

## **6. Tamil Nadu Water Supply and Drainage Board**

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

### **6.1 Activities of TWAD Board**

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

of Water Supply and Sewerage Schemes in Rural and Urban areas.

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

## **6.2 Rural Water Supply Programme**

The Government of India considering that 40 lpcd is the norm over the last 40 years, as an interim measure has enhanced the service level to 55 lpcd for the 12<sup>th</sup> Five year Plan. By 2017, it is targeted that at least 50% of Rural Population in the Country shall have access to 55 lpcd within their household premises or within 100 metres

radius (and within 10 metres elevation in hilly areas) from their households.

Water Supply Schemes to Rural Habitations are implemented based on surveys to assess the gap between current supply and the service standard. Rural Water Supply Schemes are being implemented with State Government Funds under the Minimum Needs Programme, Central Government Funds under the National Rural Drinking Water Programme and National Bank for Agriculture and Rural Development.

Water supply to Rural Habitations is provided by implementing Combined Water Supply Schemes. When the beneficiary is an individual local body, the scheme is handed over to the local body for maintenance on completion of the scheme and when the scheme is meant for more

than one local body, the scheme is maintained by TWAD Board.

In Tamil Nadu, as on 01.04.2016, there are 1,00,018 rural habitations. Out of this, 90,694 habitations are fully covered with water supply at 40 lpcd and the balance 9,324 habitations including 351 Quality affected habitations are partially covered.

During 2016-17, 3,269 Partially Covered habitations including 351 Quality affected habitations have been taken up for full coverage with water supply at 55 lpcd. Apart from the above, 5,588 partially covered habitations have already been taken up in the ongoing CWSS. It is proposed to cover the remaining 467 partially covered habitations during 2017-18.

### **6.3 Source Sustainability**

Besides implementation of water supply schemes, TWAD Board has taken measures to

augment ground water sources towards source sustainability by creating recharge structures such as check dam, recharge shafts, percolation ponds etc., under Government of India and State Government Assisted Programmes.

During the years 2011-12, 2012-13, 2013-14 and 2014-15, 3,348 Recharge Structures have been constructed at a cost of ₹228.24 crore.

#### **6.4 Combined Water Supply Schemes**

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

During 2015-16, 27 such schemes were under implementation at an estimated cost of ₹924.92 crore to benefit 27.79 lakh people with financial assistance from the Minimum Needs Programme, National Bank for Agriculture and Rural Development, the National Rural Drinking Water Programme, Jawaharlal Nehru National Urban Renewal Mission, Urban Infrastructure Development Scheme for Small and Medium Towns etc.,

The following 6 Combined Water Supply Schemes (CWSS), have been completed at an estimated cost of ₹94.55 crore, benefiting 3.15 lakh people.

Sl. No.	Name of Scheme	Estimate Cost (₹ in Crore)	Population (in lakh)
1	CWSS to 212 Rural Habitations in Andhanallur, Manikandam and Manapparai Unions in Trichy District.	48.67	1.14

2	CWSS to 93 Rural habitations in Oddanchatram Union in Dindigul District (under Vedasandur CWSS in Dindigul District)	9.37	0.37
3	CWSS to 34 Rural Habitations in Manur and Palayamkottai Unions in Tirunelveli District	6.35	0.22
4	CWSS to 235 Rural habitations in Vedasandur, Gujiliamparai and Oddanchatram Unions in Dindigul District (under Vedasandur CWSS in Dindigul District)	5.50	0.73
5	CWSS to Udangudi Town Panchayat and 30 Habitations in Alwarthirunagari (Part), Thiruchendur (part), Sathankulam (part) and Udangudi (part) Unions in Thoothukudi District	9.19	0.30
6	CWSS to Zamin Uthukuli Town Panchayat and 63 rural habitations in Coimbatore District	15.47	0.39
	<b>Total</b>	<b>94.55</b>	<b>3.15</b>

Further, the following 18 Combined Water Supply Schemes at a cost of ₹640.76 crore to benefit a population of 20.31 lakh are in progress.

