

Public Works Department

Irrigations and Buildings

Policy Note 2003-2004

Demand No. 38

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INTRODUCTION

I have great pleasure in presenting before this august House the Demand under “Irrigation and Buildings” of the Public Works Department, which is one of the oldest and prestigious Departments of the Government of Tamil Nadu.

Public Works Department is in charge of formulating and implementing Major, Medium and Minor Irrigation Schemes, Operation and Maintenance of Irrigation Systems and Construction and Maintenance of Buildings for State Government Departments and Agencies. The Public Works Department has been reorganized to have two wings, viz. Water Resources Organisation and Buildings Organisation, from December 1995. The objective of the Water Resources Organisation is to ensure effective management and distribution of Surface and Ground Water for its optimum utilisation in a rational and scientific manner to maximise agricultural production productivity of all the water using sectors. The objective of the Buildings Organisation is to ensure cost effective methods of building construction and maintenance by using modern technology.

IRRIGATION

STATUS OF IRRIGATION

Tamil Nadu with a geographical area of 130 lakh hectares is ranked eleventh in size among the Indian States. The net area sown in Tamil Nadu is about 60 lakh hectares of which about 30 lakh hectares or 50% get irrigation facilities from sources as given below: -

- | | | | |
|-----|-------------------|----|---------------------|
| (1) | Canals | .. | 9.50 lakh hectares |
| (2) | Tanks | .. | 9.00 lakh hectares |
| (3) | Wells, Tube wells | .. | 11.50 lakh hectares |

DEVELOPMENT OF IRRIGATION IN TAMIL NADU

The National Commission on Agriculture in 1976 assessed the ultimate irrigation potential of Tamilnadu through Major and Medium Irrigation sources as 15.00 lakh hectares. At the commencement of the First Five Year Plan, there were 23 Major and Medium Irrigation Projects benefiting 11.00 lakh hectares. In the IX plan period upto 2001-2002, the area under irrigation has risen to 29.72 lakh hectares.

During 2002-2003, an additional irrigation potential of 4924 hectares is expected to be created. During 2003-2004, additional irrigation potential of 9804 hectares is proposed to be created. Now the World Bank has further extended the project period for one more year i.e. 31-3-2004

DIVERSION OF WATER TO TAMIL NADU FROM ADJACENT STATES

Tamil Nadu is a deficit State in water resources and has almost fully exploited all its surface water potential. The neighbouring States like Karnataka, Kerala and Andhra Pradesh are richly endowed with water resources. For further water resources development, Tamil Nadu has to depend upon inter basin water transfers from the adjoining basins of the neighbouring States or even to Long Distance Transfers. Tamil Nadu has moved the National Water Development Agency set up by the Government of India for diversion of surplus waters available in the adjoining States to augment its water resources.

The National Water Development Agency (N.W.D.A.) has also taken up the Inter Basin Study of the Peninsular Rivers for development which includes diversion of the surplus waters of the west flowing rivers in Pamba and Achankoil of Kerala to benefit arid areas in Madurai, Ramanathapuram, Virudhunagar and Tirunelveli Districts. The matter is being pursued by the State Government with the Government of Kerala and the Government of India.

The National Water Development Agency has also taken up studies for diversion of the surplus waters of Mahanadhi and Godavari via Krishna-Pennar-Palar-Cauvery-Vaigai Link. The pre-feasibility report on these links has been prepared by the N.W.D.A.

Another scheme viz, Pandiar-Punnampuzha Irrigation – cum – Hydro Electric Power Generation scheme is being actively pursued with the Government of Kerala.

WATER RESOURCES ORGANISATION

As a first step towards effective implementation of the Water Resources Consolidation Project through improved functional specialisation, Water Resources Organisation was formed with effect from December 1995, in the Public Works Department.

Under the Water Resources Organisation, the Water Management in the State has been decentralised along river basins and the entire State has been divided into four regions, viz. Chennai, Tiruchirappalli, Pollachi and Madurai. A Basin Manager in the rank of Chief Engineer heads each basin.

Water Resources Organisation is functioning with the following Chief Engineers: -

- (1) Engineer-in-Chief, Water Resources Organisation, Chennai.
- (2) Chief Engineer, Plan Formulation, Chennai.
- (3) Chief Engineer, Design, Research and Construction Support, Chennai.
- (4) Chief Engineer, Operation and Maintenance & Inter State Water, Chennai.
- (5) Chief Engineer, State Ground and Surface Water Resources Data Centre, Chennai.

- (6) Chief Engineer, Chennai Region, Chennai.
- (7) Chief Engineer, Tiruchirappalli Region, Tiruchirappalli
- (8) Chief Engineer, Pollachi Region, Coimbatore.
- (9) Chief Engineer, Madurai Region, Madurai.
- (10) Chief Engineer & Director, Institute for Water Studies, Tharamani, Chennai.
- (11) Chief Engineer, Irrigation Management Training Institute, Tiruchirappalli.

ECONOMISING THE USE OF IRRIGATION WATER

Since the surface water potential is almost fully utilised, there is hardly any scope for any new Major or Medium Irrigation Projects in the State. Conserving the available water by modernisation of the existing canal systems and tank irrigation has to be given more attention so that optimum utilisation of water could be ensured and wastage avoided. Water thus saved could be utilised for extending irrigation facilities to new areas or for raising additional crops in the same area.

With the above in view, the work of modernising the Periyar Vaigai Irrigation System was taken up with World Bank assistance. Similarly, the National Water Management Project was also taken up with World Bank assistance to improve the efficiency and productivity of the old irrigation systems in Sathanur, Kodaiyar, Thambaraparani, Cumbum Valley, Amaravathy Old Channels, Sethiathope, Marudhanadhi and other commands through a more reliable, predictable and equitable irrigation service. The Tamil Nadu Water Resources Consolidation Project (WRCP) with the objectives similar to those of National Water Management Project has been taken up for implementation since 1995-96. The World Bank has given approval for extending the period upto 31.3.2003 to complete the balance works.

Now the World Bank has further extended the project period for one more year i.e. upto 31-3-2004.

BUDGET PROVISION

The outlay for 2003-2004 is Rs.399.07 crore including a provision of Rs. 16.98 crore for the Water Resources Consolidation Project.

MAJOR IRRIGATION PROJECTS

Since the surface water potential of the State has already been almost fully exploited, there is no Major Irrigation Project under execution at present.

STATE PLAN SCHEMES**MEDIUM & MINOR IRRIGATION SCHEMES**

At the commencement of the Annual Plan 2003-2004, the following Medium and Minor Irrigation Schemes were in progress:-

- (1) Strengthening of Periyar Dam (Peermadu, Kerala State)
- (2) Nanganjar Reservoir (Dindigul District)
- (3) Irukkangudi Reservoir (Virudhunagar District)
- (4) Shanmughanadhi Reservoir (Theni District)
- (5) Malattar Anicut Scheme (Ramanathapuram District)
- (6) Providing irrigation facilities to 58 villages (Madurai District)
- (7) Andiappanur Odai Reservoir (Vellore District)
- (8) Shenbagathope Reservoir (Thiruvannamalai District)
- (9) Bathalapalli – Malattar Reservoir Scheme (Vellore District)
- (10) Kuppanatham Reservoir Scheme (Thiruvannamalai District)
- (11) Varattar – Vallimadurai Reservoir Scheme (Dharmapuri District)
- (12) Kalvoi – Sadayaneri Scheme (Thoothukudi District)
- (13) Narayana Cauvery channel (Ramanathapuram District)
- (14) Formation of new tank across Uppu Odai (Tiruchirappalli District)
- (15) Tank across Mudalaimuthuvari (Thanjavur District)
- (16) Gadana Extension Scheme (Tirunelveli District)
- (17) Tank across Nayodai (Dindigul District)
- (18) Tank across Ramakkal Odai and Anaivilundan Odai (Dindigul District)
- (19) Nallathangal Odai Tank (Erode District)
- (20) Anicut across Andi odai (Tiruchirappalli District)
- (21) Reservoir across Nagariar near Sasthakoil (Virudhunagar District)
- (22) Reservoir across Vellakalkanar near Vinnamangalam (Vellore District)
- (23) Tank across Sirumalaiar (Dindigul District)
- (24) Augmentation of water supply to Vellianai and three other tanks from Kodaganar reservoir (Karur District)
- (25) Improvements and Beautification of Parks in and around reservoirs
- (26) Desilting and Modernisation of Vandiyur tank (Madurai District)
- (27) Formation Of 18th Canal In Uthamapalayam Taluk Of Theni District
- (28) Strengthening The Existing Upstream And Downstream Cut-Off Walls Of Upper Barrage At Upper Anicut (Mukkombu)
- (29) Reservoir Across Mambazhathuraiyar (Kanyakumari District)
- (30) Extension Of Nilaiyur Channel (Madurai District)
- (31) Ullar Reservoir Across Palaiyar And Valamazhaiyar (Tirunelveli District)
- (32) Reservoir Across Mirukandanadhi (Thiruvannamalai District)
- (33) Rehabilitation And Modernisation Of The Lower Bhavani Irrigation Systems And Inclusion Of 23,000 Acres Of Land In Lower Bhavani Ayacut.
- (34) Additional Funds For Rehabilitation Of 4 Channels In Kumbakonam Town Limit.
- (35) Desilting Uyyacondan Channel, Kudamurity River, Ariyar, Koraiyar And Strengthening Of Banks For Protecting Flood Damages In Tiruchy Town.
- (36) Removal Of Jungle And Bushes And Kattamanakku In River Cauvery And Portion From Trichy To Karur.
- (37) Construction Of Syphon In Pugalur Channel To Divert The Polluted Noyyal Orathupalayam Water.
- (38) Rehabilitation Of Anicut Across Nanganjar Odai Near Pallapatti In Karur District.
- (39) Desilting Kathiriinkulam And Its Channels In Dindigul District.
- (40) Balance Works In Canal Channempatti Anicut Scheme.
- (41) Balance Works In Periyar Main Canal From Melur To Maravanmangalam Tank.
- (42) Rehabilitation Of Vilathurai Pumping Scheme In Kuzhithurai River. (WRCP)
- (43) Flood Prevention Scheme In Trichirappalli City
- (44) Poigaiyar Reservoir (Kanyakumari District) under WRCP
- (45) Nambiyar Reservoir (Tirunelveli District) under WRCP
- (46) Rajathopekanar Reservoir (Vellore District) under WRCP
- (47) Koundinyanadhi (Mordhana) Reservoir (Vellore District) under WRCP
- (48) Adavinainarkoil Reservoir (Tirunelveli District) under WRCP
- (49) Anicut across Gridhamal near Athikulam (Virudhunagar District) under WRCP
- (50) Vadakkupachayar Reservoir Scheme (Tirunelveli District) under WRCP

- (51) Kodumudiyar Reservoir (Tirunelveli District) under WRCP
 (52) Sothuparai (Varahanadhi) Reservoir (Madurai District) under WRCP.

Note: Out of the 52 schemes, nine schemes (items 45 to 52) are being executed as the Scheme Completion component of the Water Resources Consolidation Project (which has been comprehensively dealt with separately).

PRESENT STAGE OF THE ABOVE ONGOING SCHEMES

(1) STRENGTHENING OF PERIYAR DAM: (Peerimedu, Kerala State)

Periyar Dam near Thekkady is the main source of Irrigation for an ayacut of 84269 Ha. in Theni, Dindigul, Madurai, Sivagangai and Ramanathapuram Districts.

As per the 999 years lease Agreement executed during 1886, the Periyar Dam was constructed during 1887-1895 to store water upto 152 feet level.

During the year 1979, when some apprehensions about the safety and strength of the dam were raised, the matter was referred to the Central Water Commission for their assessment and advice. After a joint discussion with the officials of both the Government, Central Water Commission suggested the following remedial measures.

A. EMERGENCY MEASURES:

- I. Providing RCC Capping and Widening the top of dam by 6 feet.
- II. Providing additional spill ways.

B. MEDIUM TERM MEASURES:

Cable Anchoring.

C. LONG TERM MEASURES:

Providing concrete backing on the surface of dam.

D. Shutters of the spillway to be raised fully to Lower level in the Reservoir to (+) 136 feet as temporary measure to facilitate carrying out the remedial measures.

Subsequently Strengthening of baby dam, raising Parapet wall and Energy Dissipation arrangement were also suggested by Central Water Commission in addition to the above.

According to the Central Water Commission recommendation, the storage of water could be raised to 145 feet after completing the emergency and medium term measures and to the full level of 152 feet after completing all the strengthening measures.

All the dam strengthening works suggested by Central Water Commission in the first conference in 1979 have been completed except strengthening of Baby Dam.

For Periyar Dam, the final report of the Expert Committee was given to the Ministry of Water Resources in March 2001. The Government of Tamil Nadu has sent the views on the final report to the Central Government. The Ministry of Water Resources has filed the final reply on the final report of the Expert Committee in the Supreme Court. The Supreme Court has called the two Government to file their reply on the final report. The Government of Tamil Nadu has filed in the Supreme Court, its response to the final report of the Expert Committee on 06.02.2002. The Government of Tamil Nadu has also filed its response to the reply affidavit filed by Government of Kerala in respect to the final report on 25.02.2002. The transfer petition is yet to be disposed off by the Honourable Supreme Court.

Proposal for strengthening of Baby Dam had been sent to the Government of Kerala for their concurrence as early as in 1987 and inspite of repeated requests by Tamilnadu, their concurrence is not forthcoming. However in anticipation of Kerala Government concurrence, contract for strengthening of Baby Dam has been settled.

The Contractor has filed petition on 12.09.1999 in the High Court of Kerala praying for direction to the Kerala Government for not obstructing to do the strengthening work. This case is pending in High Court of Kerala. As per Government instructions the site handed over to contractor has been taken back on 13.09.2002 without terminating the agreement, so the Baby Dam work could not be taken up at present.

As directed by the Chief Minister of Tamilnadu, an interstate meeting had been conducted at Chennai on 10.06.2002 with the P.W.D. Minister of Tamilnadu and the Kerala P.W.D. Minister regarding interstate water issues and Periyar Dam issue. However the work will be started only after the concurrence of the Kerala Government.

The Budget Estimate proposed for 2003-2004 is Rs. 0.01 lakh (for Baby Dam).

(2) NANGANJIAR RESERVOIR (DINDIGUL DISTRICT)

This scheme contemplates the formation of a reservoir across Nanganjiyar, a tributary of river Amaravathy near Idayankottai village in Palani Taluk, Dindigul District to benefit 2,530 hectares of new ayacut with a stabilisation of 24 hectares of old ayacut in Idayankottai, Valayapatti and Chinnakamapatti villages in Vendasandur Taluk of Dindigul District and Sendamangalam village of Karur Taluk of Karur District at an estimated cost of Rs.20.70 crore.

In this project construction of uncontrolled spillway is in progress. Earth dam works and main canal and spill way works are nearing completion. The Government have approved the reappraisal estimate of this project for Rs.37.36 crore. The works are in progress. Totally 80% of the work has been completed.

The Budget provision for the year 2003-04 is Rs. 348.35 lakh.

(3) IRUKKANGUDI RESERVOIR (VIRUDHUNAGAR DISTRICT)

This scheme is for the formation of reservoir across Vaippar near Irukangudi village, Sattur Taluk, Virudhunagar District at a cost of Rs.28.70 crore. The scheme aims at stabilising an extent of 254 hectares, bridging the gap of 255 hectares and giving new irrigation facilities to 3,705 hectares of dry lands in Rajapatti, Masarpatti, Sakkihapatti, Thappatti, Keelanattukurichi, Melakarandai, Shencottai, Keezhakarandai, Vadamalapuram, Vowal Thotti and Vedapatti villages of Vilathikulam Taluk of Thoothukudi District.

In this scheme, construction of masonry dam across Arjuna and Vaippar rivers are in progress at various stages. 80% of main canal and 95% of Branch Canal have been completed. Cross masonry works in canal are in progress. The revised estimate for Rs.62.20 Crore has been approved by Government.

The Budget provision for the year 2003-04 is Rs. 2000.00 lakh.

(4) SHANMUGHANADHI RESERVOIR (THENI DISTRICT)

This scheme contemplates the formation of a reservoir across Shanmughanadhi (Varattar) near Royappanpatti village in Uthamapalayam Taluk of Theni District.

The scheme aims at irrigating 664 hectares of new dry land in Royappanpatti village of Cumbum Taluk and Mallingapuram, Chinnaovalapuram, Erasakkanaickanur, Kanniservaipatti, Alagapuri, Odaipatti, Seepalakottai villages in Uthamapalayam Taluk.

The Government have sanctioned this scheme at a revised estimate cost of Rs.14.70 crore. The components of the scheme are an earth dam, masonry dam-non overflow section, uncontrolled spillway, head sluice and canals with necessary structures.

In this scheme, all works have been completed except distributaries work which are nearing completion.

The Budget provision for the year 2003-04 is Rs. 100.00 lakh.

(5) MALATTAR ANICUT (RAMANATHAPURAM DISTRICT)

This scheme is for the construction of an anicut across Malattar river below the existing Kamudhi regulator and just below the confluence point of Gridhamal and Paralayar rivers with Malattar near Sengapadi village in Kamudhi Taluk of Ramanathapuram District.

This scheme will benefit stabilisation of an extent of 1758 hectares besides bridging a gap of 156 hectares under 54 tanks in O.Karisalkulam, Veppankulam (Kamudhi Taluk), Pammanendal, Ariyamangalam, Punavasal, Veppankulam (Kadaladi Taluk), Meenankudi, Orivayal and Kadugusandai villages in Kamudhi and Kadaladi Taluks.

The Government have sanctioned this scheme at an estimated cost of Rs.15.40 crore. The main components of the scheme are a Masonry Anicut, Head Sluice 2 Nos., Right and Left Main Canals with necessary structures.

