

7.7. Urban Development, Housing and Water Supply

Urban Development

Tamil Nadu, which has always been an urbanized state, has been subjected to the global phenomenon of rapid urbanization over the last decade. The trend in urbanisation is not only reflected in the growth of population in the urban centres, but also by the increase in the number of urban centres. The implications of urbanization for the State economy are many. The rural area of the State sheds a part of its population, which has to be absorbed in the congested urban centres, leading to pressure on land and other natural resources. Provision of Sustainable clean, livable cities and good quality of life to citizens is the vision of Government. With this in focus the various agencies and urban local bodies are in the process of developing comprehensive infrastructure facilities and are also attempting to eradicate the urban poverty.

The various agencies which deal with Urban Development in the State either directly or through the Urban Local Bodies are as follows:

1. Chennai Metropolitan Development Authority (CMDA)
2. Municipal Corporations/Municipalities/Commissioner of Municipal Administration
3. Town Panchayats / Directorate of Town Panchayat
4. Directorate of Town and Country Planning
5. Chennai Metro Water Supply and Sewerage Board
6. T.N. Water Supply and Drainage Board

The Tamil Nadu Housing Board, the Tamil Nadu Slum Clearance Board, and the Tamil Nadu Pollution Control Board, and the Director of Public Health also play crucial roles in the sector a part of their over all responsibilities in the state.

Objectives

The problems faced by urban local bodies of the State to cope with the urban challenge are visible all around us, be it in the form of unmet demands for drinking water, the solid waste management problems, or the inadequacy of the transportation corridors to handle the burgeoning traffic.

Annual Plan 2009-10 Schemes

Chennai Metropolitan Development Authority (CMDA)

a. Second Master Plan for Chennai Metropolitan Planning Area

The master plan is a comprehensive plan with a vision to make Chennai a prime metropolis, which will become more livable, economically vibrant, and environmentally sustainable with better assets for the future generation. The Metropolitan demography, economy, transport, shelter, water supply and sewerage and other physical and social infrastructure including solid waste management, macro drainage environmental aspects have been examine in detail and policies and strategies for developments proposed in the plan. Development regulations proposed in the plan for regulating land uses and constructions have taken into account the changed circumstances in the metropolitan area.

b. Chennai Metropolitan Development Plan

The Chennai Metropolitan Development Plan is a perspective vision document for the future development of Chennai city and its surroundings. This development plan envisages ambitious projects, which will be posed for funding under JNNURM. The projects cover infrastructure areas such as Water supply, Sewerage, Solid Waste Management, Roads, Transportation and Satellite Town Development as well as urban basic services for the poor. They will be implemented through various agencies including the CMDA, Chennai Corporation, CMWSSB, and TNSCB etc.

Infrastructure development projects costing Rs. 4202 crore have been implemented from 2003 to 2007. The projects with total outlay of Rs. 2154.69 crore are being implemented by line agencies in 2007-08. In consultation with the Government departments, agencies and local bodies, annual plan outlay of Rs. 2327.05 crore have been proposed for infrastructure projects to be implemented under Chennai Metropolitan Development Plan for the year 2008-09.

c. Development of Wholesale food grains market at Koyambedu wholesale market complex

A wholesale market complex was developed at Koyambedu for perishable market as a first phase. In the second phase development of food grains market

complex with five hundred shops in an extent of 15.60 acres of lands at a cost of Rs. 61.85 crore is proposed.

d. Mass rapid transit system - phase-II

MRTS Phase-I development from Chennai Beach to Thirumailai Station to a distance of 8.55 Km. was commissioned during 1995 – 97 as a project of Government of India. MRTS Phase II from Thirumailai to Velacherry shared by Government of India and Government of Tamil Nadu had commenced in 1997-98 for a distance of 11.165 Km. Thirumailai to Thiruvanmiyur covering a distance 6.10 Km. was commissioned on January 2004 and remaining distance of the project was commissioned on November 2007 upto Velachery. MRTS Phase II Extension from Velachery to St. Thomas Mount to a distance of 5 Km. to complete a rail loop with the Chennai Beach – Tambaram Sub-urban line approved by GOI, with a cost of Rs.496 crore. The execution period would be three years. The revised estimate for the project is Rs. 814.57 Crore.

e. Chennai Metro Rail System

The prestigious Metro Rail Project has been taken up for implementation during the Eleventh Plan period. The total cost (at March 2007 prices without taxes) of the project is estimated at Rs.14600 crore and will be implemented over a six year period from 2007-2013. The State share for the project during the Eleventh plan period has been proposed at Rs.1000 crore. A Special Purpose Vehicle (SPV), ' The Chennai Metro Rail Limited' has been set up in November 2007, in order to implement the project.

f. Construction of double level basement parking for two wheelers in Chennai mofussil bus terminus at Koyambedu

In order to cope with increasing vehicular parking need in Chennai Mofussil Bus Terminus (CMBT) at Koyambedu, it is proposed to develop double level basement parking for two wheelers at the Bus Terminus. The proposed structure will have a total floor area of 65000 sq.ft (two floors put together) with parking capacity of 3000 two wheelers. In addition, at the top of the roof that i.e. at the ground level, a beautiful park with a pathway for morning walkers has been proposed to enhance the beauty of the Terminus.

g. Comprehensive mobility plan

With the special reference to the present traffic scenario and the demands of the people that are emerging especially in view of the fast growing IT sector and other industries, a comprehensive traffic and transportation infrastructure plan for Chennai Metropolitan Planning Area and the surrounding regions has been prepared prioritizing the road development schemes and traffic management schemes under various sectors. This plan would be further studied and proposed for implementation in the coming years. Similar mobility plan have also been prepared for Coimbatore and Madurai cities.

b. Outer Ring Road

The Chennai Metropolitan Development Authority (CMDA) is planning the formation of Outer Ring Road (ORR) on the fringe of Chennai Metropolitan Area (CMA) to ease the traffic congestion in the city. The total cost of the project is Rs.900 crore which will be jointly funded by the State and Central Government along with Institutional sources.

