



PUBLIC WORKS DEPARTMENT **IRRIGATION**

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K.V. RAMALINGAM
MINISTER FOR PUBLIC WORKS

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1. WATER RESOURCES DEPARTMENT

1.1. Introduction

Due to the persistent and tireless efforts of the **Hon'ble Chief Minister**, the Final Order of the Cauvery Waters Disputes Tribunal was published in the Gazette of the Government of India. The farming community of the entire State especially the farmers of the Cauvery Delta are jubilant at this development. The Notification of the Final Order has paved the way for taking up rehabilitation and improvement works for the irrigation structures in Cauvery delta and has given a new momentum and impetus to the Water Resources Department. Many new schemes are proposed to be implemented from this year to improve the irrigation infrastructure in the Cauvery Delta.

Water, which is a precious gift of nature, is becoming scarce. Availability of water largely depends on the quantum of precipitation received every year. The

vagaries of nature and the quantum of water received from the upper riparian States are the major constraints in planning for the effective utilisation of water resources. Taking this into consideration, the Water Resources Department is formulating schemes to effectively utilise the available water resources.

The existing irrigation infrastructure of the State is being properly maintained and systematically improved by the Water Resources Department. The efficient functioning of irrigation systems is ensured by practicing scientific water use methodologies. Further, coastal protection work is being continuously taken up to ensure the livelihood of the fishing community.

The rainfall received in the vicinity of the coast drains off into the sea immediately. It is essential to store and effectively utilise this water. Therefore, schemes for artificial recharge through construction of Check dams and flood diversion through

inter-linking of the rivers in the State are being taken up for conserving the rain water which drains off into the sea.

- 1.2.** The excellent functioning of the Grand Anicut built by King Karikala Cholan 2000 years ago, stands a testimony to the fact that irrigated agriculture systems and participatory irrigation management were prevalent from time immemorial. **Hon'ble Chief Minister** has ordered to construct a Memorial for King Karikala Cholan at Kallanai.

The Dams constructed from time to time adopting improvised scientific technological concepts, are the crowning glories of the State. To protect and to enhance the performance of the dams in the State, is implementing the "Dam Rehabilitation and Improvement Project".

- 1.3.** The Public Works Department is functioning with two wings viz., Water Resources Department and Public Works Department (Buildings Organisation). The Water Resources Department

functions on the River Basin framework. The Engineer-in-Chief, Water Resources Department is monitoring and coordinating the functions of ten Chief Engineers and functions as the technical Head of the Department.

Four Regional Chief Engineers with head quarters at Chennai, Tiruchirappalli, Madurai and Coimbatore cities function as the Basin Managers of the river basins in their jurisdiction.

Three Chief Engineers viz., Design, Research and Construction Support, Plan Formulation and Operation and Maintenance, with head quarters at Chennai perform necessary specialised technical functions.

One Chief Engineer heading the Institute for Water Studies, located in Chennai collects all data, takes up basin studies and water balance studies to ensure effective water management.

One Chief Engineer heading the State Ground and Surface Water Resources Data Centre, located in Chennai collects, validates and maintains all data relating to ground and surface water and implements schemes for increasing the ground water potential.

The Irrigation Management Training Institute headed by a Chief Engineer which is functioning at Tiruchirappalli is a multi-disciplinary training institute. This institute provides necessary training to all the stake holders of the irrigated agriculture domain.

1.4. Water Resources Infrastructure

34 River basins of Tamil Nadu have been grouped into 17 major River basins and 127 Sub-basins. The annual average rainfall of the State is 911.60 mm. The total Surface water potential of the State is 853 TMC ft., which includes 275 TMC ft. to be realised from the neighbouring States. The total capacity of the 89 dams in the State is 238.58 TMC ft. Out of the total 39202 tanks in Tamil Nadu, 13699 major tanks are being maintained by the Water Resources Department. Sustained and continuous efforts are taken to increase the water use efficiency of the irrigation systems of the State.

34 RIVERS OF TAMIL NADU



2. Hon'ble Chief Minister's Vision 2023 – Irrigation Improvement

2.1. To usher in economic development and to ensure employment generation, the **Hon'ble Chief Minister** unveiled the **"Vision 2023"** document on 22.03.2012. The main objectives of this document are to remove the impediments in the path of development and to implement important infrastructure schemes on a priority basis.

2.1.1. In this Vision 2023 document **"Assurance of timely irrigation"** is an important aspect. It has been estimated that an investment of Rs.40,000 Crores would be necessary for agriculture infrastructure development. Under this head, it has been estimated that an investment of Rs.16,000 Crores would be necessary for linking the dams and canals for irrigation and to implement schemes for rehabilitating the water bodies.

The primary goal of these schemes is to increase the irrigated area, strengthen the irrigation infrastructure, preserve the available water resources and to ensure irrigation facilities to all areas.

2.1.2. As Tamil Nadu has meagre water resources, it is imperative to make investments in irrigation sector in the following ways:

- Implementing effective ground water recharge schemes to utilise the available water scientifically.
- Restoring the capacity of tanks and canals through timely desilting and cleaning.
- Rehabilitation of Water bodies.
- Increasing the carrying capacity of canals and extending canal irrigation systems.

- Implementing effective Water Management and Participatory Irrigation Management.

2.1.3. To achieve the targets envisaged in the “**Hon’ble Chief Minister’s Vision 2023**” and to systematically plan schemes in irrigation sector, a Special Task Force Committee has been constituted. This committee has been directed to recommend new initiatives for implementing this “Vision 2023”, for the irrigation sector.

2.1.4. RESTORING THE CAPACITY OF RESERVOIRS

In the “**Hon’ble Chief Minister’s Vision 2023**” priority has been accorded to improve the existing storage capacity of the Reservoirs. In consonance with this, it is proposed to desilt the dams to restore their lost storage capacity due to siltation over a long period of time. On a pilot basis, it is proposed to desilt Vaigai and Amaravathi reservoirs. For this purpose, Expression of Interest was

called for, from national and international agencies with prior experience in this field, to desilt, segregate the silt and grade the silt for sale. The Expressions of Interest have since been received and are under scrutiny in the office of the Engineer-in-Chief, Water Resources Department, Public Works Department. As the Water Resources Department is embarking on the Dam desilting Project for the first time, a Technical Committee has been constituted to provide necessary guidance to implement the Project successfully.

2.2. Augmenting Chennai City Water Supply

Redhills, Cholavaram, and Chembarambakkam tanks and Poondi reservoir cater to the drinking water needs of Chennai city and its adjoining areas. Their combined storage capacity is 11.057 TMC ft.

As the above four water-bodies receive copious inflow during the North-East monsoon periods, the water received through Krishna Water Supply canal could not be stored fully. **Hon'ble Chief Minister**, keeping the above in view, has ordered for implementation of the following schemes for augmenting the storage capacity by forming new Reservoirs / Check dams and restoring the existing tanks, to harness the Krishna water fully.

(i) **Formation of a new Reservoir in Kannankottai and Thervaikandigai villages in Gummidipoondi Taluk of Tiruvallur District.**

Administrative sanction has been accorded for Rs.330.00 Crores for the formation of a new reservoir near Kannankottai and Thervaikandigai villages by connecting the Kannankottai tank and Thervaikandigai tank in Gummidipoondi taluk of Tiruvallur District. The scheme envisages

storage of 1 TMC ft. of Krishna water in two fillings. Preparatory work is in progress.

(ii) Augmenting storage capacity of the tanks

In Phase-I of this scheme, Administrative Sanction has been accorded for Rs.130.00 Crores for creating an additional storage of 568 MCft. in Cholavaram, Porur, Nemam and Ayanambakkam Tanks.

(a) Cholavaram Tank

All works have been completed at an estimated cost of Rs.50.00 Lakhs, by raising the crest of surplus weir of the tank by one feet above the existing height in order to store 200 MCft. of water additionally.

Creation of additional storage in Cholavaram Tank



Additional Storage Created : 0.20 T.M.Cft

(b) Porur Tank

Works at an estimated cost of Rs.20.00 Crores are progressing in full swing to create an additional storage capacity of 24 MCft. by strengthening the bunds of Porur tank and desilting, formation of a road, rehabilitation of the Thanthikal Channel from Chembarambakkam tank to enable supply of water to Porur tank and protection of the tank by demarcating the foreshore boundaries and fencing. These works would be completed by July, 2014.

(c) Ayanambakkam Tank

In order to increase the storage capacity additionally by 24 MCft. by strengthening the bunds of the Ayanamabakkam tank, rehabilitation of the supply channel and desilting the tank, works at an estimated cost of Rs.30.00 Crores have commenced and are progressing in full swing. These works would be completed by July, 2014.

(d) Nemam Tank

The works at an estimated cost of Rs.79.50 Crores have commenced and are in progress to enhance the storage capacity of Nemam tank by 320 MCft. The works for raising the water level include strengthening the skin wall with concrete, strengthening the bunds, desilting the tank, reconstruction of the dilapidated Irulapalayam Regulator and restoring the storage capacity of Chembarambakkam tank to store two feet water by rehabilitating and developing the surplus course from Nemam tank to Chembarambakkam tank. It is programmed to complete all these works by July, 2014.

In addition, the Government have accorded Administrative sanction for Rs.19.22 Crores to strengthen the Red hills, Cholavaram and Chembarambakkam tanks and the Poondi reservoir. The strengthening

works in the Chembarambakkam tank and Poondi reservoir have been completed. Works in Cholavaram and Red hills tanks are in progress and are expected to be completed by March, 2014.

(iii) Construction of Check dam across Kosasthalaiyar river at Thirukandalam village in Tiruvallur District

Administrative Sanction has been accorded for construction of Check dam across Kosasthalaiyar river at Thirukandalam village in Tiruvallur District at a cost of Rs.35.00 Crores with NABARD loan assistance. With this, it will be possible to provide an additional drinking water supply of 160 MCft. to Chennai city. Further, the ground water would be recharged in the adjoining areas of the Check dam for a radius of about 3 Km. Works will commence shortly.

(iv) Restoration of water-bodies in Chennai and adjoining area

In the first phase, it is proposed to rehabilitate the Ambattur, Korattur and Madhavaram tanks and to augment the ground water potential by constructing artificial recharge structures. Further, these areas would be developed as a tourist spots by forming parks, walkways and boating facilities and the tanks would be protected from encroachments.

2.3. CLIMATE ADAPTATION PROGRAMME IN CAUVERY DELTA WITH THE ASSISTANCE OF ASIAN DEVELOPMENT BANK (ADB)

2.3.1. Due to the Cauvery water dispute, no major improvement work could be implemented in the Cauvery Delta for the last three decades. Most of the tail end regulators and drains in the Cauvery Delta are in immediate need of rehabilitation. By improving the tail end

irrigation infrastructure, proper draining of flood waters can be ensured and ingression of sea water could be prevented.

2.3.2. The **Hon'ble Chief Minister** has ordered that development works at a cost of Rs.1560.00 Crores for Climate Adaptation programme in Cauvery Delta would be implemented with the assistance of Asian Development Bank. Out of this, the Asian Development Bank would provide a loan assistance of Rs.1092.00 Crores and the State Government's contribution would be Rs.468.00 Crores.

2.3.3. Under this scheme, it is proposed to take up the work of construction of 39 additional regulators which are absolutely essential and 39 dilapidated tail end regulators will be reconstructed and rehabilitated. This will bring the channels and drains on the upstream of the regulators to standards by desilting, widening and strengthening the bunds, improvement of tanks and ponds,

development of the lift irrigation schemes. The estimated cost of the scheme is Rs.1560.00 Crores.

By executing this scheme, protection of the coast in the Cauvery Delta area will be ensured. The structures to be constructed would act as flood absorbers, facilitating effective use of flood waters and also recharge the ground water resources. This scheme will benefit an ayacut of about 4.50 Lakh acres under Cauvery, Vennar, Grand Anicut Canal system and Lower Coleroon Anicut system covering the districts of Tiruvarur, Nagapattinam and a part of Thanjavur.

Further, this scheme would be a boon to the farmers of the Cauvery Delta by relieving them from the problems of, "Water logging due to poor drainage" thereby increasing the agricultural productivity and enhance their economic growth.

The Asian Development Bank has also come forward to extend technical support for the project. The works would commence during this financial year.

2.4. INTER-LINKING OF RIVERS

The **Hon'ble Chief Minister** has ordered to take up the Interlinking of rivers in the State on priority basis for utilizing the available water resources in the State effeciently and fulfilling the irrigation and drinking water requirements of the drought prone areas.

Based on this, the following River Links have been identified:

- i. Pennaiyar (Sathanur Dam) – Palar Link.
- ii. Pennaiyar (Nedungal Anicut) – Palar Link.
- iii. Cauvery – Vaigai – Gundar Link.
- iv. Cauvery (Mettur Dam) – Sarabanga Link.

2.4.1. Pennaiyar (Sathanur Dam) - Palar Link

This proposal envisages transfer of flood waters of Pennaiyar river to the river Palar through its tributary Cheyyar river. A link canal proposed for a length of 23.55 Km taking off from the head sluice located at FRL of Sathanur Dam. This canal will join the Cheyyar river at the upstream of Alathur Anicut. In addition, a feeder canal has also been proposed off-taking from the above link canal which will run for length of 38.72 Km and join the river Thuringalar and thereafter to feed Nandan Channel.

Through this scheme, it is proposed to transfer about 5.69 TMC ft. of flood waters to benefit 46069 acres of land in the taluks of Tiruvannamalai, Thandarampattu, Chengam, Polur, Vandavasi, in Tiruvannamalai District and Gingee taluk in Villupuram District. Apart from the above direct benefits, the ground water level in nearby areas will be increased.

Since there is delay in obtaining the financial assistance from the Central Government for this scheme, **Hon'ble Chief Minister** has ordered to implement the scheme under State Funds. The estimate for the scheme has been prepared for Rs.250.00 Crores.

2.4.2. Pennaiyar (Nedungal Anicut) - Palar Link

Tamil Nadu found it feasible to divert 3.5 TMC ft. of flood waters of the River Pennaiyar from Krishnagiri Reservoir for a period of 5 days each in the months from October to December totalling to 15 days, in an year to River Kallar, a tributary to the River Palar. However, the National Water Development Agency (NWDA) has suggested that Pennaiyar (Nedungal Anicut) - Palar link is technically and economically suitable than the proposal of Pennaiyar (Krishnagiri Reservoir) to Palar. The NWDA, with reference to the in-principle acceptance conveyed by Tamil Nadu has since started detailed investigation for

this scheme. Tamil Nadu is extending its support for the investigation. This Scheme will stabilise an extent of 29319 acres, irrigation through existing wells and borewells, besides recharging the ground water potential in the Palar Basin.

2.4.3. Cauvery - Vaigai - Gundar Link

This Scheme envisages diversion of 7 TMC ft. of flood surplus of Cauvery river from Kattalai Barrage by a link canal for a length of 258 Km to Agniyar, South Vellar, Manimuthar, Vaigai and then on to Gundar.

The Detailed Project Report of this scheme has been prepared for Rs.5166.00 Crores, by Tamil Nadu and has been posed to the Government of India for funding under the Flood Management Programme.

2.4.4. Cauvery (Mettur Dam) – Sarabanga link

This scheme envisages the diversion of 2 TMC ft. of surplus water through a link canal of 182 Km, to provide irrigation facilities through anicuts and tanks in the minor sub-basins of Sarabanga, Thirumanimuthar and others. By implementing this scheme, 30,430 acres of irrigation lands in the Districts of Salem, Namakkal, Perambalur and Tiruchirappalli will be benefited. The estimated cost for this scheme is Rs.1134.00 Crores at 2012-2013 price level.

Sanction is accorded for carrying out surveying and levelling operations at an estimated cost of Rs.50.00 Lakhs.

2.5. DAM REHABILITATION AND IMPROVEMENT PROJECT (DRIP)

In order to ensure the strength, safety and to improve the operational performance of the existing Dams in a

sustainable manner, the Dam Rehabilitation and Improvement Project with the World Bank assistance has been proposed to be taken up in 104 dams in four phases commencing from the year 2012-2013. The estimated cost is Rs.745.49 Crores. Tamil Nadu is one among the four States selected by the World Bank for participation in this Project. The funding pattern between the World Bank and the State is in the ratio of 80:20.

Three Organisations, viz., Water Resources Department, Tamil Nadu Generation and Distribution Corporation Limited/Tamil Nadu Electricity Board and Agricultural Engineering Department are participating in this project.