Construction of body wall of anicut from LS 0m to LS 200m and LS 200m to 385m is completed. Construction of right side head sluice and scouring sluice works and formation of earth dam are in progress. Construction of left side head sluices and scouring sluice agency settled and work to be started.

The Budget provision for the year 2003-04 is Rs. 500.00 lakh.

(6) PROVIDING IRRIGATION FACILITIES TO 58 VILLAGES IN USILAMPATTI TALUK (MADURAI DISTRICT)

This scheme envisages excavation of a high level canal of 27.26 Km from the proposed head works on the right flank of the Vaigai Dam at LS 2425 m from the spillway to provide irrigation facilities to the 58 villages in Usilampatti Taluk. This canal will be an unlined one for carrying the surplus floodwater from Vaigai River to provide irrigation facilities to 58 villages in Usilampatti Taluk whenever both Vaigai Reservoir and Ramnad Big Tank surplus simultaneously. It includes formation of 3 new tanks to get supply from the above high level canal. The Government have accorded approval for this scheme at an estimated cost of Rs.33.81 crore.

By implementing this scheme, 570 hectares of wet lands will be stabilised besides bridging a gap of 128 hectares of wet lands under 29 existing tanks and 3 existing ponds in Usilampatti Taluk. Further new dry ayacut of 227 hectares will be brought under irrigation through 3 new tanks.

In this scheme, land acquisition work is in progress. Out of 14 works, tenders have been accepted for 12 works and 9 works are in progress at various stages. 3 works are held up due to objection of land owners. Tender proposals for the balance two works have been rejected and re-tenders are to be invited. Building works are completed.

The Budget provision for the year 2003-04 is Rs. 526.25 lakh.

(7) ANDIAPPANUR ODAI (VELLORE DISTRICT)

This scheme envisages the formation of a reservoir of 112 M.Cft. capacity across Andiappanur Odai near Andiappanur village in Vaniyambadi Taluk of Vellore District.

The Government have sanctioned this scheme at an estimated cost of Rs.18.28 crore. The Government have also accorded Revised Administrative Sanction for Rs.27.38 crores.

By implementing this scheme, an extent of 810 hectares of direct ayacut in Andiappanur and Irunappattu villages in Vaniyambadi Taluk will be benefited for raising double dry crops.

Transfer of 39.69 hectares of forest land, 15 hectares of poromboke land and acquisition of 100.245 hectares of Patta land are involved.

Land acquisition completed except 9.85 Ha. in which court case is pending. Forest land has been handed over to Public Works Department. Preliminary works for forming approach road to dam site and camp colony have been completed. "NABARD" has been approached for loan assistance. Agency settled for the main work and the work is in progress.

The Budget provision for the year 2003-04 is Rs.1292.00 lakh.

(8) SHENBAGATHOPE RESERVOIR (TIRUVANNAMALAI DISTRICT)

The Shenbagathope Reservoir Scheme contemplates the formation of a reservoir across Kamandaluru in Shenbagathope village of Polur Taluk in Thiruvannamalai District.

The Government have sanctioned this scheme at an estimated cost of Rs.21.33 crore. The Government have accorded the Revised Administrative Sanction for a sum of Rs.34.00 crores for this scheme.

This scheme will benefit 2067 hectares by stabilisation and 642 hectares by bridging the gap in Vallur, Kangaramandal, Santhavasal, Naramangalam, Illuppakkunam, Paravathiagaram, Aliyabad and Enthuvambadi villages in Polur Taluk, Kuppam, Kamakukur, Arni, Mamandur, Kalpoondi, Mullipattu, Paiyur in Arni Taluk, Vazhapanthal, Melpudupakkam, Mampakkam, Melpalandai, Arur, Suraiyur and Ponnambalam villages in Arcot Taluk, Tirumani, Munugapattu, Melpudur and

Melseshamangalam in Cheyyar Taluk and Anmarudhai in Vandavasi Taluk. By implementing this scheme, a long time demand of this backward region for better irrigation facilities will be fulfilled.

Preliminary works such as construction of store shed, fencing at Aliyabad etc. have been completed.

For implementation of this scheme, an extent of 99.62 hectares of forest land, 21.50 hectares of private patta land and 3.25 hectares of poramboke land are required. Land acquisition process and transfer of forest land are completed.

Agency settled for the main work. Work is in progress. "NABARD" has accorded approval for loan assistance.

The Budget provision for the year 2003-04 is Rs.1979.38 lakh.

**(9) BATHALAPALLI-MALATTAR RESERVOIR
(VELLORE DISTRICT)**

The scheme contemplates formation of a reservoir across Malattar river near Bathalapalli village in Gudiyatham Taluk, Vellore District. The Government have sanctioned this scheme at an estimated cost of Rs.29.55 crore.

This scheme will stabilise 1,064 hectares of ayacut and bridge the gap of 61 hectares in Balur, Machampattu, Vasanamalli, Nariyampattu, Reddimankuppam, Sarangal Kailasagiri, Ayithampattu, Sathampakkam, Rajakal, Alingikuppam, Malmurugai, Melpatti, Kulithigai, Chinnathottalam, Ulli, Kothakuppam, Aranganalalur, Olakasi and Chithathur villages of Gudiyatham Taluk. Besides, provision for drinking water facilities to Peranampet town and the way side villages and for industrial purposes has been made in this scheme. Also the wells in the area now affected by pollution from tanneries will become good water sources in course of time.

The components of the scheme are Earth dam, Masonry spillways, River sluices, Pickup anicut and drops.

For implementation of this scheme, an extent of 36.98 hectares of patta land, 17.81 hectares of forest land and 11.32 hectares of poramboke land are required. Land acquisition works are completed. Forest land has been handed over to Public Works Department. NABARD has been approached for loan assistance.

The Budget provision for the year 2003-04 is Rs. 100.00 lakh.

**(10) KUPPANATHAM RESERVOIR
(TIRUVANNAMALAI DISTRICT)**

The scheme contemplates formation of a reservoir across Cheyyar near Kuppanatham village in Chengam Taluk of Thiruvannamalai District. The Government have sanctioned this scheme at an estimated cost of Rs.35.46 crore.

This scheme will stabilise an extent of 2528 hectares and bridge a gap of 580 hectares under 22 tanks fed by 5 anicuts and 2 open off-takes across Cheyyar in Kayampattu, Valaiyampattu, Thandapattu, Kariyamangalam, Vadankuppam, Melvanakkampadi, Melpuluthiyar, Perumpattam, Pakkripalayam, Thukkapettai, Memalur, Kayampatu, Gengaravaran, Sennasamudram, Ponneri, Sinnasamudram, Padiagaram, Narasinganallur, Thorapadi, Munnoormangalam, Nachipattu, Kunjilam, Periyeri, Unnamalaipuram, Puduchengam, Anvarbad, Alaputhur, Tamaraipakkam and Aridaraimangalam villages in Chengam Taluk, Munnurmangalam, Kariyandal, Anandal, Melpunjai, Vasudevampattu and Kizhithur villages in Tiruvannamalai Taluk and Kadaladi, Kunathur and Kizhathur villages in Polur Taluk.

The components of the scheme are Earth dam, Masonry spillway and River sluice.

For implementing this scheme, an extent of 190.42 hectares of patta dry lands, 103.75 hectares of poramboke lands, and 13.34 hectares of forest lands are required. Acquisition of patta land and transfer of poramboke lands are under way. Forest lands handed over to Public Works Department. NABARD has been approached for loan assistance.

Preliminary works for preparation of design and drawings are in progress.

The Budget provision for the year 2003-04 is Rs. 250.00 lakh.

**(11) VARATTAR – VALLIMADURAI RESERVOIR
(DHARMAPURI DISTRICT)**

This scheme contemplates formation of a reservoir across Varattar near Vallimadurai village in Harur Taluk in Dharmapuri District. The Government have sanctioned an amount of Rs.19.20 crore for this scheme. The Government have accorded sanction for the Revised Estimate for an amount of Rs.35.95 Crore .

This scheme will stabilise an extent of 110 hectares of wet lands besides benefiting an extent of 1047 hectares of single crop dry lands under Keeraipatti anicut, Ellappudayampatti anicut and Mankuppam Eri benefiting Vallimadurai, Thathavalasi, Somanathan, Keeraipatty, Kudumiyampatti, Achalvadi and Somanathampudur villages in Harur Taluk.

The components of this scheme are Earth dam, Surplus weir, Head sluices and Canal.

For implementation of this scheme, an extent of 94.31 hectares of patta dry land and 24.87 hectares of reserve forest lands have to be acquired in addition to the transfer of 23.82 hectares of poromboke land. The Government of India has accorded final approval for diversion of forest land on 22-12-2000.

Main works are in progress. "NABARD" has accorded approval for loan assistance.

The Budget provision for the year 2003-04 is Rs. 1496.00 lakh.

(12) KALVOI – SADAYANERI (THOOTHUKUDI DISTRICT)

The Government have sanctioned an amount of Rs.12.33 crore for this scheme which comprises widening the existing Kalvoi – Sadayaneri Channel upto Kalvoi Tank and widening the existing Sadayaneri Channel, excavation of Sadayaneri Extension Channel, improvements to the existing Mudalur Odai from Karumeniyar to Vairavantharuvai and excavating a link canal from Vairavantharuvai to Puthantharuvai.

This scheme contemplates utilising the Thambaraparani surpluses for filling twelve tanks in Sadayaneri and Thanjaikkulam to irrigate 314 hectares of ayacut. Besides, two Tharuvais (lakes) will also get filled which will help recharge 634 wells in four villages for irrigating coconut cultivation in 875 hectares. This scheme will also benefit Kalvoi, Vellur, Udayarkulam, Vellamadam, Pidaneri, Eluvarimukki, Nangaimazhi, Sathankulam, Sasthanvinallur, Kumadikottai, Thirupanikkuthan Tharuvai and Pattakurichi villages in Tiruchendur and Sathankulam Taluks.

This work is now taken up under State funds and 98% of works completed. Balance works are in progress at various stages.

The Budget provision for 2003-04 is Rs.0.01 lakh.

**(13) RENOVATION OF NARAYANA CAUVERY CHANNEL
(RAMANATHAPURAM DISTRICT)**

The Government have sanctioned the scheme for Rehabilitation of Narayana Cauvery Channel and its anicut (Mandalamanickam Anicut) to feed Sayalkudi tank and other 33 tanks in Ramanathapuram District at an estimated cost of Rs.5.75 crore.

This scheme gives irrigation support to 1942.97 hectares of lands in Mandalamanickam, Kamuthi, Mandalnadu, K.Nedungulam, Seemanendal, Kundukulam, K.Veppankulam, O.Karisalkulam, Kovilankulam, Koomboothi, M.Pudukulam and Villanendal villages in Kamuthi Taluk, Kallakari village in Tiruchuli Taluk, Sayalkudi, M.Karisalkulam, N.Karisalkulam, A.Usilangulam, S.Vagaikulam, Pillayarkulam, S.Keerandai and Keela Allikulam villages in Kadaladi Taluk of Ramanathapuram District.

90% works completed. Balance works are in progress.

The Budget provision for the year 2003-04 is Rs. 200.00 lakh.

**14. TANK ACROSS UPPU ODAI
(TIRUCHIRAPPALLI DISTRICT)**

The Government have sanctioned the scheme for formation of a tank across the Uppu Odai, its confluence with Nandiar near Siruvayalur village Hamlet of Kanakiliyanallur village in Lalgudi Taluk, Tiruchirappalli District at an estimated cost of Rs. 4.18 crore.

This scheme will provide irrigation facilities to a new dry extent of 152 hectares in Kanakiliyanallur village in Lalgudi Taluk.

The components of the scheme are formation of earth bund, surplus weir, three irrigation sluices and three Channels. Nearly 75% of the work has been completed. Further works are in progress.

The Budget provision for the year 2003-04 is Rs. 60.00 lakh.

**(15) TANK ACROSS MUDALAI MUTHU VARI
(THANJAVUR DISTRICT)**

The Government have sanctioned the scheme for formation of a tank across Mudalai Muthu Vari in Chennampatti village in Thanjavur Taluk and District at an estimated cost of Rs.9.73 crore.

This scheme will stabilise 110 hectares of existing wet ayacut, bridge a gap of 9 hectares of wet land and provide irrigation facilities to a new dry extent of 364 hectares in Chennampatti and Vallampudur villages in Thanjavur District and Karumpoondi village in Pudukottai District.

The components of this scheme are 2300 metre long earth bund, uncontrolled weir and four sluices. Totally 78.50% of the works has been completed. The remaining works are in progress. Land acquisition process under private negotiations is in progress

The Budget provision for the year 2003-04 is Rs. 200.00 lakh.

(16) GADANA EXTENSION SCHEME (TIRUNELVELI DISTRICT)

The Government have sanctioned the scheme for formation of an extension reservoir on the right flank of the existing Gadana Dam in Ambasamudram Taluk of Tirunelveli District at an estimated cost of Rs.18.82 crore.

The scheme will stabilise irrigation in an extent of 511 hectares, bridge a gap in 187 hectares and provide irrigation facilities to a new extent of 67 hectares in Sivasailam, Mela Ambur, Keela Ambur and Mannarkoil villages in Ambasamudram Taluk.

The components of the scheme are earth bund of 930m length with one irrigation sluice, main canal with 3 branch canals for a total length of 18.71 Km and formation of an inter-connecting water way by cutting open the saddle dam for a length of 120m.

About 70% of works are completed and the balance works are in progress. NABARD has accorded sanction for loan assistance for this scheme.

The Budget provision for the year 2003-04 is Rs. 294.20 lakh.

(17) TANK ACROSS NAYODAI (DINDIGUL DISTRICT)

The Government have sanctioned the scheme for formation of a tank across Nayodai a tributary of Mangariyar in Kannivadi village, Dindigul Taluk and District at an estimated cost of Rs.3.50 crore. Revised Administrative sanction for this scheme has also been accorded for Rs.7.2 Crore.

The scheme will provide irrigation facilities to a new extent of 148 hectares in Kannivadi, Alanthuranpatti, Veerapudaiyanpatti and Thettupatti villages in Dindigul Taluk and District.

The components of the scheme are earth bund of 620-m length, high coefficient weir of 30-m length, one tower head sluice and field canal of 4120 m length.

Construction of surplus weir and forming earthen dam are in progress.

The Budget provision for the year 2003-04 is Rs. 200.00 lakh.

(18) TANK ACROSS RAMAKKAL ODAI AND ANAIVILUNDAN ODAI (DINDIGUL DISTRICT)

The Government have sanctioned the scheme for the formation of tank across Ramakkal O dai and Anaivilundan O dai, tributaries of Kodaganar river in A.Vellode village and Keelakottai village in Dindigul Taluk and District at an estimated cost of Rs.3.55 crore. Revised Administrative sanction for this scheme has also been accorded for Rs.5.65 Crore.

This scheme will provide irrigation facilities to 107.65 hectares of new dry lands in A. Vellode and Keelakottai villages in Dindigul Taluk and District.

The components of this scheme are earth bund 480m long, weir with a surplus course to connect the weir to Ramakkal Odai, Head sluice, River sluice and Field canals. The High Court, Chennai has ordered not to proceed with the work without settling the land acquisition charges.

The Budget provision for the year 2003-04 is Rs.450.00 lakh.

**(19) RESERVOIR ACROSS NALLATHANGAL ODAI
(ERODE DISTRICT)**

The Government have sanctioned the scheme for the formation of a reservoir across Nallathangal Odai near Eswarancoil in Ponnivadi village of Dharapuram Taluk in Erode District at an estimated cost of Rs.31.01 crore. Revised Administrative sanction for this scheme has also been accorded for Rs.42.70 Crore.

This scheme will provide irrigation facilities to 1,919.87 hectares of new dry extent in Nallanpalayam, Alampalayam, Poramium Thurambadi, Moolanur and Ponnivadi villages of Dharapuram Taluk in Erode District.

The components of this scheme are earth dam 3450m, uncontrolled spillway, one head sluice and one river sluice. Construction of quarters and Sub Division Office Buildings is nearing completion. Formation of Earth Dam and Construction of Spillway are in progress

The Budget provision for the year 2003-04 is Rs.450.00 lakh.

**(20) ANICUT ACROSS ANDI ODAI
(TIRUCHIRAPPALLI DISTRICT)**

The Government have sanctioned the scheme for formation of an Anicut across Andi Odai near Kallagam village in Lalgudi Taluk, Trichichirappalli District at an estimated cost of Rs.1.21 crore.

This scheme will stabilise existing irrigation in an extent of 82 hectares of wet ayacut and provide irrigation facilities to a new dry extent of 84 hectares in Kallagam village of Lalgudi Taluk in Tiruchirappalli District and Poondi village of Ariyalur Taluk in Perambular District.

The components of this scheme are Masonry Anicut of 36m length, one head sluice, main canal (left side) 3,350m long with cross masonry works and flood bank 700m long.

All the works have been completed.

(21) RESERVOIR ACROSS NAGARIYAR NEAR SASTHAKOIL (VIRUDHUNAGAR DISTRICT)

The Government have sanctioned the scheme for formation of a reservoir across the river Nagariar near Sasthakoil in Rajapalayam Taluk of Virudhunagar District at an estimated cost of Rs.7.97 crore.

This scheme will stabilise 1016 hectares of existing ayacut and bridge a gap of 184 hectares under the existing 13 tanks in North Devathanam, South Devathanam, Sethur, Muthusampuram, Kovilur, Nallamangalam and Chettiarpatti villages in Rajapalayam Taluk.

The components of this scheme are earth bund for a length of 1600m, uncontrolled spillway, river sluice and excavation of new surplus course.

50% work completed. Balance Work is in progress. NABARD has accorded sanction for loan assistance for this scheme.

The Budget provision for this scheme 2003-04 is 493.00 lakh.

