

PUBLIC WORKS DEPARTMENT

DEMAND No. 38

POLICY NOTE 2005 - 2006

INTRODUCTION

Pleasure is mine in presenting before this august House the Demand for Grants for “Irrigation and Buildings” of the Public Works Department, which is one of the oldest and prestigious Departments of the Government of Tamil Nadu.

A Policy decision was taken to re-organize the Public Works Department as Water Resources Organisation and Buildings Organisation in the year 1995 and these organizations are functioning independently from 1.4.1996. The Water Resources Organisation under Public Works Department is in-charge of formulating and implementing Major, Medium and Minor Irrigation Schemes, Operation and Maintenance of Irrigation Systems. 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 by all the water using sectors.

The Buildings Organisation is in-charge of Construction and Maintenance of Buildings for State Government Departments and Agencies. The objective of the Buildings Organisation is to ensure cost effective methods of building construction and maintenance by using modern technology.

IRRIGATION

Water is the elixir of life a precious gift of nature to the mankind and millions of other species living in the earth. It is fast becoming a scarce commodity in most parts of the world.

The source of all water on the globe is precipitation. The various areas where water is put into use are (1) irrigation (2) industrial (3) domestic including drinking water and sanitation (4) pisciculture (5) recreational (6) navigation etc. All these uses occur simultaneously at the time spatially spread out all along the course of the river. Obviously river basin planning for optimum utilization of water resources is particularly important for water starved Tamil Nadu State. In Tamil Nadu, having harnessed the most of the surface water, the future lies only on two possibilities (1) Securing additional water from neighbouring States where there is surplus that can be shared and (2) by managing of water resources carefully so that we get the maximum benefit out of it. While we may be striving to achieve the first alternative through good neighbourly relations, we must plan for the second alternative straight away. Management of water resources thus becomes not only relevant but also essential. Since a large percentage of consumptive use is through Irrigation, Irrigation water management is to be given a high priority. This task requires a strong institutional arrangement for effective implementation of the policies for better water management, and participatory approach, which is being strongly advocated by water experts.

This State can be broadly divided geographically as the hilly western area and eastern central plains. The western ghats run along the western end in the hill groups of Nilgiris and Anamalais occupying the north-western parts, Palani hills Varshnadu are the major off shoots of the ghats in the south. Javadis, Servarayan, Kalrayan and Pachamalis are the broken hill ranges forming the Eastern Ghats, which of course unlike the Western Ghats can be traversed through in a number of places.

With this preface, the following are the strategies taken by Government of Tamil Nadu for development and management of the Water resources and institutional arrangements made.

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 Tamil Nadu through Major and Medium Irrigation sources as 15.00 lakh hectares. At the commencement of the First Five Year Plan, (1951-1956) 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 10th Five Year Plan (2002-2007) upto 2003-2004, an additional irrigation potential of 2323 hectares has been created. During 2004-2005, additional irrigation potential of 7573 hectares is expected to be created and in the year 2005-06 an irrigation potential of 5143 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. To achieve the object of transferring surplus water from the neighbouring States, Tamil Nadu has been pursuing the matter with the Government of India and with neighbouring States. The Schemes involved in this area are given separately.

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 and has been completed by 30.09.2004 successfully. The ICR Mission (Implementation of Completion Report Mission) of World Bank rated that this project has been implemented satisfactorily.

State Plan Schemes

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.

Medium, Minor and Special Minor Irrigation Projects

The following Medium, Minor and Special Minor Irrigation Projects are presently under execution:-

- (1) Nanganjar Reservoir (Dindigul District)
- (2) Irukkangudi Reservoir (Virudhunagar District)
- (3) Shanmughanadhi Reservoir (Theni District)
- (4) Malattar Anicut Scheme (Ramanathapuram District)
- (5) Providing irrigation facilities to 58 villages in Usilampatti Taluk (Madurai District)
- (6) Andiappanur Odai Reservoir (Vellore District)
- (7) Shenbagathope Reservoir (Thiruvannamalai District)
- (8) Bathalapalli – Malattar Reservoir Scheme (Vellore District)
- (9) Kuppanatham Reservoir Scheme (Thiruvannamalai District)
- (10) Varattar – Vallimadurai Reservoir Scheme (Dharmapuri District)
- (11) Kalvoi – Sadayaneri Scheme (Thoothukudi District)
- (12) Narayana Cauvery channel (Ramanathapuram District)
- (13) Formation of new tank across Uppar Odai (Tiruchirappalli District)
- (14) Tank across Mudalaimuthuvari (Thanjavur District)

- (15) Gadana Extension Scheme (Tirunelveli District)
- (16) Tank across Nayodai (Dindigul District)
- (17) Tank across Ramakkal Odai and Anaivilundan Odai (Dindigul District)
- (18) Nallathangal Odai Tank (Erode District)
- (19) Anicut across Andi odai (Tiruchirappalli District)
- (20) Reservoir across Nagariar near Sasthakoil (Virudhunagar District)
- (21) Reservoir across Vellakalkanar near Vinnamangalam (Vellore District)
- (22) Tank across Sirumalaiar (Dindigul District)
- (23) Augmentation of water supply to Vellianai and three other tanks from Kodaganar Reservoir (Karur District)
- (24) Formation of 18th Canal in Uthamapalayam Taluk of Theni District
- (25) Reservoir across Mambazhathuraiyar (Kanyakumari District)
- (26) Extension of Nilaiyur Channel (Madurai District)
- (27) Ullar Reservoir across Palaiyar and Valamazhaiyar (Tirunelveli District)
- (28) Reservoir across Mirukandanadhi (Tiruvannamalai District)
- (29) Construction of Syphon in Pugalur Channel to divert the polluted Noyyal Orathupalayam water.
- (30) Rehabilitation of Anicut across Nanganjiar Odai near Pallapatti in Karur District.
- (31) Desilting Kathiriankulam and its Channels in Dindigul District.

- (32) Diversion of Vaigai flood water to feed Rajakambeeram Tank and 15 other Tanks in Sivagangai District.
- (33) Formation of a tank across Mathalappallam River near Ramakondahalli village in Pennagaram Taluk of Dharmapuri District.
- (34) Construction of anicut across old Coleroon in Perumpattu Village in Chidambaram Taluk of Cuddalore District.
- (35) 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.
- (36) Formation of a tank across Vellapparai Odai in Theppampatti Village in Andipatti Taluk of Theni District.
- (37) 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.
- (38) Formation of a pond across Sambarpallam Odai in SF No.18 in Alamarathupatty Village and conversion of defunct Sorakkapatti tank to a pond by linking the surplus of Sambarpallam Pond in Mettur Taluk in Salem District.
- (39) Formation of a new tank across Pachilainachiamman Odai (Manthurai Odai) near G. Kallupatty in Periyakulam Taluk of Theni District.
- (40) Formation of new Tank across Periyoothu Odai in Chinnaovalapuram Village in Uthamapalyam Taluk in Theni District
- (41) Formation of a new tank across Ayyanarkoil Odai in Mallapuram Village in Peraiyur Taluk in Madurai District.
- (42) Reconstruction of Bed dam in left arm of Kosasthalaiyar near Edayanchavadi Village in Ponneri Taluk in Thiruvallur District.

- (43) Increasing the carrying capacity of Marudur Melakkal from Marudur anicut to Kalvoy tank Thoothukudi District.
- (44) Formation of a Reservoir across Vandal Odai near Pottal village in Ambasamudram Taluk of Thirunelveli District.
- (45) Modernisation of Thirukurunkudi, Periakulam in Thirukurunkudi village in Nanguneri taluk of Tirunelveli District.
- (46) Reconstruction of Regulator No.2 of Pasimuthan Odai at LS 10.027 Km and improvements to the branch channels of Pasimuthan Odai in Chidambaram Taluk of Cuddalore District.
- (47) Formation of a tank across Perumpallam Odai near K.Morur in Kanmavaipudur Village of Omalur taluk in salem District
- (48) Construction of an anicut across ayyar near Puliyancholai to feed Mahadevi and chain of tanks in Thuraiyur taluk of Trichy District.

PRESENT STAGE OF THE ONGOING MEDIUM IRRIGATION SCHEMES

(1) 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. A proposal of revised Reappraisal for 41.68 is under consideration of Government. The works are in progress. Totally 98% of the work has been completed.

The Budget provision for 2005-06 is Rs.0.02 lakh.

(2) 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. Subsequently revised estimate for Rs.62.20 Crore has also been approved. 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, Kuthanatukkurichi, 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, 85% surplus regulator works across Arjuna and Vaippar Rivers completed. (Civil works completed and electrification is to be done) 90% of main canal and 95% of branch canal have been completed. Earth dam 90% completed.

In earth dam, balance works such as Revetment, Turfing and Parapet wall works are to be carried out, Distributaries and field bothies 90% completed. River draining works 90% completed. High Level Bridge and Syphon works to be started. 93% of works have been completed in total.

The Budget provision for 2005-06 is Rs.0.01 lakh.

(3) 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 estimated 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 2005-06 is Rs.52.09 lakh.

(4) 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.

Design for the revised crest of anicut to give additional irrigation facilities to an extent of 1711.70 hectares under the existing 54 tanks is under finalisation. NABARD has sanctioned a loan amount of Rs.36.247 Crore against the total estimate cost of 42.00 crore. It is programmed to complete the entire work by March 2006.

The Budget provision for 2005-06 is Rs.22.961 Crore.

(5) 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 14 Irrigation works, tenders have been accepted for 12 works. 1 work is completed. 45% work has been completed in 9 packages. 2 works are held up due to objection of land owners. Re-tender for the balance two works to be invited.

Revised Estimate for an amount of Rs.63.90 Crore has been under preparation.

The work is programmed to be completed by March 2006.

The Budget provision for 2005-06 is Rs. 0.01 lakh.

(6) Andiappanur Odai (Vellore District)

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

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

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

Transfer of 39.69 hectares of forest land, 15 hectares of poromboke land and acquisition of 100.245 hectares of Patta land are involved. Land acquisition completed except court case portion.

This project is being implemented through the loan assistance from NABARD. 80% of work completed, work will be completed before 3/2005. Work is under progress.

The Budget provision for 2005-06 is Rs.7.062 Crore.

(7) Shenbagathope Reservoir (Tiruvannamalai District)

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

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

This scheme will benefit 2067 hectares by stabilisation and 642 hectares by bridging the gap in Vallur, Kangaranandal, Santhavasal, Naranamangalam, Illuppakkunam, Paravathiagaram, Aliyabad and Enthuvambadi villages in Polur Taluk, Kuppam, Kamakkur, 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.

95% of the work has been completed, balance work programmed to be completed shortly. This work is being implemented through "NABARD" loan assistance.

The Budget provision for 2005-06 is Rs.0.01 lakh.

(8) 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, Vasanampalli, Nariyampattu, Reddimankuppam, Sarangal, Kailasagiri, Ayithampattu, Sathampakkam, Rajakal, Alingikuppam, Malmurugai, Melpatti, Kulithigai, Chinnathottalam, Ulli, Kothakuppam, Aranganalalur, Olakasi and Chithathur villages of Gudiyatham Taluk. Besides, provision for drinking water facilities to Peranampet town and the 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. Forest land has been taken over from

Forest Department. NABARD has been approached for loan assistance.

The Budget provision for 2005-06 is Rs.8.00 Crore.

(9) 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 poromboke lands, and 13.34 hectares of forestlands are required. Acquisition of patta land completed and transfer of poromboke lands are under way. Forest lands taken over from Forest Department. NABARD has agreed for loan assistance.

Revised Estimate for Rs.43.50 Crore has been sanctioned. This work will be taken up after settling the agency.

The Budget provision for 2005-06 is Rs.20.00 Crore.

(10) 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 poromboke land. The Government of India has given its permission for transfer forest land on 22-12-2000.

Land acquisition for main work is completed and Main works are in progress. "NABARD" has accorded approval for loan assistance.

The Budget provision for 2005-06 is Rs.11.89 lakh.

(11) 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.14.35 Crore. The Revised Estimate for Rs.14.35 Crore has been sanctioned. The work is completed in all respects.

The Budget provision for 2005-06 is Rs.0.01 lakh.

**(12) 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 villlage 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.

98% works completed. Balance works are in progress.

The Budget provision for 2005-06 is Rs.0.01 lakh.

(13) 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. 95% of the work has been completed. Further works are in progress and programmed to be completed before March 2005.

The Budget provision for 2005-06 is Rs.0.01 lakh.

