



**WATER RESOURCES DEPARTMENT
PUBLIC WORKS DEPARTMENT**

**PERFORMANCE BUDGET
2010-2011**

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Government of Tamil Nadu
2011

PERFORMANCE BUDGET 2010-2011

WATER RESOURCES DEPARTMENT

1. SCHEMES COMPLETED DURING 2010-2011

1.1. State Funded Schemes

The following schemes were completed during 2010 – 2011.

1.1.1. Medium Irrigation schemes

Rehabilitation and strengthening of Wellington Reservoir in Cuddalore District was completed benefiting an ayacut of 9732 hectare with Revised Sanction of Rs.29.71 crore.

1.1.2. Minor Irrigation schemes

- Reservoir across Mamabalathuraiyar in Kanyakumari District was completed benefiting an ayacut of 339 hectare with Revised Sanction of Rs. 20.97 crore.
- Formation of new tank across Sangulian koil odai – Chinnathu odai in Anjukulipatti village in Dindigul District was completed benefiting an ayacut of 140 hectare with Revised Sanction of Rs.4.20 crore.
- Modernisation of irrigation canals from Poolavari anicut across Thirumanimuthar to Chittaneri in Agrahara Poolvari village of Salem taluk and district was completed at a cost of Rs. 0.78 crore.

1.2. NABARD assisted Schemes

1.2.1. Medium Irrigation schemes

- Rehabilitation of Kallingarayan Channel from mile 0/0 to 56/5.5 in Erode district was completed benefiting an ayacut of 6371 with a Revised Sanction for Rs.13.04 crore.
- Rehabilitation of damage shutters of upper barrage constructed across Cauvery in Trichy District taken up at a cost of Rs.2 crore was completed.
- Construction of Grade wall across Kudamurutti River to feed Serumakkanallur and Chakkrapalli channels in Chakkrapalli village in Papanasam taluk of Thanjavur District was completed at a cost of Rs.4.02 crore.

1.2.2. Minor Irrigation schemes

Modernisation of 27 non system tanks in Sivagangai District at a cost of Rs. 5.63 crore was completed.

1.2.3. Flood Protection Work

Flood protection work to Sathiyar Odai in Madurai city at a cost of Rs.5.81 crore was completed.

2. ONGOING SCHEMES DURING 2010 – 2011

2.1. State Funded Schemes

2.1.1. Major Irrigation Schemes

Rehabilitation of Contour Canal from LS 0.00 km to LS 49.30 km

Rehabilitation of LS 0 km to 49.30 km of Contour Canal in Parambikulam Aliyar Project (PAP) in 3 packages has been taken up with project Estimate Rs. 184.50 crore. The works have commenced in 03/2011. On completion, about 1.72 lakh

hectare of the existing PAP ayacut in the Coimbatore and Thiruppur Districts will be benefitted.

2.1.2. Medium Irrigation schemes

Rehabilitation of damaged masonries in Cauvery Delta Districts (2009 – 2010)

46 Rehabilitation of damaged masonries works in Cauvery Delta districts at a cost of Rs. 4 crore for Chennai Region and 397 works at a cost of Rs. 29.50 crore for Trichy Region were taken up in 2009-10. In Chennai Region, out of 46 works, 6 works have been completed and balance works will be taken up after irrigation season. In Trichy Region out of 397 works, 300 works have been completed, 87 are in progress and 10 works are yet to be commenced.

Improvements to New Veeranam in Cuddalore District for Drinking Water supply

Improvements to New Veeranam in Cuddalore District for facilitating the water supply to Chennai city was originally sanctioned for Rs. 60 crore in 1993. The works were commenced in 07/1997. For this scheme revised administrative scheme was accorded for Rs.106.35 crore in 2009. Out of 27 works under this scheme, 2 works were completed, 21 works are in progress and 4 works are yet to be taken up.

Rehabilitation and guniting the South and North branch vents of Lower Anicut in Thanjavur District.

Rehabilitation and guniting the South and North branch vents of Lower Anicut in Thanjavur district sanctioned for Rs. 6.21 crore is in progress.

2.1.3. Minor Irrigation schemes

Providing Irrigation facilities to 58 villages in Madurai District

This scheme envisages for providing irrigation facilities in 58 villages in Madurai District and originally sanctioned for Rs. 33.81 crore in 1996. Second RAS was accorded for Rs.74.60 crore in 2006. Revised estimate prepared for Rs.82.67 crore. The works were commenced in 07/1999. 96% of works have been completed. Works in two aqueducts are in progress. 925 hectare ayacut will be benefited.