Municipalities and Corporations

a. City Development Plan (CDP) for all Urban Local Bodies in Tamil Nadu

A City Development Plan is an important perspective document for the planned development of cities and towns. Under TNUDP -III, City Development Plans have been drawn up for Coimbatore, Madurai, Tirunelveli Corporations and adjoining municipalities. During the Eleventh Plan period, City Development Plans will be drawn up for the remaining Municipal towns. It is also proposed to prepare a Human Development Report for every ULB during the Eleventh Plan period.

b. Infrastructure Development

Provision of Roads and storm water drains, streetlights, and civic amenities like modern bus stands are some of the developmental activities that will be carried out by the Municipalities and Corporations during the Eleventh plan period. The source of funds for these projects would be UIDSSMT, TNUDP-III, as well as own funds of the Urban Local bodies.

c. Roads and Storm Water Drains

It is programmed to convert all the earthen and metal roads in the Municipalities and Corporations to bituminous and cement concrete roads during the Eleventh Plan period. The main roads will be developed as pedestrian-friendly thoroughfares. All the Bus route roads will be provided with storm water drains in the first instance and the remaining roads will be taken up in a phased manner.

d. Street Lights

Emphasis is laid on providing additional streetlights, wherever required, in all Municipalities and Corporations to meet the norms of one streetlight for every 30 metres for better illumination. Energy saving and quality control will be given importance during the Eleventh Plan period. Existing tube lights and sodium vapour lamps will be converted into Compact Fluorescent Lamps in a phased manner to save on energy cost.

e. Public Health

In order to enhance health care facilities, construction / improvement of maternity centres has been envisaged in the Eleventh Plan period. Further, construction of modern slaughterhouses, installation of gasifier crematoria and improvement of burial grounds in municipalities will be taken up during the Plan period.

f. Administrative improvement

Construction of municipal office buildings will be taken up to create a better working environment and improve the efficiency of the staff. In addition, to improve transparency in governance, creation of Geographical Information Systems (GIS) in five ULB's, will be taken up as a pilot project to create digital land base maps and a web based decision support system for utility and asset management. Communication facilities and access to the Internet will also be improved.

Town Panchayats

The schemes taken up by town panchayats during the Eleventh Plan will aim to fill the infrastructure gaps and reach the service norms that are targeted for

the plan period. The major areas where projects are proposed to be taken up include, water supply, streetlights solid waste management, health and sanitation, roads, storm water drains, culverts, construction of school buildings etc. The schemes will again be funded by a combination of Central and State programmes as well as own funds of the Town Panchayats.

The Puthiya Anna Marumalarchi Thittam has now been extended to all the 561 Town Panchayats in a span of four years commencing from 2007-2008, covering 140 Town Panchayats each year. During 2007-08, this scheme was implemented in 140 Town panchayats at the cost of Rs.70 crore. For the year 2008-09, an amount of Rs. 25 crore has been budgeted under this scheme.

From the year 2005-06, grants are received as per the recommendation of 12th Finance Commission for maintenance of core services in Town Panchayats. In the year 2006-07, and 2007-08 , a sum of Rs. 32.10 crore each was released under this scheme. For year 2008-09 also, an amount of Rs.32.10 crore was budgeted.

1. Urban Poverty Allevation Programmes - Swarna Jayanthi Shahari Rozgar Yojana (SJSRY)

This scheme is an on-going scheme. The following are the components of the scheme: (a) Skill Training to Urban poor, (b) Setting up of micro enterprises 25% for individual, (c) Setting up of micro enterprises 75% through SHGs, (d) TCS (groups), (e) Wage Employment Community structure and (f) Community Structure.

In 2007-08, 5000 members of SHGs were assisted for group ventures and 10,000 urban poor were given skill training. During 2008-09 it is proposed to provide SJSRY assistance to 2684 SHGs in the urban areas.

2. Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

(i) Sub mission on Urban Infrastructure and Governance

JNNURM will be a major source of funding for urban infrastructure in the three cities of Chennai, Madurai and Coimbatore during the Eleventh Plan period. Based on the City Development Plans, the individual schemes which include

improvement to roads, bridges, water supply, sanitation, solid waste management and provision of other civic amenities will be posed for funding under JNNURM in a phased manner over the Plan period. So far, 40 projects at the cost of Rs. 5412.89 crore has been recommended to Government of India (GOI) for approval. Of these projects GOI has approved 24 projects costing Rs. 2215.08 crore, GOI share being Rs. 1011.06 crore and Government of Tamil Nadu share is Rs. 394.49 crore. Remaining Rs. 809.53 crore will be funded internally or from borrowing.

For the year 2007-08 an amount of Rs. 240 crore (GOI share Rs.170.58 crore and state Share Rs.69.42 crore) was spent under this scheme. For the annual plan 2008-09 an amount of Rs. 565 crore (GOI share Rs.314 crore and state Share Rs.250 crore) was budgeted. In the annual plan 2009-10 an amount of Rs. 520 crore (GOI share Rs.350 crore and state Share Rs.170 crore) has been proposed.

(ii) Basic Services for the Urban Poor (BSUP)

During the Eleventh Plan period, a financial outlay of Rs.300 crore is proposed under BSUP for provision of basic services to the urban poor. The scheme will be operated through the TNSCB, Chennai Corporation and Municipal Administration department. For 2007-08, Government of India has 5 projects at an estimated cost of Rs. 1303.85 crore.

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

All cities and towns other than the three (Chennai, Madurai and Coimbatore) covered under JNNURM will tap UIDSSMT as the major source of funding for infrastructure projects. An outlay of Rs.3000 crore is proposed under this scheme in the respective sectors for projects related to water supply, sewerage, roads, solid waste management and other urban amenities under Eleventh Five Year plan. For the year 2007-08 an amount of Rs. 69.48 crore (GOI share Rs.61.76 crore and state Share Rs.7.72 crore) was spend under this scheme. For the annual plan 2008-09 an amount of Rs. 236.88 crore (GOI share Rs.96.88 crore and state Share Rs.140 crore) was budgeted. In the annual plan 2009-10 an

amount of Rs. 168.99 crore (GOI share Rs.150.21 crore and state Share Rs.18.78 crore) has been proposed.