Sl. No.	Name of Scheme	Estimate Amount (₹ in crore)	Population (in Lakh)	Physical progress
1	Augmentation of water supply to 185 habitations in 9 village panchayats of Karamadai union in Coimbatore District	42.94	0.81	96% works completed
2	CWSS to 88 habitations in Karapadi and 5 other Village Panchayats, in Bhavanisagar and Nambiyur Unions in Erode District.	11.72	0.19	95% works completed.
3	CWSS to 281 rural habitations of Jeyankondam Union in Ariyalur District	26.06	1.09	87% works completed.
4	CWSS to 158 Rural habitations in Gudimangalam and Udumalaipettai union in Tiruppur District	54.14	1.23	85% works completed



5	CWSS to Vellakoil, Kangayem Municipalities and 528 Rural habitations in Erode and Tiruppur Districts.	91.40	4.72	85% works completed.
6	CWSS to 90 Rural Habitations in Karungulam (Part), Srivaikundam (Part) and Thoothukudi (Part) Unions in Thoothukudi District	17.17	0.48	75% works completed.
7	CWSS to 60 Quality affected and 59 way side habitations in Kattumannarkoil Union and Lalpettai Town Panchayat in Cuddalore District.	18.16	0.60	65% works completed.
8	CWSS to 248 rural habitations in Kovilpatti (Part), Kayathar (Part), Ottapidaram (part), Vilathikulam (Part) and Pudur (Part) unions in Thoothukudi District	94.04	1.25	60% works completed.
9	CWSS to Athangaraipatty and 14 Habitations in Kadamalaikundu - Myiladumparai Union in Theni District.	2.65	0.07	60% work completed

10	CWSS to 100 habitations in Koodanukulam and 12 other Village Panchayats in Radhapuram and Valliyoor Unions situated around Koodankulam Nuclear Power Plant in Tirunelveli District	68.10	0.88	60% works completed.
11	Augmentation of Water supply to 147 Rural Habitations of Alangulam and Sanakarankoil unions in Tirunelveli District	31.32	1.56	54% works completed.
12	CWSS to Keelapavoor Town Panchayat (Part) and 163 Rural Habitations in Pappakudi (Part), Kadayam and Keelapavoor Unions in Tirunelveli District	46.55	1.55	54% works completed.
13	CWSS to Mulligur and 54 rural habitations in Mulligur, Ithalar and Nanjanadu Village Panchayats in the Nilgiris District	25.85	0.30	52% works completed
14	CWSS to 170 Rural Habitations in Manur (Part) and Palayamkottai (Part) Unions in Tirunelveli District	32.40	1.13	41% works completed.

15	CWSS to 101 rural habitations in Thoppampatti Union in Dindigul District (under Vedasandur CWSS in Dindigul District)	4.11	0.43	Trial run under progress & water supply effected to 57 habitations.
16	CWSS to 109 rural habitations in Oddanchatram Union in Dindigul District (under Vedasandur CWSS in Dindigul District)	4.08	0.59	Trial run under progress & water supply effected to 78 Habitations.
17	CWSS to 201 rural habitations in Reddiarchatram Union in Dindigul District (under Vedasandur CWSS in Dindigul District)	8.96	0.86	Trial run under progress & water supply effected to 94 Habitations.
18	CWSS to 306 rural habitations in Perambalur, Veppan thattai, and Alathur Unions, Arumbavur and Poolambadi Town Panchayats in Perambalur District	61.11	2.57	Trial run under progress & water supply effected to 217 Habitations.
	<b>Total</b>	<b>640.76</b>	<b>20.31</b>	

The following 3 Combined Water Supply Schemes at a cost of ₹189.61 crore to benefit a population of 4.33 lakh are under Tender Stage.

