WATER RESOURCES DEPARTMENT

POLICY NOTE
2023 - 2024

DEMAND No. 40

Thiru.DURAIMURUGAN
Hon'ble Minister for Water Resources

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"துப்பார்க்குத் துப்பாய துப்பாக்கித் துப்பார்க்குத் துப்பாய தூஉம் மழை."

எனும் வள்ளுவரின் வரிகளை மெய்ப்பிக்கும் வகையில் நீரின் முக்கியத்துவம் உணர்ந்து நீர்வள ஆதாரங்களை பாதுகாக்கவும், மேம்படுத்தவும் மற்றும் தொழில்நுட்ப வசதியுடன் நவீனபடுத்தவும் தொலைநோக்கு பார்வையோடு திட்டங்களை உருவாக்கி நீர்வளத்துறை செயல்படுகிறது.

WATER RESOURCES DEPARTMENT

1.0. Introduction

1.1. Activities of the Water Resources Department

"இடியுடைப் பெருமழை யெய்தா தேகப்
பிழையா விளையுட் பெருவளஞ் சுரப்ப
மழைபிணித் தாண்ட மன்னவன்" –

சிலப்பதிகாரம்

The Tamil Poet Ilango Adigal has mentioned the importance of water management as "King, is the one who makes his Country fertile by harvesting rainwater through the formation of Lakes, Tanks etc., and puts them in good use".

In line with that, Water Resources Department focuses on the activities for effective management of Water Resources to attain self-sufficiency in all water needs of Tamil Nadu.

To meet the water demands of the various sectors viz., Agriculture, Domestic, Industries etc., Water Resources Department is

focusing in creation of new structures, maintenance of existing water bodies and their Infrastructure in a healthy status.

This Department is taking up construction, rehabilitation and maintenance of irrigation structures such as Dams, Anicuts, Check Dams, Regulators, Barrages, Subsurface Dykes, Canals, Channels and Tanks. This department is also focussing on linking of Rivers for augmentation of surface and subsurface water effectively. In addition, artificial recharge structures are being constructed to improve the groundwater quantity and quality.

This Department also focus on flood mitigation works to reduce the damages caused to the public and their properties due to heavy rainfall, especially in Chennai and sub-urban areas.

This department is also taking effective steps to maintain health of water bodies and proper flow of water by eviction of encroachments in water courses and water bodies, in co-ordination with various departments.

This department is taking necessary action to restore the original storage capacity of water bodies through desilting. By the above interventions, management of the flood and drought could be addressed.

1.2. Water Resources Potential

"வான்நின்று உலகம் வழங்கி வருதலால் தான்அமிழ்தம் என்றுணரற் பாற்று" – குறள்

Surface Water Potential

There are 34 Rivers in the State which have been grouped into 17 major River Basins and 127 Sub-Basins. The normal rainfall in the State is 973 mm. The total surface water potential of the State is 865 T.M.Cft. which includes 260 T.M.Cft. realised from the neighbouring States through Inter-State Agreements.

Ground Water Potential

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

Water Resources Sector. The quantity and quality of the ground water are being continuously monitored and assessed by the Department. Based on the micro level Ground Water Potential Assessment as on March 2020 with Revenue Firkas as a unit, totally 1,166 Firkas are categorized into 5 types: 435 Firkas as Over Exploited, 63 Firkas as Critical, 225 Firkas as Semi-Critical, 409 Firkas as Safe and 34 Firkas as Saline / Poor Quality.

Construction of structures such as Check Dams, Bed Dams, Subsurface Dykes, Recharge Shafts, Percolation Ponds etc., are being carried out to protect, harness and improve the available ground water potential of the State.

Ground Water Resources Assessment 2022 (GWRA) and its comparison with previous assessments in Tamil Nadu

In the Dynamic Ground Water Resources 2022 Tamil Nadu report, published by the Central Ground Water Board, it categorized Ground Water Recharge Assessment Units (Firka) in Tamil Nadu based on the 'Stage of Ground Water Extraction".

Sl. No.	Category	GWRA-2020	GWRA-2022	GWRA 2022 vs. GWRA 2020
1.	Safe	409	463	54
2.	Semi- Critical	225	231	6
3.	Critical	63	78	15
4.	Over- Exploited	435	360	-75
5.	Saline	34	34	-
6.	Total Number of AUs	1166	1166	-

This assessment shows that due to various Ground water recharge measures taken by the Government, number of safe firkas has increased and over exploited firkas has decreased. Critical and semi critical firkas have been increased due to transition of over exploited firkas towards safe.

1.3. Sustainable Development Goals

17 Sustainable Development Goals and 169 targets are part of the Sustainable Development Goals-2030 Agenda, adopted by

193 Member States at the UN General Assembly Summit.

This Department deals with a fundamental and essential element of nature on which life depends — **Water**. The sustainable management of water is vital and is covered under **Goal 6** and 12 in Sustainable Development Goals. The targets under this Goal pertaining to the Water Resources Department are as follows:-

Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawal and supply of fresh water to address water scarcity and substantially reduce the number of people suffering from water scarcity.

Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, Rivers, aquifers and lakes.

Target 6.b: Support and strengthen the participation of the local communities in improving water and sanitation management.

Target 12.2: By 2030, achieve the sustainable management and efficiency of natural resources.

With effective implementation of the various schemes of the Department and taking a new path towards more international cooperation, the water bodies, wetlands, aquifers, lakes and Rivers, which are precious resources of water for future generation are being protected and the State is stepping forward to achieve the status of "Water stress free State" in the country. The department is also well on the path to accomplish the 2030 agenda of Sustainable Development Goals.

1.4. Tamil Nadu Water Resources (Regulation and Management) Authority Act

To control, regulate and manage the Ground Water Resources in the State of Tamil Nadu, the Government of Tamil Nadu enacted the Tamil Nadu Ground Water (Development and Management) Act, 2003 during March 2003. However, this Act was repealed on

14.09.2013 as there were practical issues in its implementation.

After deliberate discussion, it was decided to formulate an authority for management and regulation of both Ground and Surface Water and for Reuse of Water. Accordingly, the State Planning Commission is preparing Tamil Nadu Water Resources (Regulation and Management) Authority Act,

1.5. Tamil Nadu State Water Policy

Sustainable Development Goal 6 is to ensure access to water and sanitation for all. Clean and good quality water is one of the greatest challenges of 21st century.

The objective of the Tamil Nadu State Water Policy is to understand the present scenario, its challenges and to propose a water policy to address the State specific concerns and challenges.

The Tamil Nadu State Water Policy focuses on assuring right of access to sufficient quantity of water for all, encourage productivity and efficient use of water in economic aspect

and the same time to sustain all life and enhance water governance in the areas of access, utilization and management of water resources.

This policy is inclusive of all departments involved in harnessing and distributing water as well as in regulating water pollution, local bodies, stakeholders and citizens of the state, their issues and strategies for addressing those issues.

The sustainable strategies of the water policy are Sustainable Sectoral allocation, Engagement of Stake holders, Establishment of Tamil Nadu water resource regulatory authority & policy research center, Water resource planning, Integrated Water Resource management (IWRM), Integrated water management plan (IWMP), structural governance reforms in water resource management which includes shift from fragmented water management to integrated & conjunctive management of surface water, groundwater, reuse of waste water and other conventional water resources, Demand side

water management , ensuring water quality and quantity, water use efficiency and productivity in agriculture, protection management and restoration of all water ecosystems etc.

The State Planning Commission and Water Resources Department after interaction with stakeholders are in the process of evolving Tamil Nadu State Water Policy.

1.6. Jal Shakti Abhiyan

National Water Mission, Ministry of Jal Shakti launched a campaign "Catch the rain, where it falls, when it falls" on 22nd March 2021 on the World Water Day to urge the states and all stakeholders to create Rain Water Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata, with people's active participation. Nation-wide campaign has been taken up focusing on saving and conserving rainwater covering both urban and rural areas of all the districts in the country.

From 29th March 2022, Water Resources Department was made Nodal Agency for Jal Shakti Abhiyan.

Under Jal Shakti Abhiyan, targeted activities were taken up under 5 key areas of Interventions which were Water Conservation & Rainwater Harvesting, Renovation of traditional & other water bodies, Reuse and Recharge structures, Watershed Development and Intensive Afforestation. The above focused interventions of the campaign will also include Enumerating, Geo-tagging and specific improvements of all water bodies, Preparation of scientific plans for water conservation based on the above mentioned areas & Setting up of Jal Shakti Kendras for massive Awareness generation.

The stakeholder departments apart from WRD are as follows:

1) Rural Development & Panchayat Raj Department
2) Municipal Administrative & Water Supply Department
3) Revenue & Disaster Management Department

4) Agriculture - Farmers Welfare Department
5) Environment, Climate Change & Forest Department
6) Public Works Department
7) School Education Department
8) Higher Education Department
9) Industries, Investment Promotion and Commerce Department
10) Youth Welfare and Sports Development Department

Under this campaign, Government of India decided to provide a financial assistance of up to Rs.2.00 Lakhs to each district to meet part of the expenditure incurred for GIS Mapping of water bodies and preparation of scientific water conservation plans. National Water Mission has released first instalment of Rs.1.00 lakh to 34 Districts of Tamil Nadu (Except Chennai, Madurai, Mayiladuthurai and Pudukkottai)

Second instalment of another Rs.1.00 lakh was received for the 31 Districts out of 34 Districts (except Thanjavur,

Thiruvallur, Vilupuram) after furnishing utilisation certificate by the State Nodal officer to Government of India.

The activities under 5 interventions are being carried out through Convergence of funds from PMKSY - Per Drop More Crop, TNIAMP, State Government Fund, NABARD, SuWaSeM, Watershed Development Fund, Special Area Development Project (SADP), Dryland Development Mission etc. MGNREGS, 15th FC, CAMPA, CFC, SCPAR, General Fund of Panchayat / Panchayat Union, Corporate Social Responsibility (CSR), Tamil Nadu Mission for Sustainable Green cover in Farm Lands (TNMSGCF), Kalaignarin All Village Integrated Agricultural Development Programme, Kalaignarin Nagarpura Mempattu Thittam & Atal Mission for Rejuvenation and Urban Transformation - 2.0 (AMRUT 2.0), Tamil Nadu Wage Employment scheme, Namakku Naame Thittam, NADP, PMMSY.

160 No. of Jal Shakti Kendras were formed in all the 38 Districts up to Taluk level and functioning as 'Knowledge Centre' for

disseminating information related to water conservation techniques and to provide technical guidance to people. The details of the scheme are available in the Government of India Jal Shakti web portal www.jsactr.mowr.gov.in.

Hon'ble President of India launched "Jal Shakti Abhiyan-2023" with the theme 'Source Sustainability for Drinking Water' in the Country. The Campaign will be implemented from 04.03.2023 to 30.11.2023.

The Water Resources Department is the State Nodal Department for implementation of the activities of the Campaign.

The focused interventions of the JSA:CTR-2022 include consolidation of activities i.e. (1) water conservation and rainwater harvesting; (2) enumerating, geo-tagging & making inventory of all water bodies; preparation of scientific plans for water conservation based on it (3) setting up of Jal Shakti Kendras in all districts (4) intensive afforestation and (5) awareness generation.

The salient features of Jal Shakti Abhiyan, 2023 according to National Water Mission are as follows:-

(i) Source Sustainability for Drinking Water

(ii) JalShapaths

(iii) Amrit Sarovar

(iv) Spring shed Development

(v) Awarness generation by Nehru Yuva Kendra Sangathan (NYKS).

(vi) Intensive Information, Education and Communication (IEC) activities.

(vii) Promotion of Azadika Amrit Mahotsav.

(viii) Protection of Water Catchment Areas.

The plan of Action for implementing the JSA-2023 in the District has been discussed during the Chief Secretary's meeting on 14.03.2023.

2.0. Inter - State Water Issues

2.1. Cauvery Water Issue

Under Section 5(2) of the Inter-State River Water Disputes Act, 1956, the Cauvery Water Disputes Tribunal delivered its Final Order on 05.02.2007.

After hearing the Appeals filed by States of Karnataka, Kerala and Tamil Nadu against the Final Order of the Tribunal, the Supreme Court delivered its Judgment on 16.2.2018 with the allocation of water as detailed below:-

(in T.M.Cft.)

Karnataka	284.75
Tamil Nadu	404.25
Kerala	30
Pondicherry	7
Environmental Protection	10
Inevitable escapages into sea	4
Total	**740**

As a consequence of the aforesaid allocation, the Government of Karnataka would be required to make available 177.25 T.M.Cft. of water to Tamil Nadu at the Inter-State border at Billigundulu. Apart from the modifications effected herein above, no interference has been made with the determination recorded by the Tribunal.

As per the Judgments of the Supreme Court dated 16.02.2018 and 18.05.2018, Union Government constituted the "Cauvery Water Management Scheme, 2018" consisting of Cauvery Water Management Authority (CWMA) and Cauvery Water Regulation Committee (CWRC) and notified it in its Gazette on 01.06.2018.

The Government of Tamil Nadu has nominated the Principal Secretary, Public Works (now Water Resources) Department as the Member of Tamil Nadu in the Cauvery Water Management Authority and the Chief Engineer, Water Resources Department, Tiruchirappalli Region as Member of Tamil Nadu in the Cauvery Water Regulation Committee. So far, the

Cauvery Water Management Authority held 19 meetings and the Cauvery Water Regulation Committee held 76 meetings. The last meeting of CWRC was held on 24.02.2023 and CWMA was held on 10.02.2023. In the CWMA and CWRC meetings, the views of Government of Tamil Nadu on issues such as, getting stipulated flows due to Tamil Nadu as per the Orders of the Tribunal and as modified by the Hon'ble Supreme Court Judgment; and opposing discussion on Mekedatu Project proposed by Karnataka were strongly placed to safeguard the interest of Farmers in the Cauvery basin.

As per the Orders of the Hon'ble Chief Minister, in the irrigation year 2022-2023, the Mettur dam was opened for irrigation in advance, on 24.05.2022, considering the carryover storage and good monsoon forecast.

In this year, the rainfall in the entire Cauvery basin was excess in both monsoon seasons. As a rare occurrence, the water level was maintained at FRL 120 ft, for 125 days in total (from 01.06.2022 to 12.01.2023), and

continuously for 69 days from 17th July 2022 to 23rd September, 2022.

The flood flows received from the Cauvery basin of Karnataka have been regulated appropriately minimizing the flood damages. Water release for irrigation was stopped on 28th January, 2023 as the irrigation season has come to a close.

Action taken by Tamil Nadu to prevent Government of Karnataka on its proposal to construct a Dam at Mekedatu

Tamil Nadu is continuously conveying its strong objections to Karnataka and the Union of India on the proposal of constructing a reservoir at Mekedatu across Cauvery from the time, when Karnataka submitted feasibility report of the Mekedatu project, with a capacity of 67.16 T.M.Cft., unilaterally. However, the Central Water Commission on 22.11.2018 granted permission to Karnataka for preparation of Detailed Poject Report (DPR). Hence, Tamil Nadu on 30.11.2018 filed a Miscellaneous Application in the Hon'ble Supreme Court to restrain Karnataka from preparation of DPR. A

Contempt Petition was also filed by Tamil Nadu on 05.12.2018 against the officials concerned. The above cases are pending before the Hon'ble Supreme Court.

Despite Tamil Nadu's objections, Karnataka approached the Ministry of Environment, Forest & Climate Change for the approval of Terms of Reference (ToR) for Environment Impact Assessment / Environment Management Plan (EIA/EMP) studies. Based on the objections of Tamil Nadu, MoEF & CC has informed Karnataka to get the consensus of Tamil Nadu. Further, based on the strong objections raised by the Tamil Nadu member in the Cauvery Water Management Authority meetings to defer discussion of the project, as the matter is sub judice, it was not taken up.

In the meanwhile, the National Green Tribunal (Southern Zone) suo moto took up the issue of construction at Mekedatu Project site based on newspaper report and ordered on 21.05.2021 to constitute a Committee to check on any construction activity without obtaining necessary clearance, which was disposed off by the National Green Tribunal, Principal Bench New

Delhi on 17.6.2021, citing that the matter is sub judice. Since Tamil Nadu was not given an opportunity to file its reply, Tamil Nadu filed a Civil Appeal (C.A.No.5608 of 2021) against the above order in the Hon'ble Supreme Court on 11.08.2021. This case is pending.

Further, the Hon'ble Chief Minister of Tamil Nadu and the Hon'ble Minister for Water Resources presented memoranda to the Hon'ble Prime Minister on 17.06.2021 and the Hon'ble Union Minister of Jal Shakti on 06.07.2021, respectively, and requested not to give permission to the proposed Mekedatu reservoir project of Karnataka. A delegation of Leaders of all Legislative Parties of Tamil Nadu headed by the Hon'ble Minister for Water Resources also met the Hon'ble Union Minister of Jal Shakti on 16.7.2021 and urged the Union Government not to accord any clearance to the Mekedatu Project of Karnataka without the concurrence of co-basin States.

When it was learnt that Karnataka had approached the Ministry of Environment, Forest & Climate Change for the approval of ToR for EIA/EMP studies, Tamil Nadu filed another

Miscellaneous Application with additional documents in the Hon'ble Supreme Court on 27.08.2021, praying to direct CWC to reject the DPR for the proposed Mekedatu Project. This case is also pending.

In the meanwhile, it was learnt that Karnataka has allocated Rs.1000 Crore in its budget for the year 2022-2023, for the Mekedatu Project. Tamil Nadu Legislative Assembly, on 21.03.2022, strongly condemned this action of Karnataka and unanimously passed resolutions urging the Union Government and the Cauvery Water Management Authority not to accord any clearance to Mekedatu project. This resolution was forwarded to the Ministry of Jal Shakti on 24.03.2022.

Subsequently, in the Memoranda presented by the Hon'ble Chief Minister to the Hon'ble Prime Minister on 31.03.2022 and on 26.05.2022 it was inter alia requested to instruct the Ministry of Jal Shakti not to give permission to the proposed Mekedatu Project of Karnataka.

As decided in the 15th CWMA meeting held on 11.02.2022, the CWMA sought the legal opinion from the Solicitor General on the power

of CWMA to examine new projects. The Solicitor General opined that the CWMA has wide powers and the Authority can take up Mekedatu Project for discussion. Following this, the Authority included the item for discussion in the Agenda for its 16th meeting held on 17.06.2022. Tamil Nadu requested the Chairman, CWMA to omit the item from the Agenda in letters dated 04.06.2022 and 09.06.2022.

Further, Tamil Nadu on 07.06.2022 has filed two Applications (I.A.Nos. 84197 & 84201 in M.A. No. 3127 of 2018), praying to implead CWMA as a party and praying to restrain CWMA from deliberating / passing any order or direction in regard to the DPR for the proposed Mekedatu Project pending disposal of the Applications already filed by Tamil Nadu. These Applications are also pending to be decided.

In this regard, the Hon'ble Chief Minister wrote a letter to the Hon'ble Prime Minister on 13.06.2022 emphasizing that the CWMA was formed only to implement the Final Award of the Tribunal as modified by the Hon'ble Supreme Court and requesting to instruct the Ministry of Jal Shakti to direct the CWMA not to take up

Mekedatu Project for discussion, as it is in violation of the Judgment of the Supreme Court. Further, as per the orders of the Hon'ble Chief Minister, a delegation of leaders of all Legislative Parties, led by the Hon'ble Minister for Water Resources met the Hon'ble Union Minister of Jal Shakti on 22.06.2022 and urged to advise the CWMA not to take up Mekedatu DPR for discussion.

Karnataka filed its Reply Affidavits to the Applications filed by Tamil Nadu with respect to the powers of CWMA, on 18.07.2022 and 19.07.2022, Sur Rejoinder on 08.08.2022. CWMA filed its Affidavit on 07.09.2022. Tamil Nadu filed its Rejoinder/Response on 23.07.2022, 11.11.2022 and on 22.11.2022.

In the meanwhile, when the CWMA in its 17th meeting held on 14.10.2022 decided to include discussion on Mekedatu Project in its 18th meeting, the Hon'ble Minister for Water Resources in his letter dated 29.10.2022 urged the Hon'ble Union Minister of Jal Shakti to omit the item from the Agenda. The same was reiterated in Tamil Nadu's letter dated 02.11.2022. Due to the relentless efforts taken

by Tamil Nadu, the CWMA in its 18th meeting held on 02.12.2022 and in 19th meeting held on 10.02.2023 decided to defer discussion on Mekedatu Project.

The Government of Tamil Nadu is taking all necessary action including legal action to prevent Karnataka from constructing a Dam at Mekedatu or any other place, in the Cauvery basin of Karnataka, in violation of the Final Order of the Tribunal and the Judgment of the Supreme Court and to safeguard the rights of Tamil Nadu.

Suit filed by Karnataka in the Hon'ble Supreme Court against Mettur-Sarabanga LIS, Cauvery – Vaigai – Gundar Link Project & ERM/Modernisation Projects taken up by Government of Tamil Nadu in Cauvery Basin

The State of Karnataka filed an Original Suit (O.S.No. 3 of 2021) along with an I.A. in the Supreme Court on 19.07.2021 seeking exclusive right to use surplus waters generated in the Cauvery basin upto Inter State border Billigundulu, over and above 483 T.M.Cft. and also seeking to restrain Tamil Nadu from

executing Mettur Sarabanga Lift Irrigation Scheme, Cauvery-South Vellar link (first phase of Cauvery-Gundar link), construction of check dams, dykes and anicuts, barrages across Cauvery and Kollidam, and Extension, Renovation and Modernization (ERM) of 4 systems, namely, Kattalai High Level Canal System, Rajavoikkal Irrigation System, Noyyal River System and Grand Anicut Canal System in Cauvery basin.

Tamil Nadu has filed its Written Statement and Reply to the I.A. on 03.01.2022, replying, inter alia, that these projects are either for modernising the irrigation systems or for increasing the efficiency of the systems, or for better commandability or for flood management and none of these projects involve development of any new ayacut in Cauvery basin of Tamil Nadu. Karnataka filed its Replication to the Written Statement of Tamil Nadu in September, 2022. In the meanwhile, Union Territory of Pudcherry in its Written Statement filed on 21.07.2022 has prayed to dismiss the

Suit. Union of India too filed its Counter Affidavit on 17.11.2022 praying that Karnataka's prayer is not liable to be granted and the Suit deserves to be dismissed. The State of Kerala is yet to file its Written Statement. This matter is expected to be taken up for hearing after the filing of counter/reply by all the Defendants.

Return of non-consumptive use of water drawn for Bangalore water supply sought as per the Judgment of the Supreme Court

The Cauvery Water Disputes Tribunal (CWDT) considered drinking water requirement of in-basin population only and allocated 20% of the drinking water drawal as consumptive use. However, the Supreme Court has considered the drinking water requirement of the entire Bangalore city, two-third of which lies outside Cauvery basin and made an additional allocation of 4.75 T.M.Cft. as consumptive use to Karnataka. Thus, the balance 80% of the drinking water drawal, that is, non consumptive use, should be returned to

the Cauvery river system as regenerated flows after necessary treatment.

Karnataka has not ensured return flows after treatment from the Cauvery waters being supplied in the two-third of Bangalore city, which falls outside Cauvery basin. On the contrary, Karnataka contends that the return flows/non-consumptive use of waters belongs to it. This issue was raised before the Cauvery Water Management Authority (CWMA) and the Cauvery Water Regulation Committee (CWRC) on various occasions. However, the CWMA has not issued any direction to the State of Karnataka for ensuring compliance of the decision of Supreme Court or monitor the actual quantum of return flows or its quantity. Hence, the Government of Tamil Nadu has filed a Miscellaneous Application before the Supreme Court on 30.01.2023, praying inter alia to direct Karnataka to ensure that 80% of the flows drawn from Cauvery river and its tributaries for drinking water supply of Bangalore city as regenerated flows from domestic use is returned after treating the said water, to the Cauvery River system, and CWMA to monitor the quality and quantity of

non-consumptive use of drinking water drawn for Bangalore Water Supply returned to Cauvery basin.

Sewage let into Cauvery and Pennaiyar by Karnataka

In view of huge damage and suffering likely to be caused to Tamil Nadu and its inhabitants because of letting in sewage and industrial effluents from Bengaluru city and its surroundings in Cauvery and Pennaiyar rivers by Karnataka, Tamil Nadu filed an Original Suit (O.S. No. 2 of 2015) in the Supreme Court in the year 2015. 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 of sewage by Karnataka in the Cauvery and Pennaiyar, these two rivers are polluted. The case is pending in the Supreme Court.

In the meanwhile, Tamil Nadu Pollution Control Board is collecting water samples from Cauvery and Pennaiyar rivers near the inter-State boundary between Karnataka and Tamil Nadu to monitor water quality. Similarly, the

Central Water Commission is also collecting samples and monitoring the water quality of Cauvery River at Billigundulu.

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

During the irrigation season 2012-2013, the flows due to Tamil Nadu, as per the Interim Order dated 25.06.1991 of CWDT, were not released by Karnataka. Hence, the State of Tamil Nadu filed a Suit (O.S.No.4/2013) against Karnataka in the Hon'ble Supreme Court of India, claiming damages for the losses caused by Karnataka, to Tamil Nadu due to shortfall in release of stipulated quantity of water, computed as per the pro rata formula, based on the Interim Order of the Tribunal, 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, and to pay punitive damages of Rs.1434 crore for deliberate non-compliance of the decision passed by the Tribunal. Cross

examination of the 3 witnesses of Tamil Nadu, was over on 28.09.2018. Cross examination of first witness of Karnataka was completed on 30.04.2019. After the cross examination of second witness of Karnataka, the Suit will be taken up for final arguments.

2.2. Mullai Periyar Dam

The Periyar Project was executed by virtue of the Lease Deed signed between the Maharaja of Travancore and the Madras Presidency on 29.10.1886. This deed is valid for 999 years with effect from 01.01.1886. About 8,000 acres have been leased for this project. About 2.20 Lakh acres of ayacut area are benefited by this Project in Districts of Theni, Dindigul, Madurai, Sivagangai and Ramanathapuram and in a year on an average 22 T.M.Cft. of water is diverted. Apprehensions were raised about the safety of this Dam by certain people of Kerala in the year 1979, though the dam was safe. However, in order to bring the Dam to modern standards, the Central Water Commission suggested certain remedial measures after which the water level could

initially be raised to 145 ft. which was not accepted by Kerala. Since the Government of Kerala held the view that the water level in the Dam should be kept at 136 ft. at all times even after strengthening, the issue went to the Hon'ble Supreme Court.

In the Writ Petitions filed, the Hon'ble Supreme Court pronounced its Judgment on 27.02.2006, which permitted the Government of Tamil Nadu to raise the water level to 142 ft. However, the Government of Kerala amended its Kerala Irrigation and Water Conservation Act, 2003, to thwart the Hon'ble Supreme Court's Order and fixed the FRL of Mullai Periyar Dam as 136 ft. In the Suit (O.S.No.3 of 2006) filed by Government of Tamil Nadu against the amended Act of Kerala, the Hon'ble Supreme Court delivered its Judgment on 07.05.2014 and affirmed the Judgment of 2006 and categorically stated that the dam is Hydrologically, Structurally and Seismically safe. Further, 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 Mullai Periyar Dam upto 142 ft. and to carry out balance strengthening works, so as to enable Tamil Nadu to restore the FRL + 152 ft. The Hon'ble Supreme Court also stated that the New Dam proposal of Kerala cannot be thrusted upon Tamil Nadu. It also ordered to constitute a Supervisory Committee to periodically inspect the dam to allay the apprehensions of Kerala, though none exists.