4. Integrated Housing and Slum Development Programme (IHSDP)

This programme extends financial assistance for the improvement of slums in urban areas benefiting the urban poor. For the construction and upgradation of houses and provision of basic amenities to the poor, an financial outlay of Rs.300 crore is proposed during the Eleventh five year plan period under the housing scheme. This scheme will continue to be implemented by the TNSCB.

Under the IHSDP scheme, shelter upgradation, water supply, roads, community toilets, street lights UGSS/ SWD facilities are provided to the slum dwellers. For the year 2007-2008, GOI have allotted a sum of Rs. 32.06 crore and 5 projects have been sanctioned. A sum of Rs. 18.40 crore has been released. The Government of India have sanctioned 15 projects proposals consisting of 10,125 new houses and 483 houses for upgradation, at an estimated cost of Rs. 121.45 crore during 2006-07. The Government of India have sanctioned 7 projects proposals consisting of 4995 new constructions and 1637 houses for upgradation, at an estimated cost of Rs 77.92 crore during 2007-08.

Solid Waste Management

Municipal Solid Waste Management is one of the major challenges that urban local bodies faces today. At present, approximately 11,000 MT of garbage is being generated every day in all the Municipalities and Corporations. Instructions have been issued and action is being taken for the segregation of garbage into bio-degradable and recyclable wastes. Accordingly, Tiruppur, Erode and Dharapuram Towns are producing manure from garbage which is distributed to the farmers. The main goal in Solid Waste Management is to achieve 100% source segregation, disposal of Solid Waste scientifically and to make cities garbage free. An action plan on Solid Waste management at a cost of Rs. 237.42 crore has been prepared for all the Urban Local Bodies and they are implementing the Solid Waste Management Scheme as per the action plan.

The Solid Waste Management programme in Town Panchayats will emphasize on segregation of waste at source of generation, waste reduction, reuse, recycling and composting of the organic waste. Household composting will be encouraged in all the Town Panchayats. Awareness, training and technical support will be provided to the households by the ULB. During 2007-08, Solid Waste Management (SWM) works were taken up in 561 Town Panchayats involving an expenditure of Rs. 1605.13 lakh. During 2008-09, it is proposed to upgrade the Solid Waste Management Infrastructure in 40 Town Panchayats with proposed outlay of Rs. 400.00 lakh.

The three major projects to be implemented during the Eleventh Plan period are SWM-Chennai Corporation for Rs.230.77 crore and SWM-Coimbatore and Madurai Corporation for Rs.237.80 crore. In Salem Corporation, the SWM programme is proposed to be implemented for Rs. 10 crore under Corporation funds.

Setting up of Regional Landfill Facilities

Land has become scarce in urban towns and the existing municipal dumpsites have started overflowing which leads to uncontrollable health and environmental hazards. To overcome this situation, action is being taken to identify land through remote sensing techniques by using Satellite maps with Geographical Information System (GIS) for setting up of regional landfill facilities.

Plan Outlay for 2009-10

The plan outlay for 2009-10 in respect of Urban Development sector is approved at Rs. 1435.73 crore for the above Departments. Of this, the approved outlay for Scheduled Caste Sub-Plan is Rs. 93.20 crore.

Housing

Housing is primarily a private sector activity. Increasing population pressure on land and increasing cost of housing have made proper housing inaccessible to the poorer segments of the population. In a developing country

like India, the problems of urban housing have been more evident, both because of exponentially increasing land and construction cost and deteriorating quality of life in congested urban pockets. Ensuring quality housing to the rural poor is also a major challenge. The sheer number of required additional housing units to meet the needs of the growing population presents a formidable task. However, the facts that housing is one of the major employment generators and that the need for and pride of owning a house is an important element in the mobilisation of domestic savings, contribute to the development of this sector. Housing can no longer be treated as a marginal or welfare sector, which is a drain on productive resources but has to be recognized as a major economic development sector.

Further, the perceptions of sustainable housing have moved from the importance of the individual dwelling to the issues relating to neighborhood and community. Different types of housing – vertical and horizontal expansion of housing create different types of problems, necessitating some trade off especially in urban areas. Vertical expansion creates problems of traffic congestion and choking of drainage, etc. Horizontal expansion increases transport cost and cost of spatial expansion of urban amenities. In rural areas, the issue relates to provision of house sites for the poor ensuring availability of housing finance and infrastructure facilities for the newly developing habitations.

In this context, while accepting that housing is essentially a private sector activity, State intervention is necessary to meet the housing requirements of a majority of vulnerable sections as well as to create an enabling environment for accomplishing the goal of "Shelter for All" on a self-sustaining basis.

Projection of Demand for Housing

The need for and demand for housing in Tamil Nadu is projected taking into account the growth of the population, vacancy rate, demolition rate of old buildings, replacement rate and affordability.

The following table gives the details of the projected need for and demand of housing for the 5-year periods ending 2006 to 2026.

Tamil Nadu - Housing Demand Projection						
Housing Need	(in lakhs)					
	2001	2006	2011	2016	2021	2026
Population	624.05	659.34	696.62	736.01	777.62	821.59
Households	146.65	154.77	163.52	172.77	182.54	192.86
Number of Houses	139.70	-	-	-	-	-
Shortage w.r to 2001	6.95	15.06	23.82	33.07	42.83	53.16
Vacancy Rate @ 0. 5%	0.70	0.77	0.82	0.86	0.91	0.96
>60 Years old building	2%	2%	2%	2%	2%	2%
Demolition rate	2.90	3.10	3.30	3.50	3.70	3.90
Total	10.58	18.94	27.91	37.38	47.40	57.98
Tamil Nadu - Housing Demand Projection						
Housing Demand	(in lakhs)					
	2001	2006	2011	2016	2021	2026
Shortage	6.95	15.07	23.82	33.07	42.83	53.16
Vacancy	0.70	0.77	0.82	0.86	0.91	0.96
Replacement of old buildings @ 50%	1.47	1.55	1.63	1.72	1.82	1.92
Total	9.11	17.39	26.27	35.65	45.57	56.05

Source: Census of India – 2001

The structural characteristic of housing in Tamil Nadu as per 2001 census is given below.

