



PUBLIC WORKS DEPARTMENT

DEMAND No. 38

POLICY NOTE

2004- 2005

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and Revenue

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Government of Tamilnadu
2004

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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 the first year of 10th Five Year Plan 2002-2003, an additional irrigation potential of 4924 hectares has been created. During 2003-2004, additional irrigation potential of 5141 hectares is expected to be created and in the year 2004-05 an irrigation potential of 3629 hectares is proposed to be created.

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 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 31.3.2004 to complete the balance works.

Now the World Bank has further extended the project period (i.e.) upto 30-9-2004.

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 2004-2005, the following Medium and Minor Irrigation Schemes were in progress:-

- (1) Strengthening of Periyar Dam (Peermedu, 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 Uppar 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) Formation Of 18th Canal In Uthamapalayam Taluk Of Theni District
- (26) Reservoir Across Mambazhathuraiyar (Kanyakumari District)
- (27) Extension Of Nilaiyur Channel (Madurai District)
- (28) Ullar Reservoir Across Palaiyar And Valamazhaiyar (Tirunelveli District)
- (29) Reservoir Across Mirukandanadhi (Tiruvannamalai District)
- (30) Rehabilitation And Modernisation Of The Lower Bhavani Irrigation Systems And Inclusion Of 23,000 Acres Of Land In Lower Bhavani Ayacut.
- (31) Construction Of Syphon In Pugalur Channel To Divert The Polluted Noyyal Orathupalayam Water.
- (32) Rehabilitation Of Anicut Across Nanganjar Odai Near Pallapatti In Karur District.
- (33) Desilting Kathiriinkulam And Its Channels In Dindigul District.

PRESENT STAGE OF THE ABOVE ONGOING SCHEMES

(1) Restoring the water level in Periyar Dam

The Periyar Project was executed by the then Madras Presidency as per the Lease Deed executed between the Maharaja of Travancore and the then Madras Presidency in the year 1886. The Project was completed in the year 1895. Subsequently, two supplemental agreements were executed between the Government of Tamil Nadu and the Government of Kerala in the year 1970.

2. In the year 1979, certain apprehensions were raised by the Government of Kerala on the safety of the dam. The Central Water Commission inspected the Dam and suggested three types of strengthening measures viz., (i) Emergency Measures (ii) Medium Term Measures (iii) Long Term Measures and they were taken up for execution by Tamil Nadu. In the meanwhile, the water level was temporarily brought down from the FRL 152 ft. to 136 ft. for completing the emergency and medium term measures. The Central Water Commission suggested that on completion of the emergency and medium term measures, the water level could be raised to 145 ft.

3. Subsequently, the Central Water Commission, suggested some additional measures like strengthening of Baby Dam and raising of the parapet wall by 2ft. viz., from 158 ft. to 160 ft. Strengthening of Baby Dam and raising of the parapet wall by 2 ft. via., from 158 to 160 ft. alone could not be completed due to the objections raised by the Government of Kerala.

4. However, the Government of Kerala is continuously insisting that even after completion of all the strengthening measures, the water level should be kept at the present level of 136 ft.

5. In the meanwhile, Writ Petitions were filed in the High Court of Kerala by some individuals in Kerala praying that the water level shall not be allowed to be raised by Tamil Nadu beyond the present level of 136 ft. On the other hand, Writ Petitions were filed in the High Court of Madras praying that the water level should be restored to the FRL of 152 ft. The Supreme Court of India after hearing the transfer petition filed by the Government of Tamil Nadu and another, passed orders for the transfer of the Writ Petition filed and pending in the High Court of Kerala and High Court of Madras for disposal.

6. The Supreme Court on 5.12.2002 directed for posting the matters for final disposal in March 2003. Though the matter was listed for hearing during the third week of April, 2003, it did not come up for hearing. It was not also listed for hearing thereafter.

7. As the cases were not listed for hearing, the Government of Tamil Nadu on 11.11.2003 filed an Interlocutory Application in the Supreme Court for fixing an early hearing of the cases for disposal.

8. The Supreme Court, which heard the Interlocutory Application on 12.12.2003, passed order for expediting the hearing of the cases. The Supreme Court on 5.5.2004 has directed for listing of the cases for hearing after summer vacation.

9. The Government of Tamil Nadu is closely following the case and taking all the steps to restore the water level to the FRL of 152ft. in the Dam.

10. The B.E. proposed for 2004-2005 is Rs.87.23 lakhs (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 Vedasandur 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 93% of the work has been completed.

The Budget provision for the year 2004-05 is Rs.0.02 lakh.

(3) Irukkangudi Reservoir (Virudhunagar District)

This scheme is for the formation of reservoir across Vaippar near Irukkangudi 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, Maserpatti, Sakkiapatti, Thapathu, Kuthanattukkurichi, Melkarandai, Vengottai, Kuzhkkarandai, Vadamalapuram, Vovvalthothi and Vedapatti Villages of Vilathikulam Taluk of Thoothukudi District.

The progress of works of construction of masonry dam across Arjuna and Vaippar rivers are under various stages.

In this scheme, the headworks portion 85% of work completed. 90% of main canal and 95% of Branch Canal have been completed. Cross masonry works in canal are in progress. Government has approved the revised estimate for Rs.62.20 Crore.

The Budget provision for the year 2004-05 is Rs. 237.78 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.

The Budget provision for the year 2004-05 is Rs.48.91 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 the existing 54 tanks in O Karisalkulam, Vappankulam (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 masonry from LS 0 – 200 and 200 – 385 metre have been 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 is to be started.

Now, the revised estimate for this scheme for Rs.4200 Lakh to give additional irrigation facilities to an extent of 1711.70 ha. under the same 54 tanks by revising the design and posed to NABARD loan assistance.

The Budget provision for the year 2004-05 is Rs.679.56 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 surpluses 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.

Out of 27.26 km length of main canal, earthwork for 6.5 km length completed. Partly completed for another 10 km length. Out of 82 nos. of cross masonry works, 22 Nos. completed. Earth work for branch canal is in progress. Out of 130 Nos., 22 Nos. of Cross Masonry works completed. In total, 40% work completed.

The Budget provision for the year 2004-05 is Rs. 517.35 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.

This project is being implemented through the loan assistance from NABARD. 25% of work completed.

The Budget provision for the year 2004-05 is Rs.1000.00 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 Tiruvannamalai 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.

80% of the work has been completed.

This work is being implemented through "NABARD" loan assistance.

The Budget provision for the year 2004-05 is Rs.274.11lakh.

(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, Vasampalli, Nariyampattu, Reddimankuppam, Sarangal, Kailasagiri, Ayithampattu, Sathampakkam, Rajakal, Alingikuppam, Malmurugai, Melpatti, Kulithigai, Chinnathottalam, Ulli, Kothakuppam, Aranganalur, Olakasi and Chithathur villages of Gudiyatham Taluk. Besides, provision for drinking water facilities to Peranampet town and the wayside 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. Forestland has been handed over to Public Works Department. NABARD has been approached for loan assistance.

The Budget provision for the year 2004-05 is Rs.1300.00 lakh.

(10) Kuppanatham Reservoir (Tiruvannamalai District)

The scheme contemplates formation of a reservoir across Cheyyar near Kuppanatham village in Chengam Taluk of Tiruvannamalai 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, Chinnasamudram, 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 agreed for loan assistance.

Revised Estimate for this work for Rs. 43.50 Crore is under sanction.

The Budget provision for the year 2004-05 is Rs.1700.00 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 wetlands 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 poramboke land. The Government of India has given its permission for transfer forest land on 22-12-2000.

Main works are in progress. "NABARD" has accorded approval for loan assistance. 40% work completed.

The Budget provision for the year 2004-05 is Rs.1500.00 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. Due to the inclusion of certain additional works, the estimated cost has been increased to Rs.1435 Lakhs. The Revised Estimate for Rs.1435 Lakh has been sanctioned on 30.05.2003. The additional works are in progress at various stages.

The Budget provision for 2004-05 is Rs. 0.01lakh.

**(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 Mandalamanickam, Kamuthi, Mandalnadu, K.Nedungulam, Seemanendal, Kundukulam, K.Veppankulam, O.Karisalkulam, Kovilankulam, Koomboothi, M.Pudukulam and Villanendal villages in Kamuthi Taluk and 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 2004-05 is Rs.39.12 lakh.

(14) Tank across Uppar Odai (Tiruchirappalli District)

The Government have sanctioned the scheme for formation of a tank across the Uppar 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. 75% of the work has been completed. Further works are in progress.

The Budget provision for the year 2004-05 is Rs.53.94 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 meter long earth bund, uncontrolled weir and four sluices. Totally 81% of the works has been completed. The remaining works are in progress. Land acquisition process is in progress

The Budget provision for the year 2004-05 is Rs.129.09 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 900m 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 30m.

About 90% of cross masonry works completed. Dam work completed and the balance works are in progress. NABARD has accorded sanction for loan assistance for this scheme.

The Budget provision for the year 2004-05 is Rs.10.00 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.

Formation of earthen bund 20% completed. Works for the construction of surplus weir is under process. Remittance of land acquisition charges to be done.

The Budget provision for the year 2004-05 is Rs.293.33 Lakh.

(18) Tank across Ramakkal Odai and Anaivilundan Odai (Dindigul District)

The Government have sanctioned the scheme for the formation of tank across Ramakkal Odai and Anaivilundan Odai, 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 Madras High Court has ordered not to proceed with the work without settling the land acquisition charges. Proposal to acquire 0.29.30 Hec. of forest land has been sent.

The Budget provision for the year 2004-05 is Rs.329.37 lakh.

(19) Reservoir across Nallathangal Odai (Erode District)

The Government have sanctioned the scheme for the formation of a reservoir across Nallathangal Odai near Eswarankoil 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 2004-05 is Rs.1787.73 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.

(21) Reservoir across Nagariyar Near Sasthakoil (Virudhunagar District)

The Government have sanctioned the scheme for formation of a reservoir across the river Nagariyar 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.

90% work completed. Balance Work is in progress. NABARD has accorded sanction for loan assistance for this scheme.

The Budget provision for this scheme 2004-05 is Rs.0.01lakh.

(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 given by Government of India. Work will be commenced after obtaining loan assistance from NABARD.

The Budget provision for the year 2004-05 is Rs.450.00lakh.

(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 upto 500m, sluice and surplus weir have been completed. 50% work completed. Action is being taken to complete the balance works.

The Budget provision for the year 2004-05 is Rs.254.62lakh.

(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.

Desilting works are completed.

(25) Formation of 18th Canal in Uthamapalayam Taluk in 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 Uthampuram 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. The works have been split up into 3 reaches. Works in all the three reaches are in progress.

14% completed. Proposal has been sent to NABARD for seeking loan assistance for completing the balance works

The Budget provision for the year 2004-05 is Rs.1000.00lakh.

(26) 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.

The Budget provision for the year 2004-05 is Rs.300.00lakh.

(27) Extension Of Nilaiyur Channel (Madurai District)

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

The scheme aims at stabilization of irrigation for 2686.53 hectares and bridge a gap in 1126.03 hectares in Valayapatti, Thothiyapatti, Chinnulagam, Valayankulam, Nedumadurai, Kudakovil, Vellarakulam, Periya Alangulam, Sambakulam, Kombadi, Iyyampatti, Eliyarpatti, Mochipatti, Panapatti, Pulichankulam, Anaikulam, Sangumadai, Sallankurini, Nallur, Vadakku Purikulam, Pappanodai, Ramankulam, Kaluvankulam, Viradhanur, Muthankulam, Panaikulam, M.Alangulam, Nedunkulam, Sathankulam, Sagadathatti, Chinnaudappu, Kudiraikutti, Kodalsengulam, Kosarankundu, Udaikulam, Kosarapatti, Konthankulam of Madurai South Taluk; Chinnaulagam, Virusankulam, Vidhithakulam, Keeraupplikundu of Thirumangalam Taluk of Madurai District, Kadambankulam, Aviyar, Poolapathi, Mankulam, Kurathi, Udaikulam, Arasakulam Rayarpatti, Kambikudi, Pappankulam, S.Alankulam, Anmalperruki, Sathiram poolamkulam, Pannaivalathampatti, Vetrilaimudichampatti, Avalaperi of Kariyapatti Taluk of Virudhunagar District, Kansarankulam, Valayankulam, Soorampatti, Thiraliyar, Mukkudi, Elanthaikulam, Vadhurankulam, Karankalakudi, Rakkankulam, Sengulam, Vadakkur, Paraiyankulam and Usilankulam Villages of Manamadurai Taluk of Sivaganga District.

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.

72% of works completed. Balance works in progress. NABARD has accorded approval for loan assistance. Government have approved the revised estimate for an amount of Rs.19.49crore

The Budget provision for the year 2004-05 is Rs.248.28 lakh.

(28) 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 masonry dam, spillway, construction of 2 sluices, improvements to Rasingaperiar and Kulasekaraperiar, construction of dividing wall and improvements to the existing anicuts and tanks. For this scheme about 57 ha. of forest land is to be transferred. Government of Tamilnadu is proposed to address the Government of India in this regard. Design for the Project is completed.

The Budget provision for the year 2004-05 is Rs.700.00lakh.

(29) 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, Ernamangalam 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. The work has been taken up with "NABARD" for loan assistance.

The Budget provision for the year 2004-05 is Rs.1078.00 lakh.

(30) 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.

(31) 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 of Madras.

(32) 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.