**(22) RESERVOIR ACROSS VELLAKKAL KANAR
(VELLORE DISTRICT)**

The Government have sanctioned the scheme for formation of a reservoir across Vellakkal Kanar near Vinnamangalam village in Vaniyambadi Taluk of Vellore District at an estimated cost of Rs.7.70 crore.

This scheme will stabilise 431 hectares of existing irrigation besides bridging a gap of 57 hectares in Kannadikuppam, Periyankuppam, Sanarkuppam, Melkrishnapuram, Ambur, Samalapuram, Karunwaram, Vadapudupatti, Kilmurugi, Thottalam, Madumur and Katanpakkam villages in Vaniyambadi Taluk.

The components of this scheme are earth dam 320 m long, surplus weir of 40 m length and construction of River sluice.

For implementation of this scheme, 35.82 hectares of forest land is required. Stage I approval for diversion of forest land is complied by Government of India. Work will be commenced after Land Acquisition.

The Budget provision for the year 2003-04 is Rs. 200.00 lakh.

(23) TANK ACROSS SIRUMALAIYAR (DINDIGUL DISTRICT)

The Government have sanctioned the scheme for formation of a new tank across Sirumalaiyar near Rajadhani Kottai village in Nilakottai Taluk of Dindigul District at an estimated cost of Rs.4.91 crore.

Revised administrative sanction has been accorded for Rs.8.87 Crore.

This scheme will provide irrigation facilities to a new dry extent of 128 hectares in Oruthattu village in Nilakottai Taluk.

The components of this scheme are earth bund of 975-m length including surplus weir of 40m length, one head sluice and surplus course for a length of 60m. Earth bund 0.500m sluice and surplus weir have been completed. Balance works are held up due to land acquisition.

(24) AUGMENTATION OF WATER SUPPLY TO VELLIANAI AND THREE OTHER TANKS FROM KODAGANAR RESERVOIR (KARUR DISTRICT)

The Government have sanctioned the scheme for augmentation of water supply to Vellianai tank and three other tanks from Kodaganar reservoir in Karur Taluk and District at an estimated cost of Rs.1.00 crore.

This scheme will stabilise 440 hectares of existing wet ayacut besides bridging a gap of 116 hectares in Vellianai, Uppidamangalam, Veerarakiam and Valayalkaranpudur villages in Karur Taluk and District.

The components of this scheme are rehabilitation and improvements to the Right Main Canal for the length of 53.50 Km, repairs to existing cross masonry works and construction of 5 inlet sluices.

80% of the work has been completed. Balance work is in progress.

(25) IMPROVEMENTS AND BEAUTIFICATION OF PARKS IN AND AROUND RESERVOIRS

The Government have sanctioned the proposal for improvements and beautification of the parks in Krishnagiri, Sathanur, Amaravathi, Vaigai, Aliyar, Bhavanisagar, Manimuthar, Vidur and Mukkombu Dam sites at an estimated cost of Rs.3.00 crore.

The improvements and beautification works in the Krishnagiri, Aliyar, Bhavanisagar, Amaravathi, Sathanur, Vaigai, Vidur and Mukkombu dam and Manimuthar Dam have been completed.

The Budget provision for the year 2003-04 is 0.01 lakh.

(26). DESILTING AND MODERNISATION OF VANDIYUR TANK (MADURAI DISTRICT)

The Government have sanctioned the scheme of Desilting and Modernisation of Vandiyur Tank and establishing park and beautification at an estimated cost of Rs.2.50 crore.

Desilting works are completed.

(27) FORMATION OF 18th CANAL IN UTHAMAPALAYAM TALUK OF THENI DISTRICT

The Government have sanctioned the scheme for formation of 18th Canal in Uthamapalayam Taluk in Theni District at an estimated cost of Rs.26.52 crore.

The scheme will stabilise irrigation in an extent of 511.16 hectares bridge a gap in 73.90 hectares and provide irrigation facilities to a new extent of 22.81 hectares in Tempucheri, T.Chindalacheri, Pannaipuram, Kombai, Sankarapuram, Vembakottai, Thevaram, Lakshminaickanpatti, Pothaipuram, Meenakshipuram, Gudalur and Uthamapuram village in Uthamapalayam Taluk.

The components of the scheme are construction of head sluice and excavation of a canal for a length of 38.90 km and formation of 4 numbers of new tanks at an estimated cost of Rs.26.52 Crore. The works have been split up into 3 reaches. Works in all the three reaches are in progress.

(28) STRENGTHENING THE EXISTING UPSTREAM AND DOWNSTREAM CUT-OFF WALLS OF UPPER BARRAGE AT UPPER ANICUT (MUKKOMBU)(TIRUCHIRAPALLI DISTRICT)

The Government have sanctioned the scheme for strengthening the existing Upstream and Downstream cut off walls of Upper barrage at Upper Anicut (Mukkombu) at an estimated cost of Rs.6.00 crore.

Works have been completed.

(29) RESERVOIR ACROSS MAMBAZHATHURAIYAR (KANYAKUMARI DISTRICT)

The Government have sanctioned the scheme for formation of a reservoir across Mambazhathuraiyar near Villukuri village in Kalkulam Taluk in Kanyakumari District at an estimated cost of Rs.9.50 crore.

This scheme will stabilise 3.57 hectares, bridge a gap of 25.82 hectares in single crop and 18.14 hectares in second crop and provide irrigation facilities to a new extent of 308.98 hectares in Kalkulam and Villukuri villages in Kalkulam Taluk in Kanyakumari District.

The components of the scheme are formation of earth dam of 295 m length, surplus weir of 50m length and construction of sluice and excavation of right and left side channels.

(30) EXTENSION OF NILAIYUR CHANNEL (MADURAI DISTRICT)

The Government have sanctioned the scheme for extending the Nilaiyur channel from upstream of Perungudi tank to feed Valankulam and Kambikudi tanks series in Madurai, Virudhunagar and Sivagangai Districts at an estimated cost of Rs.8.94 crore.

The scheme will stabilise irrigation in an extent of 2686.53 hectares and bridge a gap in 1126.03 hectares in Valayapatty, Thothiyapatti, Chinnaulagani, Valayankulam, Nedu Madurai, Kudakovil, Vellarakulam, Periya Alangulam, Sambakulam, Kombadi, Ayyampatti, Eliyarpatti, Mochipatti, Paraipatti, Pulichangulam, Anaikulam, Sangumadai, Chalanguruni, Nallur, Vadakkupeerikulam, Pappanodai, Ramankulam, Kaluvankulam, Virathanur, Muthankulam, Panaikulam, M.Alangulam, Nedunkulam, Sathankulam, Sagadathatti, Chinnaudappu, Kuthiraiikutty, Kodal Sengulam, Kosarankundu, Udaikulam, Kosarapatti and Konthakulam villages in Madurai South Taluk, Chinna Ulagani, Virusankulam, Vidathakulam and Keelauppalikundu villages in Thirumangalam Taluk Kadambankulam, Aviyoor, Pulapatti, Mangulam, Kuraadi, Udaikulam, Arasakulam, Royarpatti, Kambikudi, Pappankulam, S.Alangulam, Anmalperukki, Chatrapulamkulam, Pannaivalathanpatti, Vetrilaimurichanpatti and Allalaperi villages in Kariapatti Taluk, Kancharankulam, Valayankulam, Surampatti, Thiraliyar, Mukkudi, Ilandaikulam, Vadurankulam, Karankalakudi, Rakkankulam, Sengulam, Vadakkur, Paraiyankulam and Usalankulam villages in Manamadurai Taluk.

The components of this scheme are construction of head sluice-cum-regulator, excavation of main canal for a length of 7.850 Km and branch canal for a length of 3.00 Km including cross masonry works.

55% of works completed. Balance works in progress. NABARD has accorded approval for loan assistance. The revised estimate for an amount of Rs.19.49 Crore is approved by Government.

(31) ULLAR RESERVOIR ACROSS PALAIYAR AND VALAMAZHAIYAR (TIRUNELVELI DISTRICT)

The Government have sanctioned the scheme for formation of a reservoir across Palaiyar and Valamazhaiyar near Sivagiri village in Sivagiri taluk, Tirunelveli District at an estimated cost of Rs.39.20 crore.

The scheme will stabilise irrigation in an extent of 971.95 hectares and bridge a gap in 595.18 hectares in Royagiri, Sivagiri, Thenmalai, Thirumelapuram, Naranapuram, Kottaiyar,

Chinthamaniperi, Koodaloor and Ramanathapuram villages in Sivagiri Taluk, Panaiyur, Vayali, Marathoni, Thiruvenkadam, Chatrapatti and Karichathan villages in Sankarankoil Taluk.

The components of this scheme are earth dam, spillway, construction of 2 sluices, improvements to Rasingaperiar and Kulasekaraperiar, construction of dividing wall and improvements to the existing anicuts and tanks.

Finalisation of design is under progress.

The Budget provision for the year 2003-04 is Rs.100.00 lakh.

(32) RESERVOIR ACROSS MIRUKANDANADHI (TIRUVANNAMALAI DISTRICT)

The Government have sanctioned the scheme for formation of a reservoir across Mirukandanadhi near Melsolankuppam village in Polur taluk in Tiruvannamalai District at an estimated cost of Rs.16.79 crore.

This scheme will stabilise irrigation in an extent of 778.05 hectares and bridge a gap in 81.10 hectares in Melsolankuppam, Gangavaram, Senandal, Nallanpillai Pettran, Gangamaladevi, Kettavarampalayam, Siruvallur, Ernangalam and Solavaram in Polur taluk of Tiruvannamalai District.

The components of this scheme are earth dam of 670-m length, uncontrolled spillway, one head sluice and one river sluice.

For implementing of this scheme 80.82 hectares of patta land and 23.37 hectares of poramboke land are required. Government have accorded sanction for acquisition of private patta land under urgency clause. The work will be taken up during the current year. "NABARD" has been approached for loan assistance.

The Budget provision for the year 2003-04 is Rs.440.00 lakh.

(33) REHABILITATION AND MODERNISATION OF THE LOWER BHAVANI IRRIGATION SYSTEMS – ESTIMATE Rs. 55 Crore AND INCLUSION OF 23,000 ACRES OF LAND IN LOWER BHAVANI AYACUT.

The Government have issued orders to include 23,000 acres of land in Lower Bhavani ayacut.

During 1999-2000 an amount of Rs.6.84 Crore was allotted and desilting work is carried out in Lower Bhavani Basin System for a total length of 313 KM for Canals, Drains, Channels.

During 2000-2001, an amount of Rs.6.27 Crore was allotted for desilting works in canals, channels, drains in Lower Bhavani Basin System.

During 2001-2002, an amount of Rs.1.62 Crore was allotted.

Desilting works were carried out for a total length of 280 KM, out of 800 KM. length. During the year 2002-03, more work can be done since the closure period is 4 months. Balance works have been programmed to be completed within two years.

(34) ADDITIONAL FUNDS FOR REHABILITATION OF 4 CHANNELS IN KUMBAKONAM TOWN LIMIT – Estimate Rs. 1.91 crore.

Three channel work completed. Remaining one channel 50% of work completed.

(35) DESILTING UYYACONDAN CHANNEL, KUDAMURITY RIVER, ARIYAR, KORAIYAR AND STRENGTHENING OF BANKS FOR PROTECTING FLOOD DAMAGES IN TIRUCHY TOWN -ESTIMATE Rs. 2.50 crore.

Works have been completed.

(36) REMOVAL OF JUNGLE AND BUSHES AND KATTAMANAKKU IN RIVER CAUVERY AND PORTION FROM TRICHY TO KARUR - ESTIMATE Rs. 10.00 lakh.

Works have been completed.

(37) CONSTRUCTION OF SYPHON IN PUGALUR CHANNEL TO DIVERT THE POLLUTED NOYYAL ORATHUPALAYAM WATER - ESTIMATE Rs. 35.00 lakh

Tender was accepted but work could not be commenced in view of pendency of a writ petition in High Court, Chennai.

(38) REHABILITATION OF ANICUT ACROSS NANGANJIAR ODAI NEAR PALLAPATTI IN KARUR DISTRICT – ESTIMATE Rs. 33.00 lakh.

65% of works completed. Balance work is in progress.

(39) DESILTING KATHIRIINKULAM AND ITS CHANNELS IN DINDIGUL DISTRICT – ESTIMATE Rs. 50.00 lakh

40% of work completed. Balance works are in progress.

(40) BALANCE WORKS IN CANAL CHENNEMPATTI ANICUT SCHEME –ESTIMATE Rs. 15.00 lakh

Work has been completed.

(41) BALANCE WORKS IN PERIYAR MAIN CANAL FROM MELUR TO MARAVANMANGALAM TANK – ESTIMATE Rs. 1.00 crore.

62% of work is completed. Further work is in progress.

(42) REHABILITATION OF VILATHURAI PUMPING SCHEME IN KUZHITHURAI RIVER – ESTIMATE Rs. 5.00 lakh. (TAKEN UP UNDER W.R.C.P)

Work has been completed.

(43) FLOOD PREVENTION SCHEME IN TRICHIRAPALLI CITY

Government have accorded sanction for implementation of a flood prevention scheme at an estimated cost of Rs.50.00 Crores to avert the recurrence of flood damages occurred during November 1999 in Tiruchirappalli City.

Under the scheme, obstruction at the place where Kudamurutti river joins the Cauvery river will be removed, Ariyaru, Koraiyaru and Kodingal drainage channel will be widened and the embankments of Uyyakondan canal will be strengthened.

The estimate has to be revised for lining the channels both sides and bottom within existing bed width, without any land acquisition and for current schedule of rates.

This scheme will be implemented with HUDCO loan assistance during 2003-2004.

DETAILS OF PROGRESS OF MINOR IRRIGATION SCHEMES SANCTIONED AS PART II SCHEMES FOR 1999 – 2000**(1) Diversion Of Vaigai Flood Water To Feed Rajakambeeram Tank And 15 Other Tanks (Sivagangai District)**

The Government have sanctioned the scheme for “Diversion of Vaigai flood waters to feed Rajakambeeram tank and 15 other tanks in Manamadurai taluk of Sivagangai District” at an estimated cost of Rs.3.09 crore.

This scheme will stabilise irrigation in an extent of 1039.61 hectares, bridge a gap of 198.99 hectares and provide irrigation facilities to a new extent of 8.25 hectares in M.Karisalkulam, Chinnakkannanur, Rajakambeeram, Kilangattur, Annavasal and Arimandapam in Manamadurai taluk Velaneri, Kallikudi and Pidariseri in Paramakudi taluk.

The components of this scheme are head regulator at L.S. 32.050 km. from Vaigai river, lining the bed and sides of right main canal from LS 32,050 m. to 33,900 m., regulator at LS 33,885 m. and head sluice at LS 33,870 m. of right main canal, excavation of supply channel for 2.20 km. and cross-drainage works.

Standardisation of bund for 15 tanks is completed. The works will be completed in 2003-04.

(2) Anicut Across Vellar To Feed Panchatti And Other Tanks (Pudukkottai District)

The Government have sanctioned the scheme for “Construction of an anicut across Vellar to feed Panchatti and other tanks in Alapirandan village in Arantangi taluk of Pudukkottai District” at an estimated cost of Rs.141.00 lakh.

This scheme will stabilise 672.14 hectares and bridge a gap of 35.11 hectares of wet lands in Panchatti, Amanji, Kundagavayal, Keelachery, Sivanthankadu and Perunavalur villages.

The components of this scheme are construction of anicut, excavation of supply channel, forming of flood bank and standardisation of tanks.

NABARD has accorded sanction for loan assistance for this scheme. The scheme is physically completed.

**Progress of Schemes sanctioned during 2001-2002
(1) Minor Irrigation Schemes**

(Part II Scheme)

Sl. No	Name of Scheme	Details	Stage of Work.
1	Formation of a tank across Mathalappallam river near Ramakondahalli Village in Pennagaram Taluk of Dharmapuri District.	Est. Amount: Rs.1415 Lakhs Benefit I Crop 700 Acres II Crop 400 Acres	Preparation of land plan schedule is in progress. Action is being taken to invite tenders. NABARD has been approached for loan assistance.
2.	Construction of anicut across old Coleroon in Perumpattu Village in Chidambaram Taluk of Cuddalore District.	Est. Amount: Rs.162 Lakhs Benefit 460 Acres	Tender received and it is under process. HUDCO has been approached for loan assistance.
3.	Excavation of new supply channels from Badathalar tank to feed Vennampalli tank and 10 other lower down tanks upto Kashimpur tank of Krishnagiri Taluk in Dharmapuri District.	Est. Amount: Rs.700 Lakhs Benefit 840.74 Acres New 500 Acres	Preparation of land plan schedule is in progress. Action is being taken to invite tenders. NABARD has been approached for loan assistance.
4.	Kadanjeri (Pudukadai) lift irrigation scheme in Vilavancode Taluk of Kanyakumari District.	Est. Amount: Rs.219 Lakhs Benefit 572.50 Acres	Work is proposed to be completed during 2003-04.
5.	Formation of a tank across Vellapparai Odai in Theppampatti Village in Andipatti Taluk of Theni District.	Est. Amount: Rs.119.00 Lakhs Benefit 104.28 Acres	70% of work completed. Further work in progress.

