted.

All schools are effectively using libraries and students are allowed to take books home. Students are encouraged to draw, speak extempore or write about the library books that they have read.

3.4.3 Model and Smart Chennai Schools under the CITIIS fund

The Model and SMART Chennai schools project under the CITIIS (City Investments to Innovate, Integrate and Sustain) challenge initiative is being implemented in 18 campuses covering 28 schools for Rs.95.25 crore, of which Rs.76.2 crore is funded by AFD (French Development Agency) while Rs.19.05 crore is contributed by Smart Cities Mission. This project comprises hard and soft interventions.

Special Interventions

Special initiatives under the CITIIS project aim to impart soft skill training component to

teachers and give special focus on physical fitness through specialised coaching in sports like cricket and football covering more than 100 students at a cost of Rs.40 lakh.

Safety Aspects under Nirbhaya fund

Under the safe city project under Nirbhaya fund, interventions as given in the table 3.16, are being taken up.

Table 3.16

Sl. No.	Description	Amount (Rs. in crore)
1	CCTV cameras in 159 GCC schools for safety monitoring	5.47
2	Safe toilets for girls in 192 schools	18.87
3	Safe and smart self-defence to empower girls in GCC Schools	2.85
	Safe and smart self-defence: Development of sports training grounds in GCC schools	4.06
4	Menstrual hygiene management in 159 Chennai schools.	4.79
Total		36.04

Infrastructure Development / Refurbishment and Reconstruction

Under Singara Chennai 2.0, infrastructure development has been carried out at a cost of Rs.60 crore, as given in the table 3.17.

Table 3.17

Sl.No.	Type of work	Estimated cost (Rs. in crore)
1	4,090 Dual Desks for 128 primary, Middle, High and Higher secondary schools.	4
2	Refurbishment and Reconstruction work in 23 schools.	56
Total		60

Residential Model School

A residential model school is being set up at Chennai Boys Higher Secondary School, Nungambakkam, at a cost of Rs.1.83 crore to enable students studying in the Chennai schools to join premier higher-education institutions and excel in competitive examinations.

3.4.4 Community Colleges and ITI

The Greater Chennai Corporation runs an Industrial Training Institute (ITI) at Zone-9, affiliated with the National Council of Vocational Training (NCVT) and provides various courses for skilling students such as plumbers, fitters, mechanics, electricians, motor mechanics and computer operators. After the completion of these courses, the trainees are provided with job opportunities in various industries by the institute.

Three Community Colleges are being run by Greater Chennai Corporation, especially for students who are unable to continue their education after school. Various skill development courses like computer software, paramedical courses, baking and confectionery making and jute bag-making are offered at these community colleges.

3.5 Namakku Naame Thittam (NNT)

The Government's flagship scheme "Nammakku Namme Thittam" is being implemented in Greater Chennai Corporation for development of public assets and increasing public participation, in the creation and maintenance of civic infrastructure such as schools, water bodies, roads, drains, crematoriums, parks, playfields, CCTVs, etc. Under this scheme, Rs.49.71 crore has been allocated to Greater Chennai Corporation.

Under "Namakku Naame Thittam", GCC has accorded sanction for 411 works at an estimated cost of Rs.48.30 crore, in which the public contribution is Rs.25.87 crore and the Government share is Rs.22.42 crore.

The works taken up include renovation of 5 water bodies, improvement to 78 parks and playgrounds, planting of trees, improvement to 127 Chennai schools, 94 beautification works, improvement of 28 public toilets, improvement of

6 burial grounds and crematoria, improvement works in 73 centre medians, stormwater drains, hospitals, roadside platforms and providing rainwater harvesting structures.

3.6 Tamil Nadu Urban Employment Scheme

Under the Tamil Nadu Urban Employment Scheme, in Greater Chennai Corporation, two zones - Zone 4 (Tondiarpet) and Zone 6 (Thiru.Vi.Ka.Nagar) have been selected on a pilot basis. A sum of Rs.5 crore has been allocated to each zone.

Under this scheme, a daily wage of Rs.382.00 has been fixed for desilting work of stormwater drains for the people seeking work under this scheme.

So far, the Greater Chennai Corporation has surveyed nearly 3 lakh households across the two zones and 54,072 people have been identified as eligible beneficiaries under this scheme. Job cards have been issued to 47,464 beneficiaries.

Works are in progress for an estimated amount of Rs.2.14 crore for desilting of stormwater drains in Zone 4 (Tondiarpet) and Zone 6 (Thiru.Vi.Ka. Nagar).

3.7 Training Needs and Capacity Building Activities

Greater Chennai Corporation imparts training to its employees through Anna Administrative Staff College and Tamil Nadu Institute of Urban Studies (TNIUS), Coimbatore.

TNUIFSL has taken up consulting service for the preparation of a training needs assessment study for conducting capacity building and training programmes for various urban local bodies in Tamil Nadu. Based on this study, Greater Chennai Corporation has undertaken an assessment of the training needs of the personnel. Based on the assessment, training will be imparted to the staff of Greater Chennai Corporation.

3.8 Singara Chennai 2.0

The Government, launched the “Singara Chennai 2.0” to provide modern civic infrastructure and services in Greater Chennai Corporation. A sum of Rs. 500 crore was provided during the year 2021-22 and Rs.500 crore has been provided in the Budget Estimate for 2022-23 as well. The abstract of the projects taken up in GCC under the scheme during the year 2021-22, is given in the tables 3.18 and 3.19.

Table 3.18 - Phase-I

Sl. No.	Name of the project	Sanctioned	
		No. of works	Approved cost (Rs. in crore)
1	Bus route roads	59	37.58
2	Water fountains	26	1.29
3	Development/ improvement of parks	28	24.43
4	Development/ improvement of play fields	18	12.57
5	Dynamic lighting for Ripon Buildings	1	1.81
6	Name boards for streets	1	8.43
7	Crematoria	10	6.14

Sl. No.	Name of the project	Sanctioned	
		No. of works	Approved cost (Rs. in crore)
8	Stormwater drain (Phase-I - 9, Phase-II - 10)	19	260.87
9	Water body restoration	12	9.08
10	Schools	24	50.67
11	Animal birth control centre	2	0.81
12	Pathway for differently abled persons	1	1.14
13	Beautification of bridges	3	0.79
Total		204	415.61

Table 3.19 - Phase-II

Sl. No.	Name of the Project	Sanctioned	
		No. of works	Approved cost (Rs.in crore)
1	Bus route roads	38	25.91
2	Interior roads	414	29.69
3	Parks	84	28.79
4	Sponge parks	57	7.67
5	Play fields	51	16.33
6	Crematoria	28	23.86
7	Stormwater drain	2	103.88
8	School furniture	1	4.15
9	Animal birth control centre	3	19.72

Sl. No.	Name of the Project	Sanctioned	
		No. of works	Approved cost (Rs.in crore)
10	Access pathway – beach	1	0.99
11	Beautification of bridge underpasses	9	9.47
12	School buildings	16	56.32
13	Victoria Public Hall	1	32.62
Total		705	359.40

3.9 Measures Taken for Flood Mitigation

Pursuant to announcement in the Governor's address in the Legislative Assembly on 21st June, 2021, an Advisory Committee for management and mitigation of flood risk in Chennai metro headed by Dr. Thirupugazh, I.A.S (Retd), formerly Additional Secretary/ Advisor, National Disaster Management Agency was constituted by the Government. The Committee was entrusted with the task of making recommendations to the Government for the mitigation of flood risk in Chennai metro and has

submitted its Final Report to Hon'ble Chief Minister on 14.03.2023.

During North East monsoon 2021, several areas in Chennai city were affected due to flooding. The Hon'ble Chief Minister inspected the flood-affected areas and interacted with various stakeholders.

The Advisory Committee extensively studied the flood prone areas of the city during North East monsoon 2021; past floods in the city such as 2005 and 2015; had interaction with various stakeholders including officials and made several recommendations, comprising of short term, medium term and long term measures.

Based on the recommendations of the Committee, several measures were taken up by Greater Chennai Corporation in the floodprone areas and areas severely affected during North East monsoon, 2021. Greater Chennai Corporation also coordinated closely with the Water Resources Department, CMWSSB,

Highways Department, TANGEDCO and Indian Railways for taking up infrastructure work for flood mitigation in an integrated and comprehensive manner. This has resulted in majority of the areas of Chennai City remaining broadly inundation free during North East monsoon season 2022-23. The pro-active steps taken up in handling the North east monsoon 2022-23 and Mandous cyclone were also largely appreciated.

The Greater Chennai Corporation will take further measures based on the recommendation of the Advisory Committee in its Final Report.

4.DIRECTORATE OF TOWN PANCHAYATS

The town panchayats are areas in transition from rural to urban. These small and medium towns can play an important role in the process of development by maximizing their competitive advantages in manufacturing activities due to lower costs of production and living. They are also known to play a key role in the diversification of rural economy. These towns play an important role in the process of rural development by providing market facilities and services to the rural population and by acting as linkages between villages and cities.

Nearly 19.8% of the urban population of the state live in town panchayats, covering about 59% of the total urban area. As per 2011 census, 69,24,178 population people were living in town panchayats. Further, a sizeable rural population visit town panchayats everyday for availing

various services such as marketing, health, education, entertainment, etc.

As town panchayats are providing markets for rural areas and supplying manpower to the cities, it is pertinent to provide and improve the basic services in these areas. The Government is committed to improve basic amenities and civic infrastructure in town panchayats as they are very crucial to overall development of the hinterland and in bridging regional disparities and thus in checking migration to big cities.

4.1 Administration

The Directorate of Town Panchayats oversees the administration of Town Panchayats in the State. For the purpose of administration of the town panchayats, the state is divided into 17 zones, each headed by an Assistant Director of Town Panchayats under the overall supervision of the respective District Collectors. The town

panchayats are governed by the Tamil Nadu District Municipalities Act, 1920 by an enabling provision in section 3-AA of the said Act. The Town Panchayats are categorized into 4 grades based on their annual income as given in the table 4.1.

Table 4.1.

Classification	Annual income	Number
Special Grade	Exceeding Rs. 200 lakh	47
Selection Grade	Exceeding Rs. 100 lakh and upto Rs. 200 lakh	187
Grade I	Exceeding Rs. 50 lakh and upto Rs. 100 lakh	194
Grade II	Below Rs. 50 lakh	62
	Total	490

4.2 Functions of the Town Panchayats

Town panchayats are responsible for providing basic civic services to the citizens such as water supply, roads, streetlights, and various

functions such as sanitation, solid waste management and other assets management like community hall and issuance of building permits etc.

4.2.1 Revenue Sources

Town panchayats receive revenue through various sources, including taxes, non-taxable items, and assigned revenues i.e, surcharge on stamp duty, devolution funds from the state Government. Grants from the 15th Finance Commission also contribute to their revenue.

4.2.2 Water Supply

Besides renewal and enhancement of current water supply systems, the Government is implementing new schemes to provide protected water supply and house service connections to the citizens. All town panchayats provide 70 litres of water per person per day (LPCD), while the town panchayats having underground sewerage system

(UGSS) provide 135 LPCD. Out of 490 town panchayats, 102 town panchayats are covered by stand-alone water supply schemes and 373 are covered by Combined water supply schemes (CWSS) maintained by TWAD Board. The remaining town panchayats are being provided through local sources. In a holistic manner, it is aimed to provide universal coverage of water supply by providing functional tap connections to all households. This will be achieved through circular economy of water by effecting water sources conservation, rejuvenation of water bodies and wells, recycle / reuse of treated used water and rainwater harvesting by involving community at large.

Meeting 20% of water demand through recycled water, reducing non-revenue water to less than 20% and rejuvenation of water bodies are major water related reforms that are being implemented in town panchayats.

So far, 99 water supply projects at an estimated cost of Rs.1,622.86 crore and rejuvenation of 116 water bodies at an estimated cost of Rs.77.27 crore have been taken up in town panchayats under AMRUT 2.0. After completion of the above projects, the number of household connections will substantially increase.

4.2.3 Roads

Good quality roads are essential for boosting the economic activities in a region as well as in improving the quality of life. Continuous efforts are being taken to improve the quality of roads in town panchayats.

At present, the 490 town panchayats are maintaining a total of 20,306 km of various types of roads.

A total of 2,977 km of earthen and gravel roads in town panchayats will be upgraded to black top (BT), cement concrete (CC), and paver

block roads. During the year 2021-22, 994.41 km of roads have been upgraded under various schemes at an estimated cost of Rs.650.04 crore and during the year 2022-23, 655.616 km of roads have been taken up for improvement/upgradation at an estimated cost of Rs.506.17 crore. The remaining roads will be upgraded in coming years.

4.2.4 Streetlights

The maintenance of streetlights is one of the primary duties of town panchayats. A total of 3,89,960 streetlights comprising of 2,251 high mast lights, 830 mercury vapour lamps, 16,513 sodium vapour lamps, 1,93,584 tube lights, 88,796 CFL lamps, 84,923 LED lights, and 3,063 solar lights are maintained by the town panchayats.

Nearly 2.67 lakh conventional streetlights are being replaced with energy-efficient lights in

town panchayats, at a cost of Rs.155.56 crore, which will help to reduce electricity usage and resultant lower current consumption cost, besides improving illumination in the towns.

4.2.5 Bus Stands

The bus stands are like the heart of a town. Out of 490 town panchayats, 203 of them have bus stands and 33 have bus depots. In the year 2021-22, 10 bus stand works have been taken up by the town panchayats under Kalaignar Nagarpura Mempattu Thittam (KNMT) at an estimated cost of Rs.44.69 crore. For the year 2022-23, 15 bus stand works have been taken up under KNMT and O&M Gap filling Fund at an estimated cost of Rs.16.61 crore as given in the table 4.2. All these works are at various stages of implementation and will be completed in 2023-24.

Table 4.2

S.No.	Name of the District	Name of the Town Panchayat	Approved cost (Rs. in crore)
(1)	(2)	(3)	(4)
1	Thoothukudi	Sawyerpuram	1.67
2	Kanniyakumari	Thiruvattar	2.55
3	Chengalpattu	Thirukazhukundram	0.20
4	Dharmapuri	Palacode	0.83
5	Dharmapuri	Harur	3.62
6	Krishnagiri	Uthangarai	1.84
7	Namakkal	Mallasamuthiram	0.89
8	Cuddalore	Kattumannarkoil	0.50
9	Pudukkottai	Keeramangalam	1.02
10	Pudukkottai	Keeranur	0.87
11	Pudukkottai	Karambakkudi	0.74
12	Madurai	Peraiyur	0.50
13	Thoothukudi	V.Pudur	0.40
14	Thoothukudi	Kayathar	0.42
15	Thoothukudi	Attur	0.56

4.2.6 Shandies

By offering a venue platform for buying and selling of agricultural and agro-based items, the weekly markets of town panchayats play a significant role in the economy of the region.

During the year 2021-22, 15 works of construction of new shandies and improvement to existing shandies have been taken up under KNMT at a cost of Rs.51.84 crore. Also, 16 shandies have been taken up for improvement under KNMT&CGF during the year 2022-23 at an estimated cost of Rs.31.72 crore.

4.3 Sanitation

Ensuring quality sanitation to the citizen and maintaining community/ public toilets in good and hygienic condition are the foremost duties of town panchayats. To accomplish these and to sustain Open Defecation Free status in all town panchayats, individual household toilets are provided on need basis. During the last two years, 41,858 individual household latrines (IHHL) have been sanctioned at a cost of Rs.125.58 crore. All these works are expected to be completed in April-May 2023.

City sanitation plans have been prepared for all the town panchayats and approved by the State Level Technical Committee under SBM 2.0. Gap has been arrived and analyzed based on the city sanitation action plan. Accordingly, community toilets, public toilets and urinals are sanctioned. So far, 190 community toilets, 50 public toilets and 113 urinals have been sanctioned under SBM 2.0 and the work is in progress. All these toilets will be put to use during the year 2023-24.

Retrofitting of community toilets have also been sanctioned under 15th Finance Commission grant. Retrofitting of 204 toilets have been taken up under 15th CFC at a cost of Rs.9.27 crore in 160 Town Panchayats and works are at various stages. All these works will be completed by June, 2023. Special emphasis is being given to the maintenance of the community / public toilets. QR Codes are also fixed in all community /

public toilets for receiving feed back from the public and effective handling of such feedbacks.

4.3.1 Solid waste Management

Town Panchayats are handling the solid waste as per the solid waste management rules, 2016, so as to ensure that environment is protected and human health is not affected. Approximately, 1,840 MT of solid waste is generated per day in the town panchayats, of which nearly 50% is wet waste (organic waste) and the remaining is dry waste (in-organic waste and inert). Wet waste is processed and converted into manure in resource recovery parks (RRPs) and dry waste is further segregated in resource recovery centres (RRCs) and sent to cement factories for co-processing. At present, 489 resource recovery parks with 489 resource recovery centres are functional in 490 town panchayats.

In town panchayats, solid waste is collected door-to-door from 96% of the households and to overcome the gap, home composting is being encouraged. Recyclable dry waste is being sold to vendors and non-recyclable waste generated are sent to cement factories for co-processing.

Around 13,808 SHG members are involved in both collection and segregation of waste and 6,845 workers are deployed for street sweeping/collection of solid waste for effective implementation of the solid waste management in the town panchayats.

In the year 2022-23, 354 town panchayats have been sanctioned an amount of Rs.73.83 crore for the infrastructure development of wet waste processing to handle 642 TPD of wet waste and an amount of Rs.22.25 crore has been sanctioned for the infrastructure development for dry waste processing in 313 town panchayats for processing 445 TPD of dry waste.

Home Composting

People residing in Town Panchayats are encouraged to handle and manage their household solid waste themselves and produce manure in their own premises. Presently nearly 52,500 households are practicing home composting. To expand this home composting practice, awareness and training programmes are being conducted through self help groups. Steps are also taken to encourage gardening, especially roof top garden, so that compost produced in the household is utilised effectively.

Bio/Vermi Composting

At present, organic waste is processed by bio-composting and decentralized composting method in 490 town panchayats. Every day, 110 MT bio-compost is produced in town panchayats. Vermi composting is also practiced successfully in 249 town panchayats and about 17 MT of vermi compost is produced daily. Nearly,

Rs.40 lakh is earned by the town panchayats every year by sale of bio-compost and vermi compost.

4.3.2 Used Water Management (UWM)

Some of the town panchayats have Sewage Treatment Plants (STPs) and Faecal Sludge Treatment Plants (FSTPs). However, majority of the town panchayats do not have used water management facilities. It has been proposed to set up STP cum FSTP and FSTPs in the town panchayats under SBM 2.0 on cluster basis. Co-treatment is also practiced and encouraged. Wherever STP is available, faecal sludge to be co-treated with sewage in STP by constructing septage unloading facility coupled with solid liquid separator by way of retrofitting. So, no untreated faecal sludge or waste water would be discharged into water bodies and all used water (including sewage and septage, grey water and black water) would be safely contained, transported and

treated, along with maximum reuse of treated used water, in all town panchayats. For this, preliminary studies are being carried out in 165 town panchayats.

4.3.2.1 Underground Sewerage Scheme (UGSS)

UGSS works have been taken up in 12 town panchayats, out of which work has been completed in 10 town panchayats viz. Orathanadu, Vallam, Mamallapuram, S.Kannanur, Velankanni, Perundurai, Palanichettyatti, Thirumazhisai, Manachanallur and Melachokkanathapuram and house service connections are being given. In case of 2 town panchayats, namely, Sriperumbudur and Thiruporur work is in progress and will be completed during 2023-24.

4.3.2.2 Faecal sludge and Septage Management

Out of 10 FSTP works taken up in town panchayats, 5 FSTP works have been completed. Karunguzhi and Periyanaikanpalayam town panchayats are model town panchayats in Faecal Sludge and Septage Management and are functioning as training ground for other towns. FSTP works in Alangayam, Chengam and Muthukulathur have also been completed. The balance 5 FSTP works in Jalakandapuram, Kaveripattinam, Kurumbalur, Pennadam and Pennagaram are nearing completion.

During the year 2022-23, Septage Management Projects have been sanctioned for another 10 town panchayats viz., Ayyalur, Nilakottai, Palakkodu, Sholavandan, Thirukazhukundram, V.Pudur, Vedasandur, Peravurani, Thisayanvilai and Ayagudi. Further, 6 ULBs namely, Vadamadurai, Sevagampatti,

Batlagundu, Agaram, Sambavarvadagarai and Sundarapandiyapuram located within the vicinity of 10 km of the above town panchayats will also benefit, as the FSTPs in the above town panchayats will also serve the needs of these ULBs.

4.3.3 Crematoriums

Presently in most of the town panchayats, cremation is done using fire wood. It is the endeavor of the Government to provide modern and efficient crematorium in every town. Accordingly, action has been initiated to switch over to gasifier crematorium in a phased manner to protect the environment. At present, 22 modern crematoriums exist and 23 gasifier crematoriums have been taken up at an estimated cost of Rs.31.50 crore during the year 2021-22. Another 47 gasifier crematoriums have been taken up during the year 2022-23 and work is under progress in various stages. For

maintaining these crematoriums, Welfare Associations and Non-Governmental organisations are identified and approved by the Directorate of Town Panchayats. By-laws are also approved by the Directorate for proper maintenance. The remaining town panchayats will be covered in a phased manner, based on the need.

4.4 Environmental Development

Government is giving thrust to urban greening in order to protect the environment. In the areas of the town panchayats, nearly 2.40 lakh tree saplings have been planted during the year 2022-23.

4.4.1 Rejuvenation of Water Bodies

There are 2,212 water bodies in 490 town panchayats. Out of these, 1,182 have already been restored. The Government recognizes the importance of water bodies as a part of the ecosystem and is currently working on

rejuvenating 565 water bodies under various schemes as seen from the table 4.3. In respect of water bodies, 317 works have already been completed, while in case of 248 water bodies work is in progress at various stages.

Table 4.3

Sl. No.	Year	Scheme	Number of water bodies	Estimate Amount (Rs. in crore)
1	2021-22	KNMT	11	14.87
2		NNT	6	0.37
3		15 th Finance Commission	302	38.56
4		TNUES	124	20.53
5		CGF	5	17.05
6	2022-23	KNMT + AMRUT 2.0	115	76.82
7		KNMT	2	2.33
		Total	565	170.53

The balance 465 water bodies will be restored in a phased manner in due course.

4.4.2 Rainwater Harvesting

As per the provisions of the Tamil Nadu District Municipalities Act, 1920 and the building rules issued thereunder, provision of rainwater harvesting structure is mandatory in every building. It has made a tremendous impact in recharging the groundwater table all over Tamil Nadu. Existing rainwater harvesting structures are renovated in public and private buildings and new rainwater harvesting structures are provided, wherever necessary. In addition, awareness is being created among the general public about rainwater harvesting.

4.4.3 Parks

Apart from the existing 536 parks in town panchayats, 160 parks have been taken up during the year 2022-23, at an estimated cost of Rs.40.21 crore and work is under progress in various stages.

4.5 Government of India Schemes under Implementation

4.5.1 Swachh Bharath Mission 2.0 (SBM 2.0)

Under SBM 2.0, during the year 2021-22, a total number of 7,295 Individual Household Latrines (IHHL), 100 community toilets with 847 seats and 75 urinals with 450 seats were sanctioned at an estimated cost of Rs.36.04 crore. Out of which 4,127 IHHL, 34 community toilets and 69 urinals have been completed and the remaining works are under progress. During the year 2022-23, a total number of 34,563 IHHL, 90 community toilets, 50 public toilets and 125 urinals have been sanctioned at an estimated cost of Rs.125.97 crore and out of which 7,183 IHHL, 8 community toilets, 2 public toilets and 44 urinals have been completed and the remaining works are under progress.

Further, during the year 2021-22, an amount of Rs.49.13 crore has been sanctioned for

procurement of 1,909 battery operated vehicles and 98 light motor vehicles for solid waste management activities under the Kalaingar Nagarpura Mempattu Thittam (KNMT) and 965 BOV and 13 LCV have been procured and put in to use. Remaining vehicles will be procured shortly.

Bio-mining of legacy waste dumpsites

Reclamation of dump sites filled with legacy waste is being carried out through bio-mining process. In 131 town panchayats, 149 old and abandoned dumpsites have been identified, where approximately 11.4 lakh cu mt of legacy waste is dumped in nearly 257 acre of land area. An amount of Rs.70.23 crore has been sanctioned for processing and disposal of this legacy waste through bio-mining and work is in progress. Centre for Environmental studies, Guindy Campus, Anna University Chennai is engaged as

third party inspection agency for technical guidance in bio-mining work.