Distribution of Census Houses by Predominant Material of Wall

S.No	Description of material	Urban	% to Total	Rural	% to Total	State	% to Total
1	Grass, thatch, bamboo, etc.	258272	3.55	491712	5.06	749984	4.41
2	Plastic, polythene	13,592	0.19	35542	0.37	49134	0.29
3	Mud, unburnt brick	1208424	16.62	4110561	42.27	5318985	31.29
4	Wood	15497	0.21	25037	0.26	40534	0.24
5	G.I. Metal, asbestos sheets	58097	0.80	45407	0.47	103504	0.61
6	Burnt brick	4679397	64.35	4177666	42.96	8857063	52.11
7	Stone	324167	4.46	549011	5.65	873178	5.14
8	Concrete	696565	9.58	269397	2.77	965962	5.68
9	Any other material	17882	0.24	20378	0.21	38260	0.23

Source: Census of India – 2001

Delivery of Housing in Tamil Nadu

Housing delivery agencies in Tamil Nadu can be broadly classified as Public, Co-operative and Private sectors. Under public sector, the agencies operating mainly are Tamil Nadu Housing Board (TNHB) and Tamil Nadu Slum Clearance Board (TNSCB). The agencies such as Tamil Nadu Police Housing Corporation (TNPHC), and PWD (Public Works Department) are providing housing for their own employees.

Performance of the sector during 2008-09

During 2008-09, the physical targets and achievements fixed for the following agencies are given below:

Sl. No.	Item	Unit	2008-09 Target	Anticipated Achievement for 2008-09
a)	Tamil Nadu Housing Board Construction of 32 All India Services Quarters at SAF Games Village	No.of quarters	32	32
b)	Tamil Nadu Slum Clearance Board XII Finance Commission – SNG – Urban Slum Development programme	Tenements	2440	2000
	Environmental improvement of urban slums	Flats	20000	20000
c)	Tamil Nadu Police Housing Corporation Construction of police quarters	Nos.	2000	2000

Objectives

- Ensuring quality housing at affordable cost to the citizens, especially to the poor.
- Regulating urban development and encouraging developments in rural areas for a Planned and balanced growth.
- Recognising the standard housing does not merely mean land and building but includes basic services like water supply, sanitation and access roads and ensuring for the same.
- Encouraging use of modern technologies in the housing sector to increase efficiency, productivity and quality.
- Encouraging use of appropriate technology for low – dense housing developments at affordable cost in rural areas.
- Encouraging co-operative housing as well as housing by private sector.

- Creating synergy amongst government agencies, co-operative sector, private sector and all stakeholders in housing provision.
- Creating avenues for attracting new investments in housing sector leading to the employment generation.

Annual Plan 2009-2010 Schemes

1. Tamil Nadu Housing Board

The Board caters to the housing needs of people in different income groups such as Economically Weaker Sections, Low Income Group, Middle Income Group and High Income Groups. Since, inception Tamil Nadu Housing Board has created more than 3.95 lakhs dwelling units and developed plots at a cost of Rs. 2763.00 crore.

As the demand for housing units especially in urban areas is on the increase, the Tamil Nadu Housing Board has proposed to implement the following schemes.

a. Capital programme of TNHB

An amount of Rs. 100 lakh was approved for the year 2008-09 for the construction of 30 flats under TNGRH scheme at master plan complex at Villupuram, against the total cost of Rs. 306 lakh. Further, a proposal for construction of 272 TNGRH flats at Mattuthavanai, Madurai at a cost of Rs. 2927 lakh for High Court staff has also been sent to Govt. for approval. Pending approval of the scheme an amount of Rs. 100 lakh is proposed for the year 2009-10.

b. Tamil Nadu Government Rental Housing Schemes (TNGRHS)

1112 units of TNGRH quarters at Foreshore Estate are under dilapidated condition and are proposed to be demolished. An amount of Rs. 80.50 lakh is required for 2009-10 for the above purpose.

It is proposed to reconstruct 1500 TNGRH flats at a cost of Rs. 15000 lakh during 2008-09. As no fund was sanctioned during 2008-09, the outlay for the year 2009-10 is proposed at Rs. 15000 lakh.

c. Joint Venture (JV) / Public Private Partnership (PPP) Projects

The Tamil Nadu Housing Board Act 1961 was amended during the year 2007-2008 and a new section 31 A was introduced in the Tamil Nadu Housing Board Act to facilitate projects to be taken up through Joint venture / Public Private Partnership model. This concept is being adopted to avoid locking up of funds and to bring new technologies. It has been proposed to implement 24 projects at an extent of 746 acres during 2008-2009. Initially, joint venture schemes are proposed at Chennai in K.K. Nagar, South Asian Federation (SAF) Games Village, Koyambedu and Villivakam.

d. Integrated New Townships

Lands have been identified for the formation of integrated townships and knowledge city with all amenities in the Districts of Thiruvallur, Kancheepuram, Coimbatore and Madurai with special thrust for lower and middle income group of people.

e. Other schemes

The Other schemes proposed to be implemented during 2009-10 are (1) Improvement of slum tenements constructed by the TNHB after 1971 at Madurai at the cost of Rs. 170 lakh; (2) Comprehensive computerization of TNHB at the cost of Rs. 139 lakh and (3) Demolition of slum tenement at Coimbatore, Salem, Erode and Madurai districts, totally 17 schemes at the cost of Rs. 360 lakh.

2. Co-operative Housing Federation

It is the motto and policy of the government to provide “A house to each and every family” in Tamil Nadu. The Housing Co-operative Societies play an important role in the achievement of the above objective. During the Eleventh Five Year Plan, it is proposed to issue loans amounting to Rs.200 crore per year for construction of houses consisting mainly of urban housing, but including financing of LIG and MIG houses in the rural sector also. The annual target proposed is 12000 houses per year.