Water level in the Mullai Periyar Dam reached 142 ft. on 21.11.2014, after 35 years, and thereafter on 07.12.2015 and 15.08.2018. Further, after the implementation of the Rule Curve as finalized by CWC, the water level reached (+) 142 ft. on 30.11.2021 for the 4th time, since 2014, and remained at that level for 18 days, since then and the Dam was found to be safe. For the 5th time, the water level reached +142 ft. on 27.12.2022 and the dam is safe in all respects.

Based on the Order of the Supreme Court dated 08.04.2022 in W.P.No: 880 of 2020 (filed by Dr. Joe Joseph & 2 other individuals of

Kerala), the Supervisory Committee was reconstituted with additional two Technical Members, one each from the State of Tamil Nadu and Kerala. So far, 15 meetings & one Interim meeting of the Supervisory Committee were held.

Special Repair works

Grouting the dam and treating the upstream face of the Main dam has been recommended by the Empowered Committee (2010-2012) and ordered to be carried out by Hon'ble Supreme Court in its order dated 07.05.2014. Suitable specifications have been obtained from Central Soil and Materials Research Station (CSMRS), Delhi and concurrence obtained from Central Water Commission (CWC). Government of Tamil Nadu has issued an Administrative Sanction for an amount of Rs.9.81 crore for this work on 21.11.2019. However, the works could not be carried out so far, as the State of Kerala has not granted permission, in spite of several requests, since February, 2020 to convey the material and machinery through the forest road for this work.

On 28.07.2021 Director, Central Water Commission addressed Additional Chief Secretary of Kerala and requested to get necessary permission from the authority concerned. On receipt of permission, further work would be taken up. In Additional Affidavit (I.A No:154780/2021) filed on 27.11.2021 in Hon'ble Supreme Court, in Execution Petition (I.A No 28 of 2017), it was prayed to direct the State of Kerala to permit to convey the materials and machinery for grouting work at the Main Dam. Further, repairs to the natural Earth mound, on the left of Spillway of Mullai Periyar dam, for which Rs.9.00 Crore has been sanctioned by the Government of Tamil Nadu on 04.01.2021, also could not be taken up so far, due to the obstructionist attitude of Kerala. In the I.A No: 174262 of 2022 in W.P No: 880 of 2020 filed by Tamil Nadu on 14.11.2022 in the Supreme Court, on the above issues, it has been prayed to direct the State of Kerala and its instrumentalities to give necessary permission to Tamil Nadu to convey materials and machinery to the Dam site through Vallakadavu – Mullai Periyar dam site Ghat road. Kerala is being

pursued to offer its permission to convey materials through forest road. All measures are being taken to undertake this work.

Subsequent to the Interim meeting of the Supervisory Committee held on 18.08.2022, the Chairman, Supervisory Committee, vide, letter dated 22.08.2022 addressed the Chief Secretaries of both the States (Tamil Nadu & Kerala) and requested to resolve the long pending issues, namely felling 15 trees, carrying out the balance strengthening measures, repair and maintenance works in the interest of both the States. The Chief Secretary and the Additional Chief Secretary, Water Resources Department addressed their counterparts in Kerala, vide, letters dated 25.08.2022 & 20.10.2022.

In continuation to that, an Inter State meeting at the Chief Secretary level was held at Chennai on 12.12.2022, wherein the Chief Secretary, Government of Kerala stated that he would consider our request and respond early. The Chief Secretary, Government of Tamil Nadu addressed his counterpart in Kerala on

23.12.2022 and requested to arrange to issue necessary permission early to commence the work of the long pending issues without further lapse of time. Reply from Kerala is awaited.

Further, as suggested by CWC, for installing Seismograph and Accelerographs in the dam site, sanction for a sum of Rs.99.95 lakhs has been issued by Government of Tamil Nadu on 30.06.2020. Seismic instruments will be installed by National Geophysical Research Institute (NGRI), Hyderabad. Work for Installation of the instruments is in progress and the instruments will be installed early.

Balance strengthening works to be undertaken to raise the water level to the Full Reservoir Level (FRL) +152 ft.

For raising the water level to its FRL of 152 ft, Central Water Commission and Expert Committee (EC) (constituted in the year 2000) have recommended to carry out balance strengthening works namely, strengthening the Baby dam and Earth dam. Hon'ble Supreme Court in its Order dated 27.02.2006 has also

directed to carry them out. Empowered Committee (constituted in the year 2010) reiterated above recommendation of Central Water Commission and Expert Committee and Supreme Court in its Order dated 07.05.2014 reiterated its order dated 27.02.2006. The Government of Tamil Nadu has accorded Administrative Sanction for an amount of Rs.7.85 crore. In order to strengthen the Baby Dam, 23 trees (now 15) have to be felled down. The works which did not require clearances have been completed.

Though sustained efforts have been taken to obtain necessary clearances to cut these trees, due to the obstructionist attitude of Kerala State, it is getting delayed. In the Memorandum presented by the Hon'ble Chief Minister of Tamil Nadu to the Hon'ble Prime Minister on 17.06.2021, it was requested to instruct Ministry of Environment, Forest and Climate Change to advise Government of Kerala not to delay in giving the required clearances to cut the trees. In the Memorandum presented to Hon'ble Union Minister of Jal Shakti by Hon'ble Minister of Water Resources, on 06.07.2021, Ministry of Jal

Shakti, Union Government was requested to advise State of Kerala to immediately give permission to cut the 23 trees (Now 15 Nos.) and repair the Ghat road by Kerala for which Tamil Nadu is willing to bear the cost or to give its concurrence to carry out the repair by Tamil Nadu.

Following the Inter-state meeting held on 17.09.2021 through video conferencing at Additional Chief Secretary level, the Deputy Director, Project Tiger, Thekkady, vide letter dated 06.11.2021 conveyed that the Principal Chief Conservator of Forest and Wild Life, Kerala granted permission for felling 15 numbers of trees. However, the Forest and Wildlife Department of Government of Kerala issued a Government Order vide G.O. Ms. No.23 / 2021 / F&WLD Dated 11.11.2021 cancelling the orders issued by the Principal Chief Conservator of Forests and Wild Life, Kerala. Thereafter, in the Execution Petition (I.A.No 28 of 2017), an Additional Affidavit (I.A No: 154780 / 2021) was filed by Tamil Nadu in Hon'ble Supreme Court on 27.11.2021, praying to direct the State of Kerala to restore the permission granted for felling of

trees and permit the completion of strengthening works by Tamil Nadu, among others. In the I.A No: 174262 of 2022 in W.P No: 880 of 2020 filed by Tamil Nadu on 14.11.2022, among others, it has been prayed to direct the State of Kerala to restore the permission to cut 15 trees, to carry out the strengthening of the Baby Dam, which was granted on 05.11.2021 and arbitrarily withdrawn subsequently on 11.11.2021. These are pending in Supreme Court.

In the meanwhile, the Joint Secretary, Ministry of Jal Shakti, Union Government, vide letter dated 08.11.2021 addressed State of Kerala and requested Kerala to allow the necessary strengthening works of the dam (baby dam and earthen dam), as proposed by Government of Tamil Nadu. The State of Kerala in its reply dated 16.09.2022, informed the Ministry, that Kerala and its instrumentalities never obstructed Tamil Nadu in carrying out the strengthening works to Mullai Periyar Dam. Tamil Nadu in its reply dated 20.10.2022 brought to the notice of the Ministry of Jal Shakti, the consistent obstructionist attitude of

Kerala, citing the salient chronological events in respect of all the issues and requested to urge the Chief Secretary of the Government of Kerala to take necessary action immediately, so that the Orders of the Hon'ble Supreme Court could be implemented by Tamil Nadu.

Further to the Inter State meeting at the Chief Secretary level held at Chennai on 12.12.2022, the Chief Secretary of Tamil Nadu addressed the Chief Secretary of Kerala on 23.12.2022 to arrange to give permission to the long pending issues and reminded again on 22.02.2023. The Additional Chief Secretary, Water Resources Department, Tamil Nadu addressed the Additional Chief Secretary, Kerala on 22.12.2022 requesting for a mutually convenient date, on which a meeting either physically or virtually may be held, to settle the issue of felling of 15 trees existing in the downstream of Baby dam. A reminder in this regard was also sent on 20.01.2023. The Deputy Director, Central Water Commission, in letter dated 09.03.2023 addressed to the Chief Engineer, ISW, Kerala requested to facilitate clearances to Government of Tamil Nadu for

conveying the construction materials for carrying out the balance strengthening works of Mullai Periyar Dam and repair of Ghat road. Reply from Kerala is awaited.

On receipt of clearances, immediately the work would be undertaken. Continuous efforts are taken to obtain Forest Clearance from the Union Government. In the meanwhile, on 03.03.2022, the Hon'ble Minister for Water Resources, Tamil Nadu addressed the Hon'ble Minister for Water Resources, Kerala to revoke the G.O. on cancelling the tree cutting.

Thus Government is taking all efforts to complete the balance strengthening works, so as to restore the water level to original FRL +152 ft., thereby to protect the rights of Tamil Nadu and to protect the interests of farmers depending upon the waters of Mullai Periyar Dam.

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

The proposal of the State of Kerala for construction of a Mega Car Park Complex in water spread area of Mullai Periyar Dam, the

National Green Tribunal (Southern Zone), in its Judgment dated 15.11.2017, ordered that since National Tiger Conservation Authority has granted permission, approval under the Forest Conservation Act is not necessary. Against this Judgment, Government of Tamil Nadu has filed Civil Appeals in Supreme Court. Supreme Court on 04.12.2017 has ordered that no permanent construction should be carried out by Government of Kerala. As Government of Kerala has undertaken construction works of permanent nature, Government of Tamil Nadu on 08.05.2019 filed a Contempt Petition against the concerned officers of Kerala in Supreme Court. These matters are pending before Supreme Court.

Apart from this, Government of Tamil Nadu on 26.09.2014 has filed a Civil Suit in Supreme Court against the proposal of Government of Kerala to construct a Mega Car Park and to remove the encroachments in the leased area. This case is also pending in Supreme Court.

Thus Government is taking the needed efforts to protect the rights of Tamil Nadu.

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, Ranipet, Thiruvannamalai, Kancheepuram and Chengalpattu Districts in Tamil Nadu, before confluencing into the Bay of Bengal.

The States of Andhra Pradesh, Karnataka and Tamil Nadu are bound by the Inter State – Madras – Mysore, 1892 Agreement. As per Schedule - A of the Agreement, Palar falls under the list of 15 important Inter - State Rivers.

When the Government of Andhra Pradesh proposed to construct a reservoir with a capacity of 0.6 T.M.C. 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.

Cross-examination of Tamil Nadu witnesses of the Parties were also completed by May 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, Government of Tamil Nadu filed another Suit in the year 2016 in the Supreme Court. The Government of Tamil Nadu has also filed Interlocutory Applications (I.A) in the Supreme Court in the years 2017, 2018 and 2019, to restore height of the existing check dams to its original level and to allow natural flow due to Tamil Nadu. This matter is also pending in the Supreme Court.

Government of Tamil Nadu is taking all necessary steps to protect drinking water needs and irrigation needs of farmers of Vellore, Ranipet, Thiruvannamalai, Kancheepuram and Chengalpattu districts who depend on the waters of the Palar river.

2.4. Parambikulam Aliyar Project – Review of Agreement

Parambikulam Aliyar Project, was planned, designed and executed by Government of Tamil Nadu as one of the Second Five Year Plan Projects (1956 - 1961), with the consent and co-operation of 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. An Agreement between Governments of Kerala and Tamil Nadu was entered into on 29.5.1970 with retrospective effect from 09.11.1958. Taluks of Pollachi, Palladam, Udumalaipettai and Dharapuram in the Districts of Coimbatore and Tiruppur are benefitted. 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. For this, both

Governments exchanged documents and also exchanged their respective views.

For the review of the Agreement, so far 27 Meetings at various levels were held between Tamil Nadu and Kerala. In the last Inter State meeting held through Video Conferencing on 17.9.2021, all the issues related to Parambikulam - Aliyar Project including Anamalayar Project and Nirar-Nallar Project were discussed, which are briefed as below:

Diversion of 2.5 T.M.Cft. of water from Anamalayar to Tamil Nadu & Nirar-Nallar Multipurpose Straight Cut Scheme

There is a provision to divert 2.5 T.M.Cft. of water from Anamalayar, in the Original Agreement. Contending that its Idamalayar Project has not been completed, Kerala has not yet given consent for the above diversion. A Supplementary Agreement will suffice for this purpose. However, after discussion in the Inter-State meetings held on 12.12.2019 at Chennai, 11.09.2020 at Thiruvananthapuram and through Video Conferencing on 17.9.2021, Kerala has expressed its willingness to consider the

proposal of Tamil Nadu for constructing a weir across Italiar, a tributary of Anamalayar for diverting 2.5 T.M.Cft. to Tamil Nadu.

The Nirar-Nallar Multipurpose Straight Cut Scheme envisages formation of a reservoir with 7 T.M.Cft. capacity across Nallar, a tributary of Palar in Bharathapuzha basin, for conveyance of water from Upper Nirar Weir across Nirar river directly to Nallar by means of a tunnel for irrigation and also utilize it for generation of Hydro power. Tamil Nadu is pressing for Nirar – Nallar Multipurpose Straight cut scheme 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 reduce water loss. In the Inter-State meetings held on 12.12.2019, 11.09.2020 and on 17.9.2021, the Nirar-Nallar Project was deliberated. Technical details and data pertaining to Nirar Nallar Scheme proposal of Tamil Nadu were sent to Kerala on 08.02.2021. In Video Conference meeting held on 17.09.2021, Kerala put forth its demand

for an increased share of water, about 2.5 to 3 T.M.Cft. at Manacadavu Weir.

As decided in the Inter State meeting held on 17.09.2021, Tamil Nadu constituted a Technical Sub Committee on 01.10.2021, to deliberate with regards to benefits to both the States and sort out technical issues of both the Projects. Kerala's response is awaited. The matter is under correspondence. The Technical Sub Committee has conducted two meetings, on 20.10.2021 and 03.08.2022 and discussed about the technical issues which are to be sorted with Kerala appropriately.

After getting consent of Kerala, Detailed Project Reports will be prepared and after obtaining the necessary clearances, the Anamalayar and Nirar-Nallar projects would be executed.

The Government of Tamil Nadu is pursuing the issues with the Government of Kerala to complete the review of the PAP Inter State Agreement and to execute the Anamalayar and Nirar-Nallar Projects considering the interest of the farmers of Tamil Nadu.

2.5. Neyyar Irrigation Project

The Neyyar Irrigation Project was planned by the Travancore-Cochin Government in two stages during 2nd Five Year Plan 1956-1961, and constructed. Thereafter, due to the States Re-organisation in 1956, a portion of the ayacut localised to be served by this project to the extent of 9,200 acres lying in Vilavancode Taluk was transferred to Tamil Nadu and forms part of Kanniyakumari District. The canal works in Vilavancode area required to feed this ayacut were executed by the Government of Tamil Nadu with the concurrence of Union Government and Government of Kerala. The project has been in operation since 1965. Government of Kerala abruptly stopped the supply of water in March, 2004. Even though, bilateral discussions were held several times to release water to Tamil Nadu, no solution could be found. Hence, in the year 2012, Government of Tamil Nadu filed an Original Suit in the Hon'ble Supreme Court. The cross-examination of the Tamil Nadu's witness is over on 16.12.2022. Kerala's witnesses are to be cross-examined, soon.

Tamil Nadu Government is taking all efforts to get water from Neyyar Dam and to safeguard the interest of the farmers of Vilavancode Taluk, and to protect the rights of Tamil Nadu.

2.6. Repairs to Shenbagavalli Anicut

Shenbagavalli Anicut is a diversion Anicut built at the junction of two streams viz., Puliampattithodu and Chokkampattithodu in the head reach of Periyar Basin lying in Kerala State limits just to the west of Tamil Nadu border. This anicut is in existence for more than 200 years and it diverts flows to mainly two tanks namely Kulashekharaperi and Rasingeperi in Sivagiri Taluk of Tenkasi District through a channel, namely, Kanyamathagu channel, which is 4,400 ft. (1341m) long, which supply water to a group of tanks. About 10,924 acres in Tenkasi and Virudhunagar Districts are being irrigated. In order to carry out the repairs to the Shenbagavalli Anicut, the Government of Tamil Nadu is continuously requesting Government of Kerala, to give its consent.

In the Madurai Bench of Madras High Court, a Writ Petition was filed praying to take steps to repair the Shenbagavalli Anicut and Kanyamathagu channel. The Government of Tamil Nadu, has filed Counter Affidavit for the above Writ Petition. This case is pending.

Government of Tamil Nadu would be taking up the issue again with the Government of Kerala in the ensuing bilateral meeting among other Inter State water issues, to protect the interest of the Farmers affected due to the above issue.

2.7. Pennaiyar River

River Pennaiyar originates at Nandidurg in Karnataka and flows through States of Karnataka, Andhra Pradesh, Tamil Nadu and Union Territory of Puducherry before confluencing into the Bay of Bengal. Pennaiyar River is an Inter-State River and forms part of the Madras-Mysore Agreement of 1892.

Government of Tamil Nadu, in 2018, has filed a Suit (O.S. No. 1 of 2018) and an

Interlocutory Application before the Supreme Court against 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. Supreme Court in its order dated 14.11.2019 granted liberty to Tamil Nadu to make an appropriate Application to Union Government for constitution of a Tribunal for adjudication of Pennaiyar River Water Dispute. Government of Tamil Nadu on 30.11.2019 has approached the Union Government, Ministry of Jal Shakti to constitute a Tribunal. Further, Government of Tamil Nadu on 16.12.2019 filed an Interlocutory Application (I.A. No. 193417 of 2019) in the Supreme Court for maintenance of status quo of the projects of Karnataka. The Suit is pending.

In January 2020, Ministry of Jal Shakti, Union Government set up a Negotiation Committee headed by the Chairman, Central Water Commission. No decision could be reached in the two meetings of the Negotiation

Committee. Subsequently, it submitted the Final Report on 31.07.2020, in favour of constitution of the Tribunal.

Tamil Nadu Government since then requested Ministry of Jal Shakti on 21.11.2020, 19.02.2021 and 29.06.2021 for early constitution of Tribunal and reiterated the request in the Memorandum presented by Hon'ble Minister of Water Resources to Hon'ble Union Minister of Jal Shakti on 06.07.2021.

Secretary, Department of Water Resources, Minister of Jal Shakti convened a meeting with Additional Chief Secretaries of basin States, on 1.9.2021 and the issue was discussed. A meeting for mutual discussions between Tamil Nadu and Karnataka along with Minister of Jal Shakti was suggested. Karnataka has opposed on 13.10.2021, the constitution of Tribunal. Government of Tamil Nadu reiterated to Ministry of Jal Shakti on 01.11.2021, 20.12.2021, 11.03.2022 and 09.05.2022, to constitute the Tribunal early.

As the constitution of Tribunal by the Central Government, was getting delayed, an Additional Affidavit was filed in the Hon'ble Supreme Court, by Tamil Nadu, on 15.07.2022, requesting to give directions to the MoWR, Government of India.

The Union of India filed an Affidavit on 14.12.2022 requesting for 6 months' time to constitute the Tribunal. The Hon'ble Supreme Court vide its order dated 14.12.2022 directed that the Tribunal be constituted within three months. On 19.01.2023 the Hon'ble Supreme Court reiterated its order passed on 14.12.2022 and the I.A. is listed to be heard on 5.4.2023.

Government of Tamil Nadu citing the order of the Hon'ble Supreme Court requested the Ministry of Jal Shakti on 19.02.2023 to constitute the Tribunal early. It is expected that the Union of India would constitute the Tribunal early.

Thus, Government of Tamil Nadu is taking all necessary actions to protect the interests of the farmers of Pennaiyar basin.

2.8. Inter Linking of Rivers

2.8.1. Godavari - Krishna - Pennar - Palar - Cauvery link

Government of Tamil Nadu is continuously urging Union Government, and the Special Committee for Inter linking of Rivers formed by the Union Government as per the Judgment of the Hon'ble Supreme Court, dated 27.02.2012 to implement the inter-linking of Peninsular Rivers, viz., Mahanadi - Godavari - Krishna - Pennar - Palar - Cauvery - Vaigai – Gundar, for which National Water Development Agency prepared Feasibility Report in 2004.

Anticipating the link project, Government of Tamil Nadu, as early as in 2008, took up the construction of Kattalai Barrage across Cauvery and completed it in 2014. In the meanwhile, as the finalisation of Mahanadi-Godavari link is getting delayed, National Water Development Agency(NWDA) has decided to implement the Godavari-Krishna-Pennar-Cauvery in Phase-I and prepared Detailed Project Report for the same in April, 2021 and sent to concerned States for their views.

Tamil Nadu has requested for enhancing the quantum of water proposed to be transferred to Tamil Nadu from 84 T.M.Cft. to 200 T.M.Cft. in Phase-I itself, since it is a water deficit State and to take up the link at a higher contour and terminate it at Cauvery (Kattalai Barrage) instead of at Cauvery (Grand Anicut), as it will be helpful to supply water to the needy areas for optimum utilization of water.

In the meanwhile, Hon'ble Chief Minister of Tamil Nadu presented a Memorandum to the Hon'ble Prime Minister on 17.06.2021, among others, requested to finalise the Detailed Project Report for this project incorporating the request of Tamil Nadu and take up the work on priority basis, so that Southern States could be benefited from the inter basin transfer of surplus/flood water which was also reiterated by the Hon'ble Minister for Water Resources, Tamil Nadu in his Memorandum presented to the Hon'ble Union Minister of Jal Shakti on 06.07.2021.

NWDA had a discussion with the concerned States for a consensus building process for the implementation of this link on 29.10.2021. Tamil Nadu reiterated its views during that meeting and also in the 29th Southern Zonal Council meeting, which was attended by the Hon'ble Higher Education Minister, held at Tirupati on 14.11.2021 under the Chairmanship of the Hon'ble Union Home Minister. A discussion was held with the Director General, National Water Development Agency on 19.11.2021 by Additional Chief Secretary, Water Resources Department, Tamil Nadu on this issue, wherein getting consensus from the concerned States early, was insisted upon.

Meanwhile, Union Government in the Budget speech for 2022-2023 has informed that once a consensus is reached among the beneficiary States for this project, it will provide support for implementation.

NWDA conducted a 3rd consultation meeting to explore the way forward for the implementation of this project on 18.2.2022. Tamil Nadu made a presentation on the benefits of taking the link canal at a higher contour.

Against the observations of the concerned Party States on the availability of surplus water in Godavari, the Central Water Commission opined that about 4000 MCM of water would be available for diversion to the southern basins.

Therefore, as an interim planning, NWDA has carried out a preliminary Technical study in October 2022 which envisages the diversion of 4000 MCM (141 TMC) of water from Godavari to Krishna, Pennar and Cauvery basin. NWDA conducted a 4th consultation meeting on 18.10.2022 to discuss about the above Technical study. In this meeting, the Additional Chief Secretary, Water Resources Department, expressed his concern about the continuous reduction in quantum and also requested to include the Pennar – Cauvery (Kattalai Barrage) link in the Phase-I itself, instead of Pennar - Cauvery (Grand Anicut) link.

In the 36th Annual General meeting of the NWDA Society, held on 13.12.2022 at New Delhi, Hon'ble Minister for Water Resources, Tamil Nadu requested to keep diversion from Godavari as 7000 MCM (247 TMC) as proposed in DPR prepared by NWDA in 2021 and take the

termination point of the link canal to Kattalai Barrage instead of at Grand Anicut by justifying the need to take up the link canal at a higher contour. Hon'ble Minister for Water Resources, Tamil Nadu further requested to increase the allocation of water from Godavari – Cauvery link project to the State of Tamil Nadu. The Additional Chief Secretary, Water Resources Department also reiterated the views put forth by the Hon'ble Minister for Water Resources, Tamil Nadu. Hon'ble Union Minister for Jal Shakti suggested to conduct a meeting with NWDA officials exclusively to deliberate on these issues and arrive at a suitable decision.

On 23.2.2023, the Additional Chief Secretary, Water Resources Department, requested Ministry of Jal Shakti to instruct CWC and NWDA to keep the diversion from Godavari as 247 T.M.Cft. and to take all proactive steps to implement the NPP link Phase - I project, early for the benefit of Tamil Nadu, the sectoral States and the Nation at large. NWDA, was also requested to conduct an exclusive meeting on this, early.

In the 17th meeting of Task Force Committee of NWDA held on 6.3.2023, at

Hydrabad, Tamil Nadu has requested to enhance diversion of 4000 MCM to 7000 MCM from Godavari and take the termination point of the link canal to Kattalai Barrage instead of at Grand Anicut. The Chairman of Task Force Committee has requested Andhra Pradesh and Telangana to give concurrence for Godavari and Cauvery Link Project.

Government of Tamil Nadu is taking all efforts to implement the Inter Linking of Rivers Project to alleviate the water shortage in Tamil Nadu.

2.8.2. Pamba - Achankoil - Vaippar Link

National Water Development Agency in 1994 prepared a feasibility report for the Pamba-Achankoil-Vaippar Link Project, which envisages diversion of 22 T.M.Cft. of surplus water of Pamba and Achankoil Rivers of Kerala to Tamil Nadu to irrigate an ayacut of 91,400 hectares in Sankarankoil, Kovilpatti, Sivagiri, Srivilliputhur, Rajapalayam, Sathur and Tenkasi Taluks of Tamil Nadu, which will also help to generate power of 500 MW by Kerala.

Even though the Government of Tamil Nadu gave its concurrence for preparing the Detailed Project Report, Government of Kerala is not in favour of this project.

Tamil Nadu has been continuously requesting Ministry of Jal Shakti, Union Government and National Water Development Agency to prepare the Detailed Project Report for this link project in all meetings of Special Committee constituted for implementing the Inter Linking of Rivers project. Even during the Special Committee meeting, held on 12.11.2021 at New Delhi, Tamil Nadu citing the heavy flood flows in 2021 in Pamba and Achankoil Rivers of Kerala, requested National Water Development Agency to prepare the Detailed Project Report for Pamba – Achankoil – Vaippar Link project, so as to implement this link speedily, as this link is beneficial to Kerala also, in effective flood management.

Government of Tamil Nadu is taking all efforts through the National Water Development Agency, meetings of Special Committee for Inter Linking of Rivers and Union Government for the implementation of this Project.

2.9. Pandiyar – Punnampuzha Project

Pandiyar, Punnampuzha and Cholatipuzha are tributaries of the Inter State River Chaliyar. These tributaries originates from the high peaks of Nilgiris hills in Tamil Nadu and flows west into Kerala, and empties in to the Arabian Sea .