4.5.2 PMAY (U)-Housing

Under Prime Minister's Awas Yojna (Urban), the Beneficiary Led Construction (BLC) component is being implemented in town panchayats. Under the scheme, a subsidy of Rs.2.10 lakh is provided to every beneficiary, with Government of India contribution of Rs.1.50 lakh and State Government contribution of Rs.0.60 lakh. Additional cost, if any, is to be borne by the beneficiary.

So far, 89,141 dwelling units have been sanctioned under this scheme in town panchayats. Of which, 60,853 units have been completed and works in remaining 28,288 dwelling units are in progress and will be completed by December 2023.

4.5.3 National Urban Livelihoods Mission (NULM)

Out of 7 components of the National Urban Livelihoods Mission, 2 components namely, shelter for urban homeless (SUH) and support to urban street Vendors (SUSV) are being implemented in town panchayats.

(i) Shelter for Urban Homeless (SUH)

Under NULM, 38 shelters have been taken up in town panchayats, of which 3 are normal shelters and 35 are special shelters (for the attendants of the inpatients in Government hospitals). Out of these, 35 shelters are complete and functioning. In respect of the remaining 3 shelters, i.e. 2 special shelters one each in Karumandichellipalayam and Mamallapuram and 1 normal shelter in Avinashi, works is in progress.

(ii) Support to Urban Street Vendors (SUSV)

228 mobile vending carts have been sanctioned to Velankanni town panchayat at an estimated cost of Rs. 188.34 lakh. All the mobile vending carts have been procured and given to the beneficiary vendors. Fresh survey is being conducted to identify street vendors, based on which identity cards will be issued to the identified street vendors, so as to enable them to carry out their business without any difficulty.

A sum of Rs.2.57 crore has been sanctioned for survey, issue of identity cards and formation of vending committee in town panchayats.

(iii) PM-SVANidhi

A loan of Rs.10,000 is extended to street vendors at subsidised interest rate under PM-SVANidhi. Against the disbursement target of 65,000 loans, 68,358 loan applications were uploaded in the PM SVANidhi portal; 37,882 loan

applications sanctioned and 32,130 loans disbursed. Periodical meeting with banks and beneficiaries are conducted at the regional level to facilitate sanction of loans to eligible beneficiaries.

4.6. State Government Schemes

4.6.1 Kalaingar Nagarpura Mempattu Thittam (KNMT)

Under this scheme, works such as construction / improvement of roads, bus stands, library cum knowledge centres, crematoria, markets, shandies etc. are taken up. In total, 800 works have been taken up at an estimated cost of Rs. 473.42 crore during the year 2021-22, out of which 700 are complete and remaining 100 works are in progress at various stages.

For the year 2022-23 administrative sanction has been accorded for 291 works viz. 15 shandies, 11 bus stands, 37 crematoriums, rejuvenation of 2 water bodies, 1 park improvement work, 1 community hall and

223 road works at an estimated cost of Rs.466.19 crore and works are in progress at various stages.

More Infrastructure works will be taken up in the coming years.

4.6.2 Namakku Namme Thittam (Urban)

Under Namakku Namme Thittam, 522 projects have been taken up during the year 2021-22 at a total cost of Rs.57.28 crore, with public contribution of Rs.20.03 crore and Government contribution of Rs.37.25 crore. Out of these, 317 works are completed and the remaining 205 are at various stages of implementation.

4.6.3 Tamil Nadu Urban Employment Scheme

The Tamil Nadu Urban Employment Scheme is an initiative of the Government aimed at providing livelihood and social security by

increasing job opportunities and creating public assets. It has been launched on a pilot basis in one town panchayat per district. The scheme aims to reserve 50% of the total work hours for women and pays equal wages for the same work. So far, 192 works have been taken up under the scheme and 5,72,037 person-days have been generated. The total expenditure incurred under the scheme so far is Rs.16.08 crore.

4.6.4 Rural Roads Funded by National Bank for Agriculture and Rural Development (NABARD)

The NABARD is providing financial assistance for the construction of roads and bridges in town panchayats. During the year 2021-2022, 192 road works covering a total length of 292.66 km were taken up in 147 town panchayats at a cost of Rs.181.30 crore and 11 bridge works were taken up in 7 town panchayats at an estimated cost of

Rs.19.40 crore. Out of these projects, 153 road works and 2 bridge works have been completed and the remaining 39 road works and 9 bridge works are in progress.

During the year 2022-23, 159 road works have been sanctioned to 150 town panchayats at an estimated cost of Rs.200.70 crore. These works are in progress and will be completed by September, 2023.

4.6.5 Capital Grant Fund – CGF

Under Capital Grant Fund, financial allocation is made for various infrastructure projects including water supply, solid waste management, stormwater drains, slaughter houses, crematoriums, community halls, shandies, bus stands etc. During the year 2021-2022, Rs.223.16 crore has been allocated for 176 works, out of which 124 works have been completed and the remaining 52 works are in

progress at various stages. A sum of Rs.165 crore has been allocated for the year 2022-23 for taking up various infrastructure works.

4.6.6 Operation and Maintenance Gap Filling Fund

Under the Operation and Maintenance Gap filling fund, allocation is made to needy town panchayats for the maintenance of basic infrastructure facilities.

During the year 2021-2022, an amount of Rs.74.39 crore was allocated, out of which 359 works have been taken up. So far, 318 works have been completed and the remaining 41 works are in progress. A sum of Rs.66.00 crore has been allocated to town panchayats under this fund for the year 2022-23.

4.6.7 Tamil Nadu Urban Road Infrastructure Programme (TURIP)

The Tamil Nadu Urban Road Infrastructure Programme is being implemented with a view to upgrade the roads in urban local bodies.

During the year 2021-22, 175 road works have been taken up in 67 town panchayats for a length of 122.72 km at an estimated cost of Rs.82.99 crore, of which 164 works have been completed and the remaining 11 works are in progress. Steps are being taken to complete these works expeditiously.

During the year 2022-23, 121 road works have been taken up in 114 town panchayats for a length of 118.531 km at an estimated cost of Rs.82.06 crore and another 107 road works have been taken up in 104 town panchayats for a length of 110.021 km at an estimated cost of Rs.74.27 crore, utilizing the savings and interest amount. These works are in progress at

various stages and will be completed by September, 2023.

4.6.8 Nagarpura Salai Mempattu Thittam (NSMT)

Roads play an important role in improving the economy of town panchayats by connecting them to nearby villages and cities. Nearly 20,306 km length of various types of roads is being maintained in 490 town panchayats.

The roads get damaged due to various factors such as ageing, normal wear and tear, heavy traffic, heavy rains, natural calamities such as floods. Also damages occur due to the implementation of various infrastructure works such as underground sewerage and water supply schemes. It is imperative to relay the damaged roads whenever necessity arises, as proper road infrastructure is essential to boost the economic activities in urban areas and thus improving the standard of living of the people.

Under the Nagarpura Salai Mempattu Thittam, in town panchayats, about 6,318 km length of damaged roads will be improved/ developed in these four years. Of the 6,318 km length of damaged roads, 5,200 km of roads will be restored by dovetailing funds from various existing schemes such as KNMT, SFC, TURIP, NABARD, etc. and the balance 1,118 km will be improved/ developed at a cost of Rs.505.00 crore from the special fund.

Rs.154.00 crore has been allocated from the special fund for improvement of 382 km of road in town panchayats for the year 2022-23.

4.7 Online payment of taxes/ charges

Tax revenue and non-tax revenue are the basic sources of income to the town panchayats. However, presently, the collection of tax and non-tax revenue is being done manually causing hardship to the public and also affecting the

revenue of the town panchayats. Therefore, it has been proposed to introduce computerized billing method by utilizing the modules of National Informatic Centre (NIC).

Through this online billing and payment method, citizen can pay taxes and charges from anywhere without visiting the town panchayat office. Various payment options will be made available, such as debit card, credit card, net-banking, UPI and QR Code based payments with the assistance of NIC.

This module has been tested in all the 490 town panchayats and will be launched shortly.

By enabling this online payment system, the citizens will be able to pay their taxes through online from anywhere by visiting the website <https://dtp.tn.gov.in>.

4.8 Financial Management

4.8.1 Sixth State Finance Commission

The Government, have issued orders on the recommendations of the Sixth State Finance Commission (6thSFC), vide G.O.(Ms)No.60, Finance (SFC-MC) Department, dated 28.02.2023. The award period of the 6thSFC is from the year 2022-23 to 2026-27.

As per the recommendations of the Sixth State Finance Commission (6thSFC), the funds released during the year 2022-23 and allocation for 2023-24 are given in the table 4.4.

Table 4.4

Sl.No.	Type of Grant	Financial Year 2022-23 (Rs. in crore)		Allocation for Financial Year 2023 - 24 (Rs. in crore)
		Allocation	Released	
1	SFC Grant	1,525.34	1,519.23	1784.87
2	Capital Grant Fund	165	165*	181.50
3	O&M Gap Filling Fund	66	66*	72.60
	Total	1,756.34	1,750.23	2,038.97

* G.O. under issue

4.8.2 15th Finance Commission

The 15th Finance Commission have recommended grants in two parts 'Untied and Tied' grants.

- (i) **Untied Grants:** Untied grants can be used by the ULBs on felt needs under the eighteen subjects enshrined in the Twelfth Schedule of the Constitution of India, except for salaries and establishment costs. Rs.110.73 crore has been released under untied grants for the year 2021 -22 and 1,231 works have been taken up. Of these, 551 works have been completed and the remaining 680 works are in progress.

- (ii) **Tied Grants:** 50% of the tied grants is earmarked for sanitation, solid waste management and 50% is tied for drinking water, rainwater harvesting and water recycling. Rs.166.09 crore has been

released under tied grants for the year 2021 -22 and 2,263 works have been taken up. Of these, 1,401 works have been completed and the remaining 862 works are in progress.

4.8.3 The Financial Status of Town Panchayats

Table 4.5 (Rs. in crore)

Sl. No.	Description	2021-22	2022-23
Income			
(i)	Tax Revenue	234.00	323.55
(ii)	Non-tax Revenue	267.42	284.39
(iii)	Assigned Revenue	132.33	210.96
(iv)	SFC/CFC Grants	1,601.45	1,805.98
(v)	Capital Receipts	635.26	431.70
	Total	2,870.46	3,056.58
Expenditure			
(i)	Establishment / Administrative charges	1,361.34	1,152.83
(ii)	Capital Expenditure	1,960.36	2,203.36
	Total	3,321.70	3,356.19

4.8.4 Loans and Dues

The details of payable charges and outstanding loan of the town panchayats as on 31.03.2023 is given in the table 4.6.

Table 4.6

Sl.No.	Description	Amount (Rs. in crore)
1.	Current consumption charges dues	20.16
2.	Outstanding LIC Loan, including Interest	46.30
	Total	66.46

5. CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD

Chennai is the fourth-most populous urban agglomeration in India and 36th largest urban area by population in the world. In 1974, Chennai city and the area contiguous to it were notified as Chennai Metropolitan Area (CMA). Subsequently, during the year 1978, the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) was established as a statutory body under the Tamil Nadu Act 28 of 1978, with the objective of exclusively attending to the growing needs and for planned development and appropriate regulation of water supply and sewerage services in the Chennai Metropolitan Area, with particular reference to the protection of public health and for all matters connected therewith.

The Board is managed by a full time Managing Director. The constitution of the Board of CMWSSB is as below:

Board of Directors

CHAIRMAN	
1	Minister for Municipal Administration
DIRECTORS	
2	Additional Chief Secretary to Government, Municipal Administration and Water Supply Department
3	Additional Chief Secretary to Government, Finance Department
4	Managing Director, CMWSS Board
5	Principal Secretary to Government / Commissioner, Greater Chennai Corporation
6	Member Secretary, Chennai Metropolitan Development Authority
7	Managing Director, TWAD Board
8	Executive Director, CMWSS Board
9	Finance Director, CMWSS Board
10	Engineering Director, CMWSS Board

Providing safe drinking water and ensuring safe disposal of sewage is mandatory for a healthy environment and good quality of life for

people. CMWSSB has been providing these services to the citizens of Chennai city since its formation. At present, CMWSSB is providing services directly to 85.70 lakh people spread over 426 sq km in Chennai city through 15 Area offices and 200 Depots. It also caters to the needs of some urban nodes adjacent to the city and industries.

Vision of CMWSS Board

- Provide functional water and sewerage connection to every household in Chennai city.
- Address the demand-supply gap through source augmentation and infrastructure strengthening.
- Harness rainwater by implementing and monitoring rainwater harvesting structures in each and every premise in Chennai city and prepare an Aquifer Management Plan.

- Rejuvenate and restore urban water bodies.
- Recycle / reuse at least 20% of used water.
- Reduce non-revenue water (NRW) to less than 15%.
- Provide underground sewerage scheme (UGSS) to all added areas in Chennai city.
- Prevent sewage outfalls into the city water ways viz Adyar, Cooum and Buckingham canal and their associated drains through short term interception and diversion arrangements and long term infrastructure strengthening works.
- Build adequate sewage treatment capacity by constructing new STPs and rehabilitating existing sewage treatment plants (STPs).

5.1 Water Supply Management

5.1.1 Sources of Water Supply

The prime and consistent endeavor of the Board is to provide safe drinking water in

adequate quantity to the people of Chennai city and to meet the water requirements of industries. The water requirement is met by drawing water from surface sources, ground water sources, reuse of water, desalination plants and tertiary treatment reverse osmosis (TTRO) plants.

(i) Surface Water Sources

The main source of water supply to Chennai city is surface water. Water is drawn from lakes around Chennai city such as Poondi, Puzhal, Cholavaram, Chembarambakkam and Kannankottai-Thervoykandigai; and Veeranam in Cuddalore district, besides water received from the Kandaleru reservoir under Krishna Water Supply Project.

(ii) Ground Water Sources

About 5 MLD of ground water is drawn from the aquifers at Thamaraiyakkam and 20 MLD from own sources in added areas.

(iii) Desalination Plants

There are no perennial water sources for Chennai city. The city's water sources are dependent on monsoon and whenever monsoon fails, the city faces drought. Further, urbanisation of the surrounding areas and the rapid growth of the industries led to drastic increase in demand for water exerting pressure on scarce water resources. Therefore, as a part of drought-proofing measure and taking into account the long term drinking water requirements of the city, the Government has invested in desalination plants.

a) Minjur Desalination Plant

Desalination plants play a vital role in fulfilling city's water supply requirements.

The first desalination plant with a capacity of 100 MLD at Minjur on Design, Build, Own, Operate and Transfer (DBOOT) basis was inaugurated on 31.07.2010 by the then Chief

Minister, Dr.Kalaignar. This plant caters to the needs of the northern parts of Chennai city viz., Manali, Madhavaram, Ennore, Kathivakkam, Thiruvottiyur, Tondiarpet and Vyasarpadi benefiting a population of about 12 lakh.

b) Nemmeli Desalination Plant

Another desalination plant with a capacity of 100 MLD has been constructed at Nemmeli at a cost of Rs.805.08 crore, with full financial assistance from Government of India. The foundation stone for the construction of this plant was laid on 23.02.2010 by the Hon'ble Chief Minister who was the then Deputy Chief Minister and Minister for Local Administration. The plant became operational in 2013 and water from this plant is being supplied to the southern parts of Chennai viz., Sholinganallur, Neelangerai, Injambakkam, Karapakkam, Semmancherry, Thoraipakkam, Perungudi, Kottivakkam, Palavakkam, Thiruvanmiyur, Velachery, Taramani,

Pallipattu, Adyar, Besant Nagar, Nandanam, MRC Nagar, Raja Annamalaipuram and Mylapore benefiting a population of about 10 lakh.

(iv) Tertiary Treated Water

In order to cater to the needs of industries in and around Chennai city, CMWSS Board has constructed two tertiary treatment reverse osmosis (TTRO) plants of 45 MLD capacity each at Koyambedu and Kodungaiyur, including pipeline to convey the treated used water to the industries in Irungattukottai, Sriperumbudur and Oragadam and in Manali–Ennore corridor and Manali–Minjur corridor. Both the plants are operational and at present, 23 MLD of TTRO water is being supplied from Kodungaiyur and 15 MLD from Koyambedu TTRO plant.

5.1.2 Water Treatment Plants

The existing water treatment capacity of the CMWSS Board is 1,500 MLD as given in the table 5.1. The century old city's first Water treatment

plant located at Kilpauk is still functioning, catering to the drinking water needs of the city.

Table 5.1

Sl. No.	Location of the plant	Capacity (MLD)	Year of establishment
1	Kilpauk	270	1914
2	Redhills	300	1996
3	Veeranam	180	2004
4	Chembarambakkam	530	2008
5	Surapet	14	1965 (taken over from TWAD Board in 2009)
6	Minjur desalination plant	100	2010
7	Nemmeli desalination plant	100	2013
8	Porur	6	2022
	Total	1,500	

5.1.3 Water Distribution

Treated water is being distributed from 16 major water distribution stations and 92 subsidiary head works through a pipeline network of 5,247 km as given in the table 5.2.

Table 5.2

Sl.No.	Water distribution station	Quantity supplied (MLD)
1	Patel Nagar	30
2	Anna Poonga	22
3	KannapparThidal	25
4	Vyasarpadi	35
5	Kolathur	25
6	Kilpauk	105
7	Choolaimedu	50
8	Triplicane	15
9	Southern Head works	50
10	ValluvarKottam	20
11	K.K.Nagar	32
12	Ekkattuthangal	10
13	Mylapore	40
14	Nandanam	20
15	Pallipattu	35
16	Velachery	35
17	Direct supply & other small head works	191
	Piped supply in core areas	740
18	Piped supply in added areas	175
19	Through lorries (core+added areas)	30
20	Bulk consumers	30
	Total domestic supply	975

Sl.No.	Water distribution station	Quantity supplied (MLD)
21	Industries	
	Treated water	25
	Secondary treated used water	23
	TTRO water	38
	Total supply to industries	86
	Total supply	1,061

5.1.4 Quality Assurance

In order to ensure quality water supply, continuous surveillance, assessment and monitoring of the water quality is essential. A separate quality assurance wing is functioning in CMWSS Board to ensure the quality of the water supplied. Water samples are collected daily from surface and ground water sources, water treatment plants, desalination plants, water distribution stations, subsidiary head works and the city distribution system. These samples are tested for physical, chemical and bacteriological parameters by the quality assurance wing of

CMWSSB to ensure that water quality conforms to IS Standard 10500-2012.

Currently, 300 water samples are taken daily by the quality assurance laboratory and tested for water quality. A new water and waste water testing laboratory has been set up by the Board at an estimated cost of Rs.7.05 crore with a built up area of 12,000 sqft. This laboratory comprises of separate water laboratory and used water laboratory sections, with advanced instrumentation and infrastructure facilities. These sections include separate Physico chemical analysis and micro biological analysis facilities. The laboratory was inaugurated by the Hon'ble Chief Minister on 22.11.2022. Action has been taken for obtaining NABL accreditation for the laboratory.

5.2 Water Supply Schemes

5.2.1 Schemes under Implementation

(i) 150 MLD capacity Desalination Plant at Nemmeli and laying of product water pipeline from desalination plant to Pallavaram

Construction of a 150 MLD capacity desalination plant has been taken up at Nemmeli to address the demand-supply gap in water supply in Chennai city. The Government of Tamil Nadu has accorded revised administrative sanction at a cost of Rs.1,516.82 crore to implement the project under AMRUT and financial assistance from KfW (German Development Bank).

The project is expected to be completed by July 2023. Water produced from this plant will be supplied to the southern parts of Chennai Metropolitan Area viz. Velachery, Alandur, St.Thomas Mount, Tambaram, Medavakkam, Kovilambakkam, Nanmangalam, Keezhlkattalai,

Moovarasampettai, Sholinganallur, Ullagaram-Puzhuthivakkam, Madipakkam and IT corridor areas benefiting nearly 9 lakh people.

(ii) Perur Desalination Plant (400 MLD Capacity)

Chennai city's present water demand is 1,400 MLD against which nearly 1,060 MLD is supplied leaving a gap of 340 MLD. In order to bridge this gap, it is essential to augment the water supply by identifying additional sources.

Accordingly, Government has accorded administrative sanction for setting up a 400 MLD capacity desalination plant at Perur along East Coast Road and laying of product water transmission main from the desalination plant to the city, at a cost of Rs.6,078.40 crore, with financial assistance from JICA, TNIDB and state budgetary support. The project is at tendering stage and will be implemented expeditiously.

On completion of the project, about 23 lakh people living in Chennai city and its surrounding areas like Tambaram, Pallavaram, Madambakkam, Sembakkam, Chitlapakkam, Peerkangaranai, Perungalathur, Thiruneermalai, Kundrathur, Kattankulathur and Mangadu will receive adequate water supply.

(iii) Water supply schemes under progress in added areas

Water supply schemes are under progress at a cost of Rs.385.63 crore in 9 added areas viz, Nerkundram, Madhavaram, Ramapuram, Manapakkam, Okkiyam-Thoraipakkam, Manali, Chinnasekkadu, Madipakkam and Uthandi.

Administrative sanction has been accorded for water supply scheme to Neelangarai area at a cost of Rs.66.67 crore and for Semmencherri at a cost of Rs.46 crore and are in tender stage.

Water supply schemes for Edayanchavadi, Sadayankuppam, Kadapakkam, Mathur,

Jalladampet, Surapet, Kathirvedu, Puthagaram and Puzhal have been inaugurated and put to public use. The remaining water supply schemes will be commissioned during 2023-24.

(iv) Water supply improvement scheme to Valasaravakkam

To ensure 24X7 equitable water supply by adopting District Metered Area (DMA) concept, Valasaravakkam water supply improvement scheme has been taken up as a pilot project in divisions 149 and 152 at a cost of Rs.69.64 crore. The work is currently in progress and is expected to be completed by June 2023.

5.2.2 Improvement to existing water distribution network to reduce wastage

One of the components of the proposed 400 MLD capacity desalination plant at Perur is the improvement to the existing water distribution system in the core city. Most of the distribution pipelines in the core city are over 30 year old and

the detailed project report (DPR) for improving the existing water distribution system is being prepared.

The main components of the DPR are:

- Replacement of old pipes in the Chennai core city
- Providing supplementary pipes in uncovered streets
- Hydraulic reinforcement of the existing distribution network
- Storage reinforcement by constructing underground reservoirs and elevated service reservoirs
- Establishment of District Metered Areas
- Service connections and water meters

In the meantime, the above work was also considered under Chennai City Partnership program funded by World Bank (WB).

CMWSSB has proposed to engage Water Corporation of Odisha (WATCO) for preparing the

detailed project report for improvement of distribution system in Area X and Area XIII. WATCO has agreed to prepare the DPR, design and implementation of 24x7 water supply in Area X and Area XIII and conducted preliminary study in Thiruvanmiyur and Pallipattu WDS of Area XIII.

5.2.3 Rainwater Harvesting

Tamil Nadu is a pioneer in implementing rainwater harvesting (RWH) programme in the country. Tamil Nadu is the first state in India to make installation of RWH structures mandatory for both existing and new buildings.

Installation of rainwater harvesting structures has been made mandatory for all buildings irrespective of size and area while applying for new/renewal of water and sewer connections.

A communication strategy has been devised by CMWSSB to create awareness about the

importance of rainwater harvesting and encourage consumers to build RWH structures. The campaign is carried out every year before the onset of monsoon by sensitizing citizens about rainwater harvesting to reap maximum benefits during the monsoon season.

Special drive on Rainwater Harvesting Campaign and Water Safety Week - 2022

The Honorable Minister for Municipal Administration launched a campaign on 8th October, 2022, to create awareness about rainwater harvesting and water quality. The campaign aims to conduct door-to-door survey by engaging 1,000 volunteers from the Tamil Nadu Urban Livelihoods Mission (TNULM) in all the 15 Areas to sensitize the public on rainwater harvesting and collect details about total dissolved solids (TDS) in open wells/bore wells and water taps from every household in the city.

1. Training

- 1,000 volunteers from the Tamil Nadu Urban Livelihoods Mission (TNULM) were trained on web based mobile RWH survey application
- TDS meters were provided for testing water quality

2. Survey details

- A web based mobile (ANDROID) RWH survey application was designed with the following features:
 - a. Geo-tagging of all premises/RWH structures/ water and sewer connections/borewell and open well
 - b. Details of timings of water supply and hours of supply
 - c. Classification of property type

3. IEC material

- RWH maintenance display boards were installed on the medians of important roads, bus shelters etc.,

- RWH maintenance pamphlets were issued to public.
- Awareness on RWH was created using visual communication media (LED vans, social media)
- Methods and maintenance of rainwater harvesting structure were explained through videos.