3. Tamil Nadu Slum Clearance Board

The following major housing schemes will be implemented under TNSCB.

1. Jawaharlal Nehru National Urban Renewal Mission (JNNURM)-BSUP.
2. JNNURM-IHSDP (Integrated Housing and Slum Development Programme)
3. World bank assisted Emergency Tsunami Reconstruction Project
4. Rajiv Gandhi Tsunami Rehabilitation Package: Rehabilitation and Resettlement Programme Tenements (GOI Scheme)
5. XII Finance Commission – Specific Needs Grants (GOI Scheme)
6. Capital Programme of TNSCB under the State Scheme.

1. Jawaharlal Nehru National Urban Renewal Mission (JNNURM) - BSUP Scheme

The main thrust of the Sub-mission BSUP (Basic services for urban poor) of JNNURM is on the integrated development of slums through projects for providing shelter, basic services and other related civic amenities with a view to providing utilities to the urban poor. The funding pattern is 50:50 for BSUP between Government of India and State Government. It is proposed to construct 11406 tenements at a cost of Rs. 814.85 crore in Chennai, Madurai and Coimbatore. The work has already been commenced and as a part of this programme it is proposed to complete these 11406 tenements during 2009-2010.

2. Integrated Housing And Slum Development Programme (IHSDP)

It is proposed to construct houses for the urban slum families in towns, other than Chennai, Madurai and Coimbatore under this programme. This programme will be funded by Government of India and the State Government in the rate of 80:20 with a total cost of Rs. 1500 crore. An outlay of Rs.300 crore has been provided as the State Government share under IHSDP during the Eleventh Plan period. The Eleventh Plan target for construction of houses under this scheme is 1,87,500 houses.

During 2008-09, the proposed outlay for the above scheme is Rs. 75 crore, which includes an outlay of Rs.15 crore under SCSP. The scheme will be continued during 2009-10.

3. Emergency Tsunami Reconstruction Project (ETRP)

Under this scheme, construction of tenements for the fishermen / slum families affected by the Tsunami disaster in the year 2004 shall be taken up

utilizing World Bank assistance for Rs.300 crore during the Eleventh Plan period. An amount of Rs.24.91 crore is proposed for 2009-10.

4. Rajiv Gandhi Tsunami Rehabilitation Package (GOI Scheme)

Tamil Nadu Slum Clearance Board have programmes to construct 1217 houses at the total cost of Rs.35.00 crore in Villupuram and Nagapattinam Districts. During 2008-2009 construction of 715 houses were taken up and it has been proposed to take up the remaining 431 houses during 2009-2010. An amount of Rs.1400 lakh is proposed for 2009-10.

The District Revenue Authorities have identified 13054 families living in Tsunami vulnerable urban areas in the Coastal Districts of Tamil Nadu. The District Administration will provide the infrastructure for this programme. A sum of Rs. 216 crore is provided for the Eleventh plan. Under *Rajiv Gandhi Tsunami Rehabilitation Package II, 5989 houses will be constructed during 2009-2010* at the cost of Rs. 17160 lakh.

5. Twelfth Finance Commission – Specific Needs Grants (GOI Scheme)

The Twelfth Central Finance Commission has sanctioned "specific needs grants" of Rs. 250.00 crore for slum development in Chennai and other towns in the State during 2005-10. It is proposed to construct 16785 tenements/ houses in Chennai and other towns and also to take up slum development works at a total cost of Rs. 250.00 crore. An amount of Rs. 10000 lakh is proposed for 2009-10.

6. Elevated Expressway- Rehabilitation and resettlement of Project Affected families

The TNSCB has been designated as nodal agency for Rehabilitation and resettlement component of the scheme on behalf of Tamil Nadu Government. The alignment of the Elevated Expressway runs through the bank of river Cooum which is encroached by the slum families. The TNSCB has programmed to resettle the project affected families temporarily in AC sheets roof shelter immediately and to resettle them in permanent tenements subsequently. The total cost of the project is estimated at Rs. 711.84 crore and the work has been commenced in 2008-09. It is programmed to construct houses for 1400 families.

4. Tamil Nadu Police Housing Corporation Limited

As on date, 42,016 quarters are available as against the total strength of over 98,897 police personnel in the State giving a satisfaction rate of 42.55%. Further, 5,300 police Quarters are under construction. During the Eleventh Plan period, it is proposed to construct 7,500 quarters for which an amount of Rs.500 crore is provided in the Eleventh Plan.

Plan Outlay for 2009-10

The outlay for 2009-10 for the Housing sector to be funded by the State Govt. is approved at Rs.256.57 crore, of which around Rs. 16.56 crore would flow to SCSP.

Water Supply, Sewerage and Sanitation

Water Supply, sewerage and sanitation are not only the basic necessities of life; they are also crucial for achieving the goal of “Health for All”. Increased sanitation coverage is directly linked to improvement of health status. Water Supply is perhaps the most important basic need that has to be provided with reliability, sustainability and affordability. In a water starved State like Tamil Nadu, which depends largely on seasonal rainfall, the provision of drinking water to the population acquires even more significance. With successive governments focusing on the need to improve the quality of life, water supply coupled with sanitation are essential in order to facilitate the citizens to lead a healthy and productive life.

Water Supply

Water Security has been one of the important objectives of the Government of Tamil Nadu during successive Five Year Plan Periods. Provision of drinking water security is seen not only as an end in itself but as a means of achieving health and ecological security.