(33) Desilting Kathirinkulam and its Channels in Dindigul District – Estimate Rs. 50.00 Lakh

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

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 Villages in Manamadurai taluk and Velaneri, Kallikudi and Pidariseri Villages 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.

65% of the work completed. The works like construction of road bridge and railway bridge are to be taken up.

**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 | 57% work completed. HUDCO loan of Rs.170.45 Lakh received. |
| 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 | Proposed for dropping this scheme. |
| 5. | Formation of a tank across Vellapparai Odai in Theppampatti Village | Est. Amount: Rs.119.00 Lakhs Benefit 104.28 | Work completed. |

| | | | |
|--|---------------------------------------|-------|--|
| | in Andipatti Taluk of Theni District. | Acres | |
|--|---------------------------------------|-------|--|

(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 | Work completed |
| 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 completed. |
| 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 New : 37.35 Acre Stabilisation :19.19 Acre Additional F.P :21.07MT | Scheme has been dropped |
| 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 | Work completed. |
| 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: 44.00MT | Tender accepted. |
| 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: 87.88Acre New : 33.11 Acre Gap : 87.29 + 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 2004-05. |
| 10 | Formation of a pond in S.F.No.73, 74 & 75 in Vadipatti of Oddanchatram 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 2004-05. |

(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 out portion of coast line from Thiruvattiyur to Thalaukuppam to a total length of 2.38 KM. | Estimate Cost Rs.1057.39 Lakh. 40% work completed. |

Part II Schemes sanctioned during 2003-04

| Sl. No. | Name Of Work | Details | Stage of work |
|---------------------------------|--|--|-----------------------|
| 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 | 20% work completed |
| 2. | Formation of a pond across | Estimated Amount: Rs.125.00 Lakh | Works under progress. |

| | | | |
|----|--|--|--|
| | 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 | 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 | The design and drawing are under finalisation. |
| 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. | Tender has been called for. |
| 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 | Tender has been called for. |
| 3. | Improvement to Puliyanakulam Supply Channel and excavation of new channel from Puliyanakulam to Pennathur Tank in Pennathur village of Manapparai Taluk in Tiruchi District | Estimated Amount: Rs.36.00 Lakh Benefits Stabilisation: 102.47 Acres Gap 83.58 Acres | Tender has been called for. |
| 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 | Tender has been called for. |

In 2004-2005, it is proposed to execute the following new schemes at an estimated cost of Rs.930 Lakhs to create an additional potential for 1141 hectares.

2004-2005 New Schemes proposed under Part II

| Sl. No. | Name of the Scheme | Details | |
|---|---|---|--|
| <i>I. Special Minor Irrigation Schemes</i> | | | |
| 1. | Formation of a new pond in SF No. 79 & 80 in Veriappur village in Oddanchatiram Taluk in Dindigul District | Estimated Amount B.E.2004-2005 Benefits New | : Rs. 12.00 Lakh : Rs. 12.00 Lakh : 37.50 Acres (Double Crop) |
| 2. | Formation of a new pond in SF No. 408 of Chikkarasampalayam village in Sathyamangalam taluk in Erode District. | Estimated Amount B.E.2004-2005 Benefits Stabilization New | : Rs. 25.00 Lakh : Rs. 10.00 Lakh : : 37.50 Acres (Double Crop) : 18.65 Acres (Double) |
| 3. | Formation of a new pond across Odai near Dharmathupatti village in Andipatti taluk in Theni District | Estimate Amount B.E.2004-2005 Benefits Stabilization New | : Rs.34.00 Lakh : Rs.13.00 Lakh : 53.62 I Crop : 20.30 Acres II Crop : 20.30 Acres |
| 4. | Formation of a new pond across Odai near Kottodai patti village near Pulimankombai village in Andipatti taluk of Theni District | Estimated Amount B.E.2004-2005 Benefits Stabilization New | : Rs. 74.00 Lakh : Rs. 30.00 Lakh : : 53.48 Acres : 124.62 Acres |
| 5. | Formation of a new pond across Odai Unjalamma Koil in Sippalakottai village in Uthamapalayam taluk of Theni District | Estimated Amount B.E.2004-2005 Benefits New | : Rs. 60.00 Lakh : Rs. 25.00 Lakh : : 39.04 Acres (Double Crop) |

| | | | |
|-------------------------|--|--|---|
| 6. | Formation of a new pond across Odai near Ammapatty Village in Andipatti taluk of Theni District | Estimated Amount : B.E.2004-2005 : Benefits : New : | Rs. 25.00 Lakh Rs. 10.00 Lakh : 38.00 Acres (Double Crop) |
| 7. | Augmenting water supply from Karaipottan river to feed Nagayanallur and Pidaramangalam tanks in Musiri taluk in Trichy District | Estimated Amount : B.E.2004-2005 : Benefits : Stabilization : Gap : | Rs. 21.00 Lakh Rs. 10.00 Lakh : 300.90 Acres 488.98 Acres |
| Minor Irrigation | | | |
| 8. | Formation of a tank across Perumpallam Odai near K.Morur in Kanmavaipudur Village of Omalur taluk in Salem District | Estimated Amount : B.E. 2004-2005 : Benefits : New : | Rs.495.00 Lakhs Rs.50.00 Lakhs : 210 Acres |
| 9. | Construction of an anicut across Ayyar near Puliyancholai to feed Mahadevi and chain of other tanks in Thuraiyur Taluk of Trichy District. | Estimated Amount : B.E. 2004-2005 : Benefits : Stabilization : Gap : | Rs.184.00 Lakh Rs. 50.00 Lakh : 858.51 Acres 539.97 Acres |

NABARD SCHEMES

During the year the following schemes are proposed to be taken up with NABARD assistance.

| S.No | Name of Scheme | Estimate Amount (In Lakhs) | Ayacut Benefited (In Ha) |
|------------------------|---|----------------------------|--------------------------|
| Ongoing schemes | | | |
| 1 | Formation of a reservoir across Cheyyar river near Kuppanatham village in Chengam Taluk in Tiruvannamali District | 4226.70 | 971.00 |
| 2 | Formation of 18 th canal in Uthamapalayam Taluk of Theni District | 2645.17 | 2305.00 |
| 3 | Construction of an anicut across Malattar river near Sengapadai village in Kamudhi Taluk of Ramnathapuram District | 4205.91 | 3598.00 |

| New minor irrigation schemes | | | |
|---|--|--------|---------|
| 4 | Formation of a new tank across Ayyanarkoil odai in Mallapuram village in Peraiyur Taluk in Madurai District | 353.73 | 293.00 |
| 5 | Reconstruction of Bed dam in left arm of Kosathalaiyar near Edayanchavadi village in Ponneri Taluk in Thiruvallur District | 253.06 | 272.00 |
| 6 | Increasing the carrying capacity of Marudur Melakkal from Marudur anicut to Kalvoy tank Thoothukudi District | 952.73 | 3898.00 |
| 7 | Formation of a Reservoir across Vandal odai near Pottal village in Ambasamudram Taluk of Thirunelveli District | 614.34 | 976.00 |
| 8 | Modernisation of Thirukurunkudi Periakulam in Thirukurunkudi village in Nanguneri taluk of Tirunelveli District | 102.78 | 335.00 |
| 9 | Reconstruction of Regulator No 2 of Pasimuthan Odai at L.S 10.027 Km and Improvements to the branch channels of Pasimuthan Odai in Chidambaram Tk of Cuddalore Dt | 264.92 | 1585.00 |
| Special Minor Irrigation Schemes | | | |
| 10 | Formation of new tank near Rajapathy H/o Gangaikondan village in Tirunelveli Taluk and Tirunelveli District. | 47.43 | 63.00 |
| 11 | Excavating the supply channel from Kappalavadi anicut to feed Chennayanakkan tank and Solankuttai tank and the lower down tanks in Krishnagiri & Uthangarai Taluks in Dharmapuri District | 85.31 | 82.00 |
| 12 | Formation of a new tank near Thuraiyur Village in Kovilpatty Taluk of Thoothukudi District | 29.41 | 33.00 |
| 13 | Rehabilitation & Modernisation of Pothampallam Anicut system to feed 18 Tanks in Pappireddipatti taluk in Dharmapuri District | 86.38 | 242.00 |
| 14 | Construction of an anicut across Sarugani river to feed | 49.61 | 196.00 |

| | | | |
|----|--|-------|--------|
| | Vetrialangulam etc . Tanks in Devakottai Taluk in Sivaganga District. | | |
| 15 | Construction of an anicut across Sarugani river to feed Vellarendal Thiruthervalai, Ayangudi, Sendamangalam Tanks in Tiruvadana Taluk in Ramnathapuram District | 39.61 | 360.00 |
| 16 | Conversion of Mudkondam into masonry anicut across maduvu in Thalavarampoondi village in Kancheepuram District . | 56.20 | 81.00 |
| 17 | Construction of an anicut across Agamalai Varattar in Thamaraikulam village in Theni Dt. | 21.75 | 78.00 |
| 18 | Restoration of Ayacut under Ongur River by Forming Dykes in Cheyyur Taluk of Kancheepuram District | 65.80 | 486.00 |
| 19 | Improvements to existing supply channel from Manimuthar main canal near Panankulam and forming a separate bye pass channel to feed Ayyanarkulampatti tank in Srivaikundam Taluk of Thoothukudi District | 66.68 | 195.00 |
| 20 | Formation of a new tank near Chinnur Village in Vilathi kulam Taluk Thoothukudi District | 70.54 | 48.50 |
| 21 | Construction of an anicut across Sarugani River to feed Sekkadi & Siruvila Tanks in Sivaganga Taluk & Sivaganga District | 48.11 | 136.00 |
| 22 | Providing better irrigation facilities to Sendanadu village ayacut limits in Ulundurpet Taluk in Villupuram District | 39.72 | 138.00 |

Rehabilitation Of Minor Irrigation Tanks

Further it is proposed to rehabilitate and modernize 157 Minor rrigation tanks spread over 17 districts in Tamilnadu at a total cost of Rs.4842.73 Lakhs benefiting an ayacut of 17220 Ha with NABARD assistance

Rehabilitation schemes in cauvery basin

During the year the following schemes are proposed to be taken up for Rehabilitation and Modernisation in the Cauvery Basin with NABARD assistance.

| S.No. | Name of Scheme | Estimate Amount (Rs.In Lakhs) | Ayacut Benefited (In Ha) |
|-------|--|-------------------------------|--------------------------|
| 1 | Rehabilitation of Cauvery Regulator at Mile 17/2 at G.A. Head in Thanjavur district. | 1738.83 | 31600.00 |
| 2 | Rehabilitation of Vennar Regulator at Mile 17/2 at G.A. Head in Thanjavur district. | | |
| 3 | Rehabilitation of G.A. Canal Regulator at Mile 17/2 at G.A. Head in Thanjavur district. | | |
| 4 | Rehabilitation of Cauvery Regulator at Mile 26/6 at Thirukattupalli in Thanjavur district. | | |
| 5 | Rehabilitation of Kudamurutti Regulator at Mile 26/6 at Thirukattupalli in Thanjavur district. | | |

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 was to close on 31.03.2002. Based on the request of the State Government, the World Bank has given approval for extending the scheme upto 31.3.2004. Now the World Bank has further extended the project period for upto 30.09.2004.

(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.

| SI.No | Details of works | No. Of packages approved (Including slices) | Value (Rs.in Crore) |
|-------|--|--|---------------------------|
| 1. | a) System Improvement and Farmers' Turnover (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 general Such as buildings, computers, vehicles, furniture's, telephones etc and consultancy. | 311 | 77.87 |
| 9. | Additional Schemes a) Rehabilitation of Non-System Tanks 620 Nos. b) Dam Safety spill over works. (Gomukhi, Sathanaur, willington, Vidur and Sethiathope) c) Institutional Strengthening (Computerisation of Management information system) | 620 5 6 | 100.00 20.60 15.00 |
| | TOTAL | 2347 | 1062.00 |

All System improvement works and Minimum Rehabilitation works under SIFT Component and Scheme Completion components of 9 Ongoing Schemes have been completed.

The progress of works under SIFT and Scheme Completion are given below.