In Chennai city, during the year 2022-23, out of 11.05 lakh buildings, verification was conducted in 10.27 lakh buildings. The survey revealed that about 6,98,360 (around 68%) premises maintained functional RWH structures and in 1,84,860 (18%) premises, RWH structures were present without maintenance. The remaining premises had not implemented RWH structures, for which the people were sensitized to rehabilitate the rainwater harvesting structures and notices were issued for implementing the same.

CMWSSB has installed digital water level recorders (DWLR) in all the 200 Depots to monitor the ground water levels periodically. Observations show that there is a significant improvement in water levels and water quality after every monsoon. Readings are updated on CMWSSB website so that public can know the water levels. Also, CMWSSB has installed rain gauges in all the 15 Areas for real time monitoring.

Observations from digital water level recorders (DWLR) in all the 200 Depots reveal that the average water levels in Chennai city have increased from 7.83 mts in the year 2003 to 3.56 mts in the year 2022 which is, an increase of 4.27 mts. Similarly, there is a substantial improvement in the water quality as well.

5.3 Sewerage Management

Collection, treatment and safe disposal of used water in Chennai city are the primary duties

of CMWSS Board. The sewerage system in the core city was installed initially in 1917 and has been divided into five drainage zones. These zones of macro system cover the entire city and have independent zonal collections, conveyance, treatment and disposal facilities. The sewage generated is collected in 322 sewage pumping stations through a 4,419 km long pipe line network. The sewage is then conveyed to sewage treatment plants and disposed safely after treatment.

5.3.1 Sewage Treatment Plants

The present installed capacity of sewage treatment in the city is 912.80 MLD as given in the table 5.3.

Table 5.3

Zone	Location of STPs	Existing Treatment Capacity (MLD)
I & II	Kodungaiyur (80+80+110+120)	390

Zone	Location of STPs	Existing Treatment Capacity (MLD)
	Thiruvottiyur	31
III	Koyambedu (34+60+120)	214
IV	Nesapakkam (54+40+23)	117
	Nesapakkam TTUF	10
V	Perungudi (60+54+12)	126
	Sholinganallur - I	18
	Modular STPs	
	Chetpet	1
	Choolaimedu	1.2
	Todd Hunter Nagar	4
	Kotturpuram	0.6
	Total	912.80

5.3.2 Operation and Maintenance of Sewerage System

The Board has mechanized the operation and maintenance of the sewerage system to eradicate manual scavenging. The obstructions in the pipeline are removed by jet rodding machines and the solid waste in the machine holes are removed by super sucker machines and desilting

machines. At present, 537 machines are deployed for maintaining the sewerage system as given in the table 5.4.

Table 5.4

Sl.No.	Machinery Details	Numbers
1	Desilting machines	300
2	Jet rodding machines (2KL, 6KL&9KL)	142
3	Jetting cum suction machines	35
4	Super sucker machines	60
Total		537

To improve maintenance, additional machines and equipment are procured periodically, based on requirement.

5.4 Sewerage Schemes

5.4.1 Schemes under implementation in added areas

Underground sewerage schemes are being implemented in 9 added areas, namely Nerkundram, Pallikaranai, Ramapuram, Manali,

Chinnasekkadu, Manapakkam, Karambakkam, Mugalivakkam and Madipakkam at a cost of Rs.783.00 crore.

5.4.2 Construction of new STPs and improvement to existing STPs

The Tamil Nadu Pollution Control Board in its fifth updated compilation released on 30.05.2020 has prescribed revised discharge norms based on central enactments, rules, notifications and orders. These norms given in the table 5.5 would come into effect from 26.05.2026.

Table 5.5

Standards for sewage treatment plants (STPs)		
Sl. No.	Parameters	Mega and Metropolitan Cities (Chennai)
1.	pH	5.5 - 9.0
2.	Bio-chemical oxygen demand (BOD)	10 mg/l
3.	Total suspended solids	20 mg/l

	(TSS)	
4.	Chemical oxygen demand (COD)	50 mg/l
5.	Nitrogen-total	10 mg/l
6.	Phosphorus total (for discharge into ponds, lakes)	1.0 mg/l
7.	Faecal Coliform (FC) (most probable number per 100 ml, MPN/100)	Desirable-100 ; Permissible-230

CMWSSB has taken up construction of 4 new STPs viz. Kodungaiyur – I, Kodungaiyur - II, Perungudi and Nesapakkam and improvement works in existing STPs at a cost of Rs.811.40 crore as given in the table 5.6, to enhance treatment capacity and to achieve new disposal standards.

Table 5.6

Construction of new STPs		Improvement to existing STPs	
Location	Capacity (MLD)	Location	Capacity (MLD)
Kodungaiyur -I	120	Kodungaiyur	110

Construction of new STPs		Improvement to existing STPs	
Location	Capacity (MLD)	Location	Capacity (MLD)
Nesapakkam	50	Koyambedu (120+60)	180
Perungudi	60	Nesapakkam(40+54)	94
Total	230	Perungudi (60+54)	114
		Total	498

Among the above, the Kodungaiyur II Plant with 120 MLD capacity was inaugurated by the Hon'ble Chief Minister on 22.11.2022.

5.4.3 Construction of additional 54 MLD Sewage Treatment Plant at Sholinganallur

This sewage treatment plant was sanctioned at a cost of Rs.65.97 crore. Already, one unit of 18 MLD capacity has been commissioned. It uses sequential batch reactor (SBR) technology to treat the sewage generated from added areas located along East Coast Road and Old Mahabalipuram Road in the southern parts of Chennai. Another

36 MLD capacity plant is under construction and will be commissioned during 2023-24.

5.4.4 Modular Sewage Treatment Plants

As part of Chennai Rivers Restoration Trust (CRRT) works, modular STPs have been established at Chetpet (1 MLD), Choolaimedu (1.2 MLD), ToddHunter Nagar (4 MLD) and Kotturpuram (0.6 MLD) to prevent sewage outfalls into the waterways.

5.4.5 Proposed Sewerage schemes in added areas

Administrative sanction has been accorded for the implementation of UGSS to Nandhambakkam at a cost of Rs.24.65 crore and work order has been issued. Administrative sanction has been accorded for implementation of UGSS to Okkiyam-Thoraipakkam at a cost of Rs.256.91 crore and is currently in tender stage. Administrative sanction has also been accorded for UGSS to Injambakkam, Kottivakkam,

Palavakkam, Neelangarai and Uthandi at a cost of Rs.644.59 crore; and for Puzhal, Mathur, Theeyambakkam, Vadaperumbakkam, Semmencherry, Edayanchavadi, Sadayankuppam, Kadapakkam and left-out streets of Madhavaram at a cost of Rs.1,269.63 crore under AMRUT 2.0, KfW and Singara Chennai 2.0. Out of the above, tender has been invited for Injambakkam, Kottivakkam, Palavakkam, Neelangarai and UthandiUGSS.

For Jalladempettai, DPR has been revised at a cost of Rs.92.76 crore and sanctioned under AMRUT 2.0. and Singara Chennai 2.0.

On implementation of the above projects, all added areas of Chennai city will be covered with underground sewerage.

5.4.6 Projects under Chennai Rivers Restoration Trust

Chennai Rivers Restoration Trust (CRRT) has taken up the eco-restoration of the Chennai city waterways on behalf of Government of Tamil Nadu. CMWSSB, along with CRRT has formulated mitigation proposals for the prevention of sewage outfalls into Cooum and Adyar rivers and Buckingham canal and its associated drains. Mitigation measures for Cooum and Adyar rivers at a cost of Rs.186.19 crore and Rs.123.19 crore respectively, have been taken up by CMWSSB and work is in progress.

In Adyar, some works (modular STP and I&D works) have been dropped due to ongoing and proposed underground sewerage schemes in added areas resulting in the saving of Rs.64.89 crore out of the total project cost of Rs.123.19 crore. To prevent outfalls into Adyar river, 9 works are taken up for implementation in

Areas X and XIII at a cost of Rs.64.89 crore utilising the above savings and currently in tender stage. These works would strengthen the existing sewerage system.

The Government has given top priority to the restoration of Chennai city waterways. Accordingly, CMWSSB has taken up the proposal of plugging of sewage outfalls in Adyar and Cooum rivers, Buckingham canal and their associated drains. The proposal includes interception and diversion arrangements, strengthening/refurbishment of existing sewerage infrastructure.

The Government has accorded in-principle approval for a total project cost of Rs.2,371 crore to carry out the mitigation proposals and have also accorded administrative sanction for Rs.1,001 crore under Phase-I to carry out the works. Work orders were issued for 36 works for a value of Rs.364.80 crore. Out of 36 works, 19 have been completed and the remaining works

are in progress. Revised administrative sanction has been accorded for the works already awarded for a value of Rs.385.38 crore. Proposal for the remaining works at a cost of Rs.468.76 crore is under consideration of the Government.

5.5 Recycle and Reuse

Chennai is pioneer in recycling and reuse of used water. 20% of used water should be recycled and reused as per the guidelines of Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0). As part of water conservation measures, secondary treated sewage (23 MLD) is being supplied to industries in Manali area. The secondary treated sewage is further treated by the industries through tertiary treatment and reverse osmosis (TTRO) and product water is used for industrial purposes.

CMWSSB has also set up two TTRO plants for producing industrial-grade water.

5.5.1 Tertiary Treatment Reverse Osmosis Plants

Two tertiary treatment reverse osmosis (TTRO) plants of 45 MLD capacity each at Koyambedu and Kodungaiyur are operational and supplying water to industries. This ensures assured and sustainable water supply to industries and reduces the fresh water demand from industries.

5.5.2 Tertiary Treatment Ultra Filtration Plants

In order to ensure sustainability, the CMWSSB has taken up construction of three tertiary treatment ultra filtration (TTUF) plants of 10 MLD capacity each at Perungudi, Nesapakkam and Langs Garden. Of these, Nesapakkam TTUF plant was inaugurated by the Hon'ble Chief Minister on 22.11.2022. The product water from Perungudi and Nesapakkam TTUF will be used to supplement the storage in Perungudi and Porur

lakes respectively and the product water from Langs Garden plant will be supplied to Southern Railways for wagon cleaning and to the Greater Chennai Corporation.

Preparation of DPR for utilising 260 MLD of recycled used water for recharging of lakes in and around Chennai has been taken up in association with Indian Institute of Technology (IIT) and Department of Science and Technology (DST), Government of India. The draft detailed project reports for Perungudi and Nesapakkam, in the first phase, have been prepared for tertiary treatment of used water and recharging of nearby lakes.

5.5.3 Tamil Nadu Urban Local Bodies and Chennai Metropolitan Area Septage Management (Regulation) Rules, 2022

The Government of Tamil Nadu has recognized the importance of Faecal Sludge and Septage Management (FSSM) as a viable method

of sanitation for smaller cities, towns and outgrowths in metropolitan cities. In pursuance of the National Policy on Faecal Sludge and Septage Management, a comprehensive programme has been formulated, for regulating periodic cleaning of septic tanks and transportation, treatment and disposal of faecal sludge and septage. The operation and movement of specified vehicles for the purpose of transportation of faecal sludge or septage, to the places identified for decantation and matters connected thereto, shall be now regulated in accordance with the provisions of the Chennai Metropolitan Water Supply and Sewerage Act, 1978.

Accordingly, the CMWSSB Act, 1978 has been suitably amended for the above purpose by enacting the Chennai Metropolitan Water Supply and Sewerage (Amendment) Act, 2022 (Tamil Nadu Act 34 of 2022). The Government has also issued the Tamil Nadu Urban Local Bodies and

Chennai Metropolitan Area Septage Management (Regulation) Rules, 2022, vide the notification of Municipal Administration and Water Supply Department issued in G.O.(Ms) No.183, dated 31.12.2022.

The Government has also approved and issued the new septage management regulations and operative guidelines to regulate the removal of septage from unsewered areas, operation of sewer tanker lorries in the local bodies, prevention of illegal discharge of sewerage and thus protect the environment. The Faecal Sludge and Septage Management and Septage Management (Regulation) Rules, 2022 regulate desludging operators (DSOs), who provide collection and conveyance services by (a) introducing adequate legal provisions to prevent unsafe disposal; and (b) improving receiving/treatment facilities for disposal of septage.

Some of the key features of the new Septage Management (Regulation) Rules, 2022 are;

- Licence for collection, transportation and disposal of faecal sludge and septage (Under Section 69-B of the Act)
- Rules and regulations with respect to transportation of faecal sludge and septage
- Ensure that the operators' vehicles are equipped with GPS for vehicle tracking system, as specified by the Board and are functional.
- The operators are required to maintain a log book containing the septage / faecal sludge transport trip details in the format prescribed and submit it periodically for review.
- Monitoring the desludging operations and prohibition of unsafe disposal

- CMWSSB will monitor the activities of the licensees in the Greater Chennai Corporation (GCC) area in order to prevent any illegal disposal of faecal sludge and septage other than the places identified for disposal.

A person or operator who intends to collect, transport and dispose faecal sludge and septage from any building, whether used for residential or commercial or institutional purposes within the city should submit an application to the licensing authority for grant of license in the prescribed format along with required documents and licence fee of Rs.2000/-.

CMWSSB has notified 22 locations which can be used as a disposal facility by the desludging operators.

The licensee is required to comply with the rules and regulations specified and also ensure

that each driver and worker employed undergoes annual health check-up and shall submit a record of the same to the licensing authority. Further, the licensee is also required to insure each driver and worker employed for a sum of Rs.10 lakh (Rupees ten lakh only) towards personal accidental insurance.

The new rules and regulations also give powers to seize specified vehicles. Where an offence under the Act, rules, bye-laws or any other regulations is committed, the Area Engineer of the Board in case of GCC Area, may seize the vehicle or other article or equipment used for the commission of such offence and shall produce the same within 24 hours before the concerned territorial Superintending Engineer of the Board within whose jurisdiction the vehicle or other articles including motor, pump, tube, tool or equipment used for the commission of such offence is seized.

Failure to comply with the rules shall attract a fine of upto Rs.25,000/- for the first violation, fine of upto Rs.50,000/- for second or any subsequent violation and seizure of the vehicle along with its equipment for continuing violation.

5.6 Capacity Building

The CMWSS Board has established its training centre in 1982 to impart various in-house training programmes, CPHEEO sponsored training programmes and special training programmes for the Board staff as well as staff from other organisations and states. Every year, around 42 courses related to the day-to-day activities of Board and five refresher courses sponsored by CPHEEO are conducted. Many special training programmes including exclusive tailor-made training programmes for other Government organizations are also being conducted.

As part of the initiatives taken by the Board to support entrepreneurs / start-ups, the training centre has conducted training programme in co-ordination with Entrepreneurship Development and Innovation Institute - Tamil Nadu (EDII-TN).

It has been proposed to bring all activities of training centre under an End-to-End IT solution to introduce web based e-learning courses.

5.7 Use of Technology

5.7.1 Geographical Information System (GIS)

The work of preparation of assets and utility maps using geospatial techniques for CMWSSB under Asian Development Bank (ADB) assisted Tamil Nadu Urban Flagship Investment Programme (TNUFIP) is being carried out through a consultant engaged by the Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL).

Under this project, all the underground and above ground assets and utilities are being mapped in a GIS platform for optimum management and maintenance of assets and better service delivery to the citizens. This project also covers capacity building programme for the CMWSSB engineers for managing the assets using this GIS platform in future.

Under this project, administrative sanction has been accorded at a cost of Rs.17.80 crore under AMRUT 2.0 for setting up a dedicated GIS control room at the Board's Head office at Chinthadripet, vide G.O. (Ms) No.8, Municipal Administration and Water Supply Department, dated 20.01.2023. The project includes

- i) Purchase of GIS server hardware and software for data centre and data recovery centre and workstations for GIS control room

- ii) Purchase of the Geo – spatial server software.
- iii) Purchase of survey instruments
- iv) Recruitment of GIS team and
- v) Infrastructure cost for setting up of GIS control room at CMWSSB head office.

5.7.2 Monitoring of Water Tankers using Global Positioning System (GPS)

Water is being supplied through hired water tankers for the streets without water mains and streets with inadequate pressure either directly or by filling the HDPE tanks erected in these localities regularly. Everyday, nearly 30 ML of water is supplied through 3,600 lorry trips. These tankers are being monitored by GPS tracking system to have continuous vigil, thus ensuring the timely delivery of water to the intended people.

5.7.3 Online Services

Consumers can avail the following online services through the Board's website <https://chennaietrowater.tn.gov.in>.

- (i) Public grievances and redressal system
- (ii) Payment of water tax and charges
- (iii) New water/sewer connection for residential premises (G+2 floor)
- (iv) New water connection for industries
- (v) AzhaithalInaippu (sewer connection – G+ 2 floor)
- (vi) Booking water tanker
- (vii) Booking for septic tank clearance
- (viii) Provision for groundwater license

5.7.4.1 Information Technology (IT) Initiatives

CMWSSB in coordination with TNeGA (Tamil Nadu e-Governance Agency) is in the process of developing an End-to-End IT implementation and new ERP (Enterprise Resource Planning) solution at a cost of Rs.3.49 crore to cover all the activities/services of CMWSSB. This project is expected to be completed by June 2023.

5.8 Chennai City Partnership Programme

The Government have accorded in-principle approval for Chennai City Partnership Program and its Disbursement Linked Indicators (DLI) vide G.O.(D) No.289, Finance (Infrastructure Cell) Department dated 16.09.2021. The participating agencies are Greater Chennai Corporation, Metropolitan Transport Corporation, Water Resources Department, CMWSSB and Chennai Unified Metropolitan Transport Authority. The partnership adopts a framework with three result areas to enable a transition to higher quality, sustainable and resilient services through

- (i) strengthening and professionalizing service delivery institutions
- (ii) improving their operational efficiency and service delivery performance and
- (iii) enhancing financial sustainability.

It is a multi-sector program for results operation (PforR) linked to achievement of key

results and indicators. The program development objectives (PDO) for CMWSSB are improvement in service delivery performance and increase in share of operation and maintenance costs recovered through user charges. CMWSSB has to achieve 4 DLIs during the program period.

- (i) DLI 4 – Enhance efficiency and transparency of public procurement
- (ii) DLI 7 – Improved operational efficiency in water supply
- (iii) DLI 8 – Improved access to water supply services
- (iv) DLI 10 – Improved financial sustainability of water supply services

5.8.1 Metering Policy

As part of DLI 7 of the Chennai City Partnership, CMWSSB has to adopt a policy for metering. The Board, in its meeting dated 23.11.2022, resolved to approve the metering policy.

The key objectives of the policy are:

- a) To promote water conservation by encouraging efficient water use
- b) To reduce non-revenue water (NRW) and increase cost recovery.
- c) To ensure fairness and equity to all consumers in charging for water services.
- d) To achieve 100% metering of all high-rise buildings and commercial connections by the year 2023 and to achieve 80% of domestic connections (G+2 and below buildings) by the year 2027.
- e) To set out roles and responsibilities of both CMWSSB and consumers in relation to the installation of metered connections, maintenance of the water meters.

This policy covers types of consumers for metering, selection of meter and meter specification and installation guidelines. It also

covers the tariff, billing and collection and grievance redressal procedures related to metering. The responsibilities of the Board and consumers with regard to metering are described. The policy further stipulates that CMWSSB shall install water consumption meters for all the consumers having water connections in a phased and progressive manner commencing with high water consumption and high revenue categories and all non-residential and new consumers.

5.8.2 Bulk Water Metering

Bulk water metering helps in water audit and assessment of non-revenue water (NRW). Water audit provides essential data for system performance studies, facility planning and evaluation of conservation measures.

For supply, installation and commissioning of electromagnetic flow meters with IoT technology based data transfer facility and

allied works in water treatment plants, water distribution stations and filling stations of the Board including comprehensive operation and maintenance for five years, the Government have accorded administrative sanction for Rs.43.01 crore under Singara Chennai 2.0 vide G.O. (D) No.54, Municipal Administration and Water Supply Department, dated 08.02.2023

5.8.3 Adoption of e-Procurement Roadmap by CMWSSB

The Board, in its meeting dated 23.11.2022, accorded approval for the e-procurement roadmap. The roadmap clearly delineates the types of tenders that will be invited through e-procurement. As per the road map, the General Technical Evaluation (GTE) module will be adopted from April 2023 for online evaluation of tenders. Training on GTE module and evaluation of tenders under quality cum costbased selection for consulting services were conducted by NIC for

the staff of Contracts and Monitoring wing during August 2022.

5.8.4 Establishment of Service level Bench Marks in CMWSSB

CMWSSB has to establish service level benchmark (SLB) baseline through survey including baseline household connections and hours of supply. The Board, in its meeting dated 23.11.2022, accorded approval for conducting the baseline survey work.

The following five main types of activities will be taken up to develop a robust baseline

- (i) Validate and update CMWSSB's consumer database
- (ii) Design and implement a household sample survey on access and quality of water services
- (iii) On-site assessment of water supply at the household level on a sample basis

- (iv) Produce baseline estimates, water-services related composite index and reporting system
- (v) Produce a mapping and data report of un-served pockets in Chennai's core city area

5.9 Monitoring Consumers Grievances

5.9.1 24x7 Monitoring and Control Centre

A 24x7 monitoring and control centre (MCC) has been established at a cost of Rs.1.13 crore and was inaugurated by the Hon'ble Chief Minister on 13.03.2023. The MCC has a 24 x 7 grievance redressal cell as well as a video wall to monitor the important activities of the Board including GPS tracking of mobile water lorries and sewer maintenance vehicles, SCADA monitoring of STP, TTRO plants, desalination plants and monitoring of water filling points through CCTV cameras. Consumers can dial 044-45674567 (20 lines) and toll free number 1916 and register their complaints. The registered complaints are

immediately transferred online and also by SMS to the respective Depot Engineers to rectify the defects. Accordingly, rectification of the defects is being done immediately.

5.9.2 'Metro Water' App

The CMWSSB has introduced a mobile app 'Metro Water' enabling consumers to register their water / sewerage related complaints to the concerned officers at any time, from any place through their smart mobile phones. 'Metro Water' app can be downloaded from Google play store.

Further, public can register their details such as name, mobile number and e-mail address once and can send images / photographs related to the complaints through their mobile phones and inform the status. An exclusive complaint number is generated and sent to the concerned person through SMS. Status of the complaints can also be checked through this app.

5.9.3 QR code Poster

As a new model for citizen focused service delivery, a standard QR code design poster has been created. A total no. of 300 QR Code posters are installed in 15 Areas, 200 Depots and 85 other prominent places in Chennai city for making the grievances redressal more user friendly and easily accessible.

5.9.4 Open House Meeting

To improve the service delivery to the public/ consumers, 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. Senior officers at the level of Superintending Engineers preside over these meetings. The complaints/ grievances/ suggestions received during these meetings are attended immediately.

5.10 Employee Welfare

The Board considers its employees as its major asset and accordingly gives due importance to their welfare.

In order to improve the personal hygiene of field workers, various welfare measures such as provision of uniform cloth with stitching charges, oil, bathing soap, rain coats, shoes, chappals and safety gears are provided to the employees periodically by the Board.

The following welfare measures are also provided to the employees:

- A dispensary with a full time Doctor and Pharmacist and Lab Technical Assistant with first aid equipments.
- Special medical camps for eye, ear, lungs and heart check up are being conducted from time to time for the benefit of the staff and employees.

- As per the Government rules, all the differently-abled employees in the Board are provided with conveyance allowance.
- As per the Government New Health Insurance Scheme, medical facilities are being provided to the employees and pensioners of the Board.
- Retirement benefits are paid to the employees on the date of retirement.
- Death benefits are settled immediately to the legal heirs of the deceased employee after receipt of the claims.
- All staff involved in frontline works are provided with all essential safety equipments.
- In order to avoid accidents during operation and maintenance of the sewerage system, special awareness camps regarding safety measures are being conducted to the Board's contractors and contract workers.
- The CMWSS Board follows the safety aspects for the sewer allied works as per the "The Tamil Nadu Prohibition of Employment as Manual Scavengers and their Rehabilitation

Rules, 2022” issued by the Municipal Administration and Water Supply Department dated 12.08.2022.

- Based on the above rules, the contract conditions have been modified for O&M contracts by including the provisions contained in these rules assuring that no person is engaged as manual scavenger and they are supplied with personal protective equipment (PPE).

5.11 Financial Position

The total revenue expenditure as per the tentative Revised Estimate for the year 2022-23 is Rs.1,418 crore whereas the total income is Rs.1,310crore.