The drinking water demand for the rural and urban population for the present population is assessed as under

Rural areas	18.00 tmc
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Urban areas	33.40 tmc
Total	51.40 tmc

Present water demand for the various sectors and its availability		
S.No.	Sector	Annual demand & availability in tmc
1.	Drinking water demand	51.40
2.	Irrigation demand	1766.00
3.	Other demands-Industries, power, Live stock	77.40
Total Demand		1894.80
Total assessed water resources (853+734)		1587.00
Gap		307.80

Agencies

The task of providing safe drinking water and sanitation facilities for the urban areas in the State except Chennai Corporation Area rests with the concerned urban local bodies. In Chennai Corporation Area and in other urban local bodies within the Chennai Metropolitan Area, this responsibility has been entrusted with the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB).

In respect of urban local bodies (other than those in Chennai Metropolitan Area, Municipal Corporations and Special Grade Municipalities), the Tamil Nadu Water Supply and Drainage Board (TWAD Board) is entrusted with the responsibility of project investigation, formulation and execution of large water supply projects at the instance of the concerned urban local body or the Government. In these areas, the concerned urban local bodies are implementing water supply schemes on a limited scale. The Corporations and Special Grade Municipalities are empowered to take up water supply schemes on their own.

The major water supply augmentation schemes, on completion, are handed over to the respective local bodies for maintenance. TWAD Board is maintaining schemes of composite nature covering more than one local body. Here too, the

maintenance of the internal distribution lines is the responsibility of the respective local body.

Performance of the Sector during 2008-09

Chennai Corporation Area and in other urban local bodies within the Chennai Metropolitan Area

Surface water sources such as reservoirs at Poondi, Cholavaram, Redhills, Chembarambakkam, Veeranam Lake, Rettai Eri, Porur Lake and Kandaleru Reservoir in Andhra Pradesh under Krishna Water Supply Scheme are the main sources of water supply for Chennai City and the adjacent urban areas. The total capacity in Poondi, cholavaram, Red Hills and Chembarapakkam lakes is 11057 Mcft. Further, ground water from the 6 well fields in the Araniyar - Kortaliar River Basin, the Southern Coastal Aquifer and Brackish Water based Reverse Osmosis Plants are other sources of water supply. Daily water supply is maintained in the Chennai city at the rate of nearly 645-650 MLD (Million litres per day). Of this, 585 MLD is supplied to the domestic consumers and another 60 to 65 MLD to the industries and bulk consumers, 10 municipalities, 5 Town panchayats, 2 village panchayats and 1 cantonment within the Chennai Metropolitan Area. The number of consumer with water connections has gone up to around 4.80 lakhs during March 2008. Nearly 98% of water is supplied through pipelines, while the rest of the streets are covered by supply through tankers.

Chennai Metropolitan Area

The CMWSS Board is supplying drinking water in bulk to the Urban Local Bodies adjacent to Chennai city on payment of fixed charges. A quantity of about 27 MLD of water is supplied to these local bodies. The water received from the CMWSS Board is distributed to the consumers by the respective local bodies through the network operated and maintained by them.

Outside the Chennai Metropolitan Area

Rural Water Supply

Present status of water supply in rural areas

Total Habitations	-	87010
Fully covered habitations (40 lpcd and above)	-	76,755

Partially covered habitations (10-39 lpcd)	-	10,255
Not covered habitations. (0 -9 lpcd)	-	Nil

- 12549 rural habitations have been provided protected water supply during 2007-08 and 10,255 partially covered rural habitations are programmed for providing protected water supply during 2008-09.

Special programme:

- 200 BC/ MBC Hostels in rural areas have been provided with protected water supply during 2007-08.
- 2070 exclusive SC/ST habitation with separate OHT has been provided during 2007-08. During 2008-09, 4000 such habitations have been programmed to cover with OverHead tank, at a cost of Rs. 120 crore.
- 1419 High school/ higher secondary schools in rural areas have been covered with protected water supply during 2007-08. During 2008-09 it is programmed to cover 850 schools, at a cost of Rs. 9 crore and water supply systems which are defunct in Government. School will be made functional at an estimated cost of Rs. 20 crore.
- 53 cattle markets and 385 weekly markets in rural areas have been covered with protected water supply during 2007-08.
- 1426 Individual power pump schemes in rural areas have been rejuvenated during 2007-08.
- 700 nos. of dilapidated OHT in rural areas which cannot rejuvenate will be replaced with new OHT during 2008-09 at the cost of Rs. 20 crore.
- Drinking water supply will be provided in 160 veterinary hospitals in rural areas during 2008-09 at an estimated cost of Rs. 1.20 crore.
- Water supply to 10,000 Anganwadi in rural areas at an estimated cost of Rs. 20 crore during 2008-09.
- An allocation of Rs. 506 crore has been made under MNP and Rs. 241.82 crore under ARWSP during 2008-09.

Recharge Structures

Around 320 recharge structures such as Check dams, Percolation ponds have been proposed to construct, at a cost of Rs. 10 crore, to improve the sustainability of drinking water sources. Also 495 recharge structures at a cost of Rs. 24 crore under artificial ground water recharge structures master plan have also taken up. Further, 487 oorani improvement works under NABARD assistance at a cost of Rs. 25.47 crore in Ramanathapuram and Sivagangai districts to enhance the ground water potential.

Combined Water Supply Scheme

50 combined water supply schemes were completed during 2007-08, at an estimated cost of Rs. 255.47 crore. During 2008-09 another 50 combined water supply schemes to benefit 3143 rural habitations, at an estimated cost of Rs.397.91crores has been programmed.

Urban Water supply schemes

There are 718 urban towns (excluding Chennai) in Tamil Nadu. The Present status of water supply is as follows:

Civic status	Good	Average	Poor	Total
Corporations	1	6	0	7
Municipalities	37	99	14	150
Town Panchayats	350	193	18	561
Total	388	298	32	718

Note:

- **Corporation:** Good - 110 lpcd and above, Average - 70 to 109 lpcd, Poor - Less than 70 lpcd.
- **Municipality:** Good - 90 lpcd and above, Average - 50 to 89 lpcd, Poor - Less than 50 lpcd.
- **Town Panchayats:** Good - 70 lpcd and above, Average - 40 to 69 lpcd, Poor - Less than 40 lpcd

Water Supply Schemes to 55 towns at an expenditure of Rs. 166.35 crore have been completed during 2007-08. Further new water supply improvement schemes in 60 urban towns will be completed during 2008-09 at an estimated cost of Rs. 225.35 crores. These schemes are funded by both Government of India and State Government under various heads such as JNNURM (Jawaharlal Nehru National Urban Renewal Mission) UIDSSMT (Urban Infrastructure Development fund for small and Medium Towns), TNUDP (Tamil Nadu Urban Development Project) and MNP (Minimum Needs Programme).