Project Cost

(Rs. in Crores)

a.	Water Resources Department	:	469.94
b.	Tamil Nadu Generation and Distribution Corporation Limited/Tamil Nadu Electricity Board	:	260.14
c.	Agricultural Engineering Department	:	15.41
	Total	:	745.49

The three main components of the Project are:

1. Rehabilitation and Improvement of the Dams and its appurtenances.
2. Dam safety institutional strengthening through Reservoir Sedimentation Studies, development of Management Information System.

3. Establishment of State Project Management Unit.

The Project aims to restore the capacity of the Dams, achieve effective utilization of the stored water and monitor their long-term performance. The proposed work includes strengthening of earthen bund, repair works to gallery, parapet walls, sluices, vertical grouting, provision of instrumentation, weather station, solar energy system and Automatic Water Level Recorder (AWLR).

The project covers 66 Dams of the Water Resources Department and 38 Dams of the Tamil Nadu Generation and Distribution Corporation Limited respectively.

Phase	WRD Dams	TANGEDCO Dams	Total
I	12	6	18
II	26	16	42
III	16	12	28
IV	12	4	16
Total	66	38	104

The Project Agreement has been signed with the World Bank. A State Project Management Unit has been formed for the implementation of this project. An Empowered Committee which is constituted under the Chairmanship of the Chief Secretary to Government for the implementation of the project, has approved the estimate for the Phase-I dams.

Under Phase-I, the following 12 Dams of the Water Resources Department and 6 Dams of the Tamil Nadu Generation and Distribution Corporation Limited are to be rehabilitated :-

S. No.	WRD Dams	TANGEDCO Dams
1.	Vidur	Avalanche
2.	Rajathopekanar	Glenmorgan
3.	Mordhana	Kadamparai
4.	Gomukhi Nadhi	Mukurthy
5.	Manimuthar	Porthymund
6.	Adavinainarkoil	Servalar
7.	Vadakkupachaiyar	--
8.	Kodumudiyar	--
9.	Nambiyar	--
10.	Poigaiyar	--
11.	Siddhamalli	--
12.	Kodaganar	--

Preparation of Hydrological study report for the 26 dams of Water Resources Department and 16 dams of TANGEDCO proposed under Phase-II of DRIP is in progress.

2.6. BEST MAINTAINED DAM

Dams are known as **“Temples of Modern India”**. Providing irrigation facilities through dams at appropriate time is vital for the agricultural growth, consequent increase in production and productivity and the overall economy of the State.

Hon'ble Chief Minister, in order to give a fillip for maintaining the dams in good condition, has instituted an award for the **“Best Maintained Dam”**. This award shall be given every year for one dam. During the year 2012-13, the **“Mullai Periyar dam”** has been selected as the best maintained dam.

2.7. IMPROVEMENTS AND REHABILITATION OF IRRIGATION SYSTEMS IN CAUVERY BASIN FOR EFFICIENT IRRIGATION WATER MANAGEMENT (ERM SCHEME)

Improvements and Rehabilitation to the irrigation infrastructure in Cauvery Basin involve huge financial investment. Due to the pendency of the Cauvery Water Dispute, the State could neither avail any financial assistance from the Central Government nor from external financial institutions. Hence, major improvement works in the Cauvery Basin have not been taken up for a long time.

However, due to the persistent efforts of the **Hon'ble Chief Minister**, the Final Order of the Cauvery Water Disputes Tribunal (CWDT) has been notified in the Gazette of India.

Taking this into consideration, a preliminary project report for the "Improvements and Rehabilitation of Irrigation Systems in Cauvery Basin for Efficient Irrigation Water Management"

has been prepared at a cost of Rs.11420.00 Crores at 2012-2013 price level and sent to the Central Water Commission, Government of India, requesting for in-principle approval for preparation of Detailed Project Report. The preliminary project report is under the consideration of the Central Water Commission, Government of India. Upon receipt of in-principle approval, a detailed project report will be prepared and Government of India will be approached for funding under the AIBP scheme.

2.8. INTEGRATED APPROACH TOWARDS TANKS REHABILITATION AND MODERNIZATION

Vision 2023 of the **Hon'ble Chief Minister**, envisages rehabilitation of tanks. Out of 13699 tanks under the control of Water Resources Department, Rehabilitation works have been taken up from time to time. Under the TNIAMWARM project and 'Restoration of Traditional Water Bodies' contemplated in

the 13th Finance Grants-in-Aid programme, Rehabilitation and modernization of tanks are being carried out in 5220 tanks and 674 tanks respectively. Besides, it is proposed to rehabilitate another 189 tanks under the scheme "Repair, Renovation and Restoration (RRR) of water bodies with domestic support". It is, therefore, essential that the remaining 7616 tanks are also to be rehabilitated.

In this direction, **Hon'ble Chief Minister** has ordered for de-silting and restoration of their capacity of 100 irrigation tanks, having an ayacut of around 1000 acres or more.

During this year, it is proposed to take up this work in 25 tanks at a cost of Rs.25.00 Crores under State funds.

3. INTER STATE RIVER WATER ISSUES

3.1. Cauvery Water Issue

At the outset, it is placed on record before this august Forum that due to the persistent efforts of the **Hon'ble Chief Minister**, the Government of India notified the Final Order of the Cauvery Water Disputes Tribunal in its Gazette dated: 19.02.2013.

The background of the Dispute and efforts of this Government to get its due share of water are as follows:-

Constitution of Tribunal

The Cauvery Water issue could not be resolved even after negotiations through 26 meetings, bilateral and also under the auspices of the Central Government, for over 23 years. As per the orders of the Supreme Court dated 04.05.1990, the Government of India constituted the Cauvery Water Disputes Tribunal on 02.06.1990.

Interim Order

The Interim Order was pronounced by the Cauvery Water Disputes Tribunal (CWDT) on 25.06.1991, directing Karnataka to ensure that 205 TMC ft. of water is realised in an year at the Mettur reservoir as per the prescribed monthly pattern. Of this, 6 TMC ft. is to be given to Karaikkal Region of the Union Territory of Puducherry; the State of Karnataka shall not increase its area under irrigation beyond 11.20 Lakh acres as on June 1990; further the Interim Order will remain operative till the final adjudication of the dispute. The Interim Order was published in the Gazette of the Government of India on 10.12.1991.

Scheme for implementation of Interim Order:

A "Scheme" to give effect to the Interim Order dated 25.06.1991 of the Tribunal was notified in the Gazette by the Government of India on 11.08.1998. As per this Scheme, Cauvery River

Authority (CRA) headed by the Prime Minister of India with the Chief Ministers of the Basin States as Members was constituted. To assist the Authority, Cauvery Monitoring Committee (CMC) headed by the Secretary to Government of India, Ministry of Water Resources, with the Chief Secretaries and Chief Engineers of the basin States as Members was also constituted.

Final Order of the Cauvery Water Disputes Tribunal :

The Tribunal after examining all the documents and statistics of the case and hearing the arguments put forth by the party States, finally pronounced its Final Order on 05.02.2007 under section 5(2) of the Inter State River Water Disputes Act, 1956.

The salient features of the Final Order are:

- The yield of the River Cauvery at the Lower Coleroon Anicut site on

the basis of 50% dependability is 740 TMC ft. as per the report of the Cauvery Fact Finding Committee.

- The allocation made among the party States at 50% dependability is as below:

(in T.M.C.ft.)

A. Tamil Nadu	
At Billigundulu or any other agreed point at the common border between Karnataka and Tamil Nadu (including 10 TMC ft. as environmental flow.)	192
Flow available in Tamil Nadu between Billigundulu and Mettur	25
Total flow at Mettur	217
Flow available in Tamil Nadu below Mettur	212
Total	429

B. Karnataka	270
C. Kerala	
Kabini sub-basin	21
Bhavani sub-basin	6
Amaravathi sub-basin	3
Total	30**
D. Puducherry	7
E. Inevitable surplus	4
Grand Total	740

** The Tribunal has stated that whole of unutilized water out of Kerala's allocated share of 30 TMC ft. would go to Tamil Nadu till such time Kerala develops its own potential to use the same. It has also stated that Kabini's flows of this unutilized water from Kerala to Tamil Nadu will be in addition to the flows of 192 TMC ft.

- As per the Final Order, the flow to be made available at Mettur Reservoir will be $207 + 10$ TMC ft. for Environmental Protection = 217 TMC ft. as against $205 - 6$ (for Puducherry) = 199 TMC ft. as per the Interim Order.
- The use of Ground Water by any State shall not be reckoned as use of water of the river Cauvery.
- Recommended to constitute Cauvery Management Board and Cauvery Water Regulation Committee to effectively implement the order.

Special Leave Petitions (Civil Appeals) filed in the Supreme Court:-

The States of Karnataka and Kerala have filed Special Leave Petitions (now Civil Appeals) in the Supreme Court in April, 2007, against the Final Order of the Tribunal. A Special Leave Petition was

also filed by Tamil Nadu in the Supreme Court in May, 2007, against certain aspects of the Final Order of the Tribunal. The Civil Appeals are listed for final hearing on 06-08-2013.

Petitions filed before the Cauvery Water Disputes Tribunal under Section 5(3) to clarify the Final Order :

All the Party States and the Government of India have filed petitions in the Tribunal under section 5(3) of the Inter-State River Water Disputes Act, 1956 seeking clarification. The Tribunal in its Order dated 10.07.2007 has ordered that only after the Special Leave Petitions are heard and disposed of by the Supreme Court, the petitions filed under section 5(3) of the Act will be heard by the Tribunal.

Action taken to expedite the cases:-

The Government of Tamil Nadu filed an Interlocutory Application (I.A.) in the

Supreme Court on 01.09.2011 requesting to clarify that there would be no impediment for the Cauvery Water Disputes Tribunal in proceeding with the applications filed by the party States notwithstanding the pendency of the Civil Appeals and to direct the Tribunal to dispose of the pending applications filed by the party States and the Government of India.

The Government of Tamil Nadu on 16.03.2012, has filed a Civil Miscellaneous Petition in the Cauvery Water Disputes Tribunal praying to take up early, the hearing of the petitions filed by the party States and the Government of India under section 5(3) of the Inter State River Water Disputes Act, 1956. When the Cauvery Water Disputes Tribunal listed this application for hearing in April 2012, the Chairman of the Tribunal resigned on health grounds and only after a new Chairman is appointed, this can be proceeded further. The **Hon'ble Chief Minister** on 19.4.2012 has urged the Prime Minister

to appoint a new Chairman for the Cauvery Water Disputes Tribunal.

Hydel Schemes upstream of Mettur Reservoir :-

National Hydro Power Corporation Limited (NHPC) came up with the proposal to execute Shivasamudram, Mekedatu, Hogganekkal and Rasimanal Hydro-electric Projects (HEPs) and this has been under consideration of the State Governments with the Government of India's participation. However, the Government of Karnataka contrary to the stand taken before the Cauvery Water Disputes Tribunal that it is agreeable to take up the Shivasamudram, Mekedatu projects to be executed by NHPC Limited along with the other Hydro electric projects, decided to execute the Shivasamudram H.E.P on its own. Therefore, in November, 2008, Tamil Nadu filed an I.A. in the Supreme Court against the unilateral action contemplated by Karnataka in proceeding with the execution of the

Shivasamudram and the Mekedatu Hydro Electric Schemes, praying for directions to the Central Government to take up all the Hydel Schemes in Cauvery viz., Shivasamudram, Mekedatu, Rasimanal and Hogganekkal between Krishnarajasagar and Mettur by the NHPC Limited as already contemplated by it. In this I.A., an Additional Affidavit was filed by Tamil Nadu in August, 2009 again objecting to the unilateral action of Karnataka in taking up the Shivasamudram Hydro Electric Project.

Notification of the Final Order of the Cauvery Water Disputes Tribunal :-

The **Hon'ble Chief Minister** in the Memorandum presented to the Prime Minister in New Delhi on 14.6.2011, had requested him to direct the Ministry of Water Resources to take immediate steps to notify the Final Order dated 5.2.2007 of the Cauvery Water Disputes Tribunal (CWDT) in the Gazette of India and to place in position the Cauvery Management Board for

implementation of the order of the Cauvery Water Disputes Tribunal in letter and spirit. The **Hon'ble Chief Minister** on 17.10.2011 had urged the Prime Minister, to notify the Final Order in the Gazette of India. In this regard, an I.A. was filed in the Supreme Court on 17.04.2012. The Supreme Court of India, in the I.A. filed by Tamil Nadu for sharing of water by Karnataka with Tamil Nadu in the current year, recorded in its order dated 04.01.2013 that "the learned Senior Counsel appearing for all the concerned States have stated before us that they do not have any objection to the final decision by CWDT being notified, without prejudice to their rights and contentions raised in the pending appeals". Finally in its Order dated 04.02.2013, the Supreme Court directed the Central Government to publish in the Official Gazette, the final decision given by CWDT dated February 5, 2007 as early as may be possible and in no case later than February 20, 2013. Pursuant to this, the Government of India notified the Final Order of the

Cauvery Water Disputes Tribunal in the Gazette of India on 19.02.2013.

Summer Irrigation in Karnataka :-

In order to forbear the Government of Karnataka from drawing water for summer irrigation and to carry over the storage to the next irrigation year so as to help release of water to Tamil Nadu as per the Interim Order, an I.A. was filed on 21.3.2012 in the Supreme Court of India.

3.2. Banasurasagar Irrigation Project of Kerala :

The Government of Kerala forwarded a Detailed Project Report in respect of the Banasurasagar Irrigation project in the Kabini basin, which is already under execution and was under discussion during the deliberations of the Cauvery Water Disputes Tribunal. On examination, it was found that Kerala is proceeding with this project as originally envisaged by it for utilization of 1.7 TMC ft. of water for irrigation, and

was also contemplating to divert westward as much as 6 to 10 TMC ft. through a tunnel to augment power generation in the Kuttiyadi hydro electric project in the adjacent Valarpattinam Basin. The Tribunal in its Final Order had not allowed the trans-basin diversion and allocated only 0.84 TMC ft. for in-basin irrigation under the project. The Government of Kerala has, therefore, been addressed on 12.03.2012 not to proceed with the Banasurasagar Irrigation project in any manner, pending disposal of the Civil appeals in the Supreme Court and reference petitions in the Tribunal. An I.A. has also been filed in the Supreme Court on 24.04.2012 to restrain the Government of Kerala from proceeding with works in any manner with regard to this project.

3.3. Irrigation Year 2012-2013 :

During the current year 2012-2013, Mettur reservoir could not be opened for irrigation on the normal date of 12th June, since the storage in the

reservoir was only 41.223 TMC ft. and the inflows were poor. The South West Monsoon set on 05.06.2012, but the rainfall was below normal and did not intensify in the catchment areas of Cauvery. Karnataka as usual impounded all the flows in its reservoirs and did not effect the supplies due to Tamil Nadu either as per the Interim Order or as per the Distress Sharing Formula evolved by the Central Water Commission and accepted by the Cauvery Monitoring Committee. Tamil Nadu, therefore, filed an I.A. in the Supreme Court on 21.07.2012 seeking directions to Karnataka to release water as per the Interim Order. The Supreme Court in its order dated 10.09.2012 directed release of water at the rate of 10,000 cusecs from 12th to 20th September and that further releases is to be decided by the Cauvery River Authority. The reservoir was opened for irrigation only on 17.09.2012, when the storage was 46.217 TMC ft., as it was considered that any further postponement will not be in the interest of cultivation of at least one

single samba crop. Since no consensus could be reached in the Cauvery River Authority meeting held on 19.09.2012, the Prime Minister as Chairperson directed Karnataka to release 9,000 cusecs from 20.09.2012 to 15.10.2012 and directed the CMC to regulate the flows beyond 15th October, 2012.

In the meantime, the Government of Karnataka on 20.9.2012 under clause 3(3) of the Scheme notified by the Government of India, Ministry of Water Resources, for the implementation of the order of 1991, filed a Review Petition before the CRA to set aside the decision of 19.9.2012 and requested that pending decision on its request the said order be kept in abeyance with immediate effect. However, the Government of India on 24.9.2012 informed Karnataka, that the Government of Karnataka had not honoured the decision of the Cauvery River Authority as could be seen from the discharges observed at Billigundulu and requested to ensure that the orders of the CRA are followed. The

Government of India informed the Government of Karnataka on 11.10.2012 that there is no provision for review of the decision of the CRA as per the rules.

Meetings of Cauvery Monitoring Committee and its decisions:

Following the meeting of the Cauvery River Authority held on 19.9.2012, and the hearing by the Supreme Court of India in the I.A. filed by Tamil Nadu and the orders passed by the Supreme Court of India, the Cauvery Monitoring Committee met from time to time and instructed Karnataka to share the water with Tamil Nadu. The details of inflows realized at Billigundulu gauging station are tabulated below:

(in T.M.Cft.)