(14) 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 90% of the works has been completed. The work is programmed to be completed during March 2005.

The Budget provision for 2005-06 is Rs.1.10 Crore.

(15) 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.

The work is completed in all respects with NABARD loan assistance.

The Budget provision for 2005-06 is Rs. 0.01 lakh.

(16) 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.7.20 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 work completed. Works for the construction of surplus weir is completed. Shutter works are in progress. Overall 75% of work is completed.

The Budget provision for 2005-06 is Rs.1.269 Crore.

(17) 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 earthwork for foundation for weir was completed. Box type RCC Barrel work completed in river sluice of Anaivilundan Odai and Ramakkal Odai and canal sluice barrel completed. RR masonry work for all sluices is in progress.

The Budget provision for 2005-06 is Rs.2.247 Crore.

(18) 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 and headsluice are in progress

The Budget provision for 2005-06 is Rs.10.00 Crore.

(19) 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, Tiruchirappalli District at an estimated cost of Rs.1.21 crore.

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

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

All the works are completed.

(20) 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.

All works completed with NABARD loan assistance.

The Budget provision for 2005-06 is Rs.0.01 lakh.

(21) 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. Final approval for diversion of forest land is expected from Government of India. Work will be commenced after obtaining loan assistance from NABARD.

The Budget provision for 2005-06 is Rs.3.00 Crore.

(22) 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. Totally 75% work completed. Action is being taken to complete the balance works early.

The Budget provision for 2005-06 is Rs.2.138 Crore.

(23) 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 in Karur District from Kodaganar Reservoir in Dindigul 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 Karur taluk Veerarakiam and Valayalkaranpudur villages in Krishnarayapuram Taluk of Karur 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.

(24) 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 Uthamapuram village in Uthamapalayam Taluk.

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

NABARD has sanctioned a loan amount of Rs.24.50 crore against the total estimate cost of Rs.28.50 Crore during the year 2004-2005. Revised estimate for an amount of Rs.28.50 Crore is under scrutiny.

50% of works have been completed. Balance works are in progress.

It is programmed to complete the entire work by March 2006.

The Budget provision for 2005-06 is Rs.13.201Crore.

(25) 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.

Revised estimate for an amount of Rs.14.80 Crore is under consideration.

The Budget provision for 2005-06 is Rs.4.00 Crore.

(26) 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; Chinnulagam, Virusankulam, Vidhithakulam, Keeraupplikundu of Thirumangalam Taluk of Madurai District, Kadambankulam, Aviyar, Poolapathi, Mankulam, Kurathi, Udaikulam, Arasakulam Rayarpatti, Kambikudi, Pappankulam, S.Alankulam, Anmalperruki, Sathiram poolankulam, 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.

98% 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 2005-06 is Rs.0.01 lakh.

(27) 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. Design for non-spillway scheme is finalized. Design for spillway, surplus arrangements and surplus course are under finalisation.

The Budget provision for 2005-06 is Rs.10.00 lakh.

(28) 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. "NABARD" bank has sanctioned the loan for the above project. Revised Administrative Sanction has been accorded by the Government for Rs.1880 Lakh. Agency settled and work is under progress.

The Budget provision for 2004-05 is Rs.6.675 Crore.

(29) Construction of Syphon in Pugalur Channel to divert the Polluted Noyyal Orathupalayam Water

The Writ Petition has been dismissed by the High Court of Madras. Detailed estimate is under preparation.

(30) Rehabilitation of Anicut across Nanganjiar Odai near Pallapatti in Karur District – Estimate Rs. 33.00 Lakh.

65% of works completed. Balance works are in progress.

(31) Desilting Kathiriankulam and its Channels in Dindigul District – Estimate Rs. 50.00 Lakh

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

(32) 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 LS.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 of construction of road is completed and railway bridgework is in progress.

(33) Formation of a Tank across Mathalapallam River near Ramakondahalli Village in Pennagaram Taluk of Dharmapuri District

The Mathalapallam Reservoir is to be constructed across the river Mathalapallam in Ramakondahalli Village of Pennagaram Taluk in Dharmapuri District. Administrative Sanction was accorded by the Government for Rs.14.15 Crore.

An ayacut of 1100 acres will be benefited by this scheme. Land Acquisition work is in progress. Proposal to seek loan assistance from NABARD is under preparation.

Agency settled, work will be taken up soon.

The Budget provision for 2005-06 is Rs.10.00 Crore.

(34) Construction of anicut across old Coleroon in Perumpattu Village in Chidambaram Taluk of Cuddalore District.

The Government have sanctioned Rs.1.62 Crore for the construction of an anicut across Old Coleroon River in Perampattu Village in Chidambaram Taluk at Cuddalore District to prevent the Sea water intrusion into Old Coleroon River. The loan assistance was sought from HUDCO. The Government extend the approval for borrowing loan from HUDCO for an amount of Rs.1.785 Crore. This project will uplift the living condition of about 30000 families through improved irrigation.

By construction of this Check Dam, the sea water intrusion in the Old Coleroon drainages where the ground water level has gone down will be prevented and potable water will be given to the Public.

This work is completed in all respects.

(35) 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.

Marachaitram Anicut was formed in Marachaitram Village, Krishnagiri Taluk of Dharmapuri District at the confluence point of Nochikuppam and Markandeya Rivers. Badathalar Tank receives water from the above anicut. The surplus water from Badathalar Tank is proposed to be conveyed through supply channel to Vennampalli and 10 other tanks upto Kashimpur tank to irrigate direct ayacut of 1340.74 acres and indirect ayacut of 1500 acres.

The Government have administratively sanctioned the above work for Rs.7.00 Crore. The NABARD loan assistance has been sought for. Agency settled and the work will be commenced soon.

The Budget provision for 2005-2006 is Rs.3.493 Crore.

(36) Formation of a tank across Vellapparai Odai in Theppampatti Village in Andipatti Taluk of Theni District.

The Government have accorded administrative sanction for Rs.1.19 Crore for the work of "Formation of a tank across Vellapparai Odai in Theppampatti Village in Andipatti Taluk of Theni District.

The scheme will provide irrigation facilities to an extent of 42.22 ha. of dry lands in Theppampatti village besides improving the ground water level in and around the area.

All works completed.

(37) Conversion of diversion mud bund into masonry retaining wall in Palar river at the off take of Athur Vadapathy tank supply channel in Chengleput Taluk, Kancheepuram District.

The scheme is formulated based on the representation given by the ayacutdars of Athur Vadapathy Tank in Chengalpattu Taluk to construct masonry wall replacing the diversion mud bund.

The mud diversion bund is often carried away by floods and the ayacutadars could not divert water effectively into the supply channel causing inadequate storage in the tank, unstabilised irrigation to the crops and inadequate supply to the ayacuts leaving gaps.

The Government have accorded administrative sanction for Rs.1.20 Crore for the above work. As it is proposed to streamline, the regular flow in the channel to its original standards, it is possible to stabilize the cultivation in 398.13

acres and to bridge the gap of 119.89 acres. The anticipated additional food production will be 166.45 tonnes.

Work completed.

(38) Formation of a pond across Sambarpallam Odai in SF No.18 in Alamarathupatty Village and conversion of defunct Sorakkapatti tank to a pond by linking the surplus of Sambarpallam Pond in Mettur Taluk in Salem District.

The Budget provision for 2005-06 is Rs.20.00 lakh.

(39) Formation of a new tank across Pachilainachiamman Odai (Manthurai Odai) near G.Kallupatty in Periyakulam Taluk of Theni District.

The Government in have sanctioned the scheme for the formation of a new tank across Pachilainachiamman Odai near G.Kallupatti Village in Periyakulam Taluk for Rs.1.27 Crore.

This Scheme will provide irrigation facilities to an extent of 6478 ha. dry land.

It is programmed to complete the entire work by 11/2005.

The Budget provision for 2005-2006 is Rs.52.00 lakh.

(40) Formation of a new tank across Periyaoothu Odai in Chinnaovalapuram Village in Uthamapalayam Taluk of Theni District.

The Government have sanctioned the formation of a new tank across Periyaoothu Odai near Uthamapalayam Taluk of Theni District in May 2003 for Rs.2.02 Crore.

This scheme will provide irrigation facilities to an extent of 47.55 ha dry land. The work commenced on 15.11.2004 and it is programmed to complete the work by March, 2006.

The Budget provision for 2005-2006 is Rs.49.80 lakh.

(41) Formation of a new tank across Ayyanarkoil Odai in Mallapuram Village in Peraiyur Taluk in Madurai District.

The scheme of constructing a new weir across Ayyanarkoil Odai in Mallapuram village in Peraiyur taluk in Madurai District will have the capacity of 20.16 mcft. When three filling are made in a year, the annual water availability is 60.48 mcft. The scheme will provide facilities for 725 acres and also will prevent damages from flood. The Ayyanarkoil Odai which runs from west to east is presently filling up the Karisalkulam weir located in Soolapura village which is below 10 km downstream of the proposed new weir. The surplus water from the Karisalkulam weir reaches Thirumanickam weir. Since the Karisalkulam weir is benefited from other resources apart from Ayyanarkoil Odai. The proposed new weir will not affect the Karisalkulam weir.

The components of the scheme are Masonary dam, Surplus weir, Sluices, Distributory channel. The works on surplus weir works, apron, and the side wall of surplus weir are in progress.

(42) Reconstruction of Bed dam in left arm of Kosasthalaiyar near Edayanchavadi Village in Ponneri Taluk in Thiruvallur District.

The bed dam in Edayanchavadi Village was breached due to heavy floods during 1991-92. Due to lack of restoration of each structure for the past 10 years.

It is proposed to construct a bed dam across left arm at the tail end Kosasthalaiyar river in Edayanchavadi Village of Thiruvallur District at an estimated cost of Rs.2.50 Crore.

This project contemplates construction of concrete bed dam across Kosasthalaiyar for a length of 190 m and formation of a flood bank both the sides of upstream and downstream.

It has been proposed to take up this work under NABARD assistance and NABARD has agreed to extend assistance for

Rs.2.375 Crore against the estimated amount of Rs.2.50 Crore. The administrative approval has been given. The work will be commenced after finalisation of the tender.

(43) Increasing the carrying capacity of Marudur Melakkal from Marudur anicut to Kalvoy tank Thoothukudi District.

The Government have accorded administrative sanction for Rs.9.527 Crore for the work of "Increasing the Carrying Capacity of Marudhur Melakkal from Marudhur anicut to Kalvoi tank in Thoothukudy District" with the loan assistance of Rs.9.051 Crore from NABARD under RIDF-IX and the balance amount of Rs.47.64 lakh from State funds.

This scheme is proposed to increase the carrying capacity of Marudhur Melakkal in order to stabilize and bridging the gap of Marudhur Melakkal ayacut and also to give assured supply of 500 cusecs to Kalvoy sadayaneri Channel separately without affecting the discharge of Marudhur Melakkal (1060 cusecs)

After completion of the above scheme, the existing Marudhur Melakkal ayacut gap of 280.20.00 Ha. will be bridged and 534.46.0 Ha. will be stabilized and the tail end tanks will also get assured supply.

The components of the scheme are Improvements to Marudhur Melakkal Anicut, Improvements to Marudhur Melakkal including lining the canal, Improvements to the existing cross Masonry structures and construction of additional Cross Masonry structures and Improvements to Kalvoy tank and Kalvoy supply Channel.

Tender proposal is under scrutiny.

(44) Formation of a reservoir across Vandal Odai near Pottal village in Ambasamudram Taluk of Thirunelveli District.

The Government have accorded administrative sanction for Rs.6.14 Crore for the work of "Formation of a Reservoir across Vandal odai near Pottal Village in Ambasamudram Taluk of Tirunelveli District with NABARD loan assistance.

The Components of the Scheme are construction of uncontrolled surplus weir, river sluice and canal sluice and Excavation and lining of canal for a length 600 m.

By implementing the scheme an extent of 87.51.0 Ha. of gap in Kar and 41.37.0 Ha. of gap in Pishanam will be bridged and an extent of 3.41.5 Ha. in Kar and 33.57.0 Pishanam will be stabilized under the Manimuthar Main Canal ayacuts. Further 36.82.0 ha of new dry ayacut will be brought under cultivation.

Agency settled and the work is being started.

The Budget provision for 2005-06 is Rs.5.476 Crore.

(45) Modernisation of Thirukurunkudi Periakulam in Thirukurunkudi village in Nanguneri taluk of Tirunelveli District.