Sl. No.	Name of Scheme	Estimate amount (₹ in crore)	Population (in lakh)	Remarks
1	CWSS to Vadugapatti Town Panchayat and 57 Habitations in Periyakulam Union and Horticultural College and Research Institute at Periyakulam in Theni district and Batlagundu Town Panchayat in Dindigul District.	45.70	0.92	Tender received and under scrutiny

Sl. No.	Name of Scheme	Estimate amount (₹ in crore)	Population (in lakh)	Remarks
2	CWSS to 1262 Habitations in Vellakoil, Mulanur, Dharapuram, Kundadam, Kangayam Unions in Tiruppur District and Chennimalai Union in Erode District - Phase - II	91.16	2.72	Work Order to be issued
3	CWSS to 253 rural habitations in Kulithalai and Thogamalai Unions in Karur District	52.75	0.69	
	<b>Total</b>	<b>189.61</b>	<b>4.33</b>	

## 6.5 Major Combined Water Supply Schemes

During 2015-16, 14 major combined water supply schemes were under implementation at an

estimated cost of ₹5,192.18 crore to benefit 113.58 lakh people with financial assistance from the Minimum Needs Programme (MNP), National Bank for Agriculture and Rural Development (NABARD), National Rural Drinking Water Supply Programme (NRDWP), Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), Integrated Urban Development Mission (IUDM), KfW and HUDCO loan assistance.

➤ The following 3 Major Combined Water Supply Schemes, have been completed at an estimated cost of ₹2303.92 crore, benefiting 52.67 lakh people.

Sl. No.	Name of Scheme	Estimate Cost (₹ in crore)	Population (in Lakh)	Physical progress
1	CWSS to Melur, 2 Municipalities, 6 Town Panchayats	784.00	15.92	Scheme completed and inaugurated by the

	and 1430 Rural Habitations in Madurai District and Singampunari Town Panchayat in Sivagangai District			Hon'ble Chief Minister on 28.12.2015
2	CWSS to Vellore Corporation, 11 Municipalities, 5 Town Panchayats and 944* Wayside Rural Habitations in Vellore District.	1295.00	24.46	
3	Augmentation of Water Supply to Palladam Municipality, 23 Town Panchayats and 965 Rural Habitations in Coimbatore and Tiruppur Districts	224.92	12.29	Scheme completed and inaugurated by the Hon'ble Chief Minister on 27.02.2016
	<b>Sub Total - I</b>	<b>2303.92</b>	<b>52.67</b>	

Note: \*Water Supply to 25 Habitations will be effected on receipt of permission from National Highways Authority of India (NHAI).

The following 10 Major Combined Water Supply Schemes are in progress at a cost of ₹2748.04 crore to benefit a population of 59.23 lakh.

Sl. No.	Name of Scheme	Estimate Cost (₹ in crore)	Population (in Lakh)	Physical progress
1	CWSS to 1751 Rural Habitations in Pudukottai District and Vallam Town Panchayat in Thanjavur District	315.70	7.63	88% works completed.
2	CWSS to 1766 Rural Habitations in Pudukottai District and 125 Habitations in Sivagangai District.	301.50	6.65	85% works completed.
3	CWSS to Cuddalore Municipality, Bhuvanagiri and Parangipettai Town Panchayats and 812 Rural Habitations in Cuddalore District	260.54	7.75	84% works completed.



