PUBLIC WORKS DEPARTMENT
IRRIGATION

POLICY NOTE
2019 - 2020

DEMAND No. 40

Edappadi K. Palaniswami
Chief Minister

INDEX

PUBLIC WORKS DEPARTMENT

WATER RESOURCES DEPARTMENT

1. Activities of the Water Resources Department

Water Resources Management deals with efficient planning, development, distribution and optimum utilization of water resources. The biggest challenge is sustainability of our water resources in order to be able to meet our future needs and this is based on the current and future water allocation methodologies. Therefore, water resources management should be done appropriately considering current and future issues in the allocation of water. In the midst of global climate changes, the decision making on allocation of water, is of utmost importance. Further, the limited availability of water is creating huge

strain on the irrigation potential of the State and also sectoral water demands are increasing. Therefore, the Government of Tamil Nadu is taking all necessary efforts to harness and utilize the limited available water resources in an effective manner.

Important Schemes / Works of the Department are:

- Kudimaramath works
- Athikadavu - Avinashi Scheme
- Construction of a Barrage with Head Sluices across the River Kollidam at RD 74/3 mile between Adhanur and Kumaramangalam Villages in Cuddalore and Nagapattinam Districts.
- Construction of a New Regulator on the downstream side of the Barrage in Kollidam River at Mukkombu (Upper

Anicut) and strengthening of existing regulator in Tiruchirappalli District

- Desilting of Dams and Water Bodies
- Issue of Vandal to public, farmers and potters.
- Inter-linking of Thamiraparani-Karumeniyar - Nambiyar Rivers
- Krishna Water Supply Project
- Creation of new Irrigation Infrastructure and Rehabilitation of existing systems
- Externally Aided Projects

i. World Bank Assisted Tamil Nadu Irrigated Agriculture Modernisation Project (TN IAMP)
ii. World Bank Assisted Dam Rehabilitation and Improvement Project (DRIP)
iii. World Bank Assisted National Hydrology Project (NHP)

iv. Asian Development Bank (ADB) Assisted Climate Change Adaptation Programme in Cauvery Delta

- Centrally Sponsored and Shared Schemes

i. National Agriculture Development Programme (NADP)

ii. Repair, Renovation and Restoration (RRR) of water bodies directly linked to agriculture

1.1. Water Resources Potential

Surface Water Potential

There are 34 rivers in the State. These have been grouped into 17 major river basins and 127 sub-basins. The normal rainfall of the State is 911.60 mm. The total surface water potential of the State is 885 T.M.C ft. which includes 249 T.M.C ft. realised from the neighbouring States through Inter-State Agreements.

Ground Water Potential

Based on the Micro level Ground Water Potential Assessment out of the total 1,139 Firkas in the State, 358 Firkas are categorised as Over-Exploited, 105 as Critical, 212 as Semi-Critical, 35 Firkas as Saline and 429 Firkas as Safe. The quantity and the quality of the ground water are being continuously monitored and assessed by the Department. Construction of structures such as Check Dams, Bed dams, sub surface dykes, Recharge shafts, Percolation ponds etc., are being carried out to protect, harness and improve the available ground water potential of the State.

1.2. Organisational Arrangements

The Public Works Department is functioning with two Wings viz., Buildings and Water Resources Department. Each

wing is headed by an Engineer-in-Chief and the overall administrative functions are presently carried out by the Engineer-in-Chief, Water Resources Department who holds the post of the Chief Engineer (General), PWD.

The Water Resources Department of the Public Works Department has been divided into four Regions, viz., Chennai, Tiruchirappalli, Madurai and Coimbatore based on the River-Basin frame work. Each Region is headed by a Chief Engineer, who acts as the Basin Manager of the river basins in their jurisdiction.

In addition, there are seven functional Chief Engineers and four special wings as indicated below:-

1. Plan Formulation
2. Design, Research and Construction Support
3. Operation and Maintenance

4. State Ground and Surface Water Resources Data Centre
5. Institute for Water Studies, Hydrology & Quality Control
6. Irrigation Management Training Institute
7. State Water Resources Management Agency(SWaRMA)

Special wings

1. Cauvery Technical Cell cum Inter State Water Wing
2. Tamil Nadu Water Resources Development Cell
3. Directorate of Sand Quarrying Operations
4. Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation

In addition, the Directorate of Boilers headed by a Superintending Engineer, is also functioning under the Water Resources Department.

The Engineer-in-Chief, WRD co-ordinates all the works of this Department and acts as the Technical Head of the Water Resources Department.

2. INTER - STATE WATER ISSUES

2.1. Cauvery Water Dispute

The Cauvery Water Disputes Tribunal (CWDT) after examining all the documents and statistics of the case, the affidavits of the Expert Witnesses and their cross-examination and hearing the arguments putforth by the party States, pronounced its Final Decision on 05.02.2007, under section 5(2) of the Inter - State River Water Disputes Act, 1956.

- The yield of the Cauvery at the Lower Kollidam 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 TMC ft.)

Karnataka :	270
Tamil Nadu :	419
Kerala :	30
UT of Pondicherry :	7
Environmental Protection :	10
Inevitable escapages into sea :	4
Total :	740

- As per the Final Order, the flow that will be made available at Billigundulu will be (182+10 TMC. ft. for Environmental Protection) = 192 TMC. ft.
- The use of Ground Water by any State shall not be reckoned as use of water of the River Cauvery.
- Until the Government of Kerala takes up projects to utilize its allocated

share of water in full, the unutilized flows will be permitted to be used by Tamil Nadu.

- The Tribunal recommended for constitution of the Cauvery Management Board and the Cauvery Water Regulation Committee to effectively implement the Final Order.

  Due to untiring continuous legal battle made by Government of Tamil Nadu and with the intervention of Supreme Court, the Government of India Notified the Final Order of the Tribunal on 19.2.2013 in its Gazette. After this, Tamil Nadu continuously urged the Government of India to constitute Cauvery Water Management Board and Cauvery Water Regulation Committee to implement the Final Order of the Tribunal.

  The States of Karnataka and Kerala filed Special Leave Petitions 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. These SLPs were admitted by the Supreme Court and termed as Civil Appeals.

After hearing the above Civil Appeals, the Supreme Court on 16.02.2018 pronounced its judgement. The salient features of the Judgement are as follows:

(i) Being in a state of flow, no State can claim exclusive ownership of such waters so as to deprive the other States of their equitable share.

(ii) The waters of an inter-State river passing through the riparian States constitute a national asset.

(iii) Keeping in view that, a scheme shall be framed by the Central Government within a span of six weeks from 16.02.2018 so that the authorities under the scheme can see to it that the present decision which has modified the award passed by the Tribunal is smoothly made functional. The need based monthly release has to be respected. No extension shall be granted for framing of the scheme on any ground.

(iv) The final allocation of the shares in view of this determination would be as hereunder:-

(In T.M.C. ft.)

Karnataka	284.75
Tamil Nadu	404.25
Kerala	30

UT of Pondicherry	7
Environmental Protection	10
Inevitable escapages into sea	4
Total	**740**

As a consequence of the aforesaid allocation, the State of Karnataka would now be required to make available at the inter-State border of Tamil Nadu, i.e., at Billigundulu, 177.25 TMC ft of water for the basin. Apart from the modifications effected hereinabove, no interference has been made with the determination and findings recorded by the Tribunal.

The Supreme Court in its Judgement dated 16.02.2018 directed Government of India to frame a Scheme to implement its Judgement within six weeks from the date of Judgement.

Pursuant to the above judgement, the Government of Tamil Nadu through letters and Memoranda urged the Government of India to constitute a Scheme. However, the Government of India did not constitute a scheme as per the judgement of the Supreme Court. Consequent on filing a Contempt Petition before the Supreme Court, the Government of India filed a draft Scheme in the Supreme Court. The Supreme Court in its Judgement dated 18.05.2018 accepted the draft Scheme filed by the Government of India consisting of the Cauvery Water Management Authority and the Cauvery Water Regulation Committee and directed the Government of India to notify the same in the official Gazette before the onset of the impending monsoon. Following this, on 1.6.2018 the Government of India notified in its Gazette the Cauvery

Water Management Scheme consisting of Cauvery Water Management Authority and Cauvery Water Regulation Committee.

The Government of Tamil Nadu has nominated the Principal Secretary, Public Works Department as the Member of Tamil Nadu in the Cauvery Water Management Authority and Chief Engineer, Water Resources Department, Tiruchirappalli Region as Member of Tamil Nadu in the Cauvery Water Regulation Committee. The Cauvery Water Management Authority held 4 meetings and the Cauvery Water Regulation Committee held 10 meetings so far. In these meetings, the views of Government of Tamil Nadu were urged.

2.1.1 Action taken by Tamil Nadu to prevent Government of Karnataka on its proposal to construct Mekedatu Reservoir project

The Government of Tamil Nadu has continuously been conveying its strong objections to the Government of Karnataka and the Government of India on the proposed new reservoir at Mekedatu by Karnataka.

Karnataka has now prepared Feasibility Report for Mekedatu Balancing Reservoir-cum-Drinking Water Project with a capacity of 67.16 TMC ft and unilaterally submitted to Project Appraisal Directorate, Central Water Commission, New Delhi, on 04.08.2018. The Central Water Commission (Project Appraisal Directorate), on 24.08.2018, forwarded

the Feasibility Report of the Mekedatu Balancing Reservoir-cum-Drinking Water Project of Karnataka to Tamil Nadu. Though the Government of Tamil Nadu conveyed its strong objections to the above project report, the Project Appraisal Directorate, Central Water Commission on 22.11.2018 granted permission to the Cauvery Neeravari Nigam Ltd., Karnataka for preparation of Detailed Project Report (DPR) on Mekedatu project.

The Government of Tamil Nadu on 30.11.2018 filed a Miscellaneous Application (M.A. No.3127 of 2018 in C.A. No.2453/2007) in the Supreme Court to pass orders on the following prayer:-

(i) Stay the operation of the permission given by the Central Water Commission on 22.11.2018 to Karnataka Cauvery Neeravari

Nigam Ltd., Bangalore, to go ahead with preparation of Detailed Project Report for Mekedatu project;

(ii) Direct the Central Water Commission, Ministry of Water Resources, to withdraw the letter dated 22.11.2018;

(iii) Restrain the Cauvery Neervari Nigam Ltd., from proceeding further with the preparation of the Detailed Project Report;

(iv) Direct the State of Karnataka and its instrumentalities to maintain *status quo* till the disposal of the present application.

The Government of Tamil Nadu on 5.12.2018 filed a Contempt Petition against Director, Project Appraisal Directorate, Central Water

Commission, Secretary to Government of Karnataka, Water Resources Department and others.

The above cases are pending before the Supreme Court.

On an information received that the Cauvery Neeravari Nigama Ltd, Karnataka on 20.6.2018 has approached the Ministry of Environment, Forest and Climate Change for grant of Environmental Clearance for its proposed construction of Mekedatu Project, the Hon'ble Chief Minister wrote to the Hon'ble Prime Minister on 24.6.2019 requesting to direct the Ministry of Environment, Forest and Climate Change to issue instructions to the Authorities concerned not to consider the proposal of Cauvery Neeravari Nigama Ltd for

grant of Terms of Reference to obtain Environmental Clearance for Mekedatu Project. Further, it was urged that the Ministry of Jal Shakthi be directed to advise the Central Water Commission to reject outright and return the Detailed Project Report of Mekedatu Project and also not to accord any clearance to any project of Karnataka without obtaining the prior concurrence of the Government of Tamil Nadu and of other co-basin States.

The Government of Tamil Nadu is taking all necessary action to prevent Karnataka from construction of Dam at Mekedatu or in any other place across Cauvery in violation of the Final Order of the Tribunal and the judgement of the Supreme Court and safeguard the rights of the farmers of Tamil Nadu.

2.1.2 Suit filed by Tamil Nadu in the Supreme Court against Karnataka claiming damages due to non-release of water in 2012-2013.

The Government of Tamil Nadu filed a Suit in the Supreme Court seeking directions to Karnataka to pay damages of a sum of about Rs.1045.70 crore towards loss of crops, loss of bio-mass and loss of power generation, on account of non-release of water in terms of the Interim Order of the Tribunal during the irrigation year 2012-2013 and to pay punitive damages of Rs.1434.00 crore for non-compliance of the decision passed by the Tribunal.

The case is still pending before the Supreme Court.

2.1.3. Sewage let into Cauvery and Pennaiyar by Karnataka

In view of the huge damage and suffering likely to occur to Tamil Nadu and its inhabitants due to letting in of sewage and industrial effluents in Cauvery and Pennaiyar rivers by Karnataka, during 2015, Tamil Nadu filed a Suit in the Supreme Court.

According to the data available in the Final Report submitted by the Central Pollution Control Board to the Supreme Court, it is confirmed that due to letting in of sewage by Karnataka, these two rivers are polluted. The case is pending in the Supreme Court.

2.2. Mullai Periyar Dam

The Periyar Project was executed by virtue of the Lease Deed signed between the Maharaja of Travancore

and the erstwhile Government of Madras Presidency on 29.10.1886. This deed is for 999 years with effect from 01.01.1886. About 8000 acres has been leased for this project. About 2.20 lakh acres are benefited by this Project in the Districts of Theni, Dindigul, Madurai, Sivagangai and Ramanathapuram and in a year on an average
22 T.M.C. ft. of water is diverted from Periyar river to Vaigai Basin of Tamil Nadu and utilised.

Thereafter, two supplemental Agreements were entered into between Kerala and Tamil Nadu in the year 1970. One is for increasing the annual lease rent from Rs.5 to Rs.30 per acre subject to revision in every 30 years and surrendering fishing rights in the Periyar Lake to Kerala. By another

supplemental Agreement, Tamil Nadu is to generate hydroelectric power on payment of certain charges to Kerala. 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.

Apprehensions were raised about the safety of the Dam in the year 1979. In order to bring the Dam to modern standards, the Central Water Commission suggested certain remedial measures. For the purpose of carrying out the works, the water level was temporarily brought down to 136 ft. The recommendation of the Central Water Commission to restore the water level initially to 145 ft. after carrying out certain

strengthening works, was not accepted by Kerala. However, the Government of Kerala held the view that the water level in the Dam should be kept at 136 ft. at all times.

In the Writ Petitions filed, the Supreme Court pronounced its judgement on 27.02.2006, which 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 the remaining strengthening measures such as strengthening Baby Dam and Earthern Dam etc., as recommended by the Central Water Commission. The Supreme Court also held that the State of Kerala and its officers are restrained from causing any obstruction from

carrying out the balance strengthening works. The Supreme Court in its 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. (FRL).

Soon after the Supreme Court pronounced its judgement, the Government of Kerala amended its Kerala Irrigation and Water Conservation Act, 2003, to thwart the Supreme Court's Order and fixed the FRL of Mullai Periyar Dam as 136 ft.

In the Suit filed by the Government of Tamil Nadu against the amended Act of Kerala, the Supreme Court delivered its Judgement on

7.5.2014 and affirmed the Judgement of 2006. Further, the Supreme Court held that the amended Act of Kerala is unconstitutional in so far as Mullai Periyar Dam is concerned. The Court also permitted Tamil Nadu to raise the Water level of the Mullai Periyar Dam upto 142 ft. and also ordered to constitute a Supervisory Committee to periodically inspect and make recommendations.

As decided by the Supervisory Committee on 17.7.2014, the shutters of the spillway of the dam were lowered down. The water level in the Mullai Periyar Dam reached 142 ft. on 21.11.2014 which was a historic achievement after 35 years. Further, for the second and third time the water level in the dam reached 142 ft. on

07.12.2015 and 15.08.2018 respectively. The Supervisory Committee has so far held 12 meetings.

