



**WATER RESOURCES DEPARTMENT
PUBLIC WORKS DEPARTMENT**

**PERFORMANCE BUDGET
2011-2012**

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Government of Tamil Nadu
2012

PERFORMANCE BUDGET 2011- 2012

WATER RESOURCES DEPARTMENT

1. STATUS OF SPECIAL PROGRAMME INITIATIVES OF THE HON'BLE CHIEF MINISTER

1.1. Interlinking of River Cauvery with Agniar, South Vellar, Pambar, Kottakaraiyar, Vaigai and Gundar

The Government have sanctioned an amount of Rs.1.70 crore for Surveying and Levelling Operation to prepare a Detailed Project Report for Interlinking of River Cauvery with Agniar, South Vellar, Pambar, Kottakaraiyar, Vaigai and Gundar.

Under this Scheme, it is proposed to divert 7 T.M.Cft., of flood water from River Cauvery at Kattalai Barrage through a new Canal for a length of 258 km to Gundar. On completion, an ayacut of 186636 Acre will be stabilised besides bridging a gap of 32871 Acre. Trichy and Srirangam Towns would be protected from flood hazard.

The Detailed Project Report for this Scheme has been prepared in 2 Phases at a cost of Rs.5166 crore and sent to the Government of India on 15.11.2011 seeking funds under the Flood Management Programme.

1.2. Construction of a Check Dam across River Cauvery near Mutharasanallur, Kambarasampettai village in Srirangam Taluk of Trichy District

Sub surface water is being pumped from Cauvery and distributed as drinking water. The Government have sanctioned construction of a Check Dam across Cauvery near Mutharasanallur at Kambarasampettai village at a cost of Rs.32 crore with NABARD assistance under RIDF XVII to augment the Ground Water resources and store the sub surface water since the Ground Water level recedes during summer and dry season thereby benefiting water supply schemes.

The Scheme envisages construction of a Check Dam with Scour Vents, Diaphragm Wall and strengthening the bund portion. This Scheme will ensure rise in water level in the nearby areas. This Work was commenced in March 2012 and is under progress.

1.3. Athikadavu – Avinashi Flood Canal Project

The Government have sanctioned an amount of Rs.30 lakh for preparation of Detailed Project Report on Athikadavu - Avinashi Flood Canal Project.

The Athikadavu - Avinashi Flood Canal Project envisages the diversion of flood surplus of 2000 cusecs from Bhavani River to 31 Water Resources Department Tanks, 40 Panchayat Union Tanks and 538 Ponds in Coimbatore, Tiruppur and Erode Districts during the flood period.

A Detailed Project Report has been prepared for Rs.1862 crore. This Detailed Project Report will be sent to the Government of India seeking assistance under the Flood Management Programme.

1.4. Augmentation of Water Supply in Chennai City

To fulfil the drinking water demand of Chennai City and to store the received Krishna water, the storage capacity is proposed to be increased by forming new Reservoirs and restoring the capacity of the existing Tanks. The Status of the Work is as follows:-

1.4.1. Formation of New Reservoir

- a) Administrative sanction has been accorded for Rs.330 crore for formation of a new Reservoir near Kannankottai and Thervaikandigai villages in Gummidipoondi Taluk of Tiruvallur District with an aim to store 1 T.M.Cft., of Krishna water in two fillings. The land acquisition process for this Scheme is in progress.
- b) Detailed Project Report for construction of a Check Dam at Thirukandalam across Kosasthalaiyar River in Uthukottai Taluk of Tiruvallur District with NABARD assistance at a cost of Rs.35 crore is under the consideration of the Government.

- c) Detailed investigation is proposed to be carried out for forming a new reservoir at Ramanjeri across Kosasthalaiyar River in Tiruthani Taluk of Tiruvallur District.

1.4.2. Restoration of Existing Tanks

At the first instance, Administrative Sanction has been accorded for Rs.130 crore for creation of additional storage in Cholavaram, Porur, Nemam and Ayanambakkam Tanks and for restoration of the storage capacity in the Chembarambakkam Tank. The Works would be taken up shortly.

1.4.3. Strengthening of Redhills Tank

It is proposed to strengthen the Redhills Tank by rehabilitating the Weirs, Regulators and surplus course of the Tank. Administrative sanction has been accorded by the Municipal Administration and Water Supply Department for Rs.10.56 crore for strengthening the tank bund, rehabilitation of Weirs, Regulator and surplus course and for providing Service Road and Chain Link Fencing. The Work would commence shortly.

2. SCHEMES COMPLETED DURING 2011-2012

2.1. State Funded Schemes

- Rehabilitation and Guniting the South and North Branch Vents of the Lower Anicut in Thanjavur District sanctioned at a cost of Rs.6.21 crore was completed, thereby benefiting an ayacut of 53,418 hectare.
- Rehabilitation of Regulator for Kondamvari Drain at mile 97/0 in the left bank of Aganda Cauvery in Manamedu Village, Thottiyam Taluk of Trichy District at a cost of Rs.90 lakh was completed, thereby benefiting an ayacut of 2009 hectare.
- Rehabilitation and modernisation of Kakanallur Anicut under the Gadana System in Ambasamudram Taluk of Tirunelveli District, at a cost of Rs.63 lakh was completed, thereby benefiting an ayacut of 331 hectare.

- Construction of Platinum Jubilee Memorial Building at Stanley Reservoir in Mettur, Salem District, was completed at a cost of Rs.1 crore. This building was inaugurated by the Hon'ble Chief Minister on 03.03.2012.
- Modernisation of Thirumeni Eri and its Feeder Channel at Thirumakkottai Village in Mannargudi Taluk of Thiruvarur District, at a cost of Rs.1.17 crore was completed, thereby benefiting an ayacut of 107 hectare.
- Walking Path and Land Scaping arrangements in both banks of the Grand Anicut Canal from Irwin Bridge at L.S 13 / 6797 to L.S 14 / 0170 to Nagapattinam Road Bridge in Thanjavur town at a cost of Rs.2.35 crore was completed.
- 443 works sanctioned at a cost of Rs.33.50 crore for rehabilitation of damaged masonries in Cauvery Delta (2009-2010). All works have been completed.

2.2. NABARD Schemes

- Flood Protection Works to Sellur Tank in Madurai City was sanctioned at a cost of Rs.7.1 crore. Based on the request of the Public, the Madurai Bench of Madras High Court ordered to construct a Cut and Cover Channel. Therefore the Agreement for the Work, which provided for an Open Channel was foreclosed. Except standardisation of Bund and Channel, all other Works have been completed. A separate proposal for Cut and Cover Channel and bund strengthening at a cost of Rs.7.03 crore is under consideration.
- Rehabilitation of the Grand Anicut Canal from L.S. 0.75 km to L.S. 58.67 km and Kallaperambur Eri in Thanjavur District, at a cost of Rs.130.34 crore was completed, thereby benefiting an ayacut of 2430 hectare.
- Rehabilitation of the Grand Anicut Canal from L.S. 58.67 km to L.S. 92.20 km in Orathanadu in Thanjavur District, at a cost of Rs.28.58 crore was completed, thereby benefiting an ayacut of 27591 hectare.
- Rehabilitation and Improvement to Neikkarapatti Tank in Salem Taluk and District, at a cost of Rs.2.70 crore was completed, thereby benefiting an ayacut of 90 hectare.

- Construction of a Grade Wall across Kudamurutti River in Thanjavur District, at a cost of Rs.4.02 crore was completed.
- Rehabilitation of Mylapudur Anicut across Nambiyar River in Tirunelveli District at a cost of Rs.8 crore was completed, thereby benefiting an ayacut of 252 hectare.
- Construction of an Anicut across Mudiyanur in Aranthangi Taluk of Pudukottai District at a cost of Rs.1 crore was completed, thereby benefiting an ayacut of 238 hectare.
- Rehabilitation of damaged Shutters of Upper Barrage constructed across Cauvery in Trichy District, at a cost of Rs.2 crore was completed.
- Reconstruction of collapsed Talus downstream apron and Repairing the worn out steel shutters in the Virahanur Regulator across Vaigai River in Madurai District, at a cost of Rs.5 crore was completed, thereby benefiting the existing ayacut of 16766 hectare.
- Restoration of Athur Anicut Channel in Athur Village of Athur Taluk in Dindigul District, at a cost of Rs.8.50 crore was completed, thereby benefiting an ayacut of 421 hectare.
- Construction of Anicut across Vilangudi Odai in Ariyalur District, at a cost of Rs.35 lakh was completed, thereby benefiting an ayacut of 70 hectare.