(2) Special Minor Irrigation Programme Schemes

Sl. No.	Name of Scheme	Details	Stage of work
1	Formation of Pond across Kanar near Payappanaikanpet H/o Pachur village of Tirupattur taluk in Vellore District	Estimated Cost : Rs.12.00 Lakh Benefit New : 19.88 Acre Additional F.P :17.36MT	Land acquisition is under progress. Work to be started

2	Formation of a Pond across hillstream in S.F.No.19 in Sempalli village in Gudiyatham Taluk in Vellore District	Estimated Cost : Rs.13.00 Lakh Benefit New : 33.39 Acre Additional F.P :30.88MT	Work is nearing completion.
3	Formation of a new pond in S.F.No.123 of Unanthangal village in Rasipuram Taluk in Namakkal District	Estimated Cost : Rs.25.00 Lakh Benefit Stabilisation : 19.19 Acre New : 37.35 Acre Additional F.P :21.07MT	Scheme dropped in G.O.Ms.No.304 Public Works dated 9.8.02.
4	Restoration of Pudu Eri pond in Periyapanamutu village in Krishnagiri Taluk in Dharmapuri District	Estimated Cost : Rs.15.00 Lakh Benefit New : 65.10 Acre Additional F.P :32.55MT	70% work completed. Further work is in progress.
5	Formation of a new pond in S.F.No.724 of Pillaipalayam village in Musiri Taluk in Trichy District	Estimated Cost : Rs.23.00 Lakh Benefit New : 51.00 Acre Additional F.P :23.93MT	Work completed.
6	Construction of an anicut across Akasakumuliyar river to supply Mullipadi tank through Mullipadi Channel, Musiri Taluk in Trichy District	Estimated Cost : Rs.32.00 Lakh Benefit Stabilisation : 58.95 Acre Gap : 244.74 Acre Additional F.P:342.42MT	Work in progress.
7	Formation of a new pond across vari near Melmunayanur village, Kulithalai taluk in Karur District	Estimated Cost : Rs.13.00 Lakh Benefit: Stabilisation : 103.00 Acre Additional F.P :44.00 MT	Tender accepted. Work is to be started soon.
8	Construction of an anicut across Koraiyar river to feed Nallamangankulam and other four tanks in Rajagiri Village in Kulathur Taluk in Pudukottai District	Estimated Cost : Rs.47.00 Lakh Benefit: Stabilisation : 87.29 Acre New : 33.11 Acre Gap : 7.83 Acre Additional F.P:109.06MT	Work is in progress
9	Formation of a new tank near Sukkampatti village Vedachandur Taluk in Dindigul District	Estimated Cost : Rs.38.00 Lakh Benefit: New : 37.00 Acre Additional F.P :43.42MT	Work to be taken up and completed during 2003-04.

10	Formation of a pond in S.F.No.73, 74 & 75 in Vadipatti of Oddanchattram Taluk in Dindigul District	Estimated Cost : Rs.14.00 Lakh Benefit: New : 37.50 Acre (Double Crop) Additional F.P:35.82 MT	Work to be taken up and completed during 2003-04.
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(3) ANTI SEA EROSION WORKS

Construction of Rubble Mound Wall along the Shore of North Chennai Coast	Estimated Cost : Rs.283.00 Lakhs Work nearing completion.
Protecting the left over portion of coast line from Thiruvattiyur to Thalaukuppam to a total length of 2.38 KM.	Estimate Cost Rs.1057.39 Lakh. Work will be taken up.

2003-2004 New Schemes proposed under Part II

Sl. No.	Name Of Work	Details
Minor Irrigation Schemes		
1.	Conversion of diversion mud bund into masonry training wall in Palar river at the off take of Athur Vadapathy tank supply channel in Chengleput Taluk, Kancheepuram District	Estimated Amount: Rs.120.00 Lakh Benefits Stabilisation: 398.13 Acres Gap : 293.65 Acres
2.	Formation of a pond across Sambarpallam Odai in SF No.18 in Alamarathupatty Village and conversion of defunct Sorakkapatti tank to a pond by linking the surplus of Sambarpallam pond in Mettur Taluk in Salem District	Estimated Amount: Rs.125.00 Lakh Benefits New :450.32Acres
3.	Formation of a new tank across Pachilainachiamman Odai (Manthurai Odai) near G.Kallupatty in Periyakulam Taluk of Theni District	Estimated Amount: Rs.127.00 Lakh Benefits New :160.00Acres
4.	Formation of a new tank across Periyaoothu Odai in Chinnaovalapuram Village in Uthamapalayam Taluk of Theni District	Estimated Amount: Rs.202.00 Lakh Benefits New Ayacut : 117.46Acres

Special Minor Irrigation Schemes

1.	Construction of an anicut across Suriyar to feed Pappankulam and other tanks in Kulathur Taluk, Pudukottai District	Estimated Amount: Rs. 70.00 Lakh Benefits Stabilisation: 86.64 Acres Gap:98.34 Acre.
2.	Construction of an anicut across Pungampallam near Godupatti in Vattivanahalli village of Pennagaram taluk of Dharmapuri District	Estimated Amount: Rs. 74.00 Lakh Benefits New Ayacut : 86.05Acres
3.	Improvement to Puliyankulam	Estimated Amount: Rs.36.00

	Supply Channel and excavation of new channel from Puliyankulam to Pennathur Tank in Pennathur village of Manapparai Taluk in Tiruchi District	Lakh Benefits Stabilisation: 102.47 Acres Gap : 83.58 Acres
4.	Formation of a pond across Odai in Palakombai Village in Andipatti Taluk in Theni District	Estimated Amount: Rs.54.00 Lakh Benefits Stabilisation: 78.64 Acres Gap :63.35Acres

ADDITIONAL IRRIGATION POTENTIAL

During 2003-2004, an additional irrigation potential of 9804 hectares is targetted to be created from Medium and Minor Irrigation Projects (Anicuts/ Reservoirs).

WATER RESOURCES CONSOLIDATION PROJECT (W.R.C.P)

(i) The Water Resources Consolidation Project at a total cost of Rs.840.84 crore was cleared by the World Bank in 1995. Government of Tamil Nadu accorded sanction for an amount of Rs.807.49 crore as the base cost in September 1995. The Project is to have come to a close on 31.03.2002. Based on the request of the State Government, the World Bank has given approval for extending the scheme upto 31.3.2003. Now the World Bank has further extended the project period for one more year i.e., upto 31.03.2004.

(ii) The project is implemented as a sector investment loan, financing an agreed State-wide programme to improve the productivity and sustainability of Tamil Nadu's irrigation sector, to introduce multi-sectoral water planning, to integrate farmers in irrigation management and to strengthen the State's institutional and technical capability in water development, management and planning.

(iii) The project will enhance agricultural production in about 6 lakh hectares (about 50% of the State's surface irrigated area) directly benefiting some 40 lakh farmers. Irrigation will be put on a sustainable footing through rehabilitation and modernisation of the systems linked with farmer participation and upgraded maintenance and water management.

(iv) The WRCP provides for rehabilitation and modernisation of 16 irrigation systems and 25 Minor Irrigation Schemes in Tamil Nadu (except those in Cauvery Basin) and for completion of the nine on-going irrigation projects, viz., Poigaiyar, Nambiyar, Sothuparai, Mordhana, Rajathopekanar, Kodumudiyar, Vadakkupachayar, Adavinainarkoil and Gridhamal schemes.

(v) The Government is giving high priority to this project. Administrative sanction for 2347 packages at a cost of Rs. 1062.00 crore has been accorded. The details of estimate are as follows.

Sl. No.	Details of works	No. of packages approved (including slices)	Value (Rs. in crore)
1.	a) System Improvement and Farmers' Training (SIFT) and scheme Completion b) Minimum Rehabilitation Works	343 946	744.53
2.	Farmers' Organisation Turnover	15	4.00
3.	Equipment for Operation & Maintenance	3	18.00
4.	Irrigation Management and Training Institute	14	13.00
5.	Water Planning and Research	68	42.00
6.	Environmental Management	12	10.00
7.	Land Acquisition & Economic Rehabilitation	4	17.00
8.	Institutional Strengthening and	311	77.87

	general Such as buildings, computers, vehicles, furniture's, telephones etc and consultancy.		
9.	Additional Schemes		
a)	Rehabilitation of Non-System Tanks 620 Nos.	620	100.00
b)	Dam Safety spill over works. (Gomukhi, Sathanaur, willington, Vidur and Sethiathope)	5	20.60
c)	Institutional Strengthening (Computerisation of Management information system)	6	15.00
	TOTAL	2347	1062.00

The budget allocation for this project for 2003-2004 is Rs.16.98 crore.

At the commencement of Annual Plan 2003-2004, the following Major and Medium Irrigation Schemes will be continued under W.R.C.P.

**(44) POIGAIYAR RESERVOIR - WRCP
(KANYAKUMARI DISTRICT)**

This scheme contemplates formation of a reservoir across Poigaiyar near Aralvoimozhi village in Thovalai Taluk in Kanyakumari District.

By implementing this scheme, a new ayacut of 202 hectares of dry lands will be benefited and a gap of 57 hectares will be bridged besides stabilising an extent of 192 hectares in Shenbagaram Pudur and Aralvoimozhi villages of Thovalai Taluk and Palavoor village of Radhapuram Taluk. Besides, 20 Mcft of water will be spared to meet the drinking water needs of four villages in Thovalai Panchayat Union.

A portion of earthdam was executed under State funds. Balance works of earth dam, excavation of new main canal including cross drainage works, excavation of surplus course, excavation of link canal, formation of road, construction of parapet wall, Improvements to Chungan Odai, balance works in surplus weir and formation of approach road have been completed at revised estimate cost of Rs.11.75 crore under Water Resources Consolidation Project.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

**(45) NAMBIYAR RESERVOIR - WRCP
(TIRUNELVELI DISTRICT)**

This scheme is to form a reservoir across Nambiyar river in Radhapuram Taluk of Tirunelveli District.

The scheme aims at irrigating 152 hectares of new dry lands besides bridging a gap of 185 hectares and stabilising an extent of 369 hectares in Kottaikarunkulam, Urumankulam, Ramanathapuram, Karaichitti - Puthur, Kasthurirangapuram, Kumarapuram, Muthumothumozhi and Thisayanvilai villages of Radhapuram Taluk.

Earthdam and construction of right side canal sluice and excavation of right main canal have been completed under State fund. The balance works are taken up under Water Resources Consolidation Project at a revised estimated cost of Rs.20.50 crore and completed except 3 additional packages.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

**(46) RAJATHOPEKANAR RESERVOIR – WRCP
(VELLORE DISTRICT)**

This scheme contemplates the formation of a reservoir across Rajathopekanar near Chengi village in Gudiyatham Taluk of Vellore District.

The scheme has been designed to stabilise an extent of 202 hectares of existing ayacut besides bridging a gap of 17 hectares in Chengi, Latteri, Vilundakkal, Oyyathur and Senur villages in Gudiyatham, Vellore and Vaniyambadi Taluks.

In this project earth dam, surplus weir, surplus course and canal sluice and lining works in canal from 0 m to 5000 m including cross drainage works have been completed under State funds.

Balance works in head works, excavation of link canal to feed Latteri, Vilunthakal and Oyyathur tanks and lining of channel for 5000 m including construction of cross drainage works were taken up at an estimated cost of Rs.2.56 crore under Water Resources Consolidation Project.

The scheme works have been completed on 31.7.2000.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

(47) RESERVOIR ACROSS KOUNDINYANADHI NEAR MORDHANA VILLAGE – WRCP (VELLORE DISTRICT)

This scheme contemplates formation of a reservoir across Koundinyanadhi near Mordhana village in Gudiyatham Taluk of Vellore District.

This scheme aims at providing an additional ayacut of 1152 hectares stabilising an extent of 2585 hectares and bridging a gap of 285 hectares spread over 34 villages in Gudiyatham and Vellore Taluks.

The construction of masonry dam was originally taken up during 1990-91. Subsequently the work was taken up under World Bank aided WRCP with effect from 01.07.1994. Under WRCP the project was modified to excavate new left and right main canal. The reservoir work was completed.

The balance work of excavation canal is in progress.

The Budget provision for the year 2003-04 is Rs. 17.01 lakh.

(48) ADAVINAINARKOIL RESERVOIR – WRCP (TIRUNELVELI DISTRICT)

This scheme is to construct a reservoir across Hanumanadhi in Mekkarai village in Shencottah Taluk of Tirunelveli District.

The scheme will stabilise 1562 hectares of existing ayacut and bridge a gap of 616 hectares in addition to providing new irrigation to an extent of 93 hectares in Vadagarai-Kilpidagai, Vadagarai-Melpidagai, Panmozhi, Achanpudur, Neduvayal, Kodikurichi, Nainaragaram, Kilangadu and Ayakudi villages of Shencottah and Tenkasi Taluks.

The Administrative approval for the scheme was accorded for Rs.37.69 Crore during May 1990.

The entire work has been completed for a revised estimate value of Rs.64.29 Crore under WRCP.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

(49) ANICUT ACROSS GRIDHAMAL RIVER NEAR ATHIKULAM VILLAGE – WRCP (VIRUDHUNAGAR DISTRICT)

This scheme is for the construction of an anicut, left and right side canals in Gridhamal river near Athikulam village in Virudhunagar District at an estimated cost of Rs.3.47 crore under Water Resources Consolidation Project.

It aims at stabilising 943 hectares of wet lands in Irunjirai, Ulakudi and six other tanks in Tiruchuli Taluk of Virudhunagar District and to bridge a gap of 323 hectares of ayacut in Athikulam, Manur, Maraiyur, Ulakudi, Narikudi, Irunjirai, Athithanendal and Varisaiyur villages of Tiruchuli Taluk.

All works such as, Construction of anicut and canal works in LMC and RMC have been completed, to an estimated value of Rs.2.53 Crore.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

(50) VADAKKUPACHAYAR RESERVOIR - WRCP (TIRUNELVELI DISTRICT)

This scheme envisages the formation of a reservoir across Vadakkupachayar, a tributary of Pachaiyar near Manjuvilai village in Nanguneri Taluk in Tirunelveli District.

This scheme aims at stabilising 574 hectares of existing ayacut, bridging a gap of 464 hectares of existing irrigated area besides providing irrigation facilities to a new extent of 769 hectares under 45 tanks in Kalakadu, Nanguneri, Ullankulam, Illankulam and Parappadi villages of Nanguneri Taluk. Also an extent of the existing single crop area of 1568 hectares will receive irrigation for a second dry crop.

The scheme has been completed in all respects under Water Resources Consolidation Project at a revised estimate cost of Rs.45.38 Crore.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

**(51) KODUMUDIYAR RESERVOIR – WRCP
(TIRUNELVELI DISTRICT)**

This scheme contemplates the formation of a reservoir across the jungle stream of Kodumudiyar and Kombaiyar at their confluence point near Tirukurungudi village in Nanguneri Taluk in Tirunelveli District.

This scheme is aimed to stabilise an extent of 791 hectares and bridge a gap of 779 hectares in addition to conversion of 193 hectares of single crop into double crop in Mayiladi, Eruvadi, Nambithalaivanpattiyam, Vadakku-Valliyoor, Therku-Valliyoor, Rajakkamangalam, Achampadu, Anaikulam, Thalaikulam, Therkku-Kallikulam, Shanmugarengapuram, Kumbikulam, Alanginaru Thirumalapuram and Radhapuram villages in Radhapuram and Nanguneri Taluks.

The works on improvements to the existing canals have been completed under State funds. Balance works have been completed at a revised estimate cost of Rs.30.50 Crore under Water Resources Consolidation Project except four additional packages.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

(52) SOTHUPARAI (VARAHANADHI) RESERVOIR – WRCP (THENI DISTRICT)

This scheme contemplates the formation of a reservoir across Varahanadhi near Tenkarai in Periyakulam Taluk in Theni District.

The scheme aims at stabilising 739 hectares of wet lands and bridging a gap of 27 hectares of wet lands besides irrigating a new extent of 405 hectares of dry land in Thenkarai and Thamaraiikulam villages of Periyakulam Taluk.

Construction of masonry dam has been partially completed under State funds. Balance works in masonry dam, canals, distributaries and buildings are implemented at an estimated cost of Rs.34.72 crore under Water Resources Consolidation Project.

All the works such as masonry dam, building works, road work, Excavation of canal and distributories including construction of cross masonry works were completed, at a revised estimate value of Rs.34.72 Crore. The proposal for construction of Project House at Dam Site has been dropped.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

Progress of various important works included under Water Resources Consolidation Project

Sl. No	Name of work	Est. amt. in Lakhs	Total No. of Packages	No. of packages completed	No. of packages in progress	No. of packages to be taken up.
1.	CHENNAI REGION Cheyyar Anicut	610.63	7	7	--	--

	System Rehabilitation work					
2.	Palar Anicut System Rehabilitation work	1883.45	18	18	--	--
3.	Poiney Anicut System Rehabilitation Work	651.03	8	8	--	--
4.	Tirukoilur Anicut System Rehabilitation work	938	7	7	--	--
5.	Tholudur and Pelandurai Anicut System Rehabilitation work	480.87	9	9	--	--
6.	Minor Schemes	3576.46	14	14	--	--
Sl. No	Name of work	Est. amt. in Lakhs	Total No. of Packages	No. of packages completed	No. of packages in progress	No. of packages to be taken up.
7.	Sathanur System Rehabilitation work	1890.00	19	19	--	--
8.	Sethiathope Anicut System Rehabilitation	1016.74	9	9	--	--
9.	Mordhana Reservoir Project	8229.57	11	7	4	--
10.	Rajathopekanar Reservoir Project	131.00	3	3	--	--
	POLLACHI REGION Parambikulam Aliyar Project	15214.00	61	60	1	--
1.	MADURAI REGION Chittar Anicut System Improvement Works	705.00	10	10	--	--
2.	Manjalar Reservoir System Rehabilitation work	102.00	5	5	--	--
3.	Vaigai Old	5867.00	21	21	--	--

	Ayacut Rehabilitation work					
Sl. No	Name of work	Est. amt. in Lakhs	Total No. of Packages	No. of packages completed	No. of packages in progress	No. of packages to be taken up.
4.	Minor Schemes	875.00	15	12	3	--
STAGE – II						
5.	Cumbum Valley System	568.00	11	11	--	--
6.	Kodayar System Rehabilitation work	3552.00	36	36	--	--
7.	Marudhanadhi Reservoir Project Rehabilitation work	106.00	3	3	--	--
8.	Tambaraparani System Modernisation and rehabilitation work	3237.00	23	20	3	--
9.	Periyar Vaigai System Construction and improvement work	1600.00	8	7	1	--
10.	Adavinainar Koil Reservoir Project Scheme Completion work	6428.76	3	3	--	--
Sl. No	Name of work	Est. amt. in Lakhs	Total No. of Packages	No. of packages completed	No. of packages in progress	No. of packages to be taken up.
11.	Gridhamal Anicut System Construction works	253.20	3	3	--	--
12.	Kodumudiyar Reservoir Project Formation work	3050.00	5	4	1	--

13.	Nambiyar Reservoir Project Scheme completion	2050.00	9	8	1	--
14.	Poigaiyar Reservoir Project Scheme completion	1175.00	9	9	--	--
15.	Sothuparai Reservoir Project Scheme completion	3472.00	4	4	--	--
16.	Vadakkupachaiyar Reservoir Project Scheme Completion	4538.00	9	9	--	--
	TOTAL	72200.71	340	326	14	--

WATER RESOURCES CONSOLIDATION PROJECT - PHASE - II

To improve the overall efficiency and the storage capacity of the State's meagre water resources, a follow-on project to Water Resources Consolidation Project, viz., Water Resources Consolidation Project-Phase-II is contemplated for implementation with World Bank assistance at an estimated cost of Rs.2890.00 Crores.