A Sub-Committee was constituted to assist the Supervisory Committee without powers to issue any direction to the States. The Sub-committee inspects the dam periodically and reports to the Supervisory Committee.

2.2.1. Balance Strengthening works to be carried out to restore the water level to 152 ft. (FRL)

The balance works recommended by Central Water Commission, by Expert Committee (constituted in the year 2000) and ordered by the Supreme Court in its Order dated 27.02.2006 which has been reiterated by the Empowered

Committee (constituted in the year 2010) and by the Supreme Court in its Order dated 07.05.2014 are:

i) Strengthening the Baby Dam including instrumentation;

ii) Strengthening the earthen bund;

iii) Protecting the earth mound (the upstream side of island) between Main Dam and Baby Dam;

iv) Protecting the upstream side of the Island between Main Dam and spillway;

v) Raising the upstream parapet wall from + 158 ft. to 160 ft. of the Main Dam in the remaining length of 20 metres.

The Government have accorded Administrative Sanction for an amount of Rs.7.85 crores to carry out the above works. The work for raising the upstream parapet wall from +158 ft. to 160 ft. in the remaining length of 20 m. of the Main Dam and the work of protecting the downstream side of spillway and Reservoir rim and protecting the upstream side of island between Main Dam and Baby dam upto RL 165 ft. have been completed.

In order to strengthen the Baby Dam, 23 trees have to be felled down. The Government is pursuing continuous action to obtain the wildlife and environmental clearance from the Ministry of Environment, Forest of Government of India. The case filed by the Government of Tamil Nadu in

the Supreme Court against the Government of Kerala to give consent for felling down the trees for which the Government of India is to give approval, for restoring the power supply to Mullai Periyar Dam complex etc. is pending.

2.2.2. Construction of a Mega Car Park in the water spread area of Mullai Periyar Dam by the Government of Kerala.

The Government of Kerala proposed to construct a Mega car Park abutting the water spread area of Mullai Periyar Dam. In the two Applications filed by residents of Kerala before the National Green Tribunal (Southern Zone) against this construction, the Government of Tamil Nadu impleaded as a party.

The National Green Tribunal in its Judgement dated 15.11.2017, ordered that since the National Tiger Conservation Authority has granted permission, approval under the Forest Conservation Act is not necessary.

Against this Judgement, the Government of Tamil Nadu has filed Civil Appeals in the Supreme Court. The Supreme Court on 04.12.2017, has ordered that no permanent construction should be carried out by the Government of Kerala.

As the Government of Kerala has undertaken construction works of permanent nature, the Government of Tamil Nadu on 8.5.2019 filed a Contempt Petition against the concerned officers of Kerala in the Supreme Court. The cases are pending before the Court.

The Government of Tamil Nadu, in the year 2014, has filed a Civil Suit in Supreme Court of India, against the proposal of Government of Kerala to construct the Mega Car Park and to remove the encroachments in the leased area. As per the order of the Supreme Court both the States discussed the issue on 19.1.2018 for arriving at a settlement but no consensus could be arrived at. This case is pending in the Supreme Court.

2.3. Palar River Water Issue

The River Palar which is one of the inter-State rivers, originates in Kolar District in Karnataka, traverses through Andhra Pradesh via Chittoor District and runs through Vellore, Thiruvannamalai and Kanchipuram Districts in Tamil Nadu, before confluencing into the Bay of Bengal.

When the Government of Andhra Pradesh proposed to construct a reservoir with a capacity of 0.6 TMC ft. across Palar at Ganesapuram in Kuppam Taluk in Chittoor District, in violation of the Madras-Mysore Agreement of the year 1892, the Government of Tamil Nadu in the year 2006, filed a Suit in the Supreme Court praying to stop the execution of the said project by Andhra Pradesh. The cross- examination of the witnesses of Tamil Nadu and Andhra Pradesh are completed. In the meanwhile, no consensus could be reached in the meeting convened by the Government of India with the Government of Tamil Nadu and Andhra Pradesh on 07.05.2018. The case is pending in the Supreme Court.

When the Government of Andhra Pradesh started to increase the height of check dams, to repair the existing check dams and to construct new check dams across Palar River at several places in Chittoor District, the Government of Tamil Nadu filed a Suit in the year 2016 in the Supreme Court. This case is also pending in the Supreme Court.

2.4. Parambikulam Aliyar Project - Review of Agreement

The Parambikulam Aliyar Project, was planned, designed and executed by the Government of Tamil Nadu as one of the Second Five Year Plan Projects (1955 - 1960), with the consent and co-operation of the Government of Kerala for sharing mutual benefits through the utilization of flows in the

west flowing rivers of Anamalayar, Nirar, Sholayar, Parambikulam and its tributaries Peruvaripallam, Thunakadavu and the Palar and Aliyar flowing in the plains and the streams flowing into them, for generation of Hydro Electric Power, irrigation, drinking water supply, industrial use and other purposes in both the States. An agreement between the Governments of Kerala and Tamil Nadu was entered into on 29.05.1970 with retrospective effect from 09.11.1958. The Taluks of Pollachi, Palladam, Udumalaipettai and Dharapuram in the Districts of Coimbatore and Tiruppur are benefited. The Palakkad and Trichur Districts of Kerala State are also benefited. This Agreement was due for review on 09.11.1988 and thereafter once in 30 years. Accordingly, both the Governments exchanged the documents for

review on 21.09.1989 and since then held several Inter-State discussions at the level of Ministers and Officials for completing the review of the Agreement.

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 which was constituted as per the above decision, submitted its Report in May, 2003. The Report was discussed in the subsequent Inter-State meetings.

Thereafter continuous discussions were held between Tamil Nadu and Kerala. The Government of Tamil Nadu on 9.2.2019 has requested the convenience of Kerala to hold a meeting at the Secretaries level. As soon as the reply is received, the Government of Tamil Nadu will make efforts to complete the first review of the PAP Agreement.

2.4.1 Diversion of 2.5 TMC ft. of water from Anamalayar to Tamil Nadu.

There is a provision to divert 2.5 TMC ft. of water from Anamalayar, in the Agreement. A Supplementary Agreement is to be executed for this purpose. Contending that its Idamalayar Project has not been completed, Kerala has not yet given consent for the above diversion. Further, Kerala proposed to execute

the project by itself viz., construction of Dam across Anamalayar below the confluence point of Italiar for diversion of 2.5 TMC ft. to Lower Nirar Dam and to divert the balance water to Manaliar for (2x50) 100 MW Hydro Power Generation and sent the combined feasibility report to Tamil Nadu on 18.06.2013. The report was examined and additional details have been requested. On receipt of the same from the Government of Kerala, suitable action will be taken.

In the meanwhile, Government in March 2018 constituted a Technical Advisory Expert Committee (TAEC) for the implementation of Anamalaiyar Project and Nirar–Nallar multipurpose project. The Committee submitted its report to the Government in March, 2019 and the same is under the consideration of the Government.

2.4.2 Construction of Balancing Reservoir above Manacadavu Weir (0.50 TMC. ft. Capacity)

As per PAP agreement, Tamil Nadu would release 7.25 TMC ft. of water to Kerala at Manacadavu Weir. Kerala is not agreeable to the proposal of Tamil Nadu for constructing a reservoir of capacity 0.50 TMC ft. above the existing Manacadavu Weir to regulate the flows to Kerala. The report of the Technical Advisory Expert Committee on the above project is under the consideration of the Government

2.4.3 Nirar - Nallar Multipurpose Straight Cut Scheme

The scheme envisages formation of a reservoir with 7 TMC ft. capacity across Nallar for diversion of water from Upper Nirar weir directly to Nallar by means of a

tunnel and also generation of Hydro power. Tamil Nadu is pressing for Nirar – Nallar Multipurpose Straight cut scheme, an alternative to the present circuitous route i.e., from Upper Nirar to Sholayar reservoir, then to Parambikulam reservoir and then through the contour canal, to Thirumurthy reservoir to directly feed the water into the Nallar stream and thereafter to Thirumurthy reservoir for irrigation to avoid the water loss. But Kerala informed that this project is a new project not within the purview of the review of the Agreement and not accepted for the same. The recommendations of the Technical Advisory Expert Committee in its report to implement the scheme is under consideration of the Government.

2.5. Neyyar Irrigation Project

The first and second stages of Neyyar Irrigation Project, were planned and

executed by the Travancore - Cochin Government during the 1st and 2nd Five year plan periods (1950-1955 & 1955- 1960). Due to the States Re-organisation in 1956, a portion of the ayacut localized to be served by this project to an extent of 9200 acres lying in Vilavancode Taluk got transferred to Tamil Nadu and forms part of Kanniyakumari District. The canal works required to feed this ayacut were executed by the Government of Tamil Nadu with the approval of the Government of India and the Government of Kerala. The project is in operation from the year 1965. The Government of Kerala abruptly stopped the supply of water from March, 2004. Eventhough, bilateral discussions were held several times to release water to Tamil Nadu, no solution could be found out.

Hence, in the year 2012, the Government of Tamil Nadu filed a Suit in the Supreme Court and the case is pending.

2.6. Repairs to Shenbagavalli Anicut

Shenbagavalli Anicut is a small diversion Anicut built at the junction of two streams viz., Puliampattithodu and Chokkampattithodu 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 Kulashekharaperi and Rasingeperi in Sivagiri Taluk of Tirunelveli District through a channel, namely, Kanyamathagu channel which is 4,400 ft. (1341m) long. About 10,924 acres in Tirunelveli and Virudhunagar Districts are being irrigated. To carryout the repairs of the Shenbagavalli Anicut, the

Government of Tamil Nadu continuously engaging with the Government of Kerala.

In the meanwhile, 3 Writ Petitions have been filed in the Madurai Bench of Madras High Court praying to take steps to repair the Shenbagavalli Anicut and Kanyamathagu channel. The Government of Tamil Nadu, has filed Counter Affidavits for the above three Writ Petitions. These cases are pending.

2.7. Pennaiyar River

The River Pennaiyar originates at Nandidurg in Karnataka and flows through the States of Karnataka, Andhra Pradesh, Tamil Nadu and Union Territory of Puducherry before confluencing into the Bay of Bengal. The Pennaiyar River is an Inter-State River. The Government of Tamil Nadu, in 2018,

has filed a Suit before the Supreme Court against the Government of Karnataka which is undertaking the works of construction of Dam across the Markandeya River, a tributary of Pennaiyar, and diversion structures to divert water from River Pennaiyar in violation of the Madras-Mysore Agreement of 1892. The case is pending before the Supreme Court.

2.8. Inter Linking of Rivers

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

The Government of Tamil Nadu is persistently emphasising the Government of India, the Special Committee for Inter linking of Rivers that has been formed by Government of India on the Judgement of the

Supreme Court to implement the inter-linking of Peninsular rivers, namely, Mahanadhi - Godavari - Krishna - Pennar - Palar - Cauvery - Vaigai - Gundar and Pamba - Achankoil - Vaippar. Tamil Nadu requested for enhancing the quantum of water proposed to be transferred to Tamil Nadu since it is a water deficit State and also continuously urging that the link of Pennar to Cauvery has to be taken at a higher contour and end at Cauvery (Kattalai barrage) instead of at Grand Anicut as it will be helpful to transfer water to Vaigai and Gundar Rivers.

The Government of India has sent the draft Detailed Project Report of Godavari (Inchampalli/Janampet) – Cauvery (Grand Anicut) Link Project to the Government of Tamil Nadu for comments.

This draft Detailed Project Report is under the consideration of the Government.

2.9. Pamba - Achankoil - Vaippar Link

The NWDA has formulated the Pamba - Achankoil - Vaippar Link Project, which envisages diversion of 22 T.M.C. 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 in Tamil Nadu and will also help to generate power of 500 M.W. for Kerala. Eventhough the Government of Tamil Nadu gave its acceptance, the Government of Kerala is not in favour of this project. The Government of Tamil Nadu is taking all efforts through NWDA, Special Committee for Inter linking of Rivers and Government of India for the implementation of this Project.

3. Important on-going Schemes

3.1. Kudimaramath Works

The Government of Tamil Nadu revived the Kudimaramath works from the year 2016-2017 to restore the Water bodies through user communities. These works include maintenance in supply channels, canals, tanks, shutters, strengthening and reconstruction of surplus weirs, sluices, etc.

In Kudimaramath, works are entrusted to Farmers' Organizations / Council / Ayacutdars / Group of Ayacutdars on nomination basis for execution; 10% of the estimate cost is borne by the Farmers' Organizations / Council / Ayacutdars / Group of Ayacutdars in the form of labour or material or cash.

To overcome the difficulties in mobilising funds required to commence the works

and make some significant initial progress, the Government have accorded approval to make an advance payment of 15% of the contract value to the Farmers' Organisations or Farmers' Councils or Ayacutdars or group of Ayacutdars, who have been nominated to carry out the works under Kudimaramath. The advance will be recovered from the first three bills.

For the year 2016-2017, the Government accorded Administrative Sanction for 1519 works covering 30 Districts at an estimated cost of Rs.100.00 crore out of which, 1513 works have been completed. 6 works were dropped due to various reasons. (G.O. (D) No. 219 Public Works (W1) Department, dated 04.07.2018)

For the year 2017-2018, the Government have accorded Administrative Sanction for 1511 works covering 29 districts at an estimated cost of Rs.328.95 crore. Out of

1511 works, 1408 works have been completed. 46 works are in progress and 57 works are to be commenced.

For the year 2019-20, Sanction has been accorded for 1,829 Kudimaramath works covering 29 districts at an estimated cost of Rs.499.69 crore. Works are under progress.

3.2. Athikadavu-Avinashi scheme

Sanction was accorded for implementation of Athikadavu-Avinashi Irrigation, Groundwater recharge and Drinking water supply scheme in Coimbatore, Tiruppur and Erode Districts at an estimated cost of Rs.1652.00 crore under State fund in a Design, Build, Operate and Transfer (DBOT) basis. The Hon'ble Chief Minister has laid foundation stone for this scheme on 28.02.2019 and the works are in progress.

It is proposed to construct Check dam across River Bhavani at 230m downstream of Kalingarayan anicut. From the intake structure, it is planned to pump and convey water through pipelines to fill the Tanks and Ponds.

This project mainly aims at providing irrigation facilities to the drought prone areas and ground water depleted areas of Coimbatore, Tiruppur and Erode Districts. It is proposed to feed 32 Public Works Department tanks, 42 Panchayat Union tanks and 971 percolation ponds covering irrigable area of existing 24,468 acres.

To meet out the expenditure towards power consumption, it is planned to obtain fund assistance from NABARD for 30 MW of Solar Power Project proposal at an estimated cost of Rs.132.80 Crore.

M/s. WAPCOS Limited has been appointed as consultant for providing "Transaction

Advisory Services" including Design Evaluation, for this project.

Present Status of Works is as follows:

1) Main Line Survey works for 105.33km have been completed.

2) Branch Line Survey works for 913.90km have been completed.

3) The Survey works for 1044 Nos of Tanks and Ponds have been completed.

4) Proposal has been prepared and submitted to the State Environmental Impact Assessment Authority (SEIAA), Chennai for obtaining Environmental clearance for this scheme.

5) The conceptual design is under consideration of the consultant M/s. WAPCOS Limited.