The details of income, expenditure and deficit for the Year 2021-22 to 2023-24 are given below in the table 5.7

Table 5.7 (Rs. in crore)

S no	Particulars	Revised Estimate	Tentative Revised Estimate	Tentative Budget Estimate
		2021-22	2022-23	2023-24
I.	Revenue Income			
1	Sale of water	403	373	402
2	Water & sewerage tax	240	425	446
3	Sale of treated used water & sewerage charges	164	166	176
4	Other income	64	87	88
5	Grants	236	259	399
	Total	1,107	1,310	1,511
II.	Revenue Expenditure			
	Power excluding desal	144	184	211
	Water lorry hire charges	70	74	74
	O&M and R&M excluding desal	315	388	390
	Desal (including power &O&M)*	309	225	430
	Office & administration	15	17	18
	Payments & provision to employees	241	258	287
	Debt service charges	82	72	64
	Depreciation	200	200	200
	Total	1,376	1,418	1,674
	Surplus/ Deficit	-269	-108	-163
* Provision has been made for O&M of 150 MLD desalination plant as it is likely to be operational from July 2023				

The details of amount payable, receivable and outstanding loan as on 28.02.2023 are given below in the table 5.8

Table 5.8 (Rs. in crore)

Sl. No.	Particulars	Amount as on 28.02.2023 (Tentative)
I.	Payable	
1	CMWSSB – O&M contractors	18
2	Refundable deposits	199
3	Contractors' payment (Scheme funds)	26
	Total	243
II	Receivable (Water and sewer taxes and charges)	
1	Local bodies	25
2	Government departments	82
3	Consumers	220
	Total	327
III	Outstanding Loans	
	(a) Principal (including Rs.1,522 crore payable to Government)	1,829
	(b) Interest (Government due 283 crore; TUFIDCORs.7 crore)	290
	Total	2,119

The total revenue expenditure as per the tentative Budget Estimate for the year 2023-24 is Rs.1,674 crore. The total income of the Board as per the tentative Budget Estimate is Rs.1,511 crore. Of this, the income from water supply and sewerage tax is Rs.446 crore, sale of water charges is Rs.402 crore, sale of treated used water and sewerage charges is Rs.176 crore and other income is Rs.88 crore.

6. TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD

The Tamil Nadu Water Supply and Drainage Board (TWAD Board) was constituted on the 14th April, 1971, through the Tamil Nadu Water Supply and Drainage Board Act, 1970 (Tamil Nadu Act 4 of 1971) by the then Hon'ble Chief Minister, Muthamizh Arignar Dr.Kalaigarnar with the objective of providing safe drinking water to all.

TWAD Board has been functioning as an engineering body, implementing water supply schemes to provide safe drinking water to the people in rural and urban areas of Tamil Nadu and underground sewerage schemes in urban areas, excluding the Chennai Metropolitan Area.

Board of Directors

Chairman	
1	Additional Chief Secretary to Government, Municipal Administration and Water Supply Department
Directors	
2	Additional Chief Secretary to Government, Water Resources Department
3	Principal Secretary to Government, Rural Development and Panchayat Raj Department
4	Principal Secretary to Government, Health and Family Welfare Department
5	Managing Director, Chennai Metropolitan Water Supply and Sewerage Board
6	Commissioner of Rural Development and Panchayat Raj
7	Managing Director, Tamil Nadu Water Supply and Drainage Board
8	Additional Secretary to Government, Finance Department
9	Director of Town Panchayats
10	Director of Municipal Administration
11	Joint Managing Director, Tamil Nadu Water Supply and Drainage Board
12	Finance Director, Tamil Nadu Water Supply and Drainage Board
13	Engineering Director, Tamil Nadu Water Supply and Drainage Board

TWAD Board is functioning with four Regional Offices, located at Vellore, Thanjavur, Coimbatore and Madurai, each headed by a Chief Engineer. 16 Circle Offices, 85 Divisional Offices and 259 Sub-Divisional Offices, working under the Regional Offices carry out the design and implementation of water supply and sewerage schemes and also the maintenance of combined water supply schemes.

6.1 Vision of TWAD Board

- Design and implementation of combined water supply schemes and stand-alone water supply schemes to provide protected water supply to both rural and urban areas of Tamil Nadu.
- Design and implementation of underground sewerage schemes in urban areas.
- Operation and maintenance of combined water supply schemes covering more than one local body so

as to provide adequate water to rural and urban local bodies.

- To take necessary measures to ensure sustainability of water sources.

6.2 Functions of TWAD Board

- Planning, design and implementation of water supply schemes to rural and urban areas in Tamil Nadu.
- Planning, design and implementation of underground sewerage schemes in urban areas.
- Operation and maintenance of combined water supply schemes.
- Testing and monitoring the quality of water supplied.
- Research and training activities.

6.3 Schemes completed by TWAD Board during the year 2022-23

6.3.1 Combined Water Supply Schemes/Stand-alone Water Supply Schemes

During 2022-23, 11 combined water supply schemes / stand-alone water supply schemes

covering 3 municipalities, 13 town panchayats and 1,802 rural habitations in Tiruchirappalli, Krishnagiri, Theni, Madurai, Tenkasi, Tirunelveli, Erode, Namakkal, Salem and Kanniyakumari districts, benefiting a total population of 14.91 lakh have been completed at a cost of Rs.956.74 crore for providing protected water supply of 99.59 MLD.

The details of schemes are given in the table 6.1.

Table 6.1

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	CWSS to 138 rural habitations in Thottiyam union in Tiruchirapalli district (3.26 MLD)	49.95	0.58
2.	CWSS to Sigaralapalli and 143 rural habitations in Bargur union in Krishnagiri district (1.46 MLD)	31.82	0.41

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
3.	WSIS to Bodinayakanur municipality in Theni district (14.36MLD)	76.15	0.90
4.	Dedicated water supply scheme to Bodinayakanur municipality in Theni district	30.00	
5.	WSIS to Anaiyur municipality (since merged with Madurai corporation) in Madurai district (5.40 MLD)	8.97	0.72
6.	CWSS to 96 rural habitations in Gobichetipalayam and Nambiyurunions in Erode district (2.31 MLD)	56.94	0.64
7.	CWSS to 48 rural habitations in Alangulam and Pappakudi unions in Tenkasi district and 1 hamlet in Mukkudal town panchayat in Tirunelveli district (3.18 MLD)	50.50	0.50
8.	CWSS to Sankari, Alampalayam, Padaveedu town panchayats and 669 rural habitations in Pallipalayam and Tiruchengode unions in Namakkal and Salem districts (24.28 MLD)	399.46	4.92
9.	CWSS to Eraniel town panchayat and 319 rural habitations and improvements to Padmanabapuram CWSS and Kattathurai CWSS in Kanniyakumari district (31.81 MLD)	174.00	3.10

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
10.	CWSS to Keezhapavoor town panchayat and 163 rural habitations in Pappakudi Kadayam and Keezhapavoor unions in Tirunelveli district (8.16 MLD)	46.55	1.81
11.	CWSS to 170 rural habitations in Manur and Palayam kottai unions in Tirunelveli district (5.37 MLD)	32.40	1.33
	Total (99.59 MLD)	956.74	14.91

6.3.2. Underground Sewerage schemes

During 2022-23, 5 underground sewerage schemes covering 4 municipalities and 1 town panchayat in Coimbatore, Sivagangai, Virudhunagar and Theni districts benefitting a total population of 3.74 lakh have been completed at an estimated cost of Rs. 500.54 crore so as to convey and treat 42.43 MLD of sewage.

The details of completed sewerage schemes are given in the table 6.2.

Table 6.2

Sl. No.	District	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1	Coimbatore	UGSS to Pollachi municipality (11.25 MLD)	170.22	1.00
2	Sivagangai	UGSS to Karaikudi municipality (16.00 MLD)	140.13	1.39
3	Theni	UGSS to Melachokanathapuram town panchayat (1.90 MLD)	41.72	0.22
4	Coimbatore	UGSS to Mettupalayam municipality (8.65 MLD)	100.08	0.77
5	Virudhunagar	UGSS to Sattur municipality (4.63 MLD)	48.39	0.36
		Total (42.43 MLD)	500.54	3.74

6.4 Schemes under Implementation

6.4.1 Water Supply Schemes

Water supply schemes are being implemented so as to provide 135, 90, 70 and

55 lpcd to corporations, municipalities, town panchayats and rural habitations, respectively.

6.4.1.1 Combined Water Supply Schemes

At present, 39 combined water supply schemes covering 12 municipalities, 24 town panchayats and 9,811 rural habitations in Sivagangai, Virudhunagar, Kanniyakumari, Theni, Cuddalore, Salem, Tiruppur, Coimbatore, Thanjavur, Nagapattinam, Perambalur, Krishnagiri, Tirunelveli, Erode, Karur, Nilgris, Tiruppathur, Tiruchirappalli, Ranipet, Mayiladuthurai, Chengalpattu, Namakkal, Tiruvallur and Thoothukudi districts at an estimated cost of Rs.7,084.64 crore with a designed capacity of 489.29 MLD to benefit 79.25 lakh population are under various stages of implementation with different sources of funding.

Out of the above 39 CWSS, 10 schemes covering 4 municipalities, 21 town panchayats and 6,198 rural habitations in 11 districts are at

various stages of implementation at an estimated cost of Rs.3,667.06 crore under NABARD and MNP funding. The total designed capacity of these schemes is 258.30 MLD, which will benefit a population of 49.02 lakh.

The details of these schemes are given in the table 6.3.

Table 6.3

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1	CWSS to 8 town panchayats and 2,452 rural habitations in 11 unions with bulk provision to 3 municipalities in Sivagangai district (86.42 MLD)	1,752.73	16.11
2	CWSS to 250 rural habitations in Kadamalaikundu - Myladumparai, Andipatti and Theni unions in Theni district (10.70 MLD)	162.43	1.78
3	CWSS to Thittakudi, Pennadam, Mangalampettai, Vadalur, Kurinjipadi and Gangaikondan town panchayats and 625 rural habitations in Mangalore, Nallur and Vridhachalam unions in Cuddalore district (39.43 MLD)	479.00	7.92

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
4	CWSS to Ilampillai, Attayampatti, Panamarathupatti, Mallur and Edanganasalai town panchayats, 778 rural habitations in Veerapandy, Panamarathupatti and Salem unions in Salem district (53.03 MLD)	652.84	6.03
5	Augmentation of water supply to 708 habitations in Annur, Avinashi and Suler unions with bulk provision to 165 rural habitations in Tiruppur union in Coimbatore and Tiruppur districts (36.15 MLD)	362.20	6.43
6	CWSS to 134 rural habitations in Kumbakonam union in Thanjavur district (5.45 MLD)	91.13	0.97
7	Source augmentation to existing CWSS to 893 habitations in Nagapattinam district (14.93 MLD)	42.46	7.03
8	CWSS to 73 rural habitations in Veppur union in Perambalur district (4.05 MLD)	22.84	0.87
9	CWSS to Ennegollu and 122 other rural habitations in Veppanapalli union in Krishnagiri district (2.44 MLD)	31.00	0.54
10	CWSS to 165 rural habitations in 10 village panchayats of Tiruppur union in Tiruppur district (5.70 MLD)	70.43	1.34
	Total (258.30 MLD)	3,667.06	49.02

25 CWSS covering 3,598 rural habitations and 2 hamlets of 2 town panchayats (under Capital Grant Fund) in Thanjavur, Tiruppathur, Karur, Erode, Salem, Tiruchirappalli, Kanniyakumari, Ranipet, Tirunelveli, Mayilladuthurai, Chengalpattu, Namakkal, Thoothukudi, Perambalur and Tiruvallur districts are under implementation in various stages under Jal Jeevan Mission, at an estimated cost of Rs.2,423.01crore. These schemes are designed to supply 141.78 MLD of water and provision of 1,74,073 functional household tap connections (FHTCs), which will benefit 21.37 lakh population.

The details of the schemes are given in the table 6.4.

Table 6.4

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	CWSS to 67 rural habitations in Kumbakonam, Thirupanandal and Thiruvaidaimarudur unions and 2 hamlets in Veppathur and Thiruvaidaimarudur town panchayats in Thanjavurdistrict (5.97 MLD)	117.09	1.02
2.	CWSS to 759 rural habitations in Tiruppathur, Jolarpet, Natrampalli, Kandhiliunions inTiruppathur district (13.99 MLD)	182.09	2.91
3.	CWSS to 756 rural habitations in K.Paramathi and Aravakurichi unions in Karur district (16.29 MLD)	440.63	2.09
4.	CWSS to 442 rural habitations of Modakurichi union in Erode district (20.50 MLD)	412.12	3.16
5.	CWSS to 144 rural habitations of Kodumudi union in Erodedistrict (3.13 MLD)	87.68	0.50
6.	WSS to 55 rural habitations in Kavundapadi village panchayat of Bhavani union in Erode district (3.00 MLD)	17.55	0.59
7.	WSS to 8 habitations in Yercaud panchayat of Yercaudunion in Salem district (0.99 MLD)	12.70	0.15

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
8.	WSS to Muthigramam (1tribal habitation) of kombai panchayat in Thuraiyur union in Tiruchirapalli district (0.022 MLD)	0.75	0.004
9.	WSS to 3 habitations in Muttom VP in Kurunthencode union in Kanniyakumari district (0.22 MLD)	3.69	0.14
10.	WSS to 5 habitations in Thoothur VP in Munchirai union in Kanniyakumari district (1.51MLD)	3.51	0.22
11.	CWSS to Sembedu and 88 otherhabitations in Kaveripakkam, Sholingar and Arakonnam unions in Ranipetdistrict (2.98 MLD)	42.3	0.72
12.	CWSS to 109 rural habitations in Lalgudi and Pullambadi unions in Tiruchirapalli district (11.26 MLD)	248.59	1.90
13.	CWSS to Vagaikulam and 12 rural habitaions of Ambasamudram union in Tirunelveli district (1.20 MLD)	12.05	0.16
14.	CWSS to 32 rural habitations in 7 Panchayats of Sirkazhi union in Mayiladuthurai district (1.46 MLD)	36.14	0.20
15.	CWSS to Kovalam and 10 other habitations in Thiruporur union in Chengalpattu district (0.82 MLD)	13.62	0.14

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
16.	CWSS to 547 rural habitations in Mallasamudram union, Elachipallayam union and 11 panchayats in Paramathi union in Namakkal district (17.96 MLD)	284.04	2.41
17.	CWSS to Koodapalli and 97 habitations in Manachanallur and Musiri unions in Tiruchirapalli district (6.80 MLD)	73.97	1.15
18.	WSS to 4 habitations in Pallipattu panchayat of Tiruchendur union in Thoothukudi district (0.08 MLD)	1.08	0.01
19.	CWSS to Nallathur and 15 other habitations of Nallathur, N.N.Kandigai and Poonimangadu panchayats in Thiruvallangadu union in Thiruvallur district (0.56 MLD)	4.04	0.11
20.	WSS to 3 habitations in Pettavaithalai village panchayat of Andhanallur union in Tiruchirapalli district (0.42 MLD)	3.79	0.07
21.	WSIS to 13 habitations in M. Pudupatti panchayat of Thathaiyangarpettai union in Tiruchirappalli district (1.15 MLD)	7.24	0.11

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
22.	WSS to 15 rural habitations in Veppanthattai union in Perambalur district (1.81MLD)	34.97	0.29
23.	CWSIS to 174 rural habitations in Manikandam union in Tiruchirappalli district (11.71MLD)	119.22	1.37
24.	CWSIS to 214 rural habitations in Budalur, Thiruvaiyaru and Thanjavur unions in Thanjavur district (16.78 MLD)	248.67	1.79
25.	CWSS to 20 rural habitations in Srivaikundam union in Thoothukudidistrict (1.17 MLD)	15.48	0.16
	Total (141.78 MLD)	2,423.01	21.37

Under other funding, 4 CWSS covering 8 municipalities, 1 town panchayat and 15 rural habitations in Virudhunagar, Tenkasi and Nilgiris districts are at various stages of implementation at an estimated cost of Rs. 994.57 crore. The total designed capacity of these schemes is

89.21 MLD, which will benefit 8.85 lakh population.

The details of these schemes are given in the table 6.5.

Table 6.5

Sl. No.	Name of the scheme	Source of funding	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	CWSS to Sankarankoil, Puliyanakudi municipalities, Thiruvankadam town panchayat in Tenkasi district and Rajapalayam, Sivakasi, Thiruthangal municipalities in Virudhunagar district (61.98 MLD)	TNSUDP	543.20	6.20
2.	CWSS to Aruppukottai, Sattur and Virudhunagar municipalities in Virudhunagar district (26.94 MLD)	HUDCO	444.71	2.60
3.	CWSS to Arukutchi and 5 other habitations in Melur Panchayat of Coonoor union in Nilgris district (0.18 MLD)	SADP	1.21	0.030

Sl. No.	Name of the scheme	Source of funding	Estimated cost (Rs. in crore)	Population benefitted (lakh)
4.	CWSS to Kinnakorai and 8 other habitations in Melkudah panchayat of Udhagamandalam union in Nilgris district (0.11 MLD)	SADP	5.45	0.016
	Total (89.21 MLD)		994.57	8.85

6.4.1.2 New Combined Water Supply Schemes

Government have accorded administrative sanction for 19 combined water supply schemes covering 7 municipalities, 20 town panchayats and 10,480 rural habitations in 14 districts at an estimated cost of Rs.13,607.98 crore under Jal Jeevan Mission and AMRUT 2.0. On completion of these schemes, 597.46 MLD of water will be provided through 11,86,366 FHTCs to benefit a population of 64.19 lakh.

The details of the schemes are given in the table 6.6.

Table 6.6

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1	CWSS to 667 rural habitations in Thiruvarur, Nannilam, Koradachery, Kottur, Mannargudi and Thiruthuraipoondi unions in Thiruvarur district (32.55 MLD)	1,127.20	3.97
2	CWSS to Gangaikondan and 21 other rural habitations in Manur union in Tirunelveli district (1.86 MLD)	19.25	0.25
3	CWSS to Rasipuram municipality, 8 town panchayats and 523 rural habitations in Rasipuram, Vennandur, Namagiripettai and Puduchatram unions with bulk provision to 547 rural habitations in Elachipalayam, Mallasamudram and Paramathi unions in Namakkal district (86.04 MLD)	854.37	4.36
4	CWSS to 41 Rural habitations in Palayamkottai union in Tirunelveli district (4.12 MLD)	45.10	0.33

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
5	CWSIS to 88 rural habitations in Kottamapatty and Melur unions in Madurai district (6.46 MLD)	127.18	1.31
6	CWSIS to 236 rural habitations in T.Kallupatti and Sedapatty unions in Madurai district (8.80 MLD)	240.45	1.74
7	CWSS to 252 habitations in Ammapettai and Papanasam unions in Thanjavur district (17.81 MLD)	288.02	2.09
8	CWSS to Nagapattinam Municipality, 4 town panchayats and 980 rural habitations in 6 unions in Nagapattinam district (93.00 MLD)	1,752.00	7.57
9	CWSS to 867 rural habitations in 7 unions in Madurai district (60.00 MLD)	1,559.07	7.12
10	CWSS to 434 rural habitations in 22 village panchayats of Chennimalai union in Erode district (14.20 MLD)	482.36	1.52
11	CWSS to 831 rural habitations in 6 unions in Tirunelveli district	605.75	2.59

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
	(22.79 MLD)		
12	CWSS to 1,286 rural habitations in 8 unions of Virudhunagar district and 45 rural habitations in 2 unions of Thoothukudi district (45.90 MLD)	1387.73	7.25
13	CWSS to 363 rural habitations in 6 unions in Thoothukudi district (16.57 MLD)	515.72	3.05
14	CWSS to Cherukkanur and 114 other habitations in Tiruthani and R.K.pet unions in Thiruvallur district (2.76 MLD)	44.58	0.42
15	CWSS to Chidambaram municipality, Annamalai Nagar town panchayat, and 36 rural habitations in 10 village panchayats in 2 unions in Cuddalore district (17.17 MLD)	255.64	1.28
16	CWSS to 2 municipalities, 5 town panchayats and 2,306 rural habitations in 11 unions in Ramanathapuram district and Oddanchatram municipality, 2	4,187.84	18.86

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
	town panchayats and 1,366 rural habitations in 7 unions in Dindigul district (158.38 MLD)		
17	CWSS to Velagapuram and 10 other habitations of 2 panchayats in Poondi union in Thiruvallur district (0.25 MLD)	3.18	0.04
18	CWSS to Ammambakkam and 10 other habitations of 2 panchayats in Poondi union in Thiruvallur district (0.23 MLD)	3.64	0.05
19	WSS to Thuraiyur municipality in Tiruchirappalli district (8.57 MLD)	108.90	0.39
	Total (597.46 MLD)	13,607.98	64.19

6.4.1.3 Combined Water Supply Schemes taken up for preparation of Detailed Project Report (DPR) during the year 2022-23

Detailed project report has been prepared for providing water supply scheme covering

Kalakkadu municipality and 7 town panchayats in Tirunelveli district at an estimated cost of Rs.490 crore to benefit a population of 1.79 lakh and for fund tie-up and administrative sanction is under process.

6.4.2 Stand-alone Water Supply Schemes

TWAD Board also implements stand-alone water supply schemes for municipal corporations, municipalities and town panchayats as a project implementation agency. On completion, these schemes are handed over to the respective urban local bodies for operation and maintenance.

6.4.2.1 Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

Under AMRUT, 8 water supply schemes have been taken up for implementation, of which 5 schemes have been completed and 3 schemes are at various stages of implementation at an estimated cost of Rs.1,563.65 crore. These

schemes are designed to supply 367.73 MLD of water which will benefit a population of 36.69 lakh.

The details of the schemes under implementation are given in the table 6.7.

Table 6.7

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	WSIS to Nagercoil corporation (49.56 MLD)	296.08	3.90
2.	WSIS to expanded Coimbatore corporation including newly merged areas with river Bhavani as source - Pillur - III (318.17 MLD)	779.86	32.79
3.	WSIS to 8 added areas of Coimbatore corporation (Distribution system only)	487.71	
	Total (367.73 MLD)	1,563.65	36.69

6.4.2.2 Externally Aided Projects (KfW-German Development Bank)

Under externally aided project, water supply improvement scheme to Tirunelveli corporation is under implementation at an estimated cost of Rs.295 crore to supply 50.00 MLD of water, which will benefit a population of 6.88 lakh.

6.4.2.3 Other Funding Schemes

Under other sources of funding, 5 water supply improvement schemes for 3 municipalities and 2 town panchayats in Theni, Madurai, Kanniyakumari, Thiruvallur and Erode districts are at various stages of implementation at an estimated cost of Rs.240.08crore, which on completion, will supply 28.79 MLD of water to benefit a population of 2.34 lakh.

The details of the schemes are given in the table 6.8.

Table 6.8

Sl. No	Name of the scheme	Source of funding	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	WSIS to Thenkarai town panchayat in Theni district (2.00 MLD)	NABARD	13.31	0.28
2.	WSIS to Usilampatti municipality in Madurai district (9.98 MLD)	IUDM	73.03	0.64
3.	WSIS to Kuzhithurai municipality in Kanniyakumari district (4.83 MLD)	IUDM	30.94	0.31
4.	WSIS to Tiruthani municipality in Thiruvallur district (9.44 MLD)	IUDM	109.68	0.85
5.	WSIS to Sivagiri town panchayat in Erode district (2.54 MLD)	O&M GFF	13.12	0.26
Total (28.79MLD)			240.08	2.34

6.5 Underground Sewerage Schemes

6.5.1 Ongoing Underground Sewerage Schemes

6.5.1.1 Atal Mission for Rejuvenation and Urban Transformation

Four underground sewerage schemes at an estimated cost of Rs.1,060.49crore are at various stages of implementation. These schemes will benefit a population of 9.63 lakh in parts of Coimbatore corporation and 3 municipalities. These schemes will convey and treat 73.17 MLD of sewage.

The details of schemes are given in the table 6.9.

Table 6.9

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1	UGSS to Ambur municipality in Tiruppathur district (16.71 MLD)	165.55	1.83
2	UGSS to Rajapalayam municipality in Virudhunagar district (21.85 MLD)	251.20	2.20

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
3	UGSS to Kurichi and Kuniyamuthur areas of Coimbatore corporation in Coimbatore district (30.53 MLD)	591.14	5.17
4	UGSS to Rameshwaram municipality in Ramanathapuram district (4.08 MLD)	52.60	0.43
	Total (73.17 MLD)	1,060.49	9.63

6.5.1.2 Externally Aided Projects – (KfW – German Development Bank)

Under externally aided projects, underground sewerage scheme to added areas i.e., Kavundampalayam, Thudiyalur, Vadavalli and Veerakeralam in Coimbatore corporation is under implementation at an estimated cost of Rs.860.80 crore. On completion of this scheme, 34.92 MLD of sewage will be collected and treated as per standards, benefiting 3.16 lakh population.