Flow Ordered by the Supreme Court / CRA / CMC	Quantity due	Flow Realised at Billigundulu
(1)	(2)	(3)
SC Order dt.10.09.2012 10,000 cusecs from 12th to 20th for 9 days.	7.776	9.262

CRA Order dated 19.09.2012 9,000 cusecs from 20.09.2012 to 15.10.2012	19.440	19.191
Meetings of CMC		
CMC (28th) Proc. dt. 11.10.2012	8.85 (Oct. 16-31)	6.731*
CMC (29th) Proc. dt.31.10.2012	3.94 (Nov. 1-15)	6.703
CMC Proc.(30th) Proc. dt. 15.11.2012	4.81 (Nov. 16-30)	5.057
SC Order dt. 5.12.2012 (10,000 cusecs upto 9th)	12.0 (Dec. 1-31)	11.823
CMC (31st) Proc. dt. 07.12.2012 12 TMC for Dec,2012		
CMC (32nd) Proc. dt. 10.01.2013	1.51 (Jan. 1-31)	4.275
Total	58.326	63.042 **

* In the Proceedings dated 31.10.2012, it was stated that the deficit in this should be made good

before 04.11.2012. (This was made good by Karnataka)

** It is evident from the above table that during the current year, 63.042 TMC. ft. could be realized only by approaching the Supreme Court, CRA and CMC by the Government.

Tamil Nadu also filed a Supplementary Affidavit on 22.11.2012 praying to issue appropriate directions to Karnataka to make good the shortfall of 52.8 TMC ft. that had accrued during the South West monsoon period as per the method of pro rata sharing adopted by the CMC and also effect the release as per the Interim Order passed by the Tribunal till May, 2013 or in the alternative, to release water as per the same method of pro rata sharing for sustaining the Samba crop during the current irrigation year. When this petition was heard by the Supreme Court on 26.11.2012, the Court suggested that the Chief Ministers of Tamil Nadu and Karnataka could meet

and discuss the issue meaningfully and come to a solution in the interests of farmers of both the States.

Discussion between the Chief Ministers of Tamil Nadu and Karnataka:-

As per the suggestion of the Supreme Court, discussions were held on 29.11.2012, at Bangalore between the Chief Ministers of Tamil Nadu and Karnataka. During the discussions, the **Hon'ble Chief Minister** urged that the deficit of 53.4 TMC.ft. should be made good as per the method of pro rata sharing in the flows due to Tamil Nadu before the end of December, 2012 and that to meet the immediate requirements of the standing crops 30 TMC ft. should be released within the next 15 days and to further release 23.4 TMC ft. before the end of December, 2012. But, Karnataka refused to release even a drop of water. Hence, on the orders of the **Hon'ble Chief Minister**, a Petition was filed

before the Supreme Court praying that Karnataka might be directed to make good at least 30 TMC.ft. between 1st and 15th December, 2012 so that Tamil Nadu could manage its irrigation and salvage the Samba crop to some extent. When this petition was heard by the Supreme Court on 05.12.2012, the Court directed the CMC to convene its meeting immediately and decide on the requirements of the standing crops in both the States of Tamil Nadu and Karnataka on that day itself.

In the Meeting of the CMC held on 07.12.2012, the CMC did not consider the request of Tamil Nadu for release of 30 TMC ft. immediately to save the crops and directed that Karnataka should ensure release of 12 TMC ft. of water to Tamil Nadu during December, 2012. The proceedings of this Meeting was recorded by the Supreme Court in its Order dated 10.12.2012.

The Government of Tamil Nadu again approached the Supreme Court bringing

forth to its notice of the decision of the Cauvery Monitoring Committee by filing a Petition on 20.12.2012 praying to direct Karnataka to make good the shortfall in the releases or at least to release 18 TMC ft. of water for saving the Samba crop to some extent, apart from the release of 12 TMC ft. ordered by the Cauvery Monitoring Committee. This I.A. came up for hearing on 04.01.2013 when the Court ordered that the CMC shall convene its meeting on or before 11th January, 2013 and make appropriate orders regarding the requirement of water for the crops in the States of Tamil Nadu and Karnataka and that the CMC shall also adjudicate on the question of shortfall, if any, in the release of water by Karnataka to Tamil Nadu.

Pursuant to this order, in the meeting of the CMC held on 10.01.2013, the CMC recorded that for the period from 01.06.2012 to 31.12.2012 there is a shortfall of 31.4 TMC ft. which was to be received by Tamil Nadu at Billigundulu as

per the method of pro rata sharing and that Karnataka had not regulated the flows in accordance with the Interim Order of the Cauvery Water Disputes Tribunal.

In view of this, based on the orders of the **Hon'ble Chief Minister**, an I.A. was filed in the Supreme Court on 17.01.2013 praying for a direction to Karnataka for the immediate release of 12 TMC ft. so as to save the crops to some extent. This came up for hearing on 18.01.2013 and again on 04.02.2013, when the Court directed the Chairman, Central Water Commission (CWC) to appoint an Expert Committee of three members who shall visit the delta region of Tamil Nadu comprising of Tiruvarur, Thanjavur and Nagapattinam districts and report to the Court about the status of paddy crop in that areas latest by February 6, 2013 and in the meanwhile, Tamil Nadu may release 2 TMC ft. of water from its storage to save the standing crop, which will be replenished by Karnataka irrespective of the

report that may be given by the Expert Committee. Accordingly, about 2.3 TMC ft. of water was released from Mettur reservoir from 4th to 8th February, 2013.

The Supreme Court on 07.02.2013, had observed that the Expert Committee in such short time could not have given very accurate position of the standing crops and the water requirement. The Court accepted the Report of the Expert Committee that the standing crops are in an extent of one Lakh acres only and directed release of 2.44 TMC ft. of water by Karnataka forthwith to Mettur Reservoir. Karnataka had made the release from 10.02.2013 to 21.02.2013.

Hon'ble Chief Minister has ordered to file a Suit in the Supreme Court claiming damages for the loss incurred by Tamil Nadu due to non-release of water by Karnataka.

Action Taken to Constitute the Cauvery Management Board and the Cauvery Water Regulation Committee :-

Following the notification of the Final Order of the Tribunal in the Gazette of India on 19.02.2013, the **Hon'ble Chief Minister** in order to get the due flows for the next irrigation season onwards as per the Final Order of the Tribunal had addressed the Prime Minister on 22.02.2013 and 11.03.2013 to place in position the Cauvery Management Board (CMB) and the Cauvery Water Regulation Committee (CWRC). Since no positive response is forthcoming from the Government of India, an I.A. has been filed in the Supreme Court of India on 18.03.2013 to direct the Government of India, among other things, to constitute the Cauvery Management Board and the Cauvery Water Regulation Committee at least before the last week of April 2013 for ensuring supplies due to Tamil Nadu in the ensuing irrigation season. This I.A. was mentioned before the Supreme

Court on 9.4.2013. The Supreme Court has ordered for hearing the I.A. on 22.4.2013.

3.4. Mullai Periyar Dam

Periyar Lease Deed between the Maharaja of Travancore and Madras Presidency was executed on 29.10.1886 with retrospective effect from 1.1.1886 for a period of 999 years for diversion of waters to the Madras Presidency under "Periyar Project". About 8000 acres has been demised on payment of an annual rent of Rs. 5/- per acre (now Rs.30/- per acre). The present Theni, Dindigul, Madurai, Sivagangai and Ramanathapuram Districts are benefited. Presently, about 2.20 Lakh acres are benefited by this Project and on an average in a year 22 TMC.ft. is diverted. Later on, two supplemental agreements were entered into between Kerala and Tamil Nadu on 29.05.1970. These are executed as successors in interest to the Principal Deed of 1886. However, the

basic character of the principal deed of 1886 was not changed.

In 1979, certain apprehensions were raised in the Malayalam dailies about the safety of the Mullai Periyar Dam. The Chairman, Central Water Commission inspected the dam on 23.11.1979 and declared that there was no imminent danger to the Dam.

On 25.11.1979, a meeting was held at Thiruvananthapuram by the Chairman, CWC, with the officers and Engineers of both the States. In that meeting, it was decided to execute certain works under three stages, viz., Emergency measures, medium term measures and long term measures to bring it to the modern standards. To facilitate execution of the strengthening works, it was decided to reduce the water level **temporarily** from the FRL of 152 ft. to 136 ft.

After completion of the emergency and medium term strengthening measures for the Dam, the Central

Water Commission recommended on 29.04.1980 to raise the water level to 145 ft. But, the Government of Kerala did not agree for raising the water level from 136 ft. to 145 ft., even after the dam has been fully strengthened; it insisted that the water level should continue to be maintained at 136 ft.

In the Writ Petition filed in the Supreme Court along with the connected matters, the Supreme Court pronounced its judgment on 27.02.2006 and permitted the Government of Tamil Nadu to raise the water level from the temporarily brought down level of 136 ft. to initially 142 ft. and also to carry out further strengthening measures as suggested by the Central Water Commission, to the Baby dam and Earthen dam. The Supreme Court has also held that the State of Kerala and its officers are restrained from causing any obstructions for carrying out the balance strengthening works. The Supreme Court in the same order stated that after the strengthening works are completed to

the satisfaction of the Central Water Commission, independent Experts would examine the safety angle before the water level is permitted to be raised to 152 ft.

Soon after the Supreme Court pronounced its judgment, the Government of Kerala passed amendment to the Kerala Irrigation and Water Conservation Act, 2003 known as "Kerala Irrigation and Water Conservation (Amendment) Act, 2006" on 18.03.2006, patently to thwart the Supreme Court's Order and fixed the FRL of Mullai Periyar Dam as 136 ft.

The Government of Tamil Nadu filed a Civil Suit (O.S.No.3 of 2006) on 31.3.2006 in the Supreme Court praying to declare "The Kerala Irrigation and Water Conservation (Amendment) Act 2006" as unconstitutional in its application and effect on Mullai Periyar Dam.

As per the directions of the Supreme Court on 25.09.2006 and the decision of the all party meeting held on 23.10.2006, a meeting of the Chief Ministers of both the States in the presence of the Minister for Water Resources, Government of India, was held on 29.11.2006. In continuation of that meeting, a Ministers' level meeting was held on 18.12.2006. A meeting of the Chief Ministers of Tamil Nadu and Kerala was again held in New Delhi on 19.12.2007 before the Union Minister for Water Resources. No consensus was reached in these meetings.

The Supreme Court on 13.12.2007 framed the issues to decide the suit. The three Member Special Bench which heard arguments from 21.10.2009 till 10.11.2009 viewed, among others, that since certain substantial questions of law are involved in the interpretation of the Constitution to decide the Suit, it would be necessary to place the matter before a Constitution Bench. It further ordered that the contesting parties shall maintain

"Status quo" in respect of Mullai Periyar Dam as existing on that date and the order of "Status quo" will not be an impediment for Tamil Nadu to carry out maintenance and repairs for proper upkeep of the said dam.

The Constitution Bench which was later formed, heard the Suit from 20.01.2010 onwards and on 18.02.2010, ordered the formation of an Empowered Committee consisting of 5 Members, including the Chairman, Dr.A.S.Anand, former Chief Justice of India. The Committee has been requested to analyse all the issues except legal and submit a report as far as possible within six months. The Supreme Court by order dated 27.02.2012 has extended the tenure of the Empowered Committee upto 30th April, 2012 and posted the case to 04.05.2012.

The Governments of Tamil Nadu and Kerala submitted their respective Memorandum before the Committee. The Empowered Committee framed the

issues, in which the new dam proposal of Kerala is one of the issues. The Government of Tamil Nadu submitted before the Supreme Court as well as before the Empowered Committee that in as much as the dam has been strengthened on the suggestions made by the Central Water Commission and with the concurrence of the Government of Kerala, and is functioning as a new dam, there is no need for a new dam as contended by the Government of Kerala.

Under the Empowered Committee, a Committee to Co-ordinate (CTC) to carry out the investigations, testing and studies (ITS) on Mullai Periyar Dam under the Chairmanship of Dr. C.D.Thatte, Member of the Empowered Committee with Members drawn from CWC, CWPRS, CSMRS and representatives of the States has been constituted. The Committee to Co-ordinate requested Tamilnadu to carry out investigation/studies which were completed.

The Government of Tamil Nadu has been urging the Government of India and the Supreme Court of India to deploy the Central Industrial Security Force (CISF) for guarding the Dam instead of Kerala police stationed now. On the assurance given by the Government of Kerala that adequate number of personnel have been deployed to ensure safety to the dam and protect the dam and also on the stand of the Government of India that the Central forces could be deployed either on the orders of the Courts or on the request from the State Government, the Supreme Court considered that no further directions would be necessary and accordingly disposed of the Interlocutory Application (19/2011) on 15.12.2011.

The Government of Kerala on 06.12.2011 filed an I.A.(I.A.No.20/2011) in the Supreme Court praying to direct the State of Tamil Nadu to lower the storage of Mullai Periyar Dam, from 136 ft. to 120 ft. forthwith. The Supreme Court after recording the statement of

the Government of Kerala that it withdraws the application because it would move some application before the Empowered Committee, the Supreme Court dismissed the application on 13.12.2011 as not pressed. The State of Kerala emphasizing the same, filed an application before the Empowered Committee on 15.12.2011, which was, however, not considered by the Empowered Committee.

On 10.12.2011, the **Hon'ble Chief Minister** released a press statement detailing the technical aspects of the Mullai Periyar dam and the strengthening works carried out by the Government of Tamil Nadu and appealed to the people of Kerala not to succumb to any divisive forces in the interest of both the States as both the States are committed to maintaining and cherishing cordial relations.

This august House on 15.12.2011 discussed the Mullai Periyar Dam issue and the unanimous resolution passed in the Legislative Assembly was sent to the

Government of India for immediate action.

The Empowered Committee's meetings were held on 02.01.2012 & 03.01.2012. On 02.01.2012, submissions were made by the Counsel of Kerala and Tamil Nadu before the Empowered Committee. The Counsel for Tamil Nadu categorically stated that there was no need to construct a new dam, since the retrofitted Mullai Periyar Dam is as good as a new dam and is functioning well; Tamil Nadu should, therefore, be permitted to raise the water level to 142 ft. as per the judgment of the Supreme Court dated 27.02.2006.

The Government of Kerala on 10.1.2012 again filed an application before the Empowered Committee, among others, for construction of a new dam. The Government of Tamil Nadu had filed its reply on 23.1.2012 in which it had once again been reiterated that there is no need for a new dam in as much as the existing Mullai Periyar Dam is functioning as a new dam.

When the National Disaster Management Authority on the unilateral request of the Government of Kerala constituted a team of experts for the preparation of a Contingency Response Plan for Mullai Periyar Dam in its proceedings dated 12.12.2011, the **Hon'ble Chief Minister** brought to the notice of the Prime Minister on 20-12-2011 to the effect that it is nothing but succumbing to the subterfuge of the Government of Kerala and to present a fait accompli to the Supreme Court of India and the Empowered Committee constituted by it. The approach of Kerala to NDMA is to circumvent the legal process and appears to be a calculated attempt to pressure the Empowered Committee to declare the dam unsafe. The **Hon'ble Chief Minister**, therefore, requested the Prime Minister to order the withdrawal of the constitution of the team of experts forthwith. The NDMA in its proceedings dated 22.12.2011 had kept this in abeyance till the Empowered Committee submits its report to the Supreme Court.

When the Prime Minister visited Chennai on 25.12.2011, in the Memorandum presented to him, the **Hon'ble Chief Minister** sought the intervention of the Prime Minister on the following:-

- (i) To advise the Government of Kerala to honour the order of the Supreme Court dated 27.2.2006 for raising the water level initially from 136 ft. to 142 ft. and to make appropriate amendments to its Kerala Irrigation and Water Conservation (Amendment) Act, 2006 ;
- (ii) To advise the Government of Kerala not to venture upon the construction of a new dam, since the retrofitted Mullai Periyar Dam is safe and functioning well;
- (iii) To advise the Government of Kerala not to obstruct but to co-operate with the Government of Tamil Nadu in carrying out the remaining strengthening works suggested by the Central Water Commission and also the routine maintenance works;

- (iv) To advise the Government of Kerala to remove all the encroachments that have come up in the leased area;
- (v) To deploy the Central Industrial Security Force to safeguard the Mullai Periyar Dam and its appurtenant structures in the leased area; and
- (vi) To order the National Disaster Management Authority to withdraw the notification of the Team of Experts constituted for formulating a Contingency Response Plan for the Mullai Periyar Dam.