Formation of a tank across Mathallapallam River in Dharmapuri district

Formation of a tank across Mathallapallam River in Dharmapuri District was sanctioned for Rs. 14.15 crore in 2001. Works commenced in 03/2005. But the agreement was foreclosed in 06/2007. 93% of works have been completed. Works are proposed to be completed by 03/2012. This scheme will benefit 445 hectare ayacut.

Formation of Bathallapalli dam across Malattar River

Bathalapalli dam across Malattar River in vellore district was originally sanctioned for Rs.29.50 crore in 1997. The work was commenced in 12/2007. 40% of works have been completed. This scheme will benefit 1125 hectare ayacut.

Construction of Check dam across Koilmalayar in Vellore District

Formation of reservoir across koilmalayar River near Melarasampattu village in Vellore Taluk of Vellore District was sanctioned at a cost of Rs. 12.98 crore in 2005.

2.2. NABARD Schemes

2.2.1. Major Irrigation Schemes

Rehabilitation of Grand Anicut from 0.75 km to 58.67km and Modernisation of Kallaperambur Eri in Thanjavur District.

Rehabilitation of Grand Anicut from 0.75 km to 58.67km and Modernisation of Kallaperambur Eri in Thanjavur District at a revised cost of Rs.130.34 crore was taken up and 95% of works has been completed benefitting an ayacut of 21348 hectare.

Reconstruction of collapsed Talus D/S apron and Renewing and Repairing the worn out steel shutters in the Virahanur Regulator across Vaigai River.

Reconstruction of collapsed Talus D/S apron and Renewing and Repairing the worn out steel shutters in the Virahanur Regulator across Vaigai River to benefit 16766 hectare, sanctioned for Rs.5 crore has commenced.

2.2.2. Medium Irrigation Schemes

Rehabilitation of Grand Anicut Canal from 58.67 km to 92.20 km in Orathanadu in Thanjavur District

Rehabilitation of Grand Anicut Canal from 58.67 km to 92.20 km in Orathanadu in Thanjavur District, revised sanction for Rs.28.58 crore has progressed to 91% will benefit an ayacut of 2700 hectare.

Formation of Supply Channel from Jerthalav Canal in Dharmapuri District

Supply Channel from Jerthalav tank in Dharmapuri District to feed Thottalampatti tank, Papparapatti tank and other 15 lower down tanks in Dharmapuri District sanctioned for Rs. 6.29 crore and 57% of works have been completed.

Rehabilitation of Arakkankottai and Thadappalli channel in Erode District

Rehabilitation of Arakkankottai and Thadappalli channel in Erode District like reconstruction of the damaged sluices, screw gearing shutters and cross drainage works for Rs.17.45 crore has been commenced and 22% of works have been completed. An extent of 9917 hectare of land is to be benefitted.

Rehabilitation of Thovalai and Radhapuram Channels in Thovalai taluk of Kanyakumari District

Rehabilitation works like Bed lining and side lining of the channel, protection walls repair and reconstruction of sluices of Thovalai channel in 9 packages sanctioned for Rs.22.50 crore to benefit 5207.60 hectare of ayacut in Tirunelveli District and 6879.80 hectare in Kanyakumari District has commenced and 7% of works have been completed.

Rehabilitation of Palamparavoo & P.T.Rajan channels in Theni District

Rehabilitation of Palamparavoo & P.T.Rajan channels in Theni District sanctioned for Rs. 10.08 crore, for increasing the water carrying capacity of Palayam Paravoo channel and P.T.Rajan channel to benefit 3070 hectare ayacut. The work has commenced and 26% of works have been completed.

Construction of Bed dam across Vaigai River near Manthivalasai to feed Kalari Channel in Ramanathapuram District

Construction of Bed dam across Vaigai River near Manthivalasai to feed Kalari Channel in Ramanathapuram District was sanctioned at a cost of Rs.14.20 crore and Works are in progress.

Rehabilitation of Nilayur Channel in Madurai District

Rehabilitation of Nilayur Channel in Madurai District for increasing the carrying capacity to feed Nilayur extension channel for Rs.23.50 crore , for diverting the flood water from the Vaigai River through Nilaiyur channel to fulfill the requirement of 654 Cusecs at the starting point of Nilaiyur extension channel to feed the water to 94 dry tanks located in Madurai, Virudhunagar and Sivagangai Districts has commenced. The ayacut under this extension channel in 50 Tanks in Madurai District, 21 tanks in Virudhunagar District and 23 tanks in Sivagangai District are 4027 hectare.

2.2.3. MINOR IRRIGATION SCHEMES

New Supply Channel from Badethalav tank in Krishnagiri District

From Badethalav tank to Vennampalli tank and other lower down tanks upto Kasimkhan tank in Krishnagiri District to benefit 1149 hectare with revised sanction for Rs.13.50 crore has been completed except the culvert across NH 219 which is being constructed by the Highways Department.