**Progress of various important works included under
Water Resources Consolidation Project**

| SI. No | Name of work | Est. amt. in Lakhs | Total No. of Packages | No. of packages completed | No. of packages in progress |
|--------|---|--------------------|-----------------------|---------------------------|-----------------------------|
| | Chennai Region | | | | |
| 1. | Cheyyar Anicut System Rehabilitation work | 610.63 | 7 | 7 | -- |
| 2. | Palar Anicut System Rehabilitation work | 1883.40 | 18 | 18 | -- |

| | | | | | |
|---------------|---|---------------------------|-------------------------------|-----------------------------------|-------------------------------------|
| | | | | | |
| 3. | Poiney Anicut System Rehabilitation Work | 651.00 | 8 | 8 | -- |
| 4. | Tirukoilur Anicut System Rehabilitation work | 938 | 7 | 7 | -- |
| 5. | Tholudur and Pelandurai Anicut System Rehabilitation work | 480.90 | 9 | 9 | -- |
| 6. | Minor Schemes | 3576.46 | 14 | 14 | -- |
| Sl. No | Name of work | Est. amt. in Lakhs | Total No. of Pack-ages | No. of pack-ages completed | No. of pack-ages in progress |
| 7. | Sathanur System Rehabilitation work | 1890.84 | 19 | 19 | -- |
| 8. | Sethiathope Anicut System Rehabilitation | 1016.74 | 9 | 9 | -- |
| 9. | Mordhana Reservoir Project | 8229.60 | 11 | 11 | -- |
| 10. | Rajathopekanar Reservoir Project | 356.20 | 3 | 3 | -- |
| | Pollachi Region | | | | |
| | Parambikulam Aliyar Project | 15122.63 | 61 | 61 | -- |
| | Madurai Region | | | | |
| 1. | Chittar Anicut System Improvement Works | 774.30 | 10 | 10 | -- |
| 2. | Manjalar Reservoir System Rehabilitation work | 102.81 | 5 | 5 | -- |

| | | | | | |
|---------------|--|---------------------------|------------------------------|----------------------------------|------------------------------------|
| 3 | Vaigai Old Ayacut Rehabilitation work | 5858.84 | 21 | 21 | -- |
| Sl. No | Name of work | Est. amt. in Lakhs | Total No. of Packages | No. of packages completed | No. of packages in progress |
| 4. | Minor Schemes | 1178.42 | 15 | 15 | -- |
| 5. | Cumbum Valley System | 600.70 | 11 | 11 | -- |
| 6. | Kodayar System Rehabilitation work | 3726.71 | 36 | 36 | -- |
| 7. | Marudhanadhi Reservoir Project Rehabilitation work | 137.77 | 3 | 3 | -- |
| 8. | Tambaraparani System Modernisation and rehabilitation work | 3931.00 | 23 | 23 | -- |
| 9. | Periyar Vaigai System Construction and improvement work | 2907.95 | 8 | 8 | -- |
| 10. | Adavinainar Koil Reservoir Project Scheme Completion work | 6431.15 | 3 | 3 | -- |
| Sl. No | Name of work | Est. amt. in Lakhs | Total No. of Packages | No. of packages completed | No. of packages in progress |
| 11. | Gridhamal Anicut System Construction works | 250.83 | 3 | 3 | -- |
| 12. | Kodumudiyar Reservoir Project Formation work | 3050.00 | 9 | 9 | -- |

| | | | | | |
|-----|--|-----------------|------------|------------|----------|
| | | | | | |
| 13. | Nambiyar Reservoir Project Scheme completion | 2050.00 | 9 | 9 | -- |
| 14. | Poigaiyar Reservoir Project Scheme completion | 1005.06 | 9 | 9 | -- |
| 15. | Sothuparai Reservoir Project Scheme completion | 3272.00 | 4 | 4 | -- |
| 16. | Vadakkupachaiyar Reservoir Project Scheme Completion | 4519.50 | 9 | 9 | -- |
| | Total | 74453.21 | 340 | 340 | 0 |

Works taken up in the Project Extended Period 2003-2004.

As per the agreed key activities with the World Bank, the following activities are proposed to be taken up in the extended period 01.04.2003 to 30.09.2004 at a total cost of Rs.126 Crore.

| S.No. | Sub-Head | Cost in Crores |
|--------------|--|-----------------------|
| 1. | Farmers Organisation & Turn Over | 20.00 |
| 2. | Basin Board (Water Planning) | 10.00 |
| 3. | MIS Net Work connectivity | 10.00 |
| 4. | EB Tariff (Follow on Project) | 5.00 |
| 5. | Irrigated Agricultural Intensification Programme | 5.00 |
| 6. | Revision of Water Rates (Digitization of cadastral maps) | 1.00 |
| 7. | Cadre separation (Infrastructure creation) | 2.00 |
| 8. | Ground Water Regulation and allied activities (well Censes) | 5.00 |
| 9. | Environmental Action Plan | 10.00 |
| 10. | Water Resources Research Fund | 10.00 |
| 11. | Human Resources Development (Training) | 8.00 |
| 12. | (a) Preparation of Model Rehabilitation in Hanumanadhi Sub Basins in | 20.00 |

| | | |
|--|--|---------------|
| | Tambiraparani Basin | |
| | (b) Preparatory works for follow on projects | 20.00 |
| | Total | 126.00 |

The Present status of works taken under extended period 2003-04.

1. FOT (Farmers Organisation and Turn Over)

Proposal at a cost of Rs.7.9 Crore has been cleared for preparation of Water User's Association wise documents and conducting election for Water User's Association. Election has been conducted for the post of President of Water Users Association in 1437 Association in 19 districts in 3 Phases on 24.1.2004, 31.1.2004 and 7.2.2004. Election is to be conducted for the remaining 129 Water Users Association.

2. Basin Board (Water Planning)

At a cost of Rs 3.00 Crore, Micro level study for 13 Basins, strengthening the existing Technical Secretariat established for Basin Board with providing new equipments etc. are being carried out.

3. MIS (Management Information System)

The works like establishing network connectivity, arranging Video Conferencing etc. at a cost of Rs.1 Cr. is taken up under this component in which video conferencing arrangements is established.

4. IAIP (Irrigated Agriculture Intensification Programme)

IAIP programme for Rs. 1.50 Crore in Hanumanadhi Sub Basin is carried out in coordination with Line departments like Agriculture, Agricultural Engineering, TNAU, Horticulture, and Fisheries etc. Micro Irrigation facility by laying PVC pipes from Tank sluices to field, Rain Water Harvesting, Farm Ponds, Fish rearing, Redesigning and Rehabilitation of supply channel to Tanks, Training to Farmers etc. are taken up and completed.

5. Revision of water rates (Digitization of cadastral maps)

Under this component, it is proposed to carry out the Digitization of village maps and Documentation for cadastral survey for Rs.17.60 Crore in coordination with Survey and Settlement Department.

As the bids called for are non-responsive, further analysis is being made to improve the methodology, which would serve the purpose in a suitable manner.

6. Cadre separation (Infrastructure Creation)

To facilitate infrastructure to Water Resources Organisation, Library with Conference Hall is being renovated at a cost of Rs.64 Lakh.

7. Ground Water Regulation Act (Well census)

Under this component for implementing Ground Water Regulation Act, well census of nearly one Crore wells at a cost of Rs.5 Crore is taken up and part of work is completed.

8. EAP (Environmental Action Plan)

Under EAP, 9 studies in various Environmental issues and also Environmental and Social assessment in River Basins in Tamilnadu are taken up at a cost of Rs.3.4 Crore and all works are partly completed and balance work is in progress.

9. WRRF (Water Resources Research Fund)

8 New research studies for Rs. 3.441 Million have been taken up. Further workshop for Disseminate on previous 30 research studies has been conducted and 800 personnel were trained.

10. HRD (Human Resources Development) (Training)

Various Training Programme as per schedule are taken up by IMTI under the sanctioned estimate of Rs.2.5 Crore during this year.

11. Model Rehabilitation works in Hanumanadhi Sub Basin and preparatory works for follow on project.

As a pilot scheme for follow on project to existing WRCP, based on the World Bank suggestion, proposal for Model Rehabilitation in Hanumanadhi Sub Basin at a cost of Rs.61.53 Crore in coordination with the line Departments is prepared and work is to be taken up soon.

Anticipating the works will be completed by 31.03.04 no B.E. was sought for 2004-05. However now that the extension of the project period up to 30.09.04 has been sanctioned by World Bank, the WRCP needs about 70 Crore for completion of the project in full shape.

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 Crore.

The project proposals include certain left out items of Water Resources Consolidation Project Phase II, 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.

Basin wise 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.

But with the meagre Surface water and Ground water potential available, the integrated water resources management is the only remedy to tide over water crisis.

The World Bank therefore suggested that the successor Project will be on an Integrated Approach with participation of the Line Departments using water and also choosing Hanumannadhi Sub Basin guided to prepare estimate for an Integrated model rehabilitation of Hanumannadhi Sub Basin of Tambaraparani Basin in Tirunelveli District.

An estimate for Integrated Model Rehabilitation for Rs.61.53 crore has been prepared involving all line Departments in water sector and approved by Government after getting NOC from World Bank. The activities and role to be played by each Department and the amount allocated to each Department are as below.

| Sl.No. | Department | Items of work | Amount (Rs. In Lakh) |
|--------|-------------------------------------|--|----------------------|
| 1. | Water Resources Organisation | Remodeling of anicuts, improvements to supply channel, desilting of channel, tanks etc., | 3697.80 |
| 2. | Agricultural Engineering Department | OFD works, micro irrigation facilities, sinking of bore wells etc., forming farm | 2255.00 |

| | | | |
|----|----------------------------------|--|-----------------------------------|
| | | ponds. | |
| 3. | Tamilnadu Agriculture University | Adaptive Research Trials (ART) | 20.00 |
| 4. | Agriculture Department | Procurement of modern farm machineries, farmers training etc., | 40.00 |
| 5. | Agriculture Marketing | Providing facilities to transport field products to market etc., | 40.00 |
| 6. | Horticulture | Adopting alternative crops, storage facilities etc., | 40.00 |
| 7. | Animal Husbandry & Fisheries | Formation of grazing fields and production of fodder etc., and breeding fish in farm ponds etc., | 20.00 |
| 8. | Forest Department | Forming social Forestry | 15.00 |
| 9. | Social Welfare Department | Encouraging women folks, training, educating the social changes etc., | 25.00 |
| | | Total | 6152.80 (or) 61.53 cr. |

The Line Departments are also simultaneously commencing the work relating to their Department following World Bank Guidelines and all components are to be completed by 30.09.2004. A consolidated project report has been prepared; with an Action plan for completing all the components before 30.09.2004.

Keeping this model project as base and from the experience especially on the effect of integration of activities of all Departments, it is proposed to have a Master Integrated Plan for all the 17 Basins, prioritizing the water starved basins in the order.

Farmers Organisation And Turn Over

About 21.0 lakh hectares of land are getting the benefit of supply of water for irrigation from Government maintained water resources under Major, Medium and Minor irrigation systems including Tanks, in the State. At present, the above water resources are operated and maintained by the Water Resources Organisation (WRO) of the Public Works Department.

The Government of Tamil Nadu accepted the concept of Participatory Irrigation Management (PIM) and encourages the farmers participation in the operation and maintenance of the irrigation water distribution systems in all the irrigation systems maintained by the Government in the State

Necessary awareness about the farmers organization, Participatory Irrigation Management, TNFMIS Act was created among the farming community covering 7 lakh hecs. of command area under WRCP in 19 Districts.

To implement the TNFMIS Act in this command area at the first instance documents such as list of Ayacutdars/Voters, Index maps, Flow diagrams etc. were also prepared.

1566 Water Users Associations (WUAs) have been identified, delineated and notified by the District Collectors of 19 Districts to cover about 7.0 lakh hectares out of the total command area of 21.0 lakh hectares. Election Rules have been approved by the Government and elections through secret ballot to 1566 WUAs and 7874 territorial constituencies was held during January, 2004 and Feb'2004 to constitute the Managing Committees of the Water Users Associations, as per the "Tamil Nadu Farmers' Management of Irrigation Systems Act". Out of the 1566 posts of President and 7869 post of territorial constituency members, 1437 presidents and 16036 territorial constituencies members have been elected. The remaining 129 post of

president and 1833 posts of territorial constituency members are to be filled up by organizing fresh election during the third week of August 2004.

Awareness among the farming community has to be created about conduct of fresh election to the left out post of president and TC members in order to complete the election progress so that the Managing Committees of all the WUAS can be constituted. Election is also proposed to be held to constitute the Managing Committees of the Distributor and Project Committees as per the Act, after the fresh election to the left out posts is over.

The concept of PIM is being extended to the balance command area of about 14.0 lakh hectares. Document preparation activities have already been initiated with funds available under WRCP. Implementation of the Act will be extended to this area of 14.0 lakh hectares of command during 2004-2005 after the documentation process is completed.

Awareness about the TNFMIS Act, election etc., is to be created among the farmers in the Non-WRCP command area as created in the WRCP command area, by displaying the copies of list of ayacutdars (FORM-V) and list of Voters (FORM-VA) at village level for updating and preparing finalized documents for notification, in order to make the conduct of election a successful one. Election to the water User's Associations delineated in the Non-WRCP command area of 14.00 lakh hectares is to be conducted after completion of documentation works in this area, for distributary committees and project committees. Necessary infrastructure facilities are to be provided to the PIM cell

Environmental action plan works taken up during the extended project period up to 30-9-2004

| S.No. | Name of Scheme | Estimate (Amount In Lakhs) | Stage of Work |
|-------|--|----------------------------|--|
| 1 | Pilot study on Cost effective effluent treatment of paper, sugar, tannery and sago industries using OCAT Technology | 26.00 | The study has been completed. Documentation and preparation of report under progress |
| 2 | Pilot Study on textile effluent using biological and OCAT Technology to restore Orathupalayam dam | 16.00 | The study has been completed. Documentation and preparation of report under progress |
| 3 | Environmental and Social Assessment in all River basins in Tamilnadu | 37.00 | Interim report received. Study will be completed in the extended period. |
| 4 | Pilot Study on cost effective sewage treatment plant for augmentation of irrigation water supply of Sulur small tank in Coimbatore District. | 15.00 | The study has been completed. Documentation and preparation of report under progress |
| 5 | Pilot Study on community based catchment management programme in Noyyal Basin | 35.00 | The study has been completed. Documentation and preparation of report under progress |
| 6 | Micro level status and awareness creation in Palar, Chennai, Pennaiyar, Varahanadhi and Vellar Basins | 47.20 | Interim report received. Study will be completed in the extended period. |
| 7 | Micro level status and awareness creation in Bhavani, PAP, Amaravathi and Agniar Basins | 80.00 | Interim report received. Study will be completed in the extended period. |
| 8 | Micro level status and awareness creation in Noyyal Basin | 38.00 | Interim report received. Study will be completed in the |

| | | | |
|--|--|--|------------------|
| | | | extended period. |
|--|--|--|------------------|

Environmental cell divisions of Plan formulation wing

As per GO. Ms. No. 371 PW Department dt. 26.6.97 and GO. Ms. No. 625 PW Dept. dt. 20.11.2000, three Environmental Cell Divisions with Head Quarters at Chennai, Madurai and Coimbatore have been formed to function under the Chief Engineer (Plan Formulation), WRO, Chennai and performing the Environmental related works of water resources

The functions of Environmental Cell Divisions

Collecting all primary and secondary data on environmental issues, preparing Micro Level Environmental Status Reports, Environmental Action Plan Reports of the river basins, Environmental Impact Assessment of new schemes, conducting Pilot Studies on specific Environmental issues, creating awareness among the people of all walks of life in safe guarding the water resources from environmental degradations, collecting and testing water samples and soil samples to monitor the water resources etc are some of the important primary works of the Environmental Cell Divisions.