The project proposals include certain left out items of Water Resources Consolidation Project, rehabilitation of system and non-system tanks, irrigation schemes both new and ongoing. Eco-restoration works conjunctive use of Ground and Surface Water Development in Sivaganga and Pudukottai Districts etc. were also proposed.

Basinwise master plans were prepared integrating the needs of all the stakeholders in the Basin, while preparing detailed estimates. The Water balance studies for each basin shall be the basic document.

These project proposals were sent to the Government of India to seek World Bank assistance. The Govt of India has sent the proposal to World Bank. The project is proposed for implementation during 2003-2010.

FARMERS ORGANISATION AND TURN OVER

Under the Water Resources Consolidation Project (W.R.C.P.) being implemented in the State from 1995-96 with necessary financial assistance from the World Bank, Farmers' active participation in deciding on implementation of the rehabilitation works of the main canal and distribution systems as well as in taking over the Operation and Maintenance of the distribution systems were given high priority. About one third of the total ayacut area maintained by the Water Resources Organisation of Public Works Department has been covered under this programme through 1900 Water Users Association formed.

The Tamil Nadu Farmers Management of Irrigation Systems Act already enacted has been brought into force from 1.10.2002 with approval of necessary rules and issue of Notification. Implementation of the Act in an extent of about 7.0 Lakh hectares of command area covered under Water Resources Consolidation Project is in progress. All the needed follow up actions would be initiated during 2003-2004 to consolidate the already established Water Users Association to ensure their sustainability and effective functioning. Ways and means for extending this programme to the balance ayacut areas will also be explored and strategies developed.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

Participatory Irrigation Management

The Participatory Irrigation Management is now implemented in about 7.00 Lakh hectares under WRCP and CAD Programmes. It is proposed to extend this programme in the balance 10.00 lakh hectares during 10th Five Year Plan.

WATER SERVICE CHARGES COMMITTEE (W.S.C.C.)

For the purpose of rationalizing the rate of water in respect of agriculture, a committee has been constituted under Water Resources Consolidation Project, by Government of Tamilnadu in 1996 with the Commissioner of Revenue Administration as Chairman and secretary to Government of various Departments as Members and a co-opted Consultant Economist as an important member to suggest further restructuring of the water rates so that full maintenance charges would be recovered from the beneficiaries. The Water Service Charges Committee met 15 times. In the last meeting held on 27.06.2002, the committee has decided to enhance the Local Cess (LC) and Local Cess Surcharge (LCS) instead of delinking of water rates from Land Revenue as earlier recommended.

Based on the recommendations of the W.S.C.C., the matter has been considered in detail and placed before the cabinet meeting held on 25.07.2002. The cabinet approved the imposition of Additional water rates of Rs.70 per acre (Rs.175 per ha.) on I and II Class wet crops and Rs.60 per acre (Rs.150 per ha) for irrigated dry crops. To give effect to the above cabinet decision, necessary amendment to the Act has been issued by the Government on November 11, 2002. Further orders for bringing into force of the amendment issued to said Act with effect from 01.07.2003 has been issued on 18.03.2003.

REHABILITATION OF 620 RAINFED MINOR IRRIGATION TANKS AT AN ESTIMATED COST OF Rs.104.29 CRORE IN PALAR, TAMBAPARANI AND VAIGAI BASINS UNDER WRCP WITH WORLD BANK ASSISTANCE

The World Bank Tenth Supervision Mission during November 15 to 24, 2000 made field visits to Chennai and Coimbatore Region for finalising the additional schemes involving expenditure of Rs.379.60 crore to utilise the savings in the WRCP project on account of the depreciation in rupees value during the duration of the project.

By considering the capacity of man power and to promote standard of living of the marginal farmers and to solve to some extent the problem of drinking water, the World Bank Mission has considered the additional proposal for rehabilitation / Modernisation of rainfed tanks of 462 tanks in Palar basin with an ayacut of 63002 ha at an estimated cost of Rs.81.90 crore, 77 tanks in Tambaraparani Basin with an ayacut of 10,140 ha at an estimated cost of Rs.13.18 crore and 81 tanks of Vaigai basin with an ayacut of 7678 ha at an estimated cost of Rs.11.18 crore aggregating 620 tanks at an estimated cost of Rs.104.29 crore.

The Government have accorded administrative approval for the above proposal of Rehabilitation of 620 tanks for Rs.104.29 crore. All the works have been taken up for execution during 2001-2002. Upto end of November 2002, works in 381 tanks have been completed. Water Users Association are formed and registered for all the 620 tanks and MOU signed.

The Budget provision for the year 2003-04 is Rs. 0.01 lakh.

MODERNISATION AND IRRIGATION MANAGEMENT IN TAMILNADU WITH LOAN ASSISTANCE OF NATIONAL BANK FOR AGRICULTURAL AND RURAL DEVELOPMENT (NABARD) UNDER "NABARD - RURAL INFRASTRUCTURE DEVELOPMENT FUND (RIDF)V" NABARD RIDF V - PHASE I

The project proposal is for modernising 44 minor irrigation tanks spread over in 23 districts of Tamilnadu at an estimated cost of Rs.14.66 crore, benefiting 5054 hectares was approved by Government with the financial assistance of NABARD under Rural Infrastructure Development Fund (RIDF).

The aim of the project is to modernise, to upgrade the standard of minor irrigation tanks in Tamilnadu for enhancing the irrigation potential by carrying out lining of field channels improvement to sluices, surplus weir, standardisation of bund and streamlining in-flow channel to the tanks.

The Government have accorded sanction to this project for Rs.14.66 crore and allotted the works to Regions of WRO for execution.

The Government issued orders for executing the works through Water Users Association with the involvement of Non Government Organisation. The works are under execution through Water Users Association.

The Budget provision for the year 2003-04 is Rs. 116.41 lakh.

INTEGRATED WATER RESOURCES MANAGEMENT IN RAMANATHAPURAM DISTRICT

The Government have decided to take up Phase I of Integrated Water Resources Management Project in Ramanathapuram District at a cost of Rs.24.36 Crore with HUDCO Loan Assistance. By implementing the schemes, the tanks and channels and Ramanathapuram District will get benefited.

ANTI SEA EROSION WORKS

Tamilnadu have a coastline of about 960 km, out of which 900 km lies along Bay of Bengal and 60 km along the Arabian Sea. The eastern coast has been prone to considerable sea erosion, which has reached alarming proportions in recent years. To solve this problem, the Government are undertaking various protection works.

1. The Government have accorded sanction for the execution of Anti Sea Erosion works for a stretch of 2.38 Km in Ennore Express way from Thiruvottiyur to Thalankuppam, North Chennai and to replenish the existing Rubble Mound Sea wall along Ennore express way at an estimated cost of Rs.1057.38 lakh. HUDCO loan Rs. 828 lakh and Rs. 229.38 lakh State Fund.
2. The Government of Tamilnadu have accorded sanction for Rs.57.69 Crore for the execution of coastal protecting works in four districts (i.e.) Ramanathapuram, Thoothukudi, Tirunelveli and Kanyakumari with an assistance of Rs.46.00 Crore from HUDCO and the works are being carried out by Chief Engineer, Madurai Region.
3. As per guidelines of Central Water Commission, a revised proposal for 169.39 crore has been handed over to Central Water Commission during September 2002 for protection of the coast to a length of 13.824 KM in seven districts under National Coastal Protection Project for the places not covered under the above proposals.

INTEGRATED TRIBAL DEVELOPMENT PROGRAMME

Integrated Tribal Development Programme is being implemented with the assistance of the Government of India to improve the standard of living of the Tribals by giving them improved irrigation facilities. The Government of Tamil Nadu have identified the tribal areas in Vellore, Tiruvannamalai, Villupuram, Salem, Namakkal, Dharmapuri and Tiruchirappalli Districts.

Under this programme, construction of check dams and percolation ponds to improve irrigation are taken up.

HILL AREA DEVELOPMENT PROGRAMME

The Hill Area Development Programme is being implemented from 1978-79 onwards in the Nilgiris District. The work of construction of check dams across jungle streams is taken up under this programme with 100% Central Assistance.

WESTERN GHATS DEVELOPMENT PROGRAMME

Western Ghats Development Programme is implemented from 1986-87 onwards in 24 selected taluks of Coimbatore, Erode, Dindigul, Madurai, Virudhunagar, Tirunelveli and Kanyakumari Districts. Construction of check dams and formation of new ponds and improvements to supply channels are executed under this programme. Under this scheme Government have sanctioned 7 schemes at a cost of Rs. 28.00 lakh. All the works are in progress.

DESILTING AND REHABILITATION OF TANKS, CHANNELS IN TAMILNADU.

Irrigation tanks serve as one of the most important water resources for the rural communities in the State. Most of the tanks are situated in the State where there are no rivers of importance. These water harvesting structures were ingeniously designed by the native rulers and managed by the local communities over the past several centuries.

It is reported that over the past years, the irrigated area by tanks is coming down steadily at an increasing rate. The general deteriorating condition of tanks is characterized by siltation in the tank beds and supply channels, encroachments in the tank bund, foreshore, waterspread and supply channels, repairs in damaged sluices, weirs, bunds.

The State is facing a grave situation through the deteriorating tanks, facing the marginal and small farmers into a cycle of deprivation and debt as also leaving them increasingly at the mercy of the vagaries of monsoon.

In order to improve the storage capacity and irrigation efficiency of the existing tanks, more thrust is given by the Government for optimal utilization of available water. It will also serve the twin objectives (i.e.) Irrigation and drinking water.

Considering the backwardness of the rural people living in Ramanathapuram District and to improve their socio economic condition it has been planned to rehabilitate the rain fed tanks / non-system tanks. A project proposal at an estimated cost of Rs. 24.36 crore has been prepared and posed to HUDCO for loan assistance.

Similarly proposals are being formulated for other Districts to rehabilitate the rainfed tanks, by getting loan from various funding agencies.

MODERNISATION OF CAUVERY DELTA

The Cauvery Delta System is nearly 2000 years old. This system can serve efficiently only if the structural components are modernised. A Master Plan for modernisation of the Cauvery System including Flood Control and Drainage Rehabilitation was first prepared by the Government of Tamil Nadu in 1970 for seeking International Financial Assistance. But the project could not be taken up as an Externally Aided Project for want of clearance (Inter State angle) from the Ministry of Water Resources, Government of India. However, the modernisation work was taken up in piecemeal to meet the urgent needs of irrigation, flood control and drainage with the State funds. But these efforts were inadequate for the requirement of the Delta.

Therefore, the modernisation of the Cauvery Delta is proposed to be taken up in three phases. A project report for Phase I, at an estimated cost of Rs. 460 crore, has been sent to the Government of India for forwarding it to World Bank. This project has the following components.

- (1) Modernisation & Rehabilitation of ten rivers in the delta benefiting 70,000 hectares,
- (2) Modernisation & Rehabilitation of 323 channels,
- (3) Improvements to 109 Drainage works,
- (4) Flood Control works to a tune of Rs. 23.02 crore,
- (5) Other miscellaneous works.

CAUVERY WATER DISPUTE

The Interim Orders of the Cauvery Water Disputes Tribunal (CWDT) awarded in 1991, have not been implemented by the State of Karnataka, ever since they have been passed. The State of Karnataka has been impounding all the inflows as the monsoon strated each year in their four major reservoirs viz. KRS, Kabini, Harangi and Hemavathy and withdrawing all the quantities required for their irrigation and only surpluses if any are flowing down, that too belatedly, with the result, the kuruvai cultivation which is to start in the Cauvery Delta in June could not be done in time and the kuruvai area also comes down drastically year after year.

In good years, Mettur inflows even exceeded the quantity of 205 TMC in the normal course. But in subnormal years like 1995, the Tamilnadu irrigation was badly hit and all our pleadings before the Supreme Court did not bring us solace crops grown in more than 2 lakh acres failed that year.

On our suit filed before the Supreme Court for effective implementation of the Interim Order in 1992 (O.S. 1/92), on the insistence of the Court, the Government of India constituted the Cauvery River Authority (CRA) chaired by the Prime Minister with the Chief Ministers of the four basin States as Members, in 1998. A Monitoring Committee consisting of officers was also constituted to assist the CRA but not to take any decision.

The State of Tamilnadu found that even the CRA turned out to be just a Political Committee and could not direct the State of Karnataka unequivocally to implement the Interim Order, with the result, Tamilnadu continued to suffer year after year unpredicted quantities of flow and delayed start of cultivation operation. The State had to therefore file another suit before the Hon'ble Supreme Court in 2001 (O.S.No.3/2001) to get the CRA's structure suitably modified for effective implementation of the Interim Order and thereafter the final order of the Tribunal.

The year 2002-2003, which is a sub-normal year, proved to be a critical year affecting Tamilnadu most. In the previous irrigation year 2001-2002, the State was left with a shortage of 43 TMC in the flows to be ensured at Mettur, at the end of the irrigation season, which was not made good by the State of Karnataka till the end. The freak rainfall in February 2002 also damaged the crops, which were ripe for harvest. The carry-over storage at the end of the last season was poor and stood at only 11 TMC, with the result, the Mettur reservoir could not be opened on the scheduled date of 12th June during the year 2002-2003.

The south west monsoon during this year, though set in on 03.06.2002, did not intensify and it picked up only in the month of July and continued with a few breaks during the months of August and September. On the whole, the south west monsoon in the Cauvery basin was deficient and the inflows into the Karnataka reservoirs were below normal. The State of Karnataka, as usual, did not let water from their reservoirs to ensure flows at the Mettur reservoir as per the Interim Order, not even a part of the inflow they received as a commitment to the downstream States of Tamilnadu and Pondicherry.

The State of Tamilnadu had therefore to approach the Supreme Court again, with a suit (O.S.No.3/2002) filed in July 2002. On the I.A. filed in the suit O.S.No.3/2002, the Supreme Court of India, in its order dated 03.09.2002, directed that the State of Karnataka should release water from its reservoirs in Karnataka so that 1.25 TMC feet of water was ensured at Tamilnadu's Mettur Reservoir daily till a decision on the implementation of the Interim Orders in a deficit year after arriving at an agreed deficit sharing formula was taken by the CRA and their orders will take effect from 04.09.2002.

The Supreme Court's order came as a ray of hope to the farmers of the Cauvery Delta area, who had already lost the Kuruvai crop due to non receipt of supplies from Karnataka. The Tamilnadu Government opened the Mettur reservoir for irrigation on 06.09.2002.

The CRA which met on 08.09.2002 took a decision that Karnataka should make available 9,000 cusecs daily on a weekly average basis to Tamilnadu (about 0.8 TMC feet per day) during the months of September and October as against the 1.25 TMC feet of water per day at Mettur insisted upon by Tamilnadu.

The State of Karnataka did not comply with either the orders of the Supreme Court or the

directions of the CRA and did not release the waters due to Tamilnadu. The Hon'ble Chief Minister of Tamilnadu led an all party delegation and presented a Memorandum to the Hon'ble Prime Minister on 21st September 2002 seeking his intervention. Nothing happened and the inflow into Mettur continued to be dismally poor.

The State of Tamilnadu was forced to file two contempt petitions in the Supreme Court against the Chief Minister of Karnataka, one in September 2002, when the State of Karnataka failed to implement the directions of the Supreme Court to release 1.25 TMC of water per day and the second in October 2002, when it also failed to implement the CRA's decision, which was later confirmed by the Supreme Court. It is only after the Supreme Court's severe observations made during the hearing of the contempt petition, that the Chief Minister of Karnataka filed an affidavit on 27.10.2002 tendering unconditional apology for not obeying the Court's order and assured the Court that the Government of Karnataka had started releasing 10,000 cusecs of water from that day morning. The Supreme Court did not pass their orders on that affidavit but posed the matter to 1st November to watch the behaviour of Karnataka. The releases also dwindled and at the end of October 2002, counting on the orders of the Supreme Court and the directions of the CRA, the over all deficit in the flows into Mettur reservoir was 23.18 TMC.

When the Supreme Court again met on 01.11.2002, they ordered that the State of Karnataka will continue to release water so as to ensure at Mettur 9000 cusecs daily till 6th midnight and thereafter as per the Interim Orders of the Tribunal. The Supreme Court further ordered that CRA will meet and take further decision including that of making up the deficit of 23.18 TMC as on 31.10.2002 that accrued in the months of September and October, 2002.