The **Hon'ble Chief Minister** on 09.02.2012 addressed the Prime Minister that the Government of India, Ministry of Science and Technology does not enter into any agreement with the Government of Kerala for a real time monitoring of the Mullai Periyar Dam and if already entered into, it may be annulled and also not to carryout any activity and also to

deploy CISF as already requested. On the same day, a letter was sent to the Ministry of Science and Technology in this matter. In continuation of these an I.A. has been filed in the Supreme Court of India on 2.3.2012 to restrain the Government of India from entering into the agreement, among others.

The Empowered Committee submitted its report to the Supreme Court on 25.04.2012. It has come to the conclusion that the Mullai Periyar Dam is hydrologically, structurally, and seismically safe for raising the water level to 142 ft.

The Supreme Court allowed the Government of Tamil Nadu in its order dated 23.7.2012 to carry out the routine maintenance works. The works of relaying the wearing coat on Baby dam, and reaming the drainage holes were completed. The other maintenance works will be taken up in the ensuing non-irrigation season.

The **Hon'ble Chief Minister** on 08.01.2012 announced to construct a Memorial to the Architect of Mullai Periyar Dam, Colonel J. Pennycuick in the TANGEDCO complex at Lower Camp in an area of 2500 Sq. ft. The Memorial was constructed and it was inaugurated on 15.01.2013 by the **Hon'ble Chief Minister** of Tamil Nadu.

The Supreme Court on 9.4.2013 has ordered for the commencement of the final arguments on 23.7.2013.

The Government of Tamil Nadu will effectively pursue this issue to safeguard the interests of the State of Tamil Nadu.

3.5. Palar

The Government of Andhra Pradesh proposed to construct a reservoir across Palar at Ganeshapuram, Kuppam Taluk, Chittoor district, Andhra Pradesh. As it would primarily affect number of drinking water schemes and irrigation along the river in Tamil Nadu, the Government of

Tamil Nadu filed a Suit (O.S.No.2/2006) on 10.02.2006 in the Supreme Court to restrain it.

After hearing the case, the Supreme Court in its order dated 07.01.2008, made it clear that the Union of India may convene a meeting between the two states to settle the dispute.

Following this, a meeting at official level was held by the Chairman, Central Water Commission in New Delhi on 11.03.2008. After discussion, it was requested that the Government of Andhra Pradesh will not go ahead with the project before the issue is settled. It has been established that the Palar basin is a deficit basin by the study made by a Joint study group constituted by Central Water Commission.

The Secretary, Ministry of Water Resources, convened a meeting on 26.05.2011 at New Delhi with the officials of the Government of Tamil Nadu and Andhra Pradesh. The Secretary

of Government of India concluded that there was no possibility of any negotiated solution in as much as the rigid stand taken by both the States and that the Supreme Court would be informed accordingly.

In the meantime, the Supreme Court framed the issues to decide the Suit. When the Suit came up for hearing on 4.07.2011, the Court asked the parties to list the witnesses. The Government of Tamil Nadu has nominated a witness; so also the State of Andhra Pradesh. The cross examination of witnesses are to be commenced in July 2013 and thereafter the court is expected to hear the arguments of the States and deliver its Order.

The Government of Tamil Nadu takes all the necessary steps to safeguard the interest of the farmers and the people dependant on the waters of the Palar river.

3.6. Parambikulam Aliyar Project - Review of Agreement

The Parambikulam Aliyar Project, a multi-valley, multi purpose, mammoth project, was planned, designed and executed by the Government of Tamil Nadu as one of the Second Five Year Plan Projects, with the consent and co-operation of the Government of Kerala for sharing mutual benefits through the utilization of flows in the rivers of Anamalayar, Ninar, Sholayar, Parambikulam, Palar and Aliyar and the streams flowing into them, for generation of Hydro Electric Power, irrigation, drinking water supply and industrial use in both the States. An agreement therefore between the Government of Tamil Nadu and Kerala was entered into on 29.05.1970 with retrospective effect from 09.11.1958. The taluks of Pollachi, Palladam, Udumalapettai and Dharapuram in the districts of Coimbatore, Tiruppur and Erode are benefited. The Palakkad District of Kerala State is also benefited.

This Agreement was due for review on 09.11.1988 as provided from the Agreement. Accordingly, both the Governments exchanged the documents for review on 21.09.1989 and since then held several Inter-State discussions for continuation after review for another 30 years.

In the Minister level meeting held between Governments of Kerala and Tamil Nadu on 10.06.2002 at Chennai, a decision was taken to constitute a Technical Committee comprising of Engineers from both the States to first identify the areas where amendments may be required in the Agreement and to facilitate the review at the Government level. The Technical Committee submitted its Report in May 2003. The Report was discussed in the Minister level meeting held on 10.11.2003 at Chennai and on 4th January 2004 at Thiruvananthapuram.

After prolonged correspondence, a meeting at the Chief Secretary level was held on 30.05.2008 at Thiruvananthapuram. In the meeting it was decided to exchange more information and data pertaining to the review of the Agreement and to have another meeting at Chennai. Accordingly, the meeting at Chennai was held on 27.02.2009 and it was decided to have a meeting at the Secretary level to examine all the issues in their entirety and work out a single package that can be placed before the Hon'ble Minister of the concerned States. As per this decision, meetings at Secretary level were held in Thiruvananthapuram on 08.04.2009 and on 24.04.2009 and 25.04.2009 in Chennai. The Chief Secretary level meeting was held on 21.01.2011 at Thiruvananthapuram.

The following decisions were taken in that meeting.

A) Anamalayar - Diversion of 2.5 T.M.Cft. of water from Anamalayar to Tamil Nadu.

Kerala informed that the site proposed by it for the construction of Reservoir is technically feasible for the diversion of 2.5 T.M.C. ft. of water to Tamil Nadu and proposed to execute the project by it. It has also been decided that Kerala will send the Project Report to Tamil Nadu and Tamil Nadu will send its views within two months from the date of receipt of Project Report. But, so far, no Project Report has been sent to Tamil Nadu. This needs to be discussed further.

B) Manacadavu

Kerala requested increase of their share of water at Manacadavu weir from 7.25 T.M.C. ft. to 12.00 T.M.C. ft.

C) Balancing Reservoir above Manacadavu Weir

Kerala is not agreeable to the proposal of Tamil Nadu for constructing a reservoir of capacity about 0.5 T.M.C. ft. above the existing Manacadavu Weir to regulate the flows to Kerala. It was explained that Tamil Nadu can consider the increase in supply at Manacadavu over 7.25 T.M.C. ft., if only Kerala gives concurrence for the balancing reservoir.

D) Nirar - Nallar Straight Cut

Tamil Nadu has proposed the scheme to avoid the circuitous route of flow of water from Upper Nirar weir to Thirumoorthy Dam through contour canal to avoid transmission loss. In this scheme a reservoir across Nallar river with a storage capacity of about 7 TMC.ft. is proposed and hydro power is also contemplated and

sought the concurrence of the Government of Kerala. But Kerala informed that this issue is outside the scope of purview of the Agreement. However, Kerala requested Tamil Nadu to provide details of possible benefits that Kerala will have from this scheme, for its consideration.

The draft minutes of the above meeting was communicated by Kerala on 10.02.2011. In that few modifications to the draft minutes were suggested by Tamil Nadu, on 01.03.2011. Since Kerala has modified the minutes selectively, Tamil Nadu has suggested that the minutes should be based on the facts of discussions and joint press statement issued on 21.01.2011 after the meeting. The Government of Kerala is yet to send the finalized minutes.

The Government is taking all possible steps to complete the review of this Agreement quickly.

3.7. Neyyar Issue

The Neyyar Irrigation Project both first and second stages were planned and executed by the Travancore – Cochin Government. Due to the States' Reorganisation in 1956, a portion of the ayacut localized to be served by this project to an extent of 9200 acres lying in the Vilavancode taluk got transferred to Madras State (Tamil Nadu) and forms part of Kanyakumari District. The canal works required to feed this ayacut were executed by the State of Tamil Nadu with the approval of the Central Government and the State of Kerala, under the Second Five Year Plan. The project is in operation from the year 1965.

The Government of Kerala was supplying water to this area of Tamil Nadu through the Left Bank Canal of the project, even though the supply made was very much below the designed discharge of 150 cusecs. The supply was made upto February 2004 and after that the

Government of Kerala abruptly stopped the supply of water.

After the Re-organisation of States, the Government of Kerala wanted the concurrence of the Madras Government for sharing of the cost of the project as proposed by it in 1957. The amount to be shared by Tamil Nadu was also settled by the Kerala Government on 01.02.1965. Accepting the Kerala's claim, the Government of Tamil Nadu suggested in 1971 that an agreement may be entered into with the Government of Kerala regarding the sharing of capital and maintenance cost and supply of water to the ayacut in Tamil Nadu and this has been in correspondence since then. Even though the Government of Kerala agreed on the sharing of cost etc., it did not concede to the request of Tamil Nadu for entering into an agreement on the lines suggested by Tamil Nadu. In 1999, Kerala took the stand that since Neyyar is not an inter State river, it would not be necessary to conclude an inter-State

agreement regarding the sharing of waters of this river. This was the first occasion when the Government of Kerala raised the issue that Neyyar is not an inter- State river.

In the meantime, When the Government of Tamil Nadu sought the intervention of the Government of India and corresponded continuously, the Government of India in 2003, requested the Government of Tamil Nadu to continue the bilateral discussion for resolving amicably with the help of Central Water Commission whenever required.

After prolonged correspondence, in 2007, the Government of Kerala stated that as per the Resolution passed in the Kerala Legislative Assembly on 18.10.2006, water will be supplied to Tamil Nadu from the Neyyar dam after realizing the value of the water so given. Tamil Nadu took the stand that since Neyyar is an inter State river, as per Section 7 of the Inter State River Water

Disputes Act, 1956, the question of paying "any seigniorage or additional rate or fee (by whatever name called) in respect of the use of such water by any other State or the inhabitants thereof" will not arise.

The Government of Kerala reiterate the stand that Neyyar is not an inter State river, even though Tamil Nadu has established through investigation and from the topo sheets of the Government of India that a portion of the catchment of the river (12.90 sq.km) in the head reaches lies in Tamil Nadu. After prolonged correspondence, considering the welfare of the Farmers of Vilavancode, a revised draft Agreement was sent to Government of Kerala on 19.05.2009. But, the Government of Kerala without giving comments on the revised draft agreement, unilaterally sent a fresh draft agreement on 11.01.2010. Since, after agreement of Kerala was detriment to the interests of Tamil Nadu, it was not accepted. The Chief Minister of Kerala requested to send a team of

technical officers for discussion, to finalise an agreement. Accordingly the Technical Officers of both States held discussion at Thiruvananthapuram on 06.05.2011. However, no consensus was reached on the vital clauses of the draft agreement.

In the meantime, the Government of India was requested to intervene in this matter for finding a solution to this issue. As there is no positive response from the Government of India and also since no agreement could be reached with the Government of Kerala, on the orders of the **Hon'ble Chief Minister**, the Government of Tamil Nadu has filed a Suit on 30.05.2012 in the Supreme Court praying to direct Kerala to release water from Neyyar Dam for irrigation in Tamil Nadu.

Tamil Nadu Government is taking all efforts to get water from the Neyyar Irrigation Project to safeguard the interest of the farmers of Vilavancode taluk.

3.8. Shenbagavalli Anicut :-

Shenbagavalli Anicut is a small diversion anicut built at the junction of two streams viz., Puliampatti thodu and Chokkampatti thodu in Periyar basin lying in Kerala State limits just to the west of Tamil Nadu border. This anicut is reported to be in existence since 1773 AD and it diverts flows to mainly two tanks namely Kulasekaraperi and Raisingperi in Sivagiri Taluk, through which 10,924 acres are irrigated.

Due to remote location in forest, age etc., the channel was in dilapidated condition. The repairs were done by Tamil Nadu in 1959-1962 at an estimated cost of Rs.3.25 Lakhs. Again when the channel breached in 1971, a sum of Rs.5.15 Lakhs (50% of estimated cost) for repair work was deposited to the Government of Kerala, during 1986.

However, the deposit amount of Rs. 5.15 Lakhs was refunded by the Kerala Government in December, 2005

stating that Kerala could not undertake the repair works of the Shenbagavalli Anicut due to the objections raised by the Forest Department, as it is situated in the core zone of the Periyar Tiger Reserve.

The Sivagiri Vivasayigal Sangam filed a Writ Petition in the High Court of Madras, (W.P.No. 1274 / 2006) seeking issuance of writ of mandamus directing the Governments of Tamil Nadu and Kerala to grant necessary sanctions and consequently carryout repair works to the Kanyamadugu channel and Shenbagavalli anicut. The High Court passed an ex-parte order on 20.07.2006 directing the Government of Kerala to reconsider its decision.

In response to the above order, the Government of Kerala in September, 2006 reiterated its earlier decision to the effect that Government of Kerala is not in a position to reconsider its earlier decision in the matter.

In order to ensure the protection of the welfare of the farmers benefitted by the Shenbagavalli Anicut, the intervention of the Government of India has been sought on 01.08.2011 with a request to advise the Government of Kerala to carry out the repair works either by Kerala or by Tamil Nadu and that if the Government of Kerala agrees to carry out the works, the cost will be reimbursed to them. In this regard, the Government of India is addressed continuously and till now no favourable reply is received.

The Government of Tamil Nadu is taking steps to find a situation in consultation with the Government of India and the Government of Kerala.

3.9. Inter Linking of Rivers

Mahanadhi - Godavari - Krishna - Pennar - Palar - Cauvery - Vaigai - Gundar link

The National Water Development Agency (NWDA) has prepared the feasibility report for interlinking of Mahanadhi - Godavari - Krishna - Pennar - Palar - Cauvery - Vaigai - Gundar link. It has assessed the overall surplus from Mahanadhi and Godavari as 925 TMC.ft. after allowing for all future in-basin requirements. It has proposed to utilize this surplus for various purposes like irrigation, drinking water, industrial use etc. under the Peninsular Component. The NWDA has assessed the benefits that would accrue as about 3 Million hectares of irrigation including 2.10 million hectares additional irrigation and substantial additional Hydro Power, besides several other intangible benefits. Under this scheme, Tamil Nadu is expected to get about 214 TMC.ft. at the border and the additional area that could

benefit by irrigation is estimated as 7.74 Lakh hectares (19.13 Lakh acres).

Tamil Nadu has requested for enhancing the quantum of water proposed to be transferred to Tamil Nadu by at least another 100 TMC.ft. Tamil Nadu also suggested an alternative alignment for the Pennar - Palar - Cauvery link, at a higher contour so as to spread the benefits within the State equitably to the most needed areas.

The Supreme Court has delivered judgment on 27.02.2012 with directions to the Government of India for Constitution of a Special Committee for early implementation of Inter linking of rivers so that the benefits would accrue within a reasonable time and cost.

The Government of Tamil Nadu has nominated the following members in the

Special Committee for inter-linking of rivers and informed the Government of India accordingly:-

- (1) Minister (Public Works)
- (2) The Secretary to Government, Public Works Department, Government of Tamil Nadu as a nominee of the Chief Secretary to Government of Tamil Nadu.

It is hoped that the Government of India will constitute the Special Committee for Inter linking of Rivers quickly and take appropriate steps for the implementation of the scheme within a time-frame.

3.10. Pamba - Achankoil - Vaippar Link

The NWDA has formulated the Pamba - Achankoil - Vaippar Link Project, which envisages diversion of 22 TMC.ft. which is only 20 % of the surplus waters of Pamba and Achankoil rivers of Kerala to Tamil Nadu to irrigate an ayacut of 91,400 hectares in the dry taluks of Sankarankoil, Kovilpatti, Sivagiri,

Srivilliputhur, Rajapalayam, Sathur and Tenkasi Tamil Nadu and will also help to generate peak power of 500 MW for Kerala.

The Government of Tamil Nadu has given its acceptance to the proposal, whereas the Government of Kerala is not in favour of the project. The Government of Tamil Nadu has continuously urging the Government of India, and the National Water Development Agency to bring a consensus for the implementation of this project.

4. EFFECTIVE UTILISATION OF FLOOD WATERS GENERATED BY NORTH EAST MONSOON

- 4.1.** The Coastal belt of Tamil Nadu receives very heavy rainfall for a short period during the North-East Monsoon period. As the terrain in the vicinity of the coast is flat, the flood flows inundate the habitations and draining the water becomes extremely difficult. The **Hon'ble Chief Minister** ordered to

constitute a Technical Committee to mitigate this perennial problem. The committee constituted under the Chairmanship of the Chairman, Cauvery Technical Cell, has recommended various measures to salvage these problems by harnessing the North- East Monsoon rainfall optimally.