Ramanathapuram Combined Water Supply Scheme

Ramanathapuram combined water supply scheme to benefit 5 Municipalities, 11 Town Panchayats and 3163 rural habitations in Sivagangai, Pudukottai districts and enroute habitations at an estimate cost of Rs.616 crore have been taken up for implementation. The scheme will cover a total present population of 15.76 lakhs. The scheme is targeted for completion by April 2009.

Hogenakkal Water Supply and Fluorosis Mitigation Project:

Japan Bank of International Cooperation (JBIC) has approved financial assistance under ODA Loan package 2007 for Hogenakkal water Supply and Fluorosis Mitigation Project covering the entire Dharmapuri and Krishnagiri districts. The project will cover 3 Municipalities, 17 Town panchayats, 6755 Ruarl habitations in 18 panchayat unions in Dharmapuri and Krishnagiri Districts. The Government also accorded administrative approval for phase I for Rs.959.20 crore to implement the project with external financial assistance (JBIC) for Rs.785.50 crore and MNP - 173.70 crore. The scheme will benefit a population of 29.80 lakh.

Under Ground Sewerage Schemes (UGSS)

The Government of Tamil Nadu has taken a policy decision to provide UGSS in all the Municipalities in Tamil Nadu. Top priority has been assigned for providing UGSS to district head quarters towns. UGSS to 5 towns namely Tirunelveli, Karur, Tiruchiraplli, Thanjavur and Madurai have been completed at the total cost of Rs. 466.50 crore under NRCB. In the remaining 25 district headquarter towns 23 towns have been given administrative approval for Rs. 1187.03 crore.

Further UGSS to 11 towns other than district headquarters have been approved at the cost of Rs. 190.99 crore.

Tsunami Relief Works

During 2006-07, 41 water supply schemes to provide permanent and sustainable water supply to the Tsunami affected urban and rural areas have been taken up for implementation at an estimate cost of Rs.84.37 crore. Out of these 35

schemes have been completed and Rs. 54.27 crore has been spent so far. The balance work would be completed during 2008-09.

For providing sanitation facilities to 73 permanent shelters (16 packages) in Municipal areas and town panchayats in 6 coastal districts, Rs. 30 crore has been allotted under ETRP. The work is in progress.

Objectives Targets and Strategies

Water Supply

- To increase the coverage of water supply in all towns to achieve the norms for per capita supply ensuring quality of the water.
- To ensure reliability of supply of water for 24 hours in towns in a phased manner.
- To install desalination plants in all coastal towns with appropriate subsidy.
- To increase the norms levels for per capita in line with JNNURM norms.
- To create small water supply undertakings similar to electrical undertakings run earlier by local bodies (now merged with the EB) under the management and supervision of the urban local bodies and entrust them under qualified professional management.
- To implement HRD programs aiming at capacity building for operating the water supply schemes by Urban Local Bodies (ULBs).
- To avoid physical losses, zoning of distribution system and leak detection study should be carried out periodically as a preventive measure to arrest the unaccounted water.
- To encourage innovative and cost effective technologies in the implementation and administration of water supply schemes.
- To safeguard the water supply sources against pollution and degradation.
- To protect water sources against encroachments by legislative measures.
- To safeguard the watercourses, only treated effluent will be allowed to enter the water bodies and regulatory provisions will be made for the safe disposal of Solid and Hazardous waste.
- To encourage recycling and reuse of water by all major/medium industrial establishments.
- To control over-exploitation and degradation of ground water.
- To prepare Master plans for implementation of recharge structures in all river basins.
- To develop State water policy constituting a team solely for the purpose since different agencies are involved.

Sewerage and Sanitation

- Integration of sanitation and sewerage schemes with water supply so that it is given adequate priority during the Plan period.
- Treating of wastewater from storm water drains and industrial effluents before they enter the watercourses.
- Adoption of innovative and alternate technologies for safe disposal, recycling and reuse of waste water wherever possible.

Schemes for the year 2009-10:

A. Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB)

a. Sea water desalination plant - I (Kattupalli / Minjur)

The present water supply sources of Chennai City are dependent on the monsoon rainfall and any failure of the monsoon adversely affects the city water supply. The CMWSS Board had proposed to set up a desalination plant on DBOOT (Design, Build, Own, Operate and Transfer) basis as a drought proofing measure and decided to implement the 100 mld Desalination Plant at Kattupalli near Minjur. At present 81% of the works have been completed. The estimated cost is Rs.93.00 crore.

b. Sea water desalination plant - II (at Nemmeli)

To reduce the gap between the demand and supply of water in the Chennai Metropolitan Area and to augment the water supply, the Government has proposed to construct another 100 mld Sea Water Reverse Osmosis Plant at South of Chennai with the financial assistance of the Government of India. The estimated cost of the project is Rs.908.28 crore. For execution of this project 40.05 acres of land has been identified and was taken over from Aalavandhar Trust.

c. Project under JNNURM

Improvement to Water Supply Systems

The CMWSSB has taken up the improvement works in 4 Water distribution stations during October 2007 and the works are in progress. Further, strengthening of 3 water distribution systems are also under progress. All these works will be completed at the end of the year 2009. The total cost of the project is Rs.337.48 crore.

Providing water supply along I.T. Corridor:

The Government of Tamil Nadu has declared the old Mamallapuram Road as IT Corridor. CMWSS Board is implementing the water supply and sewerage infrastructure works. Detailed Project Reports were prepared in 7 packages for the works upto Siruseri and the Government of India has accorded approval for Rs.41.77 crore under JNNURM. This work has commenced during April 2007. So far 48% of the work has been completed. Since, the road improvement work is in progress, this work has been stopped from June 2008. The Board has decided to divide the balance work into 11 packages and the work would be commenced shortly.