6.5.1.3 Underground Sewerage Schemes with other funding sources

A total of 6 underground sewerage schemes covering 2 corporations, 3 municipalities and 1 town panchayat in Kanniyakumari, Thoothukudi, Villupuram, Thiruvallur and Chengalpattu districts have been taken up with other funding sources and are at various stages of implementation at an estimated cost of Rs.895.98 crore. On completion of these schemes, 52.80 MLD of sewage will be collected and treated as per standards, benefiting 4.58 lakh population.

The details of schemes are given in the table 6.10.

Table 6.10

Sl. No.	Name of the scheme	Funding	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1.	UGSS to Nagercoil corporation in Kanniyakumari district (17.66 MLD)	UIDSSMT	129.95	1.54

Sl. No.	Name of the scheme	Funding	Estimated cost (Rs. in crore)	Population benefitted (lakh)
2.	UGSS to Thoothukudi corporation (Area Based Development) in Thoothukudi district (6.25 MLD)	Smart Cities Mission	120.53	0.54
3.	UGSS to Villupuram Municipality (added areas) in Villupuram district (6.91 MLD)	HUDCO	263.00	0.60
4.	UGSS to Tindivanam Municipality in Villupuram district (11.44 MLD)	HUDCO	268.00	1.00
5.	UGSS to Ponneri Municipality in Thiruvallur district (6.52 MLD)	IUDM	62.82	0.57
6.	UGSS to Thiruporur town panchayat in Chengalpet district (4.02 MLD)	IUDM	51.58	0.33
	Total (52.80 MLD)		895.88	4.58

6.5.2 New Underground Sewerage Schemes

Administrative sanction has been accorded for providing UGSS to added areas of Vellakinar, Chinnavedampatti and Saravanampatti (Part) of

Coimbatore corporation (Zone VI) and Hosur and Thoothukudi corporations at a cost of Rs.1,006.15 crore under AMRUT 2.0.

The details of the schemes are given in the table 6.11.

Table 6.11

Sl. No.	Name of the scheme	Estimated cost (Rs. in crore)	Population benefitted (lakh)
1	UGSS to added areas of Vellakinar, Chinnavedampati and Saravanamaptti (Part) in Coimbatore corporation. (Zone VI) (9.95 MLD)	279.05	0.64
2	UGSS to Hosur corporation in Krishnagiridistrict (32.65 MLD)	574.96	2.25
3	UGSS to Thoothukudi corporation (5.37 MLD)	152.14	0.43
	Total (47.97 MLD)	1,006.15	3.32

6.5.3 Underground Sewerage Schemes for which Detailed Project Report has been prepared during 2022-2023

Detailed project report has been prepared for 2 underground sewerage schemes covering Mannargudi and Aruppukottai municipalities at an estimated cost of Rs.642.92 crore, to benefit a population of 1.76 lakh and is in the process of fund tie-up and administrative sanction.

6.6 Special Schemes

Hogenakkal Combined Water Supply Scheme -Phase –II

The Hon'ble Chief Minister has announced on 20.01.2022, that a detailed project report for implementing the Hogenakkal Combined Drinking Water Supply scheme (Phase –II) will be prepared for enhancing the present level of water supply to the people in Dharmapuri and Krishnagiri districts.

Based on the announcement, to provide water supply at the rate of 135 LPCD to

corporation and municipalities, 90 LPCD to town panchayats and 55 LPCD to the rural areas in Dharmapuri and Krishnagiri districts, a detailed project report for Hogenakkal Combined Drinking Water Supply scheme (Phase-II) with river Cauvery as source has been prepared at an estimated cost of Rs.7,145 crore to supply 304.83 MLD of water. The proposal is under consideration of the Government for posing under External Aided Projects (EAP) funding.

A population of 38.82 lakh in Hosur corporation, Dharmapuri municipality, 16 town panchayats and 6,802 rural habitations in 20 unions in Dharmapuri and Krishnagiri districts will benefit from this scheme.

6.7 Operation and Maintenance of Combined Water Supply Schemes

Combined water supply schemes 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.

At present there are 544 combined water supply schemes under the maintenance of TWAD Board, covering 12 corporations, 65 municipalities, 346 town panchayats, 52,361 rural habitations and 568 industries / institutions, benefiting a population of 4.53 crore.

An average of 2,104 million litre of water is supplied daily through the above 544 combined water supply schemes.

The details are given in the table 6.12.

Table 6.12

Sl. No.	Name of the beneficiary	No. of beneficiaries	Earmarked quantity (in MLD)	Average supplied quantity (in MLD)
1	Corporations	12	292	259
2	Municipalities	65	295	259
3	Town panchayats	346	379	331

Sl. No.	Name of the beneficiary	No. of beneficiaries	Earmarked quantity (in MLD)	Average supplied quantity (in MLD)
4	Rural habitations	52,361	1,366	1,197
5	Industries / institutions / commercial organisations	568	67	58
	Total	53,352	2,399	2,104

In order to provide 55 LPCD of water through functional household tap connections, Government have accorded approval for retrofitting 56 CWSS for the schemes under TWAD Board maintenance in Tiruchirappalli, Ariyalur, Perambalur, Coimbatore, Tiruppur, Namakkal, Salem, The Nilgiris, Chengalpattu, Thiruvallur, Cuddalore, Kallakurichi, Ramanadhapauram, Sivagangai, Dindigul, and Villupuram districts under Jal Jeevan Mission at a cost of Rs.1,658.31 crore and are in various stages of implementation.

6.8 Research, Design, Training and Project Management Centre

6.8.1 Research and Design Unit

Following activities are being carried out for effective operation and maintenance of the combined water supply schemes maintained by TWAD Board.

- Repair / replacement of 57 less efficiency pumpsets at a cost of Rs.5.95 crore was carried out for schemes under the maintenance of TWAD Board, and thereby annual saving of Rs.2.04 crore towards electricity charges achieved.
- Internet of Things (IoT) is being installed for monitoring the quantity of water supplied in the following schemes of TWAD Board.
 - (i) CWSS to 96 habitations in 6 village panchayats in Gobi, Nambiyur union in Erode district.
 - (ii) CWSS to 31 habitations in Alangulam union in Tenkasi district and 17 habitations in Pappakudi union and 1 town panchayat hamlet in Tirunelveli district.
 - (iii) CWSS to Sathanur and 45 other rural habitations in Kozhunthampattu panchayat in Thandrampet union in Tiruvannamalai district, under the maintenance of TWAD Board.

6.8.2 Training and Capacity Building Activities

A main training centre at TWAD Board Head Office, Chennai and sub training centres at Tiruchirappalli, Madurai and Coimbatore, impart regular training and capacity building programmes for the technical and other staff of the Board and local bodies.

During 2022-23, eleven training programmes were conducted for the engineers, hydrogeologists, draughting officers, administrative and account staff of TWAD Board, benefitting 1,100 personnel under Jal Jeevan Mission Support Activity Fund at an expense of Rs.1.30 crore.

For the year 2023-24, the following topics are proposed in the training programme:

- Innovative technologies in implementation of underground sewerage schemes and CWSS.
- Safety aspects in execution, operation and maintenance of UGSS.
- Estimation and preparation of detailed project report for WSS/UGSS
- Energy audit, water audit in operation and maintenance of CWSS/UGSS, water quality monitoring, usage of water meters including smart water meter.
- Water hammer & STAAD Pro
- Exposure visit to mega CWSS
- Analysis and design using sewer GEMS and Water GEMS
- Quality aspects in material testing laboratory and adoption as per TWAD/JJM guidelines.
- Geographic Information System (GIS) with field survey using latest methodologies
- Court cases, disciplinary proceedings and RTI Act
- Accounts and audit
- Tender procedures and contract management

6.9 Material Testing and Quality Control Laboratory

Four material quality control laboratories are functioning in TWAD Board at Coimbatore, Madurai, Tiruchirapalli and Tindivanam. National Accreditation Board for Testing and Calibration Laboratories (NABL) certifications have been awarded to the laboratories in Coimbatore and Madurai.

In these laboratories, the following materials are being tested:

- Cement, steel rods, river sand, crushed stone sand, coarse aggregates, bricks and concrete cubes, mix design of concrete.
- Filter media
- PVC pipes, UPVC pipes, O- PVC pipes, HDPE pipes, DWC pipes, GI pipes, stoneware pipes and DI pipes.
- Electric cables.

During the year 2022-23, from April 2022 to February 2023, a total of 9,293 samples have

been tested. It is proposed to test about 10,000 samples during the year 2023-24.

6.10 Water Quality Testing and Surveillance

With a view to ensure safe drinking water supply to the public, TWAD Board has established one state level laboratory at Chennai, 31 laboratories at district level, 56 at sub district level and 25 laboratories at block level. Chemical and bacteriological parameters in the water to be supplied are tested in these laboratories and appropriate action is taken.

The state level water testing laboratory at Chennai is NABL accredited and recognized as state referral institute for Tamil Nadu by Government of India since 2016. Further, under Jal Jeevan Mission, NABL accreditation have been obtained for 31 district level water testing laboratories (other than newly formed districts) and NABL recognition is obtained for two sub

district level laboratories. Further, action is being taken to get the NABL recognition to 54 sub district level water testing laboratories and 25 block level water testing laboratories.

During the year 2022-23, nearly 6.63 lakh water samples have been tested in the state and district laboratories with JJM and state funds.

6.11 Hydro- Geological Activities

The sources of water for various water supply schemes implemented by TWAD Board are being identified through the applications of remote sensing and GIS (Geographical Information System). Also, the same are utilised for identification of suitable locations for the construction of recharge structures for sustainability of water sources.

Toposheet-wise (220 Nos.) water quality maps were prepared by TWAD Board which reflects the water quality information, spread over

Tamil Nadu for pre- monsoon and post monsoon seasons.

Geo-tagging of drinking water assets, such as source, overhead tank, school and anganwadi water supply schemes have been taken up and 35,184 drinking water assets are geo-tagged in the web portal.

During the year 2022-23, 714 number of geophysical survey works were carried out.

6.11.1 Rainwater Harvesting

TWAD Board acts as the Nodal Agency and provides technical assistance in the Sustainable Water Security Mission ("SuWaSeM") for Tamil Nadu which works to ensure water security in the urban local bodies through various methods of rainwater harvesting.

SuWaSeM is being implemented through the Directorate of Municipal Administration and the Directorate of Town Panchayats on 50:50 sharing

basis between urban local body and SuWaSeM. Under this, the following works are being carried out.

- Restoration and rejuvenation of water bodies
- Roof top rainwater harvesting (RRWH)
- Campus rainwater harvesting (other than roof area)
- Stormwater harvesting

The total expenditure incurred so far under “SuWaSeM” is Rs.8.13 crore.

The average groundwater details in the districts are measured every year before and after the monsoon through 1,286 observation wells.

The district-wise average groundwater level in metres during May 2022 and January 2023 (pre monsoon and post monsoon) is given in the table 6.13.

Table 6.13 Water level in meter

District	Total observation wells (borewell/ open well) Nos.	May 2022	January 2023	Water level rise(+) / fall(-)
Ariyalur	27	23.3	19.50	+3.80
Chengalpet	29	4.7	3.82	+0.88
Coimbatore	38	11.6	8.90	+2.70
Cuddalore	42	34.0	16.10	+17.90
Dharmapuri	37	7.3	4.30	+3.0
Dindigul	51	11.4	11.35	+0.05
Erode	42	10.6	3.38	+7.22
Kallakurichi	42	6.3	3.60	+2.70
Kanchipuram	17	5.7	4.87	+0.83
Kanyakumari	16	5.0	5.30	-0.30
Karur	34	13	3.74	+9.26
Krishnagiri	44	7.0	2.50	+4.50
Madurai	31	4.3	1.25	+3.05
Mayiladuthurai	13	7.8	4.91	+2.89
Nagapattinam	13	2.2	1.38	+0.82
Namakkal	37	7.0	3.83	+3.17
Perambalur	16	5.6	2.66	+2.94
Pudukottai	24	13.3	9.00	+4.30
Ramanathapuram	91	16.5	15.67	+0.83
Ranipettai	20	4.4	3.11	+1.29
Salem	41	5.9	3.70	+2.20
Sivagangai	79	9.2	7.57	+1.63
Tenkasi	27	5.0	4.90	+0.10
Thanjavur	35	18.5	8.77	+9.73
Theni	20	12.4	9.46	+2.94
Tirunelveli	49	3.9	4.90	-1.0

District	Total observation wells (borewell/ open well) Nos.	May 2022	January 2023	Water level rise(+) / fall(-)
Thirupathur	17	6	2.59	+3.41
Thiruppur	45	17.6	4.36	+13.24
Thiruvallur	36	3.9	3.76	+0.14
Thiruvannamalai	39	6.5	2.59	+3.91
Thiruvarur	58	4.4	4.12	+0.28
Thoothukudi	19	10.5	4.50	+6.0
Thiruchirappalli	35	17.63	14.22	+3.41
Vellore	15	5.1	3.11	+1.99
Villupuram	47	8.7	5.71	+2.99
Virudhunagar	60	4.7	3.47	+1.23
State average	1,286	9.3	5.74	+3.56

6.12 Financial Position

The total revenue expenditure as per the annual accounts for the year 2022-23 upto 28.02.2023 is Rs.1,231.47 crore whereas the total income is Rs.1,118.79 crore.

The details of income, expenditure, deficit and cumulative deficit for the year 2020-21 to 2022-23 (Upto Feb 2023) are given in the table 6.14.

Table 6.14

(Rs.in crore)

Sl. No.	Description	2020-21	2021-22	2022-23 Upto Feb-23 (tentative)
I	Revenue income			
1.	Centage charges	197.60	314.54	245.25
2.	Water charges	675.92	729.75	642.95
3.	Other income	109.83	128.79	155.01
4.	Grants	159.48	217.13	75.58
	Total	1,142.83	1,390.21	1,118.79
II	Revenue expenditure			
1.	Salary	109.38	110.40	92.82
2.	Pension and retirement benefits	375.14	371.42	315.90
3.	Maintenance of CWSS	962.54	1034.89	799.80
4.	Other expenditure	28.92	30.04	22.95
	Total	1,475.98	1,546.75	1,231.47
	Deficit	333.15	156.54	112.68
	Cumulative deficit	2,643.78	2,800.32	2,913.00

The details of amount payable, receivable and outstanding loans, as on 28.02.2023 are given in the table 6.15.

Table 6.15

(Rs.in crore)

Sl. No.	Particulars	Amount as on 28.02.2023 (tentative)
I.	Payable	
1	TANGEDCO-CC charges	2,207.99
2	Retirement benefits to the Board pensioners	13.69
3	CWSS-O&M contractors	483.30
4	WCE-Court case – arrear payments	13.70
	Total	2,718.68
II	Receivable (Water charges)	
1	Corporations	307.68
2	Municipalities	45.47
3	Town panchayats	12.49
4	Village panchayats	320.90
5	Private beneficiaries	143.75
	Total	830.29
III	Loan	
	LIC (Rural)	
	Principal	68.30
	Interest	23.60
	Total	91.90

6.13 Jal Jeevan Mission

Jal Jeevan Mission aims to provide functional household tap connections (FHTCs) to every rural household by 2024 with 55 LPCD of potable water on regular basis.

6.13.1 Components of JalJeevan Mission

- i. Creation of sustainable drinking water sources and augmentation of existing sources to ensure long-term sustainability.
- ii. To provide bulk water transfer wherever required, to construct water treatment plant(s) and to strengthen the distribution network.
- iii. Provision of in-village piped water supply infrastructure to provide tap water connection to every rural household.
- iv. Retrofitting of completed and ongoing schemes to provide FHTCs at the minimum service level of 55 LPCD in rural areas.
- v. To undertake information, education and communication (IEC), human resource

development, training, water quality testing and surveillance activities.

6.13.2 State Nodal Department and State Nodal Officer

The Government of Tamil Nadu, vide G.O.(Ms.) No.26, MA&WS (WS.1) Department, dated: 04.02.2022, has nominated Municipal Administration and Water Supply Department as Nodal Department and the Additional Chief Secretary to Government, Municipal Administration and Water Supply Department as the State Nodal Officer for implementation of Jal Jeevan Mission in Tamil Nadu.

The Managing Director, Tamil Nadu Water Supply and Drainage Board is the State Mission Director for Jal Jeevan Mission in Tamil Nadu. A State Project Management Unit (SPMU) has been set up to assist the Mission Director, JJM in the implementation of JJM activities.

6.13.3 Committees

As per G.O.(Ms.) No.33, Municipal Administration and Water Supply Department, dated: 15.02.2022, the following committees have been reconstituted.

i. Apex Committee

The Chief Secretary to Government is the Chairman of this committee and Additional Chief Secretary to Government, Municipal Administration and Water Supply Department is Member Secretary with 7 Additional Chief Secretaries / Principal Secretaries / Secretaries to Government; Mission Director, JJM; representative from Government of India; and 3 other officers as members. This committee takes policy decisions and finalizes the State Action Plan.

ii. State Level Scheme Sanctioning Committee (SLSSC)

The State level scheme sanctioning committee has been constituted with the

Additional Chief Secretary to Government, Municipal Administration and Water Supply Department as Chairman and 13 other members including representative from Government of India, to provide technical sanctions to the projects approved by the Apex Committee.

iii. Executive Committee

The Executive Committee is constituted with the Mission Director, Jal Jeevan Mission as Chairman; Commissioner, RD&PR; representative from Finance department; and 4 other officers of the State Government as members to monitor the implementation of the mission.

6.13.4 Implementation Methodology

To achieve the objectives of the Jal Jeevan Mission, the following steps are followed.

- i. Village action plan (VAP) is prepared on the basis of drinking water requirement of each habitation in rural areas. The action plans for the habitations are combined to form a village

action plan and approval of the Grama Sabha is obtained.

- ii. The action plans of all the village panchayats in the district are consolidated and the district action plan (DAP) is prepared. The DAP is approved by the district Water and Sanitation Mission (DWSM) chaired by the District Collector.
- iii. The state action plan (SAP) is prepared by consolidating district action plans of all districts, combined water supply schemes and bulk water transfer in the state. The annual action plan (AAP) is prepared at the state level based on the financial allocation for each year.

6.13.5 Finance

Under Jal Jeevan Mission, the Government of India provides 50 percent funding and the state Government provides 50 percent funding for the implementation of piped water supply connections to rural households. For support activities and water quality monitoring and surveillance activities, Government of India provides

60 percent and the state Government provides 40 percent of the funds required.

Community Contribution

To encourage people's participation, 5% of the capital cost of in-village component is collected from the public in hilly / forest areas and SC/ST habitations and 10% in other village panchayats in cash / kind / manpower towards community contribution.

6.13.6 Implementation

Jal Jeevan Mission is jointly implemented by the Tamil Nadu Water Supply and Drainage Board and the Rural Development and Panchayat Raj Department.

6.13.6.1 Tamil Nadu Water Supply and Drainage Board (TWAD Board)

- i. Combined water supply schemes/ multi-village schemes are designed and

implemented by TWAD Board to cover more than one village panchayat.

- ii. Combined water supply schemes maintained by TWAD Board are retrofitted to augment the water sources, improve the capacity of electro mechanical equipments and pipeline modifications to enhance the water supply level.

6.13.6.2 Rural Development and Panchayat Raj Department

- i. The Rural Development and Panchayat Raj Department design and implement single village schemes (SVS). These works include the creation of water source, in-village infrastructure, construction of overhead tanks and provision of functional household tap connections (FHTCs).
- ii. In addition, the Rural Development and Panchayat Raj Department design and implement in-village infrastructure works as well as providing FHTCs for combined water supply schemes / multi-village schemes implemented by the TWAD Board.

6.13.7 Other Special Features of Jal Jeevan Mission

- i. Third party inspection of all the Jal Jeevan Mission works to ensure quality.
- ii. Functionality assessment for quality, quantity and regularity of watersupply.
- iii. Monitoring the implementation of schemes using Integrated Management Information System (IMIS).
- iv. Water quality testing through field test kits (FTKs).
- v. IEC activities for water conservation, rainwater harvesting, water security, water distribution, etc.,

6.13.8 Convergence of funds

Fifteenth Finance Commission grant, State Finance Commission grant and other grant funds are also converged to carry out the Jal Jeevan Mission works included in the annual action plan approved.

6.13.9 Present Status of Jal Jeevan Mission

Out of 125.52 lakh households in the rural areas of Tamil Nadu, 77.14 lakh (61.46 %) households have been provided with functional household tap connections (FHTCs). Out of this, 24.15 lakh connections have been provided during the year 2022-23.

District wise coverage of FHTCs is given in the table 6.16.

Table 6.16

Sl. No.	District	Total no. of households	FHTCs provided	% of coverage	FHTC to be provided	Total no. of villages	Villages having 100% FHTCs
1	Ariyalur	2,07,503	1,31,418	63	76,085	201	64
2	Chengalpattu	4,16,489	3,21,449	77	95,040	359	159
3	Coimbatore	3,74,014	3,08,095	82	65,919	228	60
4	Cuddalore	5,03,839	2,72,770	54	2,31,069	683	127
5	Dharmapuri	3,43,213	74,543	22	2,68,670	251	1
6	Dindigul	4,57,368	2,54,801	56	2,02,567	306	13
7	Erode	4,20,703	2,87,297	68	1,33,406	225	59
8	Kallakurichi	3,03,892	1,40,919	46	1,62,973	412	32
9	Kanchipuram	2,15,901	2,15,901	100	0	274	274

Sl. No.	District	Total no. of households	FHTCs provided	% of coverage	FHTC to be provided	Total no. of villages	Villages having 100% FHTCs
10	Kanniyakumari	2,16,738	1,97,647	91	19,091	95	19
11	Karur	2,04,464	1,40,055	68	64,409	157	33
12	Krishnagiri	4,09,805	1,85,949	45	2,23,856	333	19
13	Madurai	4,48,409	2,58,774	58	1,89,635	420	65
14	Mayiladuthurai	2,02,657	1,35,503	67	67,154	241	17
15	Nagapattinam	1,57,427	15,397	10	1,42,030	193	0
16	Namakkal	3,51,839	2,85,618	81	66,221	322	77
17	Nilgiris	96,970	50,257	52	46,713	35	1
18	Perambalur	1,48,348	67,710	46	80,638	121	29
19	Pudukkottai	3,70,666	1,56,902	42	2,13,764	497	17
20	Ramanathapuram	3,33,423	75,759	23	2,57,664	429	2
21	Ranipet	1,89,334	1,89,334	100	0	288	288
22	Salem	6,49,977	4,47,448	69	2,02,529	385	69
23	Sivaganga	3,32,507	1,15,185	35	2,17,322	445	8
24	Tenkasi	3,41,728	1,94,304	57	1,47,424	221	62
25	Thanjavur	4,22,759	3,36,419	80	86,340	589	228
26	Theni	1,85,664	1,42,161	77	43,503	130	41
27	Thoothukudi	3,75,139	1,98,802	53	1,76,337	403	123
28	Tiruchirappalli	4,72,472	3,78,107	80	94,365	404	92
29	Tirunelveli	2,86,263	1,61,721	56	1,24,542	204	42
30	Tirupathur	2,16,132	1,20,326	56	95,806	208	11
31	Tiruppur	4,57,456	3,34,246	73	1,23,210	265	26
32	Tiruvallur	4,76,152	4,09,857	86	66,295	526	65
33	Tiruvannamalai	5,31,110	3,56,293	67	1,74,817	860	386
34	Tiruvarur	3,05,459	1,83,698	60	1,21,761	430	24

Sl. No.	District	Total no. of households	FHTCs provided	% of coverage	FHTC to be provided	Total no. of villages	Villages having 100% FHTCs
35	Vellore	2,12,528	1,92,767	91	19,761	247	96
36	Villupuram	4,40,530	2,10,723	48	2,29,807	688	87
37	Virudhunagar	4,72,647	1,65,492	35	3,07,155	450	133
	Total	1,25,51,525	77,13,647	61	48,37,878	12,525	2,849

6.13.10 Details of works taken up :

- The Government of Tamil Nadu envisions to connect every village in the state with a combined water supply scheme (CWSS) based on the sustainable river sources.
- Action is being taken to provide 48.38 lakh FHTCs through 45 new combined water supply schemes, 56 retrofitting of combined water supply schemes and single village schemes where local sources are sustainable, at a cost of Rs.18,228.38 crore.
- So far, work orders have been issued for 48 retrofitting of combined water supply

schemes, 27 new combined water supply schemes and all the single village schemes. Action is being taken to issue work order for the balance schemes.

On implementation of these schemes, 26.03 lakh FHTCs will be provided.