Rehabilitation and Improvements to Neikkarapatti Tank in Salem Taluk and District

Rehabilitation and Improvements to Neikkarapatti Tank in Salem Taluk and District for Rs. 2.70 crore was commenced and 52% of works have been completed.

Modernisation of Ramanathapuram Big tank in Ramanathapuram District

Modernisation of Ramanathapuram Big tank in Ramanathapuram District for Rs. 9.73 crore to stabilize 1604 hectare of Ramanathapuram Big tank ayacut was commenced and 41% of works have been completed.

Rehabilitation of Mylapudur Anicut across Nambiyar River in Tirunelveli District

Rehabilitation of Mylapudur Anicut across Nambiyar River for Rs. 8.00 crore benefitting 251.64 hectare has commenced in and 7% of works completed.

Restoration of Athur Anicut Channel in Dindigul District

Restoration of Athur Anicut Channel in Athur Village of Athur Taluk in Dindigul district for Rs.8.50 crore benefits 423.83 hectare under single crop and 467.04 hectare under double crop and bridging Gap the of 306.55hectare was commenced and 15% of works have been completed.

Construction of anicut across Mudiyanur in Pudukottai District

Construction of anicut across Mudiyanur in Aranthangi Taluk of Pudukottai District sanctioned for Rs.1.00 crore is under progress.

Improvements to Panangudi and Kuyavan channels in Trichy District

Improvements to Panangudi and Kuyavan channels in Lalgudi Taluk of Trichy District sanctioned for Rs.3.00 crore was commenced in 02/2011. 65% of works have been completed.

Reconstruction of Damaged Neenjalmaduvu anicut and Rehabilitation of Ponvilainthakalathur in Kancheepuram District

Reconstruction of damaged Neenjalmaduvu anicut and Rehabilitation of Ponvilainthakalathur in Kancheepuram District for Rs. 9 crore have commenced.

Formation of Tank accross Nallathangal Odai Near Kothaiyam Village of Oddanchataram Taluk in Dindingul District

Formation of Tank accross Nallathangal Odai Near Kothaiyam Village of Oddanchataram Taluk in Dindingul distirct for Rs 6.97 crore has commenced and 23% of works have been completed.

Construction of an Anicut across Vellar River to feed Mumbalai and Vadakku Manamelkudi Tanks in Manamelkudi Taluk of Pudukottai District

Construction of an Anicut across Vellar River to feed Mumbalai and Vadakku Manamelkudi Tanks in Manamelkudi Taluk of Pudukottai District for Rs 3.50 crore has commenced on 2/2011 and 10% of works have completed.

3.0. FLOOD PROTECTION SCHEMES

Flood protection works in Cauvery and Kollidam Rivers (23 works) in Karur, Trichy, Ariyalur and Perambalur Districts

Flood protection works in Cauvery and Kollidam Rivers (23 works) in Karur, Trichy, Ariyalur and Perambalur Districts sanctioned for Rs. 207.5449 crore have commenced on 1/2009. Out of 23 works under this scheme, 16 works were completed and 7 works are in progress.

Flood Protection works for Kudamurutti river in Trichy District

Flood Protection works for Kudamurutti river in Trichy district sanctioned for Rs.46.60 crore with NABARD assistance has commenced and 1 work has been completed and 2 work is in progress and 1 work namely High level bridge is to be taken up by the Highways department.

4. IRRIGATED AGRICULTURE MODERNISATION AND WATER-BODIES RESTORATION AND MANAGEMENT (IAMWARM) PROJECT

- (i) IAMWARM Project is being implemented with the assistance of World Bank with an outlay of Rs.2,547 crore from 2007 for 6 years to benefit 6.16 lakh hectares in Water Resources department and for other line departments related works.
- (ii) The IAMWARM project aims to improve the service delivery of irrigation systems and increase the productivity of irrigated agriculture with effective integrated water resources management in a sub- basin framework.
- (iii) This component aims to improve bulk water delivery through modernisation of irrigation systems in 60 selected sub-basins with an ayacut of 6.16 lakh hectare Activities involve tank system modernisation by restoring and repairing water bodies and improving canal irrigation system through repair and rehabilitation.

- (iv) This component aims to increase the productivity of agriculture-related activities through improved agricultural intensification and diversification of crops, micro irrigation, Animal Husbandry and Fisheries.