3.3. Construction of a Barrage with Head Sluices across the Kollidam River at Adhanur and Kumaramangalam Villages in Cuddalore and Nagapattinam Districts

Construction of a barrage with head sluices across the River Kollidam at RD 74/3 mile in Adhanur and Kumaramangalam Villages in Cuddalore and Nagapattinam Districts was announced by the Hon'ble Chief Minister of Tamil Nadu under Rule 110 in the Floor of Assembly on 04.08.2014.

Accordingly, sanction was accorded for an estimated amount of Rs.428.00 crore. The amount comprises Rs.396.414 crore for the civil works, Rs.31.345 crore for Land acquisition and Rs.24.00 lakh for Surveying and Levelling operations of the scheme.

This barrage is proposed with a capacity of 0.334 TMC ft. and the total usable annual storage works out to 1.336 TMC ft. adopting 4 fillings. The total ayacut benefitted would be 31,221 acres, out of which 26,810 acres through stabilisation and 4,411 acres by recharging of existing nearby wells in Cuddalore and Nagapattinam Districts. Water stored by this scheme will be utilized for Chennai drinking Water supply through Veeranam Tank. The Villages on both the banks of River Kollidam will be linked by the provision of bridge over the regulator. At present, formation of Coffer Dam, Raft foundation and Approach road formation are in progress. Further, strengthening of Vadakku Rajan Canal bunds and construction of two-lane bridge connecting South Rajan Canal and Narimudukku drain are in progress.

Towards compensation an amount of Rs. 31.34 crore for acquiring 84.72 Ha of Patta lands and 12.898 Ha of Poramboke lands has been transferred to the District Collectors of Cuddalore, Nagapattinam and Thanjavur Districts and land acquisition processes are carried out.

3.4. Construction of a new Regulator in Kollidam River in the downstream of Upper Anicut and strengthening of the existing Regulator at Mukkombu (Upper Anicut) in Tiruchirappalli District

Mukkombu Regulator

The upper anicut popularly known as Mukkombu barrage located between Elamanur and Vathalai Villages in Tiruchirappalli District. It bifurcates Cauvery into two divisions viz., Cauvery River for irrigation and Kollidam River to discharge flood water. An anicut across

the Kollidam River was constructed by Sir Arthur Thomas Cotton in 1836. To have effective flood control, the upper anicut was converted into regulator in 1902.

During July and August 2018, the States of Kerala and Karnataka received heavy rain due to South-west monsoon, resulting in heavy inflow into Mettur Dam, which attained full storage level on 23.7.2018. Due to further heavy inflow, the surplus flood was discharged continuously from 23.7.2018 to 01.08.2018 and from 11.08.2018 to 25.08.2018, making the duration of flood as the longest one in the history. On 22.08.2018, the piers along with shutters of the vents from 6 to 14 in the Upper Anicut (Regulator) across the South Kollidam collapsed one by one continuously. The entire water started flowing through Kollidam River, which results in reduction of flow of water into Cauvery arm required for irrigation.

Restoration Work

There was an urgent need to close the breached portion of the regulator to divert the flood water to Cauvery Arm and to ensure irrigation to Cauvery Delta. Experts from Indian Institute of Technology, Chennai, Chief Engineers of WRD and Technical Experts have inspected the site and offered their suggestions. Temporary restoration works were carried out by formation of Coffer Dam using the sand bags and Stone boulders in the damaged portion to restore the supply to irrigation in Cauvery delta districts.

Strengthening of existing Regulator

Since a period of 18 to 24 months is required for construction of new Regulator, the temporary structure formed and the South Kollidam barrage are to be strengthened to withstand

subsequent flood. To achieve this, the Government have accorded sanction for the work of strengthening the existing South Kollidam Barrage by providing additional downstream cut off wall and Coffer dam at an estimated cost of Rs.38.85 crore and the work is in progress.

New Regulator

The Hon'ble Chief Minister announced for construction of a New Regulator to replace the existing partially damaged old Regulator. Accordingly, administrative sanction was accorded for Rs.23.50 lakhs for conducting Surveying and Levelling operations and preparation of Detailed Project Report.

Based on the Detailed Project Report, the Government have accorded Administrative Sanction for construction of a new regulator across Southern and

Northern arms of the Kollidam River on the downstream side of the existing regulator at Mukkombu (Upper Anicut) in Tiruchirappalli District at an estimated cost of Rs.387.60 crore under NABARD assistance. The proposal envisages construction of new regulator, single Lane bridge over regulator, guide walls, standardization of flood banks and allied works, etc.

Construction of a new regulator (Upper Anicut) will benefit an ayacut of 12,01,507 acres in four major delta districts viz. Thanjavur, Thiruvarur, Nagapattinam and Pudukottai. In addition, an extent of 56,953 acres in Tiruchirappalli and Ariyalur Districts will be benefitted through Pullambadi, Peruvalai and Ayyan voikal. In total 12,58,460 acres will be benefitted. This regulator also serves as flood moderator which safeguards the two important

towns namely Tiruchirappalli and Srirangam from flood. Works are in progress.

3.5. Supplying Clay, Silt, Savudu & Gravel available in Tanks, Reservoirs and other water bodies to the Public, Farmers and Potters

The Amendment to Rule 12(2) and 12 (2-A) (a) of the Tamil Nadu Minor Minerals Concession Rules, 1959 on 27.04.2017 made by Industries Department allows potters, public and farmers of Tamil Nadu (except Chennai, Kancheepuram and Thiruvallur Districts) to take clay, silt, savudu and gravel from beds of tanks, channels and reservoirs at free of cost, for pottery, domestic and agricultural purposes. According to this, clay, silt, savudu and gravel can be taken from the water bodies, such as tank beds, channels and reservoirs, notified in

District Gazette in their Villages or adjoining Villages for the above purposes after obtaining prior permission from the concerned District Administration. By this, original capacity of the water bodies can be restored.

The quantity of silt and clay proposed to be removed for agricultural purpose shall not exceed 75 cubic metre per acre (185 cubic metre per hectare) for wet lands and 90 cubic metre per acre (222 cubic metre per hectare) for dry lands, once in two years. The quantity of earth, savudu and gravel for domestic purposes shall not exceed 30 cubic metre. The quantity of clay proposed to be removed for pottery shall not exceed 60 cubic meter.

72.867 M.Cum of vandal earth has been issued to 6,49,059 beneficiaries throughout Tamil Nadu. Out of this, 16.272 M.Cum of vandal earth has been

issued to 1,18,215 beneficiaries through Water Resources Department.

3.6. Desilting of Dams / Water bodies

To restore the water bodies to its original capacities desilting is very essential. Desilting of Water bodies are to be carried out by considering various aspects such as hydraulics of the water bodies, study of silt / sediment and its properties, Calculation of Quantum of silt, suitable process for removal of Silt, access to the water bodies for removal of silt, demand for silt / sediment etc.,

Desilting of major water bodies is a new attempt in Tamil Nadu and it has been decided to undertake the preliminary process for desilting of Vaigai Reservoir, Pechipparai Reservoir, Mettur Reservoir, Amaravathy Reservoir and Srivaikundam Anicut on pilot basis.

M/s. WAPCOS Ltd., was entrusted with the consultancy services at an estimated cost of Rs.8.348 crore. The consultancy services include preparation of the Detailed Project Report (DPR), Rapid Environmental Impact Assessment (REIA) Study, Tender Documents and evaluation, obtaining clearances from Government of India including Funding Assistance, Project Management Consultancy Services and Post-Project Evaluation study.

The status of desilting proposals are as under:-

Sl. No.	Name of Reservoir/ Anicut	Present Status
1.	Vaigai Reservoir in Theni District	• Final Detailed Project Report has been approved by Technical Advisory Committee (TAC). • Rapid Enviromental Impact

Sl. No.	Name of Reservoir/ Anicut	Present Status
		Assesment (REIA study is under progress. • Estimate at an amount of Rs.9.00 crore for desilting works with expected revenue generation of Rs.211.76 crore is under consideration.
2.	Pechipparai Reservoir in Kanyakumari District	• Final Detailed Project Report has been approved by TAC. • REIA study is under progress. • Estimate at an amount of Rs.5.12 crore for desilting woks with expected revenue generation of Rs.95.60 crore is under consideration.
3.	Mettur Reservoir in Salem District	• Final Detailed Project Report approved by Technical Advisory Committee • Rapid Environmental Impact Assessment study is under progress. • Detailed Estimate for desiliting work is under preparation.

Sl. No.	Name of Reservoir/ Anicut	Present Status
4.	Amaravathy Reservoir in Tiruppur District	• Final Detailed Project Report approved by Technical Advisory Committee • Rapid Environmental Impact Assessment study is under progress. • Proposal for an amount of Rs.7.30 crore with expected revenue generation of Rs.172.81 crore is under consideration.
5.	Srivaikundam Anicut in Thoothukudi District	• Final Detailed Project Report approved by Technical Advisory Committee • Restoration of Srivaikundam Anicut to its original capacity at an estimated cost of Rs.5.93 crore was commenced on 25.08.2015 as per the directions of the National Green Tribunal. 50% of work has been completed and the work is temporarily stopped on 11.08.2016 as per the stay Order of the Court.

Desilting works under implementation

(Rs. in crore)

Sl. No.	Name of Reservoir / Tank	Estimate Amount	Present Status
1.	Veeranam Tank in Cuddalore District	40.00	Work is in Progress
2.	Cholavaram tank in Thiruvallur District	5.43	Work is in Progress
3.	Redhills (Puzhal) Tank in Thiruvallur District	9.90	Work is in Progress
4.	Chembaramabakkam Tank in Kancheepuram District.	4.03	Work is in Progress
5.	Sathyamoorthy Sagar Reservoir, Poondi, Thiruvallur District	10.98	Writ appeal is pending in the Hon'ble High Court of Madras

Sl. No.	Name of Reservoir / Tank	Estimate Amount	Present Status
6.	Parappalar Reservoir in Dindigul District	1.192	Desilting Estimate at an amount of Rs.1.192 crore with expected revenue generation of Rs.7.849 crore is under consideration.

3.7. Inter - linking of Tambiraparani - Karumeniyar - Nambiyar Rivers

This scheme is proposed for inter-linking of Tambiraparani, Karumeniyar and Nambiyar rivers by excavating a new flood carrier canal to utilize 2,765 M.C.ft. of surplus water.

By implementation of this scheme, an extent of 33,298.07 acre of ayacut in Tirunelveli District and 23,610.73 acre of ayacut in Thoothukudi District will be benefited. Therefore, 56,908.80 acre of lands will be benefited.

Administrative Sanction was accorded at an estimated cost of Rs.369.00 crore in anticipation of funding assistance under Accelerated Irrigation Benefits Programme from Government of India. The scheme has been sanctioned for implementation in 4 stages with each stage comprising 18 packages.

The revised length of flood Carrier Canal is 62.225 km in Tirunelveli District and 12.95 km in Thoothukudi District.

Revised Administrative Sanction for a part of the scheme for Rs.543.32 crore was accorded, in which Rs.310.62 crore is for excavation of flood carrier canal works

in Stage I & II and Rs.232.70 crore is for land Acquisition works in Stage I to IV have been provided.

Present stage of the scheme

Stage - I & II works

	Stage - I	**Stage - II**
Total No. of Packages	18	18
Works Completed	12	12
Works in progress	6	6

Further, Revised Administrative Sanction for Stage III works was accorded at an estimated cost of Rs.216.37 crore on 28.08.2018. For stage III works, the Honourable Chief Minister has laid foundation stone on 19.02.2019 and the works are in progress.

For Stage IV, survey works are under progress.

Details of Land acquisition Works

- Administrative Sanction has been accorded for Land acquisition and Land transfer works of the scheme in Tirunelveli District.
- 6 Land acquisition units with sanctioned strength of 87 staff including 6 Tahsildars are engaged in land acquisition works.
- Permission was granted to acquire lands for Stage III and IV works. Accordingly, Land acquisition works are in progress.
- As per Revised Land Plan Schedule, the total land required for the scheme is 3,086.28 Acres (1249.00.2 Ha.). So far, 502.198 Acres (203.23.7 Ha.) have been acquired.

Government of India Funding Assistance – Approval accorded

- The Revised Cost Appraisal was approved by the Central Water Commission, New Delhi for Rs.872.45 crore (Price level 2014-2015) on 07.05.2015.

- The Investment clearance was accorded for Rs.872.45 crore by the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India on 19.04.2016.

- As a special initiative, the Hon'ble Chief Minister presented a Memorandum on "Seeking Support on Water Resources Issues and for Irrigation Projects" to the Hon'ble Union Minister of Road Transport, Highways & Shipping, Water Resources, River Development and Ganga Rejuvenation, Government of India on 23.11.2017 & 25.02.2018, with a request

for funding assistance from Government of India under LTIF of PMKSY.

- The Government of Tamil Nadu has submitted the funding proposal under Long Term Irrigation Fund of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – AIBP to the Government of India. Further, the Government requested the MoWR, RD&GR for granting extension of time up to 31.12.2020, for completion of the above project and also for obtaining assistance of Government of India under PMKSY Scheme.

- In this connection, the Government of India have called for certain additional details. The required particulars will be forwarded to the Government of India.

3.8. Krishna Water Supply Project

An Agreement was signed among the States of Maharashtra, Karnataka and Andhra Pradesh in the presence of the

then Union Minister for Agriculture and Irrigation on 14.04.1976, in which each State agreed to spare 5 TMC ft., out of its share of Krishna water for supply of water to Chennai city. As per the subsequent Agreement, dated 28.10.1977, signed among the States of Maharashtra, Karnataka, Andhra Pradesh and Tamil Nadu, the Government of Tamil Nadu was permitted to draw not more than 15 TMC ft. of water in a water year from Srisailam Reservoir during the period from 1st July to 31st October.

Subsequently, in the Agreement signed between the States of Tamil Nadu and Andhra Pradesh on 18.04.1983, the mode of conveyance of the Krishna water from Srisailam Reservoir upto the Tamil Nadu border (as provided in the Inter-State Agreement of 28.10.1977), the construction of various components, the schedule of delivery of 12 TMC ft. of water

(excluding evaporation loss) at the Tamil Nadu State Border and the mode of sharing of cost of the various components between Andhra Pradesh and Tamil Nadu had been agreed upon. The Agreement stipulates that water will be realized at the Zero point by Tamil Nadu in two spells in a water year as detailed below:

July to October - 8 TMC ft.

January to April - 4 TMC ft.

As a result of this Agreement, Krishna Water is being supplied to Chennai City since 1996 – 1997 from the State of Andhra Pradesh. So far, a total of 81.216 TMC ft. of water has been realized in the zero point border of Tamil Nadu from 1996-1997 to 2018-2019.

Due to the continuous efforts taken by the Government of Tamil Nadu, the Government of India in September,2018

constituted a Committee under the Chairmanship of the Chairman, Krishna River Management Board with the Engineers-in-Chief, Water Resources Department of the Government of Maharashtra, Karnataka, Tamil Nadu, Telangana, Andhra Pradesh, Chief Engineer, Irrigation Management Organisation – Central Water Commission as Members and the Member Secretary, Krishna River Management Board (KRMB) as Member Secretary to ensure supply of Krishna Water to augment drinking water supply to Chennai City.

The first meeting of this Committee was held on 09.01.2019 at Hyderabad. After the insistence of the Government of Tamil Nadu about drinking water requirements of the Chennai City, in the above meeting, 0.379 TMC ft. of water has been realized at Tamil Nadu border during February-March. The second meeting of this

Committee was held on 18.06.2019 at Hyderabad. During the meeting, the Committee directed the Government of Andhra Pradesh to release 8 TMC ft. of water during the period from July to October, 2019 and that if water is available, Andhra Pradesh should look for the possibility of supplying 12 TMC ft. of water to Tamil Nadu during this period as supplying water during January – April generally becomes difficult due to low reservoir levels.