6.13.11 Awards Received

Tamil Nadu has been awarded '**first prize**' by the Hon'ble President of India, based on 'Functionality assessment - 2022' in the category of 'overall functionality'.

As per the functionality assessment report of Government of India, the quantity, regularity and potability of water supplied to the rural households in Tamil Nadu are 94%, 93% and 97% respectively.

7. TAMIL NADU URBAN INFRASTRUCTURE FINANCIAL SERVICES LIMITED (TNUIFSL)

The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) was established in November 1996, as a Public Limited Company, by the Government of Tamil Nadu with private sector participation from ICICI Bank Limited (ICICI), Housing Development Finance Corporation Limited (HDFC) and IL&FS Financial Services Limited (IL&FS). The authorized capital of the company is Rs.2.00 crore and the paid-up share capital is Rs.1.00 crore, of which a sum of Rs.49.00 lakh is contributed by the Government of Tamil Nadu.

TNUIFSL manages funds like Tamil Nadu Urban Development Fund, Water and Sanitation Pooled Fund and other Government Grant Funds and provides a spectrum of solutions towards the development of urban infrastructure, right from concept to commissioning of the projects. The

project development, project appraisal, project structuring, resource mobilization and fund management are the main tasks of the company. The company has been operating on profit since its establishment and dividends are declared and paid regularly.

7.1 Tamil Nadu Urban Development Fund (TNUDF)

The Tamil Nadu Urban Development fund is a Trust, established by the Government of Tamil Nadu in November 1996, with private sector participation from ICICI, HDFC and IL&FS.

TNUDF functions as a sustainable financial intermediary that enhances the flow of private capital to urban sector in the state of Tamil Nadu and facilitate urban local bodies to become capable and sustainable organizations, sensitive to stakeholders in providing the highest quality of urban services.

TNUDF has a mission “to contribute to the 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”.

7.1.1 Objectives of TNUDF

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 ventures and public–private partnerships.
- Improve the financial management of urban local bodies and enable them to access debt finance from markets.

TNUDF provides financial assistance to urban local bodies for implementation of basic service projects such as roads, bridges, stormwater drains, sewerage and sanitation, water supply,

solid waste management and commercially viable remunerative projects, such as bus stands and market complexes.

TNUDF 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.

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

7.2 Externally Aided Projects

Tamil Nadu Urban Infrastructure Financial Services Limited is operating three external lines of credit viz., Tamil Nadu Sustainable Urban Development Project (TNSUDP) assisted by the World Bank, Phase-I and Phase-II of Tamil Nadu

Urban Flagship Investment Program (TNUFIP) assisted by Asian Development Bank and Sustainable Municipal Infrastructure Financing in Tamil Nadu-Phase-II-Part-2 (SMIF-TN-II-2) Program and Municipal Infrastructure Development in Tamil Nadu (MID-TN) Grant Program assisted by KfW (German Development Bank). Funds totaling Rs.11,525.68 crore are available under the above three lines of credit. The details are furnished in the table 7.1.

Table 7.1

Size of External Lines of Credit

(Rs. in crore)

Sl. No.	Components	TNSUDP	TNUFIP		SMIF-TN- phase II- part 2	MID-TN- Grant	Total
			Phase-I	Phase-II			
1	Loan to ULBs	1,397.80	304.78	487.01	0	0	2,189.59
2	Capital grants to ULBs	1,397.80	646.73	834.10	0	151.43	3,030.06
3	Grant to model cities	386.29	0	0	0	0	386.29
4	Technical assistance	368.61	148.02	120.89	22.39	7.97	667.88

	grant / performance-based incentive						
5	Covid 19	37.18	0	0	0	0	37.18
6	Incremental administrative cost and tax	0	36.33	40.32	0	0	76.65
7	Others grants and ULB contribution	517.18	1,934.47	2,668.68	0	17.70	5,138.03
	Total	4,104.86	3,070.33	4,151.00	22.39	177.10	11,525.68

7.2.1 Tamil Nadu Sustainable Urban Development Project (TNSUDP) assisted by World Bank

The Tamil Nadu Sustainable Urban Development Project commenced in the year 2015 with the assistance of the World Bank. The objective of this project is to improve urban services in participating urban local bodies in a financially sustainable manner and to pilot improved urban management practices in selected cities. The total outlay of this project was Rs.3,831.00 crore (US \$ 600 million) and the same has been restructured during the year 2021

with the total outlay of Rs.4,104.86 crore (US \$ 609.00 million). Among the total outlay the World Bank assistance is Rs.2,770.39 crore (US \$ 400.00 million) and the contribution of the State Government and other sources being Rs.1,334.47 crore (US \$ 209.00 million). The project implementation period is between June 2015 and March 2023.

The funding assistance of Rs.2,752.49 crore has been committed for 31 sub-projects. Of these 31, 20 sub-projects at a cost of Rs.2,542.04 crore have been completed and the balance 11 sub-projects are under various stages of implementation.

7.2.2 Tamil Nadu Urban Flagship Investment Program (TNUFIP) assisted by Asian Development Bank (ADB)

The Tamil Nadu Urban Flagship Investment Program commenced in the year 2018 with the financial assistance of Asian Development Bank.

The objective of this Program is to develop priority water supply, sewerage and drainage infrastructure located within strategic industrial corridors of Tamil Nadu, support innovative pilots, improve urban governance and strengthen the capacity of state and local institutions to enhance environmental sustainability, climate resilience and urban livability. The assistance from ADB is US\$ 502 million in (phase-I, phase-II and phase -III) under this program.

The total outlay of Phase-I is Rs.3,070.33crore (US \$ 477.50 million) with ADB assistance of Rs.1,099.53 crore (US \$ 171.00 million). The contribution of the state Government and other sources being Rs.1,970.80 crore (US \$ 306.50 million). The project implementation period is between November 2018 and June 2023. The funding assistance of Rs.951.51 crore has been committed for 9 sub-projects under TNUFIP Phase-I. Of these, 8 sub-projects are under

various stages of implementation and 1 sub-project has been completed.

The total outlay of Phase-II is Rs.4,151.00 crore (US \$ 593.00 million) with ADB assistance of Rs.1,442.00 crore (US \$ 206.00 million). The contribution of the state Government and other sources being Rs.2,709.00 crore (US \$ 387.00 million). The project implementation period is between December 2019 and December 2025. The funding assistance of Rs.1,321.11 crore has been committed for 6 sub-projects under TNUFIP Phase-II and all these sub-projects are under various stages of implementation.

The documents for the Phase-III of the program have been executed during December 2022 with the total outlay of Rs.1,478.34 crore (US \$ 193.50 million). The assistance of ADB of Rs.955 crore (US \$ 125.00 million) and the contribution of the state Government and other sources being Rs.523.34 crore (US \$ 68.50

million). The project will be implemented from the financial year 2023-2024 after administrative sanction of the Government.

7.2.3 Sustainable Municipal Infrastructure Financing –Tamil Nadu (SMIF – TN) Program assisted by KfW (German Development Bank)

The Sustainable Municipal Infrastructure Financing in Tamil Nadu-Phase-II-Part-2 Program assisted by KfW commenced in the year 2014 and completed in December 2022. However, the technical assistance grant component of Rs.22.39 crore (Euro 2.75 million) for enhancing the technical capabilities of the urban local bodies has been extended by KfW upto December 2024. Under this program, about 5,200 officials and elected representatives of urban local bodies are proposed to be trained in urban governance, finance, project development, implementation and operation and maintenance.

The documents for Municipal Infrastructure Development in Tamil Nadu (MID-TN) Grant program assisted by KfW have been executed in August 2022. The total outlay of this programme is Rs.177.10 crore (Euro 22.22 million), of which KfW's grant assistance is Rs.159.40 crore (Euro 20.00 million) and ULB contribution of Rs.17.70 crore (Euro 2.22 million). The objective of the programme is to finance innovative projects to promote environmental protection and to increase climate resilience in the state. The project will be implemented from the financial year 2023-2024 after administrative sanction of the Government.

The documents for SMIF-TN-III Program assisted by KfW have been executed in November 2022. The total outlay of this Program is Rs.6,398.25 crore (Euro 750.00 million), of which, KfW's assistance is Rs.4,265.50 crore (Euro 500.00 million). The contribution of the

state Government and other sources being Rs.2,132.75 crore (Euro 250.00 million). Further, documents for grant assistance of Rs.68.25 crore (Euro 8.00 million) by KfW have been executed under this Program for providing technical assistance. The objective of the programme is to finance climate resilient municipal infrastructure projects in the state of Tamil Nadu. The project will be implemented from the financial year 2023-2024 after administrative sanction of the Government.

7.2.4 Externally Aided Projects under appraisal

The World Bank's additional financing under TNSUDP with the project named as 'Tamil Nadu Climate Resilient Urban Development Project (TNCRUDP)' is under appraisal by the World Bank. The estimated total outlay of the project is Rs.3,350.25 crore (US \$ 450.00 million) with the World Bank assistance of

Rs.2,233.50 crore (US \$ 300.00 million) and the contribution of the state Government and other sources being Rs.1,116.75 crore (US \$ 150.00 million).

7.3 Water and Sanitation Pooled Fund (WSPF)

The Water and Sanitation Pooled Fund has been created as a not-for-profit trust by the Government of Tamil Nadu to cater to civic infrastructure needs like water and sanitation in small and medium towns by raising resources from capital markets.

The objectives of WSPF are:

- To provide financial assistance for setting up infrastructure projects
- To enable urban local bodies to access debt finance from markets
- To mobilize resources from the capital market under pooled finance structure
- To facilitate the participation of private sector in water and used water sectors

through direct investment and public private partnership and

- To act as the nodal agency on behalf of union and / or state Government for water, sanitation and / or any other infrastructure projects.

WSPF mobilized a sum of Rs.302.30 crore via taxable bonds and tax-free bonds and of the above, bonds of Rs.222.30 crore have been fully redeemed.

A sum of Rs.300 crore has been availed as loan from Housing and Urban Development Corporation Limited (HUDCO) for on-lending to 12 beneficiary urban local bodies for implementing Vellore combined water supply improvement scheme.

Further, HUDCO sanctioned loan assistance of Rs.355.21 crore for Arupukottai combined water supply scheme, Rs.174.20 crore for Tindivanam underground sewerage scheme and

Rs.163.58 crore for Villupuram underground sewerage scheme, totalling to a sum of Rs.692.99 crore. A total of Rs.151.54 crore has been availed from HUDCO (Rs.141.50 crore for Arupukottai combined water supply scheme, Rs.5.26 crore for Tindivanam underground sewerage scheme and Rs.4.78 crore Villupuram underground sewerage scheme) out of the above sanctioned amount.

7.4 Chennai Mega City Development Mission (CMCDM)

The Chennai Mega City Development Mission commenced in the year 2011-12 with the objective to provide funds to Greater Chennai Corporation and Chennai Metropolitan Water Supply and Sewerage Board to implement various urban infrastructure and basic services projects in Chennai and its suburban areas. The fund for the above scheme is provided through budgetary provision every year by the Government. The

Tamil Nadu Urban Infrastructure Financial Services Limited has been designated as the nodal agency for Chennai Mega City Development Mission. A sum of Rs.4,000 crore has been allocated to implement the mission from 2011-12 to 2015-16 and from 2018-19 to 2020-21.

The capital grant assistance of Rs.3,991.73 crore as well as the technical grant assistance of Rs.7.90 crore have been committed under this mission, to implement projects costing Rs.9,054.38 crore. A sum of Rs.3,350.63 crore has so far been disbursed.

8. CHENNAI RIVERS RESTORATION TRUST

The Government of Tamil Nadu is committed to ensure clean, green and sustainable healthy environment for all in urban areas. In this direction, the Chennai Rivers Restoration Trust (CRRT) was set up by the Government to carry out prime functions of planning, coordinating and monitoring activities for the restoration of rivers, water bodies, canals, estuaries and creeks within Chennai Metropolitan Area.

To achieve the goals set for it, the Chennai Rivers Restoration Trust has undertaken various initiatives by adopting an integrated approach by engaging various line departments in its eco-restoration projects.

8.1 Completed Eco-Restoration Projects

8.1.1 Tholkappia Poonga - Eco-Restoration of Adyar Creek (58 acres)

A pioneering urban wetland conservation initiative was taken up by the Government of

Tamil Nadu in the restoration of 358 acres of the Adyar creek and Estuary area located in the eastern side of Thiru. Vi. Ka. bridge at a sanctioned cost of Rs.100 crore.

The Adyar creek and estuary area was degraded due to infestation of *Prosopis juliflora*, indiscriminate disposal of sewage, solid waste and debris which subsequently resulted in shrinking of water spread area, reduced tidal interaction and decrease in bio-diversity.

The eco-restoration of Adyar creek (58 acre) commenced in 2008 under phase-I and the major restoration activities undertaken were increasing the water spread and tidal interaction area, plantation of native vegetation such as tropical dry evergreen forest species, mangroves species, etc., and landscaping for interactive environmental programmes. All restoration activities were completed in 2011 and continuous maintenance is being carried out.

Tholkappia Poonga is now functioning as a centre for environmental education and research. Regular environmental education programmes are being conducted to impart knowledge on environment to the community primarily for students. So far, 1,06,886 students and 5,305 teachers from 1,309 schools have visited the eco-park and have been sensitized on the significance of urban wetlands restoration. Moreover, corporate social responsibility (CSR) funds have been received from Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) for conducting education programmes for school students at the Poonga.

General public are allowed to visit the Tholkappia Poonga from Monday to Saturday (except public holidays) to understand the efforts being taken up by the Government and so far, a total of 23,397 persons have visited the Poonga. Now, public are also allowed for walking inside the

Poonga and so far, 8,364 individuals have visited. Tholkappia Poonga is now a standing example of urban wetland eco-restoration initiative of the Government.

Now, a re-development plan for Tholkappia Poonga (58 acre) has been prepared to make the Poonga a robust centre in the field of urban wetland ecosystem and the works will commence this year.

8.1.2 Eco-Restoration of Adyar Estuary (300 acres)

In continuation of the restoration of Adyar creek in 58 acre, the eco-restoration of Adyar creek and estuary with an extent of 300 acre of Adyar creek, estuary, islets, mudflats and surrounding area was taken up by the Government for Rs.24.93 crore.

The eco-restoration works were taken up with the components of bund stabilization, removal of debris and plastics and removal of

invasive species of *Prosopis juliflora*, which has now enhanced the tidal interaction and increased the water spread in the creek and estuary. Mangroves and native riverine vegetation were planted to rejuvenate and enhance the biodiversity of riverine ecosystem.

In Adyar creek and estuary (358 acre), a recent faunal survey reported around 424 species of animals such as molluscans, crabs, dragonflies, butterflies, fishes, amphibian, reptiles, birds and mammals. This figure stood at 141 before the restoration activity. The restored Adyar creek and estuary is functioning as an urban wetland bio-diversity hub.

8.2. Ongoing Eco-Restoration Projects

The Integrated Cooum River Eco-Restoration Project (ICRERP) and Adyar River Restoration Project (ARRP) are being implemented by the Government under the aegis of CRRT to

enhance the ecological condition of city waterways.

Eco-restoration initiatives are being executed by line departments concerned by various sub-projects viz., desilting works, baby canal formation and construction of flood protection wall by Water Resources Department; solid waste removal, fencing, beautification of bridges, boom deployment and plantation of native species and riverfront development by Greater Chennai Corporation, Directorate of Municipal Administration and Commissionerate of Rural Development and Panchayat Raj in their respective areas; laying interceptor pipelines, installing modular sewage treatment plants and underground sewerage system by Chennai Metropolitan Water Supply and Sewerage Board; and resettlement and rehabilitation of project affected families by Tamil Nadu Urban Habitat Development Board.

8.2.1 Integrated Cooum River Eco-Restoration Project (ICRERP)

Administrative sanction for Rs.735.08 crore has been accorded by the Government of Tamil Nadu for the implementation of ICRERP for the stretch from Paruthipattu check dam to the Cooum river mouth for a length of 32 km. The major restoration components are river channel improvement, interception and diversion of used water, solid waste removal, rehabilitation and resettlement, plantation and riverfront development.

So far, Rs.495.38 crore has been disbursed to implementing agencies based on the work progress. All restoration works are expected to be completed by June, 2023.

8.2.2 Adyar River Restoration Project (ARRP)

The ecological restoration of Adyar river from its origin at Adhanur lake to the river mouth

for a distance of 42 km was initiated by the Government for Rs.555.46 crore. The major restoration works being implemented are sewage management, solid waste removal, river channel improvement, rehabilitation and resettlement, plantation and riverfront development.

The on-going eco-restoration activities are under various stages of implementation by concerned line departments and are expected to be completed by June, 2023. So far, Rs.213.05 crore has been disbursed to implementing agencies based on the work progress.

8.3 Projects Set to Commence

8.3.1 Restoration of Buckingham Canal and its associated Drains and Drains of Adyar and Cooum River

The Government have sanctioned Rs.1,281.88 crore for the restoration of Buckingham canal and its associated drains and major drains of Adyar and Cooum river in order to

ensure a comprehensive restoration of waterways in Chennai city. Preliminary works such as boundary survey and boundary demarcation through DGPS survey are being taken up and is expected to be completed in March, 2023. Subsequently, the joint bio-metric enumeration of project affected families (PAFs) will be taken up for resettlement and rehabilitation.

8.3.2 Eco-Restoration of Ennore Creek

The Government have accorded administrative sanction of Rs.45.99 crore for the eco-restoration of Ennore creek and the preparatory activities for habitat restoration works are being taken up by Forest Department.

8.4 Preparation of Detailed Project Reports (DPRs)

8.4.1 Preparation of Master Plan and Detailed Project Report for Development of Semmozhi Poonga (Garden of Classical Tamil) in Coimbatore

The Hon'ble Chief Minister has announced that 'Semmozhi Poonga' (world class botanical

garden) would be established at Coimbatore at an extent of 165 acre in two phases within the Coimbatore Central Prison campus with indoor and outdoor auditoria and other facilities.

A detailed project report has been prepared for the development of Semmozhi Poonga in Coimbatore in 45 acre in phase-I with botanical garden including convention center and multi level parking (MLP) and the works are expected to commence in June, 2023.

8.4.2 Preparation of Detailed Feasibility Report for Adyar and Cooum Rivers

In order to ensure holistic approach to improve the water quality of Adyar and Cooum rivers, detailed feasibility reports (DFRs) have been prepared. The restoration of Adyar river will be taken up with the components such as, construction of sewage treatment plants (STPs), laying of trunk sewer, creation of parks and

walkways, etc. through hybrid annuity mode (HAM) with 'One River – One Operator' concept.

8.4.3 Preparation of feasibility report for identification of potential water bodies in Chennai basin for restoration and utilizing them as an additional source of water supply for various urban local bodies (ULBs) excluding Chennai city

The preparation of feasibility report is being undertaken to identify the water bodies with the capacity of not less than 40 mcft and interlinked systems in Chennai basin for restoration and augmenting the potential restored water bodies as additional source of water supply to towns (excluding Chennai) in Chennai basin. The final report is expected to be completed in March, 2023.

9. TAMIL NADU URBAN FINANCE AND INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (TUFIDCO)

The structural underpinning of a city is its urban infrastructure and infrastructural development entails the supply of public services and the usage of public places that are judged necessary for people to be able to live there.

The Tamil Nadu Government established the "Tamil Nadu Urban Finance and Infrastructure Development Corporation (TUFIDCO)" on 20th March, 1990, under the Companies Act, 1956, to work with the implementing agencies in order to help them prepare project proposals and to provide the necessary financial assistance for the successful completion of projects.

The vision of TUFIDCO is "to develop basic infrastructure in urban local bodies to the satisfactory level of inhabitants with sustainable

facilities that attracts investments for the growth of the urban local bodies”

9.1 Mission Directorate / Nodal Agency

TUFIDCO is designated as the Mission Directorate / Nodal Agency for the following Union and State sponsored schemes:

- (i) Smart Cities Mission
- (ii) Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
- (iii) Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0)
- (iv) Kalaingar Nagarpura Mempattu Thittam (KNMT)
- (v) Singara Chennai 2.0
- (vi) Nagarpura Salai Mempattu Thittam (NSMT)

9.2 Fund Manager

The TUFIDCO is managing funds pertaining to the following schemes:

- (i) Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) – Revolving Fund

- (ii) State Urban Infrastructure Development Fund (SUIDF)
- (iii) Integrated Urban Development Mission-Phase I and II (IUDM)
- (iv) TUFIDCO Infrastructure Funding Scheme (TIFS)
- (v) Special Roads Programme (SRP)

9.3 Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

The union Government launched the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in June 2015 and has proposed to phase out this programme by the end of March 2023. The main goals of AMRUT are to (a) ensure that every home has access to a tap with a reliable supply of water and sewerage, (b) improve the amenity value of cities by creating parks and other green spaces, and (c) lessen pollution by using public transportation or building facilities for non-motorized transport, such as walking and cycling.

In 2015, the Union Government selected 28 urban local bodies in Tamil Nadu, viz, 12 municipalities, 15 municipal corporations, and 1 town panchayat, as given in the table 9.1.

Table 9.1

1.	Greater Chennai corporation	15.	Avadi corporation
2.	Coimbatore corporation	16.	Pallavapuram municipality*
3.	Madurai corporation	17.	Tambaram corporation
4.	Tiruchirappalli corporation	18.	Cuddalore corporation
5.	Salem corporation	19.	Kumbakonam corporation
6.	Tirunelveli corporation	20.	Tiruvannamalai municipality
7.	Tiruppur corporation	21.	Kancheepuram municipality**
8.	Thoothukudi corporation	22.	Rajapalayam municipality
9.	Thanjavur corporation	23.	Pudukottai municipality
10.	Erode corporation	24.	Ambur municipality
11.	Vellore corporation	25.	Karaikudi municipality
12.	Dindigul corporation	26.	Nagapattinam municipality
13.	Nagercoil corporation	27.	Rameswaram municipality
14.	Hosur corporation	28.	Velankanni town panchayat
* Merged with Tambaram corporation			
** Since upgraded as Kancheepuram corporation			

The union and state Governments, as well as the relevant urban local bodies, are required to contribute funds for the implementation of the

AMRUT projects in accordance with the ratios shown in the table 9.2.

Table 9.2

Sl. No	Population	GoI share	GoTN share	ULBs share
1	Cities with more than 10 lakh population	33.33%	20%	46.67%
2	Cities with below 10 lakh population	50%	20%	30%
3	Green space (all AMRUT cities)	50%	20%	30%

9.3.1 State Annual Action Plan (I,II,III)-AMRUT projects

AMRUT projects are implemented in AMRUT cities and towns as per State Annual Action Plans (I, II, III). In the state, 445 projects at a cost of Rs.11,441.42 crore have been taken up, as given in the table 9.3. Funds allocated to Tamil Nadu is among the highest in the country.

Table 9.3 (Rs in crore)

SAAP	Total No. of projects sanctioned	Approved cost			
		Total	GoI share	GoTN share	ULB share
SAAP I	111	3,245.51	1,355.29	649.10	1,241.10
SAAP II	171	3,700.45	1,531.47	740.09	1,428.90
SAAP III	163	4,495.46	1,854.39	899.08	1,742.00
Total	445	11,441.42	4,741.15	2,288.27	4,412.00

Of the 445 projects taken up, 423 projects costing Rs.2,731.18 crore, have been completed and the balance 22 projects costing Rs.8,710.23 crore are in various stages of implementation, as shown in the table 9.4.