2.3. Command Area Development and Water Management Programme

The Command Area Development and Water Management Programme is a Centrally Sponsored Programme which is being implemented by the Agricultural Engineering Department to improve the water use efficiency through efficient water management practices and to enable effective and equity distribution of irrigation water below the sluices with farmers participation. The component for Water Resources Department under this Scheme is "Correction of System Deficiency above" the outlet up to the distributaries of 4.5 cumec.

For the year 2011 - 2012, approval for inclusion of the Correction of System Deficiency component in the Wellington Reservoir Project, Thirukoilur Anicut Project and Gundar-Chittar-Karuppanadhi Projects have been sanctioned by the Government of India.

The Government of Tamil Nadu have sanctioned Rs.14.41 crore at Rs.600 per hectare, benefiting an ayacut of 24016.70 hectare, under this Component as follows:

S. No.	Name of the Project	No. of Work	Area covered (in hectare)	Amount Sanctioned (Rs.in crore)
1	Wellington Reservoir Project	21	9200.00	5.52
2	Thirukoilur Anicut Project	49	7000.00	4.20
3	Gundar - Chittar - Karuppanadhi Project	48	7816.70	4.69
	Total	118	24016.70	14.41

The Correction of System Deficiency component envisages reconstruction of sluices, head sluices, drops and spouts, repairs to the existing structures such as weirs, outlets, shutters etc., and desilting and strengthening of damaged channel banks. Works in all the above said projects have been completed.

2.4. Part II Schemes 2011-2012

The Government have accorded approval for Rs.6.84 crore for 40 Schemes during 2011-2012 out of which the following 27 Schemes have been completed:

Sl. No.	Name of the Scheme	Amount (Rs. in lakh)
1	Construction of a Section Office Building for Mettur Canal Section at Ammapet in Bhavani Taluk of Erode District.	7.00
2	Construction of a Gauging Section Office for a Grand Anicut Canal section at Thanjavur Taluk in Thanjavur District.	7.00
3	Construction of a Section Office Building at Orathanadu in Orathanadu Taluk of Thanjavur District.	7.00
4	Construction of a Section Officer's Quarters for River Conservation Section at Kumbakonam in Kumbakonam Taluk of Thanjavur District.	12.00
5	Construction of a Twin Type Irrigation Assistant Quarters at Ayyavadi Village in Kumbakonam Taluk of Thanjavur District.	10.00
6	Construction of a Section office Building for Valangaiman Section at M.K. Head in Nallur village in Valangaiman Taluk of Tiruvarur District.	8.07
7	Construction of an Assistant Engineers' Quarters at Peralam in Nannilam Taluk of Tiruvarur District.	15.00
8	Conversion of Roof into RCC for the Assistant Engineers' Quarters Door No. 42 in PWD Campus at Palladam in Palladam Taluk of Tiruppur District.	9.00

9	Conversion of Roof into RCC for the Junior Engineers' Quarters Door No.43 in PWD Campus at Palladam in Palladam Taluk of Tiruppur District.	7.50
10	Conversion of Roof into RCC for the Sub Division Office in PWD Campus at Palladam Taluk of Tiruppur District.	6.00
11	Conversion of Roof into RCC for the Dormitory Quarters Door Nos. 17 to 24 in PWD Campus at Palladam Taluk of Tiruppur District.	28.00
12	Conversion of Roof into RCC for the Head Mazdoors' Quarters Door Nos. 12 to 16, 29 to 38 and 46 to 53 in PWD Campus at Palladam Taluk of Tiruppur District.	40.00
13	Conversion of Roof into RCC for the Clerks' Quarters in Door Nos. 26 to 27 and 44 to 45 in PWD Campus at Palladam Taluk of Tiruppur District.	20.00
14	Improvement to the Lower Bhavani Basin Sub Division No.1 Office Building at Erode in Erode Taluk and District.	10.00
15	Construction of Section Officers' Quarters at Modakurichi in Erode Taluk and District.	7.00
16	Conversion of AC Sheet Roofing into RCC Roof in the Assistant Executive Engineers' Quarters No.2 in the Officers Colony at Thirumurthy Nagar in Udumalaipet Taluk of Tiruppur District.	11.00
17	Conversion of AC Sheet Roofing into RCC Roof in the Assistant Executive Engineers' Quarters No.5 (Project House No.1) in the Officers Colony at Thirumurthy Nagar in Udumalaipet Taluk of Tiruppur District.	12.00

18	Conversion of Mangalore Tiled Roof into RCC Roof for the Sub Division Office Building in PAP Colony at Pongalur in Palladam Taluk of Tiruppur District.	11.50
19	Rehabilitation and Improvement to the Section Office at Kuppanampatti in Usilampatti Taluk of Madurai District.	7.00
20	Rehabilitation and Improvement to Assistant Engineer / Junior Engineer Quarters at Kuppanampatti in Usilampatti Taluk of Madurai District.	8.00
21	Reconstruction of Sub Division Office Building at Srivaikundam in Srivaikundam Taluk of Thoothukudi District.	20.00
22	Reconstruction of the Section Office Building at Panankulam in Nanguneri Taluk of Tirunelveli District.	7.00
23	Reconstruction of the Kannadian canal Section Officers Quarters at Chernamahadevi in Ambasamudram Taluk of Tirunelveli District.	10.00
24	Improvements to the Inspection Bungalow at Cheranmahadevi in Ambasamudram Taluk of Tirunelveli District.	10.00
25	Reconstruction of the Inspection Bungalow at Panankulam in Nanguneri Taluk of Tirunelveli District.	18.00
26	Reconstruction of the Inspection Bungalow at Kalakadu in Nanguneri Taluk of Tirunelveli District.	15.00
27	Purchase of 14 Nos. of Mahindra & Mahindra Bolero Jeep to the Field officers (Executive Engineers / Assistant Executive Engineers) of Water Resources Department.	76.25
	Total	399.32

2.5. National Agriculture Development Programme

Scheme sanctioned during 2010-2011

- Rehabilitation of Erampatti Anicut and its Tank under the Sathiyar System in Vadipatti Taluk of Madurai District at a cost of Rs.76 lakh has been completed. The implementation of the Scheme for Rehabilitation of the Erampatti Anicut and its Tank has ensured irrigation for 248 hectare of ayacut, resulting in additional 749 Tonnes of paddy production.

Scheme sanctioned during 2011-2012

- Rehabilitation of the Keelapudaiyan Eri of Sennampatti village in Thanjavur District has been sanctioned at a cost of Rs.15 lakh. Rehabilitation of the damaged irrigation structures and strengthening of bunds in Keelapudaiyan Eri results in bridging a gap of 10.24 hectare of ayacut for the benefit of 276 farmers.
- Rehabilitation of the Palayah Eri in Palayapatti village in Thanjavur District at a cost of Rs.15 lakh has been completed. Rehabilitation of the Palayah Eri bridges a gap of 13.49 hectare for the benefit of 278 farmers.
- Rehabilitation of the Nellithurai Anicut in Coonoor River System in Mettupalayam Taluk of Coimbatore District at a cost of Rs.40 lakh has been completed. Rehabilitation of Nellithurai Anicut bridges a gap of 61.50 hectare for the benefit of 90 farmers.

2.6. Pre Monsoon Preparedness in Chennai City

The Government have sanctioned an amount of Rs.3.62 crore for execution of 58 pre monsoon preparedness works in Chennai City. The Works involved are removal of garbage, solid waste, vegetations and obstructions for the free flow of water. By this, the Chennai City was effectively protected from inundation, flooding and drainage problems during the North East Monsoon period.

2.7. Flood Protection Schemes

2.7.1. Flood Management Programme

Flood Mitigation Works such as strengthening (Standardisation) of river banks, providing protective arrangements such as revetments and retaining wall at vulnerable locations, construction / re-construction of irrigation structures such as drainage inlets, groynes, launching aprons etc., have been executed to protect the people from flood damages.

(i) Flood Protection to Araniar river at upstream and downstream of A.N.Kuppam Anicut and downstream of Lakshmipuram Anicut to Pulicat Creek in Tiruvallur District.

Flood Protection to Araniar river at upstream and downstream of A.N.Kuppam Anicut and downstream of Lakshmipuram Anicut to the Pulicat Creek in Tiruvallur District at a cost Rs.12.41 crore has been completed. By implementation of the Scheme, about 29382 persons and 30 villages of Ponneri and Gummidipoondi Taluks of Tiruvallur District are safeguarded.