Sl. No.	Name of Scheme	Estimate Cost (₹ in crore)	Population (in Lakh)	Physical progress
4	CWSS to 1153 Rural Habitations and Peravurani, Adhirampattinam and Perumagalur Town Panchayats in Thanjavur District	495.70	7.00	75% works completed.
5	CWSS to 295 Quality affected Habitations and 315 wayside Habitations in Nagapattinam District	105.70	3.70	70% works completed.
6	CWSS to 698 Rural Habitations in Nangavalli and Mecheri unions with bulk provision to 6 Town Panchayats in Salem District	158.64	3.93	54% works completed.
7	CWSS to Thondamuthur, 6 Town Panchayats and 134 Rural Habitations in Coimbatore District	130.46	1.83	45% works completed.
8	CWSS to 755 Rural Habitations in Virudhunagar District	234.00	6.51	35% works completed.
9	CWSS to Natham, 2 Town Panchayats & 1276 Rural Habitations in Dindigul District (with bulk provision to 2 Town	636.00	11.27	44% works completed

Sl. No.	Name of Scheme	Estimate Cost (₹ in crore)	Population (in Lakh)	Physical progress
	Panchayats & 354 Rural Habitations in Dindigul District & 135 Rural Habitations in Trichy District)			
10	CWSS to Azhagiyapandipuram, 8 Town Panchayats and 246 Rural Habitations in Kanyakumari District	109.80	2.96	30% works completed.
<b>Sub Total - II</b>		<b>2748.04</b>	<b>59.23</b>	

Further, the following Major Combined Water Supply Scheme is taken up for implementation at a cost of ₹ 140.22 crore to benefit a population of 1.68 lakh and is in tender stage.

Sl. No.	Name of Scheme	Estimate Cost (₹ in crore)	Population (in Lakh)	Physical progress
1	CWSS to 293 rural Habitations in Musiri, Thathaiyangarpettai, Thuraiyur and Uppiliyapuram Unions of Trichy District.	140.22	1.68	Work Order to be issued
<b>Sub Total - III</b>		<b>140.22</b>	<b>1.68</b>	
<b>Grand Total</b>		<b>5192.18</b>	<b>113.58</b>	

## 6.6 Revamping of Combined Water Supply Schemes

Revamping works are taken up in the age-old Combined Water Supply Schemes maintained by TWAD Board in which a reduction in yield of sources or a decrease in the efficiency of pumpsets and damages in pipe lines, valves due to road widening, etc. are encountered. These revamping works are carried out to make the CWSS fully functional and to enhance the supply to the designed level to the beneficiaries. During 2015-16, 5262 revamping works were completed at a cost of ₹40.04 crore under SMS/ NRDWP / GoI National Calamity Fund / SDRF.

### Details of works completed

Sl. No.	Category	No. of works	Amount (₹ crore)
	<b>Under NRDWP / SMS</b>		
1	Source Improvement	57	4.69
2	Replacement/Overhauling of Pumpsets	86	3.44
	<b>Under SDRF / Contingency plan</b>		

Sl. No.	Category	No. of works	Amount (₹ crore)
3	Source Augmentation works	53	5.00
<b>Under SDRF / Flood relief Fund</b>			
4	Rectification of cable, pump sets, pipe line etc	86	2.00
<b>Under GoI Natural Calamity/Flood relief fund:</b>			
5	Source Restoration works	216	3.80
6	Replacement/Overhauling of Pump sets, Panel Board, cable etc	2389	9.10
7	Rectification of pipeline	2375	12.01
<b>Total</b>		<b>5262</b>	<b>40.04</b>

## 6.7 Water Quality Surveillance and Monitoring

In order to achieve the objective of ensuring safe drinking water supply to the public, TWAD Board has established one State level water testing laboratory at Chennai, 31 District level and 51 sub division level water testing laboratories all over Tamil Nadu. These laboratories have facilities for testing all the basic chemical and bacteriological water quality parameters and for

effective surveillance and monitoring of water supply sources in both Rural and Urban areas. This State level water testing laboratory at Chennai has been recognized as State Referral Institute for Tamil Nadu by the Government of India.

During the year 2015-16, 52000 water samples have been tested in state and district laboratories with State funds. In addition 82,000 water samples have been tested in the sub-division level laboratories for water quality monitoring and surveillance under NRDWP. 3,000 Field water testing kits were supplied to the Panchayats. 10,000 grass root level functionaries were trained for using Field water testing kits.