Tamil Nadu is taking continuous efforts for realisation of Krishna Water as per the Agreements in force.

4. On-going Schemes

4.1. Creation of New Irrigation Infrastructures

Construction of 62 new irrigation related infrastructures such as 2 Reservoirs, 6 Anicuts, 1 Regulator, 3 Tanks, 36 Check Dams, 4 Grade Walls, 2 Bed Dams, 1 Dividing Dam, 2 Bridges, 1 Barrel, 2 Canals and 2 Office Buildings are in progress in 23 Districts. They have been sanctioned at an estimated cost of Rs.910.39 crore. By implementing these schemes, an extent of 87,463 acres of ayacut will be benefited.

The details of the works are as below:

4.1.1. New Reservoirs / Barrages

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt.	Ayacut Benefited (in acre)
State Funded Schemes			
1.	Formation of Reservoir across Marudaiyaru River near Kottarai Village in Alathur Taluk of Perambalur District.	124.20	4194.00
2.	Formation of a New reservoir near Kannankottai and Thervoy Kandigai Villages in Gummidipoondi Taluk of Tiruvallur District.	380.00	696.00
	Total	**504.20**	**4890.00**

4.1.2. New Anicuts / Regulators

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt.	Ayacut Benefited (in acre)
NABARD Assisted Schemes			
1.	Construction of Tail end Regulator across Kittianai Uppanar at LS 7.100 km in Pudupattinam Village (nearby Thargas Anjaneyar Temple back side) of Sirkali Taluk of Nagapattinam District.	9.77	48129.00
2.	Construction of anicut across Virusuliyar River to feed Mallanur tank and other tanks in Tiruvadanai Taluk of Ramanathapuram District.	1.89	549.06
3.	Construction of anicut across Paralaiyar River to feed Perianaikulam Tank etc., in	2.82	377.75

Sl. No.	Name of Work	Est. Amt.	Ayacut Benefited (in acre)
	Perianaikulam village in Kamuthi Taluk in Ramanathapuram District.		
4.	Construction of anicut across Paralaiyar River to feed Keelasivankulam tank etc, in Melaparthibanoor Village in Paramakudi Taluk of Ramanathapuram District	2.91	388.39
5.	Construction of anicut across Naganadhi River near Ammapalayam village to feed Melnagar Tank in Arani Taluk of Tiruvannamalai District.	3.28	756.88
6.	Construction of anicut across Kallar River near Nemili & Asanallikuppam Villages feeding to Sayanavaram Tank in Arakkonam Taluk in Vellore District.	9.90	2340.00

Sl. No.	Name of Work	Est. Amt.	Ayacut Benefited (in acre)
7.	Construction of anicut across Pennaiyar between Enaderimangalam Village in Panruti Taluk in Cuddalore District and Dalavanur Village in Villupuram Taluk in Villupuram District	25.35	2114.00
	Total	**55.92**	**54655.08**

4.1.3. New Tanks / Ponds

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
State Funded Schemes			
1.	Formation of Tank across Nallathangal Odai Near Kothaiyam Village of Oddanchataram Taluk in Dindigul District	17.38	800.00

NABARD Assisted Schemes			
2.	Formation of Tank across jungle stream near Kanakampalayam Village in Gobichettipalayam Taluk of Erode District	64.20	500.00
3.	Formation of Percolation pond across Kaanimar odai in Mammaniyur Hamlet in Kombaripatti Village in Vedachandur Taluk of Dindigul District	1.92	193.47
	Total	**83.50**	**1493.47**

4.1.4. New Canals / Channels

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
State Funded Schemes			
1.	Formation of a new Flood carrier canal from Kanjampatti odai in Vilathikulam Taluk of	18.00	4241.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	Thoothukudi District to feed Sayalgudi and other tanks in Kamudhi and Kadaladi Taluks of Ramanathapuram District.		
2.	Construction of Barrel at LS 2046 m across Kannadian Channel to divert the drainage water of Kallidaikurichi town in Ambasamudram Taluk of Tirunelveli District	1.60	-
3.	Linking of Parambikulam Aliyar Project system to Uppar Canal in Dharapuram Taluk of Tiruppur District	8.10	6060.00
	Total	**27.70**	**10301.00**

4.1.5. New Check Dams/Bed Dams/ Grade Walls

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
NABARD Assisted Schemes			
1.	Construction of Check Dam across Kumittipathi River in S.F. No. 364 of Thirumalayampalayam Village near Theppakulathuparai in Coimbatore South Taluk of Coimbatore District.	0.87	122.05
2.	Construction of Check Dam across Vellar River in Gudalur Village in Thittagudi Taluk of Cuddalore District.	15.77	153.00
3.	Construction of Check Dam across Manimuktha River in	10.05	160.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	Paravalur Village in Virudhachalam Taluk in Cuddalore District.		
4.	Construction of Check Dam across Vaigai River at LS 35.05 Km in Chithargalnatham Village in Nilakottai Taluk of Dindigul District.	12.30	290.40
5.	Construction of Check Dam across Santhanavarthini River near Velampatti Hamlet of Marambadi Village in Vedasandur Taluk in Dindigul District.	4.27	741.30
6.	Construction of Check Dam across Manjalar River near Ucchapatti in	2.47	264.39

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	Kunnavarayankottai Village in Nilakottai Taluk of Dindigul District.		
7.	Construction of Check Dam across Manjalar River at L.S. 14000 m in Kanavoipatti Village in Nilakottai Taluk of Dindigul District.	2.11	215 .00
8.	Construction of a Check Dam across Palar River near Esoor & Vallipuram Villages in Maduranthangam Taluk in Kancheepuram District.	30.95	341.44
9.	Construction of Check Dam across Kuzhithuraiyar near Erayumanthurai in Kanniyakumari District.	15.37	-

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
10.	Construction of Check Dam across Pennaiyar River in Bendrahalli Village in Pochampalli Taluk in Krishnagiri District.	9.24	236.40
11.	Construction of Check Dam across Pennaiyar River in SF No.464 of Barur Village near Arasampatti in Pochampalli Taluk of Krishnagiri District	8.84	508.00
12.	Construction of Check Dam across Koneri/ Pokkuniyar River in Ladapuram Village in Perambalur Taluk and District.	1.65	752.21
13.	Construction of Check Dam across Poonaikuthi	0.46	250.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	vari drain at L.S 2.50 km in Manamadai Village of Karampakudi Taluk in Pudukkottai District.		
14.	Construction of Check Dam across Gundar River near Kakkudi Village in Kamudi Taluk of Ramanathapuram District.	3.80	709.47
15.	Construction of Check Dam across Gundar River near Sayalkudi Village in Kadaladi Taluk in Ramanathapuram District	3.18	490.22
16.	Construction of Check Dam across Swetha Nadhi in Laddhuvadi Village in Gangavalli Taluk of Salem District.	2.43	43.88

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
17.	Construction of Check Dam across Swetha Nadhi in Upstream of Kaliamman Koil in Kudamalai Village in Gangavalli Taluk in Salem District.	1.88	65.63
18.	Construction of Check Dam across Kallar River in Panaimadal Village of Pethanaickenpalayam Taluk in Salem District.	1.37	503.00
19.	Construction of Check Dam across Perumpallam Odai near Chinnathanda in S.F No.232 and 305 in Lakkampatti Village in Mettur Taluk in Salem District.	0.95	22.50
20.	Construction of Grade wall across Arasalar river at mile 52/3-4 in	5.20	1185.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	Sundaraperumal Kovil Village in Kumbakonam Taluk of Thanjavur District.		
21.	Construction of Grade wall across Keerthimannar in mile 62/7 in Poundrigapuram Village in Thiruvidaimarudur Taluk of Thanjavur District.	3.90	614.00
22.	Construction of Check Dam across Ayyanapuram vari in S.F. No.28/88 in Vendayampatti Village of Budalur Taluk in Thanjavur District.	2.61	629.27
23.	Construction of 2 Check Dams across Pattuvanachi Drain @ L.S 6.500 km and	0.93	335.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
	11.000 km in Vellur and Thoundrampattu Villages in Orathanadu Taluk in Thanjavur District.		
24.	Construction of Check Dam across Arumalai Drain at L.S 1.25 km in Arumalai Village of Orathanadu Taluk in Thanjavur District.	0.49	203.53
25.	Construction of Check Dam across Vannan Vari at L.S 2.100 km in Thoppuviduthi Village of Orathanadu Taluk in Thanjavur District.	0.44	280.00
26.	Construction of Grade wall across Odambogiyar river at mile 74/4 in Nadupadugai village in Kudavasal Taluk in Thiruvarur District	2.47	–

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
27.	Construction of Grade wall across Keerthimanar river at mile 72/7 to feed Serugudy channel in Serugudy village of Kudavasal Taluk in Thiruvarur District	1.49	322.00
28.	Construction of 2 nos. of Check Dams across the arms of Vembar River near Vembar Village and Periyasamipuram Village in Vilathikulam Taluk of Thoothukudi District.	17.98	572.80
29.	Construction of new Check Dam across Tambiraparani River near Agaramkudiyiruppu in Vallanadu Village of Srivaikundam Taluk of Thoothukudi District.	12.29	2347.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
30.	Construction of Check Dam across Karumeniyar River in Pallakurichi Village of Sathankulam Taluk in Thoothukudi District.	2.84	195.00
31.	Construction of Check Dam across Uppodai River in Savalaperi Village in Kovilpatti Taluk of Thoothukudi District.	2.32	564.28
32.	Construction of Bed Dam across Kottamalaiyar River offtake at Achanthikulam Channel, Puliyankudi Village in Kadayanallur Taluk of Tirunelveli District.	2.16	299.35

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
33.	Construction of Check Dam across Chittar River at Down Stream side of Nettur Anicut in Agaram Village in Veerakeralamputhur Taluk of Tirunelveli District.	1.79	184.00
34.	Construction of Bed Dam across Elumichaiyar River near Maruthankulam offtake in Therkku Kallidaikurichi Village in Ambasamudram Taluk of Tirunelveli District.	1.73	225.00
35.	Construction of Check Dam across Nichabanadhi in Panaiyur Village in Sankarankovil Taluk inTirunelveli District.	1.13	204.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
36.	Construction of Check Dam across Uppar Odai in S.F.No.135 of Amandhakadavu Village in Udumalpet Taluk of Tiruppur District	1.52	125.86
37.	Construction of Check Dam across Kosasthalaiyar River in Pattaraiperumbudur Village to channelize water to Arulmigu Veeraraghava Perumal Temple tank in Thiruvallur Taluk and District.	25.00	–
38.	Construction of Check Dam across Cheyyar River near Thellur village in Arani Taluk in Tiruvannamalai District.	5.64	179.24

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
39.	Construction of Check Dam across Cheyyar near Kottavur of Paramanandal Village in Chengam Taluk in Tiruvannamalai District.	2.00	71.00
40.	Construction of Check Dam across Agaram River near Karungali Village in Anicut Taluk in Vellore District.	5.00	428.42
41.	Construction of Check Dam across Pambar River near Chinnarampatti Village in Tirupathur Taluk in Vellore District.	2.48	62 .00
	Total	**229.37**	**14896.00**

4.1.6. New Dividing Dam

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
NABARD Assisted Scheme			
1	Construction of Dividing Dam across Kalingalar at offtake point of Gudalurkulam in Naranapuram Village in Sivagiri Taluk of Tirunelveli District.	1.40	1228.00
	Total	**1.40**	**1228.00**

4.1.7. New Bridges

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
State Funded Scheme		
1	Construction of two lane bridge across South Bank Canal, Krishnarayapuram channel, New Kattalai High Level Canal and North Bank Canal near Mayanur Village in Krishnarayapuram taluk of Karur District.	6.86

Sl. No.	Name of Work	Est. Amt
NABARD Assisted Scheme		
2	Construction of Bridge across Ponnar Main Channel at LS.10.70 Km in Sripuranthan Village of Udayarpalayam Taluk in Ariyalur District.	0.67
	Total	**7.53**

4.1.8. New Buildings

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
State Funded Scheme		
1	Construction of Sub Division Office Building with Section Offices for the South Vellar Basin Sub Division, Keeranur in Kulathur Taluk of Pudukkottai District.	0.40
2	Construction of Sub Division Office Building with two Section Offices for the Lower Vaigai Basin Sub Division, Thiruvadanai in Thiruvadanai Taluk of Ramanathapuram District.	0.361
	Total	**0.761**

4.2. Rehabilitation of Irrigation Infrastructures

Rehabilitation of 39 irrigation related infrastructures such as rehabilitation works in 1 Dam, 2 Anicuts, 25 Tanks, 2 Rivers, 1 Check Dam, 5 Channels, 1 Park, 1 Building and 1 Road are in progress in 15 Districts. They have been sanctioned at an estimated cost of Rs.295.75 crore. By implementing these schemes, an extent of 93,976 acres will be benefited.

The details of above works are as tabulated below:

4.2.1. Rehabilitation of Dams

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
State Funded Scheme		
1	Strengthening of Baby Dam by providing RCC backing and instrumentation for Main Dam and Baby Dam of Mullai Periyar Dam in Idukki District in Kerala.	7.85
	Total	**7.85**

4.2.2. Rehabilitation of Anicuts

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
State Funded Scheme		
1	Rehabilitation of Mariamman Kovilpallam Anicut in Palayampudur village of Nallampalli Taluk in Dharmapuri District.	2.95
NABARD Assisted Scheme		
2	Rehabilitation and Improvement works of flood damaged portion of the Check Dam across Kosasthalaiyar River near Thirukandalam Village in Uthukottai Taluk of Thiruvallur District.	18.18
3	Rehabilitation of Old Corroded Shuttering arrangements in Cauvery, Vennar and Kollidam arm and Sand Vent shutters of Kallanai in Thanjavur District.	8.53
	Total	**29.66**

4.2.3. Rehabilitation of Canals/Channels

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
State Funded Scheme			
1.	Removal of Prosopis Juliflora in Vagai River from LS 38.00 km to 70.00 km (Chithanai Anicut to Kamarajar Bridge) in Madurai District.	3.30	-
2.	Removal of Prosopis Juliflora in a stretch of 10.00 km in Tambiraparani River from Vilagam to Naranammalpuram bridge in Tirunelveli Corporation Limit.	1.40	-

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
NABARD Assisted Schemes			
3.	Rehabilitation and improvement of Trash rack at LS 4000 feet of Leading Channel Pentagonal trash rack at Sarkarpathy Power Tunnel (SPT) and construction of boundary wall from LS 4000 feet to Sarkarpathy Power Tunnel (SPT) of Thunakadavu Dam of Thunakadavu in Chitthur Taluk of Palghat District	2.48	
4.	Rehabilitation of Mettur East Bank Canal from LS 14,000 m to 31,400 M in Edappadi and Sankari Taluks of Salem District	48.86	9039.00

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
5.	Modernisation of Vadavar Extension channel from LS 0.00 km to 4.10 km in Mannargudi Taluk of Thiruvarur District	9.74	21170.60
6.	Lining of Tirunelveli Channel and Improvements to sluices of Tirunelveli Channel in Tirunelveli District.	15.00	2000.00
7.	Rehabilitation of left out reaches in Udumalpet Main Canal from LS 0.000 km To 16.600 km and its distributaries in Udumalpet Taluk of Tiruppur District.	4.93	58318.00
	Total	**85.71**	**90527.60**