During the month of November 2002, the stipulated inflows into Mettur reservoir as per the Supreme Court orders upto 6th and thereafter as per the Interim Orders, was received, but the earlier deficit of 23.18 TMC as on 31.10.2002 was not made up.

In the month of December 2002, the inflows received were only about 6.1 TMC as against the stipulated flow of 10.37 TMC as per the Interim Order.

The CRA meeting which was originally scheduled to be held on 29.11.2002 could not be held for lack of quorum. The apology tendered by the Chief Minister of Karnataka is yet to be accepted by the Hon'ble Supreme Court. The Supreme Court is awaiting the final outcome of the CRA as per their earlier orders which is to decide on the making good of the shortfall.

The situation in the Cauvery Delta irrigation is grim. Having lost kuruvai, farmers who were apprehensive of even starting the samba crop, had to start the samba crop some by transplantation when they could get some water supplemented by rain and some by direct seeding. Yet only in about 8 lakh acres out of 11 lakh acres, samba crop could be raised. With the best of attempts, using the storage available in Mettur most economically and even resorting to release of waters from Mettur in short spells of release and non-release, a practice unheard of in Mettur management so far, the storage cannot last beyond 10th of January 2003. The crops need supply at least upto February end. Unfortunately the north east monsoon has also failed badly this year.

In the 8.00 lakh acres of samba crops planted, except a small area the majority area could not be saved. With the unrelenting and adamant response for the State of Karnataka refusing to share the water they have now beyond their cropping season.

KRISHNA WATER SUPPLY PROJECT

The Government of Tamil Nadu entered into an agreement with the Government of Andhra Pradesh on 18.4.1983 according to which the Government of Andhra Pradesh shall deliver 12 TMC of water excluding the transmission loss of 3 TMC at the Tamil Nadu Border over a period of 8 months in a year. The component of the project falling within Tamil Nadu limit is called "Krishna Water Supply Project" and that in Andhra Pradesh limits is called "Telugu Ganga Project".

The originally sanctioned estimated cost of Krishna Water Supply Project in Tamil Nadu limit was Rs.46.44 Crore. The reappraised cost was Rs.196.04 Crore (as per 1996-97 Schedule of Rates).

The total estimated cost of Telegu Ganga Project comes to Rs.2345 Crore (as per 9/97 Project Report), of which Tamil Nadu's share is Rs.639.40 Crore. So far Andhra Pradesh Government have incurred Rs.1,820.00 Crore towards this project and Rs.512 Crore has been paid to Andhra Pradesh as Tamil Nadu's share.

Kandaleru water was released by Andhra Pradesh for the first time on 29.9.1996. The following are quantum of water released from Kandaleru Dam and quantity realised at Tamil Nadu border.

Year	Water released from Kandaleru into K.P. Canal (in TMC)	Water realized at Tamil Nadu border (in TMC)	Percentage of realization
1996-97	0.610	0.076	12.50%
1997-98	4.339	2.290	52.80%
1998-99	4.077	2.810	69.00%
1999-2000	3.990	1.830	45.86%
2000-2001	17.790	6.688	37.59%
2001-2002	1.108	0.400	36.10%
2002-2003 till date	9.461	3.262	34.48%

The 38th meeting of the Liason Committee was held on 5.2.2002 and the Government of Andhra Pradesh was requested to complete the work early.

Sri Sathya Sai Central Trust has come forward to take up improvements to Kandaleru - Poondi Sector in Andhra Pradesh limit to see that 12.00 TMC of water is diverted at Tamilnadu Border to Chennai city for drinking water purpose.

Due to heavy rain in October 2001 and November 2001 in Tamil Nadu the canal from 0 Km to 4 Km at Tamil Nadu border was damaged and the Government have allotted Rs.71.88 Lakh for carrying out repair works in Tamil Nadu limit.

The Government have decided to implement the Chennai City Water Supply augmentation Project II, to augment the Chennai City Water Supply at a cost of Rs.493 Crore. The objective of this project is to prevent rain water from running off into sea by construction of check dams, reservoir, percolation tanks etc. to store surplus water in Kosasthalayar, Cooum, Adyar and Palar rivers.

This proposal is now proposed to be revised to Rs.340 Crore.

NEW VEERANAM PROJECT

The New Veernam Project was originally sanctioned in August 1993 for Rs. 464.00 crore under the caption "Second Madras Water Supply Project, New Veeranam" as a World Bank aided project. The project envisaged the supply of 190 Mld. of water to the Chennai city.

The sanction included Rs. 60.00 crore for the improvements to source works comprising (1) improvements to the Vadavar Channel which brings water from lower Coleroon Anicut to Veeranam Tank,

(2) Removal of shoals in the Veeranam Tank and raising its F.T.L. by 2' to increase the existing capacity of 935 Mcft. to 1485 Mcft. and

(3) Strengthening of the foreshore bund.

Subsequently, revised administrative sanction was accorded for the source works for the project including modernisation of the command conveyance system of Vadavar Canal and also Veeranam Tank for Rs. 110.95 crore in April 1996. By improvements to the conveyance system, 56,034 acres of ayacut (11,178 acres under Vadavar and 44,856 acres of ayacut under Veeranam) are expected to receive uninterrupted irrigation facility.

The Government have decided to implement the Chennai City Water Supply Augmentation Project within 18 months. The transmission of water for Chennai City Water Supply has been programmed to be taken up and completed by CMWSSB by 9/2003. For implementation of the

projects TUFIDCO has sanctioned a loan of Rs. 35.00 crore for essential item of works.

There are 25 packages of works in this project. The details of estimates and present status of the works are given below:

- (1) Improvements to Vadavar Channel Out of the 6 packages, at a cost of 26.39 Crore, 3 packages are completed. In other 3 packages 90% works are completed.
- (2) Raising Full Reservoir Level of Veeranam Tank by 2 feet (0.61m) & strengthening Veeranam Main Bund at a cost of 10.68 Crore. Works in all the four packages are in progress.
- (3) Improvements to existing foreshore bund & formation of new foreshore bund at a cost of Rs.10.31 Crore. Work completed in all the 4 packages.
- (4) Modernisation of command conveyance system of Vadavar 24 Channels, Veeranam 34 Channels in 2 packages is proposed at a cost of 25.00 Crore. 7 channels in Vadavar and 5 channels in Veeranam is proposed to be taken up immediately and the balance works are proposed to be taken up subsequently.
- (5) Black topping of Veeranam Tank Main Bund at a cost of Rs.1.50 Crore. It will be taken up after the completion of main work subject to availability of fund.
- (6) Repairs to Lower Anicut Shutters. Work at a cost of Rs.108.00 Crore is in progress. 17% work is completed.
- (7) Improvements to Veeranam Byewash, New regulator across Vadavar, Improvements to Godavari drain, Improvements to surplus regulator and VNSS shutters at a cost of Rs.5.37 Crore. Out of the total number of 4 packages except Godavari Drain priority will be given for other 3 packages.
- (8) Repairs to existing staff quarters and Construction of New Project House at a cost of Rs. 0.55 crore. Repairs to staff quarters completed.
- (9) Miscellaneous items with cost escalation - Rs. 30.07 crore.

Total packages 25 for Rs. 110.95 crore.

Due to escalation in cost of construction materials and labour, revised estimate was prepared for Rs.150 Crores which is under consideration. So far an expenditure of Rs.54.10 Crores has been incurred.

The Budget Estimate for the year 2003-04 is Rs. 1000.00 lakh.

PARAMBIKULAM ALIYAR PROJECT - RENEWAL OF AGREEMENT

An agreement between the Governments of Tamilnadu and Kerala was entered into on 29-05-1970 with retrospective effect from 09-11-1958 for utilisation of flows in the rivers of Anamalayar, Nirar, Sholayar, Parambikulam, Palar and Aliyar and the streams flowing into them for generation of hydro electric power, irrigation, drinking water supply, industrial use and any other purposes in the two States. The arrangements embodied in the agreement are open for review in the light of the experience gained and to such modifications as may be mutually agreed upon as a result of such review at the expiry of 30 years from 9-11-1958 and once in every 30 years thereafter. The agreement was due for review on 9.11.1988.

Accordingly, both the Governments exchanged the documents for review on 21-09-1989 and held several Ministerial level discussions. An Inter State Committee comprising the Officials of both Tamil Nadu and Kerala was constituted, among others, to present a comprehensive report on the review of the Parambikulam Aliyar Agreement. The Committee meeting was held at Tiruvananthapuram and Attakatti, but no consensus was reached.

The Government of Kerala has to consider the following:

- i. To honour its commitment for permitting diversion of 2.5 TMC from Anamalayar

River to PAP System in as much as they have completed the Idamalayar Hydro Electric Project.

- ii. To permit utilisation of the entire yield at Upper Nirar without restriction for the period from October to January in a year in as much as they have completed the projects (Idamalayar and Idukki as per agreement)
- iii. To give its concurrence for the construction of a balancing reservoir above Manacadavu Weir to ensure regulated discharges.
- iv. To accord its concurrence to the new schemes for diverting the flows of Upper Nirar to Nallar through a tunnel by construction of diversion weir and to construct a power house at Nallar and for diverting the flows to Tirumoorthy dam thereby minimising transmission loss.
- v. To supplement their requirements for Chitturpuzha Basin, by diverting either the surplus flows over and above 2.5 TMC.required for Tamil Nadu from Anamalaiar or by diverting flows fromThekkadiar.

A bilateral discussion between the Irrigation Ministers of Kerala and Tamilnadu was held on 28-11-96 at Chennai. As there was no conclusive agreement on any of the issues discussed during the meeting, it was decided to hold further discussions. This subject was again discussed in the Minister Level meeting held between Government of Kerala and Government of Tamilnadu on 10.06.2002 at Chennai. It was decided that a Technical Committee comprising of 3 Engineers viz. two from Water Resources Organisation and one from the State Electricity Board from each states may be constituted to review and submit report on PAP issues for finalizing the review of Parambikulam Aliyar Project Agreement at Minister level meeting initially and at Chief Minister's level meeting finally. Accordingly, Technical Committee was constituted and first meeting held on 11.12.2002at Parambikulam and discussed the various issues.

PANDIYAR-PUNNAMPUZHA PROJECT

Pandiyar-Punnampuzha is an Inter State river with its origin in Tamil Nadu, joining Chaliyar River in Kerala. The west flowing rivers of Pandiyar-Punnampuzha having their origin in high peaks of Nilgiris join at about 5 km west of Guddalore Town and the river beyond the confluence is called Punnampuzha, This joins Chaliyar river in Kerala State near Nilambur. Ultimately, this drains into Arabian Sea near "Baypore". This project area is located in the Udagamandalam-Mysore road.

As per 1965 understanding between Tamil Nadu and Kerala, Pandiyar-Punnampuzha Hydro Electric Project envisages utilisation of the west flowing waters of Pandiyar and Punnampuzha rivers from a total catchment area of 171.38 Sq. Km.(66.20 Sq. Miles) with an average annual yield of 14 TMC for power generation with a gross head of 500.60 m (1642 ft) and with an installed capacity of 100 MW (2x50 MW) for the first stage and 150 MW as ultimate. The average annual generation would be 409 MU. The Planning Commission approved the proposal in 1969.

Subsequently, on representation from the ryots of Coimbatore district, the possibility of diverting the waters of Pandiar-Punnampuzha lying within Tamil Nadu to Moyar arm of Bhavani river for use by Tamil Nadu was investigated and this was also found feasible. Tamil Nadu wanted diversion of at least 7 TMC of water eastward to Tamil Nadu.

During the bilateral discussion held on 28-11-1996 between the Irrigation Ministers of Kerala and TamilNadu, a request was made for the diversion of at least 7 TMC of tail race waters of Pandiyar-Punnampuzha Scheme to meet the drinking water and irrigation requirements in the drought prone areas of Coimbatore – Erode districts and it was informed by the Kerala Government that they would be in a position to offer their views on examining the project proposal from Tamil Nadu.

The Tamil Nadu Electricity Board has since formulated the Pandiyar-Punnampuzha Project proposal for implementation in two phases at an estimated cost of Rs.904.00 Crore during the year 1998. The first phase, envisages an installed capacity of 2 x 50 MW utilising 7 TMC of water (50% of the total yield of 14 TMC) to be released into Kerala territory after generation of power. Work will also be simultaneously commenced for diversion of 7 TMC of water towards Tamil Nadu. In the 2nd phase 2 x 30 MW power is proposed to be generated in the Sigur Basin of Tamil Nadu utilising the diverted 7 TMC of water. After generation of power, the water will join Moyar river in Tamil Nadu. Both the phases are proposed to be taken up simultaneously.

The Government of Tamil Nadu has sent the project report prepared by the Tamil Nadu Electricity Board to the Kerala Government in September 1998 and requested their concurrence to take up the project. Kerala Government has not readily agreed to the diversion of 7 TMC of water eastward. The State Government is pursuing the matter. The State Government in April 1998 have requested NHPC to take up and execute this project. This subject was discussed in the Minister Level Meeting between Government of Kerala and Government of TN held on 10.06.2002 at Chennai. The officials from Kerala told that they are not in receipt of the Project Report for reacting the proposal. It was decided in the meeting that the Tamilnadu Electricity Board will furnish the Project Report to Kerala State Electricity Board and thereafter a meeting between Chairmans of the Electricity Boards may be held to arrive at a solution. Accordingly a meeting was held at Kerala on 10.07.2002 between Engineers of Tamilnadu Electricity Board and Kerala State Electricity Board. Further action is in progress by Tamilnadu Electricity Board.

PENINSULAR RIVER DEVELOPMENT COMPONENT OF PLAN

NATIONAL PERSPECTIVE

MAHANADHI-GODHAVARI-KRISHNA-PENNAR-CAUVERY-VAIGAI –GUNDAR LINKS

The Peninsular rivers viz. Mahanadhi, Godhavari, Krishna, Pennar, Palar, Cauvery, Vaigai and Gundar are proposed to be inter-linked under the Peninsular River Development component of the National Perspective Plan formulated by the Government of India. The National Water Development Agency is entrusted with the task of investigation and preparation of project proposals for the peninsular river links.

The National Water Development Agency has already prepared pre-feasibility reports on Mahanadhi-Godhavari, Godhavari- Krishna, Krishna-Pennar and Pennar-Cauvery, Cauvery-Vaigai-Gundar links. It has identified the surplus and deficit basins and assessed the surplus available in Mahanadhi and Godhavari for transfer to Krishna, Pennar, Cauvery and Vaigai basins.

According to the proposal, the surplus flows of Mahanadhi and Godhavari rivers would get diverted to Pennar river in Andhra Pradesh. The diversion from Pennar to Cauvery would be through a link canal 534 Km. long to divert about 9,455 mm³ (334 TMC) of Pennar water from Somasila reservoir to the Grand Anicut across river Cauvery via palar. The link canal would provide irrigation and drinking water supply enroute in Andhra Pradesh and TamilNadu. Further a quantity of 3855 mm³ (136.1 TMC) would be delivered at Grand Anicut for use in Cauvery Delta and also in the areas south of Cauvery basin.

The Cauvery-Vaigai-Gundar link is the last leg in the link. This aims at diversion of 2252 mm³ (79.5 TMC) from the quantity of 3855 mm³ (136.1 TMC) to the south of Cauvery upto Gundar for irrigation, water supply etc.,

The State Government is keenly interested in the expeditious execution of the Peninsular Rivers development component.

The Government of Tamilnadu is continuously stressing the Government of India to constitute a high level body under the Chairmanship of Prime Minister to ensure speedy finalisation and time bound implementation of Peninsular river development component.

STATE GROUND AND SURFACE WATER RESOURCES DATA CENTRE

Tamil Nadu is the Pioneer State in developing ground water for various purposes. The State Ground and Surface Water Resources Data Centre is assessing the ground water potential periodically by applying various parameters arrived during the field study. As on July 1997, about 63% of the available ground water resources have been utilised. Ground Water, being a dynamic resource, requires continuous exploration, monitoring and assessment, involving multi-disciplinary studies. This data centre under the control of a Chief Engineer undertakes the following:

- (1) Monitoring of water level in 1746 control wells in Tamil Nadu. An overall Ground Water quality network was finalised in consultation with DHV Consultants (Delft Hydraulics Von Consultants) for entire Tamilnadu to assess general water quality, on monsoonwise ground water pollution and fertiliser impact on ground water. Ground water samples are being collected once in a year (Pre-monsoon) for general study and once in three months from the problematic areas.
- (2) Monitoring of ground water quality in the State (3400 samples)
- (3) Watershed study, conducting hydrometeorological observations under different soil conditions.

- (16 water sheds)
- (4) Analysis of rainfall data and establishing relationship between the runoff and seepage. (400 rainfall stations)
 - (5) Intensive Survey on mini watershed basis for all the districts of Tamilnadu based on Ground Water Resources Estimation Committee Norms - 1997 for the assessment of Ground Water Potential.
 - (6) Rendering Consultancy Services to farmers, Government departments and Government Undertakings for selection of suitable locations for constructing ground water abstraction structures.
 - (7) Issuing ground water clearance for implementing Minor Irrigation Schemes.
 - (8) Special studies for monitoring sea water intrusion into fresh water aquifer. (920 k.m along the coast)
 - (9) Drilling of exploratory bore holes. (50 bore holes)
- (10) Also preparing various artificial recharge schemes to improve Ground Water conditions.

Apart from the above, the other schemes such as science and technology inputs including research and development are being undertaken including Ground Water awareness.

A provision of Rs.207.33 lakh has been made for the above works in B.E. 2003-2004.

HYDROLOGY PROJECT

The World Bank came forward in 1995 to assist the Government of India Agencies in the development of Scientific Data Base consisting of all aspects of Hydrological Cycle including Surface Water and Ground Water in terms of quality and quantity under Hydrology Project.