An understanding was reached between Tamil Nadu and Kerala in the year 1965 to implement the (3x50 MW) Pandiyar-Punnampuzha Hydro Electric Scheme at Karakotapuzha in Tamil Nadu and 105 MW at Putheripallam in Kerala which envisages utilization of 14 T.M.Cft. water, out of the Annual average yield of 27.6 T.M.Cft., generated from the catchment area of Pandiyar and Punnampuzha rivers in Tamil Nadu. The Union Planning Commission approved this project in 1968. There was no diversion of water, suggested in this proposal.

Based on the representation from the ryots of Bhavani Sub basin, the Government of Tamil Nadu directed to discontinue the preparation works of the Project and to study the feasibility of diverting the Pandiar-

Punnampuzha water eastwards in to the Moyar River and from there to Lower Bhavani Reservoir in Erode District. Accordingly, the above proposal was investigated and found feasible. In 2006, a Project was prepared by the TANGEDCO and sent to Kerala State Electricity Board (KSEB) for the concurrence of the Government of Kerala. However, Kerala did not give its nod for the modified proposal.

In the inter State meeting held between the Chief Ministers on 25.09.2019 at Thiruvananthapuram, it was decided to constitute a committee comprising of 5 members at the Secretary level of both the States to discuss and advise the respective Governments on implementing the Pandiyar - Punnampuzha Scheme. In continuation of that inter-State meeting was held on 11.09.2020 at Thiruvananthapuram, and a meeting by the Committee was held by Video Conferencing on 17.9.2021.

In the last meeting Kerala indicated to consider Tamil Nadu’s proposal and it was decided to constitute a Technical Sub Committee

to sort out the technical aspects of the proposal, and the same has been constituted on 01.10.2021.

As announced by the Hon'ble Minister for Water Resources Department during the Demand for Grants for the year 2021-2022 the Government accorded Administrative Sanction for the work of "Conducting Surveying & Leveling operation for preparation of feasibility report for the multipurpose Pandiyar – Punnampuzha Project" for an amount of Rs.9.00 Lakh. After conducting preliminary investigation and surveying works, feasibility report has been prepared, for pursuing with the State of Kerala in the inter-State meetings which is expected to be held soon.

3.0. Krishna Water Supply Project

An Agreement was signed among the States of Tamil Nadu, Maharashtra, Karnataka and Andhra Pradesh on 14.04.1976, in which each State agreed to spare 5 T.M.Cft. of water from Krishna basin to supply 15 T.M.Cft. of water to Chennai City through the State of Andhra Pradesh.

As per the Inter-State Agreement signed between the States of Tamil Nadu and Andhra Pradesh on 18.04.1983, the Government of Andhra Pradesh has to deliver 12 T.M.Cft. of water at Tamil Nadu Border every year, excluding evaporation loss of 3 T.M.Cft. of water as below:

1st spell - July to October (4 Months)	:	8 T.M.Cft.
2nd spell - January to April (4 Months)	:	4 T.M.Cft.

The project was taken up simultaneously by both the States during 1983 and the water was realized at the entry point of Tamil Nadu in September 1996. The expenditure was agreed to

be shared between two States as per the agreement signed between the two States on the basis of the proportionate share of water.

To ensure drinking water supply to Chennai city as per the Interstate agreement and to evolve mechanism for accounting the flows to be supplied by the States, the Government of India, Ministry of Water Resources, River Development and Ganga Rejuvenation, in its order dated 05.10.2018, have constituted a Committee under the chairmanship of the Chairman, Krishna River Management Board. The Engineers-in-Chief of Maharashtra, Karnataka, Tamil Nadu, Telangana and Andhra Pradesh and the Chief Engineer, Irrigation Management Organisation, Central Water Commission are the members. The Member Secretary, Krishna River Management Board is the Member- Secretary of the above Committee. The Committee shall meet at least twice in a year in the months of June and December. The above committee have conducted 7 meetings so far. The 7th meeting of the committee was held on 24.06.2022.

From the year 1996 to 15.03.2023, a total of 108.363 T.M.Cft. of water has been realized at Tamil Nadu Border (Zero Point). During the water year 2022-2023, 3.695 T.M.Cft. of water has been realized at Tamil Nadu border.

4.0. Interlinking of Rivers within the State

"காவிரி தென்பெண்ணை பாலாறு – தமிழ்

கண்டதோர் வையை பொருநை நதி – என

மேவியாறு பலவோடத் – திரு

மேனி செழித்த தமிழ்நாடு"– மகாகவி பாரதியார்

4.1. Cauvery - Agniyar - South Vellar - Manimuthar - Vaigai - Gundar Link Canal Scheme

It has been proposed to form a new canal for a total length of 262.19 km, taking off from Kattalai (Mayanur) Barrage, constructed across river Cauvery, to link the rivers Agniyar, South Vellar, Manimuthar, Vaigai and Gundar in 3 phases viz.

Phase I- Cauvery (Kattalai Barrage) to South Vellar (L.S. 0 Km – LS 118.45 Km)

Phase II- South Vellar to Vaigai River (L.S.118.45 Km – 228.145 km)

Phase III- Vaigai River to Gundar River (L.S.228.145 Km – 262.19 Km)

As the first phase of this project, the Government have given "in-principle" approval for a sum of Rs.6941 crore for the formation of a new canal from Kattalai Barrage to South Vellar (LS 0 Km - 118.45 Km).

Phase-I

The Government have accorded Administrative Sanction to form flood carrier canal for a length of 4.10 km in Karur District for an amount of Rs.171.00 crore and 5.355 km length in Trichy and Pudukottai Districts for an amount of Rs.160.00 crore. In these works, 59% have been completed as detailed below and remaining works are in progress.

Sl. No.	Name of the Cross Masonry and Cross Drainage works	Present Stage
1	Aqueduct	Under Progress
2	Cross Regulator	Shutter works to be completed

Sl. No.	Name of the Cross Masonry and Cross Drainage works	Present Stage
3	Escape Regulator	Shutter works to be completed
4	Syphon Aqueduct	Completed
5	Under Tunnel	Under Progress
6	Road Bridge (7 Nos.)	5 Nos. Completed 2 No. Nearing completion
7	Cut & Cover	Under Progress

For implementation of this scheme, land acquisition process is being taken up in Karur, Tiruchirappalli and Pudukottai Districts by formation of Land Acquisition Units.

Due to the integrated approach of Land Administration and Water Resources Departments and as the result of the monthly review meetings the issues in land acquisition are being solved then and there. This results in

the speedy process of land acquisition for this scheme.

In Karur District 164.41 Hectare, in Trichy District 54.90 Hectare and in Pudukottai District 63.68 Hectare of patta lands have been acquired. Remaining land acquisition process is in progress.

Further Phase-II and Phase-III of this project, Detailed Project Report is under preparation.

On implementation of Cauvery – Agniyar - South Vellar – Manimuthar - Vaigai- Gundar Link Canal Scheme, the total command area to an extent of 52,332.63 Hectare which includes 45,810.84 Hectare for stabilization and 6,521.79 Hectare for bridging gap, lying in between Cauvery and Gundar basin would get benefitted.

4.2. Inter - linking of Thamirabarani - Karumeniyar - Nambiyar Rivers

"உழுவார் உலகத்தார்க் ஆணிஅஃ தாற்றாது எழுவாரை எல்லாம் பொறுத்து" – குறள்

This scheme is proposed to divert 2,765 Mc.ft. of flood surplus water of Thamirabarani River from its average annual

flood surplus quantum of 13,758 Mc.ft. by formation of Flood carrier canal for a length of 75.175 km with carrying capacity of 3,200 cusecs from Kannadian Channel at Vellankuzhi Village of Ambasamudram taluk to M.L. Theri of Santhankulam Taluk by interlinking Thamirabarani, Karumeniyar and Nambiyar Rivers in Tirunelveli and Thoothukudi Districts. The works have been commenced in the year 2009 and is under implementation in four stages.

For this project, administrative sanction was accorded for Rs.369.00 crore on 12.06.2008. Revised Administrative Sanction has been accorded for an amount of Rs.933.23 crore.

By implementation of this scheme, an extent of 13,481 hectares (33,312.28 acre) of ayacut in Tirunelveli District and 9,559 hectares (23,620.80 acre) of ayacut in Thoothukudi District, totally 23,040 hectares (56,933.08 acre) of ayacut will be benefited.

For this scheme, 913.137 hectares (2,256.41 acre) of land in Tirunelveli District and

157.42 hectares (388.99 acre) of land in Thoothukudi District to be acquired. In total, 1,070.55 hectares (2,645.40 acre) of land to be acquired for this project. About 65% land acquisition has been completed. Speedy action is taken to acquire remaining land required.

Present stage of the works:-

Stage	Total Packages	Completed	Under Implementation	Percentage of Completion
I	18	18	-	100%
II	18	18	-	100%
III	18	17	1	99%
IV	16	7	9	73%

The Investment Clearance was accorded by the Ministry of Jal Shakti, Union Government for an amount of Rs.872.45 crore.

Based on the efforts taken by this Government, the project has been included under PMKSY-AIBP and the Union Government has sanctioned an amount of Rs.44.22 Crore as Central Share and released a sum of Rs.9.0425 Crore as a 1st instalment on 31.03.2022.

The Balance Central Assistance proposal has been sent to the Union Government for approval.

4.3. River links under investigation

4.3.1. Pennaiyar (Sathanur Dam) – Cheyyar link

This scheme was proposed to divert 5.87 T.M.Cft. of flood surplus water from foreshore of Sathanur Dam by excavating canal to feed en-route tanks and augmenting supply to 36 Nos. of tanks under Nandan canal system and also to link Pennaiyar River with Palar River through Cheyyar River.

After analyzing the total availability of water at Sathanur reservoir and by considering the existing and new proposals on the upstream

side of Sathanur reservoir, it has been found that the available surplus water is 0.767 T.M.Cft. only. Under the present circumstances the above work has been proposed to be implemented in two phases.

In Phase- I, it is proposed to excavate a main canal from Sathanur reservoir, feeder canal and branch canals to divert 500 cusecs of water for 11 days to feed 22 Nos. of en-route tanks in Tiruvannamalai District and augmenting Nandan canal system through which 36 Nos. of tanks would get water.

By this scheme, 2,609.04 acre of ayacut in Tiruvannamalai district and 6,653.34 acre of ayacut of Nandan canal would get benefited. For implementing the first phase, 276.34 acre of patta land, 35.30 acre of poromboke land and 34.37 acre of Forest land are required.

By implementation of this scheme, 33 villages in Tiruvannamalai district and 24 Villages in Villupuram district would get benefitted. Surveying and levelling operations and Geological investigations for the scheme have been completed.

The Detailed Project Report for Phase-I- "Excavation of link canal to feed 22 tanks in Tiruvannamalai district and augmenting supply to Nandan canal" for an estimated amount of Rs.229.35 Crore (2021-2022 Price level) is under consideration.

Further, based on the dependability, the Technical Feasibility will be studied to interconnect the main canal with the Cheyyar River in Phase–II.

4.3.2. Pennaiyar (Nedungal anicut) – Palar link

This scheme aims to divert 3 T.M.C. ft. of flood water of River Pennaiyar from Nedungal Anicut (located on the downstream of Krishnagiri Reservoir) to Kallar, which is a tributary of Palar. The Detailed Project Report for this scheme at an estimated cost of Rs.648.23 crore (2017-2018) was prepared by the National Water Development Agency and received by the Government of Tamil Nadu during the year 2018.

As on date, the dependency on Hydrology needs to be verified on consideration of the on-

going projects and projects under consideration in Pennaiyar basin,

Revised Detailed Project Report has to be prepared in accordance to the dependable hydrology, for which detailed investigation needs to be carried out.

Administrative sanction has been accorded for Rs.0.96 crore for investigation. The investigation works are in progress.

By implementing this scheme, it is possible to recharge open wells and bore wells to stabilize 24,329 acre of existing command area in Pochampalli, Krishnagiri Taluks of Krishnagiri District and Vaniyambadi, Tirupathur Taluks of Tirupathur District.

4.3.3. Cauvery (Mettur dam) – Sarabanga - Thirumanimuthar - Ayyar Link Canal Project

Under this scheme, it is proposed to divert 5 T.M.Cft. of Cauvery flood surplus water from Mettur Dam through formation of a new canal passing through Salem, Namakkal, Perambalur and Tiruchirappalli Districts. It is

proposed to implement the scheme in two phases.

In Phase-I, the link canal for a length of 132.305 km from Mettur dam to Pavithram tank is proposed to be formed. In Phase-II, the link canal for a length of 36.995 km is proposed to be formed from Pavithram tank to Ayyar River.

Phase - I

A feasibility report for Phase-I has been prepared for an amount of Rs.9,176 crore (2020-2021 price level) and it is under consideration. In this phase, it is evaluated that an extent of 2,164.87 acre of patta land and an extent of 283.03 acre of forest land are required for this project implementation. By implementing this phase, about 31,263 acre of ayacut would get benefited.

Phase - II

A feasibility report has been prepared for an amount of Rs.1,060.00 crore (2020-2021 price level) and is under consideration.

In this phase an extent of 600.56 acre of patta land and an extent of 42.71 acre of

poromboke land are required for this project. By implementing this scheme, about 6,479 acre of ayacut will be benefited. Action is being taken to prepare Detailed Project Report.

4.3.4. Thamirabarani - Uppar Odai - Malattar - Vaippar Link

The Uppar Odai, Malattar River (Kallar River) and Vaippar River flowing through Thoothukudi District are in drought prone area and facing water deficit for drinking and agricultural needs. Hence, it is proposed to divert the un-utilized surplus water of Thamirabarani River to Uppar Odai, Malattar Odai and Vaippar River in Thoothukkudi District.

From Thamirabarani River, it is proposed to divert 400 cusecs of surplus water near Seevalaperi check dam for 18 days initially by pumping to a length of 13 km with a lifting head of 41 m. Then by formation of gravity canal for a length of 64.5 km to inter link all en-route Streams / Rivers.

By this scheme, around 2,204.92 Hectares of ayacut lies in Uppar Odai,

Malattar Odai and Vaippar River will be benefited in Srivaikuntam, Ottapidaram, Ettayapuram and Vilathikulam Taluks in Thoothukudi District

Administrative sanction has been accorded for an amount of Rs.40.00 Lakh for the work of surveying, investigation and preparation of Detailed Project Report. Investigation works completed. For preparation of Detailed Project Report, evolving design is in progress.

5.0. Special Desilting Works

5.1. Cauvery Delta Desilting

"விசும்பின் துளிவீழின் அல்லால்மற் றாங்கே பசும்புல் தலைகாண்பு அரிது" – குறள்

The Cauvery Delta desilting works are carried out to ensure the water released from Mettur dam reaches the irrigation canals in the Cauvery delta Districts till the tail end areas without any hindrance and for quick drainage during floods.

During the year 2022-2023, 683 desilting works to desilt Rivers, Canals and Supply Channels for the length of 4,964.11 km in Cauvery Delta Districts of viz., Karur, Tiruchirappalli, Perambalur, Ariyalur, Thanjavur, Tiruvarur, Nagapattinam, Mayiladuthurai, Pudukkottai and Cuddalore for an amount of Rs.80 crore were taken up and the works were completed well in time enabling delta farmers to fully reap benefits of early release of water from Mettur on 24.05.2022.

The desilting of water bodies in Cauvery Delta areas to the designed bed level, removal

of shoals and thorny bushes in Canals / Channels, Branch Canals / Drains / Supply Channels etc., are executed on war footing basis with the involvement of "Uzhavar Kuzhu" (Farmers Association) and irrigation water reaches tail end area without any hindrance.

The Desiltation helped to increase in the Kar – Kuruvai acreage in the Delta area from 4.9 lakh acres in 2021 to 5.36 lakh acres in 2022 season.

For the year 2023-2024, it is planned to desilt Rivers, Canals and Supply Channels in Cauvery Delta Districts before opening of Mettur Dam.

5.2. Special Desilting Works in Madurai Region

During 2022-2023, Special Desilting works at an estimate cost of Rs.2.959 crore were carried out in Vaigai and Thamirabarani Basins in Madurai, Tirunelveli, and Thoothukudi Districts and Canals in Kodayar Irrigation Systems in Kanniyakumari District to remove deposition and to restore the carrying capacity of the channels in order to ensure supply up to tail end reaches.

Similarly, it is planned to carry out Special Desilting works in 6 basins (Upper Vaigai, Lower Vaigai, Gundar, Vaippar, Tamirabarani and Nambiyar) of Madurai Region during the year 2023-2024 to restore the carrying capacity of the channels in order to ensure irrigation water to farmers in timely manner.

5.3. Special Desilting Works in Coimbatore Region

During 2022-2023, 56 special desilting works at a cost of Rs.3 crore in Bhavani, Amaravathi and Parambikulam Sub Basin in Coimbatore, Erode, Karur and Tiruppur Districts were completed.

125 desilting works at an amount of Rs.4 crore were completed in Parambikulam Aliyar Project Irrigation Channels in Coimbatore and Tiruppur Districts.

Desilting the bed of water bodies to the designed bed level, removal of bushes, fallen earth & debris in Canal / Channel, Branch Canals, Supply Channels, etc, were executed to ensure irrigation water to tail end.

Similarly, it is planned to carry out desilting works in Parambikulam Aliyar Project (PAP) Basin, Amaravathy Sub Basin and Lower Bhavani Sub-Basin during 2023-2024 to restore the carrying capacity of the channels in order to ensure irrigation water to farmers in timely manner.

6.0. Construction of New Regulator across Kollidam River at Mukkombu (Upper Anicut)

Construction of New Regulator across Kollidam River in Northern and Southern arms of the Kollidam River on the downstream side of the existing regulator at Mukkombu (Upper Anicut) in Tiruchirappalli at revised estimate cost of Rs.414 crore is nearing completion. This new regulator is being constructed to replace the existing partially damaged age-old Regulator and to benefit an ayacut of 12,58,460 acre.

Construction of a New Regulator, Single Lane Bridge over Regulator, Guide Walls, standardisation of Flood Banks, Construction of Oosipalam Bridge works are completed. Due to forest issue the road work is under progress. Sincere effects are being taken to resolve the issue with Forest department to complete the road work early.

7.0. Construction of a New Barrage with Head Sluice across Kollidam River in Adhanur and Kumaramangalam Villages in Cuddalore and Mayiladuthurai Districts

Construction of a Barrage with head sluice across the River Kollidam, in Adhanur and Kumaramangalam Villages of Cuddalore and Mayiladuthurai Districts is under implementation at an estimated cost of Rs.494.60 crore. The Project Cost is Rs.463.25 crore and Land Acquisition cost is Rs.31.35 crore.

This barrage is proposed with a capacity of 0.334 T.M.Cft. and the total usable annual storage works out to 1.072 T.M.Cft. adopting 4 fillings. The total benefitting ayacut would be 31,221 acre, out of which 26,810 acre through stabilisation and 4,411 acre by recharging of existing nearby wells in Cuddalore and Mayiladuthurai Districts. Water stored by this scheme will be utilised for supplying Drinking Water to Greater Chennai Corporation through

the Veeranam Tank. Villages on both the banks of the River Kollidam will be linked by a bridge over the Barrage.

Construction of a Barrage with Head Sluice and Two lane bridges over the Barrage are nearing completion. Strengthening of bund, Approach road and other works are in progress. So far, 93% of works have been completed. Land Acquisition is also in progress.

8.0. Construction of Barrage across the Cauvery River in Nanjai Pugalur

Construction of a Barrage across River Cauvery at about 107 km from Mettur dam i.e. 200 m downstream of Vangal Head work arrangement in Nanjai Pugalur Village of Pugalur Taluk in Karur District under NABARD Infrastructure Development Assistance (NIDA) sanctioned for Rs.406.50 crore as deposit work is under implementation.

By implementing this scheme, about 800 Mc.ft. of water can be stored. An ayacut of 1,458 acre of Vangal Channel and 2,583 acre of Mohanur Channel will be benefitted. A total ayacut of 4,041 acre will be benefited in addition to catering the water requirement of Tamil Nadu Newsprint and Papers Limited. So far 54% of works have been completed.

9.0. Extension, Renovation and Modernization of the Cauvery Basin Irrigation System (ERM)

The existing irrigation system in Cauvery Delta were planned with unlined canals for traditional Cropping pattern and assumed irrigation efficiencies. Hence, the Government planned to update and improve the components of the existing Irrigation system in Cauvery Basin viz., Grand Anicut Canal System, Cauvery Sub-basin, Lower Bhavani Project System, Kattalai High Level Canal Irrigation System, Noyyal Sub-basin and Rajavoikkal Irrigation System to meet modern day concepts on safety and present day demand of water for irrigation by improving its irrigation efficiency under ERM Scheme.

The works includes standardisation of Canals, Channels, Reconstruction / Repair of Irrigation Infrastructures such as Head sluices, Pipe Sluices, Regulators, Drops, Syphon Aqueduct, Under Tunnel, strengthening of protection works etc.

ICONIC Project (ERM) Works

i. Cauvery Sub Basin Project

Extension Renovation and Modernization of Irrigation Infrastructure of Cauvery Sub-Basin Project are being executed as deposit work at an estimated cost of Rs.3,384 crore in 33 packages through Tamil Nadu Water Resources Conservation and River Restoration Corporation with loan assistance from NABARD Infrastructure Development Assistance (NIDA).

By implementing the above scheme, 3,54,147 acre of ayacut in Thanjavur, Nagapattinam, Pudukkottai, Mayiladuthurai and Tiruvarur Districts will be benefitted.

33 packages at an estimate cost of Rs.3,384 crore are in various stages of implementation. Overall 43% work completed and remaining works are in progress.

ii. Grand Anicut Canal System

ERM scheme is implemented in Grand Anicut Canal System project to restore the original full water supply level of 4,200 cusecs in

Grand Anicut Canal, to increase the conveyance efficiency from present 45% to 61.60%, to enhance production by bridging gap area of 67,500 acre and to benefit total ayacut of 2,27,472 acre in Thanjavur and Pudukkottai Districts.

Innovations such as Canal Automation Network and introduction of Supervisory Control and Data Acquisition (SCADA) to control the flow and to ensure the quantum of water as per the requirement is released into the field, Decision Support System (DSS) for efficient water management in canal command areas are contemplated in this project.

The Government on 13.11.2020 accorded sanction for "Extension, Renovation and Modernization of Grand Anicut Canal system in Cauvery Basin for efficient water management in Tamil Nadu" in 16 Packages at an estimated cost of Rs.2,639.15 crore.

The Government have decided to pose this project to Asian Infrastructure Investment Bank (AIIB) for seeking financial assistance for an amount of Rs.1,609.125 crore (70% of the project cost of Rs.2,298.75 crore at 2014 - 2015 price level) and the process is under progress. State Government fund will be Rs.1,036.70 crore for this project.

The Government on 18.01.2021 accorded financial sanction for an amount of Rs.1,036.70 crore for 5 Packages. Out of 16 Packages, Works in 5 Packages are in progress. So far 72% of work completed in 5 Packages.

iii. Kattalai High Level Canal Irrigation System

Extension, Renovation and Modernization of Kattalai High Level Canal irrigation system at an estimated cost of Rs.335.50 crore to benefit an ayacut area of 20,185.06 acre in Karur District and 3,589 acre in Tiruchirappalli District under State fund with reimbursement of fund assistance from NIDA is nearing completion.

Other Extension, Renovation and Modernization (ERM) Project

i. Rajavaikkal Irrigation System

Extension, Renovation and Modernization of Rajavaikkal Irrigation System at an estimated cost of Rs.184 crore in 2 packages to benefit an ayacut area 12,786 acre in Namakkal District under State fund with reimbursement of fund assistance from NIDA. 98% of works completed in Package-1 and works completed in Package-2. The works carried out in this project are Construction of Retaining Walls, Strengthening the Banks of the Canal, Repair of Sluices and Shutters in the Rajavaikkal, Kumarapalayam Vaikkal, Poiyeri Vaikkal and Moganur Vaikkal.

ii. Noyyal River System

Extension, Renovation and Modernization of Irrigation Infrastructures in Noyyal River System at an estimated cost of Rs.230.00 crore under State fund with reimbursement of fund assistance from NIDA to benefit 7,000 acre of direct ayacut and 11,000 acre indirect ayacut in Coimbatore, Tiruppur, Erode and Karur Districts.

The works have been split into 3 Packages from LS 0 to 34.50 km, LS 34.50 to 72 km and LS 72 to 158.35 km. Main works are completed. Sub works are in progress.

iii. Lower Bhavani Project System

Extension Renovation and Modernization of Irrigation Infrastructure of Lower Bhavani Project System are being executed as deposit work at an estimated cost of Rs.933.10 crore in 6 packages through Tamil Nadu Water Resources Conservation and River Restoration Corporation with loan assistance from NABARD Infrastructure Development Assistance (NIDA) and the works are in progress.

By implementing the above scheme 2,47,247 acre of ayacut in Erode, Karur and Tiruppur Districts will be benefited. Out of 6 Packages, the Package 5 & 6 viz., ERM works of Kalingarayan Channel, Thadappalli and Arakkankottai Channels are completed.

The Packages from 1 to 4 viz., works of the Lower Bhavani Project main canal from mile 0-0-373 to mile 124-2-560 are taken up for

implementation and held up temporarily due to strong opposition from the group of farmers. Steps are being taken by the Department and District administration to resume the works in cooperation with farmers at the earliest.

10.0. Mettur - Sarabanga Lift Irrigation Scheme

Diversion of surplus water from the Mettur Dam to the dry tanks in Sarabanga Basin in Salem District by Lift Irrigation sanctioned at an estimated cost of Rs.565.00 crore is in progress.

This scheme envisages diverting 555 Mc.ft. of flood surplus water of Mettur Reservoir by lift irrigation. By implementing this scheme, a total ayacut of 4061.66 acre through 79 tanks will be benefited.

Formation of the canal from the Left flank of the Mettur Reservoir water spread area to the pumping station and construction of Main Pumping Station in Thippampatti Village (Gonur) have been completed. The pumped water will be taken to two Tank Groups by two outlets, i.e, Mecheri Tank Group which starts from Kalipatti Tank and Nangavalli Tank Group which starts from Nangavalli Tank. So far 90% of works completed. Land acquisition and laying of pipeline works are in progress.

11.0. Athikadavu Avinashi Pumping Scheme

Athikadavu - Avinashi Scheme as Irrigation, Ground Water recharge and Drinking Water supply scheme at an revised estimated cost of Rs.1,756.88 crore under State fund on Design, Build, Operate and Transfer (DBOT) basis is under implementation. This Scheme involves pumping of 1.5 T.M.Cft. of surplus water of the Bhavani River from the downstream of the Kalingarayan anicut to feed 32 Water Resources Department tanks, 42 Panchayat Union tanks and 971 Ponds in Coimbatore, Tiruppur and Erode Districts. By implementing this scheme, 24,468 acre of ayacut will be benefited. The project work was started on 25.12.2019. 99% of work has been completed. Civil works are completed in Weir and 6 Pump Houses. Electrical works, Transformers, HT/LT Panels, VT Pumps & Motors, EOT Cranes, Trash rack & Stop log gates have been erected in all the Pump houses Laying of MS & HDPE Pipes are in progress. 83% of erecting EB Pole and laying underground electric arrangements works have been completed.