This Committee has recommended 12 schemes for implementation at an estimated cost of Rs.13560.00 Crores.

- 4.2.** One among them recommended by the committee is inter-linking of the rivers of Cauvery-Vaigai-Gundar at a cost of Rs.5166.00 Crores. This is already posed to the Government of India and is under its consideration.

This apart, Athikadavu – Avinashi Flood Canal Scheme at a cost of Rs.1862.00 Crores, Penaiyar (Sathanur Dam)- Palar link scheme at a cost of Rs.250.00 Crores, Pennaiyar (Nedungal Anicut)-Palar link Scheme at a cost of Rs.253.00 Crores, and the Cauvery

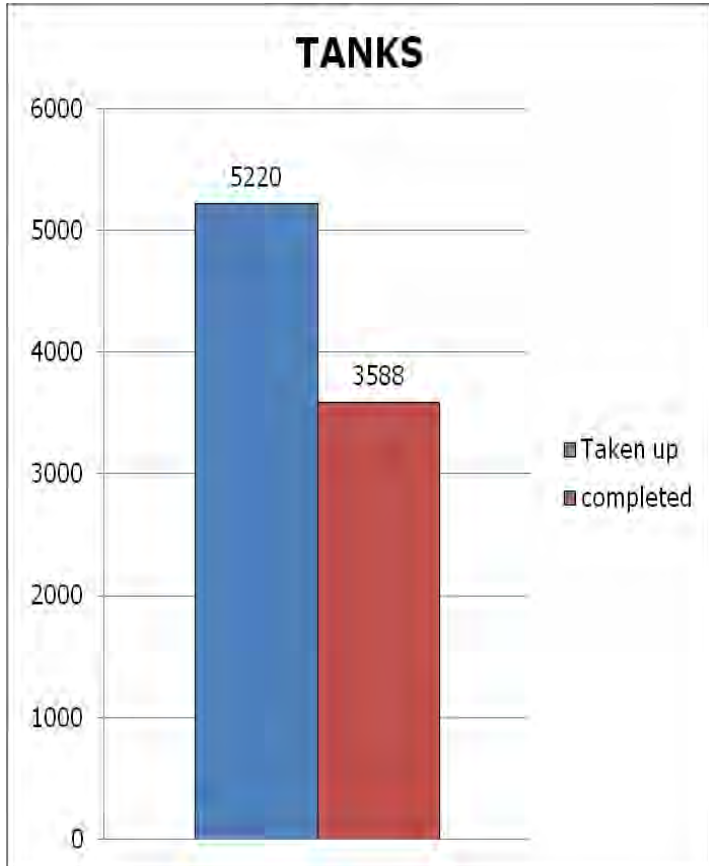
(Mettur Dam) - Sarabanga link scheme at a cost of Rs.1134.00 Crores, are recommended for implementation. These schemes are already under the consideration of the Government.

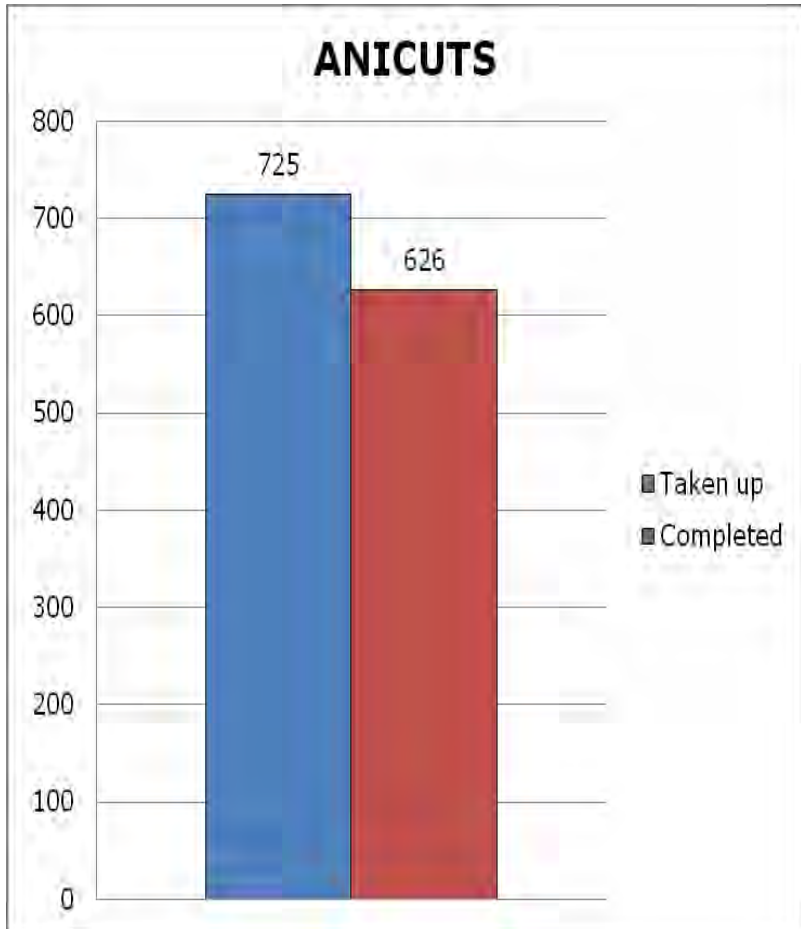
5. TAMIL NADU IRRIGATED AGRICULTURE MODERNISATION AND WATER-BODIES RESTORATION AND MANAGEMENT PROJECT (TN IAMWARM)

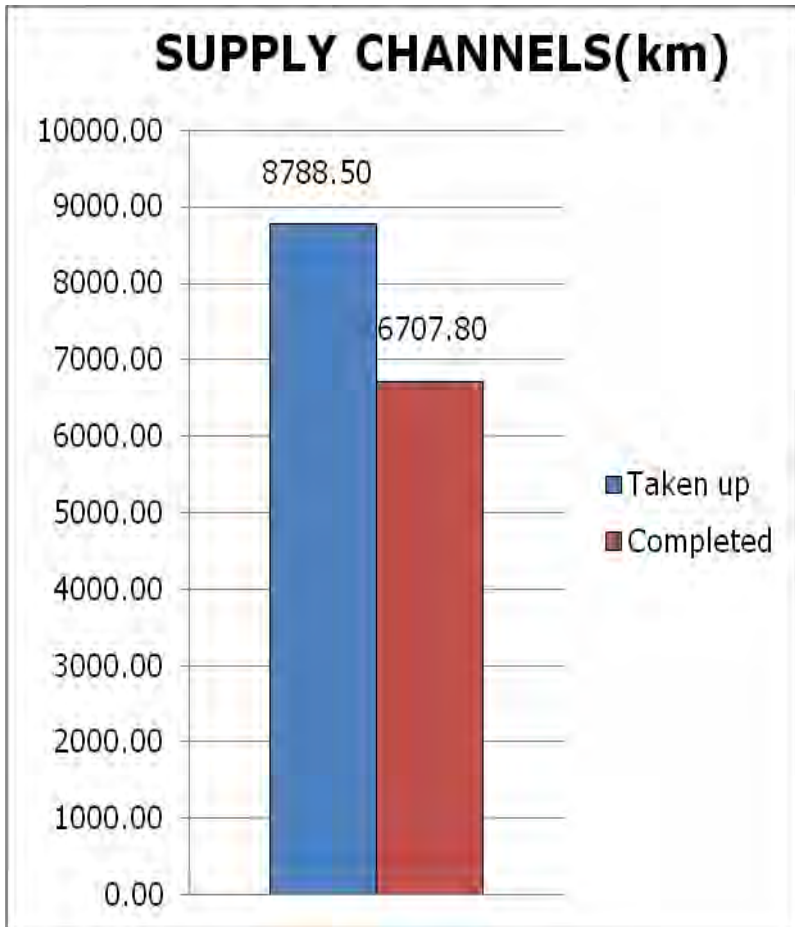
5.1. The **Hon'ble Chief Minister** of Tamil Nadu during the year 2005 initiated the TN IAMWARM Project with the aim to improve service delivery of irrigation system and to increase the productivity of irrigated agriculture with effective integrated water resources management in a Sub-basin framework with the financial assistance of World Bank.

This project was taken up as an integrated project with an initial outlay of Rs.2547.00 Crores and is being implemented to benefit an extent of 6.69 Lakh Ha. with a revised outlay of Rs.2816.00 Crores. Under the project

5220 Tanks, 725 Anicuts and 8788.50 Km length of Supply Channels are being rehabilitated for a value of Rs.1766.96 Crores.







Rehabilitation of Samuthiram Anicut in Samuthiram village of Tiruvannamalai District executed under IAMWARM project



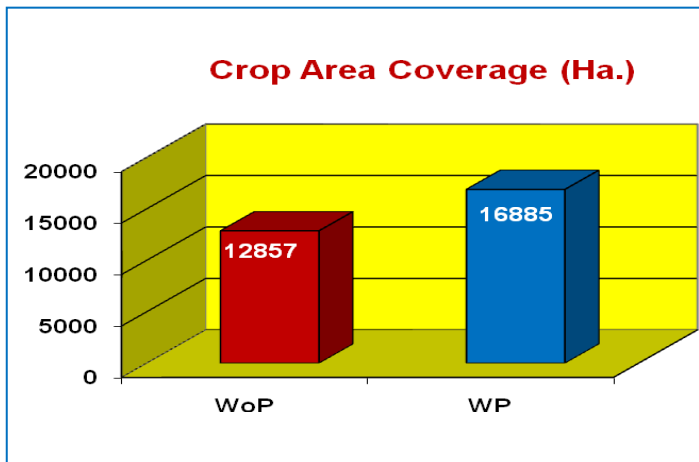
Before Execution



After Execution

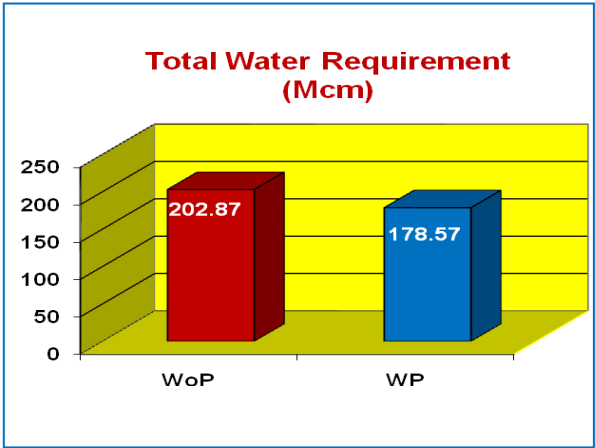
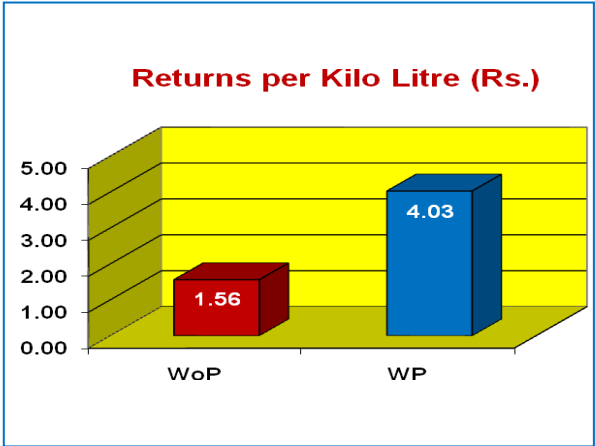
5.1.1. Benefits of the project:

In a sample survey conducted by an NGO in Upper Vellar Sub Basin, which is one among the sub basins where rehabilitation works are done under TN IAMWARM Project, it has been ascertained that, crop area coverage has increased by 31%, the water requirement of crop has reduced by 12% and at the same time, there is 2.5 times increase in the returns for same quantity of water used.



WoP – Without Project

WP –With Project



WoP – Without Project

WP –With Project

Further, from the survey of the rehabilitation works carried out under TN IAMWARM project by a third party firm from abroad engaged to evaluate the benefits of the project, the following benefits of the project have emerged;

- Average storage capacity of the tank is improved by 9%
- Increase in recharge of ground water to depth of 8m to 20m.
- Conveyance efficiency has improved to 97% in Parambikulam Aliyar Project.

5.1.2. Works to be taken up during current year

In order to compute the quantum of water utilised, and for measuring the quantity of water released from the sluices of tanks rehabilitated in Phase-I and Phase-II projects, Administrative Sanction has been accorded for Rs.71.50 Crores for lining of irrigation

channel and installation of flow measuring devices. This work is to be implemented this year.

Based on the orders of the Hon'ble Chief Minister, rehabilitation of 310 tanks, 63 anicuts and its supply channels in 26 sub-basins of 17 Districts and improvements to Central and Regional quality control laboratories are to be taken up at an estimated cost of Rs.258.73 Crores.

5.1.3. State Water Resources Management Agency (SWaRMA)

The Project Appraisal Document on Water Resources Management brings out the objective to improve the institutional arrangements and capacity for sustainable Water Resources Management in the State, including creation of State water Resources Management Agency (SWaRMA). As per the 13th Finance Commission and Draft National Water Policy formation of such an agency is mandatory.

Therefore, SWaRMA has been established in Tamil Nadu and is functioning since 09.06.2011. Rs.5.00 Crores has been allocated for construction of a building for its functioning and works are to be started.

5.1.3.1. Current Activities of SWaRMA

Collection of data on various sectors on water demand and usage and make them available on a GIS based web enabled single platform.

5.2. STATE FUNDED SCHEMES

5.2.1. Schemes under Major, Medium and Minor Irrigation Systems are implemented with State funds. The following schemes are in progress with State funds at a project cost of Rs.466.35 Crores. About, 192656 hectare of ayacut will be benefited.

**Rehabilitation of Parambikulam Aliyar Project (PAP)
Contour canal in Erode and Tiruppur Districts**



Between L.S. 0.00. Km and L.S. 11.48 Km



Between L.S. 30.10 Km and L.S. 49.30 Km

S. No	Name of the Work	Project Cost (Rs. in Crores)	Ayacut benefited (hectare)
1.	Rehabilitation of Contour Canal from LS 0.00 km to LS 49.30 km in Tiruppur and Coimbatore Districts.	184.50	171995
2.	Improvement to Veeranam Lake for water supply - New Veeranam Project at Veeranam village in Chidambaram Taluk of Cuddalore District.	106.35	1816
3.	Irrigation Facilities to 58 Villages in Usilampatti Taluk of Madurai District.	82.67	925
4.	Rehabilitation of Kalingarayan channel from mile 3/3 to 9/7 in Erode Taluk of Erode District.	50.00	15743

5.	Formation of a Flood Carrier Canal from Kanjampatti Odai in Vilathikulam Taluk of Thoothukudi District to feed Sayalkudi and other Tanks in Kamuthi and Kadaladi Taluks of Ramanathapuram District.	18.00	1731
6.	Formation of Tank across Mathalapallam River in Pennagaram Taluk of Dharmapuri District.	14.15	446
7.	Construction of Bridge, Retaining Wall and Road with B.T. surface from Kalimar Bridge to Simon Colony Bridge at Colachel village in Kanyakumari District.	2.94	-

8.	Protecting the vulnerable portions with Protection Wall and Concrete Slab in Left Bank of Cauvery River from mile 119/0 to 123/2 (Srirangam Nattu Vaikkal Head Sluice to Amma Mandapam) in Srirangam Taluk of Tiruchirappalli District.	1.60	-
9.	Setting up of 4 Diffusers in the Ooty Lake	1.50	
10.	Desilting of Kodappamund Channel in Ooty town in the Nilgris District	1.20	
11.	New sewage treatment plant at Ooty lake (including cost of Bio remediation)	1.00	

12.	Purchase of two new Boats to replace the two old boats for use of the Water Resources Department in Mullai Periyar Dam.	0.90	-
13.	Rehabilitation of Singaneri tank in Kannanthankudy Melaiyur village in Orathanadu Taluk of Thanjavur District	0.75	-
14.	Providing RC skin wall from Ellis saddle to 109m in the left flank of Stanley reservoir at Mettur Dam in Salem District	0.60	-
15.	Rehabilitation to the Kallikudi H.S in LB of Marakkakoraiyar at mile 3/54 Overur Pudumadai HS in RB of Pudupandiyar at mile 6/26 in Thiruthurai poondi Taluk of Tiruvarur District	0.14	-

16.	Renovation of polluted Ooty Lake by Bio remediation	0.05	-
	Total	466.35	192656

5.2.2. Construction of a New Dam across River Maruthaiyar

Based on the orders of the **Hon'ble Chief Minister** it is proposed to construct a dam across Maruthaiyar by impounding the large flows of short duration in the Maruthaiyar River during the North East Monsoon at Kottarai Village of Alathur Taluk of Perambalur District at an estimate of Rs.108 Crores to utilize for irrigation need.