The project period is for 6 years from 1996-2003 (upto 31.03.2003). The cost of project is Rs.51.149 Crores.

The true objectives of the project is being achieved in full.

In order to consolidate the gains earned from the Hydrology Project - I, the Hydrology Project - II is on the anvil. The main thrust area will be integrated Water Resources Management, conjunctive use of surface and ground water, rain water harvesting etc. for the strengthening of the infrastructure of Ground and Surface Water Resources Data Centre units.

The project consists of two major components namely Surface Water and Ground Water and the project estimate cost works out to Rs.101 Crores.

The Hydrology Project - II will pave way towards better tomorrow for a sustainable HIS expanded to Water Information System (WIS) for the integrated water resources management as stipulated in the National Water Policy 2002.

PROGRAMME FOR 2003-2004

The World Bank have informed the Government that the Bank funding will be limited to expenditures incurred before the current project closing date of March, 31st, 2003 and operation and maintenance cost for the sustenance of the benefits of the project gained beyond 31.03.03 will have to be provided through the State's own budgetary resources.

A provision of Rs. 265.50 lakh has been made in the Budget Estimate 2003-2004. The project closure date has been further extended upto December 2003 by World Bank.

ARTIFICIAL RECHARGE SCHEMES WITH CENTRAL ASSISTANCE

Tamil Nadu being an agrarian State, much importance is given for the exploitation of ground water for the development of agriculture as about 95% of the surface water resources have already been harnessed in the State and about 68% of ground water potential is utilized.

Augmentation of ground water resources becomes necessary, when the natural recharge is slow and not upto the expected / required level. In such eventuality, it is high time to go in for artificial recharge of ground water.

This Department is preparing various schemes of Artificial recharge of Ground Water adopting various techniques such as

- I. Subsurface dykes and check dams across
 - i. Rivers and streams
 - ii. Percolation ponds in pervious zones location of various artificial structures have been evolved in Tamilnadu using - Remote Sensing and Geographical Information System Techniques.

Central Government has come forward for funding the construction of the Artificial structures for augmenting ground water. Various schemes are being formulated for implementation of the same in various districts. State Level Committee has been constituted to monitor the implementation of the above schemes and District Level Coordination Committee is being formed in each District under the Chairmanship of the District Collector to implement the schemes.

Proposal for recharging structures on water shed basis will be prepared by District Level Technical Coordination Committee and will be sent to State Level Technical Coordination Committee for approval and funding the schemes.

RAIN WATER HARVESTING

Government of Tamilnadu is committed to ensure that potable drinking water is available to all habitations in next five years. In certain and semi arid and difficult terrain rain water harvesting may be the only techno-economically viable and sustainable solution.

Rain water harvesting is the deliberate collection of rain water within a catchment and use for the purpose of drinking, irrigation etc.

Rainwater storage is generally done in man made tanks, lined pits and small dams or in the sandy beds of seasonal rivers.

The collection and storage will be done only during rainy season.

The amount of water harvested depends on the frequency and intensity of rainfall.

Rain water harvesting is useful to meet water demand for domestic use especially during summer.

It augments the ground water storage and avert's decline of water levels.

It improves quality of ground water, it reduces soil erosion. Rain Water Harvesting may be done by Roof Water Harvesting and by surface run off harvesting.

The Government of Tamilnadu in the I Phase has programmed to implement the rain water harvesting schemes at top priority.

GROUND WATER ACT – 2003.

There is continuous over-exploitation of ground water in the recent years in Tamil Nadu which leads to alarming lowering of ground water level and deterioration of quality and many existing irrigation and drinking water wells have become dry. This is adversely affecting the small and marginal farmers who mostly depend upon the ground water sources for their livelihood.

To safeguard the small and marginal farmer's rights to use the limited Ground Water resources available and also to control and regulate the indiscriminate extraction of ground water, the Government has passed the Tamil Nadu Ground Water (Development & Management) Act 2003.

DAM SAFETY ASSURANCE AND REHABILITATION PROJECT

A Proposal for getting World Bank assistance has been submitted to the Ministry of Water resources, Government of India at an estimated cost of Rs.60.00 crores to carry out Dam Safety Works. This proposal is now under active consideration of the Government of India.

Under this project, it is proposed to carry out Dam Safety Works for the following 10 dams.

- 1.Sathanur, 2.Ponnaniar, 3.Siddhamali, 4.Sholayar, 5.Perunchani, 6.Manimuktha nadhi, 7. Periyar, 8.Pechiparai, 9.Manimuthar 10. Amaravathy

REHABILITATION AND RECLAMATION OF CHENNAI CITY WATERWAYS

1. DESILTING AND CONSTRUCTION OF FLOOD DEFENCES FOR CHENNAI CITY WATERWAYS WITH HUDCO LOAN ASSISTANCE.

In order to prevent frequent floods damages, Government during 1998 ordered for executing a Rs.300 Crores project "Rehabilitation of Chennai City Water Ways" named as "Millennium Project" with HUDCO loan assistance. The Project is based on the report of international consultant M/s. MOTT Mac Donald of United Kingdom. The main objective of this Scheme is to remove the silt and sludge deposited in the various water ways of Chennai viz., Cooum river, Adayar river, Buckingham Canal, Otteri Nullah, Captain Cotton Canal and other major drains within the boundary of Chennai Metropolitan Area. The project proposes to rehabilitate Slum Dwellers encroached on the banks of the above water ways.

The Scheme is being implemented since October 1999 by dividing it into 4 convenient packages except Covum the work in other 3 packages are in progress.

Package-I: Desilting and Resectioning of Buckingham Canal from Ennore creek to Muttukadu.

Almost 85% works have been completed in this package except for a 4.6 Km. length in South Buckingham Canal which is heavily encroached on both sides. Alternative Technical proposals are under consideration for desilting this reach. Works are expected to be completed shortly.

Package-II: Construction of flood defences and resectioning of Adayar river.

About 40% works have been completed in this package. The culvert works across Velachery drain and Kosasthalaiyar flood banks have been completed. In Adayar river desilting and resectioning works have been completed upstream of Nandambakkam bridge and works are in progress in downstream side. The works are expected to be completed shortly.

Package-III: Construction of flood defences and resectioning of drains in Chennai Metropolitan Area.

The works involve desilting of Ambattur surplus course, Formation of new drains for Red Hills, Chembarambakkam, Madhavaram, Thanikachalam Nagar drainage and Korattur lake.

2. REMOVAL OF SAND BAR AND PREVENTION OF SAND BAR FORMATION ON THE MOUTHS OF COOUM AND ADAYAR RIVERS ON THE CONFLUENCE OF THESE RIVERS WITH BAY OF BENGAL.

The National Institute of Ocean Technology (NIOT) under Government of India, Department of Ocean Development, had given a groyne based solution for the sustained opening of Cooum river mouth as technology demonstration project. A groyne for a length of 170 m has been constructed into the Sea at a cost of Rs.78.00 lakh. Based on the suggestion of NIOT, it has been decided to raise the height of the groyne by 1.5 m.

The groyne based solution will be extended for Adayar river, after studying the performance of the groyne in Cooum river mouth.

The Budget provision for the year 2003-04 is Rs. 2300.00 lakh.

IRRIGATION MANAGEMENT TRAINING INSTITUTE

Irrigation Management Training Institute, Tiruchy is one of the 11 such Institutes in the Country. It was established in 1984 under USAID. It is imparting training to farmers, field level staff and officials of WRO, Agricultural Engineering Department and Agriculture Department. Now the Institute is functioning under the funds provided by the state Government as grant-in-aid.

(1) TRAINING

This Institute is acting as the Nodal Agency for the training component of water resources consolidation project, which is being implemented by WRO with World Bank Aid. At present this Institute is fully engaged in conducting and organising specific trainings recommended by the

consultants for the farmers, field Staff and officials of WRO apart from the inter disciplinary trainings being given to WRO, agricultural engineering and agricultural officers under general head.

For the year 2003-2004 it is programmed to conduct 180 national trainings. The above programmes will cover 2500 farmers and 2000 officers in Irrigation management.

IRRIGATED AGRICULTURE INTENSIFICATION PROGRAMME –

Tamil Nadu being a tropical State, water while transmitted through canals for irrigation is being lost from 20 to 50% by evaporation and seepage. To prevent such losses and to increase water use efficiency and to increase the production, Irrigated Agriculture Intensification Programme Phase II is programmed by involving Water Resources Organisation, Agricultural Engineering, Department of Agriculture, Tamilnadu Agricultural University and Irrigation Management Training Institute with an outlay of Rs.650 lakhs over a period of three years.

Main strategy of the programme is to transport the water by improving the canal by lining.

Sl.No	Training Programme for 2003-04	Nos	Rs.in laks
I	1.National training	180	150
	2.IAIP Training/Demonstration		200
II	Institutional strengthening		20
III	Publications		15
IV	Action Research		
	a. Research activities approved by research advisory committee	2	10
	b. Proposal submitted to CWC	2	10
Total		184	405

INSTITUTE FOR WATER STUDIES

1. Water Resources Assessment Studies

Institute for Water Studies (IWS), Tharamani is the Nodal Agency for Water Planning for Tamil Nadu and it is also the Technical Secretariat for the Water Resources Control and Review Council of the Government of Tamil Nadu. Its main function is to plan, assess and to give suggestions for managing the Water Resources of Tamil Nadu in a scientific manner.

The river basins of Tamil Nadu have been clubbed into 17 major river basin groups for study purposes. Water Resources Plan for all the river basin groups at macro level has been completed except for Cauvery basin. Based on these studies a report on "State Frame Work Water Resources Plan of Tamil Nadu" with annexures dealing with each river basin of Tamil Nadu has been prepared. This report contains details of both Surface and Ground water resources availability assessed on a scientific manner for all the river basins of Tamil Nadu. It also contains details of water requirement for various sectors such as domestic, industry, agriculture, livestock etc. for the year 1999 and for the future years 2004/2019/2025/2044 and 2050 A.D. From these assessment of water resources potential and water demands during various years the water surplus and deficit basins are identified so that planning for conservation measures could be initiated. Stake holders meetings were conducted in each river basin to obtain the views and suggestions of various local departmental officers, NGOs and farmers and their views were taken into account in finalising the report.

Micro level studies for Palar, Vaippar, Kodaiyar and Vaigai basins have been completed. An integrated river basin simulation model for these basins has been developed.

2. ENVIRONMENT UNIT

An Environmental Unit was established in the Institute for Water Studies to advise the Government on policy matters liaising with the State and Central Government Organisations, to conduct Environmental Impact Assessment of projects and to maintain data bank on environmental issues and carrying out research programmes under Water Resources Consolidation Project.

2.1 Environmental Action Plan

Environment unit was in charge of monitoring environmental aspects in the micro level reports for Palar, Vaippar and Kodaiyar basins prepared by M/s.Tahal Consultancy Ltd. At present, micro level report for Vaigai and Tambiraparani basins are under preparation by this unit.

Supporting the Technical Secretariat for Vaigai and Tambiraparani river basin Board by the way of furnishing necessary environmental data.

The Environmental unit took an active participation with the World Bank team members during their visits to the Institute for Water Studies.

3. WATER RESOURCES RESEARCH FUND (WRRF)

Under Tamil Nadu Water Resources Consolidation Project, a Water Resources Research Fund was created to support a practical programme on research to assist in the formation, in the water sector funded by the World Bank. A Research Advisory Committee (RAC) was also constituted to advise the Water Resources Organisation (WRO) for identifying the topics of research and to guide the WRRF.

30 research studies on water related and environmental topics amounting to a total value of Rs.309.34 lakhs has been awarded to the research institutions like IIT, Chennai, Anna University, Agricultural University, Bharathidasan University etc. and these studies are now under the completion stage.

The Budget estimate for 2003-04 is Rs. 0.01 lakh.

4. EXPERT COMMITTEE ON "RAIN WATER HARVESTING AND SAFE GUARDING GROUND WATER"

An Expert Committee was constituted to suggest measures for augmentation and conservation of water resources to meet the future demands. Twenty one meetings were conducted by this committee and relevant data from various departments have been received and completed. The committee also submitted a report suggesting various proposals for augmenting Chennai city domestic water supply. Final draft report was prepared and is circulated to all Expert Committee members for final modifications if any.

5. WATER RESOURCES CONTROL AND REVIEW COUNCIL

Water Resources Control and Review Council was established under the Chairmanship of Hon'ble Chief Minister of Tamil Nadu in order to take an integrated view on the utilization, deployment and distribution of scarce water resources of the State with reference to well defined order of priorities to be determined. Under this five sub committees dealing with agriculture / ground water / industries / environment / domestic water requirements etc. were formed to provide necessary input to the committee for deliberation.

The council in its sitting on 23/11/98 deliberated on the "Farmers participation in irrigation management and functioning of irrigation systems in Tamil Nadu" and on the "Need to enact legislation for regulation and control of ground water". Of these two topics the "Tamil Nadu Farmers Management of Irrigation Systems Bill" has been passed by the legislature and the assent of the President of India has been received and published in the Tamil Nadu Government Gazette as "Tamil Nadu Farmers Management of Irrigation Systems Act".

6. INSTITUTIONAL STRENGTHENING

Under the World Bank assisted "Water Resources Consolidation Project" the IWS was strengthened with computers, connected accessories and establishing Management Information Systems.

7. REMOTE SENSING

The Photogeological and Remote Sensing Lab is functioning in the Institute for Water Studies, PWD since 1972.

The Remote Sensing Unit of PWD, Tamil Nadu has successfully carried out the ground water studies in Ponnaiyar & Tamiraparani river basins in co-ordination with the Central Government Agencies, Space Application Centre (SAC), Ahmedabad and National Remote Sensing Agency of Department of Space – Government of India.

Sites had been selected by this Remote Sensing Unit in the drought hit Vellore, Thiruvannamalai, Ramanathapuram, Tirunelveli, Sivagangai and Dindigul districts during the period of 1980 – 1983 for sinking of distress drinking water open wells which are still in good use.

Adopting visual interpretation and computer based digital interpretation, multipurpose thematic maps on geology, soil, geomorphology, land use and lineaments were generated for river basin wise, district wise and taluk wise and they have been field checked and corrected.

For the use of Tahal Consultants in the compilation of water planning reports for Palar, Vaippar & Kodaiyar, basins the following theme maps were generated and supplied.

- i. Sub basin map
- ii. Geology map
- iii. Land use map
- iv. Geomorphology map
- v. Lineament map
- vi. Soil map
- vii. Slope map
- viii. Water level map for pre monsoon and post monsoon seasons
- ix. Water quality map for pre monsoon and post monsoon

Considering the special nature of the work carried out by the Remote Sensing Unit, IWS, the Government have declared this centre as ***“Tamil Nadu State Centre for Remote Sensing Application”***.

This centre is engaged in the generation of maps on geology, geomorphology, structure & lineament, soil, drainage, water potential area, ground water recharge area, water level, water quality and sub basin boundary maps for the use by the Palar and Tamiraparani river basin Boards which have been formed first of its kind in Tamil Nadu. More over the three dimensional Digital Elevation Models also were generated through computer for Palar & Tamiraparani basins.

The changes that have occurred in the forests, lands, irrigation tanks and their command areas over a period of time i.e. what were the areas under forest, tanks and command areas in 1980 and how much they had reduced in 2001 due to environmental degradation have been precisely assessed using the satellite imageries.

The pollution effects caused by the Tannery industries in Palar basin, the extent of the affected agricultural lands and the change in water quality have been studied in detail and identified.

Using the funds provided by the Tamil Nadu State Land Use Board of State Planning Commission, Government of Tamil Nadu special studies were undertaken

1. In the Upper Palar to find out the environmental degradation due to polluting tannery industries and deduction on land use.
2. Thuringalar minor basin of Ponnaiyar basin using Remote Sensing & GIS techniques for targeting ground water potential and selection of artificial recharge structures.

Using the funds provided by the same organization, a project has been undertaken to identify the ground water potential areas with in the over exploited Chengam block of Thiruvannamalai District using Remote Sensing & GIS techniques. Further the different category of waste lands were also identified in that block and suitable action plan – remediation were proposed to convert them as productive lands.

For World Bank review, the land use pattern in Palar, Tamiraparani, Vaigai, Ponnaiyar, Nambiyar, Kodayar and Gundar were generated for the years 1980 and 1999.

8. TECHNICAL SECRETARIAT FOR RIVER BASIN BOARDS

The Technical Secretariat for the River Basin Management and Development Boards (RBMDB) for Palar and Tambiraparani has been formed at the Institute for Water Studies, Tharamani, Chennai-600 113 from August 2002 with the Chief Engineer, IWS as the Chairman.

RIVER BASIN MANAGEMENT AND DEVELOPMENT BOARD

The Government of Tamil Nadu have set up River Basin Management and Development Boards (RBMDB) for Palar and Tambiraparani river basins. The objectives of RBMDB are integrated planning, monitoring, management and development of water and land and to have the active involvement of stakeholders in each river basins.

Hon'ble Minister for Public Works is the Chairman of the RBMDB. Development Commissioner, Secretaries to Government for Finance, Water Resources, Agriculture, MAWS, Rural Development, Industries, Forests and Environment, all MPs and MLAs representing the constituencies in the river basin, Chairman of all the Panchayat Unions, Chairman of Municipal Councils, District Collectors, representatives of the different departments, Chief Engineers and Superintending Engineers concerned of WRO, three representatives of industries and three eminent NGOs in the area and Chief Engineer, Central Water Commission are members of the RBMDB.