On 20.02.2023 trial run for the project has been commenced. Trial Run for pumping water in raising main pipe lines from pump house 1 to 6 has been completed. Further Trial Run is in progress.

12.0. Augmenting the Storage Capacity of Chennai City Water Supply Resources

Augmenting the storage capacity of Chennai City Water Supply Tanks viz., Cholavaram Tank and Poondi Reservoir in Thiruvallur District and Chembarampakkam Tank in Kancheepuram District by desilting at an estimated cost of Rs.20.44 crore are under implementation. Further desilting of Red hills Tank in Thiruvallur District at an estimated cost of Rs.9.90 crore is to be taken up shortly. By desilting the above 4 city water supply tanks, it is aimed to restore total capacity of about 1.904 T.M.Cft.

Formation of New Reservoir by upgrading the capacity of Kattur and Thatamanji twin tanks in Thiruvallur District at an estimated cost of Rs.62.36 crore is in progress. This Reservoir may augment water resource to Greater Chennai and provide irrigation facility to 5,804.38 acre of ayacut. So far 95% of work has been completed.

Reclaiming and Rejuvenating the Kolavoy Lake in Chengalpattu District for augmenting drinking water supply to the extended Chennai urban and Chengalpattu area has been taken up for an amount of Rs.60.00 crore. This work aims to increase the capacity of tank from 477 Mc.ft. to 650 Mc.ft.

Construction of a Bed dam across Chembarambakkam tank surplus at LS 750m and diverting the water from the Bed dam through cut and cover to feed into the Chikkarayapuram abandoned quarry in Kundrathur Taluk of Kancheepuram District at an estimate cost of Rs.35 crore is taken up for implementation.

The Hon'ble Chief Minister, in a meeting held on 03.08.2022, has given in-principle approval to take up and investigate the following projects for augmenting Greater Chennai drinking water supply source:-

Sl. No.	Name of Work	Estimate Amount (Rs. In crore)	Benefits
1	Desilting and increasing FTL of Pillaipakkam Tank in Sriperumbudhur Taluk of Kancheepuram District	21.50	Capacity will increase from 120 Mc.ft. to 190 Mc.ft. thereby 72 MLD water will be utilized
2	Desilting and increasing FTL of Sriperumbudhur Tank in Sriperumbudhur Taluk of Kancheepuram District	20.00	Capacity will increase from 170 Mc.ft. to 220 Mc.ft. thereby 200 MLD water will be utilized

Sl. No.	Name of Work	Estimate Amount (Rs. In crore)	Benefits
3	Improvement to supply channel and to feed water to Chembarambakkam Tank from Nemam Tank in Poonamalli Taluk of Thiruvallur District	50.00	Capacity will increase from 350 Mc.ft. to 600 Mc.ft. thereby increase storage capacity to 1.20 T.M.CFT. in Two fillings
4	Desilting and increasing FTL of Thiruninravur Tank in Thiruvallur District	100.00	Capacity will increase from 200 Mc.ft. to 500 Mc.ft. thereby to supply drinking water to Avadi Corporation and ULB

Sl. No.	Name of Work	Estimate Amount (Rs. In crore)	Benefits
5	Desilting and increasing FTL of Madhavaram Retteri Tank in Chennai District	40.00	Capacity will increase from 32 Mc.ft. to 62 Mc.ft. thereby to supply drinking water to Chennai city

The proposals for according Administrative Sanction for the above are under consideration.

13.0. Externally Aided Projects

"மதிநுட்பம் நூலோடு உடையார்க்கு அதிநுட்பம் யாவுள முன்நிற் பவை" – குறள்.

13.1. World Bank Assisted Tamil Nadu Irrigated Agriculture Modernization Project (TNIAMP)

Tamil Nadu Irrigated Agriculture Modernisation Project (TNIAMP) has been planned for implementation in 66 sub basins of the State. It covers for an extent of 5.43 lakh Hectare over a period of 7 years starting from 2018 with an outlay of Rs.2,962 crore. This is the follow-on project of the successfully completed IAMWARM Project.

The Project is being implemented by the Water Resources Department and 6 line departments, Tamil Nadu Agriculture University, Tamil Nadu Veterinary and Animal Sciences University and Tamil Nadu Fisheries University. In this Project, it has been planned to take up rehabilitation of 4,778 Tanks, 477 Anicuts, and Artificial Recharge Wells in the 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 4 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 under funding of the World Bank in TNIAMP, for Rs.43.63 crore. Works have been completed in all 16 packages.

Phase - I Works

Administrative Sanction has been accorded for the rehabilitation of 1,325 Tanks, 107 Anicuts and 42 Artificial Recharge Wells in 18 Sub Basins grouped into 204 packages 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.

Rehabilitation works have been completed in 185 Packages and 1 Package works have been dropped. Works in 18 environment packages are under in progress.

Phase - II Works

Administrative Sanction has been accorded for the Rehabilitation of 906 Tanks and 181 Anicuts and Construction of 37 Artificial Recharge Wells, grouped into 57 packages in 16 sub-basins at an estimated cost of Rs.649.55 crore. These 57 packages were grouped into 45 packages.

Rehabilitation works have been completed in 23 packages and works are in progress in 6 packages. Further, environment works are in progress in 16 packages.

Phase - III Works

Administrative Sanction has been accorded for the rehabilitation of 329 Tanks and 56 Anicuts and Construction of 16 Artificial Recharge Wells in 9 sub basins grouped into 25 packages at an estimated cost of Rs.189.81 crore, including 9 packages of

environmental management component at an estimated cost of Rs.0.77 crore.

Rehabilitation works are in progress in 11 packages and works will be commenced soon in 5 packages. Further, environment works are in progress in 9 packages.

Phase - IV Works

It is proposed to take up additional works in 10 sub basins which were already implemented in IAMWARM project and TNIAMP. The Government have accorded Administrative Sanction for rehabilitation of 12 Tanks, 11 Anicuts / Bed Dam, 110.10 km Channel and 11 Canals in 8 sub basins at an estimated cost of Rs.272.18 crore. Out of 14 rehabilitation work packages, work commenced in 12 packages and for remaining 2 packages preliminary works are under process.

Action is being taken for according Administrative Sanction for the remaining 2 sub basins.

Participatory Irrigation Management (PIM)

Tamil Nadu is one among the pioneering State in promoting Participatory Irrigation

Management. "The Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000 (TNFMIS) (TN Act 7/2001)" has been enacted and brought into force under management of the Water Resources Department.

The Project Appraisal Document (PAD) of the World Bank for Tamil Nadu for the PIM activities has envisaged "For establishing and strengthening the Water Users' Associations (WUAs), including operationalising the Water Users' Associations (WUAs) to undertake Operation and Maintenance (O&M) of the field Channels and equitable water distribution within their command areas".

For implementing the Participatory Irrigation Management (PIM) activities, an overall amount of Rs.79.92 crore has been allocated under TNIAMP.

The functions of the PIM Cell are as under

(i) To monitor implementation of the Participatory Irrigation Management concept in the State.

(ii) To lead the efforts in formation of Water Users' Associations (WUAs), Distributary Committees, Project Committees and Apex Committee as per the Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000.

(iii) Capacity building of the Water Users' Associations (WUAs) and Competent Authorities in the project area.

The proposal for conducting 2nd Term election for 2,800 Water Users' Associations (WUAs) already formed in the 61 Sub Basins under the IAMWARM Project Command Area and 1st Term election to approximately 1500 Water Users' Associations (WUAs) which have to be formed in the 43 Sub Basins under TNIAMP are under progress.

So far, 2nd term election for 2,368 WUAs and 1st term election for 618 WUAs in 29 Districts were completed.

13.2. Dam Rehabilitation and Improvement Project-II (DRIP-II)

Dam Rehabilitation and Improvement Project- II is being implemented in Tamil Nadu, to ensure the strength, safety and to improve the operational performance of the existing Dams in a sustainable manner, with the loan assistance from World Bank (IBRD – International Bank for Reconstruction and Development) and AIIB (Asian Infrastructure Investment Bank) for a project cost of Rs.610.26 crore (Tamil Nadu Water Resources Department: Rs.582.31 crore & Agricultural Engineering Department: Rs.27.95 crore) and also accorded permission to incur the expenditure of DRIP I spill over works pertaining to Water Resources Department for an amount of Rs.28.12 crore from the project cost. The project period is 6 years commencing from April 2021.

The components of the DRIP-II are as follows:-

1. Rehabilitation and Management planning of Dams and associated appurtenances.
2. Dam Safety Institutional Strengthening.
3. Risk Informed Asset Management and Innovative Financing for sustainable operation and maintenance of Dams.
4. Project Management.

In DRIP-II proposal, 37 Tamil Nadu Water Resources Department Dams have been proposed viz., Rehabilitation works in 32 Dams by Tamil Nadu Water Resources Department, Rehabilitation works and catchment area treatment and soil erosion works in 4 Dams by both Tamil Nadu Water Resources Department & Agriculture Engineering Department and Catchment area treatment and soil erosion works alone in 1 Dam by Agriculture Engineering Department.

The project preparatory activities such as Dam Safety Review Panel Inspection, Project

Screening Template Preparation and approval from World Bank / AIIB, Draft Bid approval from the competent authority are in progress. So far, the Dam Safety Review Panel Inspection has been completed in 24 Water Resources Department Dams and based on the recommendations of Dam Safety Review Panel Inspection, rehabilitation estimates are being prepared.

Administrative Sanction has been accorded for an amount of Rs.261.26 crore for the Rehabilitation and Improvement works in Sathanur, Sholayar, Upper Nirar, Kelavarappalli and Bhavanisagar Dams. 92% of works in Sathanur Dam, 41% of works in Sholayar Dam and 20% of works in Upper Nirar Dam were completed and works in Kelavarappalli dam is to be commenced. Preliminary activities for Bhavanisagar Dam are under process.

The spill over works of DRIP-I viz. Installation of Real time dam health monitoring instruments in 17 DRIP Dams have been completed and the validation of data & maintenance works are in progress.

13.3. National Hydrology Project (NHP)

The National Hydrology Project is a Central Sector Scheme with World Bank assistance with the objective to improve the extent, quality and accessibility of Water Resources, to create Decision Support Systems for floods, Basin Level Resources Assessment / Planning for water resources institutions. The State Ground and Surface Water Resources Data Centre (SG & SWRDC) wing is the nodal agency for the implementation of the National Hydrology Project. (NHP)

The duration of the project is 8 years from 2016-2017 to 2023-2024. A sum of Rs.103.71 crore has been allotted to the following four components of NHP as per the approved Project Implementation Plan – November 2022.

(Rs.in crore)

Sl. No.	Name of Component	Allocation
1.	Hydro meteorological Data Acquisition System	94.46
2.	Water Resources Information System	1.30
3.	Water Resources Operation Managing System	0.30
4.	Institutional Capacity Enhancement	7.65
	Total	**103.71**

Till now, grant of Rs.39.15 crore have been received out of which Rs.30.00 crore (76.62%) have been spent.

The Major achievements under this project are:

1. Installation of 386 Nos. of Digital Water Level Recorders (DWLRs) transmitting Ground Water Levels in borewells four times a day have been

completed at a cost of Rs.4.28 crore under Ground Water Real Time Data Acquisition System (GWRTDAS).

2. Installation of 45 Nos. of Automatic Weather Stations, 100 Nos. of Telemetric Automatic Rain gauge Stations and 49 Nos. of Automatic Water Level Recorders under Surface Water Real Time Data Acquisition System (SWRTDAS) at a cost of Rs.10.50 crore is in progress. Once both the above Real Time Data Acquisition System (RTDAS) are completed, a complete Real Time Water Information System will be available for the State.

3. Topographic survey and development of Decision Support System are being carried out for Agniar, Thamirabarani, Varahanadhi and Vaigai Basins.

4. State of Art Water Quality Equipments, Geo Physical Equipments and Discharge Measuring Equipments have been procured and put to use.

13.4. Asian Development Bank (ADB) Assisted Climate Change Adaptation Programme in the Cauvery Delta – Phase-II

The Climate Adaptation in Vennar Sub Basin in Cauvery Delta Project, with the loan assistance of Asian Development Bank (ADB) aims to protect coastal Districts from cyclones, reduce flood risks made worse by climate change, improve the distribution of water for irrigation and to prevent seawater intrusion in Vennar Sub Basin in Cauvery Delta 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 project is being implemented in the ratio of not more than 70% loan assistance from ADB and not less than 30% from State share.

The project comprises of works such as Construction of additional tail end regulators, re-construction / rehabilitation of all the existing tail end regulators and improving the drains by

widening and desilting on the upstream to bring them to standards.

As a first phase of this project, works in Rivers / Drains viz., Harichandranathi, Adappar, Vellaiyar, Pandavaiyar, Valavanar Drain, Vedharanyam Canal and Uppanar Drain, and 13 various pumping schemes in parts of Lower Vennar system in Cauvery Delta pertaining to Tiruvarur and Nagappattinam Districts at a revised estimated cost of Rs.1,110.17 crore to benefit an ayacut of 78,000 Hectare has been completed during 2016-2022.

As a follow - up project, in the Phase-II of Climate Adaptation in Vennar Sub Basin in Cauvery Delta Project, with the loan assistance of Asian Development Bank (ADB), the Preliminary Project Report for works in 6 Rivers viz., Vennar, Paminiyar, Koraiyar, Kaduvaiyar, Marakkakoraiyar, Manankondanar and 6 pumping schemes for an amount of Rs.1,825 crore (US $ 250 Million) was sent to the Department of Economic Affairs, Government of India on 22.09.2021 by online mode. Reply submitted for the Comments /

Observations of the Department of Economic Affairs on 10.01.2022, 17.02.2022 and 21.09.2022 in the web portal and through email. Approval of the Project is anticipated from the Department of Economic Affairs. Continuous action is being taken to furnish the additional details required by the Central Water Commission for obtaining the approval.

14.0. Centrally Sponsored Schemes

14.1. Repair, Renovation and Restoration (RRR) of water bodies under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY - HKKP)

Repair, Renovation and Restoration (RRR) of Water bodies is being implemented under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) - Har Khet Ko Pani (HKKP) as a Union Government – State Government shared Scheme.

Objective of the Scheme is comprehensive improvement of selected water bodies in water conservation including catchment area treatment and its command area development, increase in storage capacity of the water bodies, ground water recharge, promotion of conjunctive use of surface and ground water, improvement in agricultural productivity and increasing the availability of drinking water as per requirement.

As per the new Guidelines of the PMKSY effective from January 2022, the funding pattern for Tamil Nadu is 60:40 (Union: State).

Phase I to IV

Under Phase-I, II, III & IV, 236 works at an estimate cost of Rs.124.56 crore were completed to benefit an ayacut of 23,843 acre.

Phase V, VI & VII

Under Phase-V, 9 tanks pertaining to Dindigul District at an estimate cost of Rs.4.17 crore are taken up and are in progress to benefit an ayacut of 1865.40 acre.

Based on the Budget announcement 2021-2022, 115 tanks under Phase-VI and 85 tanks under Phase-VII are taken up for implementation.

Under Phase-VI, 115 tanks pertaining to Cuddalore (1), Dharmapuri (6), Kallakurichi (2), Krishnagiri (4), Madurai (1), Pudukottai (27), Ramanathapuram (10), Ranipet (3), Sivagangai (24), Tenkasi (1), Theni (1), Tiruchirappalli (5), Thiruvallur (3), Tiruvannamalai (4), Thoothukudi (7), Vellore (9), Vilupuram (6), and

Virudhunagar (1) Districts at an estimate cost of Rs.71.89 crore are under various stage of implementation to benefit an extent of 28,260 acre. So far, works in 3 tanks have been completed. Works in the remaining 112 tanks are under progress.

Under Phase-VII, 85 tanks pertaining to Chengalpattu (6), Cuddalore (6), Kancheepuarm (3), Pudukottai (25), Ranipet (8), Sivagangai (30), Thiruvallur (2), Tiruvannamalai (1) & Virudhunagar (4) Districts at an estimate cost of Rs.90.08 crore are taken up for implementation to benefit an extent of 24,505 acre. So far, Works are under progress in 3 tanks. Action is being taken to commence works in the remaining 82 tanks.

Phase-VIII & IX

Under Phase-VIII, 100 tanks in Dharmapuri (4), Kallakurichi (3), Krishnagiri (8), Pudukkottai (30), Ramanathapuram (27), Ranipet (4), Sivagangai (17), Thiruvallur (1) and Tiruvannamalai (6) Districts at an estimated cost of Rs.92.83 crore have been taken up to benefit an extent of 20,902 acre.

Under Phase-IX, 100 tanks in Kallakurichi (11), Ramanathapuram (39), Sivagangai (49) and Virudhunagar (1) Districts at an estimated cost of Rs.100.93 crore are proposed to be taken up to benefit an extent of 15,517 acre.

The Government proposed to take maximum number of tanks for implementation in Phased manner under RRR Scheme in next two years.

15.0. River Conservation Project

15.1. Chennai Rivers Restoration Works

I. Adyar River

During 2018, for restoring Adyar River from Origin to Sea Mouth, 56 short-term sub projects were taken up under Chennai Rivers Restoration Trust Fund (CRRT) by 7 Departments for an amount of Rs.555.46 crore. For 7 Restoration works from Thiruneermalai to Adyar mouth, an amount of Rs.104.31 crore has been allotted to Water Resources Department. Out of this, 5 works (Reach-2 to 6) at an estimated cost of Rs.73.13 crore have been completed.

For Reach-1 i.e. Widening and Desilting the Adyar River from mouth to downstream of Thiru Vi Ka Bridge (Chainage 0m to 1963m) in Chennai District at an estimated cost of Rs.21.63 crore, the Coastal Regulation Zone (CRZ) clearance obtained and preliminary works will be commenced soon.

For Reach-7 i.e. cut open the Adyar River Mouth in Chennai at an estimated cost of

Rs.9.55 crore, the CRZ clearance yet to be received. The work will be taken up for implementation on receipt of the Clearance.

II. Cooum River

Under Integrated Cooum River Eco Restoration Project, 60 short-term sub projects were taken up for an amount of Rs.604.77 crore through Chennai Rivers Restoration Trust (CRRT) funds. For 7 Restoration works from Paruthipattu Anicut to confluence point for a length of about 27 km, allotted to Water Resources Department for an amount of Rs.135.57 crore, 6 works (Reach 2 to 7) at an estimated cost of Rs.79.93 crore were completed.

For Reach-1 Cooum River mouth to Napier Bridge (Chainage 0m – 700m for revised estimated cost of Rs.70 crore) CRZ clearance has been obtained on 15.09.2022. Preliminary work is in progress.

III. Buckingham Canal

The Administrative Sanction has been accorded for Comprehensive Restoration &

Rejuvenation of waterways and water bodies in Greater Chennai City i.e., Buckingham Canal & its associated drains and major drains draining into Adyar & Cooum Rivers at a cost of Rs.1,281.88 crore under Chennai River Restoration Trust (CRRT). An amount of Rs.1,014.28 crore has been allocated to Water Resources Department. Detailed Project Report for the works is under preparation.

iv. Demarcation of River Adyar, River Cooum and Buckingham Canal Boundaries.

Preparation of feasibility report at an amount of Rs.3.87 crore for the work Demarcation of Adyar, Cooum (Reach-I) and Buckingham Canal Boundaries using Digital Global Positioning System (DGPS) under Chennai River Restoration Trust (CRRT) is in progress.

Besides, the work of Demarcation of Buckingham Canal boundaries at an amount of Rs.11.93 crore approved by the Chennai River Restoration Trust (CRRT) is under the consideration.

15.2. Nadanthai Vaazhi Cauvery Project

Nadanthai Vaazhi Cauvery Project in Tamil Nadu Reach is Massive Rejuvenation programme for Cauvery and its Tributaries with the prime objective to conserve, rejuvenate and augment the water resources in Cauvery Basin and to effectively curb sewerage pollutant has been initiated in line with Namami Gange Programme.

The Preliminary Project Report for Rejuvenation of Cauvery and its tributaries within Tamil Nadu - "Nadanthai Vaazhi Cauvery" scheme for an amount of Rs.11,250 crore has been submitted to Ministry of Jal Shakti, Union Government for in-principle approval on 21.10.2019 and Union Government communicated the observations on 10.02.2020.

The preparation of the Detailed Project Report has been entrusted to M/S WAPCOS Ltd.

The Project has been proposed to be implemented in two Phases viz., Phase-I in the reaches from Mettur up to Tiruchirappalli and

Phase-II from Tiruchirappalli up to Confluence with sea.

The Part 1 – Phase-I of the Detailed Project Report for Nadanthai Vaazhi Cauvery Project at an estimate cost of Rs.1,631.32 crore has been submitted to Ministry of Jal Shakti, Union Government on 20.11.2020 and also requested funding for components eligible under Union Government norms for an amount of Rs.713.39 crore as a Special Programme.

The officials of National River Conservation Directorate, Ministry of Jal Shakti visited the project area of Nadanthai Vaazhi Cauvery from 04.03.2022 to 07.03.2022 and gave their suggestions for revision of Detailed Project Report being prepared by M/s WAPCOS Limited.

Based on the final discussions held with National River Conservation Directorate (NRCD) Team at New Delhi and discussed in the Committee constituted by the Government under the chairmanship of Additional Chief Secretary, Water Resources Department, with members from line Departments viz.,

Environment, Climate Change and Forest Department, Handlooms, Handicrafts, Textiles and Khadi Department, Municipal Administration and Water Supply Department, Finance Department and Member Secretary as Chief Engineer, Water Resources Department, Trichy Region for finalizing Detailed Project Report for Nadanthai Vaazhi Cauvery project, the revised DPR - Phase-I at an estimate cost of Rs.3,090.75 crore, for the components Sewage Management (Sewage Treatment Plant), Riverfront Development Activities (RFD), River Surface Cleaning, Solid Waste Management (SWM), Cauvery Village - People Participation and creating awareness, Rehabilitation & Resettlement for High Risk area, Flood Prone Zone and Intervention required area - Survey component, Real Time Monitoring System for ensure the water quality, Museum at Grand Anicut (Kallanai) and for Bio-Diversity, 10 Common Effluent Treatment Plants (CETPs) has been submitted to National River Conservation Directorate, Government of India for obtaining funds.

16.0. On-going Schemes (State Fund and NABARD)

16.1. Creation of New Irrigation Infrastructures

i. Formation of Reservoir across Marudaiyaru River at an estimated cost of Rs.149.40 crore to benefit an ayacut of 4,194 acre in Perambalur District.

ii. Construction of 3 Nos. of Tail End regulators at an estimated cost of Rs.65.848 crore for ground water recharge and to prevent sea water intrusion in Nagapattinam District.

iii. Construction of 2 Nos. of Regulators at an estimated cost of Rs.12.71 crore to benefit an ayacut of 428.68 acre in Thoothukudi and Thiruvallur Districts.

iv. Construction of 8 Nos. of Anicuts at an estimated cost of Rs.149.331 crore to benefit an ayacut of 10,154.54 acre in, Cuddalore, Kancheepuram, Sivagangai (4), Tenkasi and Tiruvannamalai Districts.

v. Formation of 2 Nos. of New tanks at an estimated cost of Rs.30.98 crore to benefit an ayacut of 1,247 acre in Salem and Tirunelveli Districts.

vi. Formation of Percolation pond and a Checkdam at an estimated cost of Rs.4.68 crore to benefit an ayacut of 535.77 acre in Theni District.

vii. Formation of New canals at an estimated cost of Rs.383.23 crore to benefit an ayacut of 13,189.80 acre in Dharmapuri & Krishnagiri District (2- Enekol & Aliyalam), Dharmapuri (Jerthalav), Ramanathapuram (Kanjampatti Odai),Tirunelveli (Barrel Kannadian Channel) and Tenkasi (Ramanadhi – Jamunadhi Link & Urmelalagiyan Tank) Districts.

viii. Construction of 63 Nos. of Checkdams at an estimated cost of Rs.360.056 crore to benefit an ayacut of 25,379.13 acre and for Ground water recharge in Chengalpattu (1), Coimbatore (3),

Dindigul (12), Erode (3), Kancheepuram (1), Kanniyakumari (1), Karur (1), Krishnagiri (1), Madurai (2), Perambalur (4), Ranipet (1), Salem (4), Sivagangai (1), Tenkasi (1), Thanjavur (2) , Theni (5), Tirupathur (2), Thiruvallur (3) , Tiruvannamalai (1), Thoothukudi (2), Tiruchirappalli (3), Tiruppur (4), Vellore (4) and Virudhunagar (1) Districts.

ix. Construction of Tail End Check dams at confluence points of Thamirabarani River with sea at an estimated cost of Rs.46.14 crore to benefit an ayacut of 2,977.56 acre in Thoothukudi District.

x. Construction of 4 Nos. of Bed dams in Thanjavur (3) and Tiruchirappalli (1) Districts and a Grade wall in Thanjavur District at an estimated cost of Rs.32.10 crore for Ground water recharge.

xi. Construction of 6 Nos. of Artificial Recharge Structure (Sub surface Dyke) across Palar River, Malattar River and Cauvery River at an estimated cost of Rs.106.83 crore in Ranipet, Thanjavur, Tirupathur, Vellore (2) and Vilupuram Districts.

xii. Construction of 2 Nos. of Dividing dams at an estimated cost of Rs.4.16 crore to benefit an ayacut of 1,800.912 acre in Sivagangai and Tenkasi Districts.

xiii. Construction of 6 Nos. of Bridges at an estimated cost of Rs.8.75 crore in Coimbatore, Dindigul, Erode and Virudhunagar Districts.

xiv. Construction of 17 Nos. of Buildings for office and quarters at an estimated cost of Rs.9.096 crore in Dharmapuri (1), Dindigul (2), Erode (7), Madurai (1), Ramanathapuram (1), Theni (2), Tiruchirappalli (1), Tiruvannamalai (1) and Tiruppur (1) Districts.

16.2. Rehabilitation of Irrigation Infrastructure and systems

Rehabilitation of Reservoirs under implementation - other than DRIP

i. Rehabilitation and Improvements works in Mullai Periyar dam in Idukki District in Kerala at an estimated cost of Rs.21.99 crore.

ii. Rehabilitation & Improvements of dam structures and Renewal of Hydro – mechanical works in Kodaganar Dam (Dindigul District), Manimukthanadhi Dam (Kallakurichi District), Stanley Reservoir (Salem) , Manjalar Dam (Theni District), Shenbagathope Reservoir (Tiruvannamalai District), Sathyamoorthy Sagar Dam (Thiruvallur District) Willingdon Reservoir (Cuddalore District), Vidur Dam (Vilupuram District) Parambikulam Dam (Palaghat District) and Thunakadavu Dam (Palaghat District) at an estimated cost of Rs.117.51 crore.

iii. Additional works such as Construction of inlets, Drop cum Regulator etc., in

Kannankottai Thervoykandigai Reservoir in Thiruvallur District at an estimated cost of Rs.15.89 crore.