(ii) Flood Protection Works to the Vellar Basin in Cuddalore and Villupuram Districts.

Flood Protection Works to the Vellar Basin in Cuddalore and Villupuram Districts have been implemented at a cost of Rs.164.32 crore in 12 Packages as detailed below:-

- (a) Permanent Flood Works to the Vellar River from Tholudur to Parangipettai (L.S 0 km to L.S 105 km) at a cost of Rs.77 crore (5 packages) in Cuddalore District.
- (b) Permanent Flood Protection Works to Muktha river (L.S 0 km to L.S 27 km), Mani river (L.S 0 km to L.S 30 km), Pappakal Odai (L.S 0 km to L.S 21.50 km), Manimuktha River (L.S 0 km to L.S 35 km) in Villupuram District and Manimuktha River (L.S 35 km to L.S 75 km) in Cuddalore District at a cost of Rs.87.32 crore (7 packages).

The above 12 packages have been completed and about 402539 people and 124 villages in Villupuram and Cuddalore Districts are safeguarded.

(iii) Flood Protection Works to Panruti and Cuddalore Towns from Pennaiyar, Gadilam, Uppanar, Paravanar and South Malattar Rivers in Cuddalore District at an Estimated Amount of Rs. 68.41 crore

Flood protection to Panruti and Cuddalore towns has been implemented by formation of flood banks to Pennaiyar, South Malattar, Gadilam, Uppanar and Paravanar Rivers and improving the drainage facilities. The Project was completed by splitting it into 6 packages. By this Project, about 74471 people and 122 villages are safeguarded.

(iv) Flood Protection Works to Kosasthalaiyar River from Napalayam to sea mouth in Tiruvallur District at an estimated amount of Rs. 14.50 crore

Flood Protection Works to Kosasthalaiyar River from Napalayam to sea mouth in Tiruvallur District at a cost of Rs 14.50 crore has been implemented and about 10711 people and 16 villages of Ponneri Taluk are safeguarded.

3. SCHEMES IN PROGRESS DURING 2011 -2012

3.1. Irrigated Agriculture Modernisation and Water - Bodies Restoration And Management (IAMWARM) Project

IAMWARM Project is being implemented with the assistance of the World Bank with an outlay of Rs.2,547 crore from 2007 to benefit 6.69 lakh hectares. The project period is 6 years. Water Resources Department and other Line Departments namely, Agricultural Engineering Department, Agriculture Department, Agricultural Marketing, Horticulture Department, Tamil Nadu Agricultural University, Animal Husbandry Department and Fisheries Department are the implementing departments of the Project.

The IAMWARM Project aims to improve the following:-

- i. Service delivery of Irrigation Systems and increasing the productivity of irrigated agriculture with effective integrated water resources management in a sub-basin framework.
- ii. This component aims to improve bulk water delivery through modernisation of irrigation systems in 61 selected sub-basins with an ayacut of 6.69 lakh hectare.
- iii. 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 & Fisheries.

3.1.1. Project Implementation (2007-2013)

Phase	No. of Sub Basins	Year of implementation	Irrigated Ayacut covered (in hectare)
I	9	2007-08	289498.50
II	16	2008-09	67206.21
III	30	2009-10 & 2010-11	182119.18
IV	6	2011-2012	130330.56
Total	61		669154.45

Sl.No	Phase	No.of Packages approved	Amount (Rs.in crore)
1	I	76	451.25
2	II	43	187.95
3	III	136	426.60
4	IV	69	300.03
Total		324	1365.83

Abstract – Phase wise

Phase	Sub Basins	Ayacut benefited	Proposed for Rehabilitation		
			No. of Tanks	No. of Anicuts	Supply Channels (in Km)
I	9	289498.50	1634	233	3067.67
II	16	67206.21	757	165	1091.62
III	30	182119.18	1678	256	2586.50
IV	6	130330.56	853	15	1312.91
Total	61	669154.45	4922	669	8058.70

3.1.2. Phase - I (9 Sub Basins) Physical Programme

Sub Basin	Proposed for Rehabilitation					
	No.of Tanks		No.of Anicuts		Supply Channels (in Km)	
	Total	Completed	Total	Completed	Total	Completed
Varahanadhi	236	236	37	37	391.90	391.90
Kottakaraiyar	310	302	7	7	199.54	182.66
Manimuthar	378	376	31	30	49.86	49.86

Pambar	292	287	20	20	220.65	220.65
Arjunanadhi	77	77	30	30	127.18	127.18
South Vellar	292	291	29	29	297.35	297.35
Upper Vellar	49	49	79	79	260.54	245.00
Aliyar	0	0	0	0	189.10	187.61
Palar	0	0	0	0	1331.55	1313.86
Total	1634	1618	233	232	3067.67	3016.08

3.1.3. Phase - II (16 Sub Basins) Physical Programme

Sub Basin	Proposed for Rehabilitation					
	No.of Tanks		No.of Anicuts		Supply Channels (in Km)	
	Total	Completed	Total	Completed	Total	Completed
Pennaiyar up to Krishnagiri	6	3	11	2	108.22	56.33
Poiney	142	127	1	1	282.49	270.49
Koundanya nadhi	33	33	0	0	111.45	111.45
Kalingalar	11	11	7	7	10.61	8.35
Nichabanadhi	40	40	17	16	8.65	8.65
Sindapalli Uppodai	6	6	1	1	0.80	0.80
Senkottaiyar	24	21	2	2	5.20	5.20
Therkar	103	103	11	11	21.96	21.96
Upper Gundar	22	22	22	22	37.09	30.85
Upper Vaigai	9	9	4	4	2.05	2.05

Varattar Nagalar	7	7	9	9	0.83	0.83
Anaivari Odai	16	16	5	5	17.28	17.28
Chinnar	33	33	9	9	44.54	44.54
Agniar	183	180	16	16	285.80	245.40
Ambuliyar	104	104	17	17	80.85	80.85
Swethanadhi	18	17	33	33	73.80	73.80
Total	757	732	165	155	1091.62	978.83

3.1.4. Phase - III (30 Sub Basins) Physical Programme

Sub Basin	Proposed for Rehabilitation					
	No.of Tanks		No.of Anicuts		Supply Channels (in Km)	
	Total	Completed	Total	Completed	Total	Completed
Kovilar	0	0	2	2	7.78	7.78
Markandeya Nadhi	3	3	9	7	20.00	1.50
Pambaranar Varattar	3	0	20	0	45.29	0.00
Thurinjaralar	70	11	26	1	145.76	51.50
Pambar to Thirukoilur	54	54	0	0	90.13	90.13
Ongur	165	41	10	2	352.82	80.65
Araniar	164	0	1	0	213.47	10.25
Kambainallur	21	1	61	4	106.005	13.45
Nallavur	75	0	4	0	109.18	0.00
Gadilam	86	0	13	0	262.65	0.00
Gomukhinadhi	68	0	43	0	189.98	0.00
Kosasthalaiyar	262	0	0	0	448.582	0.00

Theniar	11	0	11	0	17.44	13.48
Lower Gundar	61	0	3	0	18.43	3.00
Deviyar	50	0	6	2	83.54	26.60
Vaippar Main River	22	0	2	0	0.00	0.00
Vembar	18	7	0	0	13.90	0.00
Nagariyar	11	0	6	0	9.80	0.00
Sevalaperiyar	17	3	3	3	4.24	4.24
Kanal Odai	44	4	0	0	8.60	0.00
Vallampatty Odai	5	0	1	1	1.10	1.10
Palar	34	0	0	0	21.34	0.00
Uppathurar	5	0	2	0	5.50	0.00
Gridhumal	113	0	7	0	152.37	73.07
Uppodai	26	0	1	0	0.00	0.00
Salikulamaru	5	0	1	0	7.00	0.00
Korampallamaru	4	0	1	0	9.00	0.00
Karumeniyar	87	0	15	12	56.25	38.75
Hanumanadhi	84	15	8	0	83.39	11.40
Uthirakosamangaiyar	110	4	0	0	102.95	0.00
Total	1678	143	256	34	2586.50	426.90

3.1.5. Phase - IV (6 Sub Basins) Physical Programme (2011-2012)

Sl. No	Sub Basin	Proposed for Rehabilitation		
		No. of Tanks	No. of Anicuts	Supply Channels (in Km)
1	Cooum	60	--	49.75
2	Adayar	146	--	177.72
3	Cheyyar-Kiliyar	453	2	688.11
4	Paralaiyar	89	1	121.72
5	Kayalkudiyar	13	2	18.40
6	Amaravathi	92	10	257.21
Total		853	15	1312.91

3.1.6. Status of Works during the year 2011-2012

(i) Rehabilitation Works – Phase I, II and III:

The cumulative total works taken up so far are 4069 Tanks, 654 Anicuts and 6745.79 km length of Supply Channel. Works taken up during 2011-2012 are 1837 Tanks, 289 Anicuts and 2898.77 km length of Supply Channel. Works completed are 225 Tanks, 37 Anicuts and 399.44 km length of Supply Channel.