The Government have accorded sanction for Rs.1.028 Crore for the scheme of "Modernisation of Thirukurunkudi Periakulam in Thirukurunkudi village in Nanguneri taluk of Tirunelveli District"

The component of the schemes are improvements of supply channel, sluice, surplus weir, tank bund, etc.,

Processing of tender is under progress

(46) Reconstruction of Regulator No.2 of Pasimuthan Odai at LS 10.027 Km and improvements to the branch channels of Pasimuthan Odai in Chidambaram Taluk of Cuddalore District.

The Government have accorded administrative sanction for Rs.2.649 Crore for reconstruction of Regulator No.2 of Pasimuthan Odai at LS 10.027 Km and improvements to the branch channels of Pasimuthan Odai in Chidambaram Taluk of Cuddalore District.

By improving of 5 branch channels of Pasimuthan Odai 3910 acres of 13 villages will be benefited. NABARD bank has sanctioned a loan of Rs.2.517 Crore to this scheme.

Detailed estimate is under scrutinisation

(47) Formation of a tank across Perumpallam Oadai near K.Morur in Kanavaipudur Village of Omalur taluk in salem District

The Budget provision for 2005-2006 is Rs.4.85 Crore.

(48) Construction of an anicut across Ayyar near Puliyancholai to feed Mahadevi and chain of tanks in Thuraiyur taluk of Trichy District

The Budget provision for 2005-2006 is Rs.50.00 lakh.

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 FP 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 FP: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 FP 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 FP 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 FP 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 FP 42.42MT	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: 109.06M	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	50% work completed further works are in progress
10	Formation of a pond in S.F.No.73, 74 & 75 in Vadipatti of Oddanchattram Taluk in Dindigul District	Estimated Cost : Rs.14.00 Lakh Benefit: New: 37.50 Acre (Double Crop) Additional F.P:35.82 MT	Agency settled. Land Acquisition works are under process

Anti Sea Erosion Works

Construction of Rubble Mound Wall along the Shore of North Chennai Coast	Estimated Cost: Rs.2.83 Crore	Work completed.
Protecting the left out portion of coast line from Thiruvattiyur to Thalaukuppam to a total length of 2.38 KM.	Estimate Cost : Rs.10.574 Crore.	Work completed.

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.	Work completed during 10/2004.
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 Puliyanikulam Supply Channel and excavation of new channel from Puliyanikulam 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	Work is in progress and will be completed by June, 2005.
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	35% work completed land acquisition is in process

DURING THE 2004-2005 SANCTION HAS BEEN ACCORDED TO PROVIDE ADDITIONAL IRRIGATION FACILITIES FOR 1141 HECTARES LANDS AT AN ESTIMATED COST RS.9.30 CRORE FOR THE FOLLOWING SCHEMES:-

PART –II SCHEMES

SPECIAL MINOR IRRIGATION SCHEMES

Sl. No.	Name of the Scheme	Details
1.	Formation of a new pond in SF No. 79 & 80 in Veriappur village in Oddanchatiram Taluk in Dindigul District	<p>Estimated Amount Rs. 12.00 Lakh</p> <p>Benefits:</p> <p>Budget allotment 2004-05 – 12.00 lakh.</p> <p>New 37.50 Acres (Double Crop)</p> <p>Work to be taken up after completion of Land acquisition.</p>
2.	Formation of a new pond in SF No. 408 of Chikkarasampalayam village in Sathyamangalam taluk in Erode District.	<p>Estimated Amount Rs. 25.00 Lakh</p> <p>Budget allotment 2004-05 – 10.00 lakh.</p> <p>Benefits</p> <p>Stabilization: 37.50 Acres (Double Crop)</p> <p>New: 18.65 Acres (Double)</p> <p>20% work completed. Further work is in progress</p>

3.	Formation of a new pond across Odai near Dharmathupatti village in Andipatti taluk in Theni District	<p>Estimate Amount Rs.34.00 Lakh</p> <p>Budget allotment 2004-05 – 13.00 lakh.</p> <p>Benefits 53.62 Acres I Crop 20.30 Acres II Crop</p> <p>Stabilization : 20.30 Acres</p> <p>After agency is settled, work is to be started.</p>
4.	Formation of a new pond across Odai near Kottodai patti village near Pulimankombai village in Andipatti taluk of Theni District	<p>Estimated Amount Rs. 74.00 Lakh</p> <p>Budget allotment 2004-05 – 30.00 lakh.</p> <p>Benefits Stabilization: 53.48 Acres New: 124.62 Acres</p> <p>After agency is settled, work is to be started.</p>

5.	Formation of a new pond across Odai Unjalamman Koil in Sippalakottai village in Uthamapalayam taluk of Theni District	<p>Estimated Amount Rs. 60.00 Lakh</p> <p>Budget allotment 2004-05 – 25.00 lakh.</p> <p>Benefits 39.04 Acres (Double Crop)</p> <p>After agency is settled, work is to be started.</p>
6.	Formation of a new pond across Odai near Ammapatty Village in Andipatti taluk of Theni District	<p>Estimated Amount Rs. 25.00 Lakh</p> <p>Budget allotment 2004-05 – 10.00 lakh.</p> <p>Benefits 38.00 Acres (Double Crop)</p> <p>After agency is settled, work is to be started.</p>
7.	Augmenting water supply from Karaipottan river to feed Nagayanallur and Pidaramangalam tanks in Musiri taluk in Trichy District	<p>Estimated Amount Rs. 21.00 Lakh</p> <p>Budget allotment 2004-05 – 10.00 lakh.</p> <p>Benefits Stabilization: 300.90 Acres Gap 488.98 Acres</p> <p>After agency is settled, work is to be started.</p>

I am happy to inform the Hon'ble Members of this House that under the able guidance of Hon'ble Chief Minister, it is proposed to execute the following new schemes at an estimated cost of Rs.118.62 Crore during 2005-06:-

Minor Irrigation Schemes

Sl. No.	Name of Work	Details
1.	Formation of a new tank across Virumanathu Odai near Konavaipatti (Ganesapuram) village in Andipatti taluk of Theni District.	Estimated Amount: Rs.2.05 crore Benefits : New: 87.37 Acres
2.	Formation of a new tank above the existing Kundampatchi tank across Kundampatchi odai near Poomparai village in Kodaikanal taluk of Dindugal District	Estimated Amount: Rs.3.50 crore Benefits : New :244.00 Acres
3.	Formation of a new tank across Sangilian Koil Odai / Sinnathu odai in Anjukulliapatti village of Dindugal Taluk in Dindugal District.	Estimated Amount: Rs.1.90 crore Benefits New 345.00 Acres
4.	Strengthening and Improvement of Palar Basin under State Water Resources Consolidation Project	Estimated Amount: Rs.20.00 crore
5	Restoration work will be taken up in the Non-System (Rainfed) Tanks covering an ayacut of 25,000 hectares under Accelerated Restoration Programme of Traditional Irrigation.	Estimated Amount: Rs.62.50 crore

Special Minor Irrigation Schemes

1.	Formation of a new pond across odai near Munandipatty Village in Andipatty Taluk of Theni District	Estimated Amount: Rs. 70.00 Lakh Benefits- New: 86.64 Acres (Double crop)
2.	Formation of a new tank across Kurungur (Arunkattukanmoi) in Poondi Village of Kodaikanal taluk in Dindigul District	Estimated Amount: Rs. 90.00 Lakh Benefits New : 168.00 Acres
3.	Formation of a new Tank across Thalamalai vari near Tholurpatty in Musiri Taluk of Tiruchy District	Estimated Amount: Rs.53.00 Lakh Benefits New: 128.90 Acres
4.	Formation of a tank near Senthalaikaradu in Palaviduthi Village of Kulithalai Taluk in Karur District	Estimated Amount: Rs.68.00 Lakh Benefits New: 82.56 Acres
5	Formation of a Pond in S.F.No. 26 of Kalappanayakkanpatty Village in Namakkal Taluk in Namakkal District	Estimated Amount: Rs.25.00 Lakh Benefits New: 30.37 Acres
6	Formation of a new pond in S.F. No. 59,65,66 & 67 of Moongil Eri in Uthangarai Taluk of Krishnagiri District	Estimated Amount: Rs.36.00 Lakh Benefits New: 37.52 Acres Stabilization: 76.64 Acres
7	Formation of a new pond across Perumpallam in S.F.No.297 of Somavarapatty Village in Udumalaipet Taluk in Coimbatore District	Estimated Amount: Rs.45.00 Lakh Benefits New: 41.45 Acres Stabilization: 14.16 Acres
8	Formation of a Pond across vari near Arasakavundanur hamlet of Sembinaatham Village in Kulithalai Taluk of Karur District	Estimated Amount: Rs.17.00 Lakh Benefits New: 102.00 Acres

Besides these State resources, it has been proposed to augment the irrigation potential and proposed to take up schemes by availing the external assistance from various financial institutions.

The following schemes are proposed to be taken up with the assistance of National Bank for Agriculture and Rural Development (NABARD) during the year 2005-2006.

S. No	Name of the scheme	Estimate Amount Rs in lakhs
1	Extension of right main canal of Krishnagiri Reservoir project to Bommasamudram, Kariamangalam, Thindal tanks in Palacode Taluk of Krishnagiri District	706.32
2	Construction of an anicut across Markandanadhi near Cigarapalli village of Krishnagiri Taluk of Krishnagiri District	232.80
3	Formation of a new tank near A.Velaiyuthapuram Village in Vilathikulam Taluk in Thoothukudi District	38.44
4	Formation of new tank near Chockalingapuram in Chekkarakudi village of Srivaikundam Taluk of Thoothukudi District	40.75
5	Formation of a new tank across Achankulam village of Kovilpatty Taluk of Thoothukudi District	52.23
6	Formation of a new tank near Kumara Ettaiyapuram Village in Kovilpatti Taluk in Thoothukudi District	25.96
7	Formation of a new tank near Subbalapuram Village in Vilathikulam Taluk in Thoothukudi District	50.30

8	Formation of a new tank near Kattarankulam Village in Kovilpatti Taluk in Thoothukudi District	19.31
9	Formation of a new tank near Melapandiyapuram Village in Ottapidaram Taluk in Thoothukudi District	17.53
10	Construction of an anicut across Nalliuppodai to feed Nambipuram tank in Ettayapuram Taluk of Thoothukudi District.	113.85
11	Rehabilitation of Dhali channel system and Valayapalayam system in Udumalpet Taluk of Coimbatore District	440.92
12	Restoration works in anicuts, channels and sluices in the Old Aliyar system in the Pavilangal anicut & channel of Parambikulam Aliyar Project in Pollachi Taluk of Coimbatore District	138.68
13.	Restoration works in anicuts, channels and sluices in the Old Aliyar system in the Ariyapuram anicut & channels	124.23
14.	Restoration works in anicuts, channels and sluices in the Old Aliyar system in the Perianai anicut & channels	180.86
15.	Restoration works in anicuts, channels and sluices in the Old Aliyar system in the Kariapatti anicut & channels	210.53
16	Restoration works in anicuts, channels and sluices in the Old Aliyar system in the Vadakkalur anicut & channels	120.83
17	Modernisation and Upgrading the standards of Barur supply channel	514.70

18	Modernisation and Upgrading the standards of supply channel of Penukondapuram Tank in Sonahalli village of Pochampalli Taluk	426.88
19	Conversion of damaged mud korambu into masonry anicut to make irrigation facilities to the ayacut under Mandhikulam channel of Panaiyur Tank in Panaiyur village of Sankarankovil Taluk of Tirunelveli District.	44.52
20	Excavation of supply channel from Alathur channel to Aritharimangalam tank in Tiruvannamalai District	26.06
21	Rehabilitation of Cauvery Regulator at G.A. in Thanjavur district.	1738.83
22	Rehabilitation of Vennar Regulator at G.A. in Thanjavur district.	
23	Rehabilitation of G.A. Canal Regulator at G.A. in Thanjavur district.	
24	Rehabilitation of Cauvery Regulator at Mile 26/6 at Thirukattupalli in Thanjavur district.	
25	Rehabilitation of Kudamurutti Regulator at Mile 26/6 at Thirukattupalli in Thanjavur district.	

Water Resources Consolidation Project (W.R.C.P)

The State's irrigation system is the product of old investment in the case of many tanks dating back to several centuries. New investment opportunities are limited by water availability, but large opportunities are available for improving the efficiency of existing irrigation system. Neglected and under funded maintenance has resulted in deterioration of most systems, unreliable water to upstream farmers, and no water to tail-enders. There are also opportunities to complete investment

on a number of commands in order to improve the water service and provide farm extension in command area.