Environmental Status Reports.

Environmental Status Reports have been prepared for all the 17 river basins in Tamilnadu and during the extended WRCP project period Micro Level Environmental Status Reports are being prepared. The status of the River Basins, relating to all Environmental issues of water resources, such as catchment degradation, siltation, over exploitation of surface and ground water, sea water intrusion, water logging, sand mining, deforestation, pollution due to solid waste, sewage, trade effluent etc including connected basic and secondary data will find place in the status reports. In general the status report will depict all environmental issues and its impact on the society of a river basin.

Environmental Action Plan

Environmental Action Plan will be useful to develop the mitigation measures for the degraded river basins. Based on the Environmental Status Report, the various Action Plans to be taken and implemented by all water user departments including the Water Resources Organization, to restore the environment of water resources will be incorporated in the Environmental Action Plan Reports. The reports so far have been prepared to Bhavani, Vaigai and Chennai Basins. From this EAP report one would be able to know the various factors influencing the degradation and the necessary mitigation measures to be carried out in short term and long term

Environmental Impact Assessment

The Environmental Impact Assessment is essentially needed for any new projects. The Environmental Impact Assessment study will be useful to know whether the project could give positive impact or negative impact on land, water, environment and social aspects. In addition, it will be useful to know about project-affected persons, resettlement details and any other direct and indirect benefits.

A model Environmental Impact Assessment (EIA) document has been developed with the guidance of M/s Tahal consultant for the project of "Construction of Bathalapalli Reservoir Projects across Malattar river of Palar river basin". Based on the model Environmental Impact Assessment EIA, the EIAs for the following projects have been prepared and are being updated

- A. Shenbagathope Reservoir Project across of Ponnaiyar river basin by the Environmental Cell Division, Chennai.
- B. Construction of Anicut across Nallathangal Odai of Amaravathi River basin by the Environmental Cell Division, Coimbatore
- C. Construction of Anicut across Malattar river of Gundar basin by the Environmental Cell Division, Madurai
- D. Formation of Network across Aswamanadhi River near Doddappanaickanur village, Usilampati Taluk, Madurai Dt.

The preparation of Environmental Impact Assessment Report for ongoing projects will be useful to learn how to prepare the Environmental Impact Assessment of any new project. The capabilities of the divisions in preparing the Environmental Impact Assessment have been considerably improved.

Pilot Studies

In order to protect the environment of water resources from the impact of various developmental activities taking place and to create awareness among the people many pilot studies have been taken up. A brief note on some of the pilot studies taken up and completed is furnished below.

1. Cost Effective Sewage Treatment to augment irrigation water in Suler Small Tank

Many of the city municipalities, town panchayats are not having proper treatment plants and let out the sewage generated into nearby water resources without giving any treatment, which leads to degradation of surface water, ground water and makes it not useful for any community purposes. This also affects cultivation in irrigation lands besides public health. Many of the rivers and lakes in Tamilnadu have been affected by this sewage pollution.

The small tank in Suler, near Coimbatore is also one among them. Suler is a new developing town panchayat, having a total population of 31000 and an area of 4.89 Sq. Km. It is selected by the State government for implementation of various developmental activities so as to make this as a model panchayat. The old town and the new developing areas of this town panchayat are having almost equal population. There is no sewage treatment plant available and nearly 8.00 Lakh litres of sewage generating from this old town is let into the Small Tank, which affected the surface water, ground water besides 522 acres of land irrigated by this tank.

The consequences resulted in huge economic loss. So to mitigate the tank and to augment the water and use it for irrigation and other purposes, a pilot study has been under taken to develop a cost effective sewage treatment plant, using biological method for treating the sewage. A proposal for the same has been formulated at an estimate cost of Rs. 15.00 lakh and funded by the World Bank. In addition, the panchayat also has contributed Rs. 5.00 Lakh towards equipments like aerators.

Under this study, a small treatment plant having a collection chamber, aeration tank, filters have been constructed and the sewage before letting into the tank has been received into the collection chamber and from there pumped into the aeration chamber. In the aeration chamber a biological cleaning powder "Bio Clean" is mixed to the required level and the sewage is aerated. The bio clean is an organic compound in powder form, having millions of microbes (bacteria) and when mixed in the sewage reacts and generates the bacteria.

The bacteria, eating the dirt and waste in the sewage, treats the water. From the aerated chamber, the sewage is allowed to pass thro various filters before let into the tank. In order to reduce the salt and to increase the DO Level in the treated water a salt absorbing plant known as Typha is also introduced in the filter chambers and the treated water is found to be well within the parameters and no sludge is accumulating in this process.

The trial run has been successfully completed and appreciated by national and local news papers. People from all walk of life including officials, students and foreigners visited the site and appreciated the task. The cost of this process including the initial investment and maintenance cost is found to be cheaper than the conventional method. The area required for the erection of the plant is also found to be very minimum than that in the conventional method. The plant will be commissioned shortly and the benefits and out come of this study will be communicated to the Government for implementing the same in all the affected water resources thro the Local Administration Department.

2. Pilot Study on Sago industries in Salem District

There are about 800 Sago Industries in Salem, Namakkal and Athur areas of Salem District, manufacturing sago products such as barley, starch etc processing Tapiaca, an eatable root. The industries require large quantity of water during the processing and production stages. The effluent generated is rich in organic content and causes serious environmental pollution to the ground water and surrounding land.. The fermented effluent also emanates intolerable foul odor. So to comb out the problem, a study has been carried

out in the industries, to how best to minimize the water requirement by way of recycle and reuse, adoption of cleaner production technology and to find a way to use the methane gas generated from the effluent.

The study has been successfully completed. The bio methane gas emanated from the fermented effluent is successfully extracted and used for heat generation by suitable modified burners and used for roasting the sago, thereby the electricity energy required for the industries has been considerably saved.

The cleaner production technology adopted and recycle and reuse of water also improved the process reducing water utilization. The study has been completed and the outcome will be communicated through the Managing Director, Sago Industries for effective implementation in all the industries.

3 Pilot Study on Textile Industries to restore Noyyal Orathupalayam Reservoir in Tiruppur District.

There are about 5000 banian and textile units and 800 dyeing units functioning at Thirupur. Number of toxic chemicals are used in the dyeing process and the effluent generated from these units, without treatment has been initially let into the Noyyal River above the Orathupalayam Reservoir and because of that the 20,000 acres ayacut located in Erode and Karur Districts have been highly affected.

Further surrounding ground water also highly deteriorated leading to scarcity for drinking water and prone to health hazard. In the Common Effluent Treatment Plants installed now for the treatment of dyeing effluent, lime and Ferrous Sulphate are added in huge quantity for removal of color, which is the reason for huge accumulation sludge, the disposal of which is a major problem.

An organic compound, known as "BIOCLEAN" containing millions of microbes is used for treating the effluent. These microbes treating the effluent removing the polluting organic matter.

In order to reduce the TDS, treated effluent is allowed to pass through a salt absorbing plant known as TYPHA. To reduce the salt further, another method known as Ozonized Centrifugal Aeration Technology (OCAT) has been adopted. By this method 40% of salt is removed from the effluent. Using these techniques, the water reaching Orathupalayam is proposed to be cleaned and utilized for aquaculture activities proposed by the Govt.

4. Damages caused due to biological plants in the Tambaraparani Basin and Tanks.

About 60% to 80% of the tanks and water resources in Tamil Nadu were affected due to the growth of Neyveli Kattamanakku and water fomya with the excess chemical manure and the sewage water from the Municipalities. Due to the growth of these biological plants, there is reduction in the capacity of the water resources and the water is wasted due to evaporation.

The water quality gets affected and thereby affecting the agricultural production. In order to arrest the situation these plants are to be destroyed. These plants could not be destroyed by uprooting with the help of men or machinery. If chemicals are used to destroy these plants the water would be polluted more, resulting in many impacts.

Hence by applying biological techniques viz., "Vivils" and "bytes" grown at laboratory condition is to be fed into plants, which will help in the destruction of these plants and purify the water. By applying this method the growth of these biological plants could be controlled. Municipalities should take action to stop from letting from sewage water in the water resources.

By adopting the benefits derived from these studies, action is being taken to protect such water resources in Tamil Nadu, which are affected due to the growth of these plants.

5. Development of catchment area in Noyyal Basin

Action has been initiated for the development of the affected area in the upstream of the catchment area of the Noyyal Basin for increasing the ground water level and also for avoiding soil erosion in co-ordination with the Agricultural Engineering Department and Forest Department. Check dams, soil conservation and percolation ponds are also formed for the improvement of the catchment areas.

In the task of protecting the catchment area, growing the trees and option of suitable agricultural practices are being made aware to the public by organizing camps. This task has been completed and report is under preparation.

6. The impact due to the mixing of coal dust along the drainage water from Neyveli Mines that feed Wallajah Tank and Perumal Tank

A study was undertaken by the Annamalai University, Chidambaram to rectify the affected irrigated ayacut of Wallajah and Perumal Tanks due to drainage water from Neyveli Mines.

The factors such as nature of soil, reduction in production were studied in the above study. The study has been completed and the report submitted.

In order to reduce the content of the coal dust in the water from the above mines, suggestions have been made to construct check dams in the supply channel so as to reduce the speed of the water and also to deepen the tanks so that the coal dust may deposit at the bottom.

7. Study of Nutrient Transport and Eutrophication and Environmental Impact in Krishnagiri Reservoir

A pilot study was undertaken by the Anna University, Chennai to find a solution for avoiding the reduction in capacity in the reservoir due to soil erosion and the damages caused by the water grown plants in Krishnagiri Reservoir.

Likewise, various studies are being undertaken by the environmental circles under the control of Plan Formulation under WRCP with the assistance of World Bank for utilizing the water for various developmental activities like agriculture, protection of environment etc. In order to avoid the factory and Municipal wastages that pollute the water sources, water and soil samples are taken and experiments are conducted.

The WRCP has now been extended upto September, 2004. Action is being taken to complete the pilot studies which were already taken upto March, 2004 and also to undertake a new pilot study at a cost of Rs. 45.00 lakhs.

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, the Government on November 11, 2002 has issued necessary amendment to the Act. Notification for bringing the Amendment to the Act into force with effect from 1.7.2003 was also issued by an Government Order dated 18.03.2003.

FOOD FOR WORK

Desilting and upgradation of PWD System and non system Tanks above 100 acres (40 hectares)

In the budget session 2003-2004 the Government have announced the Desilting and Upgradation of PWD system and Non-System Tanks having an ayacut of 100 acres (40 Ha) and above at a cost of Rs 105 Crore.

Accordingly in G.O Ms No.191/PWD/dated 22-5-2003,the Government have ordered to take up the Desilting and Upgradation of PWD System and Non-System tanks having an ayacut of 100 acres (40 Ha) and above at a cost of Rs.105 Crore as part of " **SAMPORNA GRAMIN ROZGAR YOJANA**" Scheme in the drought affected districts. Out of this Rs.105 Crore, Rs. 25 Crore have been provided as 25% for cash component as wages for the labourers and 75% of wages will be paid as rice (i.e Rs. 75 Crore value of rice) and the balancers. Rs. 5 Crore for material component.

The Regional chief Engineers based on the tank conditions and requests from the local representatives prepared a list of 1750 tanks including the tanks having an ayacut of less than 100 acres (40 Ha.)

The above works were taken up and completed

Modernisation and Irrigation Management of Rain-Fed Tanks in Tamilnadu With Loan Assistance of National Bank for Agriculture and Rural Development (NABARD) under NABARD Rural Infrastructure Development Fund - NABARD RIDF IX.

Phase I

A project proposal for modernization of 157 rain fed tanks with a command area of 17101 hectares at an estimated cost of Rs 45.43 Crore was sent to NABARD for loan assistance and the proposal is approved by NABARD.

Phase II

A project proposal for modernization of 107 rain-fed tanks at an estimated cost of Rs 28.29 Crore was posed for loan Assistance from NABARD.

Phase III

A project proposal for modernization of 227 rain-fed tanks at an estimated cost of Rs.45.50 Crore was posed for loan assistance from NABARD. The estimates for Phase I and Phase II are being recast as per latest NABARD guidelines and will be sent to NABARD.

Japan Bank of International Co-Operation (JBIC) assisted Tank Irrigation Project.

As per the terms of reference of Japan Bank for International Co-operation ,Japan [(formerly called as Overseas Economic Co-operation Fund (OECF))] a master plan was prepared and forwarded to the Department of Economic Affairs (JAPAN), Ministry of Finance, Government of India in June 1995 for onward transmission to the Japanese Embassy, New Delhi to obtain funds for the master plan study from Japan International Co-operation Agency (JICA).