During 2016-17, it is proposed to test nearly 65,000 water samples in state and district laboratories with State funds. It is also proposed to test 1.53 lakh water samples in the 51 sub-division level laboratories for water quality

monitoring and surveillance under NRDWP. Field water testing kits will be supplied to 12,524 panchayats. It is proposed to give training for 15,000 grass root level functionaries for using Field water testing kits. It is proposed to upgrade the state level water testing laboratory, Chennai for NABL Accreditation (National Accreditation Board for Testing and Calibration Laboratories).

### **6.8 Drinking Water Safety Week Campaign**

In order to create awareness on Water quality, the Government of Tamil Nadu is conducting week long campaign every year on water safety.

The Drinking Water Safety Week Campaign ought to be conducted in 2015-16 has been conducted from 27.06.2016 to 03.07.2016. During the campaign 31 District rallies, 385 Block rallies, 6262 Grama Sabha meetings were conducted for creating water quality awareness.

3,000 Field water testing kits were given at free of cost to Panchayats. 26,374 Teachers and 13,187 pump operators were trained for water sample collection and testing. About 2 lakh water samples were collected and tested.

It is proposed to conduct Drinking Water Safety Week Campaign for 2016-17. During the campaign 31 District rallies, 385 Block rallies, 12,524 Panchayat rallies/meetings will be organized for creating water quality awareness. Field water testing kits will be given free of cost to all 12,524 panchayats. Teachers and pump operators will be trained for water collection and testing. It is proposed to test nearly 5 lakh water samples.

## **6.9 Urban Water Supply Programme**

TWAD Board acts as Project Implementation Agency for Water Supply Schemes to Urban Local bodies. On completion, the schemes will be



handed over to the respective local bodies for maintenance.

### **6.9.1 Urban stand alone Water Supply Improvement Schemes under Implementation**

During 2015-2016, 34 Water Supply Improvement Schemes are under implementation in 34 urban local bodies covering 17 Municipalities and 17 Town Panchayats, to benefit a population of 14.62 lakh, at a cost of ₹ 562.43 crore.

Among the schemes under implementation, 12 Water Supply Improvement Schemes in 3 Municipalities and 9 Town Panchayats benefiting a population of 3.65 Lakh, at a cost of ₹ 81.66 crore have been completed so far.

The remaining 22 Water Supply Improvement Schemes to benefit a population of 10.98 lakh in 14 Municipalities and 8 Town Panchayats at a cost of ₹ 480.77 crore are in various stages of progress.



In addition, 4 Water Supply Improvement Schemes to benefit a population of 6.83 lakh in 2 Corporations and 2 Town Panchayats at a cost of ₹373.82 crore are in tender stage.

## **6.10 Operation and Maintenance of CWSS**

The CWSS covering more than one local body are being maintained by TWAD Board as per G.O. (Ms) No.84, Municipal Administration and Water Supply Department, dated 10.03.1994. As on 01.04.2016, 547 Combined Water Supply Schemes covering 8 Corporations, 66 Municipalities, 323 Town Panchayats, 46,438 Rural habitations and 532 Industries / Institutions, benefiting a population of 4.18 crore are being maintained by TWAD Board.

At present, an average of 1842 MLD of water is supplied through the above 547 Combined Water Supply Schemes as below.

Sl. No.	Name of Beneficiary	No. of Beneficiary	Designed Quantity (in MLD)	Average Supplied Quantity (in MLD)
1	Corporations	8	265	195
2	Municipalities	66	264	220
3	Town Panchayats	323	333	306
4	Rural Habitations	46438	1055	1026
5	Industries/Commercial Organisations	532	144	95
<b>Total</b>		<b>47367</b>	<b>2061</b>	<b>1842</b>

The expenditure for the Operation & Maintenance during the year 2015-16 is ₹588.86 crore. The Revenue collected through water charges is ₹261.04 crore.