4.1. Project Implementation (2007-2013):

Phase	Year of commencement	Number of Sub basins	Irrigated Ayacuts covered in Hectare
I	2007-2008	9	289498.50
II	2008-2009	16	67206.21
III	2009-2010	30	182119.18
IV	2011-2012	5	76996.34
Total		60	61580.23

Sl. No	Phase	Number of Packages approved	Value (Rs.in lakhs)
1	I	76	45124.87
2	II	43	18785.87
3	III	136	42660.10
4	IV	47	17261.64
Total		302	123832.48

4.2. Phase-I (9 Sub Basins)

Sl. No.	Sub Basin	Number of Tanks proposed for Rehabilitation		Number of Anicut proposed for Rehabilitation		Supply channel proposed for Rehabilitation in Km	
		Total	Completed	Total	Completed	Total	Completed
1	Varahanadhi	236	215	37	24	391.90	348.47
2	Kottakaraiyar	310	302	7	7	199.54	182.66
3	Manimuthar	378	376	31	30	49.86	49.86
4	Pambar	292	289	20	20	220.65	220.65
5	Arjunanadhi	77	77	30	30	127.18	127.18
6	South Vellar	292	292	29	29	297.35	297.35
7	Upper Vellar	49	49	79	79	260.54	245.00
8	Aliyar	0	0	0	0	189.10	187.61
9	Palar	0	0	0	0	1331.55	1313.86
Total		1634	1600	233	219	3067.67	2972.63

4.3. Phase-II (16 Sub Basins)

Sl. No.	Sub Basin	Numbers of Tanks proposed for Rehabilitation		Numbers of Anicut proposed for Rehabilitation		Supply channel proposed for Rehabilitation in Km	
		Total	Completed	Total	Completed	Total	Completed
1	Pennaiyar upto Krishnagiri	6	3	11	2	108.22	56.33
2	Poiney	142	120	1	1	282.49	262.49
3	Koundanyanadhi	33	33	0	0	111.45	111.45
4	Kalingalar	11	11	7	7	10.61	8.35
5	Nichabanadhi	40	40	17	16	8.65	8.65
6	Sindapalli Uppodai	6	6	1	1	0.80	0.80
7	Senkottaiyar	24	21	2	2	5.20	5.20
8	Therkar	103	103	11	11	21.96	21.96
9	Upper Gundar	22	22	22	22	37.09	30.85
10	Upper Vaigai	9	9	4	4	2.05	2.05
11	Varattar Nagalar	7	7	9	9	0.83	0.83
12	Anaivari Odai	16	16	5	5	17.28	17.28
13	Chinnar	33	33	9	9	44.54	44.54
14	Agniyar	183	141	16	15	285.80	188.20
15	Ambuliyar	104	104	17	17	80.85	80.85
16	Swethanadhi	18	16	33	29	73.80	73.80
Total		757	685	165	150	1091.62	913.63

4.4. Phase - III (30 Sub Basins)

Sl. No.	Sub Basin	Number of Tanks proposed for Rehabilitation		Number of Anicut proposed for Rehabilitation		Supply channel proposed for Rehabilitation in Km	
		Total	Completed	Total	Completed	Total	Completed
1	Kovilar	0	0	2	0	7.78	0
2	Markandeyanadhi	3	2	9	1	20.00	1.50
3	Pambanar Varattar	3	0	20	0	45.29	0.00
4	Thurinjalur	70	0	26	0	145.76	0.00
5	Pambar to Thirukoilur	54	0	0	0	89.29	29.10
6	Ongur	165	0	10	0	349.82	0.00
7	Araniyar	164	0	1	0	214.45	11.45
8	Kambainallur	21	0	61	0	106.005	1.70
9	Nallavur	75	0	2	0	109.18	0.00
10	Gadilam	86	0	13	0	262.65	0.00
11	Gomukhinadhi	68	0	43	0	189.98	0.00
12	Kosasthalaiyar	262	0	0	0	448.582	0.00
13	Theniar	30	0	11	0	48.58	0.00
14	Lower Gundar	62	2	3	0	18.30	13.07
15	Deviyar	50	0	6	0	83.55	16.50
16	Vaippar	22	0	2	0	0.50	0.00
17	Vembar	18	1	0	0	14.10	0.00

18	Nagariyar	11	0	6	0	9.80	0.00
19	Sevalaperiyar	17	0	3	0	4.24	0.00
20	Kanal Odai	44	3	0	0	8.60	0.00
21	Vallampatty Odai	5	0	1	0	1.10	0.00
22	Palar	34	0	0	0	6.56	0.00
23	Uppathurar	5	0	2	0	5.50	0.00
24	Gridhumal	113	0	7	0	152.28	31.07
25	Uppodai	26	0	1	0	0.00	0.00
26	Salikulam Aru	5	0	1	0	7.00	0.00
27	Korampallam Aru	4	0	1	0	7.00	0.00
28	Karumeniyar	87	0	15	8	74.87	0.00
29	Hanumanadhi	84	0	8	0	85.04	2.15
30	Uthirakosamangaiyar	110	4	0	0	104.45	0.00
Total		1698	12	254	9	2620.24	106.54