The Government of India and JICA signed a Memorandum of understanding in 1996. The Team furnished progress report I in February 1997 and the progress report II in July 1997.

The JICA study team, after conducting field study, presented the project proposal for Rs 890 crore for rehabilitating 2093 Rain fed tanks in five districts, viz Kancheepuram, Thiruvallur, Sivagangai, Ramanathapuram and Virudhunagar.

As per the request of JBIC, during November 2001 & February 2002, the proposal is revised at a cost of Rs 914 Crore for rehabilitation of 1798 tanks, deleting the tanks taken up under WRCP and NABARD RIDF V, benefiting an ayacut of 171620 ha and was sent to the Ministry of Water Resources, Government of India during 9/2002 for posing JBIC Assistance. An out lay of Rs 785 Crore is provided in the Tenth Five Year Plan.

National coastal protection project-NCPP

Tamil Nadu have a coastline of about 960Km, out of which 900Km 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.

The seashore along the Ennore Express way from the fishing Harbour at Royapuram is severely affected by the Sea erosion for a length of 9.20 Km. Action is being taken for protecting the coastal line and safeguarding the Ennore Express way by providing Rubble Masonry Sea wall (RMS wall) in a phased programme.

The Antisea Erosion works taken up in Kanyakumari District and in North Chennai have been completed.

The Government of Tamil Nadu have accorded sanction for Rs 57.69 crore for the execution of coastal protection works in four districts i.e. Ramanathapuram, Thoothukudi, Tirunelveli and Kanyakumari with an assistance of Rs 57.68 Crore from HUDCO and the works are being carried out.

The NCPP proposal for Anti Sea Erosion works covering 29 hot spots to a length of 13.824 Km in 7 Districts is revised to a cost of Rs. 169 Crore as per the guidelines of Central Water Commission, and handed over to CWC, New Delhi during September 2002. This project has been included in Phase I of National Coastal Protection Project and sent to Ministry of Water Resources by Central Water Commission to seek External Assistance during February 2003

The 29 Hotspots are furnished below.

- 1.Chennai North: 1.Periakuppam,2.Chinnakuppam,
3.Eranavoorkuppam,4.AnnaiSivakamiNagar kuppam, 5.Indiragandhi Nagar Kuppam.
- 2.Kancheepuram District: 6.KovalamKuppam,7.Oyyalikuppam,
8.Chinnakuppam & Periyakuppam & Alikuppam.
- 3.Cuddalore District: 9.Devanmpattinam
- 4.Nagapattinam District: 10.Poompuhar,
11.Tharangambadi,12.Ariyanttutheru,
13.Seruthur Velanganni
- 5Thoothukudi District: 14.Periyathalai 15. Alanthlai.
- 6.Tirunelveli District: 16.Koothankuzhi,17.Kootapuli,
18.Uvari,19.Idinthakarai,
20.Kootapanai, 21.Thomayapuram
22.Perumanal.23.Kooduthalai.
- 7.Kanyakumari District: 24.Ratchagar Street,
25.Kodimunai RMS,
26.Kodimunai Groyne,
27.Keezhmidalam,28.Chinaaturai,
29. Marthandamthurai.

Periathalai, one of the hotspots in Thoothukudi District proposed in the National Coastal Protection Project is now considered under Centrally Sponsored Scheme at a cost of Rs.6.00 Crore in the X Five year Plan. This proposal has been forwarded to Central Water Commission for getting central assistance.

Rehabilitation of 3392 tanks at a cost of Rs 542.60 crore under Water Resources Consolidation Programme (WRCP-II): -

A project proposal for rehabilitation of 3392 rainfed tanks at a cost of Rs 542.60 crore covering 17 basins in nineteen districts 1) Thiruvallur 2) Kancheepuram 3) Thiruvannamalai 4) Vellore 5) Dharmapuri 6) Salem 7) Villupuram 8) Cuddalore 9) Perambalur 10) Thanjavur 11) Pudukottai 12) Dindigul 13) Theni 14) Madurai 15) Sivagangai 16) Ramanathapuram 17) Virudhunagar 18) Thoothukudy 19) Tirunelveli benefiting an ayacut of 290161 ha, is formulated and posed for World Bank Assistance under WRCP-Phase II.

Rehabilitation of 247 tanks at a cost of Rs 65.59 crore with EEC Assistance.

A project proposal for rehabilitation of 247 Rainfed tanks in Vaippar Basin in four districts, viz, Tirunelveli, Virudhunagar, Madurai, Thoothukudi at a cost of Rs 65.59 Crore benefiting an ayacut of 24622 ha, is formulated and sent to MOWR,GOI in PWD Letter no. 34008/WR2/02-3 Dated 02.12.2002 for OPEC Assistance.

Rehabilitation of 310 Tanks at a cost of Rs 267.92 Crore with German Assistance:-

A Project proposal for Rehabilitation of 310 PWD Tanks above 200 acre in Tamilnadu at a cost of Rs 267.92 Crore benefiting twenty districts Viz 1) Coimbatore, 2) Cuddalore, 3) Dharmapuri, 4) Dindigul,5) Kanyakumari,6) Karur, 7) Madurai 8) Namakkal,9) Perambalur,10) Pudukkottai,11) Salem,12) Thanjavur,13) Theni 14) Thiruvannamalai,15) Thiruvarur,16) Tirunelveli,17) Tiruchi,18) Thoothukudi, 19) Vellore and 20) Villupuram districts is sent to Ministry of water Resources-MOWR, Government of India, by the Government of Tamilnadu for German Assistance. It was discussed during May 2003 in Indo - German meeting held in New Delhi and required particulars are sent to MOWR, Government of India during May, 2003.

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.

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 indigenously 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, water spread 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 rain fed tanks, by getting loan from various funding agencies.

Cauvery Water Dispute

The Cauvery Water Disputes Tribunal in its order dated 25.06.1991 ordered that Karnataka shall ensure that 205 TMC ft. of water is made available at Mettur from its reservoirs in an irrigation year from June to May effective from July 1991 in a monthly stipulated pattern. The monthly quantum shall be supplied week by week, and deficit in any one week has to be made good in the following week. Out of 205 TMC ft., Tamil Nadu is to release 6 TMC ft. of water to Pondicherry. Karnataka shall not increase its area of irrigation by the Cauvery waters above 11.2 lakh acres as averred to be its developed ayacut as of May 1991.

2. Ever since the Tribunal gave its interim order, the Government of Karnataka has not been forthcoming to implement the order of the Tribunal.

3. The Government of India has constituted a Cauvery River Authority and a Cauvery Monitoring Committee under Section 6 A of the Inter State Water Disputes Act, 1956 (Central Act 33 of 1956) for the effective implementation of interim order of the Tribunal and notified the same in its official Gazette on 11.8.1998 with reference to the plea made by the Government of India before the Supreme Court of India on the Suit filed by the Government of Tamil Nadu in May 1992 for the notification of a Scheme under section 6-A of the Inter State Water Disputes Act, 1956 (Central Act 33 of 1956). The Cauvery River Authority is chaired by Hon'ble Prime Minister with the Chief Ministers of the basin States as its Members. The Cauvery Monitoring Committee is presided over by the Secretary to Government of India, Ministry of Water Resources, with the Chief Secretaries of the basin States or their nominees, Chief Engineers of the basin States, Chief Engineer, Central Water Commission as Members in the Committee. The Cauvery River Authority has so far met six times on 28.10.1998, 14.7.2000, 10.10.2001, 27.8.2002, 8.9.2002 and 10.2.2003. The Cauvery Monitoring Committee has so far met twenty times and lastly on 19.1.2004.

4. The recommendations of the Cauvery Monitoring Committee and the decision of the Cauvery River Authority have not been implemented by Government of Karnataka. The Authority is not in a position to enforce Karnataka to implement the orders of the Cauvery Water Disputes Tribunal as well as the decision of the Authority as it is not clothed with adequate powers.

5. The Government of Tamil Nadu reviewed the entire position and filed 2 Suits, one on 19.9.2001 and another on 10.7.2002 in the Supreme Court of India in which, among others, it was prayed as follows: -

- (i) to direct the Government of Karnataka to implement the orders of the Tribunal,
- (ii) to direct the Authority to ensure weekly / monthly pattern of release of water,
- (iii) to issue a decree of mandatory injunction directing the Union of India to appropriately alter, vary, modify, clarify and / amend the scheme so as to be self-operative to ensure the flows in terms of the orders of the Tribunal.

The above 2 Suits are pending before the Supreme Court of India.

6. The distress sharing formula for adoption in sub-normal years which was mooted as early as during October 2001 in the 3rd meeting of the Cauvery River Authority is yet to be finalised and approved by the Cauvery River Authority. A formula was formulated by Central Water Commission. The Monitoring Committee after seeking the views of the party States, discussed the formula and decided to place it before the Cauvery River Authority for a final decision. Due to the failure of both southwest and northeast monsoon, the water year 2003-2004 is the worst ever since from the Interim Order passed by Cauvery Water Disputes Tribunal. As against 205 TMC ft. of water, only 65.14 TMC ft. of water alone was realised at Mettur Dam during this year.

7. The final arguments on the issues framed by the Cauvery Water Disputes Tribunal are in advance stage. The argument of the party States have been over on the two groups of issues and the arguments on the final group of the issues relating to the allocation of water amongst the States has since commenced.

8. The Government of Tamil Nadu stating all possible steps to get the water as per Tribunal's interim order and to safeguard the interest of Tamil Nadu farmers.

8. The Government of Tamil Nadu is taking all necessary steps to get the Cauvery water as per the interim order of Tamil

Krishna Water Supply Project

The Government of TamilNadu 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 TamilNadu border over a period of 8 months in a year. The component of the project falling within TamilNadu 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.

The total estimated cost of Telugu 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.512.00 Crore has been paid to Andhra Pradesh as Tamil Nadu's share.

Andhra Pradesh released Kandaleru water for the first time on 29.9.1996. The following are quantum of water released from Kandaleru Dam and quantity realized at Tamilnadu Border

| Year | Water released from Kandaleru in to K.P. Canal (in TMC) | Water realised at TamilNadu Border (in TMC) | Percentage of realization |
|-----------|---|---|---------------------------|
| 1996-1997 | 0.610 | 0.076 | 12.50% |
| 1997-1998 | 4.339 | 2.290 | 52.80% |
| 1998-1999 | 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 | 9.461 | 3.262 | 34.48% |

The 39th meeting of the Liaison Committee was held on 10.1.2003 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. The work has been started and completed.

Meanwhile it is proposed to convene 40th liaison committee meeting.

Now an amount of Rs.146.50 Lakh was administratively sanctioned to carry out the repair and desilting works of Kandaleru-Poondi Canal from 0 Km to 25.275 Km. The work has been started and 50% of work completed. The balance work is under progress.

Due to the failure of Northeast monsoon the storage at Kandaleru was 1.46 TMC, Somasila 1.61 TMC and Srisaillam 25.68 TMC. This storage was not sufficient for supplying drinking water to the Chennai City.

On request of Honorable Chief Minister of TamilNadu to release 1TMC of water to Chennai city, Kandaleru dam was opened on 12.01.2004. Realisation started at zero point on 13.02.2004 and till date 0.210TMC of water has been received.

The Budget Estimate for the year 2004-05 is Rs.1200.66 lakh.

New Veeranam Project

The New Veeranam 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 180 Mld. of water to the Chennai city.

The sanction included Rs.60.00 Crore for the improvements to water 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. (3) To strengthen the bund of the lake.

Subsequently, revised administrative sanction was accorded for the water source works for the project including the modernization of the command conveyance system of Vadavar canal and 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 stabilised irrigation supply.

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. 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 at an estimated cost of Rs. 110.95 crore. The details of estimates and present status of the works are given below:-

- (1) Improvements to Vadavar Channel comprise 6 Packages. Out of the 6 Packages, at a cost of Rs.26.39 Crore, 4 Packages are completed. In other 2 packages, 90% works are completed.
- (2) Raising full reservoir level of Veeranam Tank by 2 feet (0.61 m) and strengthening Veeranam main bund comprises 4 Packages at a cost of Rs.10.68 Crore. They are all completed.
- (3) Improvements to existing foreshore bund and formation of new foreshore bund costs 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 are proposed at a cost of Rs.25.00 Crore. 7 channels in Vadavar and 5 channels in Veeranam are proposed to be taken up immediately on the finalisation of Tender.
- (5) Black tapping of Veeranam bund in two packages at a cost of Rs. 1.50 crore. As and when important works are completed this work will be taken up depending upon the availability of funds.
- (6) Repair works to Lower Dam sluices at an estimated cost of Rs. 1.08 crore has been taken up. 17% of the work has been completed and the balance works are under progress.
- (7) Improvements to surplus course which includes rehabilitation of Lalpet surplus Regulator, Byewash, Infall Regulator, additional VNSS, Improvements to Godavari Drain, VNOS and rehabilitation of Lower anicut shutters comprising 4 Packages which costs Rs.5.37 Crore. All works except Godavari Drain work proposed to be taken up on priority basis and executed.

Repairs to existing staff quarters and construction of new project house at a cost of Rs.0.55 Crore are completed.

Miscellaneous items with cost escalation comprising costs Rs.30.07 Crore.

Due to the escalation in cost of construction materials and labour, revised estimate was prepared for Rs.130 Crore and sent to Government, which is under consideration. So far an expenditure of Rs.62.10 Crore has been incurred .

The Budget Estimate for the year 2004-05 is Rs.1400.00 lakh.

Parambikulam Aliyar Project - Renewal of Agreement

- (1) 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.