(ii) Rehabilitation Works – Phase IV:

The Phase IV Works proposed during the year 2011-2012 are 853 Tanks, 15 Anicuts and 1312.91 km length of Supply Channel and the Works are in progress.

3.1.7. Participatory Irrigation Management

To create the required awareness among the farmers and to build the capacity of Water Users' Associations, 26 Support Organisations are to be formed and Government have sanctioned Rs.15.14 crore for Phase I and II and Rs.11.95 crore for Phase III for procurement of Consultants. The Capacity Building of Water Users' Associations have been started in the year 2011-2012 and Support Organisations for 9 Packages have been proposed out of 26 packages. Selection of the Support Organisations for remaining 17 packages are under process.

3.1.8. Information Technology And Information Management System

Institutional Modernisation through Information Technology (IT) and Information Management System is proposed for Water Resources Department under the IAMWARM project. This will facilitate in streamlining and improving efficiency of Water Resources Department, better planning and management through decisions that emerge by timely flow of information at all levels.

For implementation of the Information Technology and Information Management System, an amount of Rs.42.4371 crore has been sanctioned and the Work is being executed through ELCOT. Total Expenditure incurred so far is Rs.15.81 crore.

The Department has upgraded Information Technology Infrastructure with 1565 nos. of Desktops, 330 nos. of Laptops with necessary computer peripherals and Local Area Network (LAN) has been established in 142 Water Resources Department offices.

Providing Minor Civil Works to all Water Resources Department Offices at a cost of Rs.2.99 crore is under progress.

M/s. Tech Mahindra has been engaged as the Consultant for Enterprise Information Management System (EIMS) through

ELCOT at a cost of Rs.8.33 crore and the Work is under progress.

Providing Wide Area Network (WAN) to 55 Water Resources Department Offices under TNSWAN under State Fund for an amount of Rs.168.50 lakh through ELCOT is under progress and the Work will be completed shortly.

3.1.9. Training

An amount of Rs.7.44 Crore has been allotted to improve the capacity and efficiency of the Engineers under Capacity Building provided in the IAMWARM Project.

The training is being imparted to the Water Resources Department Officers in Design, Construction and Maintenance of Irrigation infrastructures using Modern Techniques and Approaches including Field Visit through the Irrigation Management Training Institute-Trichy, Anna Institute of Management-Chennai, Anna University-Chennai and also from various other National Institutions.

Training Programmes have commenced from 13.10.2008. So far, 198 General Technical Training Programmes and Computer Training Programmes have been conducted and training has been imparted to 3728 Engineers of the Water Resources Department.

The total expenditure incurred for all the above training Programmes is Rs.282.54 lakh.

3.1.10. Construction Quality Management and Technical Supervision (Third Party Supervision)

Administrative sanction has been obtained for Rs.9.78 crore. Agreement has been signed with M/s. WAPCOS Ltd, India and the Work has commenced on 14.3.2011. M/s. WAPCOS has established Ground and Mobile Laboratory at Irukkangudi and Villupuram. M/s. WAPCOS collects the samples and conducts Tests for assuring the quality of the Works in the Phase I, II, III and IV Sub Basins.

3.1.11. Procurement of Software, Scientific Equipments and Instruments, etc.,

Administrative sanction has been accorded for Rs.2.50 crore for procurement of Software such as AUTO CAD Civil 3D 2012, Arc GIS, FEM, GPS, scientific equipments and instruments for the various Offices of the Water Resources Department. Procurement of Auto CAD Civil 3D 2012, Arc GIS and Quality control equipment have been completed.

3.1.12. Environmental Activities

(i) External Environmental and Social Audit Consultancy

Administrative sanction has been accorded for Rs.98.80 lakh for engaging an External Environmental and Social Audit Consultancy for Phase I and II Sub Basins and the selection of a Consultancy is under Process.

For engaging the External Environmental and Social Audit Consultancy for Phase III and IV Sub Basins the estimate has been prepared and the World Bank approval is under process.

(ii) Environmental Impact Assessment Report

The Environmental Impact Assessment Report for Phase I, II and III Sub Basins Project Area has been prepared for the period up to September 2011 and sent to the World Bank.

3.1.13. State Water Resources Management Agency (SWaRMA)

The Government have accorded sanction for establishment of State Water Resources Management Agency (SWaRMA) as a State wide focal agency for environmental and socially sustainable inter-sectoral management on 13.04.2009. The Working Group of SWaRMA, established on June 2011, is headed by the Chief Engineer and Director, Institute for Water Studies and Member Secretary, SWaRMA, Tharamani, Chennai. The Government have also accorded administrative sanction of Rs.2.71 crore for the establishment of SWaRMA and to provide amenities and incremental operating cost.

The Objectives of SWaRMA

1. Development of a common Database for water quantity, quality and existing bulk allocations in the State.
2. All water related Legislation, including the State Water Policy will be reviewed and enhanced to improve the regulation of water resources in Tamil Nadu.
3. Review and approval of Master Plans and River Basin Boards.

Activities of SWaRMA

1. Vaippar River Basin is taken as a Pilot Basin and Data pertaining to the Vaippar Basin are being collected from the Line departments for the SWaRMA and compilation of the Data is under progress.
2. 19 Acts have been collected from various departments and the comparison of various water related laws and policies existing in other States and Departments are being compiled for framing an effective Legislative setup for SWaRMA.
3. Action is being taken to reformulate the executive wing of SWaRMA.

3.2. Linking of Rivers within the State

a. Construction of Kattalai Barrage across the Cauvery River in Karur District

As a first stage of linking the River Cauvery with Agniar, South Vellar and Pambar, construction of a Barrage across the Cauvery River below 250 m from the existing Kattalai Bed Regulator in Karur District, at a cost of Rs.234 crore is in progress.

The proposed Barrage will improve and regulate the water management in the four irrigation channels which originate from the Kattalai Barrage. During the Monsoon Period, 1.04 T.M.Cft., water can be stored.

b. Formation of a Flood Carrier Canal from Kannadian Channel to the drought prone areas of Sathankulam and Thisaiyanvilai by Interlinking Thamiraparani, Karumeniyar and Nambiyar Rivers

in Tirunelveli and Thoothukudi Districts of Tamil Nadu

This proposal was formulated to divert the dependable portion of surplus from the Kannadian Anicut Channel to the drought prone areas of Sathankulam and Thisaiyanvilai up to M.L.Theri sand dunes, besides, stabilising the water starved ayacuts of Manimuthar Channel in III and IV Reaches and to interlink the tributaries of the Thamiraparani River namely, Pachaiyar, Kodumudiyar, besides interlinking Karumeniyar and Nambiyar River Basins.

This proposal envisages Improvement to the Kannadian Anicut, Widening and Improving the existing Kannadian Channel for a length of 6.5 km and Excavation of a Flood Carrier Canal for a length of 73 km.

The Scheme was sanctioned at an amount of Rs.369 crore for implementation in 4 Stages. Works in Stages I and II are in progress. By implementing this Scheme, an extent of 23040 hectares of land will be benefitted, including new ayacut of 17002 hectares.

3.3. State Funded Schemes

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

The Contour Canal is the backbone of the Parambikulam Aliyar Project System which originates from the Sarkarpathy Power House and reaches the Thirumoorthy Reservoir, after passing through many valleys and tunnels for a distance of 49.30km. Due to age and continuous run for over 50 years and due to its geographical location, the Canal has been subjected to various deteriorations and has lost its structural stability as well as its water conveyance efficiency.

Rehabilitation of LS 0 km to 49.30 km of the Contour Canal in Parambikulam Aliyar Project (PAP) was sanctioned for Rs. 184.50 crore in 11/2010. The Work has been split into 3 Packages. The Work has commenced in 03/2011. On completion, about 1.72 lakh hectare. of the existing PAP ayacut in the Coimbatore and Tiruppur Districts will be benefitted fully, thereby benefiting over one lakh of farmers, public and agricultural labourers. 8% the Work have so far

been completed. The Work would be completed during 2013-2014.