By implementing this project an extent of 4194 acres of dry land will be brought into irrigation newly in the Villages of Kottarai, Adanur, Kuthur, Bhujangarayanallur, Nochikkulam, Thondapadi, Alagiripalayma, Gudalur and Sathanur in Alathur Taluk of Perambalur District. This will enable to get enough

water for irrigation to improve the food production and to raise the Ground Water level in those areas.

5.3. NABARD ASSISTED SCHEMES

NABARD loan assistance under Rural Infrastructure Development Fund (RIDF) is being availed for the development of irrigation inter alia other sectors.

Irrigation schemes, minor roads, bridges and flood protection works taken up under RIDF XIII, XV, XVI, XVII and XVIII are under implementation now.

106 Schemes including Tanks at an estimated cost of Rs.925.42 Crores have been taken up. Out of this, 73 Schemes at a cost of Rs. 482.29 Crores were completed. 28 Schemes at a cost of Rs. 331.63 Crores are in progress. The remaining 5 Schemes at a cost of Rs.111.50 Crores will commence early.

Details of schemes in progress:

S. No.	Name of the Scheme	Cost (Rs. in Crores)	Ayacut (in hectare)
RIDF – XIII (2007-2008)			
1.	Flood Protection Works to Cauvery and Coleroon River Banks in Karur, Tiruchirappalli and Perambalur Districts (1 Work). Providing regulatory arrangements with approach to operating platform at Puthur weir	14.50	-

Construction of Regulatory arrangements with approach road at Puthur weir in Srirangam Taluk of Tiruchirappalli District



During Execution

RIDF – XV (2009-2010)			
2.	Flood Protection Works for Kudamurutty River in Tiruchirappalli District.	40.62	-
3.	Rehabilitation of Thovalai Channel and Radhapuram Channel including Tanks in Kanyakumari District.	22.50	12087

4.	Construction of a Bed Dam across Vaigai River near Manthivalasai to feed Kalari Channel and RMC feeding Tanks in Ramanathapuram District.	14.20	4007
5.	Increasing the carrying capacity of Palayam paravoo Channel and P.T. Rajan Channel in Cumbum valley of Theni District.	10.08	3070
6.	Excavation of a Supply Channel from Jerthalav Channel at LS 5690m to feed Totlampatti Tank, Papparapatti Tank and 15 other Tanks in Palacode and Pennagaram Taluks of Dharmapuri District.	6.29	330
7.	Construction of a High Level Bridge at Vayalur Road across Kudamurutty River in Tiruchirappalli District.	2.80	-
RIDF – XVI (2010-2011)			
8.	Rehabilitation of Nilayur Channel to increase the carrying capacity to feed the Extension Channel in Madurai District.	23.50	4023

9.	Formation of a new Tank across Kallar Odai near Viswakudi in Thondamanthurai village in Veppanthattai Taluk of Perambalur District.	19.00	348
10.	Reconstruction of Neenjalmaduvu Anicut near Chengalpattu Taluk of Kancheepuram District.	9.00	2105
11.	Formation of a Tank across the Nallathangal Odai near Kothayam village in Oddanchatram Taluk of Dindigul District.	6.97	327
12.	Excavation of a new Supply Canal from Baleguli Tank to feed 28 Tanks in Pochampalli Taluk of Krishnagiri District.	6.50	346
13.	Construction of Anicut across Kamandala naganathi River near Sevur village to feed Irumbedu and Paiyur Tanks in Arni Taluk of Thiruvannamalai District.	2.00	351

14.	Improvements to Panangudi and Kuyavan Channels off taking from Malattar River in Lalgudi Taluk of Tiruchirappalli District.	3.00	448
RIDF – XVII (2011-2012)			
15.	Construction of a Check Dam across Cauvery River near Mutharasa nallur, at Kambarasam pettai Village, in Srirangam Taluk of Tiruchirappalli District.	32.00	-
16.	Rehabilitation of 16 Old Anicuts in Amaravathy River System in Karur and Tiruppur Districts.	18.00	6154
17.	Extension and Rehabilitation of Virudhachalam Anicut across Manimuktha River in Virudhachalam Taluk of Cuddalore District.	13.00	25300
18.	Modernisation of 10th Branch Canal and Construction of a Bye - pass Channel to feed Chunnambur Distributary and Modernisation of connected 12 Tanks in Madurai District.	10.00	5013

19.	Flood Protection Works to Kondamvari Odai and Rehabilitation of dilapidated Anicuts and damaged Tanks and Weirs in Madurai District.	10.00	1923
20.	Construction of a Bed Dam across Periya Odai in Cuddalore District.	5.50	1700
21.	Providing Screw Gearing Shutters to all Sluices in the Lower Bhavani Project Main Canal from mile 0/0 to mile 124-2-560 including Branch Canal and Distributaries in Erode and Karur Districts.	3.00	83772
22.	Rehabilitation of Sempoondi Anicut at Kiliyanagar village in Maduranthakam Taluk of Kancheepuram District.	2.20	523
23.	Rehabilitation and improvement to 16 Anicuts in Kallar River of Vaniar Minor Basin in Dharmapuri District.	2.15	525
24.	Reconstruction of Syphon Aqueduct in Mordhana Right Main Canal across Palar near Chithatur village in Vellore District.	1.40	1378

RIDF XVIII (2012-2013)			
25.	Upgradation of Peikulam, Pottaikulam and Korampallam tank into Reservoir in Thoothukudi District	20.07	457
26.	Construction of bed dam across Vaigai River to feed Parthibanur Big and small tank, Vannikudi tank and other two tanks at Athanur village in Manamadurai taluk of Sivagangai District	16.00	795
27.	Construction of bed dam across Vaigai River to feed Maranadu Tank and other nine tanks at Ladanendal village in Manamadurai taluk of Sivagangai District	12.85	2145
28.	Rehabilitation of damaged shutter of Upper Anicut Barrage across Cauvery river in Elamanur village of Srirangam Taluk in Tiruchirappalli District.	4.50	263158
	Total	331.63	420285

The following 5 Schemes at an estimate cost of Rs.111.50 Crores benefiting an ayacut of 2453.44 hectare will commence.

S. No	Name of the Scheme	Cost (Rs. in Crores)
	RIDF - XVIII	
1.	Construction of bridge at Ambalavarkattalai to Sundagudi road in Km 3/2 across Maruthaiyaru river (Km 51/0) in Ariyalur Taluk of Ariyalur District	10.00
2.	Construction of check dam across Kosasthalaiyar near Thirukandalam village in Thiruvallur district.	35.00
3.	Linking of Parambilkulam Aliyar Project System to Uppar canals in Dharapuram Taluk of Tiruppur district	8.10

4.	Rehabilitation and Raising the existing RMS wall to a height of 2m to avoid intrusion and erosion due to high sea waves from LS 13/100 to 18/640 km along coastal area from Nethaji Nagar to Nettukuppam in Madhavaram Taluk of Thiruvallur district.	26.58
5.	Construction of series of 10 numbers of Groynes from Ennore to Ernavoor kuppam LS 19/000 to 15/200 km along coastal area in Madhavaram Taluk of Thiruvallur district	31.82
	Total	111.50

5.3.1. Check Dam across Cauvery River in Kambarasampettai village in Srirangam Taluk at Tiruchirappalli District:-

The main objective of this scheme is to ensure continuous yield of water for Ramanathapuram Combined Water Supply Scheme and for Tiruchirappalli City water supply besides recharging the nearby wells.

The Government have accorded administrative sanction for construction of a Check Dam across Cauvery River near Mutharasanallur in Kambarasampettai village in Srirangam Taluk of Tiruchirappalli District at an estimate of Rs.32.00 Crores under NABARD assistance.

So far 72% of works are completed and the remaining works are in full swing.

Construction of Check dam across River Cauvery in Kamarasampettai village of Tiruchirappalli District executed with NABARD assistance.



During Execution

5.4. NATIONAL AGRICULTURE DEVELOPMENT PROGRAMME (NADP)

Rehabilitation and modernization of the Irrigation infrastructure is taken up under National Agriculture Development Programme (NADP) sponsored by Government of India. The objective is to achieve growth in Agriculture and allied

sectors during the 12th Five Year Plan period.

For the year 2012-13, the Government have accorded sanction for 14 works costing Rs.9.21 Crores. Out of this, 7 works are completed and the remaining works are in progress.

Rehabilitation of existing bypass channel and supply channels taking off from 6th distributory of 12th branch canal of PMC in Melur taluk of Madurai District



Before Execution



After Execution

5.5. ARTIFICIAL RECHARGE SCHEME

The Ground water resource of the State is being replenished through the Master Plan Artificial Recharge Scheme. This scheme is implemented with the State funds at a cost of Rs. 550.00 Crores.

This scheme aims to restore the depleted aquifers by effectively utilizing the surplus flood flows through construction of Check dams across Rivers, Streams, Percolation ponds and Recharge Shafts in

catchment area of Lakes, Streams etc., This will also prevent sea water intrusion and mitigate inundation due to flood in water logged areas by interfacing and integrating the surface water and sub-surface aquifers.

Under this scheme, the Government have sanctioned 523 works for a sum of Rs.265.11 Crores for Water Resources Department. Out of this, 429 recharge structures have been completed, at a cost of Rs.199.66 Crores. Remaining 94 works at a cost of Rs.65.45 Crores will be taken up during the current year.

Because of the implementation of the project, there has been a significant improvement in the recharge of ground water level. The Pilot study conducted in 44 Revenue Firkas in March, 2011 shows that recharge of ground water has improved considerably.

5.5.1. Recharge to the Ground Water Aquifers by harnessing the Flood flows generated during North East Monsoon and the waters transferred by Inter-linking of Rivers in the State

Natural replenishment of ground water is slow and is not able to keep pace with the continuous exploitation of ground water resources in the State. This has resulted in declining ground water levels and depletion of ground water resources in some areas of the State.

With a view to recharge the ground water aquifers, a project entitled "Recharge to Ground Water Aquifers by harnessing the North-East monsoon flood flows and the waters transferred by Interlinking of Rivers in the State", has been prepared at a cost of Rs.400.00 Crores. This scheme is proposed to be taken up for execution from the year 2013-14 for a period of four years.

5.6. 13th FINANCE COMMISSION GRANTS-IN-AID PROGRAMME

5.6.1. Coastal Protection

Sea erosion is a recurring problem all along the coastal areas of the State. During the monsoon period, the problems are aggravated due to formation of cyclonic storms, storm surges, depression and low pressure zones resulting in high waves and tidal action causing sea erosion. This causes irreparable damages and losses to infrastructure such as highways and results in loss of lives and livelihood and damages the habitations of the fishermen living along the coast.

The 13th Finance Commission has recommended a grant of Rs.200.00 Crores for the Coastal Protection Works over a period of 4 years from 2011-2012 under State Specific Needs Grant. Vulnerable reaches have been identified. Based on priority, Coastal Protection works in 7 Districts

have been selected. Administrative sanction for 50 Coastal Protection works in 7 Coastal Districts, at a cost of Rs.199.93 Crores has been accorded.

Details of works undertaken for the past 2 years.

Phase-I (2011-2012)

Name of Region	Number of works	Estimate Amount (Rs. in Crores)	Works Completed	Works in Progress
Chennai	7	16.57	3	4
Madurai	15	18.44	4	11
Tiruchirappalli	4	15.21	--	4
Total	26	50.22	7	19

Phase-II (2012-2013)

Name of Region	Number of works	Estimate Amount (Rs. in Crores)	Works in Progress
Chennai	6	28.55	6
Madurai	5	13.64	5
Tiruchirappalli	4	42.91	4
Total	15	85.10	15

Works in Progress - Phase-I (2011-2012)

(Rs. in Crores)

S. No.	Name of Work	Estimate
1.	Construction of RMS Wall at Devanampattinam (LS 800 m - LS 1220 m) in Cuddalore Taluk of Cuddalore District.	1.80
2.	Construction of Sea Wall from LS 1850 m to 2470 m and LS 2710 m to LS 3090 m (1000 m) at Chinna Mudaliyarchavadi in Vanur Taluk of Villupuram District.	2.80
3.	Construction of series of 2 Groynes (3 and 4) at Mudaliyarchavadi in Vanur Taluk of Villupuram District.	8.26

4.	Collecting field bed levels along the coast covering required stretch and seaward covering breaker zone and collection of other details like tidal current, alongshore current, etc., at Mudaliyar chavadi, Bommayarpalayam and Sodhanaikkuppam in Vanur Taluk of Villupuram District and Thazhanguda to Devanampattinam in Cuddalore Taluk and District.	0.42
5.	Construction of RMS Wall at Palayar village in Sirkali Taluk of Nagapattinam District to a length of 1000 m up to +3.25 m. level.	5.97
6.	Construction of RMS Wall at Akkaraipettai village in Sirkali Taluk of Nagapattinam District to a length of 1000 m up to +3.66 m. level.	5.18

7.	Construction of RMS Wall at Kallar village in Sirkali Taluk of Nagapattinam District to a length of 700 m up to + 3.66 m. level.	3.65
8.	Collecting field bed levels along the coast covering required stretch and seaward covering breaker zone and collection of other details like tidal current, alongshore current, etc., at Seruthur, Samanthapettai, Vanagirikuppam and Thirumullaivasal in Sirkali Taluk of Nagapattinam District.	0.42
9.	Construction of RMS Wall for a length of 230 m in Vivekanandar Colony at Saveriyarpuram Village in Thoothukudi Taluk of Thoothukudi District.	1.02

10.	Construction of RMS Wall for a length of 525 m and Reformation for a length of 300 m of existing RMS Wall at Leepuram in Agastheeswaram Taluk of Kanyakumari District.	2.61
11.	Construction of RMS Wall for a length of 205 m and Reformation for a length of 245 m of existing RMS Wall at Chinnamuttam in Agastheeswaram Taluk of Kanyakumari District.	1.34
12.	Reformation of RMS Wall for a length of 260 m near Church and west side of Poothurai in Vilavancode Taluk of Kanyakumari District.	0.78
13.	Construction of RMS Wall for a length of 500 m at the Gap between Poothurai and Thoothur in Vilavancode Taluk of Kanyakumari District.	1.88

14.	Construction of RMS Wall for a length of 250 m at Colachel in Kalkulam Taluk of Kanyakumari District.	1.06
15.	Reformation of existing RMS Wall for a length of 180 m at Melamanakudy in Agastheeswaram Taluk of Kanyakumari District.	0.41
16.	Construction of Groynes at Uvari in Radhapuram Taluk of Tirunelveli District.	4.89
17.	Reformation of existing RMS Wall for a length of 570 m at Puthenthurai in Agastheeswaram Taluk of Kanyakumari District.	1.24
18.	Reformation of RMS Wall for a length of 420 m at Kodimunai in Kalkulam Taluk of Kanyakumari District.	1.17

19.	Collecting field bed levels along the coast covering required stretch and seaward covering breaker zone and collection of other details like tidal current, alongshore current, etc., at Punnakayal village in Tiruchendur Taluk of Thoothukudi District and at Idinthakarai and Uvari villages in Radhapuram Taluk of Tirunelveli District.	0.25
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Works in Progress - Phase-II (2012-2013)

(Rs. in Crores)

S. No.	Name of Work	Estimate
1.	Construction of series of 2 Groynes (5 and 6) at Mudaliyarchavadi in Vanur Taluk of Villupuram District.	9.65

2.	3 Groynes at Bommaiypalayam in Vanur Taluk of Villupuram District.	6.90
3.	5 Groynes at Sodhanai kuppam in Vanur Taluk of Villupuram District.	4.72
4.	Construction of RMS Wall for a length of 210 m from Left bank of Pennaiyar mouth to Suba Uppalavadi Village in Cuddalore Taluk of Cuddalore District.	0.84
5.	Construction of RMS Wall for a length of 650 m from Right bank of Pennaiyar mouth to Thazhanguda Village in Cuddalore Taluk of Cuddalore District.	2.54
6.	Construction of RMS Wall at Devanampattinam (LS 1220 m - LS 2140 m) in Cuddalore Taluk of Cuddalore District.	3.90