4.2.4. Renovation of Parks / Buildings / Roads

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
State Funded Scheme		
1	Rehabilitation and Improvements of Sethumadai to Anaipadi Ghat road from LS 21/400 km to 34/400 km in Pollachi Taluk of Coimbatore District.	5.30
2	Renovation of Dormitory Block - II at Thekkady in Idukki District.	0.50
3	Providing Landscaping arrangements, sitting benches, Fountain pathway, Children Play equipments, Gazebo, Statue and other works in Andiyappanur Odai Reservoir in Vellore District	4.67
4	Tourism development works in Andiyappanur Odai Reservoir area in Vaniyambadi Taluk of Vellore District	1.30
	Total	**11.77**

4.2.5. Renovation of Tanks

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
State Funded Schemes			
1	Eco Restoration and Protection of Peerkankaranai tank in Tambaram Taluk of Kancheepuram District	9.81	-
2	Creation of additional water storage in four tanks viz. Cholavaram Tank, Porur Tank, Nemam Tank and Ayanambakkam tank and Restoration of additional storage space in Chembarambakkam Tank in Kancheepuram and Tiruvallur Districts	130.00	-

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
3	Rehabilitation of Vandiyur tank in Madurai North Taluk of Madurai District.	1.32	124.93
NABARD Assisted Schemes			
4	Rehabilitation and Restoration of 9 Ex-Zamin Tanks in Paramakudi and Thiruvadanai Taluks of Ramanathapuram District.	2.15	474.38
5	Rehabilitation and improvements to 7 Nos. of Tanks and Construction of 7 Nos. of artificial recharge well structures in Sarabanganadhi sub basin of Omalur Taluk in Salem District.	9.65	1177.28

Sl. No.	Name of Work	Est. Amt	Ayacut Benefited (in acre)
6	Augmentation of water supply, Strengthening and Deepening of Meerusamuthiram Tank in Allinagaram Village to fullfill the drinking water needs of Theni Taluk in Theni District.	4.41	-
7	Desilting the Bed of Vaduvur tank in Vaduvur Agraharam Village of Needamangalam Taluk and providing Feeder channel to Chitheri tank in Moovarkottai Village of Mannargudi Taluk in Thiruvarur District	3.42	1672
	Total	**160.76**	**3448.59**

4.3. Coastal Protection works

3 Coastal Protection Works including Construction of Groynes and reformation of RMS wall at an estimated cost of Rs.55.03 crore in Kanyakumari and Thiruvallur Districts are in progress.

The details of the works are as below:

(Rs. in Crore)

Sl. No.	Name of Work	Est. Amt
NABARD Assisted Schemes		
1	Construction of Groynes at Poothurai in Vilavancode Taluk of Kanniyakumari District.	14.69
2	Reformation of RMS Wall at Chinnathurai in Vilavancode Taluk of Kanniyakumari District.	1.95
3	Construction of a series of 9 Numbers of Groynes from Ennore to Ernavoorkuppam (Reach II) LS 15/200 to 19/000 KM along the Coastal Area in Madhavaram Taluk in Tiruvallur District.	38.39
	Total	**55.03**

Further, the study on coastal erosion problems and related anti sea erosion works from Vattakottai to Neerody in Kanyakumari District by the IIT, Madras at an estimated cost of Rs.11.50 lakh is under progress.

5. Long Term Flood Mitigation works in the vulnerable areas of Chennai, Kancheepuram & Tiruvallur Districts

Based on the announcement made by the Hon'ble Chief Minister under Rule 110 of Legislative Assembly Rules, Long term flood mitigation works in the very high vulnerable areas of Chennai, Kancheepuram & Tiruvallur Districts in Araniyar, Kosasthalaiyar, Cooum, Adayar and Kovalam sub basins have been sanctioned by Revenue and Disaster Management Department at an estimated cost of Rs.100.10 crore. The works are being carried out by Water Resources Department.

The objective is to widen the existing channels, deepening of tanks without ayacuts in cities, construction of cut and cover macro drains in vulnerable reaches

so as to mitigate flood during North East monsoon period.

Out of 16 works sanctioned, 3 works at an estimated cost of Rs. 12.10 crore have been completed. The details of remaining 13 works in progress are as below:

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)
1	Widening of Pappan Channel by providing Cut & Cover at head reach of 700m in Adayar Sub Basin	7.00
2	Formation of Single Vent Cut & Cover with provision for velocity accelerator and dewatering sump at head reach in Adayar Sub Basin	20.00
3	Intra Basin Transfer channel with regulator from Orathur Tributary to Manimangalam Tank in Adayar Sub Basin	4.50

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)
4	Formation of new reservoir in between Arambakkam tank and Orathur Tank by connection of bunds in Adayar Sub Basin.	1.50
5	Deepening and Capacity addition of Manimangalam Tank including foreshore reclamation in Adayar Sub Basin	2.00
6	Formation of cut and cover with single vent from the Chitlapakkam Tank to Sembakkam Tank including Desilting of Chitlapakkam Thangal in Kovalam Sub Basin.	12.00

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)
7	Construction of Cut & Cover Macro Drain along the most flood vulnerable reach from Narayanapuram Tank to Pallikkaranai Swamp in Sholinganallur Taluk of Kancheepuram District in Kovalam Sub Basin.	20.00
8	Providing link to the Urapakkam Tank with Thangal and Nandhivaram Surplus course including deepening for increasing storage capacity in Adayar Sub Basin.	2.00
9	Deepening of Adanur, Guduvancheri, Urapakkam Tanks in Adayar Sub Basin and Nanmangalam Tank in Kovalam Sub Basin	4.00

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)
10	Construction of 12 nos. of box culverts with M.S screw gear shutters in the newly formed flood banks of Kosasthalaiyar River in Kargil Nagar Area in Kosasthalaiyar Sub Basin.	2.00
11	Providing protective measures along Red hills tank surplus course by construction of retaining wall for 1.00 km at 8 locations and forming an earthen channel for a missing link in Aamullavoyal Village in Kosasthalaiyar Sub Basin.	10.00
12	Formation of earthen foreshore bund with inlet box culverts and screw gear shutters across it and construction of masonry drain along its toe in the residential	1.00

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)
	areas to collect storm water and dispose it to Cooum river through a deeper drain across the right flank end of Tiruninravoor tank in Cooum Sub Basin.	
13	Widening and desilting the North Buckingham canal between Ennore creek and Araniar confluence point from LS 20.00 km to 31.20 km in Cooum Sub Basin.	2.00
	Grand Total	**88.00**

6. Externally Aided Projects

6.1. World Bank Assisted Tamil Nadu Irrigated Agriculture Modernization Project (TN IAMP)

Tamil Nadu Irrigated Agriculture Modernisation Project (TN IAMP) has been planned for implementation in 66 sub basins of the State. It covers 30 Districts for an extent of 5.43 lakh hectare over a period of 7 years starting from 2017 with an outlay of Rs.2,962 crore. This is the follow on project of the successfully completed IAMWARM Project.

The Project is implemented by Water Resources Department and 6 line departments and Tamil Nadu Agriculture University, Tamil Nadu Veterinary and Animal Sciences University and Tamil Nadu Fisheries University. In this Project,

it is proposed to take up rehabilitation of 4,778 Tanks, 477 Anicuts, construction of Check Dams, artificial recharge wells in water spread area of tanks. In addition to this, improving drainage cum irrigation channels in Cauvery Delta and other sub-basins at an outlay of Rs.2,131.34 crore and earmarked for Water Resources Department in four phases.

Rehabilitation of Flood Affected Tanks and Irrigation Channels:

- Administrative sanction has been accorded for the rehabilitation of flood affected 59 tank Systems consisting of 57 tanks and 2 Main Irrigation Channels grouped into 16 packages in 4 Districts under funding of World Bank in TNIAMP, for Rs.43.63 crore. The district wise details of packages are as below:

(Rs. in Lakhs)

S. No.	District	No. of Packages	Estimate Amount
1	Tiruvallur	3	474.20
2	Thiruvannamalai	1	90.82
3	Cuddalore	1	197.69
4	Kancheepuram	11	3600.53
	Total	**16**	**4363.24**

Out of 16 packages, works have been completed in 6 packages and works in remaining 10 packages are in progress.

Phase I Works:

Administrative sanction has been accorded for the rehabilitation of 1,325 tanks, 107 anicuts and 45 artificial recharge wells in 18 sub basins grouped into 204 packages covering 22 Districts at an estimated cost of Rs.743.57 Crore, including 18 packages of Environmental

management component at an estimated cost of Rs.1.86 crore. The district wise details of packages are as below:

(Rs. in Lakhs)

Sl. No	District	No. of Packages	Estimate Amount
1	Tiruvallur	3	363.00
2	Krishnagiri	7	2287.17
3	Dharmapuri	2	816.83
4	Cuddalore	14	7157.68
5	Villupuram	2	1006.03
6	Kancheepuram	31	8638.72
7	Tiruchirappalli	9	3584.25
8	Pudukkottai	9	1372.04
9	Thanjavur	28	10850.37
10	Tiruvarur	7	3974.00
11	Nagapattinam	20	8620.79
12	Perambalur	1	385.53

Sl. No	District	No. of Packages	Estimate Amount
13	Coimbatore	2	270.00
14	Erode	9	3807.00
15	Madurai	13	4019.22
16	Dindigul	7	1705.10
17	Virudhunagar	2	295.52
18	Sivagangai	2	136.85
19	Ramanathapuram	3	1916.76
20	Theni	8	2135.34
21	Tirunelveli	16	7828.74
22	Thoothukudi	9	3185.55
	Total	**204**	**74356.49**

Out of 204 packages, works have been completed in 36 packages and in 150 packages works are in progress. 18 packages related to environmental Management activities at an estimated cost of Rs.1.86 Crore are also in progress.

Detailed Project Reports for the selected 16 Sub Basins covering 18 districts viz., Tiruvallur, Vellore, Krishnagiri, Dharmapuri, Thiruvannamalai, Villupuram, Cuddalore, Nagapattinam, Ariyalur, Thanjavur, Tiruchirappalli, Namakkal, Salem, Erode, Karur, Madurai, Sivagangai and Tirunelveli for rehabilitation under Phase -II have been sent to World Bank for approval.

Participatory Irrigation Management

Tamil Nadu is one among the pioneering States in promoting Participatory Irrigation Management. "The Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000" (TN Act 7 of 2001) was enacted to and has been brought into force under management of Water Resources Department.

The Project Appraisal Document (PAD) of the World Bank for the TN PIM activities has envisaged for establishing and

strengthening the WUAs to undertake Operation and Maintenance (O&M) of field channels and equitable water distribution within their command areas.

For implementing the Participatory Irrigation Management activities an overall amount of Rs.79.92 Crore has been allocated under TNIAMP.

The functions of the PIM Cell are as under:-

- To monitor the implementation of Participatory Irrigation Management Concept in the State.
- To lead the efforts in formation of Water Users' Association, Distributory Committees, Project Committees and Apex Committee as per TNFMIS Act, 2000.
- Capacity building to WUAs and Competent Authorities in the project area.

Administrative Sanction has been accorded for an amount of Rs.13.20 crore for conducting 2nd Term election for 2800 WUAs formed already in the 61 Sub basins under IAMWARM Project Command Area and 1st Term election to the 3200 WUAs which are to be formed in the 66 Sub Basins. Action is being taken to conduct election.

6.2. World Bank Assisted Dam Rehabilitation and Improvement Project (DRIP)

The Dam Rehabilitation and Improvement Project is under implementation to ensure the strength, safety and operational performance of the existing Dams in a sustainable manner, with World Bank financial assistance at an estimated cost of Rs.745.49 Crore for a period of six years from 2012 to 2018. Now the overall Project Cost has been revised to

Rs.803.00 Crore with the extended implementation period of 2 years i.e. up to June 2020.

It is proposed to rehabilitate 69 WRD dams and 38 TANGEDCO dams. The funding pattern between the World Bank and the State for Rs.752.00 Crore is 80:20 and for Rs.51.00 Crore is 70:30.

Three organizations, viz. Water Resources Department (WRD), Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and Agricultural Engineering Department (AED) are participating in this project.

The Department-wise Cost distribution are as below:

(Rs.in crore)

Sl. No.	Department	Original Fund Allocation	Revised Fund Allocation
1	Water Resources Department	469.94	527.59
2	TANGEDCO	260.14	260.00
3	Agricultural Engineering Department	15.41	15.41
	TOTAL	**745.49**	**803.00**

Present status of the works under this project

WRD Dams

a) Rehabilitation and Improvement Works:

Administrative sanction for Rehabilitation and Improvement Works was accorded for 69 dams. Out of 69 dams, Rehabilitation and Improvements works

(Except installation of instrumentation) have been completed in 67 dams. Works are in progress in Pechiparai and Manimuthar Dams.

b) Sedimentation Studies:

Administrative sanction has been accorded for Rs.3.08 crore to 56 dams for conducting the sedimentation studies and studies have been completed in 42 dams. For the remaining dams studies have been completed and documentation is in progress.

TANGEDCO Dams

Administrative sanction has been accorded for 20 TANGEDCO dams. Out of 20 dams, Rehabilitation and Improvement works have been completed in 12 dams, the works are in progress in 6 dams and works will be taken up in Upper Bhavani dam and Papanasam Diversion Weir.

Agricultural Engineering Department

Catchment Area Treatment Works in Krishnagiri & Kundah Reservoirs have been completed in three phases at an estimated cost of Rs.15.41 crore.

Dam Rehabilitation and Improvement Project (DRIP – Phase-II & III)

Under DRIP Phase-II & III, it is proposed to rehabilitate and improve 37 dams and associated appurtenances in line with ongoing Dam Rehabilitation and Improvement Project (DRIP) with the financial assistance from World Bank. It includes 10 dams left out in Phase I.

The components of the DRIP Phase–II & III are given below:

1. Rehabilitation & Improvement to Dams and associated appurtenances

2. Dam Safety Institutional Strengthening
3. Project Management

The estimated base cost of the project is Rs.455.39 crore for the year 2018-2019 (TNWRD & AED). The proposal for the DRIP- Phase–II & III at a project cost of Rs.610.26 crore to be implemented within 5 years period from 2020-2021, has been approved so as to apprise the Central Water Commission (CWC) and World Bank. The proposal is under scrutiny of Central Water Commission for obtaining approval from World Bank.

As a part of the preparatory activity for DRIP Phase–II & III, proposals for constitution of Dam Safety Review Panel and continuance of State Project Managemnet Units (SPMU) for this project are under consideration.

6.3. World Bank Assisted National Hydrology Project (NHP)

National Hydrology Project is a Central Sector Scheme with World Bank assistance, as 100% grants covering the entire country. The objective of NHP is to improve the extent, quality and accessibility of Water Resources, to create decision support Systems for floods and basin level resources assessment / planning and to strengthen the capacity of target water resources institutional.

The duration of the project is 8 years from 2016 – 2017 to 2023 – 2024. A sum of Rs.100.00 crore has been allotted to Tamil Nadu in the following four components under NHP.

(Rs.in crore)

Sl. No.	Name of Components	Allocation
1	Hydro met. Data Acquisition Systems	60.00
2	Water Resources Information Systems	5.00
3	Water Resources Operation Managing Systems	15.00
4	Institutional Capacity Enhancement	20.00
	Total	**100.00**

Annual Work Plan for 2019-2020

During the year 2019-2020, various domain Trainings have been conducted to enhance the capacity of the Engineers and Geoscientists. Procurement of Video Conferencing System at Chennai, Madurai & Thanjavur has been completed.