Improvements to New Veeranam in Cuddalore District for Water Supply

The Chennai Metro Water Supply and Sewerage Board is pumping 180 million litre of water for Chennai City from the Veeranam Tank for drinking purpose. To facilitate this:

Improvement to the New Veeranam in Cuddalore District was originally sanctioned for Rs.60 crore in 1993. The Work had commenced on 07/1997. The strengthening of bunds, improvement to Channel, etc were taken up. Third Revised Administrative Sanction was accorded for Rs.106.35 crore in 2009. Out of 27 Works, 10 Work have been completed and 17 Works are in progress.

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. The Work commenced in 03/2005. But the Agreement was foreclosed in 06/2007. The balance Work estimated at Rs.3.85 crore, has commenced in 06/2008 and is in progress. 93% of the work has been completed. This scheme will benefit an ayacut of 446 hectare.

Formation of a Dam across Malattar River at Bathallapalli in Vellore District

Formation of an Earth Dam and Construction of a Spillway and River Sluices across the Malattar River in Vellore District was originally sanctioned for Rs.29.50 crore in 1997. The work was commenced in 12/2007. 31% of the Work had been completed. Due to slow progress, the contract was terminated in 02/2009. The Contractor has filed Writ Petition in the Madras High Court. Final judgement is awaited. This scheme will benefit an ayacut of 1125 hectare.

Providing Irrigation Facilities to 58 Villages in Usilampatti Taluk of Madurai District

This Scheme was originally sanctioned at a cost of Rs.33.81 crore in 1996 for providing irrigation facilities to 58 Villages in Madurai District by diverting the flood water from the Vaigai River. The Scheme also envisages the formation of two new Tanks. Second Revised Administrative Sanction was accorded for Rs.74.60 crore in 2006. Revised Estimate for Rs.82.67 crore is under the consideration of the Government. The Work was commenced in 07/1999. 96% of work has been completed. Works in two aqueducts are in progress. 925 hectare of ayacut will be benefited.

Providing a new Trash Rack arrangement at about 130m Upstream of the Tunnel Entry at Thekkady Head Sluice in the Leading Channel of the Periyar Lake for maximum drawal of water from the Periyar Dam to the Vaigai Dam

Providing a new Trash Rack arrangement at about 130m Upstream of the Tunnel Entry at the Thekkady Head Sluice in the Leading Channel of the Periyar Lake was sanctioned for Rs.59 lakh. To overcome the inadequacy of the existing trash rack and also to prevent water contamination a new trash rack is proposed at 130 m upstream side at Thekady. 90% of the work has been completed so far.

Construction of Bridge, Retaining Wall and Road with B.T. Surface from Kalimar Bridge to Simon Colony Bridge at Colachel in Kanyakumari District

Construction of Bridge, Retaining Wall and Road with B.T. Surface from Kalimar Bridge to Simon Colony Bridge at Colachel in Kanyakumari District was sanctioned at a cost of Rs.2.94 crore. The Bridge will enable the public of the locality to cross and move their properties to safe places during calamities. 10% of the work has been completed.

Drilling 150mm Diameter vertical holes on top of the Periyar Dam and Baby Dam and taking core samples

The Empowered Committee of Mullai Periyar Dam Constituted by the Hon'ble Supreme Court has desired to take core samples from the body of the Dam and to test them among other Investigation Tests and Study (ITS) to assess the stability and safety of the Dam. In continuation of that the

Empowered Committee decided to drill bore holes to take core samples from the Mullai Periyar main Dam, Baby Dam and Earth Dam and proposed to conduct in-situ test viz., water loss test, Gama Gama test, Sonic logging test, Dye tracer test, Cylindrical Jack test etc., and ex-situ test to determine Compressive Strength, Tensile Strength etc., in the designated standard Laboratories.

The Government sanctioned Rs.88 lakh towards the drilling of 150mm diameter holes at Mullai Periyar Dam. It is proposed to drill bore holes in main dam at locations LS 300', 475'(NX),780'(NX),910' and centre of Baby Dam at LS 120'. The collected samples were sent to CWRPRS, Pune for testing and results are expected. The Mechanical Engineering Division, Water Resources Department, Government of Maharashtra was engaged to do the drilling job for taking core samples and to conduct the water loss test. As decided by the Committee Double tube core barrel drilling is adopted for getting core recovery.

Pressure grouting of 150mm Diameter holes from top of the Main Dam and Baby Dam to foundation below 6m rock profile of Mullai Periyar Dam through gallery and ledges

The Member of Empowered Committee and Retired CWC Chairman has decided to drill 150mm Diameter holes at various locations over Main Dam, Baby Dam and across the body of the Dam for taking core samples to get analysed and to conduct in-situ test as reiterated by the engineers of Government of Kerala. The Chairman, Cauvery Technical Cell has instructed to grout the holes effectively after taking the core samples for in-situ tests.

The Government have sanctioned Rs.50 lakh for Pressure grouting of 150mm diameter holes from top of the Main Dam and Baby Dam to foundation below 6m rock profile of Mullai Periyar Dam through gallery and ledges for taking core samples for testing.

New Schemes sanctioned by the Government during 2011-2012 to be commenced

- Strengthening of water supply reservoirs of Chennai Metropolitan city - Cholavaram, Redhills, Poondi and Chembarambakkam Tank sanctioned at a cost of Rs.19.22 crore.

- Protecting the Vulnerable portions with protection wall and concrete slab in left bank of Cauvery river from mile 119 /0 to 123/2 (Srirangam Nattu Vaikkal head sluice to Amma mandapam) in Srirangam Taluk of Trichy District sanctioned at a cost of Rs.1.60 crore.

3.4. NABARD Schemes

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

To avoid flood inundation in Karur, Trichy, Ariyalur and Perambalur Districts and particularly in Trichy, Srirangam town limit, 23 Flood protection work in Cauvery and Kollidam Rivers in Karur, Trichy, Ariyalur and Perambalur Districts were sanctioned for Rs.207.54 crore in 2008. The component of this work comprises Standardising and strengthening the banks of Cauvery River and permanent protection to the banks of Kollidam River. The works were commenced in 01/2009. Out of 23 works, 19 works have been completed so far and the balance 4 works would be completed during 2012-2013.

Excavation of Supply Channel from Jerthalav Tank in Dharmapuri District

Excavation of Supply Channel from Jerthalav Tank to feed Thottalampatti Tank, Papparapatti Tank and other 15 lower down tanks in Dharmapuri District was sanctioned for Rs.6.29 crore. It is proposed to divert the flood water from Chinnar dam to the existing Jerthalav canal. 69% of works have been completed. 330 hectare of existing ayacut will be benefited.

Rehabilitation of Arakkankottai and Thadappalli Channel in Erode District

Rehabilitation of Arakkankottai and Thadappalli Channel was sanctioned at a cost of Rs. 17.45 crore in 2010. The work has been commenced in 02/2011. 72% of work has been completed. Reconstruction of the damaged sluices, screw gearing shutters and cross drainage work are envisaged. An extent of 9917 hectare of land is irrigated by these two channels under Kodivery Anicut system.

Rehabilitation of Thovalai Channel and Radhapuram Channel in Thovalai Taluk of Kanyakumari District

Rehabilitation of Thovalai Channel was sanctioned for Rs. 22.50 crore in 2010. Work commenced in 02/2011. The work is split up into 9 packages and all work are in progress. Reconstruction of sluices, bed lining and side lining of the channel and repairs to protection walls are proposed. 40% of works have been completed. An ayacut of 5207.60 hectare in Tirunelveli District and 6879.80 hectare in Kanyakumari District will be benefited.

Rehabilitation of Palayamparavoo and P.T.Rajan Channel in Theni District

Rehabilitation of Palayamparavoo and P.T.Rajan Channel in Theni District was sanctioned for Rs.10.08 crore in 2010. The Palayamparavoo Channel is the fifth Channel of Cumbum Valley System of Periyar Vaigai Basin in Uthamapalayam Taluk of Theni District and takes off from the right flank of Suruliyar River at LS 23.56Km. This Scheme envisages for increasing water carrying capacity of Palayamparavoo Channel from 90 cusecs to 150 cusecs and that of P.T. Rajan Bye pass channel from 70 cusecs to 100 cusecs. 64% of works have been completed. An ayacut of 3070 hectare in Theni District will be benefited by this Scheme.

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 in 2010 to divert flood water to 68 Tanks and to bridge the gap area. 89% of works have so far been completed. An ayacut of 4007 hectare in Ramanathapuram District will be benefited.