Table 9.4

Sl. No.	Name of the project	Project cost (Rs. in crore)	Date of completion as per agreement	Expected month of completion
1	CMWSSB- 150 MLD sea water reverse osmosis desalination plant at Nemmeli	954.00	December 2021	July 2023
2	CMWSSB - Pipeline laying works for product water from 150 MLD desalination plant at Nemmeli	125.89	March 2022	July 2023
3	Coimbatore corporation Pillur - III water supply scheme	649.30	August 2022	June 2023
4	Implementation of 24x7 water supply system in the core areas of Coimbatore corporation	506.04	August 2023	January 2025
5	Dedicated water supply scheme to Madurai corporation with source at Mullai Periyar river at Lower Camp.	1,020.00	May 2023	December 2025

Sl. No.	Name of the project	Project cost (Rs. in crore)	Date of completion as per agreement	Expected month of completion
6	Tirunelveli corporation underground sewerage scheme – Phase – III	381.86	December 2021	December 2023
7	Providing underground sewerage scheme to Manali, Chinnasekkadu, Karambakkam and Manapakkam areas of Chennai city	223.00	December 2021	September 2023
8	CMWSSB – Improvement and modification works of sewerage treatment plants in Chennai city	576.76	February 2022	August 2023
9	Tiruppur corporation water supply scheme	992.94	September 2022	June 2023
10	Rameswaram municipality underground sewerage scheme	40.33	August 2021	June 2023
11	Tiruchirappalli corporation underground sewerage scheme - phase II	344.00	January 2022	June 2023

Sl. No.	Name of the project	Project cost (Rs. in crore)	Date of completion as per agreement	Expected month of completion
12	Tiruchirappalli corporation underground sewerage scheme - phase III	264.12	April 2023	July 2023
13	Vellore Corporation Underground sewerage scheme - phase - II	343.69	January 2022	July 2023
14	Vellore corporation underground sewerage scheme - phase - III	248.26	March 2022	July 2023
15	CMWSSB- Valasaravakkamwater supply scheme	67.74	November 2020	March 2023
16	Ambur municipality underground sewerage scheme	129.07	October 2021	June 2023
17	Tiruppurcorporation underground sewerage scheme	525.92	July 2022	June 2023
18	Tirunelveli corporation underground sewerage scheme phase - II	289.01	July 2021	July 2023

Sl. No.	Name of the project	Project cost (Rs. in crore)	Date of completion as per agreement	Expected month of completion
19	Coimbatore corporation underground sewerage scheme	442.00	October 2021	September 2023
20	CMWSSB- providing comprehensive water supply scheme to Mathur, Madipakkam, Jalladampettai and Uthandi areas of Chennai city	184.11	January 2021	June 2023
21	Rajapalayammunicipality underground sewerage scheme	178.75	March 2022	June 2023
22	Nagercoil corporation water supply scheme	223.44	May 2021	March 2023

9.4 Atal Mission For Rejuvenation And Urban Transformation 2.0 (AMRUT 2.0)

The "Atal Mission for Rejuvenation and Urban Transformation 2.0" (AMRUT 2.0) was launched by the Government of India on 1st October, 2021. In Tamil Nadu, it benefits

21 municipal corporations, 138 municipalities and 490 town panchayats.

During the mission period of five years commencing 1st October, 2021, the mission aims to provide universal access to piped water supply throughout cities/towns and to improve sanitation in larger towns (AMRUT towns). In addition to revitalizing water bodies (urban wetlands), the mission aims to create green spaces also.

9.4.1. Funding for Projects

The Government of India funding under the mission for various categories of urban local bodies is given in the table 9.5.

Table 9.5

Population of the city / town	Admissible GoI grant
Cities with less than one lakh population	50%
Cities with population of one lakh to ten lakh (both included)	1/3 rd

Population of the city / town	Admissible GoI grant
Cities with population more than ten lakh(at least 10% of the total project allocation to be taken up in PPP mode)	25%

The total indicated outlay to Tamil Nadu under the mission is Rs.4,942 crore. Under the first tranche (FY 2021-22), a total of 579 proposals for Rs.5,424 crore have been approved by the Government of India, as given in the table 9.6.

Table 9.6 (Rs. in crore)

Sl. No.	Sectors	Nos.	Project cost			
			Total	GoI share	GoTN share	ULBs share
1	Water supply	169	3,356.24	1,435.81	889.59	1,030.84
2	Underground sewerage scheme	8	1,904.22	487.23	617.81	799.18
3	Water bodies	187	120.20	50.42	36.18	33.60
4	Green spaces	215	43.56	17.21	9.11	17.24
	Total	579	5,424.22	1,990.67	1,552.69	1,880.86

Under the second tranche (FY 2022-23), a total of 271 proposals for Rs. 7,089.79 crore have been approved by the union Government, as given in the table 9.7.

Table 9.7

(Rs.in crore)

Sl. No.	Sectors	Nos.	Tentative project cost			
			Total	GoI share	GoTN share	ULBs share
1	Water supply	67	2,648.84	1,166.18	794.65	688.01
2	Underground sewerage scheme	22	4,352.04	1,217.36	1,305.62	1,829.06
3	Water bodies	71	48.51	14.94	14.62	18.95
4	Green spaces	111	40.40	11.28	12.18	16.94
	Total	271	7,089.79	2,409.76	2,127.07	2,552.96

9.5 Smart Cities Mission

The aim of the Smart Cities Mission, which was launched by the Government of India in June 2015, is to promote sustainable and inclusive cities that provide core infrastructure, give decent

living conditions to citizen and deliver on environmental sustainability.

A total of 11 cities in Tamil Nadu have been selected under this mission, namely, Chennai, Coimbatore, Madurai, Thanjavur, Salem, Vellore, Tiruppur, Thoothukudi, Tirunelveli, Tiruchirappalli and Erode, and sanctioned projects have been implemented. Union Government is funding Rs.500 crore per city and the state is funding another Rs.500 crore per city (total Rs.1,000 crore per city).

Out of 684 projects sanctioned at a cost of Rs.10,797.89 crore, 509 projects at a cost of Rs.6,021.81 crore have been completed and 175 projects at a cost of Rs.4,776.08 crore are under implementation. The details are abstracted in the table 9.8.

Table 9.8

(Rs. in crore)

Sl. No.	Name of the smart city	No. of projects	Project cost
1	Chennai	48	1,096.95
2	Coimbatore	54	953.77
3	Madurai	16	981.40
4	Thanjavur	103	966.62
5	Salem	91	972.94
6	Vellore	52	963.40
7	Tiruppur	28	986.05
8	Tirunelveli	84	965.00
9	Thoothukudi	71	981.59
10	Tiruchirappalli	83	965.17
11	Erode	54	965.00
	Total	684	10,797.89

Government of India has informed that this mission will be phased out by 30.06.2023.

9.6 Kalaingar Nagarpura Mempattu Thittam (KNMT)

The Government of Tamil Nadu has launched Kalaingar Nagarpura Mempattu Thittam (KNMT) during 2021. The major objectives of the scheme

are to provide 100% household water supply tap connections, provide sewer links, sanitation, internal roads, streetlights, modernization of crematoria, and other community infrastructure development. Moreover, the scheme focuses on bridging infrastructure gaps in backward areas, slums and newly added areas of municipalities and town panchayats. The scheme also focuses on modern libraries cum knowledge centres to help students and job seekers.

The Kalaingar Nagarpura Mempattu Thittam has focus on urban infrastructure projects such as development of bus stands, parks and play fields, construction of shandies and markets, rejuvenation of water bodies, procurement of e-vehicles for disposal of solid waste, and construction of public toilets, etc.

The Government has allocated Rs.1,000 crore each for the Financial Years 2021-22 and 2022-23. During the Financial Year 2021-22, a

total of 1,383 projects at a total appraised cost of Rs.1,030.91 crore has been sanctioned (KNMT share of Rs.972.75 crore) as given in the table 9.9.

Table 9.9

(Rs.in crore)

Sl. No.	Name of the project	No. of works	Approved project cost			
			Total	KNMTshare (2021-22)	AMRUT 2.0	ULBshare / TUFIDCO loan
1	Roads	1030	475.28	475.28	0	0
2	Metal beam crash barrier	33	5.06	5.06	0	0
3	Parks	83	46.66	45.52	1.14	0
4	Crematorium	50	73.73	73.73	0	0
5	Knowledge centre	36	62.79	62.79	0	0
6	Bus stands	10	44.69	35.68	0	9.01
7	Markets/shandies	38	155.44	116.85	0	38.59
8	Community hall	1	2.80	1.96	0	0.84
9	Ponds /water bodies	100	115.33	110.88	4.45	0
10	BOVs	1	42.00	38.43	0	3.57
11	LCVs	1	7.13	6.57	0	0.56
	Total	1,383	1,030.91	972.75	5.59	52.57

Out of 1,383 projects, 1,063 projects at a cost of Rs.457.21 crore have been completed and all the other works are under various stages of implementation.

Similarly, for the financial year 2022-23, a sum of Rs.1,000 crore has been allocated. The details of projects so far approved are as given in the table 9.10.

Table 9.10 (Rs.in crore)

Sl. No.	Name of the project	No. of works	Approved project cost				
			Total	KNMTshare 2022-23	AMRUT 2.0	SUIDF	ULBshare / TUFIDCO loan
1	Knowledge centre	35	67.20	67.20	0.00	0.00	0.00
2	Crematorium	71	83.85	83.85	0.00	0.00	0.00
3	Bus stand	27	46.44	31.77	0.00	0.00	14.67
4	Shandy	25	50.21	33.37	0.00	0.00	16.84
5	Daily market	22	165.06	82.55	0.00	0.00	82.51
6	Fish market	2	2.33	1.17	0.00	0.00	1.16
7	Roads	413	273.33	273.33	0.00	0.00	0.00
8	Park	332	97.25	57.65	39.60	0.00	0.00
9	Ponds/water Bodies	242	146.88	74.39	72.49	0.00	0.00
10	Water supply	122	2,499.33	305.4	1,969.55	224.37	0.00

Sl. No.	Name of the project	No. of works	Approved project cost				
			Total	KNMTshare 2022-23	AMRUT 2.0	SUIDF	ULBshare / TUFIDCO loan
11	Community hall	1	0.98	0.49	0.00	0.00	0.49
	Total	1,292	3,432.86	1,011.17	2,081.64	224.37	115.67

Out of 1,292 projects, 25 projects at a cost of Rs.5.58 crore have been completed, 948 projects at a cost of Rs.573.12 crore are under execution and all the other works are under various stages of implementation.

9.7 Singara Chennai 2.0

"Singara Chennai 2.0" has been launched by the Government during the year 2021 with an aim to make Chennai city more liveable and vibrant and is being implemented by the Greater Chennai Corporation and the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) with a budget allocation of Rs.500 crore per year from the financial year 2021-22 onwards.

So far, 202 works at a total project cost of Rs.511.48 crore have been undertaken under this scheme, which include road improvement, play fields, crematoriums, stormwater drainage, school building construction and renovation, and street scaping. An abstract of the projects taken up during financial year 2021-22 is as given in the table 9.11.

Table 9.11 (Rs.in crore)

Sl. No.	Name of the Project	No. of works	Singara Chennai 2.0 Share (2021-22)
Greater Chennai Corporation (GCC)			
1	Water fountain	26	1.29
2	Park	27	23.25
3	Play field	17	12.49
4	Dynamic lighting system	1	1.81
5	Roads (BT- BRR)	59	37.58
6	Crematorium	10	6.14
7	Name boards for streets	1	8.43
8	Storm water drainage (phase I-10, Phase II-9)	19	260.87
9	Schools	23	49.83
10	Water bodies	12	9.08
11	Pathway for differently abled person	1	1.14

Sl. No.	Name of the Project	No. of works	Singara Chennai 2.0 Share (2021-22)
12	Animal birth control centre	2	0.81
13	Beautification of bridges	2	0.55
	Sub Total	200	413.27
Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)			
1	Neelankarai water supply	1	66.67
2	Anna main road – Nesapakkam STP-UGSS	1	31.54
	Sub Total	2	98.21
	Total	202	511.48

All the above works are under various stages of implementation.

Similarly, for the financial year 2022-23, 726 projects at a cost of Rs.499.85 crore have been sanctioned, in which 21 projects have been completed, 470 projects are under execution and remaining projects are under tender evaluation stage. An abstract of the projects taken up during the year 2022-23 is given in the table 9.12.

Table 9.12

(Rs. in crore)

Sl.No.	Name of the project	No.of works	Singara Chennai 2.0 share
Greater Chennai Corporation (GCC)			
1	Roads – bus route roads	38	25.91
2	Roads – interior roads	414	29.69
3	Animal birth control (ABC) centre	3	19.72
4	Parks	84	28.79
5	Sponge parks	57	7.67
6	Play field	51	16.33
7	Beautification of bridges	9	9.47
8	Stormwater drain	2	103.88
9	Crematorium	28	23.86
10	Access pathway – beach	1	0.99
11	School furniture	1	4.15
12	School building	16	56.32
13	Victoria public hall	1	32.62
14	Water bodies	1	2.99
15	Fish market	1	1.35
16	Slaughter house	1	1.43
	Total (A)	719	382.40
Chennai Metropolitan Water Supply and Sewerage Board			
1	USSS in Annai Sathya Nagar Sivanandha colony; MKBcolony and Patavatamman Industrial Estate and Tiny Shed	1	8.19
2	Tertiary treatment ultra filtration (TTUF) plant of 5 MLD capacity in Villivakkam-Konnur lake	1	17.97

Sl.No.	Name of the project	No.of works	Singara Chennai 2.0 share
3	Providing UGSS to Nandhambakkam	1	13.39
4	Providing WSS to Semmencherri	1	24.89
5	Electromagnetic flow meter	1	43.01
6	Providing undergroundsewerage scheme to Uthandi	1	5.00
7	Providing underground sewerage scheme to Semmenchery	1	5.00
	Total (B)	7	117.45
	Total (A+B)	726	499.85

9.8 Nagarpura Salai Mempattu Thittam (NSMT)

In order to increase the economic activity in urban areas and enhance quality of life, effective road infrastructure is necessary. Road infrastructure is damaged as a result of works undertaken by various corporations and municipalities to create underground sewerage and water supply systems. Urban areas must concentrate efforts on enhancing their road infrastructure and it is necessary to convert all earthen roads to all-weather ones.

The Hon'ble Chief Minister, among others, has announced on the floor of the Legislative Assembly that the Government will provide Rs.2,200 crore as grant in the next four years to improve the damaged roads in the urban local bodies.

Accordingly, orders have been by the Government sanctioning Rs.2,200 crore for implementation of the Nagarpura Salai Mempattu Thittam (NSMT), vide G.O. (D) No.423 Municipal Administration and Water Supply Department, dated 19.11.2022 and issued guidelines for sanction of funds to the urban local bodies, vide G.O. (Ms) No.19, Municipal Administration and Water Supply Department, dated 13.02.2023. So far, 1,457 km length of damaged roads have been taken up for implementation at a cost of Rs.611.39 crore.

9.9 Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) - Revolving Fund

TUFIDCO has established a revolving fund in accordance with Urban Infrastructure Development

Scheme for Small and Medium towns guidelines. As given in the table 9.13, 99 urban local bodies have been sanctioned interest-free loan to complete internal plumbing work for underground sewage systems and urban water supply projects. The details are given in the table 9.13.

Table 9.13

Sl. No.	Sector	No. of municipalities / corporations	Amount sanctioned from UIDSSMT revolving fund
1.	Water Supply	73	169.58
2.	UGSS	26	193.22
	Total	99	362.80

The projects are under various stages of execution.

9.10 State Urban Infrastructure Development Fund (SUIDF)

Based on the Mega City Programme guidelines, TUFIDCO had created a revolving fund to finance infrastructure projects, on a sustainable basis, which was converted into Metropolitan

Infrastructure Development Fund (MIDF). Under the MIDF, an amount of Rs.2,301.00 crore has accumulated so far.

The Government has issued administrative orders expanding the scope of “Metropolitan Infrastructure Development Fund” (MIDF) with the re-naming of the Fund as “State Urban Infrastructure Development Fund” (SUIDF), enabling to provide finance to all the urban local bodies to meet their infrastructure requirements in the form of soft loan.

The projects sanctioned under SUIDF scheme are given in the table 9.14.

Table 9.14 (Rs. in crore)

Sl. No.	Name of the project	Approved cost
1	Construction of integrated bus terminus and other infrastructure at Panjappur in Tiruchirappalli corporation	159.98
2	Conversion of streetlights to energy efficient lights in 8 Municipal corporations and 77 municipalities	342.85

Sl. No.	Name of the project	Approved cost
3	Providing New energy efficient lights in 11 municipalities	8.00
4	Conversion of streetlights to energy efficient lights in 439 town panchayats	155.56
5	Madipakkam underground sewerage scheme	115.60
6	ULBshare for water supply projects to 93 town panchayats approved under AMRUT 2.0	153.17
7	ULBshare for water supply projects to 18 corporations/municipalities approved under AMRUT 2.0	56.39
8	Construction of integrated stormwater drain (ISWD) in Kosasthalaiyarbasin in the extended areas of Greater Chennai Corporation	280.00
9	Provision of internal plumbing for underground sewerage scheme and water supply HSCs in 8 ULBs for optimum utilization of the underground sewerage scheme and water supply schemes	62.95
10	Conversion of streetlights to energy efficient lights /providing new energy efficient lights in 6 corporations and 10 municipalities	85.22
11	Water supply improvement scheme to expanded areas of Coimbatore corporation (river Bhavani as source)	410.61
	Total	1,830.33

9.11 Integrated Urban Development Mission (IUDM) Phase I (2011-16)

The Integrated Urban Development Mission (IUDM) with the mission period of 2011-16 was implemented in all the urban local bodies, except Greater Chennai Corporation, to improve the standard of basic infrastructure facilities like roads, drinking water, street lighting, sewerage, storm drainage, sanitation, solid waste management, improvement of bus stands and parking places.

A total of 13,257 projects were sanctioned under IUDM-I at a cost of Rs.10,773.22 crore (fully funded / partly funded). Out of these projects, 13,242 projects have been completed, and 15 projects are under implementation.

IUDM - Phase II (FY 2018-19 – 2020-21)

During the year 2018-19, the Phase II of the IUDM was launched with an allocation of Rs.750 crore per year. The urban local bodies

(except Chennai), have taken up the following projects under IUDM Phase II during the years 2018-19, 2019-20 and 2020-21 as shown in the table 9.15.

Table 9.15

(Rs. in crore)

Sl. No.	Sector	No. of works	Project cost	IUDMshare			
				2018-19	2019-20	2020-21	2021-22
1	Roads	1,500	1,215.19	292.77	409.26	285.76	
2	Drainage	769	263.70	94.51	51.13	86.42	
3	Water supply	89	2,650.66	225.45	335.53	80.96	67.62
4	UGD	67	703.97	121.87	94.68	238.24	
5	Park	3	9.50	-	8.53	-	
6	Shandy	2	8.40	-	1.12	4.20	
7	Bridges	3	20.15	-	4.04	12.08	
8	Bus stand	4	12.84	-	-	10.27	
9	Streetlights	12	3.81	-	-	3.04	
10	Septage	11	31.17	11.00	20.17	-	
11	Solid waste management	1	8.57	-	7.71	-	
12	Others	10	9.80	4.40	5.12	-	
Total		2,471	4,937.76	750.00	937.28	720.97	67.62

A total of 2,078 projects have been completed, 387 projects are being implemented and 6 projects have been dropped.

9.12 TUFIDCO Infrastructure Funding Scheme (TIFS)

In order to provide financial assistance to urban local bodies and parastatal bodies and agencies for the implementation of projects, TUFIDCO Infrastructure Funding Scheme (TIFS) has been established. TIFS loans are backed by shares, surpluses, and bank loans. Repayment period for TIFS loans is 10 years.

9.13 Special Roads Programme (SRP)

By pooling finance raised from banks and financial institutions through TUFIDCO, the Government has approved Rs.1,000 crore for the urgent road works needed for urban development. The details of the road projects taken up by the Greater Chennai Corporation, other corporations, municipalities and town panchayats under the

Special Roads Programme for the financial year 2020-2021 are as given in the table 9.16.

Table 9.16

(Rs. in crore)

Sl. No.	ULBs	No. of ULBs	Length in km	Approved project cost		
				Total	SRP loan	ULB contribution
1.	Greater Chennai Corporation	1	256.01	150.11	150.00	0.11
2.	Directorate of Municipal Administration	102	1,349.05	804.19	700.00	104.19
3.	Commissionerate of Town Panchayats	183	302.28	150.00	150.00	0
	Total	286	1,907.34	1,104.30	1,000.00	104.30

All the projects are in various stages of implementation.

10. NEW TIRUPUR AREA DEVELOPMENT CORPORATION LIMITED

Tirupur Exporters' Association (TEA) had represented from time to time to the Government of Tamil Nadu (GoTN) to provide the required infrastructure facility particularly to ensure regulated water supply which is an essential requirement for the industries. In order to address the long-standing demand, the Government of Tamil Nadu mandated the erstwhile Tamil Nadu Corporation for Infrastructure Development (TACID) to formulate Tirupur Area Development Program (TADP). Accordingly, TACID had formulated TADP, which envisaged water supply to domestic and non-domestic users, sewage treatment etc. To implement this, a Memorandum of Understanding was entered between TACID, Tirupur Exporters Association (TEA) and IL&FS on 25.08.1994 agreeing to equal equity investment and various other general terms and conditions. Finally, New

Tirupur Area Development Corporation Limited (NTADCL) was promoted in 1995 by four members of TEA, two from IL&FS and one representing Government of Tamil Nadu.

A combined water supply project to supply 185 MLD water, expandable upto 250 MLD and 15 MLD sewage treatment plant (STP) expandable upto 30 MLD at a total project cost of Rs.1,023 crore was approved by the Government of Tamil Nadu. To implement these projects, a concession agreement was signed on 11.02.2000 between the Government of Tamil Nadu, Tirupur municipality (now municipal corporation), and New Tirupur Area Development Corporation Limited. The approved project cost of Rs.1,023 crore was funded as Rs.613.80 crore senior debt by a consortium of 19 banks and financial institutions led by M/s IDBI, Rs.86.50 crore by the promoters as a subordinate loan and Rs.322.70 crore was funded by equity.

NTADCL's equity share capital of Rs.10 crore was initially funded by the Government of India (GoI) in 1997-98 through TACID. Rs.105 crore was funded jointly by Government of Tamil Nadu (Rs.55 crore) and IL&FS (Rs.50 crore) through a special purpose company (SPC) called Tamil Nadu Water Investment Company Limited (TWIC) which was promoted jointly by IL&FS and Government of Tamil Nadu in 54 : 46 ratio. IL&FS had brought a private equity (PE) investor, M/s AIDQUA Holdings Mauritius (Inc) for a 27.89% shareholding contributing Rs.90 crore investment. A shareholders agreement (SHA) dated 12.04.2001 was adopted by the NTADCL Board and signed by the proposed investors with special rights to AIDQUA. Subsequently, the terms of SHA was incorporated in the articles of association by replacing the original articles of association of the company. Apart from these investments, company obtained equity participation from EPC

consortium M/s Mahindra group – Rs.45 crore and public sector insurance companies – Rs.45 crore and Rs.32.70 crore from IL&FS directly.

The project construction commenced in the year 2002 and the water supply commenced in October 2006. The project has been supplying 38.957 MLD of drinking water to Tirupur corporation and 18.26 MLD of drinking water to 8 village panchayats and about 600 wayside rural habitations in 5 panchayat unions. The project also caters to the water supply requirements of a number of hosiery and related dyeing and processing industries in and around Tirupur. A domestic sewerage system in major parts of Tirupur municipal corporation has also been completed and functioning with 15 MLD capacity, currently collecting upto 8 MLD of sewage from 15,246 sewer connections for treatment. Low-cost sanitation facilities through 31 sanitary

complexes have also been provided for the urban poor.

The water supply project envisaged on a cross-subsidization model where the commercial viability of the project was linked to the revenue generated out of the industrial water supply. Even though, industrial water supplies started slowly in the initial years marching towards improvement but, the estimated demand of 115 MLD could not be achieved beyond 50 MLD level. The lower industrial water supply and the revenue coupled with a higher cost of capital, the cost overrun during project construction resulted in the booking of heavy revenue losses in the initial period itself.

Over and above the heavy losses suffered, the zero liquid discharge (ZLD) order passed by the Hon'ble Madras High Court, dated 30.01.2011 resulting in the closure of many dyeing and bleaching industries severely impacted the company's water supply business and reduced

the industrial water supply to 8 MLD, thus aggravated further financial crisis. The company was not able to service its debt, the entire net worth was almost wiped out.

The poor financial situation of NTADCL was addressed in 2011-12 through a Corporate Debt Restructuring (CDR) package. The lenders rescheduled the debt, reduced the interest rate from 11% to 9.5%, and converted 15% of the debt into equity under the CDR. Government of Tamil Nadu infused equity share capital of Rs.150 crore and assured to purchase upto 100 MLD of water additionally for domestic usage from the company. Presently, around 65 MLD of water is being supplied additionally to Tirupur municipal corporation and wayside villages at a cost of Rs.21/KL, part of this, released directly by Government as per G.O.(Ms) No.25, Municipal Administration and Water Supply Department, dated 16.03.2012, approving the CDR package.

With the additional infusion of funds and enhanced price support from Government of Tamil Nadu, the financial performance of the company rapidly improved and the company started making profits from the Financial Year 2015-16. The company's turnover has increased to Rs.226.56 crore in FY 2021-22 from Rs.106.65 crore in 2010-11. The net profit has increased to Rs.50.46 crore during the financial year 2021-22, from a loss of Rs.56.84 crore in 2010-11. On account of the improved financial performance, the company was able to repay its debt obligations well in advance. The CDR has got positive node from the Company Law Board and Hon'ble Madras High Court. However, the PE investor AIDQUA has challenged the CDR in the Hon'ble Supreme Court of India and the case is pending.