The need to manage the scarce and undependable water resources of the State and to have effective coordination between various water user organizations of the State has led to conceiving the concept of Tamil Nadu Water Resources Consolidation Project (TNWRCP). TNWRCP was conceptualized after studies on Institutional, Operation & Maintenance (O & M), Water Resources, and Sectoral – Environment Assessment. The Project has envisioned reforms in water sector bringing in new concept in management in this critical sector emphasizing the participatory approach with the involvement of stakeholders in O & M responsibilities and planning in river basins across all uses of water.

Hence, Tamil Nadu Water Resources Consolidation Project was taken up in the year 1995 with the financial assistance of World Bank at an estimated cost of Rs.11433 Million and the Project has been completed on 30.9.2004.

The project's primary objectives were

1. Introduce Water Resources Planning by river basins across all uses of water.
2. Improve agricultural productivity through modernization and completion of irrigation system, upgraded water management and farmers participation.
3. Assure sustainability of water infrastructure and the environment.
4. Improve Institutional and Technical Capability for managing the State Water Resources.

Achievements:

In Tamil Nadu, we have been moving towards these objectives with the Government facilitating the process. The following are some of the salient features of the achievements through WRCP:

- Under institutional reforms, PWD was bifurcated into Water Resources Organisation and Buildings Organisation, creating a specialized cadre for Water resources Organization and Buildings Organisation.
- Decentralized Management of field activities through 4 Regional Chief Engineers (Basin Managers) viz. Chennai Region, Trichy Region, Pollachi Region and Madurai Region with boundaries of River Basin or group of basins was established.
- Provided functionally specialized units, each headed by Chief Engineer, for (a) Plan Formulation, (b) Design, Research and Construction Support, (c) Operation and Maintenance, (d) State Ground and Surface Water Resources Data Center, (e) Water Planning under Institute for Water Studies and (f) training support through Irrigation Management Training Institute (IMTI).
- Tamil Nadu Water Policy has been formulated and is being updated in line with the National Water Policy, 2002.
- A Water Resources Control and Review Council (WRCRC) has been formed under the chairmanship of the Hon'ble Chief Minister with the Hon'ble Ministers and officers of the related departments and a few public as members to accelerate the decision making process with regard to Development and policy changes required. There is a sub committee under the chairmanship of Chief Secretary to the Government with Secretaries of Line Departments as members to screen the proposals to be placed to the WRCRC.
- Water planning on scientific basis using remote sensing technique, simulation models, optimization models across river basins are under way. Macro level planning have been completed for 16 basins out of 17 basins in the State leaving the Cauvery river basin where inter-State water

dispute on sharing of water is under progress. Micro level planning for 6 river basins have been completed.

- Two River Basin Development and Management Boards on pilot measure for Palar and Tambaraparani river Basins have been formed with appropriate supporting Management Committees and Technical Secretariat.
- State frame work for water resources planning has been built up facilitating developing Integrated Water Resources Management (IWRM) in all river basins.
- The environmental planning framework has been developed to act as guidelines to WRO engineers for carrying out environmental impact assessment and environmental status report for all river basins. Micro level environmental assessment reports for all 16 river basins and 2 sub basins of Cauvery have been developed. The recent ICR mission from the World Bank has observed that Tamil Nadu has set an example in the whole of India in executing this component and has also rated this component as “highly satisfactory”.
- For application of Geographical Information System (GIS) and Remote Sensing technique in water planning, good infrastructure facility has been created by procuring the latest sophisticated Remote Sensing equipment and softwares.
- Knowledge on GIS / Remote Sensing and database has been developed. The Remote Sensing Centre functioning in the IWS, recognized as the State Remote Sensing Centre, has prepared various thematic maps derived from satellite data and aerial photographs on different scales for overlay analysis for surface and ground water potential assessment, land use study, crop pattern study, waste land identification etc. The Remote Sensing Centre is also assisting in preparing basin wise micro level water planning with the application of GIS 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

- Formation of 1965 (1272 under System Improvement & Farmers' Turnover, 73 under Scheme Completion and 620 under Rainfed tanks) Water User Associations (WUAs) have been completed and subsequently grouped into 1566 in the WRCP area for conducting Elections.

Two National level Workshops on Participatory Irrigation Management (PIM) were conducted at Chennai and Madurai. Tamil Nadu Farmers Management of Irrigation Systems (TNFMIS) Act 2000 was enacted and Rules were also framed. For all the 1566 Water Users Associations, elections were held during the month of January, February and August 2004. For these Associations, 1566 Presidents and 7874 Members for the post of Territorial constituencies have to be elected. In the above elections, 1552 Presidents and 7704 Members for Territorial constituencies were elected. Action is being pursued to elect the remaining 14 Presidents and for 170 Territorial Constituency Members. Women also actively participated in Water Users' Association.

Water Users' Associations are to be formed for the Non-WRCP area also, for which documentation process has commenced from April 2004.

The Members are given orientation training and sensitized for their effective participation in the maintenance.

- 38 Research studies were completed and the findings disseminate to about 1100 Engineers of WRO through workshops.

- The Expert Committee on Rain Water Harvesting and Ground Water Protection (renamed as the Expert Committee on Development and Management of Water Resources in Tamil Nadu) constituted with 12 members has done excellent jobs of crystallizing the key issues in Water Sector, especially the strong support for an Integrated approach on a basin context and outlining an action plan.
- Strategic Environmental Assessment for Palar Basin has been made on the following lines

“A. Scoping B. Capacity Building - C. Identification and Analysis of Issues

D. Forming the vision and guiding principles”.

- By engaging Twinning Consultancy, reports were developed on the following 9 Tasks through M/s Tahal Consulting Engineers Limited, Israel.

Task – I: Irrigation Management

Task – II: Operation and Maintenance

Task – III: Design and Construction

Task – IV: Construction Plan and Management

Task – V: Environmental Management

Task – VI: Water Planning

Task – VII: Development of Computer Based MIS

Task – VIII: Training

Task – IX: Public Awareness

Evolving of Design Manuals for the following: 20 Nos.

1. Canal Falls / Drops
2. Distributory Head Regulator
3. Cross Regulator
4. Sediment Control Devices
5. Sediment Exclusion Devices
6. Canal Escapes
7. Barrage and Weirs
8. Cross drainage works including Aqueducts, Syphon queducts, Superpassages, Syphons and level Crossing
9. Design of Radial Gates
10. Operation & Maintenance of Radial Gates
11. Rope Drum & Hoist for hydraulic gates
12. Operation & Maintenance of Vertical lift gates
13. Flood Control works
14. River training works
15. Vertical lift gate (slide & fixed wheel types)
16. Vertical lift gate (slide type) for medium
17. Design manual on Hydraulic hoist for gates
18. Earth dam
19. Concrete and masonry dam
20. Estimation of flood flows in small and medium river basin catchments.

Workshops were conducted at IMTI and in Regional offices to disseminate the findings of M/s. Tahal Consulting Engineers limited on all these tasks.

The final reports are also sent to all Chief Engineers for following the recommendations / observations in the field operations. M/s Tahal Consulting Engineers Ltd. also imparted on job training to the field Engineers on the operation models developed by them for PAP, Gomukhi and Sethiathope system.

- The IWRM technique was also piloted in the Hanumanadhi Sub Basin of Tambraparani Basin involving the line departments as below with the help of the Multi Disciplinary Project Preparation Panel constituted by the Government.

Sl. No.	Department	Items of work	Amount (Rs. in Lakhs)
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 ponds.	2255.00
3.	Tamil Nadu 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	Formation of grazing fields	20.00

integrating Water Resources Organisation, Agriculture Engineering Department, Agriculture Department and Tamil Nadu Agriculture University was introduced and demonstrations / training were made/given to farmers. The impact evaluation shows encouraging results of enhanced productivity, and the benefits realised by the tailenders in early supply of water etc.

The impact of IAIP are as follows:

- Awareness has been created among the Farming Community in optimum and economic use of water.
- Farmers are convinced over the importance of On Farm Development (OFD) works and adoption of improved cropping technologies.
- Farmers are given exposure to organic farming well use of Bio-Fertilizers, plant protection measures etc.
- By adopting ARTs in all the crops, water use efficiency and substantial yield are increased.
- Management Information System (MIS) unit in the Engineer-in-Chief (EIC) Office was established and Network connectivity is under progress. Only the interface shell of MIS has been developed and data input for the software developed for three disciplines (Budget, Personnel & Contract Management) are under progress. Video Conferencing arrangements have also been established in six places.
- 370 Building works (Renovation, improvement and new construction) including improvements for Library and Conference Hall were completed.

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 sources under Major, Medium and Minor irrigation systems including tanks, in the State. At present these water sources 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.

The concept of PIM had already been implemented in 20 districts covering 7.00 lakh hectares of command area under WRCP. The concept of PIM is being extended to the balance command area of about 14.00 lakh hectares. Preparation of documents has already been initiated in respect of 14.00 lakh hectares of command areas including the area in Cauvery Delta.

In this process, the following activities will be taken up for completion in sequence as under:

1. Delineation of Water Users Association (Lower level) area, preparation and completion of documents and notification.
2. Creating awareness about TNFMIS Act and elections, among the farmers at village level.
3. Conduct of election through secret ballot for constituting the Managing Committees of the WUAs.
4. Training to the elected office bearers of WUAs.
5. Delineation of Distributory Committee (DC) (Second and Middle level) and Project Committee (PC) (Third and Top level) areas, preparation and completion of documents and notification.

6. Conduct of election through secret ballot for constituting the Managing Committees of the DCs & PCs.
7. Providing necessary infrastructure facilities to the PIM cell in the office

Environment:

As far as Environmental concern in Water Resources, Environmental Cell Divisions at Chennai, Madurai and Coimbatore are functioning under the Control of Chief Engineer (Plan Formulation) for creating Awareness through Seminars, Workshops, Exhibitions etc.

Environmental planning Framework was developed and discussed in National Workshop on 23 – 24 November, 2000 at Chennai and they act as guidelines for abatement of pollution and planning of environmental friendly project.

Pilot studies on various environmental issues including controlling aquatic weeds and micro level studies in River Basins were taken up. In addition, study on Environmental Social Assessment in River Basins has been also carried out.

About 159 programmes (Basin wise) have been conducted by the Environmental Cell Divisions as detailed below:-

Environmental Cell Division, Coimbatore - 114 Nos

Environmental Cell Division, Chennai - 22 Nos

Environmental Cell Division, Madurai - 23 Nos

Even though the World Bank aided WRCP has been completed on 30.9.2004, the environmental studies are to be continued, for which action is being pursued.

The major activities of Environmental Cell divisions during the year 2005-06 will be the following.

1. Monitoring surface water quality of river basins.
2. Collecting data on environmental issues of water resources.
3. Updating environmental status reports.
4. Preparing Environmental Action Plan (EAP) for river basins.
5. Conducting pilot studies on major environmental problems related to water resources.
6. Preparing environmental impact assessment reports for new projects.
7. Giving importance to environmental, socio and economic problems raising in river basins and creating awareness among public and farmers on the importance of safe guarding and protecting the water resources from environmental degradations.
8. Preparation of estimates for the follow on projects.

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-I, 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. is also proposed.

The World Bank 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.

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.

Rehabilitation of 3392 rainfed tanks at a cost of Rs 542.60 crore under Water Resources Consolidation Project (W.R.C.P-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 2,90,161 ha, is formulated and posed for World Bank Assistance under WRCP-Phase II.

Modernization and Development of Minor Irrigation (MI) Tanks (Non-System-Rainfed) in Tamil Nadu under National Bank for Agriculture and Rural Development – Rural Infrastructure Development Fund - NABARD RIDF X.

Phase I

A project proposal for modernization of 107 rainfed tanks with command area of 10,139.96 ha. at an estimated cost of Rs.28.62 Crore was posed during March 2004. This proposal is under active consideration of NABARD.

Phase II

A project proposal for modernization of 170 rainfed tanks with command area of 18,908.52 ha. at an estimated cost of Rs.48.34 Crore was posed for NABARD loan assistance. This proposal is under active consideration of NABARD.

Phase III

A project proposal for modernization of 116 rainfed with command area of 10,022.02 ha at an estimated cost of Rs,26.41Crore is under formulation.