Modernisation of Ramanathapuram Big Tank in Ramanathapuram District

Modernisation of Ramanathapuram Big Tank in Ramanathapuram District was sanctioned at a cost of Rs.9.73 crore in 2010. The work was commenced in 10/2010. Ramanathapuram Big Tank ayacut of 1604 hectare will be stabilised and also capacity of the tank will be increased to a greater extent. The components like Reconstruction of falling

shutter Anicut, Reconstruction of Southern Regulator, Strengthening the Tank bund with protection arrangements parallel bund and foreshore bund, Reconstruction of 6 nos. of sluices, Desilting Ramanathapuram Big Tank supply channel and Thoruvallur supply channel, Strengthening the flood banks of Vaigai river, Reconstruction of under tunnel etc are envisaged. 92% of work has been completed.

Flood Protection Work for Kudamurutti River in Trichy District

Four Flood Protection Work for Kudamurutti River in Trichy District was sanctioned at a cost of Rs.45.60 crore in 2008. NABARD has sanctioned the scheme for Rs.46.90 crore comprising 4 work. Revised Administrative Sanction for Rs.47.02 crore was accorded in 2/2012. The work was commenced in 02/2009. 1 work has been completed, 1 work is in progress and 1 work namely High level bridge will be executed by the High Ways and Minor Ports Department.

In the balance 1 work which is split into 4 works, 3 works are in progress and the remaining 1 work namely, Land Acquisition is in process by Revenue Department.

Rehabilitation of Nilaiyur Channel in Madurai District

Rehabilitation of Nilaiyur channel for increasing the carrying capacity to feed Nilaiyur extension channel was sanctioned at a cost of Rs.23.50 crore in 2010. The scheme envisages for diverting the flood water from the Vaigai River through Nilaiyur channel to fulfil 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. The ayacut under this extension channel is 4027 hectare under 94 tanks (50 Tanks in Madurai District, 21 tanks in Virudhunagar District and 23 tanks in Sivagangai District). The work has been commenced in 02/2011. 34% of works have been completed.

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

Construction of an Anicut across Vellar River in Thandalai Village to feed Mumbaii and Vadakku Manamelkudi Tanks in

Manamelkudi Taluk of Pudukottai District was sanctioned at a cost of Rs.2.50 crore in 2011 was commenced in 02/2011. 80% of work has been completed. This scheme will benefit an ayacut of 154 hectare.

Improvements to Panangudi and Kuyavan Channels in Lalkudi Taluk of Trichy District

Improvements to Panangudi and Kuyavan Channels in Lalgudi Taluk of Trichy District was sanctioned at a cost of Rs.3 crore in 2011 was commenced in 02/2011. 65% of work has been completed. This scheme will benefit an ayacut of 448 hectare.

Reconstruction of Damaged Neenjalmaduvu Anicut and Rehabilitation of Ponvilaindha kalathur Channel in Kancheepuram District

Reconstruction of Damaged Neenjalmaduvu Anicut located across Neenjalmaduvu stream, a tributary of Palar, and Rehabilitation of Ponvilaindha Kalathur Channel in Kancheepuram District, has been sanctioned at a cost of Rs.9 crore in 2011. The Work has been commenced in 03/2011. Desilting of channels and protection work in channels are proposed. 60% of works have been completed. This scheme will benefit an ayacut of 2105 hectare.

Formation of Tank across Nallathangal Odai Near Kothaiyam Village in Oddanchataram Taluk of Dindigul District

Formation of Tank across Nallathangal Odai was sanctioned at a cost of Rs.6.97 crore in 2010. Works have been commenced in 02/2011. 80% of works have been completed. The Wells situated around 25 Km will be benefitted through ground water recharge. This Scheme will benefit an ayacut of 327 hectare.

Rehabilitation of South Main Channel of Srivaikundam anicut across River Tamiraparani and its system tanks in Thoothukudi District

Rehabilitation of South Main channel of Srivaikundam Anicut was sanctioned at a cost of Rs. 10 crore in 03/2011. The Srivaikundam Anicut is the last Anicut in the Thamirabarani river system. The Scheme envisages to minimize the water

loss, avoid the flood damages and increase the overall efficiency of the system. 60% of works have been completed. 5164 hectare of ayacut would be benefited in Thoothukudi and Tirunelveli Districts by this Scheme.

Extension and Rehabilitation of Vridhachalam Anicut across Manimuktha River in Cuddalore District

Rehabilitation and extension of existing Vridhachalam Anicut across Manimuktha River to accommodate flood water in Vridhachalam Taluk of Cuddalore District was sanctioned at a cost of Rs.13 crore in 2011. On implementing this scheme 25300 hectare ayacut will be benefited. Work has been commenced in 03/2012 and is under progress.

Modernisation of 10th Branch Canal and construction of a Bye-Pass Channel to feed Chunnambur Distributary and Modernisation of connected 12 tanks in Madurai District

Modernisation of 10th Branch Canal and Construction of a Bye-Pass Channel to feed Chunnambur Distributary and Modernisation of connected 12 Tanks in Madurai District was sanctioned at a cost of Rs.10 crore. The Scheme contemplates for construction of separate Bye-Pass Channel from 10th Branch Canal to Chunnambur Distributary, Modernisation of 10th Branch Canal and 12 Tanks under Chunnambur Distributary. Works have been commenced in 03/2012 and are under progress. An ayacut of 5013.51 hectare will be benefited.

Flood Protection works to Kondamvari Odai and Rehabilitation of dilapilated Anicuts and damaged Tanks Weirs in Madurai District

Flood Protection Works to Kondamvari Odai and Rehabilitation of dilapilated Anicuts and damaged Tanks Weirs in Madurai District has been sanctioned at an amount of Rs.10 crore. Works have been commenced in 03/2012 and are under progress. An ayacut of 1923.33 hectare will be benefited.

Special repairs to corroded Shutters arrangements in Peranai Regulator and Renewal and Replacement of Vertical Gear Shutters in Periyar Main Canal Head Sluice in Dindigul District

Special repairs to corroded shutter arrangements in Peranai Regulator and removal and replacement of Vertical Gear Shutter in Periyar Main Canal Head Sluices in Nilakottai Taluk of Dindigul District was sanctioned at a cost of Rs.3 crore. This scheme provides for the repair to the Shutters with the provision for replacing steel rope and stone roller arrangements for operating the Shutters and repairs to gear arrangements. Work commenced in 03/2012 and is under progress.

Construction of Bed Dam across Periya Odai in Cuddalore District

Construction of Bed Dam across Periya Odai in Cuddalore District was sanctioned at an amount of Rs.5.50 crore. Work has been commenced in 03/2012 and is under progress. It is proposed to construct a divert Bed Dam along with Head Sluice structure near breached portion to provide supply from Periya Odai to South Main Canal of Vridhachalam. An ayacut of 1700 hectare will be benefited.

Permanent Restoration of breached Thali Big Tank in Krishnagiri District

Permanent restoration to breached Thali Big Tank in Thenkanikottai Taluk of Krishnagiri District was sanctioned at a cost of Rs.2.30 crore. It is proposed to modernise the standards of Tank Bund and Surplus Course. Work has been commenced in 03/2012 and is under progress. 44.13 hectare ayacut will be benefited.

Providing Screw Gearing Shutters to Sluices in the Lower Bhavani Project Main Canal in Erode and Karur Districts

Providing Screw Gearing Shutters to all Sluices in the Lower Bhavani Project Main Canal from mile 0/0 to mile 124-2-560 including branch canal and distributaries in Erode and Karur Districts was sanctioned at a cost of Rs.3 crore in 2011. Work

has been commenced in 03/2012 and is under progress. On implementing this scheme 83772 hectare ayacut will be benefited. 10% of works have been completed.

Rehabilitation and Improvements to 16 Anicuts in Kallar River of Vaniar Minor Basin of Dharmapuri District

Restoration and Renovation of 16 Anicuts across Kallar River of Vaniar Minor Basin in Dharmapuri District was sanctioned at a cost of Rs. 2.15 crore. It is proposed to bridge the left out 70% of temporary gap by rehabilitation and improving the Anicut System. 525 hectare ayacut will be benefited. Work has been commenced in 03/2012 and is under progress.