Phase - IV (5 Sub Basins)

Sl. NO	Sub Basins	Ayacuts in hectare	Number of tanks proposed for rehabilitation	Number of anicuts proposed for rehabilitation	Supply channel proposed for Rehabilitation in Km
1	Cooum	13475.23	60	---	49.75
2	Adayar	18452.89	146	---	177.72
3	Cheyar Killiyar	36860.08	453	2	688.11
4	Paralaiyar	10884.14	89	1	121.72
5	Kayalkudiyar	861.68	13	2	18.40
Total		76996.34	761	5	1055.70

4.6. Information Technology and Information Management System

Institutional Modernization through Information Technology (IT) and Information Management System is proposed for WRD under IAMWARM project. This will facilitate to streamline and improve efficiency of Water Resources Department, better planning and management through decisions that emerge by timely flow of information at all levels.

- For implementation of Information Technology and Information Management system an amount of Rs.42.4371 crore has been sanctioned and the work is

executed through ELCOT. Total Expenditure incurred so far is Rs.13.79 crore.

- The department has upgraded Information Technology infrastructure with 1565 numbers of Desktop, 330 numbers of Laptop with necessary computer peripherals and Local Area Net work facility at a cost of Rs.13.79 crore.
- Providing Minor Civil Works to all Water Resources Department offices for an amount of Rs.299.37 lakh is under progress.
- Consulting services for Enterprise Information Management System (EIMS) at a cost of Rs.8.33 crore.
- Providing Wide Area Net work (WAN) to 55 Water Resources Department offices under TNSWAN under State fund for an amount of Rs.168.50 lakh WAN connection for 55 locations in Phase –I through ELCOT has commenced.

4.7. Training

Under the IAMWARM Project towards Capacity Building of WRD Officers an amount of Rs.7.44Crore has been allotted for conducting various training programmes.

The training is being imparted to W.R.D officers in Design, construction and Maintenance of Irrigation infrastructures using Modern Techniques and Approaches including Field Visit through Irrigation Management Training Institute-Trichy, Anna Institute of Management- Chennai, Anna University-Chennai-25, National Institute of Technical Teachers Training and Research (NITTTR) Chennai-113.and also from various other national Institutions

Administrative Sanction has been accorded for Rs.334.00 Lakhs. Training Programmes was commenced from 13.10.2008. 135 Technical training programmes were conducted and training imparted to 2606 Engineers of Water Resources Department..

During 2010-11 training 63 training programmes were conducted and training imparted to 1139 officers of Water Resources Department.

The Total expenditure incurred for all the training Programmes is Rs.226.02 Lakhs. Further Training Programmes are under progress

4.8. Consultancies under IAMWARM Project

Construction quality Management and Technical supervision (Third Party Supervision)

The aim of the service is to ensure effective quality management in the physical works with an expenditure of Rs.9.78 crore. The work is in progress.

4.9. Environmental Activities.

4.9.1. Consultancy: External Environmental & Social Audit Consultancy for phase I & II:

This Consultancy is to check the compliance of the project activities with the mitigation measures as proposed in the project's ESMF. Selection of this consultancy is under process. The estimate value is Rs.0.98 crore.

4.9.2. Six months Environmental Report

In all the Sub Basins of the IAMWARM Project, the Environmental Impact Assessment is being studied.

5. CENTRAL STATE SHARED SCHEME

5.1. Flood Management Programme

Based on the guidelines of Government of India, 7 schemes for a value of Rs.657.16 crore were proposed under Flood Management Programme. The Central State share is at the ratio of 75: 25.

The Government accorded Administrative Sanction for the following 5 schemes at a cost of Rs 635.54 crore and the works are in progress. By implementation of the schemes, the flood damages in Tiruvallur, Thanjavur, Nagapattinam and Cuddalore districts will be mitigated.

Sl. No	Name of Scheme	Estimate Amount (Rs in crore)
1.	Flood Protection to Araniyar river at upstream and downstream of A.N.Kuppam Anicut and downstream of Lakshmipuram Anicut to Pulicat creek in Tiruvallur District.	12.41
2.	Flood Protection Works in Kollidam (Coleroon) River in Thanjavur, Nagapattinam and Cuddalore Districts of Tamil Nadu.	375.90

3.	Flood Protection Works to Vellar Basin in Cuddalore and Villupuram Districts of Tamil Nadu.	164.32
4.	Flood Protection Works to Panruti and Cuddalore Towns from rivers Pennaiyar, Gadilam, Uppanar, Paravanar and South Malattar rivers in Cuddalore District.	68.41
5.	Flood Protection Works to Kosasthalaiyar river from Napalayam to sea mouth in Tiruvallur District.	14.50
	Total	635.54

5.2. Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

To avoid flooding in Chennai City, the central Government have accorded sanction for Rs.1447.91crore for the comprehensive Master Plan, integrating the waterways and macro drainages, under Jawaharlal Nehru National Urban Renewal Mission for execution over a period of 3 years.