Procurement of Water Quality laboratory equipments to 3 laboratories at Chennai, Thanjavur and Madurai and Supply & Installation of Ground Water Real Time

Data Acquisition System are being taken up at an estimated cost of Rs.6.39 crore. Further, procurement of Surface Water and Real Time Data Acquisition System (RTDAS) and Village level water budgeting in Varahanadhi basin are proposed to be taken up under this project.

6.4. Asian Development Bank (ADB) Assisted Climate Change Adaptation Programme in Cauvery Delta

The Climate Change Adaptation Programme in Cauvery Delta is under implementation at a cost of Rs.1,560 crore, out of which the assistance of Asian Development Bank (ADB) will be Rs.1,092 crore and the State share will be Rs.468 crore. The Funding pattern of the scheme is 70:30 between the Asian Development Bank (ADB) and State Government.

As an initial stage of the project, Rs.960.66 crore has been sanctioned for Infrastructure improvement, Reconstruction and Rehabilitation works in Vennar sub basin in Cauvery Delta.

The Climate Adaptation in Vennar Sub Basin in Cauvery Delta Project aims to protect coastal districts of Tiruvarur and Nagapattinam from cyclones and flooding that is being made worse by climate change. The project is related to upgrading infrastructure, resectioning and strengthening embankments of Harichandranathi, Adappar River, Pandavaiyar River, Vellaiyar River, Valavanar Drain & Vedharanayam Canal and Uppanar Drain. Flood control structures will reduce the frequency and impact of flooding. Further, 13 pumping schemes are also being upgraded.

The details of works are as below:

S. No.	Name of the River / Drain / Work	Est. Amt. (Rs.in crore)	Ayacut in hec.	Present stage of work
I.Civil Works				
1.	Harichandranathi	257.74	12890	Out of 104 Nos of structures, 45 Nos were completed, 55 Nos. are in progress and 4 Nos of structures are to be taken up
2.	Adappar River	168.35	5439	Out of 56 Nos. of structures 34 Nos were completed , 21 Nos. are in progress 1 No of structure is to be taken up

S. No.	Name of the River / Drain / Work	Est. Amt. (Rs.in crore)	Ayacut in hec.	Present stage of work
3.	Pandavaiyar River	100.80	9493	69 Structural works were completed. Other Works are in progress
4.	Vellaiyar River	178.17	11919	Out of 74 Nos. of structures 63 Nos. were completed, 11 Nos. are in progress.
5.	Valavanar Drain	44.62	15984	Out of 32 Nos of structures 27 Nos. were completed, 4 Nos. are in progress and 1 No. of structure is to be taken up

S. No.	Name of the River / Drain / Work	Est. Amt. (Rs.in crore)	Ayacut in hec.	Present stage of work
6.	Vedharanayam Canal and Uppanar Drain	32.18	18022	11 Structural works were completed. Other Works are in progress
7.	13 Pumping schemes	14.59	4253	Works are in progress
II. Other Works				
1.	Setting up of Project Management Units, Project Implementation Units, Obtaining Environmental and Coastal Regulation Zone(CRZ)	164.21	Works are in progress	

S. No.	Name of the River / Drain / Work	Est. Amt. (Rs.in crore)	Ayacut in hec.	Present stage of work
	clearance, Appointment of Consultant for Environmental Impact, Resettlement cost, consultant for follow on project (Phase-II) etc.,			
	TOTAL	**960.66**		

Resettlement Plan Implementation:-

1,128 Nos. of houses in 40 sites are proposed to be constructed for resettlement of project affected persons in Tiruvarur and Nagapattinam Districts. 56 Nos. of houses were constructed and 1,072 Nos. of houses are under construction.

Phase-II

The Project technical advisory committee team is preparing Feasibility study for follow on project for remaining 14 rivers in Vennar sub basin and 23 rivers in Cauvery sub basin. Presently Hydraulic & Hydrology and ground water model studies for entire Vennar and Cauvery sub basins are in progress.

7. Centrally Sponsored Schemes

7.1. National Agriculture Development Programme (NADP)

In Government of India assisted National Agriculture Development Programme, Construction of Checkdams, Anicuts, Bed Dams and Reconstruction of Regulators at an estimated cost of Rs.21.00 crore benefitting an ayacut to an extent of 2,541 acres and 2 Nos. of Reformation of Rubble Mound Sea Wall works at an estimated cost of Rs.94.50 lakh are under implementation. So far, 5 works at a cost of Rs.12.60 crore have been completed and remaining 5 works are in progress and the details are as below:

(Rs. in crore)

S. No.	Name of Work	Est. Amt.	Ayacut benefited (Acres)
1.	Construction of an anicut across Kozhuvanar River to feed Alathur and Vengakudi tanks in Pilluvalasai Village in Avudaiyarkoil Taluk of Pudukottai District	4.00	667
2.	Construction of an anicut across Palar river to feed Perumi tank and other tanks in Thiruvudaiyarpatti Village in Thirupathur Taluk of Sivagangai District	2.50	215
3.	Construction of an Artificial Recharge Structure across Manimuktha River near S.F. No.87 of Eduttavainatham Village in Chinnasalem Taluk of Villupuram District	1.90	125

S. No.	Name of Work	Est. Amt.	Ayacut benefited (Acres)
4	Reformation of Rubble Mound Sea wall to protect the houses in front of community Hall at Vallavilaithurai in Vilavancode Taluk of Kanyakumari District.	0.49	-
5.	Reformation of Rubble mound sea wall to protect the houses in front of Chruch at Vallavilaithurai in Vilavancode Taluk of Kanyakumari District.	0.455	-
	Total	**9.345**	**1007.00**

7.2. Repair, Renovation and Restoration (RRR) of water bodies directly linked to agriculture under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

- Repair, Renovation and Restoration (RRR) is a Centre-State shared scheme under PMKSY.

- As per new guidelines of PMKSY, the funding pattern between Centre and State is 60:40 for drought prone areas and for non-drought prone areas the funding pattern is 25:75.
- This scheme involves the following components:
  - Standardisation of tank bund to standards
  - Desilting the tank bed to restore the storage capacity
  - Reconstruction / Improvements to sluices and surplus arrangements
  - Desilting and strengthening of feeder channel to ensure supply to tanks
- Under Phase I and II of the RRR scheme, 104 tanks at an estimated cost of Rs.54.32 crore in Ramanathapuram, Vellore and Sivagangai Districts were completed.

- Under Phase III of the RRR scheme, works in 49 tanks at an estimated cost of Rs.23.43 crore in Dharmapuri, Tiruvannamalai, Vellore and Virudhunagar Districts are under implementation. So far, works in 37 tanks have been completed. Works in the remaining 12 tanks are under progress. The details are as below:

Vellore District

- Works in 6 tanks , viz., Ariyur Chitheri, Ariyur Big tank, Nagaleri, Pallipattu, Adiyur and Palampakkam, in Thirupathur, Vaniyambadi and Vellore Taluks at an estimated cost of Rs. 2.64 crore are in progress.

Virudhunagar District

- Works in 6 tanks, viz., Chettikurichi Big tank, Sethurajapuram, Thiruvirundalpuarm, Seeniyapuram,

Thathaperumalkulam and Vadi in Arupukottai, Sattur, and Virudhunagar Taluks at an estimated cost of Rs.2.77 crore are in progress.

Works to be taken up

- Under Phase IV, works in 89 tanks in Coimbatore, Dharmapuri, Krishnagiri, Ramanathapuram, Sivagangai, Tiruppur and Virudhunagar Districts at an estimated cost of Rs.49.312 crore are to be taken up to benefit an ayacut of 5,927.71 acres.

- Under Phase V, works in 10 tanks in Dindigul and Vellore Districts at an estimated cost of Rs.35.86 crore are to be taken up to benefit an ayacut of 1,678.91 acres.

8. Inter-linking of Rivers within the State

8.1. Inter-linking of Cauvery - Agniyar - South Vellar - Manimuthar - Vaigai - Gundar canal scheme

It is one of the links envisaged in the Feasibility Report prepared for "Peninsular River link surplus" by the National Water Development Agency (NWDA) of Government of India.

In the 1st phase of the scheme, a Barrage was constructed during 2014 across River Cauvery in Mayanur Village of Karur District.

In the 2nd phase, a new canal taking off from the upstream of this barrage is proposed to divert the flood water of the river Cauvery to Agniyar, South Vellar, Manimuthar, Vaigai and Gundar.

It is proposed to forward a concept paper for formation of a canal for transferring of

flood water from River Cauvery to South Vellar at a cost of Rs.7,677.00 crore, under the National Perspective Plan, to the Government of India for obtaining in–principle approval for preparing the Detailed Project Report.

The proposed link, stabilizes the Culturable Command Area (CCA) of 14,600.31 ha. under the deficit anicuts / tanks and bridges the gap in the prevailing CCA of 5,648.95 ha. Therefore, a total CCA of 20,249.26 ha will be benefitted by this project.

8.2. Pennaiyar (Sathanur dam) – Cheyyar link

- This scheme aims to divert 5.87 T.M.C. ft. of water from Pennaiyar River for 20 days at the rate of 3,400 Cusecs to Cheyyar River.

- In this scheme, a new canal to a length of 23.55 km will take off from Sathanur

dam at FRL and will connect Cheyyar river at upstream of Alathur anicut.

- Further a branch canal of length 28.72 km taking off from the above main canal will link the Thurinjalar River and thereby benefit the ayacuts of Nandan channel.

- By this scheme a portion of flood water of Pennaiyar River when diverted will benefit an ayacut of 46,069 acres in the taluks of Thiruvannamalai, Thandarampattu, Chengam, Polur and Vandavasi in Thiruvannamalai District and Gingee taluk in Villupuram District.

- Further the diverted flood water will also recharge the ground water in Palar river bed. For implementation of this scheme, an extent of 602.48 acre of patta land, 68.15 acre of forest land and 44.81 acre of poramboke land have to be acquired.

- Administrative Sanction for an amount of Rs.35.00 lakh has been accorded for carrying out detailed Surveying and Leveling operations. Surveying work is in progress.

8.3. Pennaiyar (Nedungal anicut) – Palar link

- This scheme aims to divert 3.5 TMC ft. of flood water of Pennaiyar River of Krishnagiri District to Palar River of Vellore District during the months of October to December. The Detailed Project Report for this scheme has been prepared by NWDA.

- The Pennaiyar (Nedungal) - Palar link canal takes off from the Nedungal anicut and runs for a length of 54.150 km and outfalls into Kallar River, which is a tributary of Palar River near Natarampalli Village of Vaniyampadi Taluk of Vellore District.

- By implementing this scheme, 4,695 acres of land will be benefitted through direct irrigation in Krishnagiri and Vellore districts. 19,645 acres of existing command area will be stabilized through open wells and bore wells in Vaniyambadi Taluk of Vellore District.

- For implementation of this scheme, an extent of 1,736.41 acres of patta land and 91.39 acres of poramboke land have to be acquired. The land acquisition cost works out to Rs.227.52 crore. The total estimate cost works out to Rs.374.48 crore excluding land acquisition cost.

- The State Level Environmental Impact Assessment Authority has given clearance for the Terms of Reference (ToR) of this project for preparing Environmental Impact Assessment Report.

- For preparation of Environmental Impact Assessment Report by engaging a consultant, administrative sanction has

been accorded for an amount of Rs.66.82 lakh.

- A committee has been constituted vide G.O. (Ms) No. 62, Public Works (ISpl.2)Department, dated 18.06.2019, for entrusting the work of preparing the Comprehensive Environmental Impact Assessment (CEIA) Report, to the M/s. WAPCOS Limited, on nomination basis.

8.4. Cauvery (Mettur dam) – Sarabanga - Thirumanimuthar - Ayyar link

- This scheme envisages the diversion of a portion of surplus water of Cauvery River to the Districts of Salem, Namakkal, Perambalur and Tiruchirappalli by excavation of a new canal.

- The proposed 169.400 km length of canal will take off from the foreshore area of Mettur dam at FRL level and will link

tributaries of River Cauvery viz., Sarabanga, Thirumanimuthar and Ayyar rivers.

- A preliminary Project Report has been prepared for the work of Excavation of link canal for a length of 132.305 km from Mettur dam to Pavithram tank.
- For Administrative convenience, the above preliminary project report is divided into five slices. The DPR for 3 slices has been prepared and DPR for the remaining 2 slices are under preparation.
- For implementation of Phase-I of this scheme, an extent of 2,342 acres of patta land and 195 acres of forest land have to be acquired.
- The investigation work for the Phase II work of "Excavation of link canal from Pavithram tank to Ayyar River" is completed and preparation of detailed design and drawings is in progress.

9. Schemes under Investigation / Formulation

9.1. Plan Formulation

9.1.1. Formation of Reservoir across Koraiyar River in V.K. Puram Village of Ambasamudram Taluk in Tirunelveli District

Koraiyar River is a tributary of Tambiraparani River. It originates as Vadakku Koraiyar and Therkku Koraiyar and joins as Koraiyar River.

This scheme aims to form a reservoir across Koraiyar River in V.K. Puram Village of Ambasamudram Taluk in Tirunelveli District.

The proposed capacity of this reservoir is 1,017.23 Mcft. Annual storage of the reservoir in 1.22 fillings is calculated as 1,241.02 Mcft.

By implementing this scheme, an extent of 9,091.59 acres of land will be benefited. For implementation of this scheme, an extent of 254.44 acres of reserve forest land, 59.85 acres of patta land and 79.37 acres of poramboke land have to be acquired.

Administrative Sanction for an amount of Rs.24.20 lakh was accorded for conducting detailed investigation including sub soil investigation and for preparation of DPR. The investigation works are in progress.

9.1.2. Formation of new reservoir near Sikalapalli Vaniodu in Hosur Taluk of Krishnagiri District

A new reservoir is proposed in the confluence point of Sambalpallam and Sulakiri Chinnar Rivers with Thenpennaiyar River near Sikalapalli

Vaniodu in Hosur Taluk of Krishnagiri District.

The proposed site is 63 Km downstream side of Kelavarapalli reservoir, 22 Km upstream side of Krishnagiri dam and 4 Km upstream side of Ennekol Anicut.

Administrative Sanction for carrying out detailed investigation and leveling has been accorded for an amount of Rs.10.00 lakh. The surveying and levelling work is in progress for the preparation of preliminary feasibility report.

9.1.3. Formation of new channel from Barur East Main Canal in Krishnagiri District

This scheme aims to form a new channel at LS 15.95 km of Barur East Main Canal to provide irrigation facilities to 33 tanks in Uthangarai and Pochampalli Taluks in Krishnagiri District.

By implementing this scheme, 724 acres of ayacut under 33 tanks will get benefited, besides benefiting 617 acres of land through recharge of ground water. For implementation of this scheme, 103 acres of patta land have to be acquired.

Administrative Sanction for land acquisition process and for carrying out detailed investigation works has been accorded for an amount of Rs.14.00 crore. Investigation works have been completed and preparation of detailed design and drawings are in progress. The land acquisition work is also in progress.

9.1.4. Ramanadhi - Jambunadhi Link Scheme in Jambunadhi in Tenkasi and Alangulam Taluks in Tirunelveli District.

This proposal envisages diversion of flood water from Ramanadhi to the ayacut areas of Jambunadhi in Tirunelveli District.

By implementing this scheme, total extent of 4,058.18 acres will get benefitted.

Administrative Sanction has been accorded for land acquisition process and for carrying out detailed investigation work for an amount of Rs.5.40 crore and land acquisition work is in progress.