The Government have also constituted a Basin Management Committee (BMC) for each of the RBMDB to take decisions on behalf of the RBMDB. The Hon'ble Minister for Water Resources is the Chairman of the BMC. The members of the BMC are the Development Commissioner, Government of Tamil Nadu, Secretaries to Government for Finance, Water Resources, Agriculture, MAWS, Rural Development, Industries, Forests and Environment departments, Chief Engineer, WRO, two MPs and two MLAs nominated by Government, Collectors of concerned districts, District Panchayat Presidents from the basin area, three representatives of the Water Users Associations, one eminent person from the basin area and one representative of NGO.

The Government have also approved the formation of the Technical Secretariat for supporting the RBMDB and BMC with 13 specialists of different disciplines. The Chief Engineer & Director, Institute for Water Studies is the Chairman of the Technical Secretariat. The Technical Secretariat is functioning from August 2002.

The Technical Secretariat has organized three meetings / workshops to identify and assess the environmental and social issues related to the river basins.

1. Brainstorming meeting on Palar river basin environmental and social issues at IWS, Tharamani, Chennai on August 6, 2002.
2. Consultative workshop on " Strategic environmental assessment for Palar river basin" at Chennai on October 18, 2002.
3. Stakeholders' meeting to discuss the environmental issues of Tambiraparani river basin at Tirunelveli on November 23, 2002.

The second meeting of the RBMDB of Palar river basin was held at Tiruvannamalai on November 9, 2002. Hon'ble Minister for Public Works (Water Resources) and Chairman of the Board presided the meeting. The members have discussed the various issues of the basin.

The second meeting of the RBMDB of Tambiraparani river basin was held at Tirunelveli on November 24, 2002. Hon'ble Minister for Public Works (Water Resources) and Chairman of the Board presided the meeting. The members have discussed the various issues of the basin.

TAMILNADU BOILER INSPECTORATE

The Tamil Nadu Boiler Inspectorate is administrating the provisions of the Indian Boilers Act 1923, a Central Government Act administered by the State as concurrent subject. The main responsibility of the Boiler Inspectorate is for the safe operation of the boilers and to ensure the safety of public life and property as per the provisions of the Indian Boilers Act 1923.

The State of Tamil Nadu is a pioneer in the field of Boiler manufacturing including Power Boilers and also having maximum number of Boiler Ancilliary Units, like Foundries, Forge Shops,

Tubes and Pipes manufacturing units etc, which are manufacturing Boilers components and other products under the provisions of the Indian Boilers regulations, 1950.

The Tamil Nadu Boiler Inspectorate is plying crucial rool in the phenomenal development Boiler and Boiler Ancillary Industries in the State of Tamil Nadu by its efficient functioning.

The Tamil Nadu State is also the number one State in the Country in the manufacture of Boilers and Boiler Components. The Boiler Inspectorate by strictly enforcing the provisions of the Indian Boiler Regulations, 1950 is ensuring the quality in respect of Boilers and Boiler components manufactured in the State of Tamil Nadu.

Thus by its efficient functioning, the Tamil Nadu Boiler Inspectorate is playing a pivotal role in the Industrial growth of Tamil Nadu.

BUILDINGS ORGANISATION

1. The "Buildings Organisation" in PWD started functioning separately with effect from 1.4.1996 with 16 circles (13 Circles for Civil works and 3 Circles for Electrical works) and 52 Divisions (45 Divisions for Civil works and 6 Divisions for Electrical works including one at New Delhi).

2. The Buildings Organisation of P.W.D. is vested with the responsibility of Planning, Designing and Construction of Public Buildings and allied works including Land acquisition in accordance with needs and requirements of various Government Departments of the State Government. Besides these, Construction and Erection of Monuments and Memorials are also carried out by this Organisation.

3. The Buildings Organisation also undertakes construction of Buildings and other works for the State and Central Government undertakings, Corporations etc., such as, ESI Corporation, Universities and Tamilnadu Agricultural Development Schemes.

4. Maintenance of all Government Buildings, Monuments, Memorials are also carried out by this Organisation.

5. The maintenance of Inspection Bungalows and Circuit Houses, Raj Bhavan at Chennai and Udhagamandalam, Secretariat, Government Estate, MLAs' Hostel, Judges, Ministers and other VVIP Bungalows are also looked after by this Organisation.

6. Apart from the above, development works are also carried out under M.L.A. and M.P. Local area Development Schemes. Valuation of Buildings referred to by the Judicial and Vigilance and Anti Corruption Departments are carried out. Structural Stability Certificate for Cinema Theatres and Public Buildings and Reasonableness of Rent Certificate for the Private Buildings occupied by the Government Offices, are issued by the Buildings Organisation. This wing is looking after arrangements for VIP & VVIP visits such as stage erection, barricading arrangements, providing Public Address System and lighting arrangements.

7. Buildings Research Station at Tharamani, Chennai headed by an Executive Engineer under the control of Superintending Engineer, (Planning and Designs Circle) renders the following services to the Public;

1. Organising Training Programs for Engineers and Artisans through "PWD Kattida Maiyam"
2. Take up Consultancy and Construction Works on behalf of "PWD Kattida Maiyam" producing Cost Effective Construction Materials and Elements and market them for use in Consultancy Projects.
3. Undertake Material Testing, Basic Research Studies and Applied Research Studies.
4. Consultation service by Inspection of Distressed Buildings and recommend Renovation and Rehabilitation Techniques to be adopted to bring them back to its original condition.

8. Architect wing

An Architect wing is functioning separately under the Chief Architect in the rank of Chief Engineer. Chief Architect wing evolves architectural plans for all Government Buildings constructed by PWD. This wing evolves preliminary drawings, detailed plans, elevation and cross sections for all New Buildings and provides colour schemes. This wing also evolves layout plans for large complexes, such as Master Plan Complex for the newly formed District Collectorates and Head Quarters Buildings, besides evolving plans for Memorials, Manimandapams, Parks etc. This wing also evolves type Designs for Block Sanctioned Buildings such as Primary Health Centres, Health Sub Centres, Class rooms for School Buildings, Backward Class and Most Backward Class Hostel Buildings etc.

9. The departmentwise ongoing schemes are as follows:

HEALTH AND FAMILY WELFARE DEPARTMENT

A . HOSPITALS

1. The work of construction of New Building for the Institute of Research and Rehabilitation of Hand Injury and Plastic Surgery Department in Government Stanley Hospital, Chennai for Rs.500 Lakhs are in progressing speedily.

2. The work of Construction of New Buildings for Out-Patient in Govt. Stanley Hospital, Chennai for Rs.650 Lakhs is to be started soon.

3. The work of construction of additional floor over Post Graduate Block Ground floor at Govt. Dental Medical College, Chennai, for Rs.80 Lakhs is under progress.

4. The construction of Tower Block I and Tower Block II and Modern Kitchen Block after dismantling the old and damaged buildings at Government General Hospital, Chennai are sanctioned for Rs. 10,447 Lakhs and the work of both the Tower Block buildings are under progress.

5. Sanction has been accorded for the Construction of building with 500 Beds for Rs.2173 Lakhs for New Government Medical College in Government Medical Hospital campus at Asaripallam in Nagercoil in Kanyakumari District. As phase I, the work of construction of buildings with 300 beds are to be started for Rs. 500 Lakhs, with the financial aid of HUDCO.

6. The Government have sanctioned Rs. 500 Lakhs for the Construction of Hospital with 300 beds and buildings for the New Medical College at Vellore and the works are to be started with the financial aid of HUDCO.

7. The Government have sanctioned Rs. 105 Lakhs for the Construction of New Administrative Office Building in the Home for Mentally retarded at Kilpauk and the work has been started.

8. During 2000-2001, Government have sanctioned Rs.126.00 Lakhs for the construction of wards and mortuary blocks and X-ray Block in the Government Hospital of Velayuthampalayam in Karur District and the same is in speedy progress.

9. During 2001-2002, the Government have sanctioned a sum of Rs.132.00 Lakhs for the provision of Generator in 6 District Headquarters Hospitals and 6 Taluk Headquarters Hospital. Out of these, the buildings works for 7 places are in progress and for the remaining 5 places, works will be taken up shortly.

10. During 2001-2002 and 2002-2003, the Government have sanctioned Rs.1600.00 Lakhs for the construction of 30 bedded ward and X-ray Block in 40 places with the help of Central Government Aid. Out of this, the works are in progress in 35 places and tenders are under scrutiny for the remaining places.

11. During 2002-2003, the Government have sanctioned Rs.680 Lakhs for the construction of 30 bedded ward and X-ray Block in 17 places with the NABARD assistance. Works are in progress in 16 places and tender is under scrutiny for the remaining 1 place.

(B) MEDICAL COLLEGES.

1. The Construction of New Buildings to admit 315 additional students (including 150 NRI students) in 5 Medical Colleges in Tamil Nadu was sanctioned for Rs. 1882 Lakhs. Out of this, works are started as Phase-I for Rs. 1001 Lakhs with financial aid of HUDCO.

2. The Government have sanctioned Rs.1200 Lakhs for the Construction of New Medical College at Theni District. The tenders are called for, for starting the work with the financial aid of HUDCO.

(C) PRIMARY HEALTH CENTRE BUILDINGS.

Out of the 652 Primary Health Centres sanctioned by the Government during 1996- 1997 and 1997-1998, for Rs. 4968 Lakhs, 632 buildings were completed and works are under progress in the remaining places. Further sanction was accorded for Rs.900.00 Lakhs for 200 Health Sub Centres all over Tamilnadu and out of this, 199 Health Sub Centres have been completed and the remaining one is under progress.

(D) HEALTH SUB-CENTRE BUILDINGS

1. During 2001-2002, the Government have sanctioned Rs.600 Lakhs for the construction of 100 Health Sub Centres with Central Government Aid and all the works are in progress.

2. During 2002-2003, the Government have sanctioned Rs.1920 Lakhs for the construction of Primary Health Centres in 298 places and all the works are in progress.

HOME DEPARTMENT

(A) JUDICIAL DEPARTMENT

1. The Government have sanctioned Rs. 5249 Lakhs for the construction of buildings for High Court Bench at Madurai and the work is in progress.

2. The Government have sanctioned Rs. 961.92 Lakhs for the construction of Judicial Buildings at Villupuram as per recommendation of the XIth Finance Commission. Pre-Qualification Tenders are under scrutiny.

3. The Government have sanctioned Rs.185 Lakhs for the construction of Buildings for the Tamil Nadu Legal Centre, Rs.100 Lakhs for Library Buildings and Rs.450 Lakhs for the Training Centre for Judges in Malligai Complex, at Chennai and works are in progress.

(B) FIRE SERVICE DEPARTMENT

During 2001-2002, the Government have sanctioned Rs.458.70 Lakhs and during 2002-2003 Rs. 141.30 Lakhs for the construction of Fire Service stations at 34 places. Out of this, 3 works have been completed and 31 works are in progress.

(C) PRISON DEPARTMENT

During 2001-2002, the Government have sanctioned Rs.221.05 Lakhs for the construction of Medical Facilities and security arrangements in Central Prison and Sub-jails in 48 places, out of which, 34 works have been completed and 14 works are in speedy progress.

REVENUE DEPARTMENT

1. The Government have sanctioned Rs.35.20 Lakhs for the construction of Revenue Divisional Officer's Office at Attur in Salem District and the work is in progress.

2. With the assistance of the XIth Finance Commission fund, the Government have sanctioned Rs.7213.74 Lakhs for the construction of Revenue and other Department Buildings for the period of 2001-2004 in Perambalur, Karur, Namakkal, Theni, Tiruvallur, Thiruvallur and Villupuram Districts. During 2001-2002 and 2002-2003, Rs. 5717.33 Lakhs have been sanctioned for the construction of Revenue and other Department Buildings in 17 places, out of which, 153 works have been taken up at a cost of Rs.3853.25 Lakhs.

PUBLIC DEPARTMENT

The Government have sanctioned Rs.2207 Lakhs for the Construction of Additional Guest House and Staff Quarters for the Tamil Nadu House in New Delhi and the work is in progress.

EDUCATION DEPARTMENT

1. The Government have sanctioned Rs.1836 Lakhs for the construction of class rooms, lab, toilet blocks and water supply arrangements in 96 Government High Schools / Higher Secondary Schools in 9 Districts with the help of NABARD and the works are in progress.

2. The Government have accorded sanction for a value of Rs. 8063.69 Lakhs for the construction of class rooms, lab, toilet blocks and water supply arrangements to 250 Government High Schools / Higher Secondary Schools in 19 Districts under Phase-II with the NABARD assistance and tenders have been called for.

AGRICULTURE DEPARTMENT

1. The work of construction of Paddy Market Complex at Madurai has been taken up for a value of Rs.1260.00 Lakhs and the work is in progress.

2. The work of construction of shops for Agriculture Products at Dindigul has been taken up at a cost of Rs.353.00 Lakhs, after the receipt of initial deposit amount.

3. The work of construction of Bio-Control Lab at Salem has been taken up at a cost of Rs.72.60 Lakhs and the work is in progress.

4. The work of construction of Bio-Control lab at Villupuram has been taken up at a cost of Rs.66.00 Lakhs and the work is in progress.

EMPLOYMENT AND TRAINING DEPARTMENT

The work of construction of new office building for the Director and Joint Director of Employment and Training Department at Guindy in Chennai at a cost of Rs. 278.30 Lakhs has been sanctioned by the Government and the work has been started.

ANNA INSTITUTE OF MANAGEMENT

The Government have sanctioned Rs.1000 Lakhs for the construction of New Complex for the Anna Institute of Management at Chennai and the work is in progress.

MLAs OFFICE BUILDINGS

The Government have accorded sanction for the Construction of Office Buildings for each of the 234 MLAs in their constituencies at a cost of Rs.4.50 Lakhs each. Out of this, buildings completed in 191 constituencies and works are in progress in the remaining places.

BACKWARD AND MOST BACKWARD WELFARE DEPARTMENT

1. During 2001-2002, the Government have sanctioned, with the aid of HUDCO and Central Government Fund, 114 hostel buildings for the MBC & DNC Departments and out of which, 21 works have been completed and handed over and works are in progress for the remaining places.

2. The Government have sanctioned for MBC and DNC Students Hostels, a sum of Rs. 275.60 Lakhs for 358 works and the works have been completed in 204 places and works are in progress in the remaining 154 places.

10. PART - II SCHEMES FOR THE YEAR 2003 - 2004:

The following new schemes are proposed to be taken up during the year 2003 – 2004.

1. Construction of Office Buildings for Buildings (Maintenance) Section at Srivaikundam for value of Rs. 4.00 Lakhs.
2. Construction of Office Buildings for Buildings (Maintenance) Section at Andipatti in Theni District for value of Rs. 4.00 Lakhs.

3. Renovation of the Halls for Technical Section (Buildings) in the First floor, west side of P.W.D. Main Building at Chepauk, Chennai for value of Rs.15.00 Lakhs.
4. Providing additional facilities to the Circuit House at Trichy (Toilet Block and R.W.H.) for value of Rs. 5.00 Lakhs.

11. RAIN WATER HARVEST:

The Government of Tamil Nadu are taking intensive steps towards RAIN WATER HARVESTING in the State. The Hon'ble Chief Minister during the review meeting conducted on 11.09.2002 has instructed that all the Government owned building must be provided with suitable RAIN WATER HARVESTING arrangements and also during the conference of District Collectors announced an allotment of Rs. 25.00 Crores for provision of RAIN WATER HARVESTING Structures. Normally, RAIN WATER sHARVESTING arrangements has to be decided based on the lithology of soil and terrain details of the area, etc. Preference will be given to the Major Campuses where there is cluster of buildings with lot of open space. The pervious soil is ideally suited for RAIN WATER HARVESTING and such campus will be considered in the first instant. RAIN WATER HARVESTING will be considered subsequently in the semi pervious zone. So far 1993 Government building were provided with RAIN WATER HARVESTING Structure by PWD utilising the Maintenance Grant available.

12. The details of total number of major building works under progress during the year 2002-2003 and the major works to be taken up during the year 2003-2004 are indicated in the Annexure I and II respectively.

O.PANNEERSELVAM
Minister for Public Works,
Prohibition & Excise and Revenue

ANNEXURE – I **DETAILS OF MAJOR BUILDING WORK IN PROGRESS DURING 2002 – 2003**

<u>Sl. No.</u>	<u>Name of Work</u>	<u>Value Rs. in Lakhs</u>
1	Construction of rooms for the Additional Guest House and Staff Quarters for Tamil Nadu House in New Delhi	2207
2	Construction of Office Building for Tamil Development Department in Egmore Museum Complex at Chennai.	220
3	Construction of High Court Buildings in Ulaganeri at Madurai District	5249
4	Construction of New Buildings for Government Hospital at Chennai	10447
5	New Building for the Institute of Research and Rehabilitation for Hand and Plastic Surgery Department in Government Stanley Hospital, Chennai	500

6	Out Patient Block for Government Stanley Hospital, Chennai.	650
7	Construction of Paddy Market Complex at Madurai.	1260
8	Construction of New Building for Anna Institute of Management at Chennai	1000
9	Construction of Buildings for Revenue and Non-Revenue with the XI Finance Commission funds.	7213
10	Construction of Additional Class Rooms in 5 Medical Colleges	1882
11	Construction of New Office Building in the home for Mentally retarded at Kilpauk, Chennai – 10	105
12	Construction of shopping complex for Agriculture Product in Oddanchatram of Dindigul District	353
13	Construction of office buildings for the Director of Employment and Training in Guindy at Chennai	278
Total		31364

ANNEXURE – II

DETAILS OF MAJOR BUILDINGS WORKS, WHICH ARE TO BE TAKEN UP DURING THE YEAR 2003 - 2004.

Sl. No.	Name of Work	Amount Rs in Lakhs
1	Construction of New Medical College at Theni	1200
2	Construction of New Building for Medical College in Government Hospital Complex at Asaripallam in Kanyakumari District	2173
3	Construction of New Medical College at Vellore	500
4	Construction of Judicial Buildings at Villupuram	962
Total		4835