Other Rehabiliation structures under implementation

iv. Rehabilitation of Kattalai Barrage in Karur District at an estimated cost of Rs.185.26 crore.

v. Rehabilitation and Improvements / Renovation of 22 Nos. of Anicuts at an estimated cost of Rs.52.64 crore in Coimbatore (1), Dharmapuri (2), Dindigul (4), Kallakurichi (1), Kanniyakumari (1) Pudukottai (2), Ramanathapuram (2), Sivagangai (1), Tiruchirappalli (1) and Vilupuram (7) Districts.

vi. Strengthening the slipped and damaged portions at various places of the Kandaleru- Poondi canal between L.S. 3.88 km to 10.00 km at an estimated cost of Rs.24.79 crore and strengthening the damaged portions of the Krishna Water Supply Project Feeder canal from

L.S. 14.285 km to LS 21.500 km at an estimated cost of Rs.19.05 crore of the Krishna Water Supply Project in Thiruvallur District.

vii. Rehabilitation of 58 Village canal at an estimated cost of Rs.3.12 crore to benefit an ayacut of 3,962.57 acre in Theni, Dindigul & Madurai

viii. Rehabilitation of the left out reaches Contour Canal from L.S. 30.100 km to 49.300 km in at an estimated cost of Rs.72.00 crore in Tiruppur District.

ix. Rehabilitation and Renovation of canal / channel and its masonry structures (44 works) at an estimated cost of Rs.307.08 crore in Cuddalore (1), Coimbatore (6), Dindigul (6), Erode (1), Erode & Karur (1), Madurai (3), Karur (2), Perambalur (1), Ramanathapuram (2), Krishnagiri (2), Palaghat (1), Pudukottai (1), Sivagangai (2), Theni (1), Thoothukudi (1), Tiruvarur (1), Tiruppur (6), Tiruchirappalli (2), Tiruvannamalai

(1), Vilupuram and Cuddalore (1) Vilupuram (2) Districts

x. Rehabilitation of roads / bridges / causeway (5 works) at an estimated cost of Rs.24.59 crore in Coimbatore, Dindigul, Thoothukudi, Tirunelveli and Vellore District.

xi. Improvements to park in Andiyappanur Odai Reservoir at an estimated cost of Rs.4.674 crore in Vellore District.

xii. Rehabilitation of buildings (6 works) at an estimated cost of Rs.2.35 crore in Coimbatore (3), Idukki (1), Tirunelveli (1) and Thiruvallur (1) Districts

xiii. Standardisation / Rehabilitation / Renovation / Restoration of Rivers (9 works) at an estimated cost of Rs.45.43 crore in Cuddalore (1), Perambalur (1), Salem (1), Tiruchirappalli (1), Tirupathur (1), Thiruvallur (1), Vellore (1) and Virudhunagar (2) Districts

Rehabilitation / Renovation of Tanks (other than RRR scheme and TNIAMP)

xiv. Rehabilitation of 9 tanks viz., Korattur, Kovilambakkam, S.Kolathur, Medavakkam, Perungudi, Sithalapakkam, Jalladaiyanpettai, Narayanapuram and Nemilichery Tanks at an estimated cost of Rs.14.07 crore in Chennai District.

xv. Capacity addition by deepening, strengthening of the bund and remodeling of the spillways of the Maduranthagam Tank at an estimated cost of Rs.120.24 crore to benefit an ayacut of 2,853 acre in Chengalpattu District.

xvi. Rehabilitation and improvements of 14 tanks at an estimated cost of Rs.90.03 crore in Chengalpattu District

xvii. Rehabilitation and improvements of 6 tanks viz., Chembarambakkam, Somangalam, Malaipattu, Athenjeri, Vallimalai and Mutharsikuppam tanks at

an estimated cost of Rs.6.36 crore in Kancheepuram District

xviii. Rehabilitation and improvements to 79 tanks and ponds under the scheme of Providing Surplus water of the Mettur Reservoir by lift irrigation at an estimated cost of Rs.42.10 crore in Salem District.

xix. Restoration / Rehabilitation of 42 Ex Zamin Tanks at an estimated cost of Rs.24.14 crore in Sivagangai District.

xx. Reclaiming Kazhuveli tank for storage of fresh water and sea water intrusion control measures and recharge shaft Well/ Shafts at an estimated cost of Rs.161.00 crore to benefit an ayacut of 3000 acre in Vilupuram District

xxi. Rehabilitation of 102 tanks at an estimated cost of Rs.244.77 crore in Cuddalore(2) , Dindigul(3), Madurai (3), Namakkal (Koneripatti eri), Pudukottai (14), Ramanathapuram (15), Ranipet (Kaveripakkam), Sivagangai (16), Tenkasi (4), Thanjavur (16), Theni

(Periyakulam), Thoothukudi (Eppodum Vendran), Tiruppur (10), Tiruchirappalli (10), Vellore (Twin Tanks - Tharapadavedu & Kalinjur) and Virudhunagar (3) Districts .

17.0. Flood Mitigation Works

Chennai and its surrounding districts

Long term flood mitigation works in the very high vulnerable areas of Chennai, Chengalpattu, Kancheepuram & Thiruvallur Districts in Araniyar, Kosasthalaiyar, Cooum, Adyar and Kovalam Sub Basins in two phases have been taken up for implementation.

Comprehensive Flood Mitigation Works-2022-2023

The Government have accorded Sanction for Rs.250 crore to carry out 8 flood mitigation works for widening of Adyar and Kosasthalaiyar Rivers and improvements of water ways and formation of Drains for protecting the highly flood vulnerable areas in Varatharajapuram, Old Perungulathur, Mudichur, Pallikaranai, Rayappanagar, Nandhivaram-Guduvanchery, Manali, Vellivoiyal, Kolathur and Madhavaram in Chennai, Thiruvallur and Kancheepuram Districts.

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
1	Widening of Adyar River from Chembarambakkam Surplus Course Confluence Point to Anakaputhur Bridge in Kundrathur Taluk of Kancheepuram District.	70.00	70%
2	Improvement to Porur Tank Surplus Course and Regulator Arrangements in Porur Tank in Kancheepuram District.	34.00	88%
3	Providing additional Box culverts at NHAI Bypass by Push through Method in Kundrathur Taluk of Kancheepuram District	9.70	60%

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
4	Construction of new cut and cover channel from Thanthikal Channel to Porur surplus course, Koluthuvancheri road in Kundrathur Taluk of Kancheepuram District.	16.70	91%
5	Construction of new sluice and cut and cover from Porur tank to Ramapuram tank in Alanthur Taluk of Chennai District.	39.60	70%
6	Restoration and reformation of River Bund and regradation of river bed in Kosasthalaiyar River right bank from L.S. 125.60 km to	15.00	70%

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
	126.60 km in Vellivoyal Village, Ponneri taluk of Thiruvallur District and L.S.128.00km to L.S.132.00Km in Edayanchavadi and Sadayankuppam Villages at Manali New Town and in Kosasthalaiyar River Left Bank from L.S.128.00km to L.S.130.00Km at Edayanchavadi Village in Thiruvotriyur Taluk in Chennai District.		
7	Restoration of bank and deepening of existing tank bed and improvements to its surplus course of Kolathur tank in Aynavaram Taluk of Chennai District.	7.30	35%

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
8	Formation of Cut & Cover Macro Drain from Pallikaranai Anai Eri to Pallikaranai Swamp in Sholinganalllur Taluk of Chennai District.	57.70	45%

The Government have accorded Sanction for Rs.184.22 crore to carry out 4 Flood Mitigation works in highly flood vulnerable areas in Chennai and Chengalpattu Districts.

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
I	**Main Work** Providing Emergency Network of flood carrier channel between Ottiyambakkam Channel and Madurapakkam Drain to Pallikaranai Swamp in Semmenchery and Perumpakkam Area in Chennai and Chengalpattu Districts.		

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
1	Slice A – Providing Emergency network of flood carrier Macro drain from Madurapakkam Odai through DLF Campus road at L.S. 0m to L.S.500m in Vandaloor Taluk of Chengalpattu District.	21.70	80%
2	Slice B – Providing Emergency network of flood carrier Macro drain from Madurapakkam Odai through DLF Campus road at L.S. 500m to L.S.970m in Vandaloor Taluk of Chengalpattu District.	26.50	77%
3	Slice - C Construction of Cut and Cover Macro Drain- From Madurapakkam Odai to Existing Channel	24.00	88%

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
	(Northern Side of DLF) and Construction of Retaining wall on both side of open channel at Northern side of DLF from LS 0m - 600m in Tambaram Taluk of Chengalpattu District.		
4	Slice D - Construction of Retaining Wall at both side of existing drain in Perumbakkam and Semmanchery village in Tambaram and Sholinganallur Taluk of Chengalpattu and Chennai District.	24.30	90%
II	**Main Work:** Providing macro drain cut & cover for missing link of Ottiyambakkam Tank to Arasankalani Tank and link to Pallikkaranai swamp in Tambaram Taluk of Chengalpattu District.		

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
5	Slice - A Construction of Cut & Cover Macro Drain from Arasankalani Velanthangal Tank to Swamp in Tambaram Taluk of Chengalpattu District.	29.00	84%
6	Slice - B Construction of Cut & Cover Macro Drain from Ottiyambakkam Surplus course Missing link to Arasankalani velanthangal Tank in Tambaram Taluk of Chengalpattu District.	39.82	75%
7	Standardisation of Okkiyum Maduvu by dredging and regrading of existing drain up to Buckingham canal near KCG College of Technology premises	5.00	83%

Sl. No.	Name of Work	Estimate Amount (Rs. in crore)	Percentage of Work
	in Sholinganallur Taluk of Chennai District.		
8	Modernisation of Link channel between Adambakkam tank to VeerangalOdai in Alandur Taluk of Chennai District.	13.90	96%

Other Works

Providing Emergency Flood Relief (By constructing flood mitigation structures) to the people residing in and around the flood plain of Adyar River near Tambaram in Kancheepuram and Chengalpattu Districts at an estimated cost of Rs.70.05 crore is in progress and 78% of works were completed

Kanniyakumari District

The Hon'ble Chief Minister of Tamil Nadu visited Flood damaged areas of Kanniyakumari District on 15.11.2021, which was affected by North East monsoon during the year 2021 and

he had instructed the concerned officials to restore the flood damages in war footing basis. Based on the instructions, temporary restoration works have been carried out at an estimated cost of Rs.8.82 crore in 250 locations.

Further, the Hon'ble Chief Minister has visited temporary restoration works on 07.03.2022 which were completed in Kanniyakumari District and instructed to carry out Permanent restoration works.

Based on the Hon'ble Chief Minister's instructions and Hon'ble Minister's Announcement on the floor of Legislative Assembly, the Government have accorded sanction for 325 Permanent Restoration works of Flood Damages in Kodayar system of Kanniyakumari and Tirunelveli Districts, at an estimated cost of Rs.70 crore.

Out of 325 works, 316 works at an estimate cost of Rs.67.85 crore in Kanniyakumari District and 9 works in Tirunelveli District at an estimate cost of Rs.2.15 crore are taken up for implementation. Preliminary works are in progress.

18.0. Other activities

18.1. Removal of Seemai Karuvel (Prosopis juliflora) Trees in water bodies

The Hon'ble High Court of Madras in its Order dated 28.04.2017 in W.P.No.10614 of 2017 has directed that the matter has been referred to a Larger Bench. No further action shall be taken by the official with regard to removal of "Seemai Karuvelam" trees, until further orders of the Larger Bench.

The Government, vide G.O. (D) No. 121, Environment and Forests (FR.14) Department, dated 10.05.2017, constituted a Committee with the Principal Chief Conservator of Forests as the Chairman to undertake a comprehensive scientific study on Seemai Karuvel trees with regard to its ill effects on environment as well as the utility of the tree, if any, and offer recommendation and submit a detailed report within a period of 3 months.

Further, in the above case in Order dated 11.05.2017 it has been directed to expand the Committee by including 4 more Experts as

Members to make scientific study on the ill-effects of the Seemai Karuvel Trees as well as the utility thereof and submit an interim report within 45 days. Based on the above directions, orders have been issued in G.O. (D). No.135, Environment and Forests (FR.14) Department, Dated 23.05.2017.

Based on the report of the Committee, the Hon'ble High Court of Madras in its orders dated 28.07.2017, has directed to work out a plan to implement the removal of Seemai Karuvel trees across the water bodies of the State in a phased manner in order to facilitate free flow of water and also plant the alternate species, so as to avoid ecological imbalance.

Total extent of Seemai Karuvel Trees in water bodies of the Water Resources Department was assessed as 1,93,130.63 Hectare. Out of which, Seemai Karuvel Trees have been removed in 74,389 Hectare. Water Resources Department is taking continuous efforts in removing the Seemai Karuvel trees to restore the storage capacity of water bodies.

18.2. Free Issue of Vandal

The storage capacity of water bodies in the State has considerably reduced due to silting up over a period of time. Restoration of the lost capacity of the water bodies can be achieved by allowing the farmers to take silt from the water bodies at free of cost to the requirement. Both the restoration of the tank capacity and the desilted sediments would be beneficial to the farmers.

Accordingly, Amendment to Rule 12 (2) and 12 (2-A) (a) of the Tamil Nadu Minor Minerals Concession Rules, 1959 have been made in G.O. (Ms) No. 50, Industries (MMC-I) Department, dated 27.04.2017 and G.O. (Ms) No. 244, Industries, Investment Promotion and Commerce (MMC-I) Department, dated 14.12.2022, which allows potters, public and farmers of Tamil Nadu 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 the District Gazette, in their Villages or adjoining Villages for the above purposes after obtaining prior permission from the concerned District Administration.

The quantity of silt and clay allowed for agricultural purposes shall not exceed 75 cubic metre per acre for wetlands and 90 cubic metre per acre for dry lands, once in 2 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.

18.3. Sand Quarry & Imported Sand

Sand Quarry

Since 2003, Water Resources Department has been vested with the authority to quarry and sell river sand to the Public in the State of Tamil Nadu. From 2017-2018 Mining and Monitoring Circle at Chennai and five Mining and Monitoring Divisions at Vilupuram, Chennai, Tiruchirappalli, Thanjavur and Madurai are functioning

exclusively to streamline the sand quarrying operations across the State.

Since July 2017, several reformatory measures have been introduced in sand quarrying operations in compliance with the "Sustainable Sand Mining Management Guidelines, 2016". Online system of booking of sand and online mode of payment through web portal (www.tnsand.in) and Mobile Application (TNsand app) have been introduced and under implementation from July 2017.

In G.O. (Ms) No.4, Water Resources (I.Spl-2) Department Dated, 06.01.2022, the Government introduced new measures to give importance to hassle free sand booking by the general public.

The existing Information Technology enabled web / mobile application has been updated and preference given to the general public in sand booking, based on the approved building plan and sand is being sold.

Imported Sand

The 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 Water Resources Department of the State Government. Necessary amendment has been made in Tamil Nadu Minor Mineral Concession Rules, 1959 by including a new Rule, 'Rule 38 D' to deal exclusively with 'Import of sand for construction purposes' on 10.04.2018.

The Government have accorded permission for Water Resources Department to import approximately 5 lakh Metric Tonnes per month of Natural River Sand for a period of 2 years for construction purposes in the State through the three Ports in Tamil Nadu viz. Kamarajar Port Limited, Ennore, Kattupalli Port, Kattupalli and V.O.Chidambaranar Port, Thoothukudi.

Natural river sand imported from Malaysia is sold to the consumers by the Water Resources Department from Kamarajar Port Limited, Ennore and Kattupalli Port, Kattupalli through online booking. Sand imported through 9 vessels has been sold to the public.

19.0. Organisational Arrangements

The Government on 07.06.2021 have established independent Water Resources Department detaching from the Public Works Department to study the cause and impact of recent natural calamities including floods, drought etc., and focus on relief and remedial measures and to implement suitable Schemes to augment the available water and assure continuous irrigation for Agriculture.

The Engineer-in-Chief, Water Resources Department monitors and coordinates the functions of 11 Chief Engineers and acts as the Technical Head of the Department.

The Water Resources Department functions on the River Basin framework. The Water Resources Department has been divided into 4 Regions, each headed by a Chief Engineer, located in Chennai, Trichy, Madurai and Coimbatore. These Regional Chief Engineers are the Basin Managers for the defined basin boundaries in their jurisdiction.

In addition, there are 7 functional wings and 2 special wings as indicated below:-

Functional Wings

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 and Quality Control
6. Irrigation Management Training Institute
7. State Water Resources Management Agency

Special Wings

1. Cauvery Technical Cell cum Inter-State Waters Wing
2. Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation Ltd.

19.1. Activities of Functional Wings of Water Resources Department

19.1.1. Plan Formulation

The Plan Formulation wing plays a vital role in the development and augmentation of water resources in the State. Pre-feasibility studies through investigations are being conducted in order to formulate and develop Major, Medium, and Minor Irrigation Schemes, River Inter-Linking Schemes, etc., For technically feasible schemes Detailed Project Report are being prepared. This wing recommends detailed estimates to the Government for the works proposed by the Regional Chief Engineers, as required.

In addition, this wing acts as a Nodal Agency to obtain funds under National Agricultural Bank for Rural Development (NABARD), National Agriculture Development Programme (NADP), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) etc.

Furthermore, environmental activities related to TNIAMP and State funded schemes

are also being carried out by the three Environmental Cell divisions, functioning under the control of the Superintending Engineer, Plan Formulation Circle, Salem.

19.1.2. Design Research and Construction Support

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

- Repair, Renovation and Restoration of water bodies
- Desilting of Dams in the State
- Coastal Protection Works under Integrated Coastal Zone Management Project

The Design Circle functioning under this wing evolves design and drawings for irrigation structures such as Reservoir, Canal, Tank, Anicut, Regulator, Check Dam etc. Design Circle also recommends necessary remedial measures for the problems like cracks, seepage, leakage,

distress etc. that may occur 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 established in 1944 at Poondi engaged in carrying out Basic Research for Irrigation and Model studies in the field of Hydraulics, Hydrology, Coastal Engineering in addition to Monitoring of shore line oscillations of certain selected points along the East and Western coast of Tamil Nadu. Also carries out Sedimentation studies in selected Reservoirs / Tanks for arriving at up-to-date reduction in capacity due to sedimentation, assess the useful life of reservoirs and to suggest the remedial watershed management measures that can be taken up in order to reduce the entry of sediments into reservoirs from the watershed.

19.1.3. Operation and Maintenance

The Operation and Maintenance wing collects and compiles water level data of 15 Major Reservoirs, 6 Drinking water Reservoirs for Chennai city in the State, and 4 Reservoirs of Karnataka in the Cauvery Basin and Daily flow data at Billigundulu Gauge and Discharge Station of Central Water Commission and furnishes report to the Government on daily basis.

A Hydrometric data cell functions systematically round the clock during the North East Monsoon period for monitoring the daily water level of all the Dams / Reservoirs of the State and coordinates with State Emergency Operation Centre.

The Operation and Maintenance wing headed by Chief Engineer functions with the following 3 circles:-

i) The Public Works Workshop & Stores procures new vehicles, condemns old vehicles, unserviceable machineries, obsolete spares of various machineries. Further, preparing

estimates for Hydro Mechanical components and scrutinizing shutter estimates received from the Regional offices.

ii) The State Project Management Unit under this Wing is a Nodal Agency for implementation of the World Bank assisted Dam Rehabilitation and Improvement Project.

iii) Periodical monsoon inspection of Dams is carried out and reports are compiled by the Dam Safety Directorate under the control of this wing. The consolidated Health Status Report for all the Dams (Annual Consolidated Report) based on the pre-monsoon and post-monsoon inspections are prepared and sent to the Central Water Commission.

Dam Safety Organization

The Dam Safety Act, 2021 has been notified by the Union Government on 14.12.2021 and its provisions have come into

force with effect from 30.12.2021 vide notification dated 28.12.2021. The Act provides for surveillance, Inspection, Operation & Maintenance of specified dams for prevention of dam failure related disasters and to provide for institutional mechanism to ensure their safe functioning and for matters connected therewith. The Dam Safety Act, 2021 contains the following:-

a) National Committee on Dam Safety (NCDS)

b) National Dam Safety Authority (NDSA)

c) State Committee on Dam Safety (SCDS)

d) State Dam Safety Organisation (SDSO)

Implementation of Dam Safety Act, 2021 in Tamil Nadu is as follows:-

To implement the Dam Safety Act, 2021 in the State, the Government of Tamil Nadu have issued notification for the Constitution of State Committee on Dam Safety

(SCDS) and State Dam Safety Organisation (SDSO) in G.O. (Ms) No.56, Water Resources (WR-2) Department dated 30.06.2022.

National Committee on Dam Safety (NCDS):-

The Chief Engineer, Operation and Maintenance is the member of the National Committee on Dam safety under the Chairmanship of the Chairman, Central Water Commission which reviews the activities of the State Dam Safety Organisation in the State.

The National Committee on Dam safety meets twice in a year. This committee will form or evolve policies and recommend regulations regarding dam safety standards.

National Dam Safety Authority (NDSA)

The Union Government had established an Authority known as National Dam Safety Authority with 6 members for standardising safety-related data and practices with State-Level dam safety organisations and owners of dams.

National Dam Safety Authority will implement the policies and provide technical assistance to State Dam Safety Organisations (SDSOs), resolving matters between SDSOs of States or between a SDSO and any dam owner in that State.

State Committee on Dam Safety (SCDS)

The State Committee on Dam Safety (SCDS) has already been constituted in the name of State Dam Safety Committee (SDSC) to monitor the safety aspects of all the dams in the State in G.O (Ms) No. 261 Public Works Department, dated 18.02.1991 and reconstituted in G.O. (Ms) No. 375, Public Works (WR-2) Department, dated 30.06.1997 with 14 members.

State Committee on Dam Safety (SCDS) has been reconstituted as per Dam Safety Act, 2021 in G.O. (Ms) No.56, Water Resources (WR-2) Department, dated 30.06.2022. This Committee shall meet twice in a year and one meeting shall be held before the onset of monsoon. The Committee has to be reconstituted for every 3 years thereafter.

State Dam Safety Organisation (SDSO)

State Dam Safety Organisation is functioning in the name of Dam Safety Directorate (DSD) and is headed by Superintending Engineer and Director, which is under the control of the Chief Engineer, Water Resources Department, Operation and Maintenance.

19.1.4. 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 the State – wide monitoring network.

The following works are carried out by this wing for the purpose of Planning, Development and Management of Ground water resources of the State of Tamil Nadu:-

- Groundwater investigation and periodic Assessment of Ground water potential for the State by Scientific methods.

- Continuous monitoring of Hydrological, Hydro meteorological and Water quality of Ground Water.
- Monitor, Collect, process, analyse and consolidate the Ground Water level and Quality Data and Surface water details to evaluate the condition for development. In order to get more realistic and accurate Ground Water Level data, 386 Digital Water Level recorders (DWLR) have been installed across the State.
- Develop a suitable plan for judicial development and optimal utilization of Ground Water.
- Protecting Ground Water resources against over exploitation and quality deterioration by proper management techniques.
- Improving Ground Water storage through construction of various types of artificial recharge structures and

Rain water harvesting structures wherever possible.

- Consultancy services to Public, Agriculturalists, Government Departments and Private sector for selection of suitable site for sinking of bore wells / dug wells on cost basis.
- Issuing Ground water clearance (No Objection Certificate) for water based and non – water based Industries in safe and semi – critical firkas of the State.
- Special studies for monitoring sea water intrusion into fresh water aquifer along the 1,076 km coastline of the State.
- Render assistance for formulation of National and State water policies.

This Wing is the Implementing Agency for implementation of World Bank assisted National Hydrology Project.

Jal Shakti Abhiyan

The Chief Engineer, State Ground and Surface Water Resources Data Centre is the co-ordinating officer of the State for Jal Shakti Abhiyan.

National Water Mission

This wing prepares the report for National Water Mission.

The Main objective of the National Water Mission is conservation of Water, minimizing wastage and ensuring its more equitable distribution both across and within states through integrated water resources development and management.

The State Ground and Surface Water Resources Data Centre wing of the Water Resources Department was assigned with the task of preparation of the following reports.

1. Status report on Water Resources
2. Interim Report
3. State Specific Action Plan

In this connection, the Ministry of Water Resources allotted Rs.50 lakhs to Tamil Nadu for preparation of the above reports.

The Status report on Water Resources was approved in the Monitoring Committee and the State Level Steering Committee (SLSC) by the Chief Secretary to Government on 20.02.2020 and has been submitted to National Water Mission, New Delhi on 21.12.2020.

Now the State Specific Action Plan (SSAP) is marked as a Central Nodal Agencies (CNA) scheme on 01.12.2022 and hence the unspent amount of Rs.1,15,980/- has been transferred to CNA's account. The utilization certificate for the expenditure incurred of Rs.18,84,020/- has been submitted to the funding agency, the North Eastern Regional Institute of Water and Land Management (NERIWALM), Assam and the State Government.

19.1.5. Institute for Water Studies, Hydrology and Quality Control

The Government of Tamil Nadu established this Institute for Water Studies to

plan assess and manage the Water Resources of Tamil Nadu in the year 1974. In the year 2018, the Quality Control Divisions have been attached with this Institute and renamed as Institute for Water Studies, Hydrology & Quality Control.

The Institute for Water Studies, Hydrology & Quality Control operates a remote sensing centre, which oversees the terrestrial water resources of the River- Basins and their associated geographical data through satellite-based maps and plans to report their details to the line departments.

The Institute for water studies, Hydrology & Quality Control is engaged in the task of evaluating the water resources in the river basins of Tamil Nadu on the basis of scientifically sophisticated research, planning and management for future needs.

During this year 2022-2023, research works are being carried out on the micro level re-evaluation and study preparation required for water resources management and planning in the Chennai Basin. Research is also carried out

identification of the bottle necks causing flooding in the Adyar River.

Technical Library functions under the Institute for Water Studies, Hydrology & Quality Control. The library is useful of conducting technical research studies and for higher education students.

Four quality control divisions are functioning with headquarters at Chennai, Tiruchirapalli, Madurai and Coimbatore for checking the quality of works executed by the Water Resources Department.

19.1.6. State Water Resources Management Agency (SWaRMA)

The Government established on 13.04.2009 of State Water Resources Management Agency (SWaRMA) as a State wide Focal Agency for environmentally and socially sustainable inter sectorial water management.

The functions of this wing are as follows:-

- The SWaRMA had developed the web enabled "Tamil Nadu Water Resources Information System" (TNWRIS), to

aid efficient Integrated Water Resources Management and regulation.

- Conducting and Preparing of Water Audit Study Report for "Gomukhi Nadhi Reservoir Project" to evaluate the System Performance.
- Developing of Decision Implementation Support for Basins and Assessment of Surface water potential for River Basins.
- Developing Reservoir Flood Modeling
- Capacity Building for WRD Engineers by Conducting Trainings, Workshops, Meetings, Seminars etc.,

19.1.7. Irrigation Management Training Institute (IMTI)

The Irrigation Management Training Institute was registered as a Society in the year 1984 under the Tamil Nadu Society Registration Act, 1975.