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

A proposal for rehabilitating of 1,798 rainfed tanks at a cost of Rs.984.50 crore benefiting an Ayacut of 1,69,227 ha. has been sent to Ministry of Water Resources for posing JBIC Assistance in five districts viz., Thiruvallur, Kancheepuram, Ramanathapuram, Sivagangai and Virudhunagar. An outlay of Rs.785 crore is provided in Tenth Five year Plan for Tamil Nadu. This is under consideration of Ministry of Water Resources, Government of India.

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

A project proposal for rehabilitation of 247 rainfed tanks in four districts, viz, Tirunelveli, Virudhunagar, Madurai and Thoothukudi at a cost of Rs.65.59 Crore benefiting an ayacut of 24,622 ha, is formulated and sent to Ministry of Water Resources (MOWR), Government of India (GOI) 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 Tamil Nadu at a cost of Rs 267.92 Crore, benefiting twenty districts Viz 1) Coimbatore, 2) Cuddalore, 3) Dharmapuri, 4) Dindigul, 5) Kanniyakumari, 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, was sent to Ministry of Water Resources (MOWR), Government of India, by the Government of Tamil Nadu 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.

Desilting and Rehabilitation of Tanks, Channels in Tamil Nadu.

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 rainfed tanks, by getting loan from various funding agencies.

National Coastal Protection Project-(NCPP)

Tamil Nadu has a coastline of about 1076 km out of which 1016 km is along the Bay of Bengal and 60 km along 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 Expressway 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 Expressway by providing Rubble Mound Sea Wall (RMS wall) in a phased programme.

The Anti sea erosion works taken up in Kanyakumari District and in North Chennai have been completed.

The Government of Tamil Nadu have accorded sanction 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 and all the works are nearing completion.

The National Coastal Protection Project (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 (CWC), and forwarded to CWC, during September, 2002. This project has been included in Phase I of NCPP 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.Peria kuppam, 2.Chinna kuppam, 3.Eranavoor kuppam, 4.Annai Sivakami Nagar kuppam, 5.Indira Gandhi Nagar Kuppam. |
| 2.Kancheepuram District | : | 6.Kovalam Kuppam, 7.Oyyali kuppam, 8.Chinna kuppam & Periya kuppam & Alikuppam. |
| 3.Cuddalore District | : | 9.Devanmpattinam |
| 4.Nagapattinam District | : | 10.Poompuhar, 11.Tharangambadi, 12.Ariyanttutheru, 13.Seruthur Velanganni |
| 5.Thoothukudi District | : | 14.Periyathalai, 15. Alanthalai. |
| 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 with Central share of 2.32 Crore and State share of Rs.3.68 Crore respectively.

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 with the Central assistance 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.

Rehabilitation and Reclamation of Chennai City Waterways

Government of India, Ministry of Environment and Forest has approved Chennai City River Conservation Project for a project outlay of Rs.1700 Crore. Government of Tamil Nadu is implementing the works under the flood alleviation project at a cost of Rs.300 Crore with 70% loan assistance from HUDCO.

Under this project, the implementation of desilting and improvements of Waterways in Chennai City & Metropolitan Area along with Rehabilitation & Resettlement component are implemented.

The following works are undertaken by PWD under this project.

(Rs. in Crore)

S.No.	Name of component	Estimated cost
1.	Improvements in Cooum River	55.72
2.	Improvements in North Buckingham Canal	46.76
3.	Improvements in the River Adyar	46.06
4.	Improvements in the drainages of North Chennai	33.46
5.	Flood Relief works in Pallikaranai	25.20
6.	Improvements to the surplus courses of Ambattur, Korattur, Madhavaram, Red Hills & Chembarambakkam lakes in the Chennai Metropolitan Area	44.80
7.	Virugambakkam – Arumbakkam, Otteri Nallah, Velachery drainage works	10.46

Chennai Metropolitan Development Authority is the Nodal Agency for implementation of the works through Public Works Department, Tamil Nadu Slum Clearance Board and Corporation of Chennai.

Krishna Water Supply Project

The Government of Tamil Nadu entered into a historical agreement with the Government of Andhra Pradesh on 18.4.1983 for meeting the drinking water requirement in the Chennai City according to which the Government of Andhra Pradesh shall deliver 12 TMC ft. of water excluding the transmission loss of 3 TMC ft. of water at the Tamil Nadu Border over a period of 8 months in a year. The component of

the project falling within Tamil Nadu limit is called “Krishna Water Supply Project” and that in Andhra Pradesh limits is called “Telugu Ganga Project.”

The originally sanctioned estimated cost of Krishna Water Supply Project in Tamil Nadu limit was Rs.46.44 Crore. The reappraised cost was Rs.196.04 crore. The expenditure incurred so far is Rs.205.146 Crore.

The total estimated cost of Telugu Ganga Project comes to Rs.2345 Crore (as per 1997 rates) 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.

Kandaleru water was released by Andhra Pradesh for the first time on 29.9.1996 through Kadaleru-Poondi (KP) Canal.

The following quantum of water has been realized from 1996 onwards:-

Year	Water released from Kandaleru in to K.P. Canal (in TMC ft)	Water realised at Tamil Nadu Border (in TMC ft)
1996-1997	0.610	0.076
1997-1998	4.339	2.290
1998-1999	4.077	2.810
1999-2000	3.990	1.830
2000-2001	17.790	6.688
2001-2002	1.108	0.400
2002-2003	9.461	3.262
2003-2004	2.05 (PUMPED)	0.210

Within the Tamil Nadu border, Krishna Water Supply Project was started in 1983 at an estimated cost of Rs.196.04 Crore and implemented in 1991.

Repair and desilting works of Kandaleru-Poondi Canal from 0 Km to 25.275 Km at an estimated cost of Rs.146.50 Lakhs is under progress.

During current year Krishna water was released from Kandaleru Dam on 23.11.2004. On 28.11.2004 water reached zero point. From 28.11.2004 to 9.3.2005 a quantum of 2.718 TMC ft of water has been realized.

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 million litres per day (Mld). of water to the Chennai city.

The sanction included Rs.60.00 Crore for the improvements to source works comprising (1) improvements to the Vadavar Channel, which brings water from lower Coleroon Anicut to Veeranam Tank, (2) Removal of shoals in the Veeranam Tank and raising its Full Tank Level (FTL) by 2' to increase the existing capacity of 935 Mcft. to 1485 Mcft.

Subsequently, revised administrative sanction was accorded for the source works for the project including the modernization of the command conveyance system of Vadavar canal and Veeranam Tank for Rs.110.95 Crore. 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.

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

1. Improvements to Vadavar Channel comprises 6 Packages. Out of the 6 Packages, at a cost of 26.39 Crore, 5 Packages are completed. In the other package, 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 10.68 Crore. They are all completed.
3. Improvements to existing foreshore bund and formation of new foreshore bund costs Rs.10.31 Crore. Works have been completed in all the 4 packages.
4. 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 6 Packages which costs Rs.6.45 Crore. All works have been completed.
5. 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. Rehabilitation works in 7 channels in Vadavar and 5 channels in Veeranam are in progress and will be completed during 2005-06.
6. Repairs to existing staff quarters and construction of new project house at a cost of Rs.0.55 Crore are taken up.

In this connection, I am happy to inform this House that to stabilise the New Veeranam Project, Hon'ble Chief Minister has sanctioned for construction 3 sub-surface dykes across Coleroon River at an estimated cost of Rs.75 Crore and the work will be taken up during this year.

Chennai City Water Supply Augmentation Project-II

The Government have sanctioned Rs.493 Crore for the works of Chennai city water supply augmentation project-II. By executing the works, 268.30 Mcft of water can be augmented.

Subsequently, the project was modified and the Government have accorded RAS for Rs.124.00 Crore for the work of Chennai City Water Supply Augmentation Project-II out

of which the following works are to be executed by Public Works Department.

- 1) Check dam across Palar river near Vayalur Rs.80.00 Crore
- 2) Construction of four check dams across Adayar river near Nandampakkam, Manapakkam, Cowl Bazaar and Anakapudur Rs.12.37 Crore
- 3) Construction of two check dams across Cooum river near Paruthipattu and Kannampalayam Rs.1.33 Crore

TSUNAMI

On 26.12.2004, the biggest natural calamity of the recent years "The Tsunami" occurred along with Tamil Nadu coast. By this, the coastal areas in the Districts like Chennai, Tiruvallur, Kancheepuram, Villupuram, Cuddalore, Nagapattinam, Kanniyakumari were heavily damaged.

As requested by the District Administration, Public Works Department made arrangements for the supply of proclains, JCBs, Dippers, etc., for rescue operations. The Public Works Department officials extended all co-operation to the district officials and completed the rehabilitation works successfully.

Hon'ble Chief Minister has advised that in order to protect the coastal areas from sea erosion in future, action should be initiated for construction of R.M.S. Wall, Groynes, Retaining wall, etc., in the coastal areas.

Tamil Nadu has a coastal line of 1076 KM out of which 1016 KM is along with Bay of Bengal and 60 KM along Arabian sea. This coastal line is often prone to considerable sea erosion due to various natural calamities like cyclone, storm, depression, etc. Further, the Tamil Nadu coast has been damaged heavily due to the recent Tsunami. Hence, it is necessary to safeguard the life, properties and houses etc of the people living along the coast.

Lot of rivers are joining the sea. Apart from this for a distance of 435 KMs, Lagoons, Mangroos, Backwaters, Major and Medium Ports and Fishing harbours, etc., are situated all along the coastal line. Leaving the distance of 435 KMs. from the total distance 1076 KMs. a distance of 641 KMs has to be protected from the natural calamities. In the above 641 KMs already RMS Wall, Groynes and Retaining Walls were constructed for 40 KMs. Hence protection works has to be carried out for the remaining 601 KMs.

In order to rehabilitate damaged coastal line for 40 KMs. and for relief works in the inundated places in Nagapattinam, as a first step, an estimate for Rs.540 Crores has been prepared and forwarded to Government of India for approval.

The Honourable Chief Minister has ordered that as a long term perspective, appropriate schemes have to be formulated in safeguarding the lives and belongings of the people living in the coastal line on a permanent basis from the Tsunami. Accordingly, Indian Institute of Technology, Madras has been requested to undertake a study along the Tamil Nadu Coast and suggest design for construction of RMS Wall, Groynes, Retaining Walls, etc., to safeguard the coastal line from sea erosion. In January, 2005, the Government have sanctioned Rs.3.59 Lakhs for the study. The I.I.T. Madras has undertaken the study and given its report to the Government recently. Detailed Estimates are being prepared based on this report.

After detailed estimates are prepared, through the Government of India World Bank, Asian Development Bank, etc., will be approached for financial assistance.

Cauvery Water Dispute:

The use of Cauvery water is governed by the Inter State Agreements of 1892 and 1924.

All the main conditions of 1924 Agreement are binding on Tamil Nadu and Karnataka and they are not open for reconsideration at any point of time. However, the conditions

under clause 10 (iv)(ii) to 10 (viii) alone are open for reconsideration at the expiry of 50 years.

In the 1950s and 1960s, Mysore mooted new projects on the Kabini, the Hemavathi, the Harangi and other tributaries. Initially Mysore had adhered to the provisions of the Agreement and sought the concurrence of Madras as in the case of the Kabini reservoir. As per 1924 Agreement conditions, Madras requested Mysore for guarantees for the limit flows. In the absence of any satisfactory assurance from Mysore, Madras did not rightly give its consent for the construction of new projects which is a "must" under the Agreement nor did the Planning Commission and Government of India give their approval. Despite this, Mysore had gone ahead unabashedly with the construction of new projects, intending to ultimately appropriate the entire yield of the Cauvery in Karnataka to the detriment of lower riparian States.

Karnataka, all along, had stated that it was framing projects within the terms of the Agreement but after 1971 it progressively withdrew from the position and openly contended in 1989 that the 1924 Agreement had lapsed in 1974 and so the State was not bound by it. Karnataka thus unilaterally abjured the subsisting Agreement. While the continued validity of the two Agreements has been questioned by Karnataka, Tamil Nadu has consistently taken the position that the 'prescriptive rights' and natural obligations to supply the limit flows under the Agreements are permanent, and subsisting.

Negotiations were held between the two States over 31 times at the instance of Government of India and even later in 1980s and recently in 1996, as directed by the Supreme Court of India and no agreement could be reached as Karnataka was insisting on large extensions more than permissible, virtually appropriating the entire yield in its territory. Only the surplus, after Karnataka's fillings reached Mettur belatedly. This had proved detrimental to the established ayacuts.

At the instance of Supreme Court of India order dated 4.5.1990, the Government of India has constituted the Cauvery Water Disputes Tribunal on 2.6.1990.