To meet the gap between income and expenditure, the Government have released

₹140.00 crore during the year 2014-15 and ₹207.11 crore during the year 2015-16 as special grant.

## **6.11 Investigation and Preparation of Detailed Project Reports for Water Supply Schemes**

### **6.11.1 Water Supply Schemes:**

During 2015-16, 32 Nos. of Water Supply Schemes, at an estimated cost of ₹10,920.53 crore, to benefit a total population of 126.34 Lakh are under investigation, as furnished in the table below.

<b>Sl. No.</b>	<b>Description</b>	<b>No. of WSS</b>	<b>Beneficiaries</b>	<b>Population (in lakh)</b>	<b>Estimate cost (₹ in crore)</b>
1	Schemes sanctioned and tender to be called for.	5	3 Municipalities, 15 Town Panchayats & 1479 Rural Habitations	12.45	1004.40
2	Schemes in various stages of sanction.	8	7 Municipalities, 11 Town Panchayats & 2519 Rural Habitations	17.13	2052.06

Sl. No.	Description	No. of WSS	Beneficiaries	Population (in lakh)	Estimate cost (₹ in crore)
3	Investigation in progress.	19	1 Corporation, 12 Municipalities. 51 Town Panchayats & 14,524 Rural Habitations	96.76	7864.07
	<b>Total</b>	<b>32</b>	<b>1 Corporation, 22 Municipalities, 77 Town Panchayats &amp; 18,522 Rural Habitations</b>	<b>126.34</b>	<b>10920.53</b>

### 6.11.2 Desalination Plants:

As announced by the Government, Administrative Sanction has been accorded for ₹1355 crore, for setting up of Desalination Plants of 60 mld capacity each at Kuthiraimozhi in Ramanathapuram District and at Alanthalai in Thoothukudi District, benefiting a population of

3.20 lakh in Ramanathapuram District and 8.05 lakh in Thoothukudi District.

As of now, enter-upon permission has been obtained from the District Collectors for the land sites identified for setting up of Desalination Plants. Also, Environmental Impact Assessment Report has been prepared and the process of obtaining 'Coastal Regulation Zone - clearance' is in progress.

### **6.11.3 Formation of Water Supply Grid between Chennai and Bangalore exclusively for Industrial needs**

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

Water Supply needs of these industrial clusters, a Pre-Feasibility Report has been prepared.

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

Now the Government have entrusted the works in respect of Ponneri Industrial node to Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB).

### **6.12 Under Ground Sewerage Schemes:**

TWAD Board is implementing Under Ground Sewerage Schemes in selected District Head quarters and other Towns.

In line with the objective of the Tamil Nadu Government to provide Under Ground Sewerage Scheme to all the Urban Local Bodies, TWAD Board has prepared 636 Detailed Project Reports

at an estimated cost of ₹20,820 Crore to provide UGSS to 3 Corporations, 117 Municipalities and 516 Town Panchayats.

### **6.12.1. Status of the Underground Sewerage Schemes under Implementation by TWAD Board**

During the year 2015-16, 9 Under Ground Sewerage Schemes to Theni-Allinagaram, Cuddalore, Udumalpet, Pudukottai, Nagapattinam, Thiruvallur Municipalities and Mamallapuram, Thiruchendur, Orathanadu Town Panchayats benefiting a population of 6.08 lakh at an estimated cost of ₹387.01 Crore have been completed

Currently, 19 Under Ground Sewerage Schemes benefiting a population of 14.29 lakh at an estimated cost of ₹1012.16 crore are in various stages of progress.

In addition, 4 Under Ground Sewerage Schemes to Rameswaram, Sathyamangalam,

Pollachi Municipalities and Velankanni Town Panchayat benefiting a population of 1.88 lakh at an estimated cost of ₹233.15 crore are in tender stage.

### **6.12.2. Septage Management Projects:**

Currently Septage Management in Karunkuzhi Town Panchayat benefiting a population of 12,000 at an estimated cost of ₹4.93 crore is under implementation.