Detailed Project Report has been prepared for this scheme for an amount of Rs.41.08 crore and it is under NABARD scrutiny.

9.1.5. Excavation of New Supply Channel from Right and Left sides of the Ennekol Anicut in Krishnagiri District.

This scheme is proposed to divert flood surplus water of Thenpennaiyar River to the drought prone areas of Krishnagiri and Dharmapuri Districts by excavating a new supply channel from Right and Left

sides of Ennekol Anicut in Krishnagiri Taluk and District.

By implementing this scheme, 3,248 acres of land will get benefitted through 33 tanks, 16 ponds and Check Dams.

For implementation of this scheme, 441.01 acres of patta land, 96.36 acres of poramboke land and 26.12 acres of forest land have to be acquired.

Administrative Sanction for carrying out detailed investigation and leveling works has been accorded for an amount of Rs.33.00 lakh.

Now the Administrative sanction has been accorded for an amount of Rs.72.00 crore for land acquisition and land acquisition works are in progress.

9.1.6. Diversion of surplus water of Chinnar River from Jerthalav Canal in Palacode Taluk of Dharmapuri District.

This scheme aims to divert surplus water of Chinnar River from Jerthalav canal by formation of a new canal at LS 5.00 km to feed 14 tanks including Erranahalli and Pulikarai tanks in Palacode Taluk of Dharmapuri District.

By implementing this scheme, an extent of about 432.80 acres through 14 tanks will be benefited.

Administrative Sanction for an amount of Rs.10.00 lakh has been accorded for carrying out detailed Surveying and Leveling operations.

Now the Administrative sanction has been accorded for an amount of Rs.7.204 crore for land acquisition and land acquisition works are in progress.

9.1.7. Diversion of surplus water of Thenpennaiyar River from Aliyalam Right main Canal to feed 12 feasible tanks in Sulagiri and Denkanikottai taluks of Krishnagiri District and Dulchetti Eri in Dharmapuri District.

This scheme aims to divert surplus water of Thenpennaiyar River by excavation of a New Supply Canal from L.S. 8.80 Km of existing Aliyalam Right main canal to feed 12 feasible tanks in Sulagiri and Denkanikottai taluks of Krishnagiri District and Dulchetti Eri in Dharmapuri District.

This scheme was announced by the Hon'ble Chief Minister during the Puratchi Thalaivar Dr. MGR Birth Centenary Celebration held at Krishnagiri.

By implementing this scheme, an extent of about 851 acres through 13 tanks will be benefited.

For implementation of this scheme, an extent of 106.16 acres of Patta land and 23.42 acres of Poramboke land has to be acquired.

Now the Administrative sanction has been accorded for an amount of Rs.15.54 crore for land acquisition and land acquisition works are in progress.

9.1.8. Formation of New tank across Ponni odai in Chokkanur Agraharam Village in Gangavelli taluk of Salem District.

The Ponni odai originates from the slope of Kolli hills in Gangavelli taluk of Salem District and joins Swetha River near Veeraganur without any direct irrigation.

A new tank is to be proposed for irrigation and drinking purpose across this Ponni odai at distance of 5 Km from Veeraganur, at 2.5 Km South - West of Chokkanur Agraharam Village and 0.6 Km West of Ponnali amman temple.

The catchment area is 4.29 Sq.miles and an quantity of 53.41 Mcft of water will be stored. This scheme is proposed to irrigate by storing 18.90 Mcft water in one filling and 37.80 Mcft water in two fillings.

This scheme benefits about 441 acres of land. For implementation of this scheme, 26.595 acres of patta land and 42.545 acres of poramboke land have to be acquired.

Administrative Sanction for carrying out detailed investigation and leveling works has been accorded for an amount of Rs.10.00 lakh. The Detailed investigation has been completed and detailed estimate is under preparation.

9.1.9. Proposals for National Action Plan on Climate Change (NAPCC) under Green Climate Fund.

I. National Action Plan on Climate Change (NAPCC) was formulated in 2008 to reduce the impacts of climate variability and change under the guidance of the Central Water Commission.

   Based on this, a Concept Note on "Augmentation of Ground water for climate resilience of vulnerable community" has been prepared for an amount of Rs.1444.99 Crore.

The State Level Steering Committee on Tamil Nadu State Action Plan on Climate Change under Green Climate Fund approved the concept note.

The following Components are proposed in the Concept Note.

Sl. No.	Type of structure	No. of works
1.	Check Dams	162
2.	Sub-surface Dyke	15
3.	Artificial Recharge Shafts	389
4.	Artificial Recharge Wells	147

Administrative Sanction has been obtained for an amount of Rs.12.00 Lakhs to prepare a new concept note for "Augmentation of Ground water for climate resilience of vulnerable community" by utilizing the consultancy service.

The revised concept note will be prepared after engaging new consultancy.

II. Concept note for "Salinity control in coastal area of Tamil Nadu (0 to 10Km) has been prepared for an amount of Rs. 404.83 crore and sent to the Director, Department of Environment.

Sl. No.	Type of structure	No. of works
1.	Check Dams	11
2.	Tail end regulators	8
3.	Artificial Recharge Shafts	19
4.	Artificial Recharge Wells	4

Administrative Sanction has been accorded for an amount of Rs.9.50 lakhs to prepare a Concept note for construction of tail end regulators to prevent the intrusion of sea water under Green Climate Fund by utilizing the consultancy service.

III. A Concept Note on "Modernization by using

Micro irrigation System with Automation in Velur Distributaries off taking at LS 44/400 Km of Parambikulam Main Canal in Udumalpet Taluk of Tiruppur District" was prepared for an amount of Rs.25.00 Crore.

The State Level Steering Committee on Tamil Nadu State Action Plan on Climate Change under Green Climate Fund approved the concept note.

Now the concept note has to be placed in Technical Scrutiny Committee on Climate Change, New Delhi for approval.

9.2. Tamil Nadu Water Resources Development Cell

Proposals prepared by TNWRD Cell are as below:

(Rs. in Crore)

Sl. No	Name of the work	Estimate Amount	Present Stage
1.	Formation of a Reservoir by upgrading the capacity of Twin tanks Kattur and Thatamajni in Minjur block of Ponneri taluk of Tiruvallur District and Sea Water Intrusion Control Measures.	65.00	Under NABARD considera tion

Sl. No	Name of the work	Estimate Amount	Present Stage
2.	Irrigation infrastructure Development and Micro irrigation system with automation controller at parambikulam Aliyar Project (PAP), Parambikulam Main Canal (PMC), High Level Canal (HLC) in Udumalpet and Palladam Taluks of Tiruppur District.	93.58	Under considera tion
3.	Reclaiming Kazhuveli Tank in Marakanam Block of Villupuram District for Storage of water and sea water control measures and Recharge Shaft Wells/Shafts.	161.00	Under considera tion
4.	Artificial recharge structure in rivers and tanks for ground water development in Thanjavur District.	49.00	Under considera tion

Sl. No	Name of the work	Estimate Amount	Present Stage
5.	Artificial recharge structure in rivers and tanks for ground water development in Tiruvarur District.	12.00	Under considera tion
6.	Pumping Scheme in Maharajasamudram River to feed Rajamadam main channel in Enathi Village & branch channels No.19,20,&21,Sellikuri chi Eri, and Nasuviniyar River to feed Ettupulikadu channel No.II of Pattukottai Taluk in Thanjavur District	32.50	Under Scrutiny

10. Activities of Special wings

10.1. Cauvery Technical Cell cum Inter – State Waters Wing

The Cauvery Technical Cell cum Inter – State Waters Wing formulated in 1990 is assisting the Government in dealing with all the Inter – State Water sharing disputes / issues. This Wing provides all technical inputs / data / information required to file Petitions in the Water Disputes Tribunal / Supreme Court and participates in the periodic meeting of the River Water Management Authority, Regulation Committee of inter State river basin in which Tamil Nadu is a riparian State or stakeholder. In addition, this Wing is also dealing with the schemes for inter-linking of inter-State rivers, and participates in various Committees of the Government of India on this subject and

with the scheme proposing agencies, viz., National Water Development Agency (NWDA) and Central Water Commission (CWC), Ministry of Jal Shakthi, draft Bills on water, etc. This wing prepares reports on the water resource development of the State.

Some of the important issues handled by this Wing are Sharing of Cauvery waters, establishing the rights of the State in the Mullai Periyar Dam, obtaining the rightful share of waters from the Parambikulam Aliyar Project (PAP), defending the rights of the State in Neyyar River water sharing, Pennaiyar River water and Palar River water issues. Further, issues relating to the Schemes such as Godavari – Cauvery Link, Pamba – Achankoil – Vaippar link and Pandiyar – Punnampuzha Scheme are also dealt by this wing.

10.2. Tamil Nadu Water Resources Development Cell

Tamil Nadu Water Resources Development Cell has been constituted under the Chairmanship of a retired Chief Engineer of Water Resources Department and retired Engineers as members to identify new water resources, to protect and for augmentation of available water resources, formulate schemes / Projects and identifying the funding source for achieving these objectives, liaison with the Government of India and other funding agencies for getting necessary funding assistance.

The Cell has been working on the preparation of proposals to store the monsoon river flow, control the sea water intrusions/pollution and improving ground water potential. The cell has been preparing various Detailed Project Reports which have been scrutinized by Chief

Engineer, Plan Formulation and recommended by the Engineer-in-Chief, WRD to Government for approval.

10.3. Directorate of Sand Quarrying Operations

An I.A.S Officer has been appointed as Project Director to monitor and coordinate the Sand Quarrying Operations in Tamil Nadu. The sand quarrying operations are carried out by the Mining and Monitoring Divisions functioning with Headquarters at Chennai, Villupuram, Tiruchirappalli, Thanjavur and Madurai.

The Project Director coordinates with the District Collectors and the concerned Officials of various Departments such as Geology & Mining, Tamil Nadu Pollution Control Board, Department of Environment and Forests, etc., to facilitate and expedite the opening of new quarries. Various Court Cases pertaining to sand quarries

before the Hon'ble Courts are being followed up closely by the Project Directorate.

The quarries and depots are monitored through the CCTVs installed at these places by the Control Room established at Chennai in the Project Directorate. A robust Customer Care system is also in operation in the Control Room to redress the grievances of the public.

10.4 Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation

To achieve socio-economic benefits in Tamil Nadu, the Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation has been established. The main objective is to pool, conserve and optimally utilize scarce water resources. The Corporation will function under the administrative control of the

Public Works Department. A Chairman cum Managing Director in the cadre of Principal Secretary has been appointed to this corporation. Government have accorded approval to register this Corporation under Companies Act, 2013.

Government have accorded Administrative and Financial Sanction of Rs.5.00 Crore as Share Capital assistance and Rs.5.00 Crore as Grants-in-Aid.

Detailed efforts are being taken for the formulation of the Corporation in consultation with International funding agencies and Expert Institutions.

11. Activities of the Functional Wings

There are 7 Functional Wings in this Department taking up specialised activities involved in the implementation of the schemes, harnessing and collection of data pertaining to the Ground Water, managing the State Water Resources and imparting Trainings of varied nature to the officials and staff of this Department and other allied Departments. Each of these Wings is headed by a Chief Engineer and in addition, the Directorate of Boilers, headed by a Superintending Engineer cadre officer, is also functioning under this Department.

The functions of each of these wings are detailed below:

11.1. Plan Formulation

This wing formulates Major, Medium & Minor Irrigation Schemes and River Inter-linking Schemes by undertaking detailed

investigations. This wing also executes certain important schemes.

Further, the environmental cells of this wing undertakes testing the quality of water samples collected from important rivers and tanks.

11.2. Design, Research and Construction Support

Design, Research and Construction Support wing acts as the Nodal Agency for the following schemes:

- Kudimaramath scheme.
- Repair, Renovation and Restoration (RRR) of water bodies.
- Desilting of Dams in the State.
- Implementing the Integrated Coastal Zone Management Project by formulating Coastal Protection Schemes.

The Design Circle functioning under this wing evolves design and drawings for irrigation structures such as reservoir, canal, pond, tank, anicut, regulator, checkdam, etc. In addition, Design Circle recommends necessary remedial measures for the problems like cracks, seepage, leakage and distress etc., occurs in the irrigation structures.

The Soil Mechanics & Research Division functioning under this wing acts as a Central Quality Control Laboratory at Chennai conducting Field and Laboratory tests for soil, concrete and construction materials.

The Institute of Hydraulics and Hydrology functioning under this wing carry out research in the fields of Hydraulics, Hydrology and Coastal Engineering. In addition, monitoring of coastline along with observation and performance

evaluation of coastal protection structures are also taken up by this Institute.

Further, this Institute carries out Sedimentation and Watershed Management Studies in selected Reservoirs / Tanks thereby suggesting remedial watershed management measures in order to arrest the entry of sediments into reservoirs.

11.3. Operation and Maintenance

Water level data of 20 Major Reservoirs in the State, 4 Reservoirs of Karnataka in the Cauvery Basin and Daily flow data at Billigundulu Gauge and Discharge Station of Central Water Commission (CWC), are collected by this wing. Data collected is compiled and the report is furnished to the offices of the Hon'ble Chief Minister and higher officials.

Round the clock monitoring of the water level of all the Reservoirs in the State are

taken up during the North East Monsoon period.

In addition, Periodical monsoon inspection of the dams is carried out and reports are compiled by this wing. Based on the pre-monsoon and post-monsoon inspections the consolidated Health Status Report for all the Dams (Annual Consolidated Report) are prepared and sent to the Central Water Commission.

The Public Works Workshop and Stores of this wing, is engaged in fabrication and erection of dam shutters and hoisting arrangements and attending to emergency repair works.

The State Project Management Unit (SPMU) under this Wing is the Nodal Agency for the Dam Rehabilitation and Improvement Project (DRIP) being implemented with World Bank Assistance.

11.4. State Ground and Surface Water Resources Data Centre

This wing investigates and assesses the ground water potential, surface water and water quality of the State periodically by maintaining and observing State-wide monitoring network. Improving the Ground water storage through techniques such as artificial recharge structures and rain water harvesting wherever possible are taken up by this wing. This wing is the implementing Agency for the National Hydrology Project in Tamil Nadu.

Rainfall data collected from Standard Rain Gauge (SRG), Automatic Rain Gauge (ARG) and Full Climatic Stations (FCS) are analysed and the relationship established between the runoff and seepage. Ground water resources against over exploitation and quality deterioration

are being protected by proper management techniques.

Bore wells are drilled, wherever necessary, in the State to know the sub-surface lithological characteristics and hydro-geological parameters and quality of ground water of different aquifers. In order to get more realistic and accurate groundwater level data, 386 sites were selected for the installation of Digital Water Level Recorder (DWLR) in the State. Further, sea water intrusion monitoring studies are being taken up by this wing.

Ground water clearance for water based and non-water based Industries is being issued in safe and semi-critical Firkas of the State. Ground water related issues are being published in the Ground water Bulletins quarterly for the benefit of the ground water users / user departments. Hydrological, Hydro meteorological,

Geological and Geophysical data collected in the field are disseminated to various Government Departments, Government Undertakings, Academicians and individuals.

11.5. Institute for Water Studies, Hydrology & Quality Control

The Institute for water studies carries out the works of scientific planning at micro level, accessing and management of the water resources of all the river basins in Tamil Nadu.