The Cauvery Water Disputes Tribunal in its interim order dated 25.06.1991 ordered that Karnataka shall ensure that 205 TMC ft. of water is made available at Mettur Dam from its reservoirs in an irrigation year from June to May of next year 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). This order will be effective from 1.7.1991. The above order will remain operative till the Cauvery Water Disputes Tribunal passes its final award.

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

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, which is to assist the Cauvery River Authority 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. The Cauvery Monitoring Committee has so far met twenty one times.

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.

Hon'ble Chief Minister reviewed the entire position and two suits were filed, 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.

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 distress sharing formula which was formulated by Central Water Commission was discussed in the meetings of the Monitoring Committee after seeking the views of the party States, and in the 20th and 21st meetings of the Monitoring Committee held on 19.1.2004 and 22.9.2004, it has been

decided to place it before the Cauvery River Authority for a final decision.

During the current year the Mettur Dam was thrown open for irrigation on 12.8.2004. During the current irrigation year at the end of February, 2005, as against the prescribed quantity of 198.27 TMC ft., the Mettur Dam has realized 158.45 TMC ft. leaving a shortfall of 39.62 TMC ft.

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. Tamil Nadu has concluded its final argument on the final group of issue relating to the allocation of water amongst the States. Following this, the other party States, viz., Karnataka, Kerala and Pondicherry will putforth their arguments on this issue. In January 2005, Tamil Nadu has urged the Cauvery Water Disputes Tribunal to frame a scheme for the implementation of its Award by the Party States in its final Award. After all arguments are over, the Cauvery Water Disputes Tribunal will pronounce its final Award.

The Government of Tamil Nadu is taking all necessary steps to get the legitimate share of Cauvery water and safeguard the interest of the farmers of Tamil Nadu.

Parambikulam Aliyar Project - Review of Agreement

An agreement between the Governments of Tamil Nadu and Kerala was entered into on 29.05.1970 with retrospective effect from 09.11.1958 for utilization 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 experience gained and to such modifications as may be mutually agreed upon as a result of such review at the expiry of 30 years from 9.11.1958 and once in every 30 years thereafter. The agreement was due for review on 9.11.1988.

Accordingly, both the Governments exchanged the documents for review on 21.09.1989 and held several discussions but no consensus was reached.

The Government of Kerala has to consider the following:-

1. To honour its commitment for permitting diversion of 2.5 TMC ft from Anamalayar River as per the agreement to PAP system in as much as they have completed the Idamalayar Hydro-Electric Project and to execute a supplemental agreement.
2. To permit utilization of the entire yield at Upper Nirar without restriction for the period from October to January in a year as per the agreement in as much as they have completed the projects (i.e. Idamalayar and Idukki)
3. To give its concurrence for the construction of a balancing reservoir above Manacadavu weir to ensure regulated discharges.
4. To accord its concurrence to the new schemes for diverting the flows of Upper Nirar to Nallar through a tunnel and then to Thirumoorthy Dam minimizing transmission loss.

At the initiative of the Hon'ble Chief Minister, the Minister Level meeting was held between Government of Kerala and Government of Tamil Nadu on 10.06.2002 at Chennai.

As decided in the Minister level meeting, a Technical Committee was constituted with engineers from both the States, to analyse the areas where amendments are required to be made in the Inter State Agreement. The Committee submitted its report to the respective Governments in June, 2003.

The report of the Technical Committee was discussed in the Minister level meetings held at Chennai on 10.11.2003 and at Thiruvananthapuram on 4.1.2004 and the differences on the issues have narrowed down considerably.

The meeting of Hon'ble Chief Minister of Tamil Nadu with the Hon'ble Chief Minister of Kerala was held at Chennai on 6.11.2004 and detailed discussions on all the main issues were held. As agreed to in that meeting, another Minister level meeting was held on 27.11.2004 at Thiruvananthapuram. This was followed by a Chief Secretary level meeting at Chennai on 18.12.2004.

This Government is taking all steps to protect the interests of Tamil Nadu and to complete the first Review of the Parambikulam Aliyar Project Agreement quickly.

Mullai Periyar Dam – Restoring the water level to 152 feet

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.

In the year 1979, certain apprehensions were raised by the Government of Kerala about 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.

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. viz., from 158 to 160 ft. alone could not be completed due to the objections raised by the Government of Kerala.

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.

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 Government of Tamil Nadu in December, 1998 filed Transfer Petitions in the Supreme Court of India seeking the transfer of the Writ Petitions pending in the High Courts of Kerala and Madras. The Mulla Periyar Environmental Protection Forum in Kerala filed a Writ Petition (W.P.No.386/2001) in the Supreme Court of India for not allowing Tamil Nadu to raise the water level beyond the present level of 136 feet.

In the meanwhile, when the Transfer Petitions were heard on 28-4-2000, the Supreme Court of India suggested to the Government of India to explore the means for resolving the issue. It was informed by the Government of India that the Union Minister for Water Resources would convene a meeting of the Chief Ministers of Tamil Nadu and Kerala to explore the possibility of sorting out the differences between the two States. The Union Minister for Water Resources held a meeting with Chief Ministers of Tamil Nadu and Kerala on 19-5-2000 at New Delhi. Since no consensus could be arrived in that meeting, the Union Minister for Water Resources informed that he would be constituting an Expert Committee to go into the details of the safety of the Dam and advise him on raising of the water level in the Dam. The Ministry of Water Resources accordingly constituted the Expert Committee on 14-6-2000.

The Committee submitted its Report to the Government of India in March, 2001. In its recommendations, the Expert Committee, among others, recommended that as an interim measure the water level in the Dam be raised to 142 ft. and that

further raising of water level to the Full Reservoir Level (152 ft) in the Dam be studied after strengthening measures on Baby Dam are carried out and completed. This Government in November, 2001 endorsed the recommendations of the Committee and informed of the same before Supreme Court of India.

The Supreme Court of India after hearing the Transfer Petitions filed by the Government of Tamil Nadu and another, on 8-4-2002 passed orders for the transfer of the Writ Petitions filed and pending in the High Court of Kerala and High Court of Madras to be heard along with the Writ Petition (W.P.No.386/2001). These cases are pending before the Supreme Court of India.

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

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".

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

Subsequently, on representation from the ryots of Coimbatore district, the possibility of diverting the waters of Pandiar-Punnampuzha lying within Tamil Nadu to Moyar arm of Bhavani River for use by Tamil Nadu was investigated and this was also found feasible. At east 7 TMC ft. of water was sought to be diverted by Tamil Nadu.

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 Rivers Development Component of National Perspective Plan

The Peninsular rivers viz. Mahanadhi, Godhavari, Krishna, Pennar, Palar, Cauvery, Vaigai and Gundar are proposed to be interlinked under the Peninsular Rivers Development Component of the National Perspective Plan formulated by the Government of India. The diversion of surplus waters of west flowing rivers of the Pamba and the Achankoil to the east in Vaippar river is also forming part of the Peninsular Rivers Development Component. The National Water Development Agency is entrusted with the task of investigation and preparation of project proposals for the Peninsular river links.

The National Water Development Agency, has already prepared pre-feasibility reports on Mahanadhi-Godhavari, Godhavari-Krishna, Krishna-Pennar and Pennar-Cauvery, Cauvery-Vaigai-Gundar links. Feasibility reports on all these links are under progress except Godavari-Krishna Link for which report has already been prepared. It has identified the surplus and deficit basins and assessed the surplus available in Mahanadhi and Godhavari for transfer to Krishna, Pennar, Cauvery and Vaigai basins.

According to the proposal, the surplus flows of Mahanadhi and Godhavari rivers would get diverted to Pennar river in Andhra Pradesh. The diversion from Pennar to Cauvery would be through a link canal of length 538 Km. to divert about 8565

Mm³ (303 TMC ft.) of water from Somasila reservoir to the Grand Anicut across river Cauvery via Palar. The link canal would provide irrigation and drinking water supply en route in Andhra Pradesh and Tamil Nadu. Further, a quantity of 3855 mm³ (136.1 TMC ft.) would be delivered at Grand Anicut for use in Cauvery Delta and also in the areas south of Cauvery basin.

The Cauvery-Vaigai-Gundar link is the last leg in the link. This aims at diversion of 2252 Mm³ (79.5 TMC ft.) from the quantity of 3855 mm³ (136.1 TMC ft.) to the south of Cauvery upto Gundar for irrigation, water supply etc.

The State Government is keenly interested in the expeditious execution of the Peninsular Rivers Development Component. This Government is continuously urging the Government of India to implement this component including the Pamba-Achankoil-Vaippar Link on priority basis.

Pamba-Achankoil-Vaippar Link

The National Water Development Agency is entrusted with the task of investigation and preparation of Project proposals for Peninsular river links proposed to be interlinked under the Peninsular Rivers Development Component of the National Perspective Plan formulated by the Government of India. Diversion of surplus waters of west flowing rivers of Kerala to Tamil Nadu is a part of the Peninsular Rivers Development Component.

The National Water Development Agency has formulated the Pamba-Achankoil–Vaippar link project which envisages diversion of surplus water of Pamba and Achankoil rivers of Kerala to Tamil Nadu. The project proposal contemplates diversion of 22 TMC ft. of water to Tamil Nadu to irrigate an ayacut of 91,400 Hectares in Sankarankoil, Kovilpatti, Sivagiri, Srivilliputhur, Rajapalayam, Sathur and Tenkasi Taluks of Tamil Nadu. Besides providing irrigation to Tamil Nadu, the proposal will also help to generate peaking power of 500 MW per year. The quantum of 22 TMC to be diverted by this link amounts to

only about 20% of the surplus water available in Pamba-Achankoil rivers (as per NWDA studies).

The Government of Tamil Nadu has given its acceptance to the proposal. The Government of Kerala is not favouring this Project.

This Government is actively pursuing with the Government of India for the implementation of this project.

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. 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 development in the State has risen considerably from 63% in 1992 to 80% in 2003. The recent block wise ground water potential estimated as on 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) after utilization for various uses. 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 development exceeding the recharge potential.

Conservation and judicious management of ground water resources are the prime need of the hour and also in 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 2005-2006 is proposed.

- Scientific ground water investigation and periodic assessment of ground water potential on watershed basis.
- Continuous monitoring and collection of data on hydrological, hydrogeological, hydro-meteorological and water quality networks for ground water and surface water components.
- Creation of a sound database on surface and ground water data using appropriate software.
- Processing and analyzing the available data to evaluate the real time Ground Water situation - water level decline, water quality deterioration in the State.
- Co-ordinate to implement the National and State water policies.
- Develop a suitable action plan for judicious development and optimal utilisation of ground water resource in the State.
- Enact a legislation for prevention of over exploitation of Ground Water and prevention of pollution of water.
- 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 to study the sub surface geology, aquifer parameter, water quality and the Ground Water yield.
- Providing Consultancy services to public, private industrial sector, Government Departments for identification and augmentation of water supply schemes.
- Issuing ground water clearance for setting up of industries and for implementing Minor Irrigation Schemes in the State.

- Periodic monitoring of sea water intrusion into fresh water aquifer and water quality variation along the 920 km coastline of Tamil Nadu.
- Tamil Nadu Ground Water (Development & Management) Act 2003 was enacted by the Tamil Nadu Government to protect ground water resources against over exploitation and quality deterioration and pollution and to ensure planned development and proper management of Ground Water.
- Maintaining of the assets created under **Hydrology Project Phase-I**, which ended on **31.12.2003** and periodic collection of surface and Ground Water data.

Ground water assessment on Mini Watershed basis

The ground water assessment is 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 somewhat 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. Block, which is an

administrative boundary is not suitable to assess the exact quantum of ground water resources because it is not scientifically delineated. To overcome this problem, watersheds have to be taken as the assessment unit. The National as well as State water policies recommends watershed basis of estimation. Ground Water Resources Estimation Committee (GWREC) consisting experts of ground water all over the country also emphasized, watershed with well defined hydrological boundaries as an appropriate hydrological unit for ground water resource estimation and insists to switch over to watershed as a unit for assessment. In each unit, ground water assessment will be made once in three years.

Hence it is proposed to take up ground water assessment based on mini watershed basis. There are about 1552 mini watersheds 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 where total ban on ground water extraction for minor irrigation schemes is in force. The remaining blocks of all categories will be taken up in the subsequent years.

As a pilot study, it is proposed to take up the mini watersheds for the blocks falling in Theni and Dharmapuri Districts.