The functioning of this Institute is guided by the Governing Council with the Additional Chief Secretary to Government, Water Resources Department, Government of Tamil Nadu as its Chairman and 12 Senior Level Officers from the various departments (inclusive of the Secretaries of Finance, Agriculture and Farmers Welfare, Co-operation, Food and Consumer Protection Department) as its members. This institute is headed by Director General, who is in the rank of Chief Engineer of Water Resources Department and Faculty Members from Water Resources Department, Department of Agriculture, Agricultural Engineering Department and Tamil Nadu Agricultural University, Coimbatore on deputation basis.

The goal of the institute is to impart training programmes to increase the agricultural Production through improving efficiency of the irrigation systems and improving productivity of water delivered for irrigation to achieve higher productivity with optimum water use.

Imparting training programmes are given to the officers of Water Resources Department, Department of Agriculture and Agricultural Engineering Department and to farmers for better water management in order to improve their knowledge and skill. Induction training program for newly recruited Assistant Engineers (2014-20) of Water Resources Department is planned to be conducted in 2 phases. The Phase-I of Induction Training Programme has been conducted for the newly recruited Assistant Engineers (2014-2020) of WRD in 8 Batches. In the Financial year 2023-2024, Phase-II of the Induction Training Programme for newly recruited Assistant Engineers (2014-2020) of Water Resources Department has been scheduled to be conducted in eight batches. Follow up Training Programme on Participatory Irrigation Management for Competent Authorities of Water Resources Department under Tamil Nadu Irrigated Agriculture Modernization Project are being conducted.

Conducting various training programmes to the officers and field officials of Water

Resources Department on Irrigation Management, Ground Water Development & Management, Quality Control and Quality Assurance of construction materials. Participatory Irrigation Management and computer applications such as AutoCAD, GIS, SWAT, Ms – Project etc.,

Unique courses like Total Station, Disaster Management, Flood and Drought Management, Coastal Hydrology and Prevention of Sea Water Intrusion, Dam Safety and Instrumentation, Capacity Building Training Programmes for Secretariat Water Resources Department Officials and Refresher Training Course for Pre-retiring Officials of Multi-Disciplinary Departments etc., are conducted by this Institute.

Apart from regular training programmes, IMTI is conducting one month Induction Training Programme for the newly recruited Assistant Engineers of Water Resources Department in 2 Phases and various study tour programmes to on–going Intra- State and Inter – State projects.

A wide range of farmers' training programmes such as Organic Input Preparation for Improved Cultivation Strategies, Cultivation of Traditional Crop, Pest Management, Gardening Recycling & Composting Techniques, Integrated Farming System and Crop Management Water Saving Techniques, Bio-flock Fish Farming, Post-Harvest Techniques Soil and Water Management Strategies etc., are also organized by this Institute.

During this Financial Year 2022-2023 109 Nos. of training programmes were conducted and about 3,477 participants (Officials of Water Resources Department, Department of Agriculture and Agriculture Engineering Department and Farmers) were benefitted.

19.2. Activities of Special Wings of Water Resources Department

19.2.1. Cauvery Technical Cell cum Inter – State Waters Wing

The Cauvery Technical Cell cum Inter – State Waters Wing is assisting the Government in dealing with all the Inter – State Water

sharing disputes / issues. This Wing has been functioning since 1990 and 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. This Wing is also dealing with Bills / Acts, Rules and policies related to Water Resources proposed by Union Government and schemes for Inter-linking of Inter-State Rivers and participates in various Committees of the Union Government on these subjects and with the Union Government departments / agencies, viz., National Water Development Agency (NWDA) and Central Water Commission (CWC), Ministry of Jal Shakti, Union Government, 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, Shenbagavalli issue and Palar River water issues. This wing prepares the affidavits, documents, statements, and maps required for cases pending before the Supreme Court and the High Courts in consultation with the Tamil Nadu Counsel and submits to the Government. Further, issues relating to the Schemes such as Godavari – Cauvery Link, Pamba – Achankoil – Vaippar link and Pandiyar – Punnampuzha Scheme are also dealt with by this wing.

19.2.2. Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation Limited

The Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation Limited has been registered with the Registrar of Corporate Companies, Chennai and incorporated with effect from 25.12.2019. The main objective of the Corporation is to promote water conservation, reclamation of Lakes, Rivers and modernize the existing irrigation Infrastructures.

The Corporation will also focus on interconnecting flood Surplus Canals and interlinking of Rivers and River basins. Promotion of climate resilient Infrastructure with special emphasis on prevention of sea water intrusion, wetland conservation and flood mitigation will be the other priority areas for the Corporation. The Corporation will also promote convergence of different activities to fulfil the objectives of the water mission launched by the Government. The Corporation is headed by Chairman cum Managing Director under the administrative control of the Water Resources Department.

An action plan to implement 21 new Projects at an estimated cost of Rs.7144.55 crore has been approved by the Board of Directors in the 14th Board of Directors Meeting of TNWRCRRC held on 24.01.2023. The above Action Plan is being prepared based on the directions of the Government of Tamil Nadu vide Additional Chief Secretary to Government, Finance Department D.O. Letter No.5792 / Finance (BPE) Department, dated 12.02.2022.

A Letter of Intent (LoI) for Strengthening sustainable water resource management through bilateral cooperation has been signed between the Deputy Director General, Danish Environmental Protection Agency under the Ministry of Environment, Government of Denmark and the Chairman and Managing Director (FAC), Tamil Nadu Water Resources Conservation and Rivers Restoration Corporation, Chennai by email and has been exchanged on 01.03.2023.

20.0. Creation of Digital Data Base - Pilot Scheme

20.1. Tamil Nadu Water Resources Information and Management System (TNWRIMS)

The Government have accorded sanction for Implementation of Tamil Nadu Water Resources Information and Management System (TNWRIMS) at an estimated cost of Rs.30.00 crore under loan assistance of NABARD. The Government have also formed (i) An Apex Committee, (ii) Executive Committee and (iii) an Expert Committee to review, to coordinate and to guide for implementation. The objective is to collect and collate all the existing data from various stakeholders for creation of a Portal. After formation, this portal should serve as single source of truth for water related database for formulation of future proposal from any stake holder department.

The development of TNWRIMS began on 26.10.2022. On November 14, 2022, the system's Real-time Dashboards modules went live with a beta version, bringing real-time

information by integrating data from Central Water Commission, Indian Meteorological Department, ISRO, Global Data Set, and State Data.

20.2. Tamil Nadu - Satellite Based Water Bodies Information, Monitoring and Protection System (TN-SWIP)

The Government have sanctioned an amount of Rs.3.55 crore for Creation of new IT Application as Pilot study using Artificial Intelligence and Satellite to monitor encroachment and water quality in water bodies in and around Chennai City.

The scope of the work is to create a digital platform Satellite Based Water Bodies Information, Monitoring and Protection System (TN-SWIP) through integration of the data / information available on existing IT systems with Tamil Nadu e-Governance Agency, Indian Institute of Remote Sensing, Rural Development and Panchayat Raj etc., to create a single umbrella IT solution.

The proposed web based GIS enabled IT Solution will have a Portal and Mobile Application. The proposal has two primary

modules, one is water bodies health monitoring and other is encroachment detection.

The system will have two modules viz., Citizen Module and Admin Modules. It is proposed to have three types of users in Mobile application i.e., Authorized Government users, Authorized Non-Government users and Citizens.

The purpose of development of TN-SWIP is to know about land use change of water bodies, identification of encroachments using satellite open data and send alert message through mobile applications for eviction of encroachment after field verification and for monitoring quality of water in water bodies. The preliminary works are in process.

20.3. Implementation of e-office

The Government of Tamil Nadu have announced that the e-office application developed by the National Informatics Center (NIC) New Delhi would be implemented in all Government Departments for processing all files electronically in lieu of manual file processing system and to use the IFHRMS application for all HR/Office Procedure related activities in electronic form.

It is proposed to implement an e-office project for the Water Resources Department which envisages removing the manual file movement in all the offices of Water Resources Department with co-ordination of Tamil Nadu e-Governance Agency (TNeGA). Accordingly, a proposal for "Purchase of computers and Accessories for implementation of e– office application in all the offices of Water Resources Department" for an amount of Rs.12.50 crore is under consideration.

Bulk email id creation has been done for all the officers of Water Resources Department dealing with the file correspondences. For effective implementation of the e-office in the Water Resources Department, training for "Master Trainers" and an "Awareness Training programme on TNGIS for Project Monitoring Database creation" has been conducted by TNeGA.

The Request for Quotation for Phase-I End to End Automation process has been prepared by TNeGA and the proposal is under the consideration.

21.0. Schemes under Investigation / Formulation

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

Koraiyar River is a tributary of Thamirabarani River. Administrative Sanction for an amount of Rs.0.24 crore was accorded for preparation of Detailed Project Report for formation of a Reservoir across Koraiyar River in V.K. Puram Village of Ambasamudram Taluk in Tirunelveli District.

The proposed capacity of this reservoir is 1 T.M.Cft. An extent of 254.44 acre of sanctuary reserve forest land, 59.85 acre of patta land and 79.37 acre of poramboke land are required for this project. On implementation of this scheme, an extent of 9,091.59 acre of land under Thamirabarani system would get stabilized.

At present, the detailed investigation including sub soil investigation work has been completed and the preparation of Detailed Project Report is under progress.

21.2. Formation of New Reservoir Near Sikalapalli Vanioddu in Hosur Taluk of Krishnagiri District

It is proposed to form a new reservoir near the confluence point of Sambalpallam and Sulagiri Chinnar Rivers with Thenpennaiyar River near Sikalapalli Vanioddu in Sulagiri Taluk of Krishnagiri District.

Administrative Sanction was accorded for Rs.0.10 crore for conducting survey and detailed investigation. In order to form a reservoir to a height of 38 m and length of 470 m to store water about 460.60 Mc.ft. it is found that an extent of about 283.62 acre of forest land and 293.07 acre of Patta and Poromboke lands are required. By implementing this scheme, about 4,250 acre of ayacut will be benefitted. A pre-feasibility report with hydrological study has been prepared and submitted and it is under consideration.

21.3. Construction of Tail End Structure across Kollidam River to Arrest Sea Water intrusion at Thirukazhipalai Village in Chidambaram Taluk of Cuddalore District and Alakudy Village in Sirkali Taluk of Mayiladuthurai District

The Proposed site is located at a distance of 8 km upstream from the Bay of Bengal across the Kollidam River. The left bank of the proposed structure is situated in Thirukazhipalai Village in Chidambaram Taluk of Cuddalore District and the right bank is situated in Alakudy Village in Sirkali Taluk of Mayiladuthurai district.

The storage capacity is estimated as 366 Mc.ft. By implementing this scheme sea water intrusion into the land and agriculture fields on either side of the Kollidam River would be prevented through storage of flood water thereby improving quality of ground water.

For implementation of this scheme, an extent of 6.955 acre of patta land and burial shed at Alakudy Village are required.

Administrative Sanction was accorded for Rs.0.95 crore for the works of conducting surveying and investigation and the works have been completed and model studies for the scheme is under progress.

Based on the design obtained from IIT-Madras, Detailed Project Report is under preparation.

21.4. Construction of Barrage cum Dyke across River Kollidam at Mathirivellur Village in Kollidam Block of Mayiladuthurai District and Nallamputhur Village in Komaratchi Block of Cuddalore District.

Proposed site of barrage is located across the River Kollidam in between Nallamputhur Village in Komaratchi Block of Cuddalore District and Mathirivelur Village in Kollidam Block of Mayiladuthurai District.

By implementing this scheme, it is presumed that the ground water level in surrounding Villages would increase, which may result in recharging of the wells in the nearby

Villages. The increase in ground water will be helpful in satisfying the drinking water needs of people and livestock in the surrounding area.

For implementation of this scheme an extent of 242.89 Hectare of patta land and 39.958 Hectare of poramboke land needs to be acquired.

Administrative Sanction for an amount of Rs.0.14 crore was accorded for conducting Surveying and Investigation works.

Consequent to the frequent floods in the River Kollidam during the past years, the profile of the river gets changed considerably and hence re-investigation is inevitable. Now the investigation is under progress.

21.5. Construction of New Regulator across the Northern and Southern arms of the Kollidam River on the downstream side of the existing regulator at Anaikarai (Lower Anicut) in Ariyalur and Thanjavur Districts

Proposed site for the construction of the regulator is located on the downstream side of

the existing regulator at L.S. 108.210 km across the Northern and Southern arms of River Kollidam in Vembukudi Village in left bank of Kollidam which is in Udayarpalayam Taluk of Ariyalur District and the right bank is located in Vinayagantheru Village which is in Thiruvidaimarudhur Taluk of Thanjavur District.

The estimated storage capacity of the regulator works out to 200 Mc.ft. approximately. By considering 3 times of fillings in a year, the total estimated quantity of storage water will be 600 Mc.ft.

By the construction of this new regulator, irrigation supply for 30,352 hectares through seven branch channels would be ensured. Further, it is proposed to increase the height of shutters by 2 feet by which more quantity of water can be diverted to Veeranam Tank. By implementing this scheme all the existing ayacut would get stabilized.

More than 500 tube wells and 30 Tamil Nadu Water Supply and Drainage Board infiltration wells functioning around the proposed site for regulator will be recharged.

Approximately 17.196 acre of Patta and Poromboke land are required for this project.

Administrative Sanction for an amount of Rs.1.01 crore was accorded for conducting Surveying, Levelling and Soil Investigation works. The investigation works have been completed and Detailed Project Report is under preparation.

21.6. Recharging Groundwater in areas Surrounding Koraiyar and Malattar by diverting the excess flood water from Pennaiyar River near Andrayanallur Village in Thiruvennainallur Taluk of Vilupuram District

Malattar branches out from Pennaiyar River on the southern side, near Andrayanallur Village. Whenever there is a flow in Pennaiyar, there is no flow in river Malattar, since the river bed of Pennaiyar is lower than the Malattar. It is proposed to construct a barrier across Pennaiyar near Arcadu Village to divert the excess flood water from Pennaiyar River to Malattar River. This flow of water will recharge the groundwater

and benefit around 67 Villages in Cuddalore District and 20 Villages in Vilupuram District.

Also, it is proposed to construct two structures, one at Paiyur Village and other near Sirumadurai Village across Koraiyar River to augment the ground water to benefit Paiyur, Sirumadurai and Marangiyur Villages. The Government have accorded Administrative Sanction for an amount of Rs.8.00 Lakh for conducting detailed Surveying and Levelling Operations. Due to floods in river Pennaiyar, the profile of the river bed has been changed drastically and hence the revised investigation is required and investigation woks are in progress.

21.7. Pumping the flood surplus water of Pennaiyar River from Eachambadi Anicut Constructed across River Pennaiyar at Eachambadi Village in Karimangalam Taluk of Dharmapuri District to feed feasible Tanks and Ponds in the Morapur, Pappireddipatti and Harur Taluks.

Eachampadi Anicut was constructed across Pennaiyar River in Eachampadi Village in

Karimangalam Taluk of Dharmapuri District. This scheme is formulated to give irrigation facilities to the surrounding areas by way of pumping the flood surplus water from the Anicut to possible Tanks in Pothiyampallam Tank group, Kambainallur Tank Group, Echampadi Tank group, Navalai Tank Group and other adjacent tanks which consists 60 tanks and ponds.

Administrative Sanction has been accorded for Rs.10 Lakh for conducting Surveying and levelling operations for detailed investigation.

The Water requirement for this pumping scheme is about 181 Mc.ft. which will be used to fill up the tanks and ponds in 15 days at the rate of 140 cusecs. The ayacut benefitted by this entire scheme is 1,915.50 acre. For implementing this scheme, 162.42 acre of patta lands and 124.29 acre of poromboke lands are to be acquired. Detailed Project Report has been prepared for an amount of Rs.401 crore is under consideration.

21.8. Construction of a small dam across Kalpadai River and a small dam across Pottiyam River to create additional water storage on the upstream side of Gomukhi Dam in Chinna Salem Taluk of Kallakurichi District.

The Gomukhi dam is situated at the foot of Kalvarayan hills near Kachirapalayam of Kallakurichi district. It receives water from the Pottiyam River, Malligaipadi and Kalpadai Rivers. Among the three Rivers, the Kalpadai and Pottiyam Rivers are the major contributors to the Gomukhi dam. The Kalpadai River is on the left arm and the Pottiyam River is on the right arm with respect to the Gomukhi dam. At present, the capacity of Gomukhi dam is 560 Mc.ft. which is found to be insufficient to command the full 5000 acre of old ayacut and 5000 acre of new ayacut. Therefore, the proposed scheme envisages construction of small structures across Kalpadai River & Pottiyam Rivers, to create additional water

storage which acts as a buffer storage to Gomuki dam.

Administrative Sanction has been accorded for an amount of Rs.14.65 lakh for conducting detailed Surveying and Levelling operations. The investigation work has been completed. Various alternate proposals are being prepared.

21.9. Feasibility study to feed Pennaiyar River water by pumping from Kodiyalam anicut to the elevated tanks located in Hosur Taluk of Krishnagiri District.

Kodiyalam anicut is the first anicut which is constructed across the Pennaiyar River. Majority of the rain-fed tanks close to the Pennaiyar River are elevated above the river's bed level. Due to inadequacy of rainfall, the tanks are not receiving enough water.

Therefore, it is suggested to divert surplus flood water from the River Pennaiyar by pumping to feed 26 elevated tanks on the right side of the Kodiyalam anicut and 24 elevated

tanks on the left side. The quantity of water proposed to pump would be 156 Mc.ft. for providing irrigation to an extent of 1,406 acre land.

Administrative Sanction has been accorded for Rs.2.50 Lakh for conducting Surveying and Levelling Operations including Soil investigation and preparation of Detailed Project Report. Since, it is the first anicut in Tamil Nadu across River Pennaiyar, it receives huge waste water from Bangalore City. Hence, studies are going on to make the water fit for irrigation. After finalizing the treatment method, the Detailed Project Report will be prepared.

21.10. Dhonimaduvu Irrigation Scheme

This scheme aims to divert the excess water during flood from a jungle stream by constructing a Check Dam in Dhonimaduvu pallam and excavating a new Canal to feed Tanks and Ponds in drought prone areas of Kulathur, Anthiyur and Bhavani Taluks of Erode District.

Sanction has been accorded for an amount of Rs.5.00 Lakh to carry out investigation and preparation of Detailed Project Report. Since, the work site is located in Forest area, necessary action is being taken to get enter upon permission from the Forest Department.

21.11. Diversion of surplus water from the River Cauvery to Thathamapalyam Eri, Aathupaalayam Anai, Velliyanai Eri, Jagathambi kulam, Upidamangalam Eri and Veeraraakiyam Eri by pumping in Karur District.

Thathamapalyam Eri, Aathupaalayam anai, Velliyanai Eri, Jagathambi Kulam, Upidamangalam Eri, and Veeraraakiyam Eri in Karur District experiences poor rainfall and the farmers are suffering with severe water shortage for irrigation and drinking needs. Hence it is proposed to divert surplus flood water from River Cauvery. Since the above reservoir and tanks are situated at a higher level than the bed

level of River Cauvery, water could be supplied only by pumping.

Sanction has been accorded for an amount of Rs.15 Lakh to carry out investigation and preparation of Detailed Project Report. After conducting preliminary investigation, a pre-feasibility report has been prepared.

21.12. Diverting surplus flood water from Thiruvengadanathapuram Barrage by pumping system to the Tanks in Manur and Pallamadai areas in Tirunelveli District.

It is proposed to divert surplus flood water by pumping from the proposed barrage across Thamirabarani River in Thiruvengadanathapuram Village in Palayamkottai Taluk of Tirunelveli District, through a new flood carrier canal to the drought prone area of Chittar System ayacut in Manur and Pallamadai and its surrounding area to alleviate water deficit.

Through this scheme, an ayacut of 554.23 Hectares of the 12 tanks in the

downstream of Pallikottai Anicut could be benefitted.

Sanction has been accorded for an amount of Rs.40 Lakh to carry out investigation and preparation of Detailed Project Report.

Preliminary investigation works were completed. Pre – feasibility report has been prepared and is under consideration.

21.13. Diversion of surplus flood water from River Amaravathi to Vattamalaikarai odai Reservoir in Tiruppur District.

The Vattamalaikarai odai Reservoir with the capacity of 268.04 Mc.ft. was constructed in the year 1981 to benefit 6,040 acre of land. Since 28 years, this reservoir has not reached its maximum capacity due to inadequate rainfall in the catchment area.

Therefore, it has been proposed to transfer surplus flood water of River Amaravathy to Vattamalaikarai Odai Reservoir either by pumping or by gravity in order to secure the supply of water to the ayacut of the reservoir.

Sanction has been accorded for an amount of Rs.10 Lakh to carry out investigation and preparation of Detailed Project Report. Preliminary investigation works have been completed and preparation of Detailed Project Report is under progress.

21.14. Increasing the Full Reservoir Level (FRL) of Poondi Sathyamoorthy Sagar Reservoir by two feet to augment its capacity.

The Sathyamoorthy Sagar Reservoir, popularly known as Poondi Reservoir across the Kosasthalaiyar River is one of the five drinking water sources, which caters the drinking water needs of Chennai City and its adjoining areas. Investigation to impound the flood water was carried out in the year 1940 and the project was executed in 1944. The catchment area of the Poondi Reservoir is 1,968 sq.k.m. and its capacity is 2.750 T.M.Cft. Poondi Reservoir receives water from Kosasthalaiyar River, Nagariyar River and Krishana Water Supply (through an Inter-State water agreement).

Under Krishna Water Supply Project, capacity of the Reservoir was increased from 2.750 T.M.Cft. to 3.231 T.M.Cft. by raising its FRL from 33 feet to 35 feet, during the year 1990 – 1996 to adhere to the standards of Central Water Commission,

To meet out the drinking water requirement of the growing population of Chennai city, it is the need of the hour to find feasible solution to increase the storing capacity of the water bodies. One of the options is to increase the storage capacity of Poondi reservoir.

It is proposed to find the feasibility to increase the FRL further by 2 feet, due to which storage capacity may increase from 3.231 T.M.Cft. to 3.971 T.M.Cft. This leads to additional storage of 0.74 T.M.Cft. In view of the above, Government have accorded sanction for an amount of Rs.48 Lakh to conduct investigation and to prepare the Detailed Project Report. The investigation is in progress.

Integrated Rehabilitation of Irrigation Structure

Conducting the following detailed investigation for preparation of Detailed Project Reports for Comprehensive rehabilitation of Irrigation Infrastructures and to provide automated community micro irrigation in Kodayar and Kollidam Basins, Vennar and Parambikulam- Aliyar sub basins.

i) Kodayar Basin in Kanniyakumari District - Estimate Amount - Rs.2.596 crore

The Kodayar system receives supply both in South West and North East Monsoon. Normally the irrigation period extends up to nine months in every year. Due to continuous supply, the age old structure gets deteriorated and they have been repaired and maintained with the available maintenance grant then and there. The conveyance efficiency has also been drastically reduced. To address the above problems, considering the effects of Climate Change, to come up with a sustainable and climate resilient

modernisation project for the effective function of the system in near future a comprehensive Detailed Project Report preparation has been initiated.

ii) Kollidam basin in Tiruchirappalli, Ariyalur, Thanjavur, Mayiladuthurai and Cuddalore district- Estimate Amount- Rs. 9.983 crore

After serving for a period of many centuries, the Kollidam River system is in urgent need for comprehensive rehabilitation. The Canals, Channels, Drainage Inlets, Sluices, Regulators etc., which are in dilapidated condition, needs to be rehabilitated to reduce the losses and to improve the irrigation efficiency. Hence, it is essential to conduct a detailed investigation with new advanced technology in Kollidam Basin spreading over Tiruchirapalli, Ariyalur, Thanjavur, Mayiladuthurai and Cuddalore Districts for a sustainable and climate resilient modernization project.

iii) Vennar Sub Basin in Thanjavur, Thiruvarur and Nagapattinam Districts - Estimate Amount - Rs. 9.80 crore

The rivers namely Vennar from L.S.27.260 km to 55.510 km based on the requirement are now proposed for rehabilitation in the Vennar Sub Basin of Cauvery Basin. The reaches taken up under Asian Development Bank assisted Climate Adaptation of Vennar Sub basin of Cauvery Delta Project Phase I (6 Rivers) and proposed Phase- II (5 Rivers), Vettar and Odambogiyar, except 'A' class Channels of all rivers under Vennar Sub Basin under Extension, Renovation and Modernization Project of Vennar Sub Basin in Cauvery Delta.

Hence, it is necessary to conduct a detailed investigation for preparation of the Detailed Project Report for rehabilitation of the above river systems and to provide automated community Micro Irrigation as per the Central Water Commission guidelines and also to obtain the necessary investment clearance and

approval of the various Directorates of Central Water Commission, Government of India.

iv) Parambikulam - Aliyar Sub Basin in Coimbatore and Tiruppur Districts - Estimate Amount- Rs. 7.08 crore

In order to restore the canals to its designed and original standards, to upkeep the Canal fit for carrying the designed discharge, to minimize the conveyance losses and to increase the Canal efficiency, it has been proposed to rehabilitate the Canals. Reconstruction of Cross Masonry Structures are also proposed to ensure the structural stability. Further the Parambikulam - Aliyar project system is more suitable to implement automated community irrigation for equitable distribution of water and for efficient irrigation water management. Hence, it is necessary to conduct the detailed investigation for preparation of the Detailed Project Report for rehabilitation of the Parambikulam - Aliyar Project System.

22.0. Chennai City Water Supply Augmentation and Flood Mitigation Resilient to Climate Change

It is very imperative to protect Chennai City from recurrent flooding and drinking water problems. Short-term and Long-term flood mitigation works are proposed to be taken up to avoid recurring flooding in Chennai City.

At present, 6 Reservoirs viz., Cholavaram, Chembarambakkam, Poondi, Redhills, Kannankottai-Thervaikandigai and Veeranam with a combined capacity of 13 T.M.Cft. caters the needs of drinking water requirements of Chennai City as against the annual demand of drinking and industrial requirement about 22 T.M.Cft. at present and which may raise to 32 T.M.Cft. by 2,035 with the projected population growth.