(2) Accordingly, both the Governments exchanged the documents for review on 21-09-1989 and several discussions were held.

(3) At the initiative of the Hon'ble Chief Minister, a Minister level meeting was held on 10.6.2002 at Chennai, followed by the Ministers' level meeting held on 13.2.2003, 10.11.2003 and lastly on 4.1.2004 for completing the first review of the P.A.P. agreement. This Government is taking all the steps to safeguard the interests of Tamil Nadu and complete the first review of the agreement quickly.

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.

2) 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.

3) 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.

4) The concurrence of the Government of Kerala is essential for diversion of water eastward. This Government is actively pursuing with the Govt of Kerala for attaining its concurrence for the implementation of this project.

Peninsular River Development Component of National Perspective Plan

Mahanadhi-Godhavari-Krishna-Pennar-Cauvery-Vaigai –Gundar links

(1) The Peninsular rivers viz. Mahanadhi, Godhavari, Krishna, Pennar, Palar, Cauvery, Vaigai and Gundar as well as the diversion of waters of west flowing rivers which includes Pamba-Achankovil-Vaippar link, among others, are proposed to be inter-linked under the Peninsular Rivers 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.

(2) The National Water Development Agency has already prepared pre-feasibility reports on Mahanadhi-Godhavari, Godhavari-Krishna, Krishna-Pennar, Pennar-Cauvery, and 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.

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

(4) The Government of India, Ministry of Water Resources in December 2002 has set up a Task Force to accelerate the process of interlinking of rivers.

(5) The Hon'ble Chief Minister of Tamil Nadu informed the then Chairman of the Task Force when he met on 16.4.2003 that Tamil Nadu will extend all the necessary help and co-operation for the execution of Peninsular River links including providing necessary technical support. The Hon'ble Chief Minister also urged that the Peninsular grid should be accorded highest priority and taken up as the first project and completed in the X Plan period.

(6) A Writ Petition on interlinking of rivers is pending before the Supreme Court.

State Ground and Surface Water Resources Data Centre

Tamil Nadu State is an agrarian State and depends upon its available surface and ground water resources for irrigation, drinking and other needs including industries. The total surface water potential is about 825 TMC (23,371MCM) at 75% dependability by means of Reservoirs/dams and tanks. Nearly 95% of the surface water resources have been utilized. Therefore greater attention is focused on ground water resources, which alone forms the alternative source.

The ground water utilization in the State has risen considerably from 63% in 1992 to 80% in 2003. The recent blockwise ground water potential estimated upto January 2003 works out to 815 TMC (23070.42 MCM) out of which the balance potential available in the State is about 111 TMC (3142.27 MCM). The balance ground water potential available now is distributed in 97 safe blocks, 105 semi critical blocks and 37 critical blocks. About 138 blocks have already been over exploited showing large scale ground water utilisation exceeding the recharge potential.

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

Policy:

- ❖ Ground water, being a dynamic replenishable resource, requires continuous exploration, monitoring and assessment involving multi- disciplinary studies. The State Ground & Surface Water Resources Data Centre envisages the following policy for the purpose of planning, development and management of ground water resources of the State of Tamil Nadu during 2004-2005. The SG&SWRDC undertakes the following to achieve the above policies.
- ❖ Scientific ground water investigation and periodic assessment of ground water potential on watershed.
- ❖ Continuous monitoring of hydrological, hydro-meteorological and water quality for ground water and surface water.
- ❖ Collect, process, analyse and store the ground water and surface water data to evaluate the condition for development.
- ❖ Develop a suitable plan for judicial development and optimal utilisation of ground water.
- ❖ Protecting ground water resources against over exploitation and quality deterioration by enacting.
- ❖ Improving the ground water storage through artificial recharge and rainwater harvesting wherever possible.
- ❖ Interact and co-ordinate with the other line departments of the State and water users to plan for the better utilization of the ground water resource in the State.
- ❖ Drilling of exploratory bore holes in order to study sub surface lithology.
- ❖ Consultancy services to public, Govt. Dept. and private sector undertakings for augmentation of water supply schemes.
- ❖ Issuing ground water clearance for implementing Minor Irrigation Schemes.
- ❖ Special studies for monitoring sea water intrusion into fresh water aquifer (920 km along the coast).
- ❖ Co-ordinate to implement the National and State water policies.
- ❖ Co-ordinate with the State Ground Water Authority to be formed to implement the Tamil Nadu Ground Water (Development & Management) Act 2003 which was recently enacted by the Tamil Nadu Govt. to ensure planned development and proper management of Ground Water.
- ❖ The assets created through the Hydrology Project - I which ended 31.12.2003 have to be maintained and periodic data are to be collected.

A budget provision of Rs. 74.02 lakh has been made for the regular ground water works during the year 2004-2005.

Ground Water Assessment on mini watershed basins

As enunciated in the National Water Policy and the State Water Policy the ground water assessment was carried out on macro level block wise basis once in five years. Precise assessment of replenishable ground water resources is the key to our plans to develop ground water resources for various uses. The problem of ground water assessment is some what difficult, as not only vast volume of data is required to be collected but also many disciplines of science have to be involved in a coordinated manner.

As per the recent assessment as on January 2003 the number of blocks falling under different categories based on the ground water development in the state are given below.

| Category | Blocks |
|----------------|--------|
| Safe | 97 |
| Semi critical | 105 |
| Critical | 37 |
| Over Exploited | 138 |
| Saline | 8 |
| | ----- |
| Total | 385 |
| | ----- |

The over exploited and critical blocks account for about 46% of the total blocks of the state in which ground water development have to be restricted, since the block is the administrative boundary having an area of more than 500 to 600 sq.km not possible to assess the exact quantum. To overcome this problem, watershed has to be taken as the assessment unit with an area of 50 to 100 sq.km. By applying this water shed approach, the assessment of ground water will be more reliable as recommended by Ground Water Resources Estimation Committee (GWREC).

Hence, it is proposed to take up a micro level ground water assessment based on mini watershed basis .There are about 1552 mini water sheds in the hard rock part of the State and three major water sheds viz., Cauvery, Vennar and new delta in Cauvery delta. Initially, the study will be focused on the over-exploited and critical blocks numbering about 175 blocks during the year 2004 & 2005. The remaining semi-critical and safe blocks will be taken up in the subsequent years. GW resource Assessment studies have been carried out in Andhra Pradesh and Maharastra States on Watershed basis.

The study involves

- ❖ Preparation of mini watershed maps based on the watersheds/river basins
- ❖ Establishment of water level monitoring network - piezometers in water sheds in addition to the existing piezometers.
- ❖ Monitoring of water level and water quality in the water sheds.
- ❖ Estimation of aquifer parameters like specific yield, infiltration rate etc.
- ❖ Creating a database on Ground Water, water quality on watershed basis using Remote Sensing and GIS techniques.
- ❖ Estimation of Ground Water Assessment on watershed basis for the year 2007.
- ❖ The focus will be made to locate the suitable site and the structures to recharge the watershed either by using rain water harvesting or by improving ground water storage by other techniques

The study is proposed to be done in a phased manner in three years between 2004 and 2007.

The total estimated cost for the above study is about Rs. 900 lakhs and Rs.300 lakhs are required for this year 2004-2005.

Tamil Nadu Ground Water (Development & Management) Act 2003

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

To implement the above Act, the formation of State Ground Water Authority and the rules under the Act are to be made. As an initial step the well census programme for the entire State was taken up using WRCP funds of about Rs. 500 lakh. The work is expected to be completed in Sept. 2004. About 79% of well census has been completed as on date.

Also, special provision has to be made to protect the Ground Water based on drinking water sources, since the National Water Policy contemplates first priority to drinking water.

Ground Water Management and Artificial Recharge studies.

Integrated and coordinated development of surface water and ground water resources and their conjunctive use is to be thought of as an alternate programme for ground water management. To achieve this, ground water recharge projects have to be implemented for improving both the quality and availability of Ground Water resources wherever it is feasible, especially in critical and over-exploited blocks, and the coastal area prone for sea water intrusion.

Artificial Recharge Pilot studies in three areas covering over-exploited and critical blocks are proposed in 1) Upper Noyyal, 2) Cheyyar and 3) Chittar watersheds. These watersheds are prone for water level depletion, over exploitation and quality deterioration. Ways and means will be found out to identify suitable site for the construction of artificial recharge structures using most modern techniques like remote sensing and GIS.

Intensive rainwater harvesting and other possibilities may be introduced in augmenting the ground water storage so as to benefit the public. The impact of the pilot study will be monitored and evaluated so as to apply this technique to other parts of the State in future.

The pilot study is proposed to be done in the year 2004 - 2005.

The total estimated cost for the above study is about Rs. 100 lakhs.

Ground water awareness programme.

Awareness among the public should be created on the danger of over exploited of Ground Water and on the need for harvesting the rain water to conserve the Ground Water and also for preserving the quality of ground water.

Hydrology Project (Phase - II)

In order to consolidate the gains earned from the World Bank Aided Hydrology Project - 1 the Hydrology Project II is on the anvil. The main thrust area of the proposed Hydrology Project Phase II will be integrated water resources management, flood forecasting of Tambiraparani basin, drought management of Vaippar basin and conjunctive use of surface and ground water in Cauvery basin, rain water harvesting, awareness to farmers etc. for the strengthening of the infrastructure of Ground & Surface Water Resources Data Centre units.

The project consists of major components namely surface water, Ground Water and water quality and the project estimate as approved for Rs. 25.27 Crore during the wrap-up meeting held on 16.4.2004 by the Ministry of Water Resources and World Bank Authorities. This Hydrology Project Phase-II has commenced in July, 2004 and will continue for six years.

A provision of Rs.230 lakh has been made for the above works in BE 2004-2005 towards retortype fund for formulating Hydrology Project II. Additional funds Rs.400 lakh is required for this financial year 2004-2005 for implementing the Hydrology Project Phase II.

Dam Safety Project - II

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 Crore to carry out Dam Safety Works. This proposal has been cleared by Government of India and forwarded to World Bank for its consideration.

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.Manimukthanadhi, 7. Periyar,
- 8.Pechiparai, 9.Manimuthar 10. Amaravathy

Rehabilitation and Reclamation of Chennai City Waterways

Rehabilitation and reclamation of Chennai City Waterways with HUDCO assistance.

Based on the report of the Multi National Consultancy services of MacDonald flood alleviation works have been taken up in Chennai City with HUDCO assistance. The scheme is called as Millennium scheme and sanctioned in the year 1998 at an estimated cost of Rs.300 crore. The main objective of the scheme is to desilt and remove the slush in the water ways like Adayar, Buckingham Canal, Cooum, Otterinallah, Captain Cotton Canal and other big drainages for the flood water to drain into the sea fastly. It is also proposed to evict the encroachers along the river beds and resettle and rehabilitate them to a far off place.

The scheme is under implementation from October, 1999. The scheme consists of 4 packages and works in 3 packages (except Cooum river) are under implementation.

Package 1:- Desilting of Buckingham canal from Ennore to Muttukadu and undertaking rehabilitation programme.

In this package about 80% of the work is completed. In South Buckingham canal, encroachments have been evicted in 4-6 Kms and rehabilitation works are taken up.

Package – 2: Removal of silt and shoals in Adayar River, formation of flood bank along Kosasthalaiyar River and construction of small bridges across Velacheri draiage:

In this package 40% of works are completed. Construction of small bridges across Velacheri drainage and construction of flood bank along Kosasthalaiyar River have been completed. Work in Adayar River between upstream of Nandambakkam bridge upto Adhanur lake has been completed. Works downstream of Nandambakkam are under progress and they are expected to be completed shortly.

Package – III: 1. Flood protection walls in drainages in Chennai Metropolitan area:

Under this package construction of new canal has been taken up to drain the surplus water from the lakes situated in Thanikachalam Nagar, Ambattur, Madhavaram and Korattur in North Chennai have been taken up.

2. To undertake drudging operation in the Adayar and Cooum mouth.

The National Institute of Oceanography, a Government of India Undertaking, functioning at Chennai has suggested a scheme to construct groyens at Cooum Mouth to avoid further deposit of sand. Based on this groyen within the sea for a distance of 170 meter has to be constructed at an estimated cost of Rs. 78 lakhs. The NIO has suggested to increase the hight of groyens upto 1.5 meter.

Only after studying the functioning of the groyens in the Cooum mouth, such type of work will be taken up at Adayar mouth.

CHENNAI CITY WATER SUPPLY AUGMENTATION PROJECT-II

In the G.O.Ms.No.43 Dt.3.4.2002 of MA & WS Dept.administrative sanctionwas accorded for the following works for Rs.493 crore. By executing these works. Supply of 268.30 MLD will be achieved.

- | | |
|--|--------------|
| 1) Construction reservoir across Kosasthalaiyar near Thirukandalam | Rs.187 Crore |
| 2) Construction reservoir across Cooum River near Zamin Korattur | Rs. 42 Crore |
| 3) Construction reservoir across Adayar River near Thiruneermalai | Rs. 65 Crore |
| 4) Pallikaranai Reservoir | Rs. 55 Crore |
| 5) Check Dam across Palar River near Vavalur | Rs. 82 Crore |

Vayalur

- | | | |
|----|---|--------------|
| 6) | Check Dam across Adayar | Rs. 10 Crore |
| 7) | Check Dam across Cooum | Rs. 3 Crore |
| 8) | Deepening and Desilting of Madhavaram, Rettai Eri, Korattur and Ambattur lake | Rs. 3 Crore |
| 9) | Check Dam across Kosasthalaiyar River | Rs. 13 Crore |

According to the G.O., Project Implementation Committee has been formed and its first meeting was held on 9.6.2002. During the recent 4th meeting held, the estimated cost of Rs.493 Crore has been reduced to Rs.183 Crore and it was decided to implement the following works.