Excavation of Supply Channel from Viruppampatti Tank to Balethottam Tank and four other Tanks and one Pond in Pochampalli Taluk of Krishnagiri District

Excavation of Supply Channel feeding to 5 Tanks from Viruppampatti Tank in Pochampalli Taluk of Krishnagiri District was sanctioned at a cost of Rs.1.75 crore. It contemplates the excavation of Supply Channel from Virupampatti Tank to feed Balethotam Tank and 4 other Tanks and 1 Pond in Krishnagiri District by utilising excess Pennaiyar River flood surplus of 5.28 Mcft. Work has been commenced in 03/2012 and is under progress. 83.80 hectare ayacut will be benefited.

Schemes to be commenced during 2012 – 2013

- Construction of High Level Bridge at Vayalur Road crossing across Kudamuruty River in Trichy District has been sanctioned at a cost of Rs. 2.80 crore to be executed by Highways and Minor Ports Department.
- Formation of a new Tank across Kallar Odai near Viswakudi in Thondamanthurai village of Veppanthattai Taluk in Perambalur District has been sanctioned at a cost Rs.19 crore benefiting an ayacut of 348 hectare.
- Construction of Anicut across Kamandalanaganathi River near Sevur village to feed Irumbedu and Payur Tanks in Arani Taluk of Tiruvannamalai District has been sanctioned at a cost of Rs.2 crore for benefiting an ayacut of 351 hectare.

- Excavation of a new Supply Canal from Baleguli Tank to feed 28 Tanks in Pochampalli Taluk of Krishnagiri District has been sanctioned at a cost of Rs.6.50 crore for benefiting an ayacut of 346 hectare.
- Modernisation of Melmangalam Supply Channel in Melmangalam village in Theni District has been sanctioned at a cost of Rs.4 crore benefiting an ayacut of 176.80 hectare.
- Modernisation of Right Main Canal in Manjalar Dam of Devadanapatti village in Theni District has been sanctioned at a cost of Rs.2.76 crore for benefiting an ayacut of 758.29 hectare.
- Modernisation of Jeyamangalam Supply Channel in Jeyamangalam village in Theni District has been sanctioned at a cost of Rs.3.75 crore for benefiting an ayacut of 375.91 hectare.
- Rehabilitation of 16 old Anicuts in Amaravathy River System in Karur and Tiruppur Districts have been sanctioned at a cost of Rs.18 crore for benefiting an ayacut of 6154.65 hectare.
- Reconstruction of Syphon Aqueduct in Mordhana Right Main Canal across Palar near Chithatur village in Vellore District has been sanctioned at a cost of Rs.1.40 crore for benefiting an ayacut of 1378 hectare.
- Rehabilitation of Sempoondi Anicut at Kiliyanagar village in Kancheepuram District has been sanctioned at a cost of Rs.2.20 crore for benefiting an ayacut of 523.36 hectare.

3.5. Part II Schemes 2011-2012

The Government have accorded approval for Rs.6.84 crore for 40 schemes during 2011-2012, of which 27 Schemes were completed and the following 13 Schemes are in progress:

S. No.	Name of Scheme	Amount (Rs.in lakh)	Stage of the schemes
1	Construction of Assistant Engineer Quarters at Kurinjipadi in Kurinjipadi Taluk of Cuddalore District.	15.00	80% of work completed
2	Construction of 4 Numbers of Irrigation Assistant Quarters at Kurinjipadi in Kurinjipadi Taluk of Cuddalore District.	18.00	80% of work completed
3	Construction of 4 Numbers of Irrigation Assistant Quarters at Thiruvathigai Anicut in Panruti Taluk of Cuddalore District.	18.00	80% of work completed
4	Construction of Superintending Engineers' Quarters in P.W.D., Complex at Katpadi in Katpadi Taluk of Vellore District.	30.00	90% of work completed
5	Construction of Assistant Executive Engineers' Quarters in P.W.D., Complex at Katpadi in Katpadi Taluk of Vellore District.	18.00	90% of work completed
6	Construction of Assistant Engineers/Junior Engineers Quarters at Gudiyatham in Gudiyatham Taluk of Vellore District.	11.00	90% of work completed
7	Construction of Assistant Engineers/Junior Engineers' Quarters at Vaniyambadi in Vaniyambadi Taluk of Vellore District.	11.00	80% of work completed

8	Construction of Section Office at Gudiyatham in Gudiyatham Taluk of Vellore District.	7.00	90% of work completed
9	Construction of Section Office at Sholingar in Walajah Taluk of Vellore District.	7.00	80% of work completed
10	Construction of Bridge across L.B.P Main canal @ mile 65-6-200 of Vadamugam Vellode village in Perundurai Taluk of Erode District.	60.00	Work in Progress
11	Rehabilitation and Improvements to Inspection Bungalow at Uthamapalayam in Uthamapalayam Taluk of Theni District.	25.00	75% of Work completed
12	Reconstruction of Office building in Periyar Vaigai Basin Sub Division No. 1, Madurai, Irrigation Section No.1 and Irrigation Section No.2, Madurai, Nilaiyur section and Vaigai Section of Periyar Vaigai Basin Sub Division No.2, Madurai in PWD Campus at Tallakulam in Madurai North Taluk of Madurai District.	30.00	60% of Work completed
13	Construction of Inspection Bungalow for WRD at Rameshwaram in Rameshwaram Taluk of Ramanathapuram District.	35.00	70% of work completed
	Total	285.00	

3.6. FLOOD PROTECTION SCHEMES

3.6.1. Flood Management Programme

Flood Management Programme is a Central- State shared Scheme at a ratio of 75:25. The following Scheme is under progress.

Flood Protection Works in Kollidam (Coleroon) River in Thanjavur, Nagapattinam and Cuddalore Districts of TamilNadu - Estimate Rs.375.90 crore

Flood Protection works in Kollidam River are being implemented in the State in 21 packages as detailed below:-

- a) Improvement to Right Bank of Kollidam River from Grand Anicut head to Lower Anicut (from LS 26.74 km to LS 108.21 km) in Thanjavur district - Estimate Rs.95.97 crore - 7 packages.
- b) Permanent flood protection works of Right Bank of Kollidam River by Standardisation and Strengthening from Lower Anicut to sea mouth (from LS 108.21 km to LS 168.21 km) in Cuddalore District - Estimate Rs.171.45 crore - 7 packages.
- c) Permanent flood protection works of Left Bank of Kollidam River by Standardisation and Strengthening from Lower Anicut to sea mouth (LS 108.21 km to LS 168.21 km) in Cuddalore District - Estimate Rs.108.48 crore-7 packages.

Out of 21 packages, works in 19 packages have been completed and the work in 2 packages viz., Flood Protection works with Anchored Sheet piles in Right Bank of Kollidam (Coleroon) River from LS 136.50 km to 138.20 Km at Panankattankudi in Sirkali Taluk of Nagapattinam District (Package No. X) at a cost of Rs 38.25 crore and Flood Protection works in Right Bank of Kollidam (Coleroon) River from LS 161.80 km to 163.00 Km in Alakkudy village of Sirkali Taluk of Nagapattinam District (Package No. XIII) at a cost of Rs.53 crore are in various stages of implementation and scheduled to be completed in the financial year 2012-2013.

On completion of the Project, about 17 lakh people and 193 villages in Thanjavur, Nagapattinam and Cuddalore Districts will be safeguarded.

3.6.2. Jawaharlal Nehru National Urban Renewal Mission(JNNURM)

To avoid flooding in Chennai city, a comprehensive Master Plan on improvements to Macro Drainages and Micro Drainages is in progress. The total cost of the Scheme is Rs.1447.91 crore. This is a Centre-State shared Scheme for a period of 3 years commenced from 2010. Improvements to Macro Drainages like Buckingham Canal, Otteri Nullah, Virugambakkam – Arumbakkam Drain, Cooum and Adyar Rivers are carried out by Water Resources Department at a cost of Rs.633.03 crore. Works have been divided into 10 packages out of which 7 packages are under progress.

Details of on-going packages are as follows:

Package	Name of work	No. of works	Estimate Amount (Rs.in Crore)	Present status
I	Improvement to Kodungaiyur Drain, Otteri Nullah and Kolathur-Madhavaram Diversion Channel	4	63.05	41% completed
II	Improvement to Arumbakkam-Virugambakkam Drain & construction of Diversion Channel from Maduravoyal to Cooum	3	83.89	15% completed
III	Improvement to North Buckingham Canal	1	110.05	89% completed
V	Improvement to South Buckingham Canal from Adyar South Lock to Okkiyam Maduvu (from 0 m to 10500 m) Reach I &II	2	46.86	44% completed

VI	Improvement to South Buckingham Canal from Okkiyam Maduvu to Muttukkadu backwater (from 10500m to 23500m)	1	78.14	60% completed
VII	Improvement to Veerangal Odai and Short cut Diversion Drainage Channel for Velachery Tank	2	82.05	55% completed
VIII	Improvement to Ambattur Tank	1	19.63	22% completed
	Total	14	483.67	

3.7. **13th Finance Commission Grants-in-Aid Programme (2011-2012 to 2014-2015)**

This is a programme to be executed over a period of 4 years commencing from the year 2011-2012. Under State Specific Needs Grant, the following 2 schemes have been sanctioned.