7.	Construction of RMS Wall at Seruthur village of Nagapattinam District to a length of 250 m on river side and 550 m on seashore side up to +1.800 m and +3.66 m level respectively.	3.50
8.	Construction of Spurs at Thirumullaivasal village in Sirkali Taluk of Nagapattinam District to a length of 100 m up to + 4.50 m. level.	5.46
9.	Construction of Training Wall at Punnakayal in Tiruchendur Taluk of Thoothukudi District.	8.47
10.	Construction of Additional Groyne at Idinthakarai in Radhapuram Taluk of Tirunelveli District.	0.30

11.	Construction of RMS Wall (north side – 1300 m) at Perumanal in Radhapuram Taluk of Tirunelveli District.	2.07
12.	Reformation of RMS Wall for a length of 350 m near Collector's Bungalow and Beach Road in Thoothukudi District.	0.67
13.	Reformation of existing RMS Wall for a length of 1200 m at Keezhamanakudy in Agastheeswaram Taluk of Kanyakumari District.	2.13
14.	Construction of RMS Wall for a length of 950 m and Construction of groynes at Vanagirikuppam of Sirkali Taluk in Nagapattinam District.	16.98

15.	Construction of RMS Wall for a length of 500 m and Construction of groynes at Vanagirikuppam of Sirkali Taluk in Nagapattinam District.	16.97
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Works proposed - Phase-III (2013-2014)

(Rs. in Crores)

Name of Region	Number of works	Estimate
Chennai	1	21.90
Madurai	4	8.06
Tiruchirappalli	1	3.00
Total	6	32.96

**Details of works proposed under
Phase - III (2013-2014)**

(Rs. in Crores)

Sl.No.	Name of Work	Estimate
	CHENNAI REGION	
1	Series of 8 Numbers of Groynes in Thazanguda to Devanampattinam Cuddalore Taluk in Cuddalore District	21.90
	TIRUCHIRAPPALLI REGION	
2	Construction of RMS wall at Samathanpettai for a length of 600 m in Nagapattinam District	3.00
	MADURAI REGION	
3	Construction of RMS wall at Gap between Eraviputhenthurai and Vallavilaithurai for a length of 1250 m of Villavancode Taluk in Kanyakumari District	2.81
4	Construction of RMS wall for a length of 520 m at Kesavan-puthanthurai of Agastheeswaram Taluk in Kanyakumari District	1.31

5	Construction of RMS wall for a length 460 m at Kotilpadu of Kalkulam Taluk in Kanyakumari District	3.24
6	Construction of RMS wall at Melmidalam of Villavancode Taluk in Kanyakumari District	0.70
	Total	32.96

5.6.2. Restoration of Traditional Water Bodies

Most of the traditional water bodies are in urgent need of restoration and rehabilitation. A Grant of Rs.200 Crores was recommended by the 13th Finance Commission over a period of 4 years from 2011-2012 to 2014-2015 for Restoration of Traditional Water Bodies under State Specific Needs Grant.

Sanction was accorded for Restoration of 674 Traditional Water Bodies at an estimate of Rs.200.00 Crores.

Restoration of Kaniyanur Tank at Kaniyanur village, Vellore District executed under 13th Finance Commission Grants-in-aid Programme, Restoration of Traditional Water Bodies scheme



Lining of Field Channel



Rehabilitation of Surplus weir

Restoration of Melandurai Tank at Melandurai village, Vellore District under 13th Finance Commission Grants-in-aid Programme, Restoration of Traditional Water Bodies scheme



Before Execution



After Execution

Details of Works undertaken for the past 2 Years.

PHASE I (2011-2012)

Region	Number of Works	Estimate (Rs. in Crores)	Works Completed	Works in Progress
Chennai	34	10.55	26	8
Madurai	91	28.17	68	23
Tiruchirappalli	29	9.41	27	2
Coimbatore	9	1.89	8	1
TOTAL	163	50.02	129	34

PHASE II (2012-2013)

Region	Number of Works	Estimate (Rs. in Crores)	Works in Progress
Chennai	70	17.35	70
Madurai	60	16.64	60
Tiruchirappalli	45	15.60	45
TOTAL	175	49.59	175

Works in Progress - Phase I (2011 - 2012)

S. No	Name of Tank	Ayacut (in Hectares)	Estimate (Rs. in Lakhs)
Erode District			
1.	Ukkaram	163.97	40.00
Madurai District			
2.	Thiruvadhavur	204.75	68.98
3.	Varichyur	218.35	68.26
4.	Siruvanai	139.52	43.72
5.	Kalikudi	68.34	24.40
6.	Thenkarai	581.34	206.36
Ramanathapuram District			
7.	Vengulam	52.63	20.10
8.	Marungur	82.38	33.03
9.	Nagarikathan	107.93	36.96

10.	Muhilthagam	182.49	73.30
11.	Kodanur	55.72	22.30
12.	Mallanur	52.51	21.30
13.	Akalur	139.90	56.06
14.	Pudupaiyur	47.58	25.35
15.	Palayanakottai	69.06	26.38
16.	Athiyakudi	44.57	17.32
Sivagangai District			
17.	Melamangalam	42.08	15.40
18.	Seena Kanmoi	95.70	36.50
19.	Karanadu	49.71	19.31
20.	Kurukka	65.37	27.29
21.	Kadambankudi and Cheti	77.86	31.82
22.	Veelaneri	64.48	23.59
23.	Kathavankudi	66.03	24.14

24.	Keelamangalam	53.12	21.69
Tiruchirappalli District			
25.	Kappakudi	48.75	19.55
26.	Paluvanji Periyakulam	65.20	22.82
Vellore District			
27.	Madapalli	137.20	36.15
28.	Minnur	43.07	15.75
29.	Gollamangalam	63.13	24.20
30.	Thippa samuthiram	115.74	39.00
31.	Mohamedpuram nagealeri	44.72	16.30
Villupuram District			
32.	V.Pudupakkam	75.30	27.10
33.	Vellimadupettai	63.92	22.42
34.	Sembakkam	54.19	19.60

Works in Progress - Phase II (2012-2013)

Sl. No.	Name of Tank	Ayacut in Hectares	Estimate (Rs. in Lakhs)
Cuddalore District			
1.	Keelapuliyankudi	59.92	20.97
2.	Sathavattam	50.00	14.67
3.	Sekkan	52.06	18.27
4.	Ediayur	56.55	19.44
5.	Mannambadi	41.37	14.48
6.	Mangalore	65.10	22.79
7.	Pullur	48.28	16.89
8.	Malayanur	44.07	15.42
9.	Panayandhur	41.60	14.56
10.	Vallimandhuram	65.83	23.04
11.	Tholudhur	160.00	56.00

12.	Nallankulam	56.34	19.73
Dharmapuri District			
13.	Samaneri	66.80	23.00
Kancheepuram District			
14.	Mevalurkuppam	158.73	40.00
15.	Vengadamangalam	111.69	10.00
16.	Murugamangalam	40.87	10.00
17.	Nathemedu	175.18	52.50
18.	Kuvathur	296.05	43.00
19.	Rathinamangalam	70.82	20.00
20.	Uthukkadu	201.54	54.70
21.	Thimmassamudram	298.26	80.00
22.	Pennalur	98.75	50.00
Krishnagiri District			
23.	Pannapalli	43.54	15.00

24.	Kareem Shaeeb	41.57	14.54
25.	Devasamudiram	56.25	19.68
26.	Bayanapalli	55.10	19.28
27.	Kuppammacheruvu	96.95	33.50
28.	Govinda Gounder	67.79	23.50
29.	Athimugam Thalavai	79.97	27.50
30.	Chinnappareddi Kodigai	48.17	16.50
31.	Adavanga	42.11	14.50
32.	Masdhihalla	93.52	32.50
33.	Jawaalanaicken	41.25	14.25
Madurai District			
34.	Nedunkulam	60.70	22.63
35.	Mothagam	48.16	16.85
36.	M.Senkulam	50.00	17.50
37.	Uthini	84.76	29.88

38.	Kunnathur	508.97	100.54
39.	Kulamangalam	242.60	92.45
40.	Melakkal	108.94	40.90
41.	Vairavanatham	89.07	34.10
42.	Sithalangudi	165.18	60.64
43.	Vandiyur	389.80	125.35
44.	Illuppakkudi	56.95	16.70
Namakkal District			
45.	Pazhayapalayam	94.18	40.00
46.	Periyakulam	146.66	25.00
47.	Bommasamudram	59.53	20.00
48.	Pattanam	81.34	28.00
49.	Anaipalayam	117.48	40.00
50.	Nadupatti	48.13	16.00
51.	Athanur	90.98	31.00

52.	Melanai	98.79	33.00
53.	Thoppampatty	138.91	45.00
54.	Karumapuram	53.54	18.00
55.	Belukurichi	41.21	10.00
56.	Pappankulam	213.68	70.00
Pudukkottai District			
57.	Vichur	141.66	9.25
58.	Perambur Periyakulam, Sudalaikulam and Chettikulam	50.78	9.75
59.	Meyyanur Sananendal	111.28	9.50
Ramanathapuram District			
60.	Karuppur	58.61	20.50
61.	Manjur	52.82	18.48
62.	Pillaiyarendal	43.33	15.16
63.	Keelakeelkudi	48.40	16.94

64.	Karungalakudi	47.25	16.53
65.	Sekkanthidal	46.97	16.43
66.	Kuranganendhal	47.58	17.01
67.	Kadambanendhal	52.34	19.25
68.	Ilangundram	57.99	20.87
69.	Sanarendhal	48.23	16.87
70.	Arasur	107.56	39.03
71.	Kallvizhiyendhal	68.78	25.03
72.	Thaniyanbeer	53.82	19.58
73.	Senavayal	43.26	15.86
74.	Padhanakudi	60.82	21.28
75.	Arasathur	81.89	29.71
76.	Udayanasamuthiram	51.80	18.57
77.	Paganavayal	63.65	19.32
78.	Palankulam	42.37	15.15

79.	Semanavayal	49.77	18.05
80.	Keelakanjirankulam	61.21	17.75
81.	Aduthakudi	58.60	21.98
82.	Kurunthangudi	42.95	16.70
Salem District			
83.	Kottakullpudaiyan	71.12	25.00
84.	Vadamaneri	186.43	60.00
85.	Periyasakkilichi	42.51	15.00
86.	Ammapalayam	90.64	30.00
87.	Kothaneri	176.76	62.00
88.	Nachampatty	42.87	15.00
89.	Ponnusamudram	52.54	18.00
90.	Odderi	45.57	15.00
91.	Ismailkan	54.29	19.00
92.	Idappadi	165.84	55.00

93.	Vellalapuram	200.00	70.00
Sivagangai District			
94.	Navani	52.80	18.48
95.	Themmampattu	152.55	53.00
96.	Siyamuthu	88.46	23.50
97.	Peruvanchi	58.08	20.50
98.	Nedungulam	41.00	14.30
99.	Kodungulam	50.81	17.60
100.	A.Karungulam	57.56	20.00
101.	Chelliampatti	41.16	14.60
102.	Kolanthi	70.40	25.66
103.	Erivayal	51.73	18.90
104.	Pulikanmoi	49.74	17.98
105.	Manaseri	47.32	17.31
106.	Thachanendal	45.79	16.62

107.	Pagani	61.98	25.40
108.	Poongudi	63.35	30.50
109.	Upayakanmoi	43.14	16.30
Theni District			
110.	Pottaivanan	10.49	4.50
111.	Lakiampatty	11.00	9.75
Thiruvallur District			
112.	Veliagaram	143.35	35.00
113.	Konasamudram	125.51	30.00
114.	Egathur	148.18	31.00
115.	Selai	139.68	31.74
116.	Gulur Mavoor	60.55	15.00
117.	Balapuram	42.21	14.00
118.	Mamandur	47.57	11.50
119.	Sathranjanyapuram	71.13	17.50

120.	Ponnimangadu Chitteri	57.30	14.00
121.	Kolathur	90.18	22.00
122.	Gurusaminaidu	52.13	15.00
Thiruvannamalai District			
123.	Saduperi	127.88	28.98
Thoothukudi District			
124.	Korkai	510.53	178.00
Tiruchirappalli District			
125.	Nellikulam	72.43	26.00
126.	Avarankulam and Pudukulam	42.69	16.00
127.	Vadamalaipatti	43.88	15.35
128.	Karuppampatti	60.34	21.00
129.	Pulivalam	40.49	14.15
130.	Sittilarai	99.88	35.00
131.	M.Kalathur	314.20	110.00

132.	Kannuthur	338.87	123.00
133.	Sevelur	106.87	36.00
134.	Senthankulam	58.06	21.50
135.	Perahambi	44.07	15.42
136.	Nakkambadi	78.96	27.63
137.	Vandalai	65.15	22.80
138.	Alathudianpatti	131.20	45.50
139.	Sirunavalur	165.20	57.80
140.	Sikkathambur	203.71	71.00
141.	Kalingamudianpatti	102.02	35.70
142.	Senappanallur	176.40	53.75
143.	Naganayekenpatti	69.22	24.20
Vellore District			
144.	Kanniyapur	89.13	27.12
145.	Timiri	134.89	37.00

146.	Malayampattu	48.51	8.20
147.	Reddimankuppam	64.75	10.75
148.	Vinnampalli	54.57	18.50
149.	Mutharasikuppam	43.90	14.50
150.	Melpadi Moongileri	145.51	24.00
151.	Karivedu chithanji	55.65	19.00
152.	Iyyepedu	63.20	20.00
Villupuram District			
153.	Kedar	118.60	35.00
154.	Eyyal	84.25	29.00
155.	Veeperi	61.51	21.50
156.	Veeranam	97.02	25.00
157.	Urani Vanchikuttai	72.46	25.00
158.	Emapper	53.70	18.50
159.	Avalurpettai	75.42	26.00

160.	Vengur	43.14	12.00
161.	Panjamadevi	61.71	21.60
162.	Anumanthi	55.46	17.50
163.	Vadakkandhal Kalleri	118.62	42.73
164.	Koothakudi	87.18	31.60
165.	Manjapudhur	91.50	33.27
166.	Koogaiyur	64.64	10.00
167.	Manalur	97.20	34.00
168.	Thumbur	123.66	37.50
Virudhunagar District			
169.	Kurandi Mela Kanmoi	48.77	11.20
170.	Arasakulam	50.41	14.55
171.	Kadambakulam	43.21	14.19
172.	Aviyur East Tank	42.28	14.70
173.	Pathanendal	44.79	15.00

174.	Nattarmangalam	55.44	19.40
175.	Thiruthangal	53.82	18.83
	Total	15809.98	4959.86

PHASE III (2013-2014)

Region	Number of Works	Estimate (Rs.in Crores)
Chennai	99	26.01
Madurai	30	8.92
Tiruchirappalli	47	15.15
TOTAL	176	50.08

**Works proposed under Phase - III
(2013 - 2014)**

Sl. No	Name of Tank	Ayacut (in Hectares)	Estimate (Rs. in Lakhs)
Ariyalur District			
1	Thuthur	168.57	59.00
Cuddalore District			
2	Puliyur	67.12	10.00
3	Karkudal	85.83	25.00
4	Kuttiankuppam	188.56	65.80
5	Akkadavalli	40.91	14.32
6	Karumbur Thangal	42.23	15.35
7	Krishnan Kuppam Manakkollai Hissa	70.37	27.20
8	Vayalur	474.49	38.50
9	Aladi	114.98	26.25
Dharmapuri District			
10	Dhalavalli	64.48	20.00

11	Bommanur	63.92	22.00
12	Dobbaipallam	78.80	27.00
13	Erupalli	43.25	15.00
Kancheepuram District			
14	Valarkundram	57.47	20.00
15	Karumbur	109.26	15.00
16	Somangalam	197.57	20.00
17	Valayakaranai	100.38	20.00
18	Sembakkam	61.94	10.00
19	Ottiyampakkam	182.19	20.00
20	Navalur	83.77	10.46
21	Anur	146.84	20.00
22	Vazhuvadur	150.08	15.00
23	Kilpakkam	152.91	15.00
24	Manimangalam	842.00	99.00
25	Thenneri Hissa	2730.70	155.00
26	Kolathur	59.02	20.00

Krishnagiri District			
27	Badethalav	332.20	116.27
28	Naralapalli	95.58	33.06
29	Achamangalam	70.83	24.79
30	Narayanappan	53.44	18.70
31	Balinayanapalli	41.64	14.57
32	Chinnamattarapalli	41.70	14.59
33	Rangappa Naicken	75.70	26.49
34	Byaskhan	40.48	14.16
35	Kattusingiripalli	52.00	18.00
Madurai District			
36	Kallikudi Senkulam	88.40	14.50
37	Illupakudi	60.73	21.00
38	Kalathur	50.72	17.75
39	Ambikanmoi	60.10	60.10
40	Vavidamaruthur	43.98	15.38