After assessing the success of this Pilot Septage Management Project in Karunkuzhi Town Panchayat, the possibility of extending this technology to other Town Panchayats with lesser population density will be examined.

### **6.13. Hydrogeological Activities:**

Scientific Source finding Activities are carried out for identification of sources for providing water supply to the various schemes taken up and



implemented by TWAD Board. The state-of-art Technology for Remote sensing and GIS (Geographical Information Systems) are extensively utilized in Scientific Source Finding Activities and identification of suitable locations for Recharge Structures to be taken up under Sustainability Component.

The project on Ground water Prospect Maps (HGM Maps) sanctioned by the Ministry of Drinking Water and Sanitation, Government of India had been taken up and district-wise ATLAS for Tamil Nadu was completed. Further, preparation of the Ground Water Quality maps for all Districts is completed and draft water quality maps have been submitted to National Remote Sensing Centre (NRSC), Hyderabad and GOI for final approval.

TWAD Board has taken up a Research & Development project for Tamiraparani River Basin falling part of Tirunelveli and Thoothukudi

Districts for the Sustainability of Drinking water sources for future requirement. This project is under implementation at a cost of ₹2.75 crore for a period of 3 years under GoI Funds. The project commenced during June 2014. Automatic Water level recorders have been installed in 10 locations and data are being collected and analysed. 5 locations have been identified for installation of Automatic weather stations. High resolution Satellite Imageries have been procured from NRSC, Hyderabad. The study is under progress and will be completed by May 2017.

TWAD Board has taken up a feasibility study to utilize the defunct Quarry as rain water harvesting cum water supply pond in Kancheepuram and Villupuram Districts in Tamil Nadu. This project is being implemented at a cost of ₹48.20 lakh. The project commenced during November 2014 and is funded by Government of Tamil Nadu. 6 Nos. of defunct Quarry sites have

been identified in Kancheepuram and Villupuram Districts and the study is completed during June 2016 and the report is under finalisation.

Feasibility study to utilize the defunct quarries as Rain Water Harvesting cum Water Supply Pond in Kancheepuram and Villupuram Districts of Tamil Nadu was taken up and completed. Based on the study, 4 Quarries will be taken for the augmentation of drinking water sources on pilot basis. 0.75 MCM of rain water may be harvested in the 4 quarries during the Monsoon periods. The harvested water may cater to the needs of 1,60,000 population in Vanur union of Villupuram District and Thomas Malai union of Kancheepuram District during the summer months.

## **6.14 Management Information System**

The Tamil Nadu Water Supply and Drainage Board has implemented TWAD Board integrated

E-Governance System (TWAD NEST) to manage data flow relating to all its schemes, Project Management, Financial Accounting, Human Resource, Billing etc. Online information is provided for physical and financial progress and performance of all water supply and sewerage, maintenance schemes, recharge structures etc. The daily pumping quantity, from the Head works of various water supply schemes maintained by TWAD Board is also uploaded and monitored through online.

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

The TWADNEST is enhanced from time to time based on the current requirement of the

Board. Further the existing hardware and software are maintained and upgraded.

TWAD Board, Head office and five Chief Engineer's offices in Vellore, Madurai, Thanjavur, Coimbatore, Dharmapuri and four Superintending Engineers offices in Cuddalore, Trichy, Salem, Tirunelveli are interconnected through Video Conference (VC) System for effective review of works executed by TWAD Board all over the state. This makes better coordination and effective monitoring of all the activities of the TWAD Board.

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





# **MUNICIPAL ADMINISTRATION AND WATER SUPPLY DEPARTMENT**

**DEMAND NO. 34**

## **POLICY NOTE 2016-2017**

**S.P. VELUMANI**

**Minister for Municipal Administration,  
Rural Development and  
Implementation of Special Programme**

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2016**