(i) Coastal Protection

Administrative Sanction for 50 Coastal Protection Works in 7 Coastal Districts of Chennai, Cuddalore, Villupuram, Nagapattinam, Thoothukudi, Tirunelveli and Kanyakumari, at a cost of Rs.199.93 crore has been accorded. For the year 2011-2012, Financial Sanction for Rs.50 crore was accorded for 26 works.

The following 3 works were completed:

1. Urgent protection and Replenishment to the existing damaged Rubble Mound Sea Wall along Ennore Expressway in North Chennai near Chinnakuppam from LS 15/580 to 15/760 km. Estimate Amount Rs.62 lakh.
2. Urgent protection and replenishment to the existing damaged Rubble Mound Sea Wall along Ennore Expressway in North Chennai near Periyakuppam from LS 16/110 to 16/290 km. Estimate Amount Rs.67 lakh.

3. Urgent Protection and Replenishment to existing damaged Rubble Mound Sea wall along Ennore Expressway in North Chennai near Thalankuppam (LS 16/850 - LS17/350 km). Estimate Amount Rs.2 Crore. Remaining 23 works are in progress.

(ii) Restoration of Traditional Water Bodies

Administrative Sanction for Restoration of 674 Traditional Water Bodies in 23 Districts, at a cost of Rs.200 crore has been accorded. For the year 2011-2012, Financial Sanction for Rs.50 crore was accorded for 163 works. Works are in progress.

3.8. Artificial Recharge Scheme

The Master Plan for Artificial Recharge Scheme at a cost of Rs.550 crore is being implemented by the Water Resources Department, Tamil Nadu Water Supply and Drainage Board, Agricultural Engineering Department and Forest Department. In this Scheme, works such as construction of Check Dams, Percolation Ponds, Recharge Shafts are taken up. The Scheme period has been extended for a further period of two years (up to 2012-2013). So far, 523 works have been sanctioned to Water Resources Department at a cost of Rs.265.11 crore. Out of this, 296 works at a cost of Rs.109.75 crore have been completed. 72 works at a cost of Rs.76.61 crore are in progress. Further 147 works at a cost of Rs.78.07 crore will be taken up early. 8 works have been dropped.

3.9. National Agriculture Development Programme

National Agriculture Development Programme is being implemented in the State from the year 2007-2008.

Schemes sanctioned during 2010-2011

The Government have sanctioned Rs.2.08 crore for three works for the year 2010-2011. Out of 3 works, 1 work has been completed, 1 work is in progress and the another work viz., Construction of a Check Dam across Konalar in Kavunji village of Dindigul District has been transferred to the Forest Department.

(Rs.in lakh)

Sl. No.	Name of Project	Estimate Cost	Expenditure
1	Modernisation of Athiyur tank in Athiyur village of Kunnam Taluk in Perambalur District.	62.00	18.65
	TOTAL	62.00	18.65

The implementation of Modernisation of Athiyur Tank will ensure irrigation for 272 hectare ayacut, which will result in additional paddy production of 168 tonnes and 6980 tonnes of sugarcane. By implementation of this project, 1500 people will be benefited.

Schemes sanctioned during 2011-2012

The Government have sanctioned 6 works for an amount of Rs. 3.45 crore in Thanjavur, Tiruvarur, Coimbatore and Madurai Districts. Out of 6 works, 3 works have been completed, 2 works are in progress and 1 work will commence soon.

(Rs. in lakh)

Sl. No.	Name of Scheme	Estimate Amount	Expenditure
1	Construction of Grade Wall to maintain the theoretical bed level across Paminiyar River at mile 79/27 in Agraharam Kiluvathur village in Mannargudi Taluk of Thiruvarur District.	30.00	19.95
2	Construction of Grade Wall to maintain the theoretical bed level across Paminiyar River at mile 78/06 in Orathur village in Mannargudi Taluk of Thiruvarur District.	45.00	24.90
	TOTAL	75.00	44.85

By implementation of the above 2 Schemes, it is expected that an ayacut of 130.70 hectare will be benefitted and about 474 farmers will be benefitted.

4.0. STATE GROUND AND SURFACE WATER RESOURCES DATA CENTRE

This centre is engaged in periodic multidisciplinary investigation studies on ground water, by maintaining and observing state-wide monitoring network for ground water, surface water and water quality. Data on ground water level, rainfall and other Climatic Data and water quality are generated.

For the purpose of micro level ground water potential assessment, village wise details on Geological unit identification and other village wise Data are collected for part of the State.

In order to avoid the seawater intrusion along the Coast of Tamil Nadu, selected Wells along the coast are monitored.

To avoid the hardship and loss of money by the farmers and general public in locating the area for drilling/ digging of wells, consultancy services on scientific basis are rendered by this department to the farmers, general public, Public Undertakings, etc.,

The Data generated through the activities of this Centre on ground water, surface water and water quality are disseminated to the Students, Research Scholars, NGO and Private Organisations on cost basis.

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

In order to protect the tanks in the State, the "Tamil Nadu Protection of Tanks and Eviction of Encroachment Act 2007 (TN Act 8 of 2007)" was legislated and the Act and Rules came into force with effect from 01.10.2007. The Act is being implemented by creating awareness among the general public especially at village level about the provisions of the Act and Rules and the need to keep the Tanks in original shape through Hand Bills, Wall Posters, Print Media and tom-tom.

The works such as delineation of Tank boundaries, eviction of encroachments and planting of Reinforced Cement Concrete (RCC) poles along the Tank Boundaries are being executed for preventing encroachments. Out of the 13699 Tanks maintained by the Water Resources Department, till now 3474 Tanks have been fully restored. Eviction process is under progress in various stages in the remaining Tanks.

6.0. REPAIR, RENOVATION AND RESTORATION (RRR) OF WATER BODIES IN THE 51 DROUGHT PRONE BLOCKS IN TAMIL NADU

A Project Proposal for 338 Rain-fed Tanks in 51 Drought Prone Blocks has been prepared at a cost of Rs.220 crore under Repair, Renovation and Restoration of Water bodies with domestic support. These Proposals would be placed in the State Technical Advisory Committee constituted by the Government for scrutinising and giving clearance. After obtaining clearance from the Committee, the proposal will be sent to the Government of India, Ministry of Water Resources, seeking funds. The funding pattern between the Centre and State for this project is in the ratio of 90:10.

7.0. SAND QUARRY

Public Works Department is engaged in Sand Quarry operations 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 Tamil Nadu Minor Minerals Concession Rules,1959.

During the year 2011-2012, Revenue of Rs.188.03 crore was generated through sale of 3133932 Lorry loads (2units).

8.0. IRRIGATION MANAGEMENT TRAINING INSTITUTE (IMTI), TRICHY

Irrigation Management Training Institute, Trichy conducts regular Training Programmes on various aspects of irrigation management to all those involved in Irrigated Agriculture.

Training Programmes conducted are as detailed below:

Study tours to other major States of India were conducted for Senior Level Officers / Middle Level Officers. Training on Participatory Irrigation Management (PIM), Advance Training on Survey Techniques, Design of Irrigation Structures, Operation and Maintenance of Irrigation Structures, Water Budgeting, Water Saving Techniques, Application of Computer Software in Irrigation Management like, Geographical Information System (GIS), Remote Sensing and Auto CAD and Human Resources Development were conducted for Middle Level Officers.

Training on Basics of computers and Hardware Maintenance were conducted for Ministerial / Draughting Officers. Study tours to other Major States of India like Andhra Pradesh, Gujarat, Maharashtra, Rajasthan, Madhya Pradesh, Uttar Pradesh, West Bengal and Odisha to familiarise with the Water Management Practices and Participatory Irrigation Management (PIM) systems followed there were conducted for Officers and Farmers. Special training was given to the newly elected Presidents of Water Users' Associations on the provisions of Tamil Nadu Farmers Management of Irrigation Systems Act. Orientation Workshop and Capacity Building training were given to Support Organisation.

During the year 2011-2012, 124 Training Programmes were conducted for 2891 participants at a cost of Rs.1.24 crore.

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