S. No	Name of the block	Category	Stage of groundwater development in %
Theni District (55 mini watersheds)			
1	Andipatti	Over-exploited	above 100
2	Chinnamanur	Over-exploited	above 100
3	Myladumparai	Over-exploited	above 100
4	Periyakulam	Over-exploited	above 100
5	Uthamapalayam	Over-exploited	above 100
6	Bodinaickanur	Critical	90 –100
7	Cumbum	Critical	90 –100

8	Theni	Critical	90 –100
Dharmapuri District (37 mini watersheds)			
1	Pappireddipatti	Over-exploited	above 100
2	Palacode	Over-exploited	above 100
3	Nallampalli	Over-exploited	above 100
4	Dharmapuri	Over-exploited	above 100
5	Morappur	Over-exploited	above 100
6	Karimangalam	Over-exploited	above 100
7	Harur	Over-exploited	above 100
8	Pennagaram	Critical	90 -100

The study involves

- Establishment of water level monitoring network - piezometers in water sheds in addition to the existing piezometers.
- Updating villagewise land use and well census data (Proforma - A details)
- Monitoring of water level and water quality in the water sheds.
- Estimation of aquifer parameters like Transmissivity, Permeability, 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 Resources on mini watershed basis
- The focus will be made for the precise assessment of replenishable ground water resources, to locate the potential pockets to avoid total ban on ground water extraction in the over exploited & critical blocks and locating suitable site and the structures to recharge the

watershed / blocks either by using rain water harvesting or by improving ground water storage by other techniques.

The study is proposed to be covered in three years commencing from 2005-2006.

Tamil Nadu Ground Water (Development & Management) Act 2003

To protect the ground water resource of the State, and to ensure its planned development and proper management of this vital resource and to safeguard the small and marginal farmers rights to use the limited ground water resources available, the Tamil Nadu Government have enacted the "Tamil Nadu Ground Water (Development & Management) Act 2003. The formation of Tamil Nadu Ground Water Authority with necessary rules to implement the Act in the State will be made with necessary sub committees at District level, utilizing the existing ground water staff and buildings. The Ground Water Authority will exercise measures initially in the critical and over-exploited block areas where the water level depletion and water quality deterioration are more prevalent.

Hydrology Project (Phase - II)

The Board of Executive Directors of the International Bank for Reconstruction and Development (I.B.R.D.) has approved a loan of Rs.105 Million and 510 US Dollars in August 24, 2004 for the Hydrology Project Phase-II (Rs. 5255.90 Million). Out of this, Rs.206.50 Million has been allocated for Tamil Nadu as follows:

Surface Water	Rs. 87.10 Million
Ground Water	Rs.119.40 Million
Total	Rs. 206.50 Million

The project will be covered in six years from 2005-2006.

The project consists of following studies.

1. Drought Management in Vaippar Basin
2. Flood Management in Tambiraparani Basin
3. Conjunctive Use of Ground and Surface Water in Cauvery basin.

Necessary provisions towards goods, works consultancy and also training are provided in the proposal.

The data so far collected from the infrastructures created under Hydrology Project Phase I are to be utilized for the above Basin studies.

If any additional network systems are essential, the same can be met from the above fund.

Necessary discussions regarding the Loan Agreement and Project Agreement were already over.

The Board of Executive Directors of the International Bank for Reconstruction and Development (IBRD) has approved the loan amount on 24.8.2004 and assigned the loan No. 4749-0 IN and signing of the agreement between the State Government and the World Bank is programmed in April 2005. The details of study will be finalized after signing of the legal documents.

Irrigation Management Training Institute

Irrigation Management Training Institute, Tiruchy is one of the 11 Institutes established 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 and Agriculture Department. Now this Institute is functioning under the funds provided by the State Government as Grant-in-Aid.

Training

This Institute was 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 organizing Specific training programmes recommended by the consultants for the Farmers, Field Staff and Officials of WRO apart from the interdisciplinary training being given to WRO, PWD, Agricultural Engineering and Agricultural Department Officials.

Computer training:

Under the WRCP, Computers have been provided in WRO up to Sub-Division level. Hence, in the last few years, main thrust was given to improve the skills of all Officers & Staff of WRO in Basic Computer Application using MS Office for carrying out day-to-day routine office works. At present most of the Junior Level Officers and Middle Level Officers 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, our focus will be on giving advanced training in the following aspects for JLO & 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 lots 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 12 Nos. of Basic Computer Application Training programme is proposed.

Totally 25 Nos. of Computer Training Programmes are proposed for 2005-2006.

It has been programmed to impart basic training in Irrigation Management and its allied matters to the Field staff and for the officers belonging to Water Resources Organization in other States.

For the year 2005-2006 it is proposed to conduct 110 National Trainings. The above Training Programme will cover

2500 Farmers and 2000 Officers and Field Staff in Irrigation Management.

Institute for Water Studies

1. Water Planning

The Institute for Water Studies established on 08-04-1974 has been carrying out research studies especially on Water Resources Management by Remote Sensing and latest GIS techniques. Under the World Bank funded Water Resources Consolidation Project (WRCP) scheme, the Institute has been strengthened with the advanced and sophisticated equipments including softwares. With these advanced technologies the Institute has carried out the following activities during 2004-2005.

Micro Level Studies

1. Vaigai River Basin
2. Tambraparani River Basin
3. Ponnaiyar River Basin
4. Gundar River Basin (proposed to be completed by 31-03-2005)

In respect of Palar, Vaippar and Kodaiyar river basins, micro level study has already been completed.

Out of the balance 9 river basins (other than Cauvery) Micro level studies of Varahanadhi, Vellar, Kallar river basins are proposed to be taken up and completed during 2005-2006.

2. Computer Model (THANNI –Tool for Holistic Approach to Natural Network Information)

The Institute for Water Studies is engaged in collection of details of rainfall, inflow and outflow for the reservoirs, details of system and non-system tanks, irrigated area, 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.

The revision of THANNI Model for the above four basins and a fresh THANNI Model Study for Hanumanadhi basin and Ponnaiyar basin will be taken up.

During 2005-2006, THANNI model will be developed for Vaigai, Gundar, Varahanadhi and Vellar river basins on completion of the Micro level studies

3. Tamil Nadu State Water Policy

During 2005-2006, THANNI model will be developed for Vaigai, Gundar, Varahanadhi and Vellar river basins on completion of

Tamil Nadu State Water Policy was formulated in the year 1994 based on National Water Policy 1987. The National Water Policy has been updated and adopted by the National Water Resources Council in April 2002. Based on this and to suit the present scenario, Tamil Nadu water policy is being revised.

4. Water Resources Research Fund and Research Studies:

In Water Resources Consolidation Project, a Water Resources Research Fund was made available for conducting research studies. Utilising the fund, 38 research studies have been completed. Findings of the research studies have been disseminated to Assistant Engineers and Assistant Executive Engineers of WRO PWD by conducting Workshop at IMTI, Trichy in 33 batches. (1194)

The recommendations of these studies have been communicated to all the line departments and their comments are awaited. On receipt, appropriate action will be pursued.

WRRF fund has been created by depositing the matching grant of Rs. 95.70 lakhs received from the Government of Tamil Nadu into an Interest bearing account, as per the World Bank norms for taking up further research studies.

During 2005-06, it is proposed to take up a couple of research studies utilizing the interest accrued from this deposit.

5.Special Studies

Besides this, the Institute has taken up three project studies funded by the State Planning Commission

- a. Targeting ground water in deeper zones in Thuringalar river minor basin by using Remote Sensing techniques to augment water resources to irrigate the ayacut of poor agriculturists.
- b. Identification of favourable ground water potential zone in over exploited block of Thalaivasal in Salem district.
- c. Preparation of various thematic maps for Hanumanadhi sub basin (Tamiraparani river basin) for formulating the projects under Multi Disciplinary Project Preparation Panel (MDPPP).

Proposals have been submitted to the State Planning Commission and INCID to take up the following special studies during 2005-2006.

Special studies to be taken up with the assistance of State Planning Commission

1. Identification of favourable Groundwater Potential zones in the over exploited block of Kaniyambadi in Vellore District, Palar basin by using Remote Sensing and GIS Techniques.
2. Watershed based approach for Groundwater development in Anicut and K.V. Kuppam blocks, Vellore District, Palar basin, Tamil Nadu by applying Remote Sensing Data and GIS Techniques.

Special studies to be taken up with the assistance of **INCID**

1. Detection of changes in tanks and their command areas using Remote Sensing and GIS in Tamiraparani River basin, Tamil Nadu.
2. Identification of Artificial Recharge, rainwater harvesting structures for water conservation using Remote Sensing and GIS Techniques in Vellar River Basin.

6. Remote Sensing and GIS activities

The Remote Sensing wing of this Institute is recognized as the Tamil Nadu State Centre for Remote Sensing application. 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
2. Land use
3. Water level
4. Drainage
5. Geomorphology
6. Soil
7. Depth to bed rock
8. Physiography
9. Lineament / Structure
10. Water Quality
11. Hydrogeology
12. Digital Elevation Model

Regarding data availability, Institute of Water Studies – Remote Sensing Centre is resource centre, which has remote sensing data in the form of aerial photos (1968 & 1980), Hard copies in the FCC prints (1972, 92 & 96) and digital data of IRS 1C & 1D for 1998.

7. Water Resources Control and Review Council (WRCRC)

A Water Resources Control and Review Council to formulate policy to use the available water resources by the water users has been constituted under the Chairmanship of Hon'ble Chief Minister with 35 members from water user Department/Agencies.

A sub committee with Chief Secretary as chairman has been constituted to scrutinize the proposals to be placed before WRCRC.

8. Technical Secretariat

Technical Secretariat is the advisory body on all water related issues mooted out on the advise of the World Bank and constituted with the Chief Engineer and Director, Institute for Water Studies as Chairman, and with a core team of 13 technical specialists. The Technical Secretariat would support the River Basin Management and Development Board and the Basin Management Committee. Generally, the Technical Secretariat is engaged in identifying the issues pertaining to the river basins.

9. 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 Tamiraparani River basins have been formed with the River Basin Management Committees and a common Technical Secretariat.

The Minister for Public Works is the Chairman of the River Basin Management and Officers from various departments, Members of Legislature, Panchayat President, Panchayat Union Chairman, District Panchayat President, Representatives from Non Governmental Organisations are members.

The Government have also constituted a Basin Management Committee (BMC) for each of the RBMDB to take decisions on behalf of the RBMDB. The Hon'ble Minister for Water Resources (Public Works) is the Chairman of the BMC. The Development Commissioner, Government of Tamil Nadu, Secretaries to Government for Finance, Water Resources (Public Works), Agriculture, MAWS, Rural Development, Industries, Forests and Environment department, Chief Engineer, WRO, 2 MPs and 2 MLAs nominated by the Government. Collectors of concerned districts, District Panchayat Presidents from the basin area, three representatives of the Water Users Associations, one eminent person from the basin area and one representative of NGOs are the members of the BMC.

At present the River Basin Management and Development Board (RBMDB) for Palar and Tamiraparani basins have been formed. Formation of RBMDB in respect of Vaigai, PAP, Ponnaiyar and Kodaiyar basins are under consideration.

The following Meetings were conducted.

1. River Basin Management and Development Board Meeting for Palar basin held at Kancheepuram : 6.8.2004
2. River Basin Management and Development Board Meeting for Tamiraparani basin held at Tirunelveli. : 21.8.2004
3. Basin Management Committee (Palar & Tambaraparani Basin) held at Chennai : 16.8.2004

TAMIL NADU 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 plays a crucial role in the phenomenal development of Boilers and Boiler Ancillary industries in the State of Tamil Nadu which is a 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 incharge of implementing the provisions of the Tamil Nadu Boiler Attendants' Rules, 1964 and Tamil Nadu Boiler Operation Engineers' Rules, 1965 to ensure the Boilers used in the user industries are operated by certified Boiler Operation Engineers and Boiler Attendants.

The Tamil Nadu Inspectorate conducts Tamil Nadu Boiler Attendants Examination for I-Class, II-Class and III-Class certificate of competency and the Tamil Nadu Boiler Operation Engineers' Examination and tests to high pressure welders employed in Boiler manufacturing units and Boiler Ancillary units, Boiler Erectors and Repairers Organisations and in other user industries like Thermal Power Stations, Refineries etc. and issues competency certificates to the successful candidates.

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

The Tamil Nadu Boiler Inspectorate is responsible for detecting and curbing the operations 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 were issued 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 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/-. These orders came to effect from 19.6.2004.