At present, serious impact of Climate Change has been observed on tropical climatic areas causing unprecedented flash floods in many parts of Chennai, Kancheepuram,

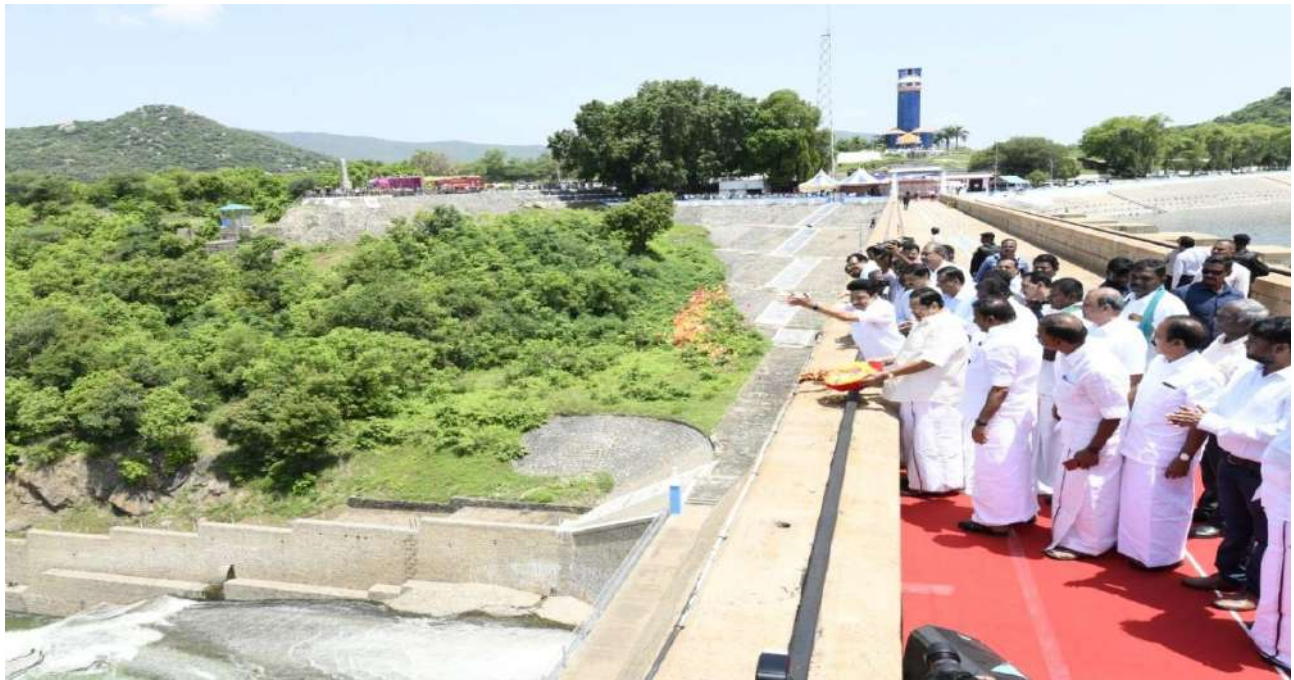
Chengalpattu and Thiruvallur Districts. Hence, with an aim to bridge the gap between present water demand and supply rate and also to create a flood resilient urban Infrastructure, the project "Chennai City Water Supply Augmentation and Flood Mitigation Resilient to Climate Change" is being formulated.

The objective of the proposal is flood mitigation and rainwater conservation for deficit years in and around Chennai City. The Comprehensive proposal comprises enhancing the rain water storage capacity in the upstream of Chennai city by creation of new storage structures, increasing the storage capacity of existing water bodies, improving the conveyance efficiency and inters connecting the feasible water bodies. The proposal aims to create an additional storage capacity of 20.50 T.M.Cft. to meet the drinking water requirements of Chennai City and to find permanent mitigation measures to a maximum extent for the flood vulnerable areas in and around Chennai City. This scheme has formulated at an estimated cost of Rs.22,004 crore tentatively.

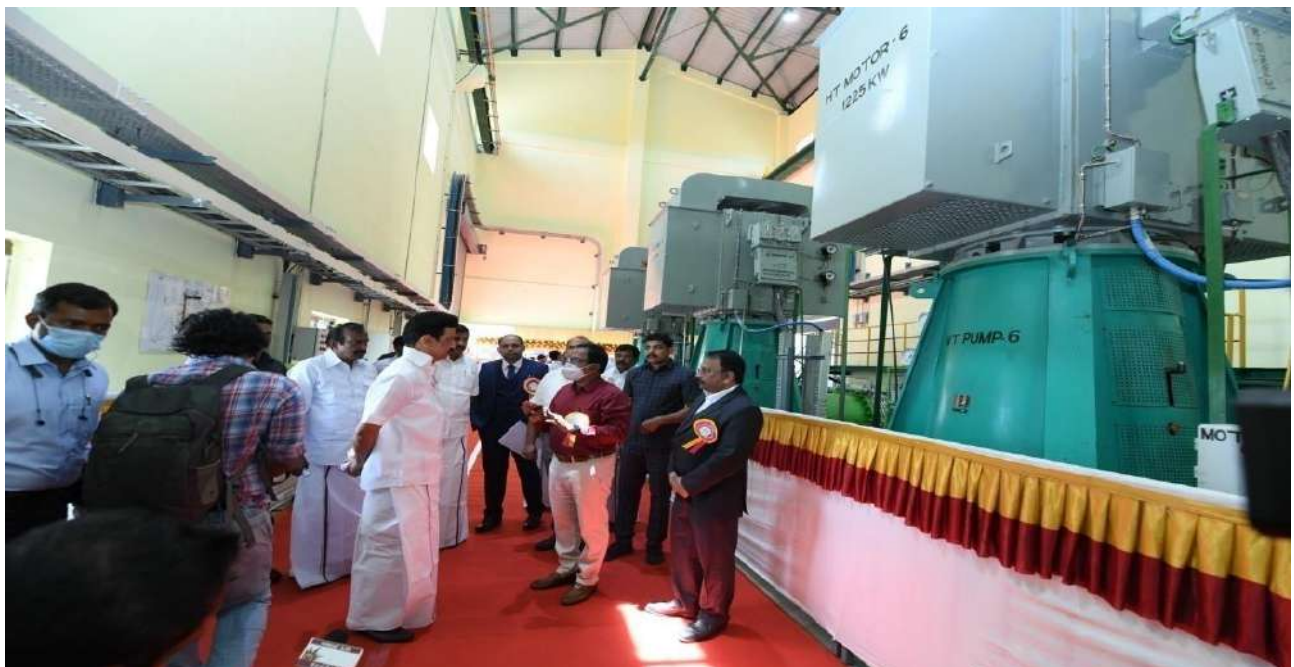
The Hon'ble Minister for Water Resources has announced in the Floor of Assembly on 06.04.2022 during the debate on the demand of grants for Water Resources Department for the year 2022-2023 that a Pilot scheme to supply additional water flood mitigation and to adopt for Climate Changes to Chennai City at an estimated cost of Rs.5.12 crore will be implemented.

The Government have accorded Administrative Sanction for Preparation of Detailed Project Evaluation for a Pilot Project in Chennai Flood Mitigation, Climate Change and supply of additional water to Chennai City at an estimated cost of Rs.5.02 crore and identification of suitable agency is under process.

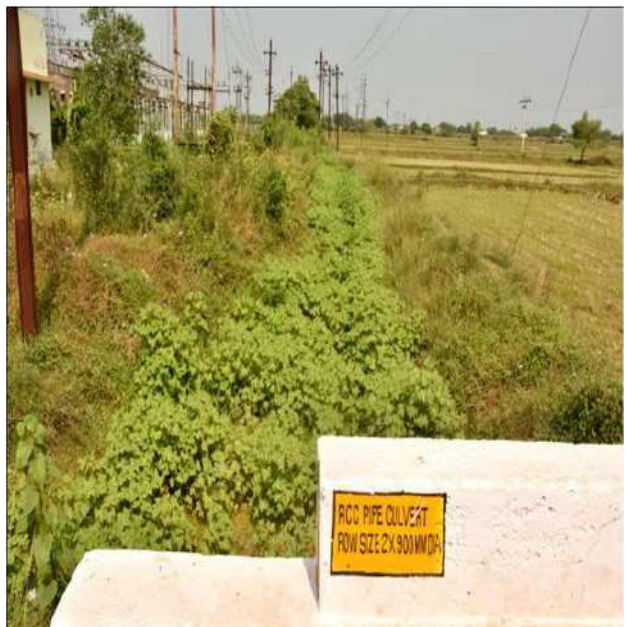
DURAIMURUGAN
Minister for Water Resources



Salem District - Hon’ble Chief Minister releasing water for Kuruvai cultivation from Mettur Dam - 24.05.2022



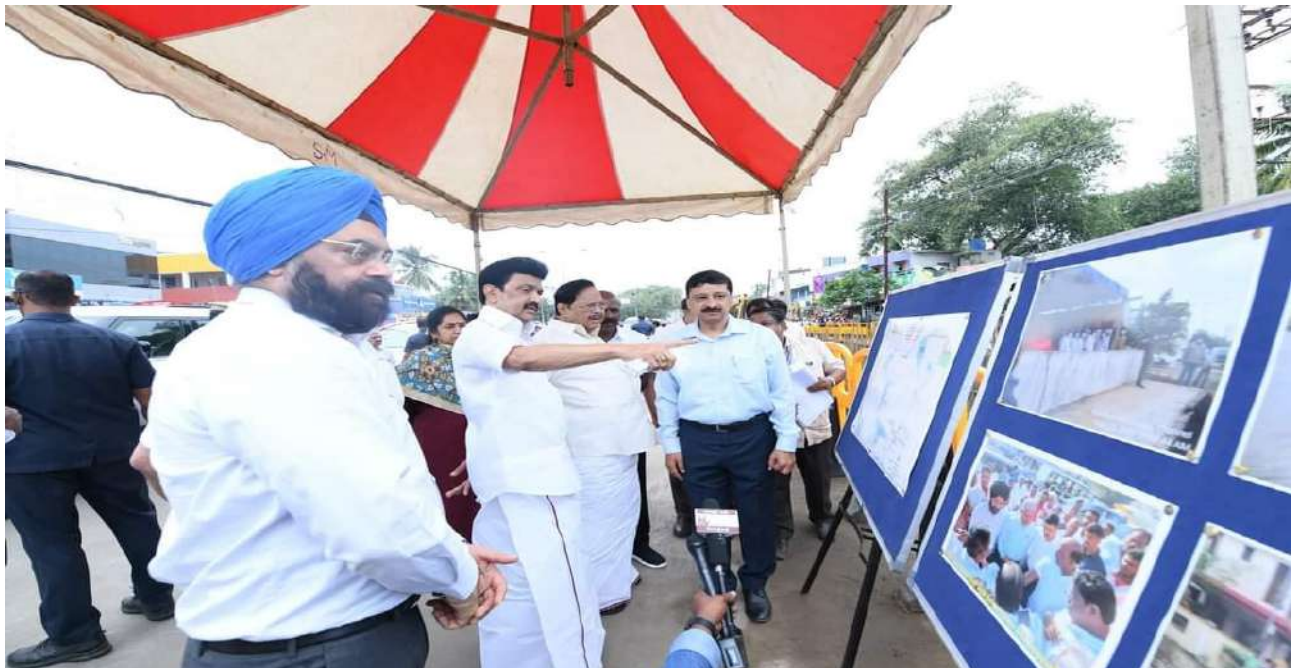
Inspection of Athikadavu Avinashi Pumping Scheme by Hon'ble Chief Minister of Tamil Nadu and Diginitaries Erode on 26.08.2022 – Estimate Amount Rs.1756.88 crore – State Fund



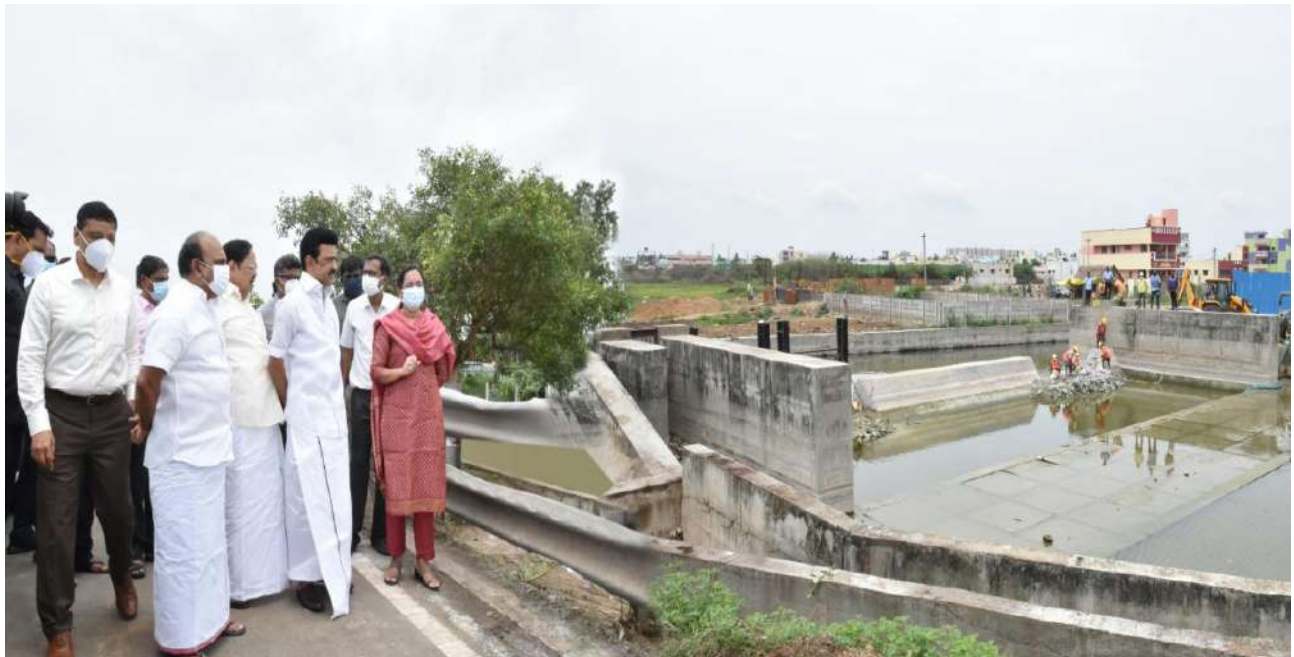
Before Execution

After Execution

Thiruvarur District - Injukudi & Akilampettai Village -Desilting the bed of Peralam channel from 0 km to 4.00 km Estimate Amount Rs.8.50 Lakhs



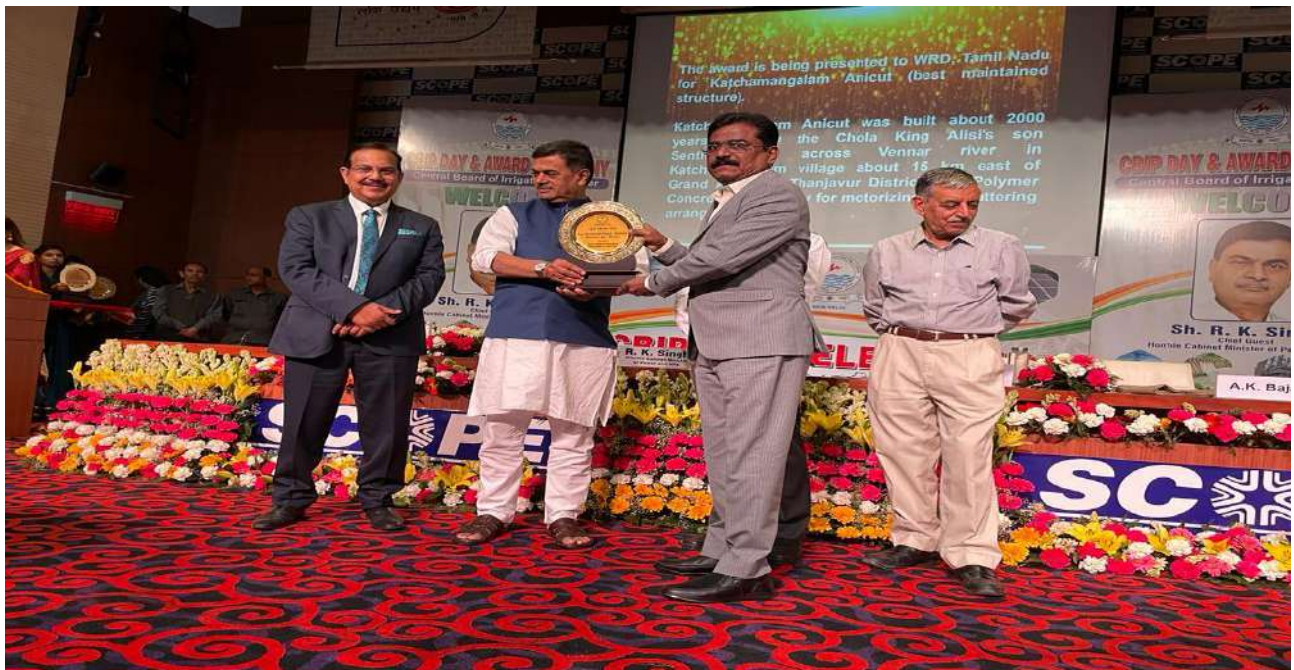
Chennai District- Hon’ble Chief Minister Visit during the work for Formation of Pallikaranai Tank Cut & Cover on 29.09.2022



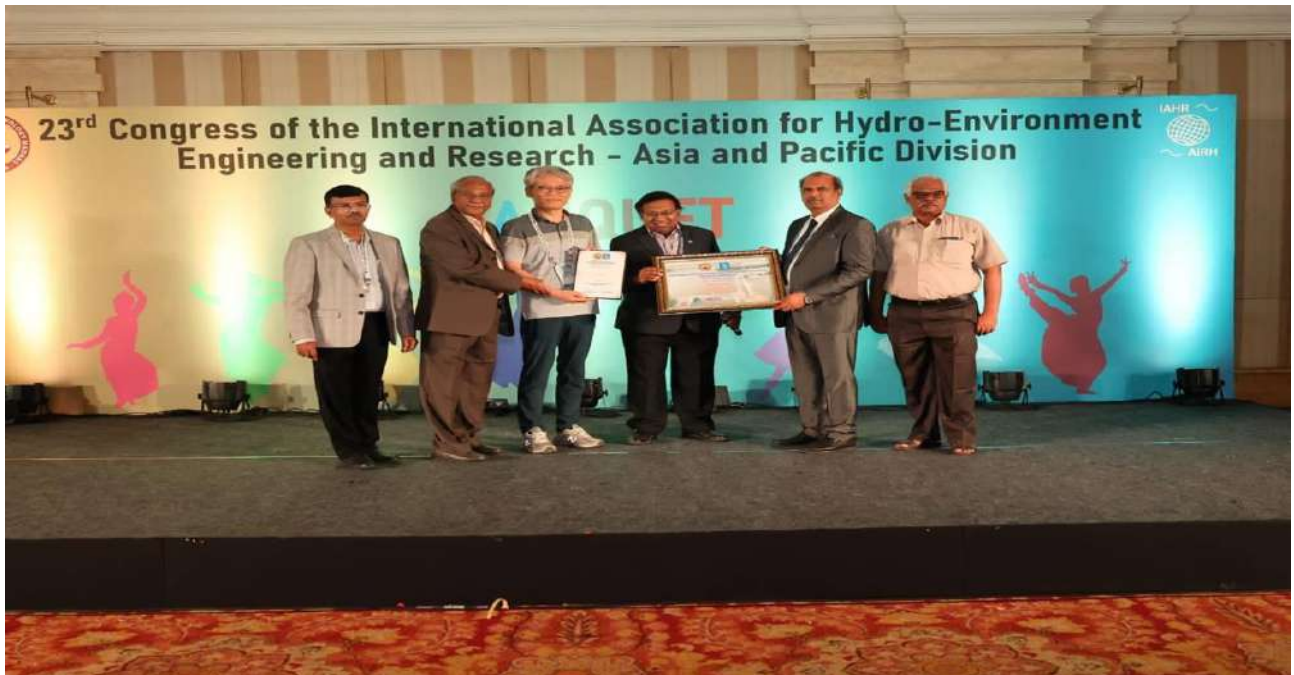
Kancheepuram District- Hon’ble Chief Minsiter Visit of the work for Improvements on Porur Tank Surplus Course and Regulator Arrangements

International Commission on Irrigation and Drainage (ICID) - World Heritage Irrigation Structures (WHIS) Awards - TNWRD - Kalingarayan Anicut & Channel System, Grand Anicut (Kallanai Dam), Veeranam Tank and Lower Coleroon Anicut - 02.11.2022

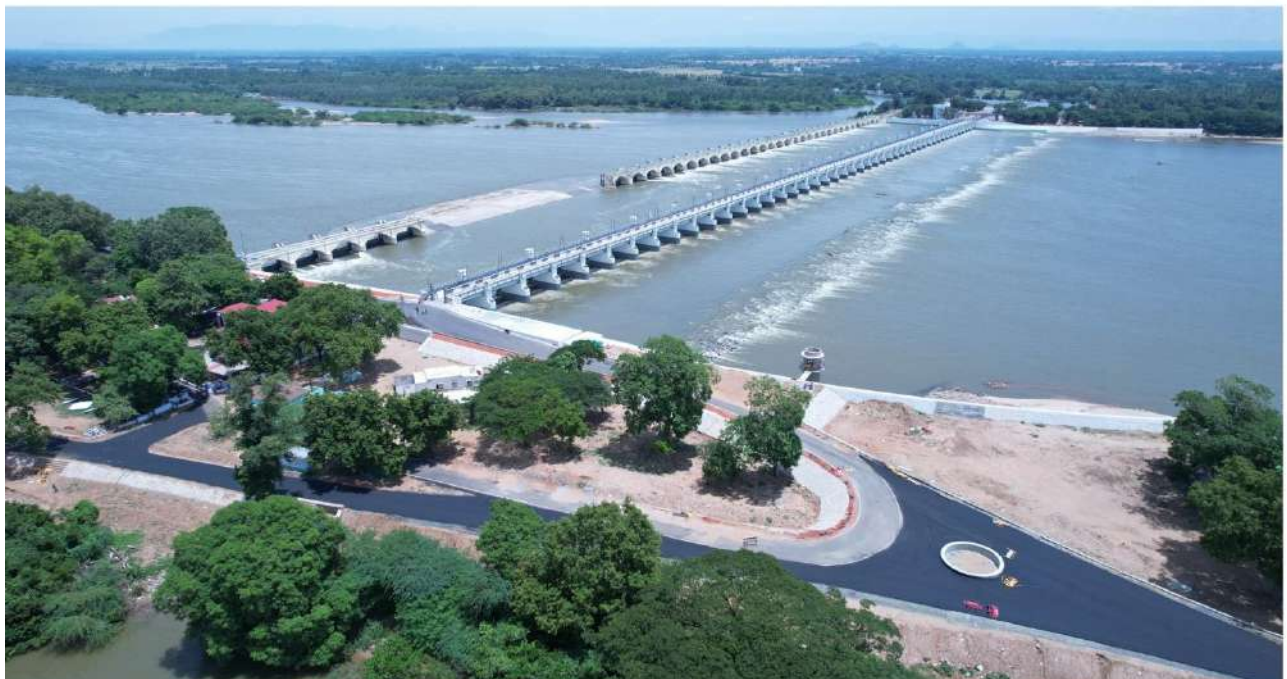
ICID-CIID World Heritage Irrigation Structures Award for the year 2021 received for Lower Anicut, Kalingarayan Anicut, Grand Anicut Canal and Veeranam Tank



CBIP Award received from Hon'ble Union Minister Thiru R K Singh for Katchamangalam Anicut, Vennar Basin Division, Trichy Region for the best maintained structure.

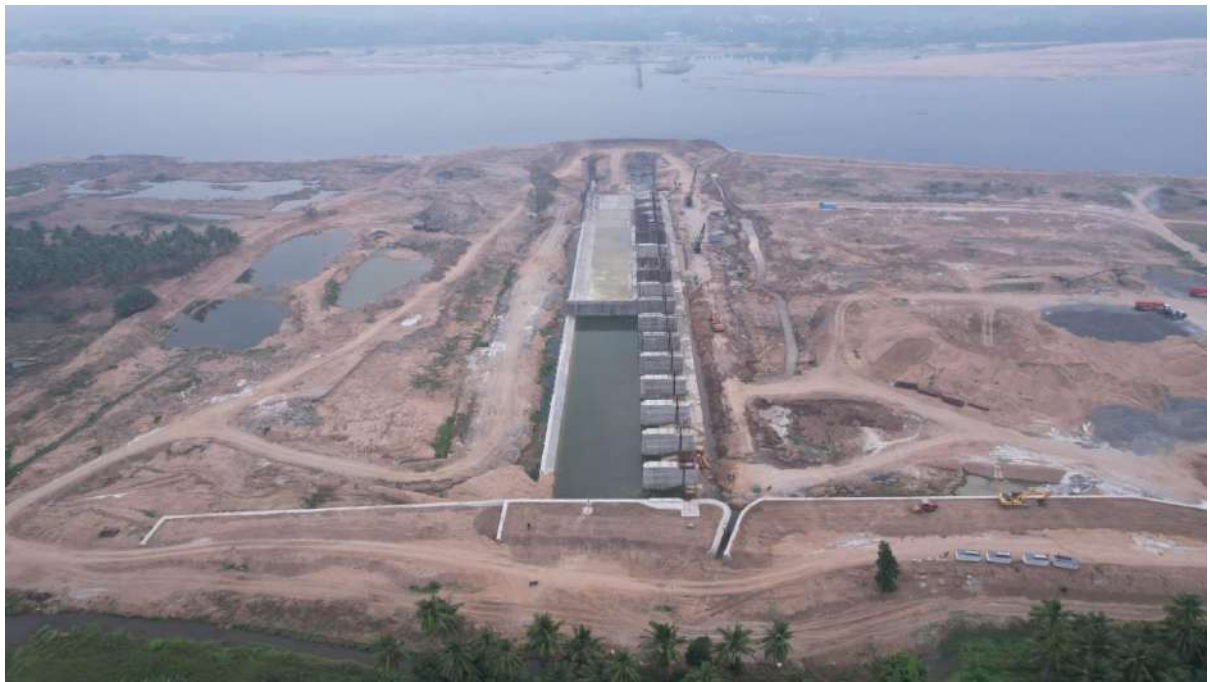


International Association for Hydro – Environment Engineering and Research – Asia and Pacific Division – “Water Heritage Irrigation Structure Award” for Kallanai Dam on 15.12.2022 – Chennai.