- | | | |
|----|---|-----------------|
| 1) | Check Dam across Palar River near Vayalur | Rs. 82.00 Crore |
| 2) | Construction of Check Dam across Kosasthalaiyar River near Thiruthandalam | Rs. 67.50 Crore |
| 3) | Rehabilitation of Vallur Anicut | Rs. 20.00 Crore |
| 4) | Deepening and Desilting of Madhavaram, Korattur and Ambattur lake | Rs. 5.00 Crore |
| 5) | Rehabilitation of Porur Lake | Rs. 3.00 Crore |
| 6) | Planning and Development | Rs. 3.70 Crore |
| 7) | Unforeseen expenditure | Rs. 0.80 Crore |

TOTAL Rs.183.00 Crore

By executing the above works, supply of 70 Million Litter per day of water will be achieved.

Presently, revised administrative approval for Rs. 124 crore has been given. From the sanction accorded, the following item of works have been entrusted to Public Works Department for which preparation of estimates are under progress.

| | | |
|---|--|-----------------|
| 1 | Construction of check dam across Palar river near Vayalur | Rs. 80.00 crore |
| 2 | Construction of check dam across Adayar near Manapakkam, Nandambakkam, Anakaputhur and cowl bazaar village | Rs. 12.37 crore |
| 3 | Improvements to 2 checkdams across cooum (Paruthipattu and Kannapalayam) | Rs. 1.33 crore |

The other works have been deferred for the present.

Irrigation Management Training Institute

Irrigation Management Training Institute, Tiruchy is one of the 11 Institutes under USAID in our Country. It was established in 1984. It is imparting training to farmers, field level staff and officials of WRO, Agricultural Engineering Department and Agriculture Department. Now this 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 was implemented by WRO with World Bank Loan. 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 Department officials.

Computer Training:

Under the WRCP, Computers have been provided in Water Resources Organisation upto Sub-Division level. Hence in the last few years main thrust was given to improve the skills of all Officers and Staff of W.R.O. in Basic Computer Application using MS Office for carrying out day-to-day routine office works. At present, most of the JLO and MLO have been trained in Basic Computer Application and some of them have been given training in Advanced Courses like Autocad, GIS, MS Project. So in the ensuing year, the focus will be on giving advanced training in the following aspects for JLO and MLO.

1. Autocad for Drawing & Designing
2. Design of Irrigation structures using Computer
Advanced Application (MS Excel)
3. Geographical Information System
4. Project Management using MS Project Software
5. Management Information System
6. Surveying Techniques using Total Station
7. MS Access & Power Point

Even though Basic Computer Application Training has been given to Office Staff in the last two years still lot of them are yet to be trained. Training on Basic Computer Application has to be continued this year also for effective use of Computers supplied at Sub-Division level. Hence 15 Nos. of Basic Computer Application Training is proposed.

Moreover the World Bank has emphasized that any project has to be undertaken considering inter-disciplinary approach. This Institute is imparting training to 3 departmental officers in Irrigation Management aspects – likewise Basic Computer Training can also be given to all of 3 Departments. To start with 6 Nos. of such programmes have been proposed next year.

For the year 2004-2005, it is programmed to conduct 140 National trainings for a sum of Rs.130.00 Lakhs. The above programmes will cover 2000 farmers and 2000 officers in irrigation management.

Institute For Water Studies

1. Water Planning

Micro Level Studies: For carrying out the Micro Level Studies, the various river basins in Tamil Nadu has been grouped into 17 river basins. Out of the 17 river basins, Micro Level Planning for the following 3 river basins have already been completed.

1. Palar River Basin.
2. Vaippar River Basin.
3. Kodaiyar River Basin

The Micro Level Studies in respect of Vaigai and Tamiraparani river basins have been undertaken and are nearing completion. The Ponnaniar River Basin will also be taken up during this financial year.

2. River Basin Management and Development Board

For an Integrated planning/ Monitoring/Management and Development of Water and Land Resources with active involvement of all the Line Departments and the Stake Holders and for Improving the livelihood of millions of small farmers and alleviating their poverty, the River Basin Management Development Board for

Palar and Tambaraparani River Basins have been formed with the River Basin Management Committees and a common Technical Secretariat.

The 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 Public Works is the Chairman of the BMC. The members of the BMC are the Development Commissioner, Secretaries to Government of various departments, MPs and MLAs, Collectors of concerned Districts, water users and NGOs are members. A Technical Secretariat in advising the Basin Management Committee on technical aspects is functioning under the chairmanship of the Chief Engineer and Director, Institute for Water Studies with the nomination of 3 experts from various departments. This Secretariat is functioning from August, 2002.

The Technical Secretariat has fully engaged in identifying the issues pertaining to Palar and Tamiraparani river basins in consultation with the various Government departments, Organisations, Stake Holders, Academic Institutions and Universities. It has arranged the Brainstorming Meeting, Consultative workshop, Stakeholders' Meeting relating to, water Resources and Environmental issues in the Palar and Tamiraparani basins.

Palar River Basin

1. Brainstorming Meeting at Institute for Water Studies, Chennai on 6.8.2002.
2. Consultative Workshop for setting up SEA Framework for Palar basin on 18.10.2002 at Chennai.
3. Stakeholders' Meeting for finalizing the vision at Chennai on 24.1.2003.
4. Stakeholders' Meeting for SEA on 7.2.2003 at Vellore
5. Stakeholders' Meeting on THANNI for Palar basin on 10.3.2004 at Vellore.

Tamiraparani River Basin:

1. Stakeholders' Meeting at Tirunelveli on 23.11.2002.
2. Stakeholders' Meeting at Alankulam on 21.01.2003.
3. Stakeholders' Meeting at Tenkasi on 7.5.2003.
4. Stakeholders' Meeting at Tenkasi on 21.7.2003.
5. Stakeholders' Meeting for THANNI MODEL at Tirunelveli on 17.3.2004.

Vaigai River Basin:

1. Dissemination of THANNI Model for optimum utilization of available resources was done in the Stakeholders' Meeting conducted on June 4, 2003 at Madurai.

PAP Basin:

1. Stakeholders' Meeting was conducted at Pollachi on August 8, 2003 to get the views of Stakeholders and Line Department officials.

3. Computer Model –THANNI Model

The Technical Secretariat has engaged in collection of details of rainfall inflow and outflow for the reservoirs, details of system and non-system tanks, irrigated area, cropping details, soil particulars, Hydro-meteorological data, socio-economic, environmental data, Remote Sensing and GIS data and carrying out analysis for using the information for development of THANNI Model. This model has been developed to use as a decision support system in river basin planning and management. THANNI Model has been developed for 4 river basins viz. Palar, Tamiraparani, Vaippar and Kodaiyar. Stakeholders Meeting on THANNI Model were convened at Chennai, Vellore, Virudhunagar, Tirunelveli and Nagercoil to disseminate the findings.

Programme for the year 2004-2005

- (1) It is proposed to convene the Basin Management Committee Meeting for Palar and Tamiraparani Basin.
- (2) It is also proposed to prepare THANNI Model Report for Ponnaiyar Basin.
- (3) The THANNI Model for Palar, Tamiraparani, Vaigai, Kodaiyar will be finalized incorporating all the suggestions received in Stakeholders Meetings / Workshops.
- (4) It is also proposed to conduct survey using GPS to assess the present capacity of the two tanks in Ponnaiyar and Tamiraparani basins.
- (5) It is also proposed to convene Board Meetings for Tamiraparani and Palar Basins.

4. Tamil Nadu State Water Policy

The Tamil Nadu State Water Policy was formulated in the year 1994 within the framework of the National Water Policy 1987. The National Water Policy has been revised in April'2002 and the Tamil Nadu State Water Policy 1994 has now being revised to keep in line with the revised National Water Policy and to suit the present Scenario.

The Government in G.O (1-D) No. 55 / Public Works (WR1) Dept. Dated 14-02-2003, have accorded sanction for conducting the seminar to obtain the views of the members of Water Resources Control and Review Council and other experts in the field of water resources for revising the State Water Policy 1994.

Accordingly, the seminar for revising the State Water Policy 1994 was held at Institute for Water Studies on 25-03-2003 and the views of the members of the Water Resources Control and Review Council and other experts in the field of water resources have been obtained. The draft State Water Policy 2003, duly incorporating the view and suggestions of the various resource persons has been drafted by the Institute for Water Studies and clearance from the Chairman, Cauvery Technical Cell, for the draft policy has been obtained and the same is under consideration of the Government.

5. Water Resources Research Fund and Research Studies

In WRCP a Water Resources Research Fund was available and under this fund, 30 research studies have been completed and the findings of the research studies has been disseminated to Assistant Engineers and Assistant Executive Engineers of Water Resources Organisation by conducting Workshop at Irrigation Management Training Institute, Trichy in 25 batches for 700 persons. The remaining programme will be conducted before September, 2004.

Additional 8 research studies under WRRF will be finalized before September, 2004.

6. Remote Sensing & GIS Activities

The main function of the Tamil Nadu State Centre for Remote Sensing Application is to prepare various thematic maps derived from satellite data and aerial photographs on different scales for overlay analysis for surface and groundwater potential assessment, land use study, crop pattern study, waste land identification, etc. The Remote Sensing Centre is to assist for basin wise micro level water planning in terms of preparing, analysing and making suggestions on the following themes.

- | | | |
|----------------|----------------------|-----------------------------|
| 1. Geology | 5. Geomorphology | 9. Lineament / Structure |
| 2. Landuse | 6. Soil | 10. Water Quality |
| 3. Water Level | 7. Depth to bed rock | 11. Hydrogeology |
| 4. Drainage | 8. Physiography | 12. Digital Elevation Model |

In addition to the above, the Remote Sensing Centre has taken up the following two project studies funded by the State Planning Commission, Tamil Nadu and they are in the advanced stage of progress.

(i) To identify the further exploitation of ground water at Chengam block where the ground water is used in large quantities.

(ii). Targeting Ground water in deeper zones in Turinjalar river minor basin by using Remote Sensing Techniques.

(iii). Preparation of various thematic maps for Hanumanathi Sub-basin (Tamiraparani river basin) for formulating the projects under MDPPP.

(iv) Identification of favourable Ground Water Potential zone in the block of Thalaivasal in Salem District where ground water is utilized in large quantities. .

7. Planning for procurement of computers and soft wares:-

Procurement of servers, network accessories and upgradation of Computers for establishing MIS and Network communication –

(1) The procurement of servers, network accessories and upgradation of Computers has been completed.

(2) Procurement of 535 Nos. of computers and accessories for all the AEEs of W.R.O. has been completed in March 2003.

(3) Procurement of Video conferencing equipments has been completed.

(4) Leased Line connectivity has been completed in June, 2004.

Tamilnadu Boiler Inspectorate

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

The Tamil Nadu Boiler Inspectorate is playing a crucial role in the phenomenal development of Boilers and Boiler Ancillary Industries in the State of Tamil Nadu. The State of Tamil Nadu is pioneer in the field of Boiler manufacturing including Power Boilers and Boiler Ancillary Units, like Foundries, Forge Shops, Tubes and Pipes manufacturing units, etc.

The Tamil Nadu Boiler Inspectorate is also in charge for implementing the provisions of the Tamil Nadu Boiler Attendants' Rules, 1964 and Tamil Nadu Boiler Operation Engineers' Rules, 1965 to ensure that the Boilers used in the user industries are operated by certified Boiler Operation Engineers and Boiler Attendants.

Tamil Nadu Boiler Attendants Examination is conducted for I-Class, II-Class & III-Class certificate of competency and certificate is issued.

The Tamil Nadu Boiler Operation Engineer's Examination is also conducted by this Inspectorate and certificate issued.

The Indian Boiler Regulations, 1950 is formulated for ensuring the quality in the manufacture of Boiler and Boiler components. Tamil Nadu Boiler Inspectorate ensures that the Boiler and Boiler components are designed and manufactured as per the provisions of the above Regulations by approving the design for the various components and by carrying out inspections at various stages of manufacturing from approving the basic raw materials till the final product is tested and certified for quality.

The Boiler Inspectorate is also responsible for detecting and curbing the operation of the unregistered and uncertified Boilers.

By its efficient functioning, the Boiler Inspectorate plays a pivotal role in the industrial growth of Tamil Nadu.

SAND QUARRY

Taking cognizance of the indiscriminate quarrying in the river systems in Tamil Nadu while hearing a Public Interest Litigation petition, the High Court of Madras by its order dated 26.7.2002 directed the State Government to constitute a Committee of Experts consisting of Geologists, Environmentalists and Scientists to study the river and river beds in the State with reference to the impact of sand quarrying. Accordingly, the Government constituted a six member High Level Committee, which gave its report to Government. After detailed discussions of the Committee's Report, orders have been issued in G.O.Ms.No. 95, Industries Department, Dated: 1.10.2003 amending the Tamil Nadu Minor Minerals Concession Rules, 1959 by introducing a new rule as Rule 38-A whereby all existing leases for quarrying sand in Government land and permissions / leases granted in ryotwari lands have ceased to exist with effect from 2.10.2003 and also entrusting the sand quarry to the Government through a single Department Viz. the Public Works Department. Accordingly, the Public Works Department through the Regional Chief Engineers directly started operating sand quarry at 239 locations identified and sold through 171 depots to the users at a price of Rs.1000/- (Rupees one thousand only) per lorry load (2 units) ex-depot.