41	Vedathakulam	106.69	38.20
42	Arumbanur	49.99	18.55
43	Chetikulam	47.59	17.30
44	Kollankulam	49.59	18.10
45	Velliankundram	83.33	30.00
46	Pappakudi	55.18	18.60
47	Thirukkani	116.39	32.31
48	Achankulam	134.55	34.13
49	Mannadimangalam	196.52	68.75
Pudukkottai District			
50	Vennavikulam	104.53	36.00
Ramanathapuram District			
51	Paroor	45.37	15.88
52	Kalayanur	66.78	23.00
53	L.Karunkulam	73.16	25.60
54	Vaigai	47.16	16.51
55	Vannikudi	45.67	15.98

Sivagangai District			
56	AmmiKanmoi	59.54	20.60
Thanjavur District			
57	Sadayan	160.95	56.33
58	Ayyanar	117.95	41.27
59	Pappanodai	117.65	41.18
60	Vellaiyan	63.82	22.34
61	Sembaneri	104.16	36.46
62	Karisavayal	94.36	33.03
63	Navakulam	61.98	21.69
64	Velleri	73.81	25.83
65	Sirupalakulam	53.81	20.09
66	Vannankulam	56.54	19.79
67	Andami	76.24	26.68
68	Koodalivayal	98.52	34.48
69	Ettivayal	95.53	33.44

70	Manjan	83.19	30.14
71	Valayankulam	86.12	30.14
72	Kalathikulam	57.27	20.04
73	Kallivayal	70.91	24.82
74	Ammayandi	77.75	27.21
75	Manjakuppam	77.22	27.03
76	Kasankulam	61.02	21.36
77	Mudapallikulam	86.88	30.41
78	Valayankulam	80.57	28.20
79	Koothadivayal	101.80	35.63
80	Kuruchi	327.64	62.96
81	Karupperi	179.89	62.96
82	Kallakulam	73.40	25.69
83	Chokkan	54.86	19.20
84	Moothankuruchi	75.06	26.27
85	Navakulam	56.68	19.84
86	Painkattuvayal	56.14	19.65
87	Pillanguzhi	71.60	25.06

88	Kadamangal	99.01	34.65
89	Seethakulam	96.88	33.91
90	Palli Odaivayal	74.91	22.62
91	Pappankulam	59.45	20.81
92	Parakkalakulam	55.68	19.49
93	Sendan	75.44	26.40
94	Pudukulam	56.20	19.67
95	Navalur	83.26	29.14
96	Kavani	108.73	38.06
97	Ponnan	117.62	58.08
Theni District			
98	Senkulam	125.47	39.00
Thiruvallur District			
99	Erumbi	109.62	31.00
100	Vediyangadu	55.67	15.00
101	Srikalikapuram	63.00	18.00
102	Periyanagapudi	54.08	15.00
103	Silambu	80.08	20.00

104	Nabalur	54.25	13.30
105	Ponnimangadu	176.94	25.00
106	Velanjeri	149.95	35.80
107	Ayyaneri	183.43	44.80
108	Alamelumangapuram	49.36	12.00
109	Raghavanaidukuppam	45.90	14.00
110	Thannirkulam	197.17	49.00
Thoothukudi District			
111	Keelamangalam	56.07	12.50
112	Eppodumvendrani	443.11	101.70
113	Therkkukalmedu	148.99	44.00
114	Kollamparambu	160.14	48.00
115	Vellaramkarisalkulam	63.08	14.50
Tiruvannamalai District			
116	Nethapakkam	47.34	16.00
Tiruchirappalli District			
117	Sevanthan	165.93	58.08
118	Purantha	98.87	34.60

119	Asur	143.04	50.06
120	Poyyakudi	73.32	25.66
Vellore District			
121	Narasingapuram	42.51	11.20
122	Melakuppam	72	17.70
123	Maruthalam	41.17	12.30
124	Velam	55.06	16.20
125	Kolatheri	61.46	17.00
126	Kelmelkuppam Chitteri	45.41	15.00
127	Gudalur	74.6	20.50
128	Panavattambadi	53.9	18.40
129	Somasamudiram	45.5	14.50
130	Budur	57.08	19.97
131	Sekkanur	62.96	22.03
132	Puthur	50.17	17.56
133	Vallimalai Vellaneri	49.39	14.30

Villupuram District			
134	Kadampakkam	158.82	40.00
135	Vengur Chiteri	42.55	11.50
136	Nannadu	67.99	20.40
137	Mambakkam	45.13	15.50
138	Vadasiruvalur	47.04	16.00
139	Vedampattu	98.33	29.50
140	Melmalayanur	363.32	90.00
141	Cholavandipuram	132.98	30.00
142	Anumanthai Vanchi Kuttai	51.33	17.50
143	Panjamadevi Pudu Eri Thangal	47.71	16.70
144	Kongampattu	74.52	18.50
145	Kondangi	100.18	30.00
146	Motchakullam	103.6	15.50
147	G.Ariyur	128.59	32.50
148	Atchipakkam	59.5	20.50

149	Otteripalayam	76.59	26.80
150	Kalanchikuppam	43.13	12.00
151	Vengathur	133.5	30.00
152	Purangari	26.35	9.00
153	Elarampattu	71.4	18.00
154	V.Puthur	115.42	23.00
155	Kandampakkam	203.1	40.00
156	Navamal Marudur	131.17	20.00
157	Vadamalayanur	55.92	14.00
158	Rampakkam	152.6	19.00
159	Ravuthanallur	188.08	65.85
160	Paranur	148.99	52.00
161	Urangani	89.07	32.00
162	Mallapuram Ganapathi	53.19	19.30
163	Nedumanoor	58.2	21.20
164	Poikunam	41.31	15.05
165	Palayanoor	25.97	16.82

166	Pallipattu	21.67	18.63
167	Velananthal	23.69	16.19
168	Kosapadi	59.73	21.87
169	Mallapuram Vairandhangal	43.02	15.55
170	Poovarsankuppam	188.98	66.10
171	Sembarampattu	44.07	16.00
172	Kachirapalayam	89.88	56.25
Virudhunagar District			
173	Pudukottai Periyakulam	129.32	45.25
174	Injar Nadivapatti	102.47	35.86
175	Veppilapatti	48.12	16.84
176	Sirukulam	33.31	11.66
	Total	19823.48	5007.78

5.7. Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

Improvement to Macro drainages maintained by the Public Works Department in Chennai, like Buckingham Canal, Otteri Nullah, Virugambakkam – Arumbakkam Drain Veerangal Odai have been taken up under Jawaharlal Nehru National Urban Renewal Mission at a revised estimated cost of Rs.819.80 Crores to mitigate floods during monsoon period and is under implementation.

In the current financial year, under this project, two schemes at a cost of Rs.73.01 Crores will be taken up in Chennai Metropolitan area.

5.8. FLOOD MANAGEMENT PROGRAMME

The Flood Management Programme under the National Perspective Plan, a Centre- State shared scheme in the ratio of 75:25, is being implemented in the State.

Under this scheme, following Flood protection work at a cost of Rs.635.54 Crores were completed in Araniar, Vellar, Kosasthalaiyar, Pennaiyar, Gadilam, Malattar, Uppanar, Paravanar and Kollidam rivers to safeguard Tiruvallur, Villupuram, Cuddalore, Thanjavur and Nagapattinam Districts.

S. No.	Name of the Scheme	Estimate (Rs. in Crores)
1.	Flood Protection Works to Araniar River at upstream and downstream of A.N.Kuppam Anicut and downstream of Lakshmipuram Anicut to Pulicat Creek in Tiruvallur District.	12.41
2.	Flood Protection Works to Vellar Basin in Cuddalore and Villupuram Districts.	164.32
3.	Flood Protection Works to Panruti and Cuddalore Towns from Pennaiyar, Gadilam, Uppanar, Paravanar and South Malattar Rivers in Cuddalore District.	68.41

4.	Flood Protection Works to Kosasthalaiyar River from Napalayam to sea mouth in Tiruvallur District.	14.50
5.	Flood Protection Works to Kollidam river in Thanjavur, Nagapattianam and Cuddalore Districts.	375.90
	Total	635.54

The Central Government's share component for this scheme is Rs.460.07 Crores, out of which Rs.59.82 Crores only has been released to the State as first installment during 2011. Eventhough the works have been completed in time, remaining amount Rs.400.25 Crores is yet to be received inspite of repeated follow up from the Government of Tamil Nadu.

5.9. PART –II SCHEMES

- a. The Government have accorded sanction for Rs.3.02 Crores for 15 works for the year 2012-2013. 3 works have been completed and the remaining 12 works are in various stages of implementation.
- b. For the year 2013-14 the Government has allocated Rs.1.64 Crores, for taking up 9 works. These works will be taken up for execution during this year.

6. Announcements made by Hon'ble Chief Minister in District Collector's Conference (2012)

6.1. Improvements to the Irrigated area in Cauvery Delta

To maintain the bed level of rivers and to effectively maintain the supply of water to the channels in the Cauvery Delta areas, 25 works for construction of grade walls in Thanjavur District will be taken up during the current year at a cost of Rs.68.55 Crores.

6.2. Construction of check dams across river Vaigai in Ramanathapuram District

Construction of 4 check dams across Vaigai river in Ramanathapuram District at a cost of Rs.78.06 Crores will be implemented with NABARD assistance.

S. No.	Name of work	Estimate (Rs. in Crores)
1.	Construction of Check Dam across Vaigai River near Kunappanendal village below Parthibanur Regulator in Paramakudi Taluk of Ramanathapuram District.	19.50
2.	Construction of Bed Dam across Vaigai River to feed Lower Nattarkal channel near Valasai Village in Bogalur Taluk of Ramanathapuram District.	19.86

3.	Construction of Bed Dam across Vaigai River near Thelichathanallur village to feed 14 tanks in Paramakudi Taluk of Ramanathapuram District.	19.00
4.	Construction of Bed Dam across Vaigai River near Kamuthakudi village to feed 36 tanks through Koothanakal supply channel in Paramakudi and Muthukulathur Taluks of Ramanathapuram District.	19.70
	Total	78.06

6.3. Construction of two lane bridge across River Kollidam in Melaramanallur village in Ariyalur District.

A two lane bridge across River Kollidam linking the Melaramanallur village and Azhagiyanavalam village situated in Ariyalur road of Ariyalur District will be constructed at a cost of Rs.43.00 Crores with NABARD assistance.

6.4. Coastal Erosion Prevention Works

Groynes at an estimated cost of Rs.72.00 Crores will be constructed in Vembar, Veerapandiapattinam, Periyathalai, Kallamozhi and Keelavaippar in Thoothukudi District.

7. STATE GROUND AND SURFACE WATER RESOURCES DATA CENTRE

Groundwater is a dynamic, replenishable resource. The State Ground and Surface Water Resources Data Centre adopts the following practices for the purpose of planning, development and management of ground water resources in the State of Tamil Nadu.

- a) Scientific ground water investigation and periodic assessment of ground water potential for the State and monitoring of water quality.
- b) Improving the ground water storage through artificial recharge and rain water harvesting wherever possible.

- c) Interact and co-ordinate with the other line departments of the State and water users to plan for better utilization of the ground water resource in the State.
- d) Drilling of exploratory bore holes in order to study sub surface lithology.
- e) Consultancy services to public, Government Departments and private sector undertakings for augmentation of water supply schemes.
- f) Issuing ground water clearance for implementing Minor Irrigation Schemes.
- g) Special studies for monitoring sea water intrusion into fresh water aquifer.
- h) The Tamil Nadu Hydrology Project is Providing actual real time data through internet.

- i) The study on Aquifer Mapping and Management study in Tamil Nadu covering all the thirty two Districts is to be carried out as a special study from this year. Ground water is stored in Aquifers. In the state of Tamilnadu, the aquifers are available in different formations ie., sandy formation, flood plains, and hard rock areas. The length, breath and depth of the aquifer can be delineated clearly in the map. Based on the study results, accurate technical guidance can be rendered to all Departments on the site specific feasibility of construction of various Artificial Recharge Structures like check dams, sub-surface dykes, percolation ponds, recharge shafts etc.,

The Hon'ble Chief Minister has announced during the Collector's Conference in 2012 that 4000 recharge shafts will be constructed at an estimated cost of Rs.20.00 Crores in Tiruvarur District.

This Scheme will be taken up for execution in the current year (2013-2014).

8. INSTITUTE FOR WATER STUDIES:

8.1. The Institute for water studies is established with the objective to plan, assess and manage the water resources at Micro level of all the river basins in Tamil Nadu.

The Institute of Water Studies is the First Remote sensing centre in the State. The **Hon'ble Chief Minister**, in March, 2002, declared the Institute as "Tamil Nadu Remote Sensing Institute".

This Institute studies the Satellite imagery, makes necessary interpretation and presents the details to Government.

Activities/Functions:

- a) Realigning the River boundaries of all 17 River basins using satellite data.
- b) Preparation of Basin Maps in the scale 1:50,000
- c) Collection and hosting of Basin-wise data like surface flows and available Ground water details on the web-site for study purposes.

During the year 2013-2014, the Institute will undertake the work of assigning "Unique identification code" for all PWD tanks. This will be beneficial to the farmers who will have access to all the details about the tanks, Talukwise and Districtwise.

8.2. Water Policy

Based on the National Water Policy 1987, the Tamil Nadu State Water Policy was formulated in the year 1994. The National Water Policy was updated and adopted by the National Water Resources Council in April 2002.

In the draft National Water Policy recommended by the Ministry of Water Resources in June 2012, it has been stated that water should be priced on economic principles and the Water Regulatory Authority will fix and regulate the water tariff system. Moreover, it has also been recommended that the Water Users Associations should be given statutory powers to collect the water charges.

In the meeting of the National Development Council held on 27.12.2012 the **Hon'ble Chief Minister** has emphasized that "water, though a precious resource, cannot be priced in commercial terms". In the 6th meeting of

National Water Resources Council held on 28.12.2012, it was conveyed to Government of India that the Central Government's insistence on pricing of water is a clear infringement of the powers of the State Government and that it should be left to the State Governments to decide whether water should be priced as an economic good or not.

As and when the National Water Policy is adopted, Tamil Nadu will update the State Water Policy, keeping in mind our objections and decisions which were conveyed to the Government of India.

9. IRRIGATION MANAGEMENT TRAINING INSTITUTE, TIRUCHIRAPPALLI (IMTI)

Tamil Nadu Irrigation Management Training Institute (IMTI) at Tiruchirappalli is a premiere State Institute, established by the Government of Tamil Nadu in the year 1984 to impart multi-disciplinary training to enhance

agricultural productivity by effective utilisation of water.

This Irrigation Management Training Institute imparts the following trainings every year:

- (a) Trainings to farmers on Water Management, Crop Water Requirement, Irrigation Scheduling and Micro Water Irrigation.
- (b) Trainings to Irrigation Inspectors, Irrigation Assistants and Work Inspector on Capacity Building of water management skills.
- (c) Induction training and computer training to newly recruited Assistant Engineers.
- (d) Training to Engineers and Technical Assistants on Conjunctive use and Management of Surface and Ground Water.

(e) Training to Senior Level Officers on Disaster Management and development of Capacity Building.

Water Management Officers and water users have started using scientific techniques from the above training and the training would serve as an opportunity for them to learn to maximize the production from every drop of water.

In the year 2012-13, 105 Training Programmes were conducted for 1550 officers of various Departments and 570 farmers.

During this year, this Institute has planned to conduct more than 110 Training Programmes.

10. DIRECTORATE OF BOILERS

The Directorate of Boilers, Tamil Nadu is an enforcing authority of The Boilers Act, 1923 (last amended in 2007), a Central Act administered by the State for safe operation of the Boilers and to ensure safety of public life and property.

The Tamil Nadu Directorate of Boilers is functioning under the Tamil Nadu Public Works Department. The Directorate of Boilers is administered by the Director of Boilers in the rank of Superintending Engineer.

The Directorate of Boilers has approved the indigenous design for the manufacture of Supercritical Boilers for 800 MWe Power Plant for the first time in India.

The Directorate of Boilers gives active support for speedy erection and commissioning of the Boilers, for Power Projects, and issues necessary certificates for operation of Boilers for power generation.

Directorate of Boilers conducts the Boiler Attendants' Examination. During the year 2012-2013, certificates to 441 candidates were issued.

During the year 2012-2013, the revenue to Exchequer towards inspection and certification is Rs. 9.50 Crores.

K.V.RAMALINGAM
MINISTER FOR PUBLIC WORKS