Under Water Resources Department, for the renewal of Buckingham Canal, Otteri Nullah, Virugambakkam-Arumbakkam drain , Cooum river and Adyar at the estimate cost of Rs.633.03crore a total of 17 works have been divided into 10 packages out of which 7 packages are under progress. During the year 2010-11, Rs.92.88 crore has been incurred.

6. CENTRALLY SPONSORED SCHEME

Rehabilitation and improvement works in Minor water sources under National Agriculture Development Programme (NADP – RKVY)

The Government sanctioned Rs.1.50 crore for two works, namely Rehabilitation of irrigation systems of Noyyal anicut in Tiruppur District and Eraiyur anicut in Tiruvannamalai District. The works were taken up for execution and completed in the year 2010-2011.

The implementation of the scheme bridges a gap of 198.20 hectare ayacut resulting in additional increase in food production of 929 tonnes of rice besides 753 tonnes of food production in the second and third crop period.

The details of the completed works are as below:

(Rupees in lakhs)

Sl. No	Name of Project	Estimate Cost	Expenditure
1	Improvement and Rehabilitation of Eraiyur Anicut (constructed across Cheyyar River) and its tanks in Chengam taluk in Tiruvannamalai District.	60.00	57.87
2	Rehabilitation of Mangalam Anicut, Andipalayam Anicut and Samalapuram Anicut of Noyyal River System in Tiruppur District.	90.00	90.00
	TOTAL	150.00	147.87

7. ARTIFICIAL RECHARGE SCHEME THROUGH CHECKDAMS

A Master Plan for Artificial Recharge to Groundwater through checkdams, groundwater shafts, percolation ponds etc., at a cost of Rs.550 crore is under implementation. The State Ground & Surface Water Resources Data Centre is the nodal agency and the implementation of the scheme is being carried out by Water Resources Department, Agricultural Engineering Department, Tamil Nadu Water supply and Drainage Board and Forest Department. The Details of the works are given below:

Master Plan Artificial Recharge Scheme from 2010-2011 Abstract -Water Resources Department									
(Rs. In crore)									
No	Year	Amount allotted	Administrative sanction accorded	Total Number of works	Number of works completed	Number of works in progress	Number of works to be started	Expenditure incurred	Number of works dropped
1	2010 - 2011	122.00	121.89	198	48	43	106	18.63	1

8. LINKING OF RIVERS WITHIN THE STATE

8.1. Linking of Cauvery with Agniar, South Vellar, Pambar, Manimuthar, Kottakaraiyar, Vaigai and Gundar project

As a first stage, linking of Cauvery with Agniar, South Vellar, Pambar, Manimuthar, Kottakaraiyar, Vaigai and Gundar is taken up by construction of a Barrage across the

Cauvery river below 250 m downstream of the Kattalai Bed Regulator in Karur District at an estimated cost of Rs.189 crore.

The proposed Barrage will improve and regulate the water management in the four irrigation channels which originates from Kattalai Barrage. During Monsoon period, 1.04 T.M.C.ft. water can be stored.

The works were commenced on 9.2.2009 and they are in various stages of implementation. An expenditure of Rs.107.23 crore has been incurred so far.

8.2. Formation of a Flood Carrier Canal from Kannadian Channel to drought prone areas of Sathankulam and Thisaiyanvilai by Interlinking of Thamiraparani , Karumeniyar and Nambiyar rivers in Thirunelveli and Thoothukudi Districts

This scheme envisages diversion of the dependable portion of surplus from the Kannadian anicut channel to the drought prone areas of Sathankulam, Thisaiyanvilai upto M.L.Theri sand dunes, stabilizing the water starved ayacuts of Manimuthar channel in III and IV reaches and interlink the tributaries of Thamiraparani river namely, Pachaiyar, Kodumudiyar besides interlinking Karumeniyar and Nambiyar rivers.

The scheme was sanctioned at an amount of Rs. 369 crore for implementation in 4 stages. Land Acquisition for stage I and II works are in progress. By implementing this scheme an extent of 23040 hectare of land will be benefited including a

new ayacut of 17002 hectare. An expenditure of Rs.117.70 crore has been incurred so far.