Conceding the request of the public and also to avoid slackness in the construction activities recently orders have been issued reducing the sale price of sand to Rs. 600/- per lorry load (2 Units) from Rs. 1000/-.

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 7 Divisions for Electrical works).

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 Udthagamandalam, 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.

- (a) Organising Training Programs for Engineers and Artisans through "PWD Kattida Maiyam"
- (b) Taking 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.
- (c) Undertaking Material Testing, Basic Research Studies and Applied Research Studies.
- (d) Consultation service by Inspection of Distressed Buildings and recommend Renovation and Rehabilitation Techniques to be adopted to bring them back to its original condition.
- (e) Use of fly ash / pond ash in building construction

With a view to protect the environment around Coal or Lignite based thermal power plants from pollution and also with a view to preserve the natural resource i.e. clay which is being widely used for the manufacture of Bricks, the Government of India have ordered by notifications issued during 1999 as amended in 2003, that Fly-Ash Bricks should be used in the construction of masonry in lieu of conventional clay Bricks and the Government of India have set the target date, for cent-percent usage of Fly-Ash Bricks, in the construction of buildings, within a radius of 100 km from coal and thermal power plants, as 01.08.2007. Further, the Government of India have ordered that the Pond Ash should only be used for reclaiming the low-lying areas, Embankment for Road formation etc.

Pursuant to the above orders of the Government of India, the Building Organisation of PWD has now started using Fly-Ash Bricks / Blocks, in lieu of conventional clay Bricks in all the construction works with effect from 01.05.2004 and accordingly include the item of construction of masonry using Fly-Ash Bricks in all the estimates and Tender Schedules.

Similarly, it has been decided to use Pond Ash for filling the Basement and reclaiming the Low lying area around the buildings.

(F) Use of quarry dust as substitute for sand, in concrete work

Quarry Dust, a waste product obtained while crushing stone, is polluting the environment around Granite Quarries causing health hazards to the villagers residing in the nearby areas of stone quarries. Further, "sand" a natural resource and an important constituent of building construction is slowly becoming a rare and costly commodity.

Hence, it is now proposed to replace sand in the concrete works to a tune of 30% by Quarry Dust with a view to reduce the over exploitation of the natural resource i.e. sand, and thereby reduce the cost of construction and at the same time prevent the pollution of environment around the Granite Quarries. Experiments in this regard are being conducted in the Building Research Station of Buildings organisation of PWD.

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 Department wise ongoing schemes are as follows:

HEALTH AND FAMILY WELFARE DEPARTMENT

(A). HOSPITALS

1. The work of Construction of New Buildings for Out-Patient in Govt. Stanley Hospital, Chennai for Rs.650 lakhs is in progress.

2. The work of construction of Tower Block I and Tower Block II after dismantling the old and damaged buildings at Government General Hospital, Chennai was sanctioned for Rs. 10447 lakhs. The tower blocks are seven storied buildings, with a total plinth area of 6.89 lakhs square feet. Both the tower blocks are planned and constructed as Hi - Tech. Hospital with modern amenities. 16 sophisticated operation theatres, I.M.C.U.s, .I.C.U.s, well equipped labs, X-Ray units, blood banks, emergency wards, pay wards, general wards and 16 lifts are provided in these buildings. The buildings will be completed shortly.

3. Sanction has been accorded for the Construction of building for 500 Bedded hospital 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 for 300 bedded hospital at a cost of Rs. 500 lakhs is in progress with the financial aid of HUDCO.

4. The Government have sanctioned Rs. 500 lakhs for the Construction of buildings for 300 bedded hospital the New Medical College at Vellore and the works are in progress with the financial aid of HUDCO.

5. 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, 11 Building works completed and 1 work is in progress.

(B) Medical Colleges:

1. The Construction of New Buildings to admit 315 additional students in 5 Medical Colleges in Tamil Nadu was sanctioned for Rs. 1882 lakhs (25 works) and finally sanctioned for Rs.1257 Lakhs (12 works) under Phase-I with financial aid of HUDCO and the same are under progress.

2.The Government have sanctioned Rs.1200 lakhs for the Construction of New Medical College at Theni District with the financial aid of HUDCO and the works are in progress.

(C) PRIMARY HEALTH CENTRES

1. 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 Central Government Aid out of which, 38 places completed, and are in progress in the remaining 2 places.

2. 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. 14 works have been completed and Works are in progress in the remaining 3 places.

3. During 2003-2004, the Government have sanctioned Rs.1221 lakhs for the construction of 30 bedded ward and X-ray Block in 33 places with the Central Govt. aid (Phase - III). for all the 33 places, tenders have been called for. Works started in 23 places and action being taken to start the balance works during this year.

(D) HEALTH SUB-CENTRES

1. During 2001-2002, the Government have sanctioned Rs.600 lakhs for the construction of 100 Health Sub Centres with Central Government Aid. Out of this, work completed in 97 places. Works are in progress in 2 places. Work not taken up in 1 place due to site dispute.

2. During 2002-2003, the Government have sanctioned Rs.1920 lakhs for the construction of Sub Health Centres in 298 places. Out of these, works have been completed in 287 places. Works not taken up in 11 places due to site dispute.

HOME DEPARTMENT

(A). JUDICIAL DEPARTMENT

1. During 2003-2004, Government have sanctioned combined Court Building in the Master Plan Complex at Villupuram for Rs.762 lakhs and the work is in progress.

2. During 2003-2004, Government have sanctioned a VIP Guest House and subsidiary building for the combined court building at Villupuram for Rs.192 lakhs and the work is in progress.

3. The Government have sanctioned Rs.252 lakhs for Library Buildings at Chennai and the finishing work is in progress.

4. The Government have sanctioned Rs.390 lakhs for the construction of buildings for combined court at Theni. The work will be taken up shortly.

5. The Government have sanctioned Rs.982 lakhs for the construction of buildings for combined court at Srivilliputhur. The work will be taken up shortly.

(B) FIRE SERVICE AND RESCUE DEPARTMENT.

During the year 2003-2004, the Government have sanctioned Rs.356.40lakhs for the construction of Fire service station at 15 places with the assistance of General Life Insurance Fund. Out of this, Works are in progress in 14 places and tender called for, for the remaining 1 place.

(C) PRISON DEPARTMENT

1. During 2002-2003 and 2003-2004, the Government have sanctioned Rs.320lakhs for the construction of Medical Facilities and security arrangements in Central Prison and Sub-jails in 27 places. Works were completed in 25 places and are in progress in the remaining 2 places.

2. Under Modernisation scheme, the Government have sanctioned Rs.1906.83 lakhs for the construction of 216 Nos of Quarters for Prison staff and repairs and renovation to the prison buildings. All the works are under progress. Also tenders have been received and in process for The construction of District Jail Buildings at Nagercoil and Dindugul.

REVENUE DEPARTMENT

1. With the assistance of the XIth Finance Commission fund, the Government have sanctioned

Rs.7213.74 lakhs for the construction of 251 Revenue and other Department Buildings for the period 2001-2004 in Perambalur, Karur, Namakkal, Theni, Tiruvallur, Thiruvallur and Villupuram Districts. Out of this, 178 works were completed, 55 works are in progress. Works will be taken up shortly in 2 places.

2. The Government have sanctioned for Rs. 1000 lakhs. for the construction of Master Plan Complex and Collector's bungalow in the newly formed Krishnagiri District and for the work of Construction of Collector's Office Building at Perambalur at a cost Rs.716 lakhs.

3. The Government have sanctioned a sum of Rs.265.60 lakhs for providing approach roads to the Master Plan Complex at Perambalur and the work will be taken up during this year. .

EDUCATION DEPARTMENT

1. 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 NABARD assistance. Works were completed in 56 places and are in progress in the remaining 194 places.

2. A similar proposal for construction of buildings for 259 Schools in the Districts of Cuddalore, Vellore, Thiruvallur, Dharmapuri, Thiruvannamalai, Kanchipuram and Villupuram at a cost of Rs. 8380 lakhs with NABARD Assistance will be taken up shortly.

AGRICULTURE DEPARTMENT

1. The work of construction of Paddy Market Complex at Madurai has been taken up for a value of Rs.1260 lakhs and the work is in progress.

2. The work of setting up of" Agricultural Marketing Complex at Oddenchatram in Dindigul District has been taken up at a cost of Rs.245.20 lakhs and the work will be taken up for execution shortly.

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 finishing works are in progress.

ANNA INSTITUTE OF MANAGEMENT

The Government have sanctioned Rs.1000lakhs for the construction of New Complex for the Anna Institute of Management at Chennai and the finishing works are 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.4.85 Lakhs each. Out of this, buildings completed in 221 constituencies and works are in progress in the remaining places.

BACKWARD AND MOST BACKWARD WELFARE DEPARTMENT

1. The Government have sanctioned a sum of Rs. 275.60 lakhs under Part II Scheme for special repairs to the existing MBC and DNC Students Hostels in 358 places which includes drinking water facilities and improvements to sanitary arrangements. Works were completed in 312 places and works are in progress in the remaining 46 places.

2. During 2003-2004, the Government have sanctioned, Rs.3150 lakhs with the aid of HUDCO and Central Government Fund for Construction of 100 hostel buildings for the MBC & DNC Departments. Works are in progress in 90 places and action is being taken to start the balance works in 10 places.

10. PART - II SCHEMES FOR THE YEAR 2004 - 2005:

1. Construction of Sub-Division Office Buildings with 4 sections at Thukkalay in Kanyakumari District for a value of Rs. 13.31 Lakhs.
2. Construction of Division Office Buildings for Executive Engineer., P.W.D. Buildings (Construction & Maintenance) Division, Ramanathapuram for a value of Rs. 31.00 Lakhs.
3. Construction of Sub-Division Office Building – I with one section at Theni for a value of Rs.8.25Lakhs.

4. Construction of new Circuit House at Tiruvannamalai for a value of Rs.70.00Lakhs.
 5. Renovation of Halls for Technical section (Buildings) in the First floor south side of P.W.D. Main Building at Chepauk, Chennai-5 for a value of Rs.15.00 lakhs.
 6. Improvements to the PWD quarters from D-83 to D-114 (except D-111 and D-112) in Todhunter Nagar at Saidapet, Chennai for a value of Rs.40.30 lakhs.
11. The details of ongoing major building works and the new major works to be taken up during the year 2004 – 2005 are furnished in the Annexure I and II respectively.

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

ANNEXURE – I

MAJOR BUILDING WORKS, WHICH ARE IN PROGRESS

| Sl. No. | | Rs. in Lakhs |
|---------|---|--------------|
| 1 | Construction of New Building for O.P. Block at Stanley Hospital, Chennai. | 650.00 |
| 2 | Construction of New Buildings for Government General Hospital at Chennai. | 10447.00 |
| 3 | Construction of new Medical College in Asaripallam Govt. Hospital complex in Kanyakumari District - Phase-I | 500.00 |
| 4 | Construction of buildings for 300 bedded hospital for the New Medical College at Vellore | 500.00 |
| 5 | Upgradation of Primary Health Centre in 33 places. | 1221.00 |
| 6 | Construction of new buildings to admit 315 students in 5 Medical Colleges in Tamil Nadu - Phase-I | 1257.00 |
| 7 | Construction of new Medical College at Theni | 1200.00 |
| 8 | Construction of Combined Court building at Villupuram | 762.00 |
| 9 | Construction of VIP Guest House and subsidiary building at Villupuram | 192.00 |
| 10 | Construction of Library buildings at Chennai | 252.00 |
| 11 | Construction of Fire Service Station at 15 places in Tamilnadu | 356.00 |
| 12 | Construction of Buildings for Revenue and Non-Revenue with the XI Finance Commission funds. | 3200.00 |
| 13 | Construction of Taluk Office Building at Pallipattu in Thiruvallur District | 110.00 |
| 14 | Construction of Circuit house at Villupuram | 161.00 |
| 15 | Construction of Collectorate Building at Perambalur | 716.00 |
| 16 | Construction of Multi storeyed Building at Thiruvarur master plan complex | 500.00 |
| 17 | Construction of Paddy Market Centre in Maattuthavani, Madurai. | 1260.00 |
| 18 | Construction of office buildings for the Director of Employment and Training in Guindy at Chennai. | 278.00 |
| 19 | Construction of New Building for Anna Institute of Management at Chennai | 1000.00 |
| 20 | Construction of Hostels for B.C. and M.B.C. students | 3150.00 |
| | Total | 27712.00 |

ANNEXURE – II
DETAILS OF MAJOR BUILDING WORKS, WHICH ARE TO BE
TAKEN UP DURING THE YEAR 2004 - 2005

| Sl. No | | Rs. in Lakhs |
|-----------|--|--------------|
| 1 | Construction of combined court building at Theni. | 390.00 |
| 2 | Construction of combined court building at Srivilliputhur. | 982.00 |
| 3 | Construction of District Jail buildings at Nagercoil & Dindigul | 472.00 |
| 4 | Construction of Revenue & Non-Revenue Buildings | 1365.00 |
| 5 | Providing approach road to Master Plan Complex at Perambalur | 266.00 |
| 6 | Construction of Agricultural Marketing Complex in Oddenchatram at Dindigul District. | 245.00 |
| 7 | Construction of Collectorate buildings at Krishnagiri | 1000.00 |
| 8 | Construction of I.T.I. buildings in Needamangalam. | 142.00 |
| | Total | 4862.00 |