BUILDINGS ORGANISATION

The "Buildings Organisation" in PWD started functioning separately with effect from 01.04.1996 with 15 circles (12 Circles for Civil works and 3 Circles for Electrical works) and 52 Divisions (45 Divisions for Civil works and 7 Divisions for Electrical works).

The Buildings Organisation of P.W.D. is vested with the responsibility of Planning, Design and Construction of Public Buildings 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.

The Buildings Organisation also undertakes construction of Buildings and other works for the State and Central Government undertakings, Corporations etc

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

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

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 and VVIP visits such as stage erection,

barricading arrangements, providing Public Address System and lighting arrangements.

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 of 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.

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 and 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 also 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 Public Works Department 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, included an item of construction of masonry using Fly-Ash Bricks in all the estimates and Tender Schedules, in the places where fly ash is available.

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

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.

Reduction of cost of tender schedules.

In order to encourage the tenderers, the Government have recently issued orders reducing the cost of Tender schedules from the maximum cost of Rs.50,000/- to Rs.15,000/-.

Architect wing

An Architect wing is functioning separately under the head of Chief Architect in the rank of Chief Engineer. The 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 Collectorate 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 and buildings requested due to natural calamities like Tsunami etc.

The Department-wise ongoing schemes are as follows

Health and Family Welfare Department

a) Hospitals

The construction of Tower Block I and II after dismantling the old and damaged buildings at Government General Hospital, Chennai was sanctioned for Rs. 104.47 crore. The tower blocks are seven storied building with a total plinth area of 6.89 lakhs square feet. Both the tower blocks are planned and constructed as a 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 with 16 lifts. Total no. of beds provided in the new blocks are 1600. Finishing works are in progress.

b) Medical colleges:

1. The construction of new buildings to admit 315 additional students in 5 Medical Colleges in TamilNadu was sanctioned for Rs.18.82 crore (25 works) with the financial assistance of HUDCO.
2. The Government have accorded administrative sanction for Rs.187.29 crore for the construction of various buildings in Hospital and College site for the new colleges

at Theni, Vellore and Asaripallam in Kanyakumari district and the existing Medical College at Thoothukudi and Tirunelveli.

3. The Work for the construction of a New Operation Theatre with Post Operative Ward and Labour Ward in I.O.G. Government Children Hospital at Egmore was sanctioned for Rs.2.00 crore.
4. An additional Ladies Hostel at a cost of Rs.1.60 crore and C.R.R.I. Quarters at a cost of Rs .1.50 crore have been sanctioned under Part II Scheme 2004-2005.

c) Primary Health Centres

1. During the year 2003-2004, the Government have sanctioned Rs.12.21 crore for the construction of 30 bedded ward and X-ray Block in 33 Primary Health Centres under PMGY Scheme with the assistance of Govt. of India (Phase – III).
2. During the year 2004-2005, the Government have sanctioned Rs.4.55 crore for the construction of 30 bedded ward with Operation theatre and X-ray Block in 11 Primary Health Centres under PMGY Scheme with the assistance of Govt. of India.
3. During the year 2004-2005, the Government have sanctioned Rs.17.85 lakhs for the construction of Operation theatre in the Primary Health Centre at Valanadu in Manaparai Taluk of Trichy District under Plan Scheme.

Judicial Department

1. The Government have sanctioned Rs.3.90 crore for the construction of buildings for combined Court at Theni.
2. The Government have sanctioned Rs.9.82 crore for the construction of buildings for combined Court at Srivilliputhur.

3. The Government have sanctioned Rs.4.97 crore for the construction of buildings for Combined Court at Tiruppathur in Vellore District.
4. The Government have sanctioned a sum of Rs.7.58 crore for carrying out special repairs works in the existing Court buildings all over the State.

Fire Service and Rescue Department

During 2003-2004, in the 11th Finance commission, the Government have sanctioned Rs.3.56 crore for the construction of Fire service Station in 15 places with the assistance of General Life Insurance Fund.

Prison Department

1. Under Modernisation Scheme, the Government have sanctioned Rs.14.34 crore for the construction of 216 Nos of Quarters for Prison staff and for repairs and renovation to the prison buildings.
2. The construction of District Jail at Nagerkoil and Dindugul at a cost of Rs. 4.72 crore are in progress.
3. Further, the Government have sanctioned a sum of Rs. 17.82 crore under Modernisation of prison with the assistance of Government of India, for the construction of New Sub Jail Building in Virudhunagar and Ramanathapuram Districts and new Women's Prison in Trichy, repairs and renovations to Central Prisons and 13 sub Jails and modernisation of Kitchen in 116 sub Jails, sanitary and water supply works, construction of quarters to Prison staff at Central Prison Trichy, Madurai and Coimbatore.

Revenue Department

With the assistance of the XIth Finance Commission Grant, the Government sanctioned Rs.96.531 crore for the construction of 261 Revenue and other Department Buildings

for the period of 2001-2005 in the newly created Districts of Perambalur, Karur, Namakkal, Theni, Tiruvallur, Thiruvarur, Villupuram and Krishnagiri Districts.

- a) Collectorate building at Perambalur for Rs. 7.16 crore is under progress.
- b) Office complex buildings at Tiruvarur (Rs.5.00 crore), Karur, Namakkal, Theni (each Rs.2.75 crore) and Ariyalur (Rs.2.25 crore) are in progress.
- c) Circuit House at Perambalur, Tiruvallur, Tindivanam (Rs.1.00 crore / each) Thiruthani (Rs.70 lakhs) are in progress.
- d) The Government have accorded sanction for Rs.10.00 crore for the construction of Collectorate building, Collector's camp office-cum-residence and Circuit House in Master Plan Complex at Krishnagiri.
- e) Construction of Taluk Office building at Villupuram at a cost of Rs.1.15 crore is in progress.
- f) Additional Taluk Office buildings at Tiruvallur, Ulundurpet, Namakkal, Karur, Ariyalur, Thiruthuraipoondi and Periyakulam 7 places each at Rs.40.00 lakhs are in progress.
- g) The Government have sanctioned a sum of Rs.2.656 crore for providing approach roads to the Master Plan Complex at Perambalur and the work is in progress.

Education Department

1. The Government have accorded sanction for a sum of Rs. 80.63 crore for the construction of class rooms, laboratories, toilet blocks and water supply arrangements to 250 Government High Schools / Higher Secondary Schools in 19 Districts under Phase-II with NABARD assistance.
2. The Government have accorded sanction for a sum of Rs. 83.73 crore, for similar proposals under phase-III for

construction of buildings for 259 Schools, in 7 Districts namely Cuddalore, Vellore, Thiruvallur, Dharmapuri, Thiruvannamalai, Kanchipuram and Villupuram with NABARD Assistance.

3. Further, similar proposal for construction of class rooms, laboratories, toilet blocks and water supply arrangements under Phase-IV covering 351 Schools in all Districts except Chennai and the Nilgris at the cost of Rs. 130.18 crore is to be taken up during 2005-2006.

Agriculture Department

The work of construction of Paddy Market Complex at Madurai has been taken up for a value of Rs.12.60 crore and finishing works are in progress.

Employment and Training Department

1. The Government have sanctioned Rs.1.42 crore for the construction of Government Industrial Training Institute at Needamangalam.
2. The Government have sanctioned Rs.40.00 Lakhs for the construction of Students Hostel at the Government Industrial Training Institute at Tiruvannamalai and the finishing works are in progress.
3. The Government have sanctioned Rs.61 lakhs for the construction of Government Industrial Training Institute (Women) at Dindigul.

Personnel and Administrative Reforms Department

Anna Institute of Management

The Government have sanctioned Rs.10.00 crore for the construction of New Complex for the Anna Institute of Management at Chennai and finishing works are in progress.

Office buildings for MLAs

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.

Backward and Most Backward Classes Welfare Department

1. The Government sanctioned under Part II Scheme, special repairs to the existing MBC and DNC Schools and Hostels for a sum of Rs.2.75 crore for 358 works which includes drinking water facilities and improvements to sanitary arrangements.
2. Providing drinking water facilities and electrification and toilet facilities to Kallar Reclamation Schools an amount Rs. 1.52 crore was sanctioned.
3. During 2003-2004, the Government sanctioned Rs.31.50 crore with the aid of HUDCO and Central Government Fund for construction of 100 hostel buildings for the MBC & DNC Departments.
4. During the financial year 2004-2005 the Government have accorded sanction for Rs. 31.50 crore for the construction of 100 hostels for BC / M.B.C. Students in 79 MLA constituencies.

Part - II Schemes for the year 2005 - 2006:

The following works are proposed to be taken up during the year 2005-2006 under Part -II Scheme:

- 1) Construction of Divisional Office for Executive Engineer, PWD, Buildings (Construction and Maintenance) Division at Theni for a value of Rs.34.10 lakhs.
- 2) Construction of Circuit House at Trichy for a value of Rs.96.50 lakhs.
- 3) Construction of Circuit House at Kanyakumari for a value of Rs.96.50 lakhs.

- 4) Construction of 3 numbers of drivers rest room in the existing Inspection Bungalows / Circuit Houses in Hill Stations in Tamil Nadu for a value of Rs.10.00 lakhs
- 5) Improvements and Provision of Dining Hall in the First floor of the Community Hall at Todhunter Nager, Saidapet, Chennai- 15 for a value of Rs.37.90 lakhs
- 6) Construction of Quarters for Superintending Engineers, PWD (Construction and Maintenance) Circle at Tirunelveli and in PWD staff quarters Campus at Palayamkottai in Tirunelveli district for a value of Rs.15.00 lakhs.

The details of ongoing major building works and the new major works to be taken up during the year 2005 – 2006 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.	Name of Work	Rs. in Lakh
1	Construction of New Buildings for Government General Hospital at Chennai.	10447.00
2	Construction of New Operation Theatre with Post Operative Ward and Labour ward in I.O.G. Govt. Children Hospital at Egmore.	200.00
3	Construction of 30 bedded ward and X-ray block at 11 places.	455.75
4	Upgradation of Primary Health Centre in 33 places.	1221.00
5	Construction of new buildings to admit 315 students in 5 Medical Colleges in Tamil Nadu.	1882.00
6	Construction of combined Court building at Theni.	390.00
7	Construction of combined Court building at Srivilliputhur.	982.00
8	Construction of Fire Service Station at 15 places in Tamilnadu	356.40
9	Construction of District Jail buildings at Nagercoil & Dindigul	472.00
10	Construction of Collectorate Building at Perambalur	716.00
11	Construction of Office complex Building in master plan complex at Thiruvarur	500.00
12	Construction of Office complex Building at Karur, Namakkal, Theni (Rs.275 lakhs each) Ariyalur (Rs.225.00Lakhs)	1050.00

13	Construction of Ciruct House at Perambalur, Thiruvallur, Tindivanam (Rs.100.00 lakhs each) and Thiruthani(Rs.70.00 lakhs)	370.00
14	Construction of Taluk Office building at Villupuram.	115.00
15	Construction of Paddy Market Complex in Maattuthavani, Madurai.	1260.00
16	Providing Approach road to the Master Plan Complex at Perambalur.	265.60
17	Construction of New Building for Anna Institute of Management at Chennai	1000.00
18	Construction of Hostels for B.C. and M.B.C. students (Phase - II)	3150.00
19	Construction of I.T.I. buildings in Needamangalam.	142.00
	Total	24974.75

ANNEXURE - II**DETAILS OF MAJOR BUILDING WORKS WHICH ARE TO BE TAKEN UP DURING THE YEAR 2005 – 2006**

Sl. No	Name of Work	Rs. in Lakh
1	Construction of various buildings in Hospital and in College for the New Medical College at Theni.	4693.00
2	Construction of various buildings in Hospital and in College for the New Medical College at Vellore.	5132.00
3	Construction of various buildings in Hospital and in College for the New Medical College at Asaripallam in Kanyakumari District.	4544.00
4	Construction of various buildings in Hospital and in College for the New Medical College at Tirunelveli.	1585.00
5	Construction of various buildings in Hospital and in College for the New Medical College at Thoothukudi.	2775.00
6	Construction of additional buildings for Ladies Hostel and C.R.R.I. Quarters at Thoothukudi	310.00
7	Construction of Combined Court at Tiruppathur	497.00
8	Construction of Collectorate building, Collector's Camp office cum residence and Circuit House at Krishnagiri	1000.00
9	Construction of Government Industrial Training Institute (Women) at Dindigul	61.00
10	Construction of 100 Hostels for BC & M.B.C. Students	3150.00
Total		23747.00