9. TAMIL NADU PROTECTION OF TANKS AND EVICTION OF ENCROACHMENT ACT, 2007

It has become imperative to protect the water bodies from encroachments and misuse. The tanks and their components, if not protected and restored to their original capacity, may cause reduction in area of cultivation and thereby food grains production, depletion of ground water and environmental degradation. In order to protect the tanks, "Tamil Nadu Protection of Tanks and Eviction of Encroachment Act 2007" (TN Act – 8 of 2007) was legislated and it extends to the whole of the State of Tamil Nadu.

The Act is being implemented by creating awareness among the general public especially at village level .The total number of tanks maintained by the Water Resources Department is 13699. Till now, 3404 tanks have been fully restored. Eviction process is under progress at various stages in the remaining Tanks.

10. SAND QUARRY

Public Works Department is engaged in sand quarrying from 02.10.2003. At present, the sand is being sold at the rate of Rs.600 per lorry load (2 units). As per the directions of the Madurai Bench of Madras High Court dated 02.12.2010, the State Level Monitoring Committee has been constituted for strict adherence of the Tamilnadu Minor Minerals concession Rules, 1959. From 12.01.2011, poclains (not more than two

in one Quarry) are being used in sand quarry operation except in Tamiraparani and Palar Rivers.

During the year 2010-11, revenue of Rs.150.21 crore was generated through sale of 2503444 lorry loads (2units).

11. KRISHNA WATER SUPPLY PROJECT

As per the agreement, with the Government of Andhra Pradesh, a total Quantity of 12 TMCft. of water per year is to be realised at the Tamil Nadu border in this project. From 1996-2011, a total quantity of 50.685 TMCft. of water has been realized at Tamil Nadu Border. During the year 2010-2011, a total quantity of 4.663 TMC has been realized from 09.10.2010 to 31.12.2010 and from 01.01.2011 to 27.01.2011.

12. ANTI SEA EROSION WORKS COMPLETED DURING THE YEAR 2010-2011

In Kanyakumari District, the following works were completed.

1. Construction of RMS wall at Kurumpanai at the estimate cost of Rs.27.71 Lakhs.
2. Construction of RMS wall at the gap portion near Christu Raja Kurusady at Poothurai at the estimate cost of Rs.39.45Lakhs.
3. Reformation of RMS wall at Ramanthurai at Rs.51.19Lakhs.
4. Reformation of RMS wall at Mulloorthurai at the estimate cost of Rs.81.79Lakhs.
5. Reformation of RMS wall at Thengapattinam (Aryanthoppu) at the estimate cost of Rs.53.91 Lakhs.
6. Reformation of RMS wall at Erayumanthurai at the estimate cost of Rs.142.69Lakhs.

In North Chennai the following work was completed

7. Replenishment to the existing damaged RMS wall along Ennore Expressway in North Chennai (LS 16/475 Km to 16/850 Km) at the estimate cost of Rs.70.00 Lakhs

13. STATE GROUND AND SURFACE WATER RESOURCES DATA CENTRE.

The ground water usage in the State has risen considerably from 63% in 1992 to 85% in 2003. The block wise ground water potential estimated as on January 2003 works out to 815 T.M.C.ft. (23070.42 MCM) out of which the balance potential available in the State is about 111 T.M.C.ft. (3142.27 MCM). The balance ground water potential available now is distributed in 97 safe blocks, 105 semi critical blocks and 37 critical blocks. About 138 blocks have already been over exploited showing large scale ground water usage exceeding the recharge potential. The latest estimation of groundwater potential is under preparation.

Conservation and judicious management of ground water resources are the prime need of the hour and also for the coming years so as to make the State of Tamil Nadu to attain self- sufficiency and sustainability in the ground water resources sector.

Ground Water, being a dynamic replenishable resource, requires continuous exploration, monitoring and assessment involving multi –disciplinary studies. The State Ground & Surface Water Resources Data Centre carried out the following for the purpose of planning, development and

management of Ground water resources of the State of Tamil Nadu

- Scientific Ground Water investigation and periodic assessment of Ground Water potential.
- Continuous monitoring of hydrological, hydro-meteorological and water quality for Ground Water and surface water.
- Collect, process, analyse and store the ground water and surface water data to evaluate the condition for development.
- Develop a suitable plan for judicious development and optimal utilization of ground water.
- Improving the ground water storage through artificial recharge and rainwater harvesting wherever possible.
- Interact and co-ordinate with the other line departments of the State and water users to plan for the better utilization of the ground water resource in the State.
- Drilling of exploratory bore holes in order to study sub surface lithology.
- Consultancy services to public, Government Department and private sector undertakings for augmentation of water supply schemes are undertaken.
- Issuing Ground Water clearance for implementing Schemes.
- Special studies for monitoring sea water intrusion into fresh water aquifer along the coast.
- Co-ordinate to implementing the National and State water policies.