The total senior debt outstanding at the date of CDR, after 15% conversion into equity, amounted

to Rs.489.04 crore. The company has so far paid Rs.389.74 crore towards principal repayment of debts together with an interest of Rs.1,028.87 crore. The balance amount outstanding as on date is Rs.47.12 crore with all lenders except IL&FS, wherein there is a dispute with regard to the short-disbursement of USAID loan.

Since the company is able to service its debt ahead of the schedule, the management is taking a demand assessment study for capacity expansion from 185 MLD to 250 MLD and installation of solar power captive plant for reducing power cost, which contributes to 55% of the total cost. The company has gained good experience and wants to expand the cross-subsidized model of water supply to domestic and non-domestic in future.

11. TAMIL NADU WATER INVESTMENT COMPANY LIMITED

The Tamil Nadu Water Investment Company Limited (TWIC) was established in the year 2000, as a special purpose vehicle under the Companies Act 1956, jointly by the Government of Tamil Nadu and Infrastructure Leasing and Financial Services Limited (IL&FS). TWIC is an investment company and promoted by the New Tirupur Area Development Corporation Limited (NTADCL), which has implemented first public private partnership in water sector namely, New Tiruppur Area Water Project with a capacity of 185 MLD at a cost of Rs.1,023 crore.

TWIC has been actively involved in developing and implementing projects across several sectors and has expertise in water and sewerage systems, recycling, desalination, river restoration, industrial effluent management and developing projects from concepts to

implementation through a model aimed at reducing life cycle costs with a sustainable framework.

TWIC provides advisory, project management consultancy (PMC) and operation and maintenance (O&M) services in the following fields:

- a) Urban Water and sewerage systems with focus on water reuse.
- b) Desalination.
- c) Industrial effluent management and recycling including zero liquid discharge (ZLD).
- d) Lake and river pollution abatement.
- e) Capacity building and training.

TWIC has expertise in preparation of DPRs, bid management, project management and O&M of various facilities in water and sewerage sector.

Government of Tamil Nadu has nominated the Additional Chief Secretary, Municipal Administration and Water Supply department, as

Ex-Officio Chairman of this company. Senior officials representing Finance; Environment, Climate Change and Forests and Industries departments are nominated as directors of this Company.

The Board of the Company currently comprises of 10 directors, of which 4 are from Government of Tamil Nadu, 3 from IL&FS, and 3 independent directors. The day to day affairs of the company are managed by the Chief Executive Officer.

11.1 Noteworthy projects executed

11.1.1 Urban Water and Used water

1. Advisory for comprehensive water supply schemes and district metered area (DMA): All ULBs in Tamil Nadu under AMRUT and Smart Cities Mission.
2. Advisory for underground sewerage schemes (UGSS) and sewage treatment plant (STP): Thoothukudi and

Visakhapatnam corporations, Pammal and Anakaputhur municipalities.

3. Advisory for demand study and preparation of water reuse grid and Water Reuse Policy for Tamil Nadu.
4. Project Management Agency (PMA) for water supply and UGSS under AMRUT / Smart Cities Mission: Thanjavur, Kumbakonam and Thoothukudi.
5. Advisory for Smart City Projects: T-Nagar in Greater Chennai corporation.
6. PMA for tertiary treated reverse osmosis (TTRO) project for used water reuse: 45 MLD capacity plant at Koyembedu, Chennai.
7. PMC services for setting up 45 MLD capacity tertiary treatment reverse osmosis (TTRO) Plant at Kodungaiyur, Chennai.
8. PMC services for implementation of 28 MLD STP for Thoothukudi corporation under Smart Cities Mission.

11.1.2 Combined Effluent Treatment Plants with Zero Liquid Discharge (ZLD)

1. PMA services for the development of 9 Textile CETPs with ZLD in Tiruppur with the capacity ranging from 3 MLD to 11 MLD at a cost of Rs. 540.00 crore.
2. PMA services for the upgradation of ZLD system in 8 CETPs through interest free loan from GoTN. On completion of the projects, TWIC is looking after O&M of these CETPs.
3. PMA services for five tannery CETPs, two at Ambur and one each at Vaniyambadi, Pallavaram and Melvisharam with a combined capacity of 11.55 MLD at a cost of Rs. 143.00 crore.
4. TWIC currently is an independent O&M operator for 4 Textile CETPs & 1 ETP in Tiruppur.
5. Advisory services for establishment of water recovery system from 11 MLD used water at TNPL factory, Kagithapuram, Karur district, including Techno-commercial feasibility cum

pilot demonstration for a ZLD system with a capacity of 120 cu mt/ day.

6. Advisory for preparation and submission of detailed project report (DPR) for implementation of 42 MLD ZLD CETP at Panipat.
7. Consultancy services for feasibility study for establishment of combined effluent treatment plant in Konabari textile cluster in Bangladesh.

11.1.3 Sea Water Desalination

TWIC has extended Advisory Services for 16 sea water desalination plants with the capacity ranging from 0.5 MLD to 110 MLD (8 in Gujarat, 7 in Tamil Nadu and 1 in Odisha).

11.1.4 Restoration and Rejuvenation of Water Bodies

1. DPR for 60 water bodies in Greater Chennai corporation.
2. Feasibility report and proof checking for Ooty lake.

3. PMC for Zamin Pallavaram Periya Eri and Keelkattalai Eri in Pallavaram municipality.
4. DPR and PMA for Mudasarlova lake catchment in Greater Visakhapatnam municipal corporation.

11.2 Ongoing Schemes

1. Ministry of Textile, GoI has sanctioned 50% grant for the following projects under Integrated Processing Development Scheme (IPDS) :
 - i. PMA for textile processing park with ZLD CETP Kumarapalyam Green Kavery Dyeing Cluster and CETP at Green Environmental Association in Namakkal district.
 - ii. PMC for CETP at NextGen Textile Park at Pali, Rajasthan.
 - iii. PMC for CETP at Kakatiya Mega Textiles Park at Warangal, Telangana.
 - iv. TWIC has prepared DPRs for implementation of ZLDCETPs under the

scheme for Rejuvenation of Cauvery and its tributaries (proposal stage). Under the above scheme, implementation of Sree Bhavani Dyeing Cluster, Kadayampatti Dyeing Cluster and Kumarapalayam Green Kavery Cluster projects at cost of about Rs.487 crore under Phase I is proposed to be implemented by availing financial assistance under IPDS of Ministry of Textiles-GoI. For these projects, TWIC is also extending PMA services.

11.3 Major ongoing Projects

1. PMA for 20 MLD CETP for Jajmau Tannery Cluster, Kanpur- funded by National Mission for Clean Ganga, Government of India.
2. Advisory Services for preparation of DPRs for pollution abatement works for the selected river stretches in 9 municipalities and 18 town panchayats in Tamil Nadu (DPR Stage).
3. Sea water desalination projects:
 - i. PMC services to CMWSSB for 150 MLD capacity plant at Nemmeli.

- ii. DPR and PMC for 100 MLD capacity plant at GIDC, Dahej, Gujarat.
 - iii. DPR and PMC for 60 MLD capacity plant proposed by TWAD Board at Marakkanam in Villupuram district.
 - iv. DPR and PMC for 60 MLD capacity plant proposed by SIPCOT, at Mullakadu in Thoothukudi district.
 - v. DPR and PMC for 60 MLD capacity plant proposed by TWAD Board at Kuthiraimozhi in Ramanathapuram district.
 - vi. DPR and PMC for 20 MLD capacity plant proposed by SIPCOT at Cuddalore.
 - vii. DPR and PMC for 10 MLD Capacity plant at Paradeep Port Trust, Odisha. (tendering stage).
4. Consultancy for preparation of DPR for improving the existing water supply distribution system based on district metered area (DMA) in Idappadi municipality.

5. Consultancy for preparation of DPR for providing underground sewerage scheme (UGSS) for left out areas in Avadi municipal corporation.
6. PMC services for implementation of water supply improvement scheme and underground sewerage system for Kumbakonam municipality under AMRUT and for Thanjavur municipal corporation under Smart Cities Mission.
7. Consultancy assignment for preparation of DPR for improvement of existing water supply distribution system and to provide water supply to the uncovered areas of Avadi municipal corporation
8. Consultancy assignment for preparation of DPR for underground sewerage system (UGSS) for the phase IV left out areas in Tiruchirappalli municipal corporation
9. Consultancy services for preparation of DPR for establishment of 100 MLD sewage treatment plant at Tiruchirappalli municipal corporation

10. Consultancy assignment for preparation of Conditions assessment for 400 KLD STP at TIDEL Park, Coimbatore
11. Feasibility study for identifying suitable systems for reuse of recycled water from the proposed grids/ source to cater to the recycled water demand for proposed SIPCOT Industrial Park
12. Preparation of DPR, Bid documents and Bid process management for 3 MLD TTRO plant at the accommodation project site along with product water conveyance system to manufacturing project site of M/s Tata Electronics Private Limited in Hosur.
13. PMC for Installation of Common Caustic Recovery Plant at Bithuja, Rajasthan.
14. Project management advisory consultancy for establishment of CETP at Textile Park Indrakaran, Sanagareddy district, Telangana.
15. Preparation of DPR for components like ZLD CETPs, environmental planning (including solid/ liquid waste management) in industrial clusters / Parks for Odisha

Industrial Infrastructure Development Corporation (IDCO).

16. The R&D projects through grant from Indo-German Science and Technology Centre (IGSTC):
 - i. "Smart and reliable water and used water infrastructure systems for the future cities of India and Germany (SMART and WISE)".
 - ii. "Effect based monitoring demonstrates efficiency of electrically driven water treatment processes to remove salts and micropollutants from process water".

11.4 Awards received

1. Global Water Intelligence (GWI) Award 2014 - The Industrial Water Project of the year.
2. Water Reuse Industrial Project for the Year 2014 by the Water Reuse Association, USA.
3. The 2030 WRG Corporate Water Stewardship Award for the year 2015 by GWI, UK.

11.5 Assignments for Government of Tamil Nadu

1. Government of Tamil Nadu has nominated TWIC as Project Management Agency (PMA) for future projects relating to development and operation and maintenance of CETPs and industrial water supply through reuse of sewage water and desalination plants.
2. TWIC has also been nominated as the Project Management Agency for the Textile CETPs in Tiruppur by the Handlooms, Handicrafts, Textiles and Khadi department, Government of Tamilnadu.
3. The Government in Environment, Climate Change and Forests department has nominated TWIC for carrying out the diagnostic study, preparation of DPR, facilitating financial closure and advisory on PMC and O&M for Micro, Small, Medium bleaching and dyeing units in the districts of Namakkal, Erode, Salem and Karur.
4. Nodal Agency for preparation of water balance plan for ULBs in Tamil Nadu under AMRUT – 2.0

5. Consultancy services for preparation of Detailed Feasibility Reports for Restoration of Cooum and Adayar Rivers and Buckingham Canal for Chennai Rivers Restoration Trust (CRRT).

11.6 Assignments for Government of India

TWIC is partnering with Government of India in various projects and schemes, such as

1. TWIC's technology for ZLD has been recognized by the Ministry of Textiles and has been evaluated and accepted by the Department of Science and Technology (DST).
2. TWIC is extending PMC services to Ministry of Textiles for Integrated Processing Development Scheme for implementation of Textile based CETPs in India.
3. TWIC is a consultant to National Mission for Clean Ganga (NMCG) for preparation of DPR for setting up of CETPs for various industrial clusters in the State of Uttar Pradesh. TWIC is also a Project Engineer for setting up of the Jajmau Tannery CETP in Kanpur.

4. TWIC is joint venture partner of National Institute of Ocean Technology for providing consultancy services for implementation of sea water reverse osmosis desalination plants for ports.
5. Advisory for the consultancy services for development of “Framework for reuse, recycle and zero liquid discharge (ZLD) of wastewater in India” for CPCB with Adelphi consult GmbH, Germany, under the Indo German Development Cooperation.

11.7 Financials of the Company

The turnover of the company for the year 2021-2022 was Rs.27.60 crore as against Rs.31.26 crore in 2020-21. TWIC has paid Rs.5 crore during 2022-23 to Government of Tamil Nadu towards interest against loans.

11.8 Corporate Social Responsibility

TWIC as a part of corporate social responsibility has provided a contribution of Rs.8.75 lakh for the financial year 2022-2023 to Greater Chennai corporation for promotion of sanitation.

12. SUSTAINABLE DEVELOPMENT GOALS

The Municipal Administration and Water Supply department is giving high priority to achieve sustainable development goals (SDGs) before 2030. Several schemes and programmes have been designed and are under implementation, which have direct bearing on the SDGs. The efforts being taken by the department, are summarized below:

(a) Good health and well being (Goal 3)

Urban public health centres are being strengthened by utilizing 15th Finance Commission grant earmarked for public health. Health and Wellness centres are being set up by the urban local bodies. These centres will provide basic primary health facilities, in the neighbourhood itself.

Greater Chennai Corporation and other big corporations provide comprehensive healthcare services such as antenatal and postnatal care,

child health care, basic diagnostics and treatment of various diseases under one roof.

Urban green spaces, parks and playfields are being developed under schemes like AMRUT and KNMT. These facilities will add to the overall well-being of the citizens.

(b) Quality education (Goal 4)

The schools run by the urban local bodies are being transformed by upgrading physical infrastructure, digital infrastructure and sports and extra curricular activities; teacher development; and by introducing smart pedagogy. The partnership between students, parents, teachers, civil society and urban local bodies will be effectively utilized for improving the functioning of schools.

The Government, based on the recommendations of 6th SFC, has allocated Rs.100 crore for construction and Rs.60 crore for

maintenance of school buildings in urban local bodies for the year 2022-23. Funds are also provided under KNMT and CGF to upgrade school infrastructure.

These initiatives will give a much needed fillip to the quality of education.

(c) Gender equality (Goal 5)

GCC is implementing a slew of projects under the Nirbhaya scheme for the benefit of women and girl children, such as access to modern toilets, safe schools (CCTV cameras and modern toilets), etc. A gender and policy lab has been established in GCC to look into the issues pertaining to women's safety and access to public spaces. The gender and policy lab is undertaking a city wide perception study to understand the safety issues at public spaces. Safety audit is being undertaken to find out "dark spots" within

the city and action is taken to install additional street lighting in the identified areas.

Similarly, other corporations are also using technology, such as monitoring of busy areas and market places through integrate command and control centres set up under Smart Cities Mission. Civic infrastructure design in urban local bodies, like bus shelters and parks, are being looked at to make them gender and disability inclusive.

(d) Clean water and sanitation (Goal 6)

The objectives of the Swachh Bharat Mission (SBM), Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and Jal Jeevan Mission (JJM) align with this SDG.

Water supply schemes are under implementation in most of the large cities under AMRUT and for smaller cities, water supply schemes have been taken up under AMRUT 2.0. Under Jal Jeevan Mission, single village and multi village schemes have been taken up to

provide safe drinking water to the people in rural areas through functional household tap connections.

Special thrust is given to rejuvenation of water bodies under AMRUT 2.0, KNMT, Singara Chennai 2.0 and NNT. This will help in restoring the urban water bodies and recharging groundwater.

Rainwater harvesting has been made mandatory and is being implemented in campaign mode before every monsoon season. It has had positive impact on the groundwater.

Reuse of used water and reduction in non-revenue water (NRW) is encouraged through AMRUT reforms.

Underground sewerage schemes for big cities and faecal sludge and septage management (FSSM) for smaller towns is being implemented under AMRUT 2.0, SBM 2.0 and EAP funding. City sanitation action plan has been prepared for each urban local body and projects have been

sanctioned under SBM 2.0 to bridge the gap in sanitation infrastructure, such as community and public toilets, grey water treatment facilities, faecal sludge treatment plants etc.

(e) Affordable and clean energy (Goal 7)

In GCC all streetlights are energy efficient LED lights. Similarly, action has been taken to convert existing streetlights into energy efficient streetlights in other corporations, municipalities and town panchayats also. Urban local bodies are encouraged to promote non-motorised transport, such as walking, cycling and e-bikes, to promote the general wellbeing of the citizens. They are also encouraged to install solar plants to meet a part of their energy needs.

(f) Sustainable cities and communities (Goal 11)

Urban local bodies have been taking up measures to improve the environment by improving solid waste management and cleanliness. Through city solid waste action plan,

all ULBs have assessed their existing capacity, requirement and gap in solid waste management infrastructure. Based on the city solid waste action plans, projects have been taken up by ULBs for processing solid waste and construction and demolition waste in a scientific and environment friendly manner.

Special focus is being given to improve the quality of roads in urban local bodies and, also, to convert earthen roads as all weather roads.

These measures will enhance the liveability of the cities and will have a positive impact on the urban communities.

(g) Partnerships for goals (Goal 17)

The Government of Tamil Nadu and the World Bank have proposed to engage in the Chennai City Partnership Programme for achieving various disbursement linked indicators, covering multiple sustainable development goals. Similarly, the Government has been working with KfW, Asian Development Bank, Government of India and other institutions in implementing programmes, schemes and projects having impact on several SDGs.

13. TRAINING NEEDS AND CAPACITY BUILDING

The Municipal Administration and Water Supply department, under the German Development Bank (KfW) assisted Sustainable Municipal Infrastructure Financing–Tamil Nadu-Phase-II-Part-2 (SMIF-TN-II-2) program through Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL), have prepared a project report for providing capacity building and training programs covering 11 sectors with 52 courses and 8 workshops covering the following areas:

- Urban governance and management
- Urban water management
- Urban sanitation management
- Urban mobility and safe urban roads
- Urban planning – blue green infrastructure
- Finance
- Project management
- Procurement

- Environment and social management
- General administration
- Urban data management, technical software and application of information and communications technology (ICT).

About 5,200 officials and staff of urban local bodies, Directorate of Municipal Administration, Directorate of Town Panchayats, Chennai Metropolitan Water Supply and Sewerage Board, Tamil Nadu Water Supply and Drainage Board, Tamil Nadu Urban Finance and Infrastructure Development Corporation Limited, Chennai Rivers Restoration Trust and Tamil Nadu Urban Infrastructure Financial Services Limited and selected elected representatives will benefit from this capacity building programme. The training programme will be implemented from April 2023 to December 2024.

In addition to the above, need based training and capacity building programmes will be designed for the technical, accounting and general staff of the urban local bodies, CMWSSB and TWAD Board. These training programmes will be funded under AMRUT 2.0 and SBM 2.0.

Training centres run by TWAD Board and CMWSS Board will also be utilised to impart training to the staff of urban local bodies in construction and operation & maintenance of water supply and sewerage infrastructure.

An annual grant of Rs.5 crore has been allocated to Tamil Nadu Institute of Urban Studies, Coimbatore. This institute will be developed into a modern state of art training institute for imparting training and capacity building programmes in urban governance and municipal issues.

14. WAY FORWARD

As articulated in the vision statement, the Municipal Administration and Water Supply department will strive to provide a good quality of life, clean, green and sustainable environment, quality basic amenities and vibrant public spaces to the citizens across all urban local bodies in the state through responsive city governance by following a comprehensive, inclusive, integrated, transparent and participatory approach of urban development.

Monitoring, feedback and evaluation will be effectively utilized to improve service delivery and outcomes of various programmes, schemes and projects.

Under the dynamic leadership of Hon'ble Chief Minister, Municipal Administration and Water Supply department will strive to translate its vision in reality and make the state a beacon of hope and aspiration.

K.N. NEHRU
Minister for Municipal
Administration



Tamil Nadu was awarded the best performing state in the functionality of household tap connections among the states upto 60% coverage – Honourable Minister for Municipal Administration received the award from the Honourable President of India at a function in New Delhi on 02.10.2022



"People's Movement for Clean Cities" – an awareness campaign to make the cities garbage free and clean – was inaugurated by Honourable Chief Minister on 03.06.2022 at Mint in Chennai city



Pathway for the differently-abled at Marina beach, Chennai, constructed under Singara Chennai 2.0



Night shelter for urban homeless in Thanjavur corporation,
Scheme : National Urban Livelihood Mission; Project cost : Rs. 80.00 lakh



Honourable Chief Minister inspecting the quality of the road laid at
PSG HUDCO colony at Peelamedu, Coimbatore

Scheme : TURIP;

Project cost : Rs. 1.28 crore



Development of BT road at Sungu Pettai in Perambalur municipality,
Scheme : Kalaignar Nagarpura Mempattu Thittam; Project cost : Rs. 79.38 lakh



Construction of paver block pavement and stormwater drain in Thuvakudi municipality (Tiruchirapalli district),
Scheme : Kalaignar Nagarapura Mempattu Thittam; Project cost : Rs. 28.70 lakh



Construction of a new BT road (earthen road to BT road) in Thiruporur town panchayat (Chengalpattu district),
Scheme : Capital Grant Fund; Project cost : Rs. 1.00 crore



Construction of paver block road and stormwater drain at Sri Sampathkumar Nagar,
Odayakulam town panchayat (Coimbatore district),
Scheme : Kalaingar Nagarpura Mempoattu Thittam; Project cost : Rs. 52.78 lakh



Provision of crash barrier along the road from Muttinadu to Kolanimattam
in Adigaratty town panchayat (The Nilgiris district),
Scheme : Kalaingar Nagarapura Mempattu Thittam; Project cost : Rs. 45.20 lakh



Honourable Chief Minister inspecting the stormwater drain work at Nethaji Subash Chandra Bose Road in Chennai city on 08.10.2022



Conservation, Revitalization and Retrofitting work of the Victoria Public Hall in Chennai, under Singara Chennai 2.0 at a cost of Rs. 32.62 crore commenced on 20.03.2023



Honourable Chief Minister launched the "Sanitation Workers Welfare Scheme" at Madurai on 09.12.2022



Construction of public toilet at Vellandivalasu in Idappadi municipality (Salem district),
Scheme : Swachh Bharath Mission 2.0; Project cost : Rs. 36.28 lakh



Construction of community toilet in Vettaikaran Pudhur town panchayat (Coimbatore district),
Scheme : Swachh Bharath Mission 2.0; Project cost : Rs. 15.00 lakh



Honourable Chief Minister issued appointment orders to 143 persons on compassionate grounds on 22.11.2022



Honourable Chief Minister issued appointment orders to 50 persons on compassionate grounds on 28.02.2023



Honourable Chief Minister inaugurated the CMWSSB head quarters building refurbished at a project cost of Rs. 24.92 crore on 13.03.2023



Honourable Minister for Municipal Administration launched the work of underground sewerage scheme to Madipakkam, Chennai at a cost of Rs. 256.90 crore on 01.08.2022



Convention centre at Thamukkam Maidhanam, Madurai, constructed under Smart Cities Mission at a cost Rs. 47.72 crore, was inaugurated by Honourable Chief Minister on 08.09.2022



25.51 MLD capacity water treatment plant, constructed under CWSS to Sankari, Alampalayam and Padaveedu town panchayats and 669 rural habitations in Pallipalayam and Tiruchengode unions in Namakkal and Salem districts



17.23 MLD capacity water treatment plant, constructed under CWSS to Perundurai and 7 other town panchayats including 547 rural habitations in Erode and Tiruppur districts.



Head works at Jaderpalayam,
Water supply improvement scheme to Namakkal municipality in Namakkal district



10 lakh litre capacity overhead tank constructed under water supply improvement scheme to Vellore corporation



Construction of common kitchen in Tiruchirappalli corporation,
Scheme : Chief Minister's Breakfast Scheme; Project cost : Rs. 1.29 crore



Construction of urban health & wellness centre in Pollachi municipality,
Scheme : 15th Finance Commission Grant; Project cost : Rs. 25.00 lakh



Rejuvenation of Vanadurgai Amman Kulam in Vedaranyam municipality (Nagapattinam district),
Scheme : Kalaignar Nagarapura Mempattu Thittam; Project cost : Rs. 57.80 lakh



Construction of library cum knowledge centre building in Namakkal municipality,
Scheme : Kalaignar Nagarpura Mempattu Thittam; Project cost : Rs. 2.00 crore



Park development at Ganapathi Nagar in Kolappalur town panchayat (Erode district),
Scheme : 15th Finance Commission Grant; Project cost : Rs. 15.00 lakh



Development of a new park in Ranipet municipality,
Scheme : Kalaignar Nagarpura Mempattu Thittam; Project cost : Rs. 50.00 lakh



As part of city beautification, landscaping and artwork done at Koyambedu flyover in Chennai city under Singara Chennai 2.0



Footover bridge at Nungambakkam and bridges at Amullavoyal and Chindaripet, Chennai, completed during 2022–2023