Conveyance of drinking water from Desalination Plant at Minjur to Madhavaram & Red hills for city distribution:

The desalinated water produced at the desalination plant at Minjur will be supplied by the Company at the plant site at Kattupalli Village. To convey this water from the plant site at Kattupalli to Madhavaram and Redhills for further distribution to the consumers, necessary infrastructure like pipeline, under ground tank and pumping arrangements are required and the Government of India has accorded approval for Rs.87.80 crore under JNNURM. Due to introduction of two stage pumping and Operation & Maintenance for 5 years, the project has been revised to Rs.93.00 crore. The Government of India has sanctioned Rs.70.24 crore as grant under JNNURM. The balance amount will be met by the State Government/CMWSS Board. So far 95% of the work has been completed.

The following additional projects are also being taken up with JNNURM and other institutional funding.

- The work of construction of sump and pump house over the 90 cusec canal near Poondi reservoir for conveying 100 mld of raw water to Puzhal water treatment plant at a cost of Rs.9.11 crore is under progress and expected to be completed by March 2009. It is proposed to construct an additional 60 mld capacity sewerage treatment plant at Perungudi at the cost of Rs. 61.19 crore.
- The execution of the works of the rehabilitation and upgradation of the sewerage system in Thiru.Vi.Ka industrial estate at Guindy at an

estimated cost of Rs.7.35 crore to benefit 610 industries and about 1.02 lakh peoples. The work is in progress.

- The implementation of the water supply schemes for the Kathivakam Municipality at an estimated cost of Rs.6.22 crore is under progress.
- The implementation of the Under ground sewerage scheme for the Thiruvottiyur Municipality at an estimated cost of Rs.25.60 crore is under progress. The scheme will benefit about 3.5 lakh people.
- The work of construction of terminal pumping station and laying of force main under phase II at Ambattur sewerage scheme at estimated cost of Rs.7.33 crore is under progress. Ambattur pahse III sewerage scheme will be implemented at an estimated cost of Rs.155.20 crore during the current year.
- Under Ground sewerage scheme for Pallavaram Municipality at an estimated cost of Rs.52.72 crore is under progress.
- The Phase I of the Madhavaram Municipality Underground sewerage scheme, at an estimated cost of Rs.36.7 crore is in progress.
- The water supply scheme to Porur Town panchayat has been taken up at an estimated cost of Rs.13.15 crore and is under progress.
- The water supply scheme to Maduravoyal Municipality has been taken up at an estimated cost of Rs.26.45 crore and is under progress.
- The water supply scheme to Avadi has been taken up at an estimated cost of Rs.103.84 crore and is under progress.
- The water supply scheme to Ullagram - Puzhuthivakam Municipality has been taken up at an estimated cost of Rs.25.24 crore and is under progress. Sewerage scheme will also be implemented at a cost of Rs.32.40 crore.
- The water supply scheme to Nerkundram has been taken up at an estimated cost of Rs.21.75 crore and is under progress.

d.Chennai City River Conservation Project (CCRCP):

The sewerage system improvement works under CCRCP have been taken up at an estimated cost of Rs.720.15 crore with the grant of Rs.491.52 crore from the Government of India and Rs.228.63 crore from Board's own fund. The works were commenced during the year 2001 and have been completed. So far works for a value of Rs.375.63 crore have been completed and put into beneficial use. A savings of Rs.109.28 crore is available in the sanctioned CCEA cost. CMWSSB has proposed to take up further improvement works in the City sewerage system utilizing the savings under CCRCP. A Proposal with an amount of Rs.22.16 crore have been sent to NRCD and approval was obtained.

e.National River Conservation Project

The CMWSS Board has taken up the implementation of sewerage schemes for Madurai Corporation and Kumbakonam Municipality.

1.Madurai Corporation

The sewerage scheme for Madurai Corporation was taken up at an estimated cost of Rs.165.00 crore during February, 2001. The collection system, construction of Sewage Pumping Stations and conveying main for six blocks under Phase-I have been completed, commissioned and handed over to Madurai Corporation. Under Phase-II, the works of collection system, construction of Pumping Stations and conveying main at north and south of River Vaigai, at an estimated cost of Rs.70.25 crore, are under progress. All the works will be commissioned during the current year.

2. Kumbakonam Municipality

The sewerage scheme for Kumbakonam Municipality was taken up at an estimated cost of Rs.50.60 crore during April 2001. The sewerage works of first and second packages were completed at a cost of Rs.31.16 crore. The construction of sewerage treatment plant under phase III is also in progress.

B. TWAD Board

All the Partially covered habitation identified in rural areas during re-survey 2006 will be provided with protected water supply during 2008-09 to achieve the Bharat Nirman goal in Tamil Nadu. Hence, attempts will be made to provide protected water supply to the newly emerged habitation after 2006 and to achieve 100 % house service connection with 24 X 7 water supply in selected panchayats in community participation.

- Under RWS Programme, it has been programmed to provide water supply schemes to 900 rural habitations through regular programme.
- Under Urban Water Supply Programme, it has been programmed to provide water supply to 60 towns falling under the category of average and poor Water Supply status towns.
- It has been proposed to complete 5 Under Ground Sewerage Schemes in Urban Towns.

- It has been proposed to take up 21 schemes under SCADA / Telemetry at an estimated cost of Rs. 31.60 crore.
- Under Tsunami rehabilitation work, one water supply scheme (TEAP) in Cuddalore district is programmed to be completed. Under ETRP sanitation works, 6 packages with World Bank assistance and 5 packages using DEWATS technology will be completed during 2009-10.

Plan Outlay for 2009-10

An amount of Rs. 915.25 crore has been approved for the Water Supply and Sanitation sector for the year 2009-10, of which around Rs. 160.00 crore will flow to SCSP and Rs. 0.08 crore to TSP.