Tamil Nadu has 34 main rivers which have been grouped into 17 Major River basins. So far, Micro level studies have been completed for 16 River basins. Due to population growth and rapid development of various sectors, water demands have been increasing persistently and it necessitates to update the micro level reports with current data

supported with latest scientific tools. Accordingly, the Micro level Reappraisal study reports for Kodaiyar, Vaippar, Vaigai, Vellar, Palar, Tambiraparani, Pennaiyar, Paravanar and Varahanadhi River basins have been completed and sent to all concerned officials for reference. The Micro level Reappraisal study for Pambar Kottakkaraiyar River basin is nearing completion.

A well-developed Remote Sensing Centre of this institute provides remote sensing and Geographic Information System (GIS) based support to the department for effective management of water resources of the State. Satellite Data (Imagery) are being interpreted and analysed using special software along with Geographic Information System for these tasks.

The four Quality Control Divisions of WRD, at Chennai, Tiruchirappalli, Madurai

and Coimbatore and three Buildings Quality Control Divisions at Chennai, Tiruchirappalli, Madurai have been re-organised to function under this Institute with effect from 11-06-2018. The function of the Quality Control Divisions is to ensure quality and monitoring of all the works being executed by the Water Resources Department and the Buildings Organisations.

Each Quality Control Division of WRD except Quality Control Division, Chennai is established with one Regional Quality Control Laboratory and mobile laboratories. The laboratories are equipped with different types of equipments for testing various materials such as Sand, Cement, Water, Soil, Steel and also for carrying out various in-situ tests.

The Buildings Quality Control Divisions, at Chennai, Tiruchirappalli and Madurai monitor the quality of works being executed by the Building Organisation. It is proposed to establish the Quality Control Laboratories for the Buildings Quality Control Divisions.

11.6. State Water Resources Management Agency (SWaRMA)

The SWaRMA has developed the web enabled "Tamil Nadu Water Resources Information System" (TNWRIS), to aid efficient integrated water resources management and regulation. This database is being made available to the Department and other line Departments / Agencies.

"Baseline Information on Water Resources for Coimbatore Region (Part 1-PAP)", which is a ready reckoner (e-governance manual) on all aspects of

Water Resources of Parambikulam Aliyar Project System has been prepared. Similar exercise for Coimbatore (Part 2) and Tiruchirappalli Regions will be taken up.

In addition, Water Audit for Gomukhi Nadhi Reservoir to evaluate the System Performance is proposed to be taken up. Collection and compilation of case studies on Innovative Approaches and Challenging Experience in Water Resources Development and Management is proposed to be taken up.

11.7. Irrigation Management Training Institute (IMTI)

Irrigation Management Training Institute, Tiruchirappalli is a premier State Training Institute, established as per Tamil Nadu Societies Registration Act, 1975 and functioning from 1984 under the Public

Works Department of the Government of Tamil Nadu.

The functioning of the Institute is guided by the Governing Council with the Principal Secretary, PWD, Government of Tamil Nadu as Chairman and 12 Senior Level Officers from various departments (inclusive of the Secretaries of Finance, Agriculture and Co-operation, Food and Consumer Protection) as members. This institute is headed by the Director General, who is the Chief Engineer of WRD and Faculty members are drawn from PWD (WRD), Agriculture, Agricultural Engineering and Tamil Nadu Agricultural University on deputation.

The prime objective of this institute is to increase the Agricultural production with optimum utilization of Water. This institute gives need based Capacity building training to the Officers involved in irrigation & agriculture and to the

Farmers to create awareness about the new techniques and improvements in the field of Irrigation Water Management.

Since inception from 1984, IMTI is providing trainings in various topics such as Participatory Irrigation Management, Flow Measurements and Volumetric Supply of Irrigation Water, Water Saving Techniques, Ground Water Development, Computer training and Management, etc.

In order to tide over the vagaries of the seasonal irregularities, the farmers are being trained in the areas of integrated farming System, Integrated Pest Management, Organic Farming, Value Addition, Marketing, so as to increase the livelihood of the farmers. Special trainings were conducted on Integrated Pest Management. Officials from department of Agriculture, Scientists from Agricultural College and Scientists from Krishi Vigyan Kendras were roped – in, to

impart training to farmers from the pest affected areas.

In the last financial year, 1340 officers, 1422 Farmers and 644 Students were benefitted through 88 training programmes. During 2019-2020 it is proposed to conduct minimum of 87 Training Programmes by this Institute with the funds allotted.

11.8. Directorate of Boilers

This Directorate of Boilers is the enforcing authority of the Boilers Act, 1923, a Government of India Act, administered by the State for the safe operation of the Boilers and to ensure the safety of public life and property. This Directorate plays a crucial role in the phenomenal development of Boilers and Boiler Ancillary Industries in the State.

In addition, this Directorate is in charge of implementing the provisions of the Boiler Attendants' Rules, 2011 and Boiler Operation Engineers' Rules, 2011 to ensure that the Boilers used in the user industries are operated by certified Boiler Attendants or Boiler Operation Engineers, as the case may be. Examinations are conducted for issue of First Class and Second Class Certificates of Competency for Boiler Attendants for operating the boiler having heating surface not exceeding 1000m^2 and the Certificate of Proficiency for Boiler Operation Engineers for operating any type and size of Boilers.

Further, tests are conducted for high pressure welders employed in Boiler manufacturing units and Boiler Ancillary Units, Boiler Erectors and Repairers organizations and competency certificates are issued to the successful candidates.

One of the responsibilities of the Directorate is to identify and cease the boilers which are running without certificates and unregistered boilers.

This Directorate ensures that the Boiler and Boiler components, piping and its fittings are designed and manufactured as per the provisions of the Indian Boiler Regulations, 1950 by approving the design for various components and by carrying out inspection at various stages of manufacture from approving the basic raw materials to the final product.

The Directorate of Boilers, Tamil Nadu is implementing the Registration of Boilers, Approval & Renewal of Manufacturers / Erectors through Online.

12. Sand Quarry

To regulate sand quarrying operations in the river beds of Tamil Nadu, sand is being sold to public / consumer by Public Works Department since 03.10.2003.

The Government in G.O. (Ms) No.325 Public Works (I.Spl.2) Department, dated 21.12.2013 have fixed the sand sale rate as Rs.800/- per load (2 units) excluding tax and loading charges. The Government in G.O(Ms).No.135 Public Works (I.Spl.2) Department dated 13.06.2017 have permitted to collect the cost of loading charges at river and sand depot, transportation charges from river to depot, rent and maintenance charges of sand depot in addition to sand sale cost for sand sale in sand depots.

In Tamil Nadu, to meet out the requirement of sand for construction

purposes to the users, a website, "www.tnsand.in" and a mobile application "tnsand" were launched. At present, booking of sand and the payment for the sale of sand is enabled through the above website. Verification camps are conducted at regular intervals for Sand Transporting Vehicles' Registration across the State to weed out the vehicles with false registration numbers.

The depot system of sand sale is now being implemented which prevents the movement of private vehicles inside the river bed and to safeguard the eco system of river. All the activities of sand quarries and Government Sand Sale Depots are under the surveillance of cameras and are being monitored in centralized control room in the office of the Project Director, Sand Quarrying Operations, Chennai.

Imported sand

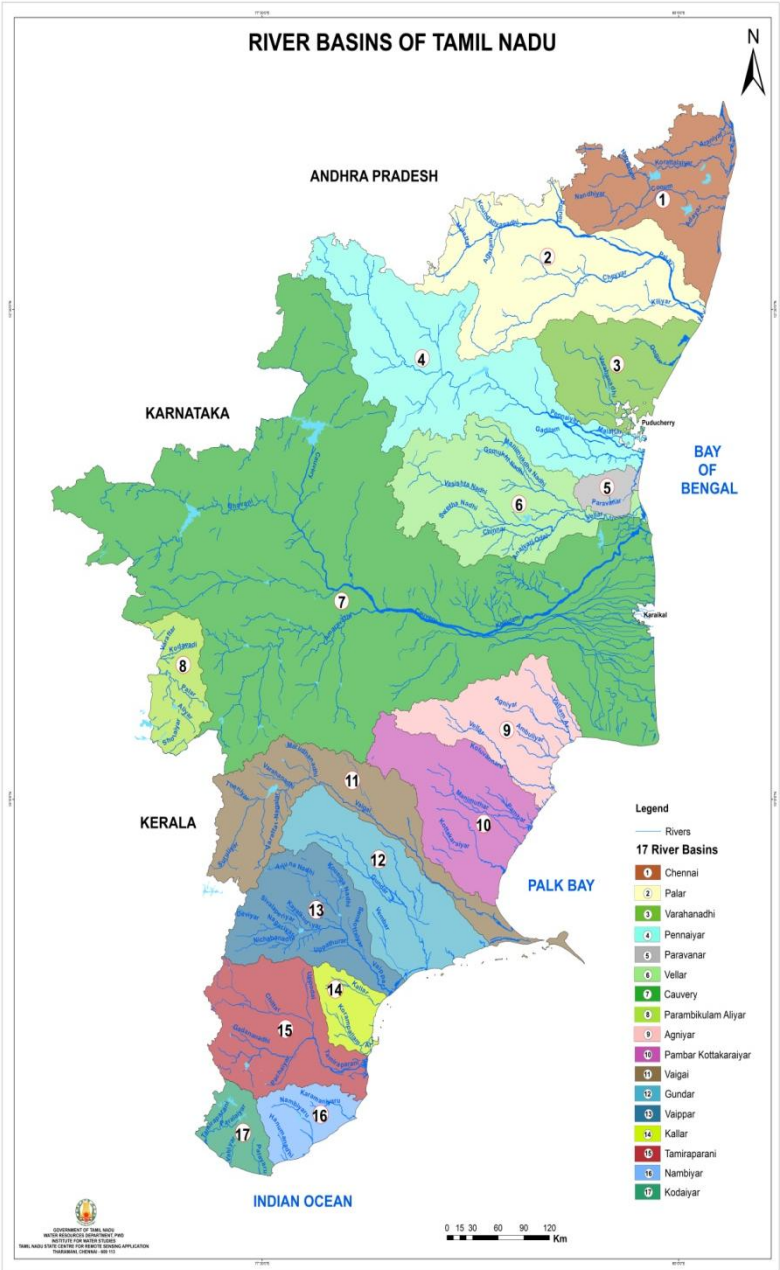
In G.O. (Ms) No.242, Public Works (I.Spl.2) Department, Dated 08.12.2017, Government have ordered that the sale of ordinary sand imported from other countries or brought from other States / Union Territories for construction purposes, shall be done only by the Public Works Department and necessary amendment has been made by Industries Department in Tamil Nadu Minor Minerals Concession Rules, 1959 by introduction of new Rule, 'Rule 38 D'.

The Government in G.O (Ms) No.55 PW (I.Spl.2) Department, dated 27.02.2018, have accorded permission to import approximately 5.00 lakh Metric Tons of Natural River Sand for construction purposes per month for a period of 2 years through 3 ports in Tamil Nadu viz., Kamarajar Port limited, Ennore, Adani

Kattupalli Port, Ennore and V.O.Chidambaranar Port, Tuticorin by floating National Competitive Bid.

The Public Works Department is selling the imported natural river sand to the consumers from October 2018 through online booking from the ports.

Edappadi K. Palaniswami
Chief Minister


RIVER BASINS OF TAMIL NADU
N
ANDHRA PRADESH
KARNATAKA
KERALA
BAY OF BENGAL
PALK BAY
INDIAN OCEAN
Puducherry
Karaikal
Legend
Rivers
17 River Basins
1 Chennai
2 Palar
3 Varahanadhi
4 Pennaiyar
5 Paravanar
6 Vellar
7 Cauvery
8 Parambikulam Aliyar
9 Agniyar
10 Pambar Kottakaraiyar
11 Vaigai
12 Gundar
13 Vaippar
14 Kallar
15 Tamiraparani
16 Nambiyar
17 Kodaiyar
0 15 30 60 90 120
Km


WATER RESOURCES DEPARTMENT - REGIONS
N
ANDHRA PRADESH STATE
Tiruvallur
Chennai
Chennai
Vellore
Kancheepuram
Palar
Krishnagiri
Thiruvannamalai
Varahanadhi
Dharmapuri
Ponnaiyar
KARNATAKA STATE
Villupuram
Puducherry
BAY OF BENGAL
Salem
Erode
Vellar
Cuddalore
Paravanar
Nilgiris
Namakkal
Perambalur
Nagapattinam
Coimbatore
Ariyalur
Trichirappalli
Karaikal
Karur
Thiruppur
Cauvery
Thanjavur
Tiruvarur
Parambikulam Aliyar
Nagapattinam
Dindigul
Agniyar
Pudukottai
PALK STRAIGHT
Theni
Pambar Kottakaraiyar
Vaigai
Madurai
Sivagangai
KERALA STATE
Virudhunagar
Gundar
Ramanathapuram
Vaippar
Thoothukudi
BAY OF BENGAL
Kallar
Tamiraparani
Tirunelveli
Kanyakumari
Kodaiyar
Nambiyar
INDIAN OCEAN
LEGEND
Chennai Region
Trichy Region
Coimbatore Region
Madurai Region
River Basin Boundary
District Boundary
30 15 0 30 60 90
KM
GOVERNMENT OF TAMIL NADU
WATER RESOURCES DEPARTMENT, PWD
INSTITUTE FOR WATER STUDIES
TAMIL NADU STATE CENTRE FOR REMOTE SENSING APPLICATION
THARAMANI, CHENNAI-600113.

Cuddalore District – Weir Reconstructed in Thoppukollai Mudavan Eri
(Estimate Amount Rs.1.97 crore)

Erode District – Rehabilitated Nallampatti Anicut Channel in Nallampatti Village
(Estimate Amount Rs.0.59 crore)

Virudhunagar District – Rehabilitated Main Canal of Kullursandai Rservoir in Aruppukottai Taluk (Estimate Amount Rs.2.54 crore)

Erode District – Rehabilitated Elathur Anicut Channel in Elathur Village
(Estimate Amount Rs.1.97 crore)

Salem District – Check Dam constructed across Sarabanga River in Dadarapuram Village (Estimate Amount Rs.2.58 crore)

Virudhunagar District – Anicut constructed across Kowsikanadhi to feed Kalaperumalpatti Tank in Avudayapuram Village (Estimate Amount Rs.3.50 crore)

Salem District – Rehabilitated Achampalli Tank Sluice in Konganapuram Village
(Estimate Amount Rs.0.10 crore)

Madurai District – Rehabilitated Anaiyur Tank in Anaiyur Village
(Estimate Amount Rs.3.27 crore)

Salem District – Rehabiliated Deviyakurichi Tank in Deviyakurichi Village
(Estimate Amount Rs.0.295 crore)

Before execution

After execution

Trichy District – Construction of Check Dam across Thombachi River in Mallaiyadipatti Village of Manaparai Taluk (Estimate Amount: Rs.166.00 Lakh)

Coimbatore District – Construction of Check Dam across Korai River in Mannur Village of Pollachi Taluk (Estimate Amount: Rs.90.00 Lakh)

Before execution

After execution

Cuddalore District – Rehabilitaion of Valayamadevi tank in Valayamadevi Village of Bhuvanagiri Taluk (Kudimaramath) (Estimate Amount : Rs.30.00 Lakh

Before execution

After execution

Theni District – Rehabilitation of Karisalkulam and Sengulam Tank in Tamaraikulam Village of Periyakulam Taluk (Kudimaramath) (Estimate Amount: Rs.36.00 Lakh)

Kanniyakumari District – Groyne constructed in Mandakadu Puthoor
(Estimate Amount Rs.7.82 crore)

Thiruvallur District – Groyne constructed in Ernavoor Kuppam Village
(Estimate Amount Rs.38.39 crore)