- The assets created through the Hydrology Project – I which ended 31.12.2003 have been maintained and periodic data were collected.

13.1. Tamil Nadu Ground Water (Development and Management) Act, 2003

To protect the Ground Water resources of the State and to provide safeguards against hazards of its over exploitation and to ensure its planned development and proper management of this vital resource and to safeguard the small and marginal farmer's rights to use the limited Ground Water resources available, the Government have enacted the "Tamil Nadu Ground Water (Development & Management) Act, 2003 which enable to identify and notify the area where the Ground Water condition is alarming.

To implement the above Act, the formation of State Ground Water Authority and the rules for the Act are to be made. As an initial step the well census programme for the entire State was taken up using WRCP funds of about Rs.500 lakh.

13.2. Hydrology Project (phase –II)

In order to consolidate the gains earned from the World Bank Aided Hydrology Project –I the Hydrology Project II is being implemented. The main thrust area of the proposed Hydrology Project phase II is integrated water resources management, flood forecasting of Tambiraparani basin, drought management of Vaippar basin and conjunctive use of surface and ground water in Agniyar basin. The Development Decision Support System in Tamirabarani, Vaippar and Agniyar basin are continued with the consultancy of DHI Consultants of Denmark.

14. PART II SCHEMES 2010-2011

The Government accorded approval for Rs.693.00 lakh for the following 19 works. 14 works have been completed, 4 works are in progress and 1 work has been dropped.

Sl. No.	Description of the Schemes	Amount (Rs.in lakhs)	Stage of the schemes
1	Formation of a new pond across Malaiyatha Odai and diverting flood water to Athupalayam Reservoir in Aravakurichi taluk of Karur District.	72.00	45% of work completed
2	Restoration of Sembakulam anicut in Reddiyampadi village of Palani taluk in Dindigul District.	30.00	Work completed
3	Reconstruction of Muthankulam anicut across Santhanavardhni river at Kovilur village of Dindigul District.	35.00	Work completed
4	Construction of Uppukulam anicut across Santhanavardhni river in Vembarpatti village of Dindigul taluk and District.	37.00	90% of work completed
5	Reconstruction of old anicut collapsed body wall for Mannarai tank in Tirupputhur District.	18.00	Work completed
6	Permanent Restoration of flood damages to Poovandhi tank in Manamadurai taluk of Sivagangai District.	66.00	Work completed

7	Construction of Mallayagoundanpatti anicut across Vanjinadhi in Mallanampatti village of Nilakottai taluk of Dindigul District.	22.00	Work dropped
8	Construction of out let arrangements on the Upstream sluice No.1 of Vadakuravaipattu channel under Gadana Reservoir system in Ambasamudram taluk of Tirunelveli District.	8.00	Work completed
9	Construction of outlet arrangements on the Upstream of sluice No. 1 of Old Arasapattu channel under Gadana Reservoir system in Ambasamudram taluk of Tirunelveli District.	5.00	Work completed
10	Rehabilitation of Main anicut constructed cross Arjuna River and Pick up anicut constructed across Nedunkulam surplus course and supply channel reach I & II and cross Masonry works feeding Thiruthangal big tank in Sivakasi taluk of Virudhunagar District.	15.00	Work completed
11	Construction of anicut across Malattar Odai in Vengampatti village in Ettayapuram taluk in Thoothukudi District.	30.00	Work completed
12	Improvements to approach road to Karuppanadhi reservoir under Karuppanadhi system near Krishnapuram village of Tenkasi taluk of Tirunelveli District.	50.00	Work completed

13	Rehabilitation of regulator for Kondamvari drain at Mile 97/0 in left bank of Aganda Cauvery in Manamedu village, Thottiam taluk of Trichy District.	90.00	75% of work completed
14	Construction of a grade wall across Pandavarayar river at mile 73/65 in Kamalapuram Village in Kudavasal Taluk of Tiruvarur District.	40.00	Work completed
15	Construction of culvert at mile of 34/5 distributory of Mettur East Bank Canal in Thiruchengode Taluk of Namakkal District.	5.00	Work completed
16	Purchase of high speed fiber boat services to Stanley Reservoir in Mettur.	10.00	Purchased
17	Rehabilitation of Thambipettai anicut in Cuddalore Taluk of Cuddalore District.	25.00	Work completed
18	Rehabilitation of Chellampattu anicut in Sankarapuram Taluk of Villupuram District.	30.00	Work completed
19	Modernisation and Participatory Irrigation Management of Manikuppam tank in Cheyyur taluk of Kanchipuram District.	105.00	60% of work completed
	Total	693.00	

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MINISTER FOR PUBLIC WORKS**