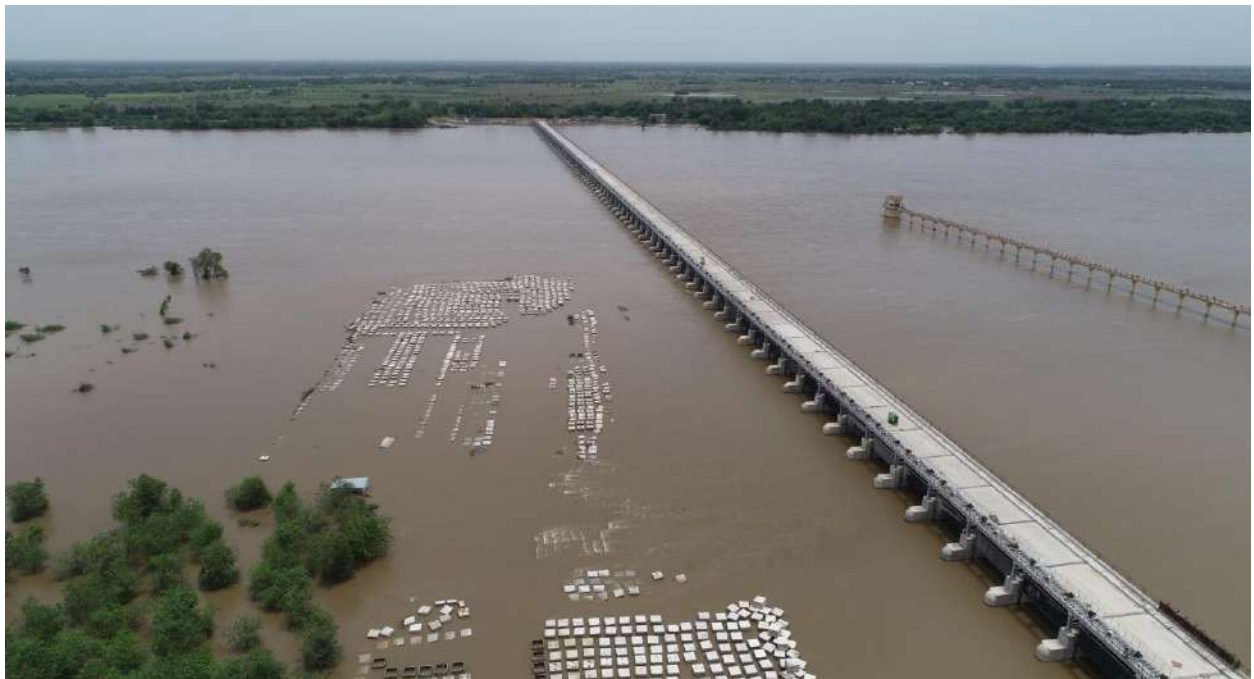


Trichy District - New Regulator across River Coleroon at Mukkombu - Estimate Rs. 414.00 crore- NABARD Fund

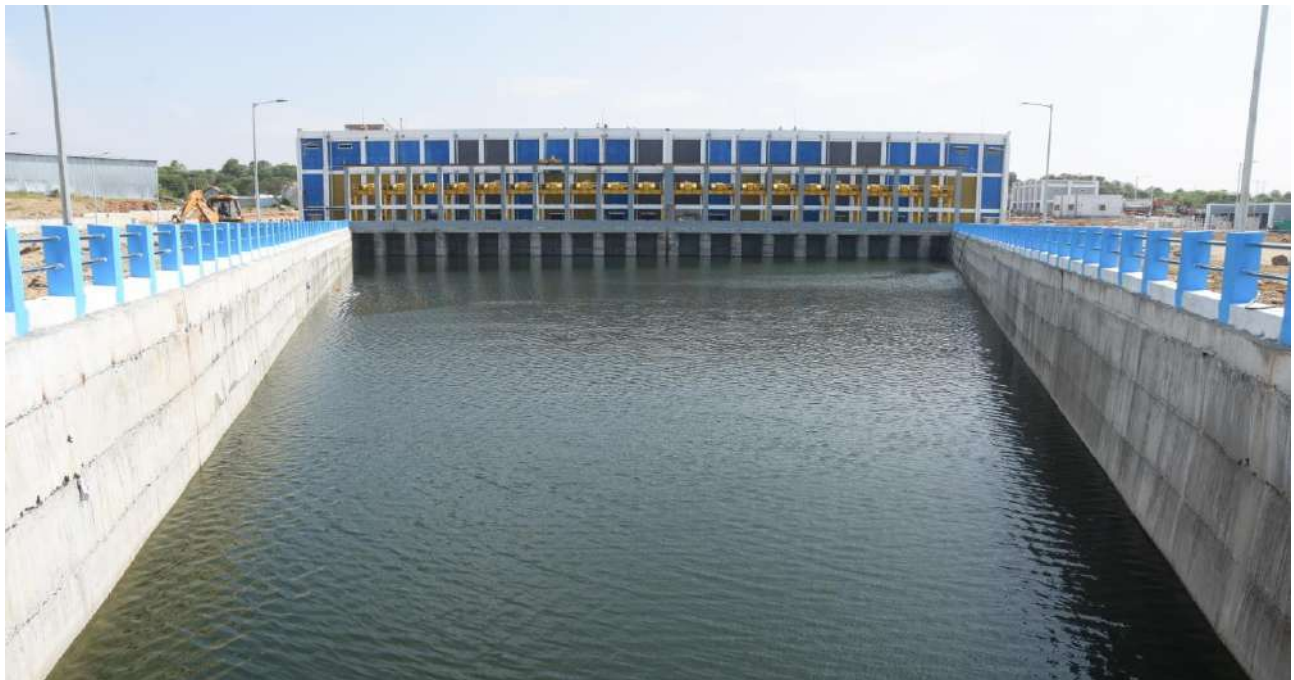
Trichy District - New Regulator across River Coleroon at Mukkombu- (Estimate Rs. 414.00 crore)- NABARD Fund



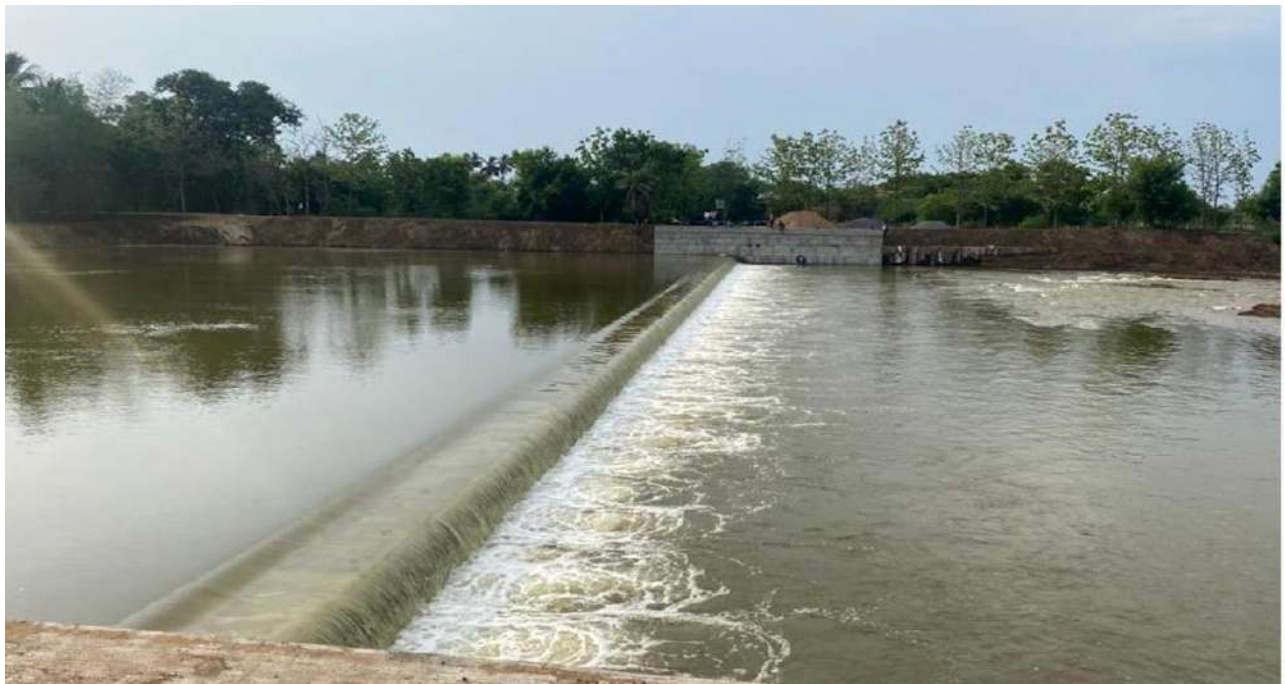
Karur District - Construction of Barrage across River Cauvery in Nanjai Pugalur village –
(Estimate Rs. 406.50 crore)- NIDA



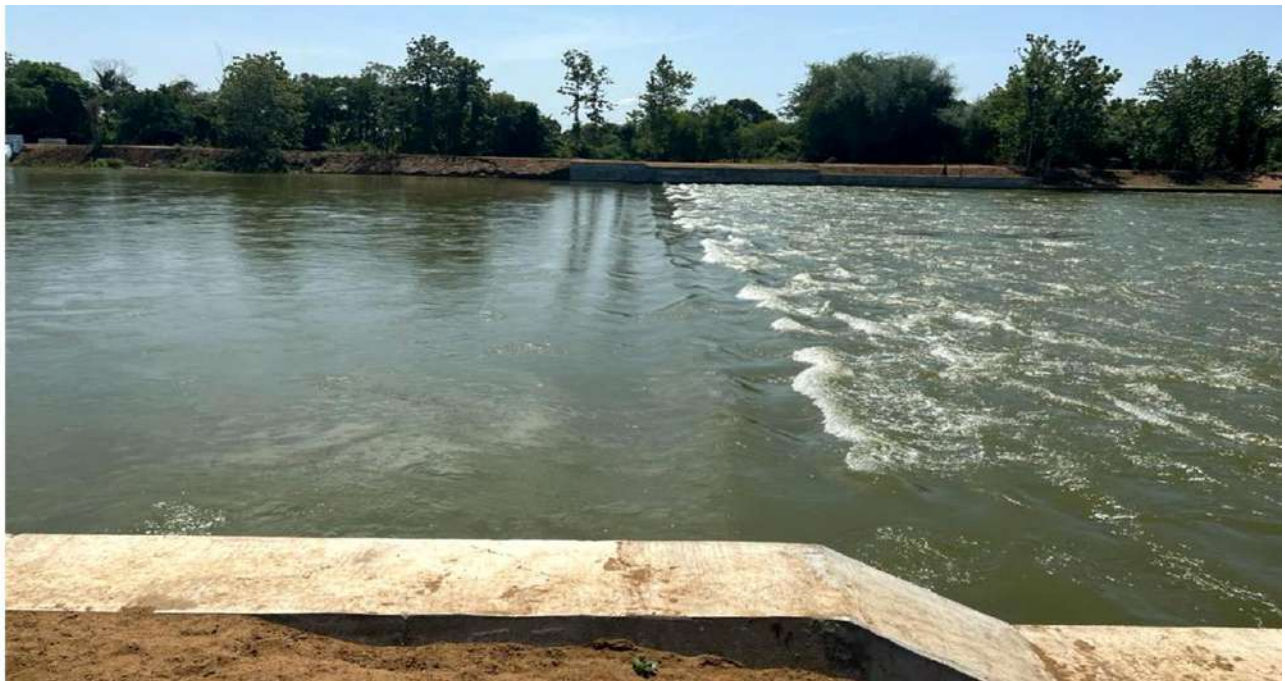
Cuddalore & Mayiladuthurai Districts- Construction of Barrage across River Coleroon in between Adhanur and Kumaramangalam villages - (Estimate Rs. 494.60 crore) – State Fund



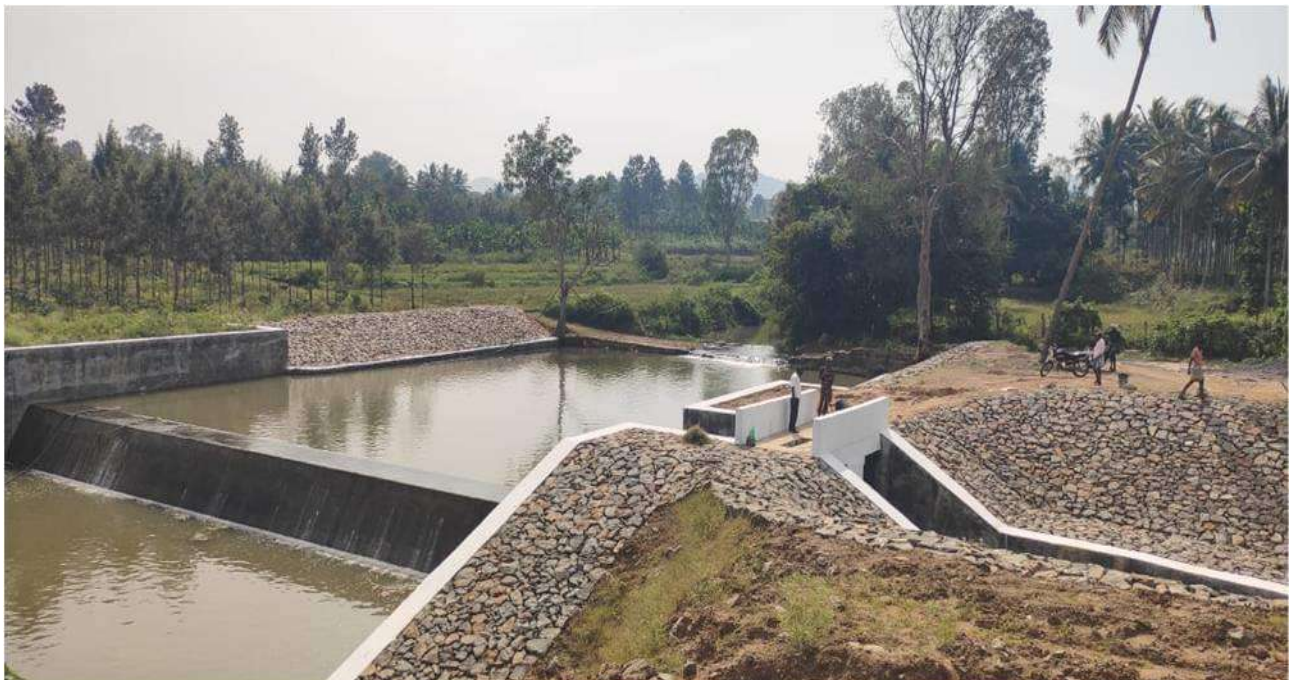
Salem District - Mettur Sarabanga Lift Irrigation Project Thippampatti Pumping Station –
(Estimate Rs. 565.00 crore) – State Fund



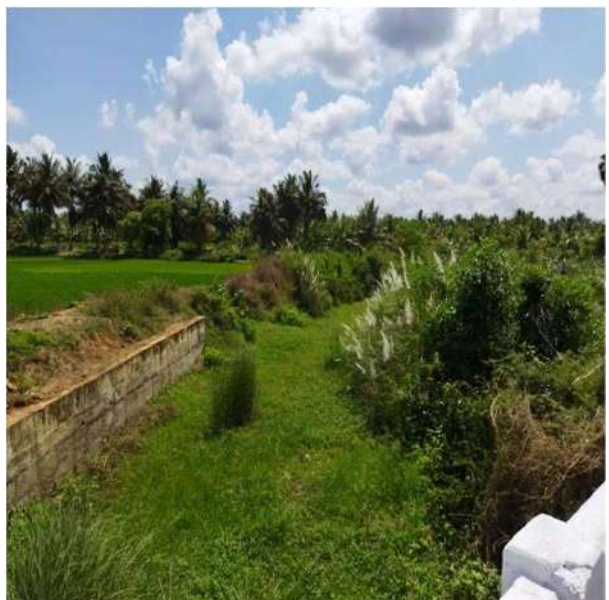
Thanjavur District - Grade wall across Vettar River at LS 73.635 Km in Surakkayur village - (Estimate Rs.4.88 crore) - NABARD



Thanjavur District - Grade wall across Vennar River at LS 85.180 Km in Ivelithottam Village –
(Estimate Rs.5.856 crore) - NABARD



Salem District- Diversion of Kaikan Valavu Surplus Water to Kariyakoil reservoir
(Estimate Rs.7.30 crore)- State Fund

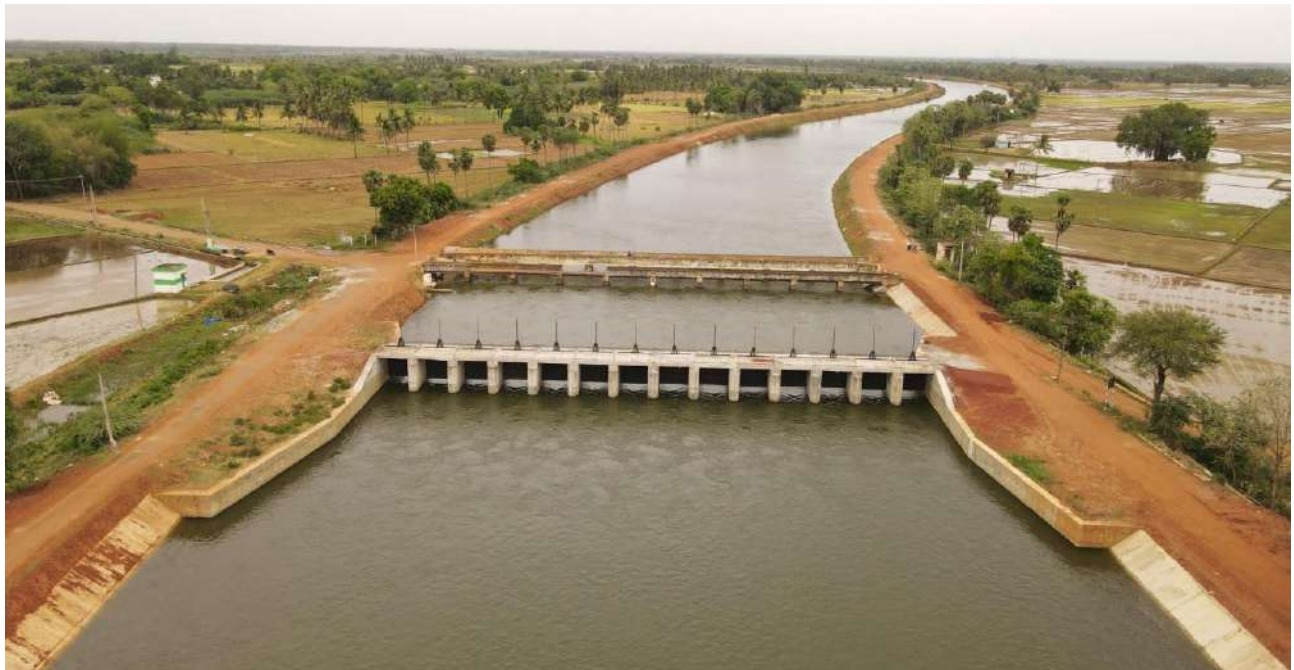


Before Execution

After Execution

Thanjavur District – Peikkarambankottai Village - Desilting the bed of Periya Eri Drain at L.S 0 m to 300m – (Estimate amount Rs.3.00 Lakhs) – State Fund

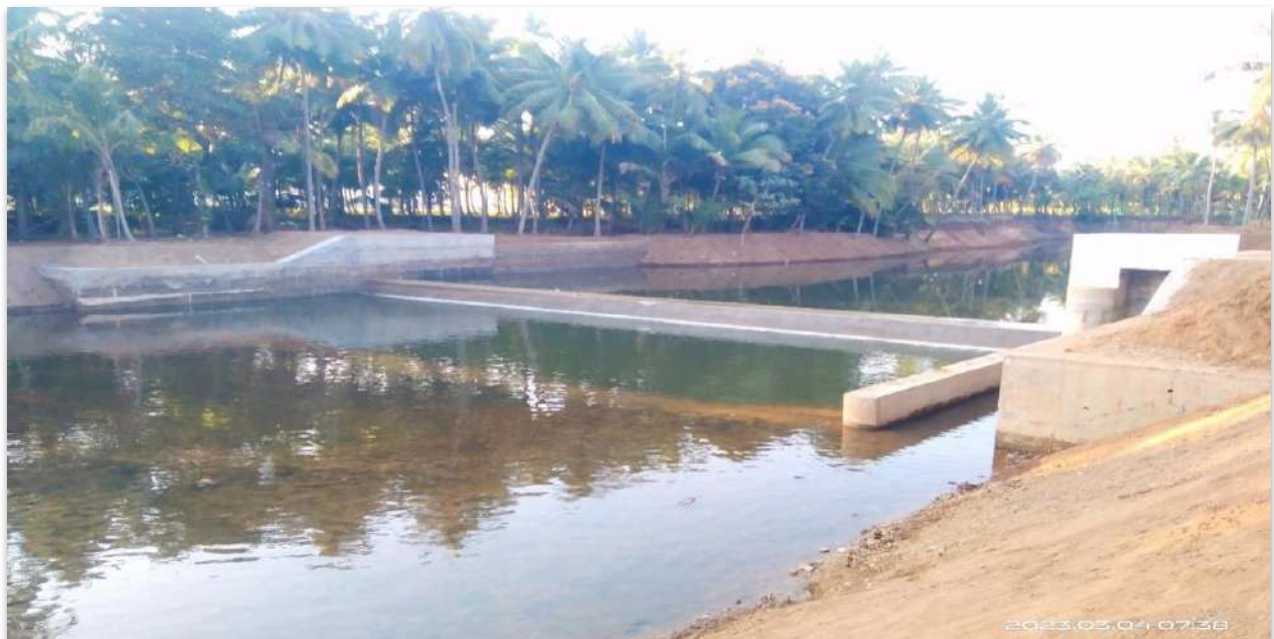
Mayiladuthurai, Thanjavur & Thiruvarur District- Extension, Renovation and Modernisation -Cauvery subbasin-
Regulator across Keerthimanar River (Package No -21) –
(Estimate Amount Rs.136.54 crore) - NIDA



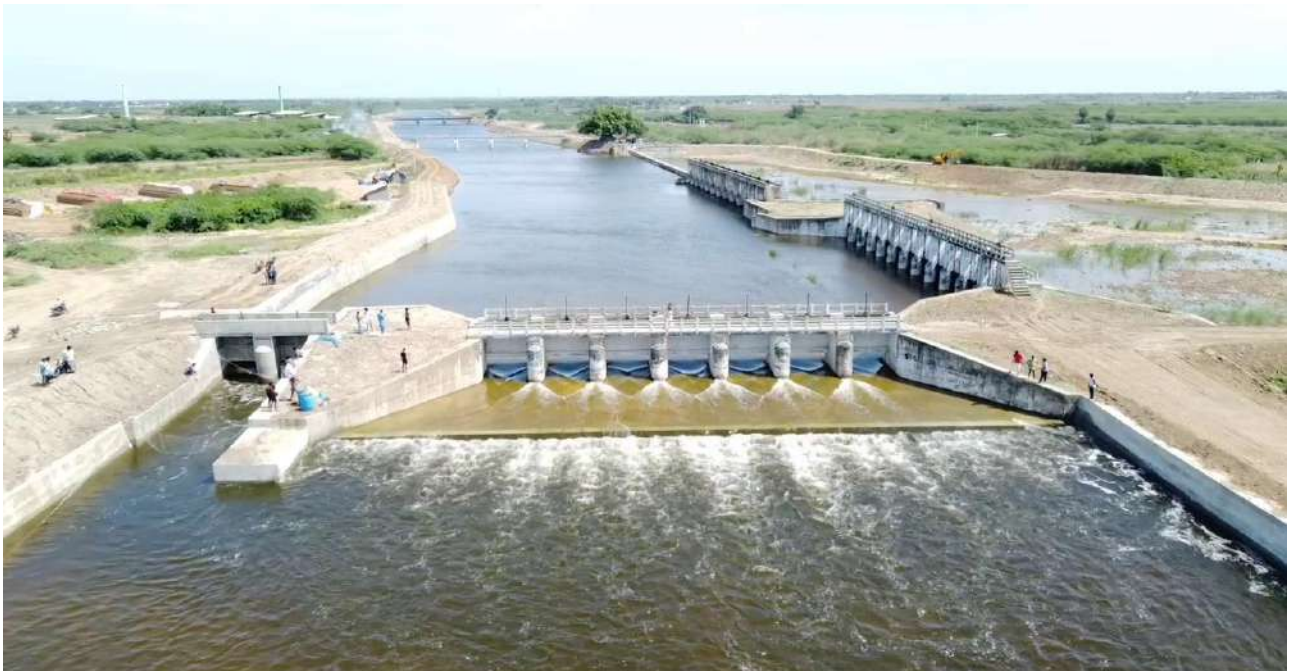
Thanjavur District- Extension, Renovation and Modernisation -Grand Anicut Canal System – New regulator Kuruvadipatti village (Package No -2) – (Estimate Amount Rs.192 crore)- State Fund

Erode, Tiruppur and Karur District- Extension, Renovation and Modernisation - Protection wall at Mile 64/2 in LBP Main canal (Package No -4) – (Estimate Amount Rs.189.55 crore) - NIDA

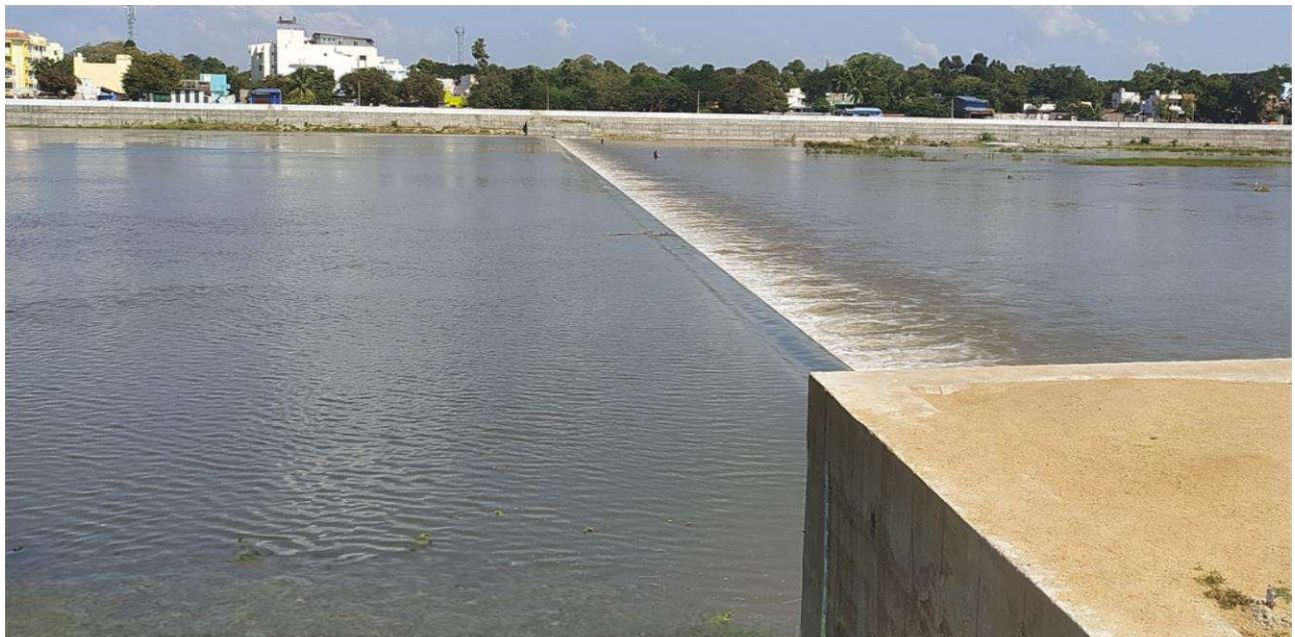
Theni District -Installing Coir Geo-textiles for Erosion Control on the sloping (rear) side of Manjalar Reservoir - Estimate Rs.2.09 crore - State Fund



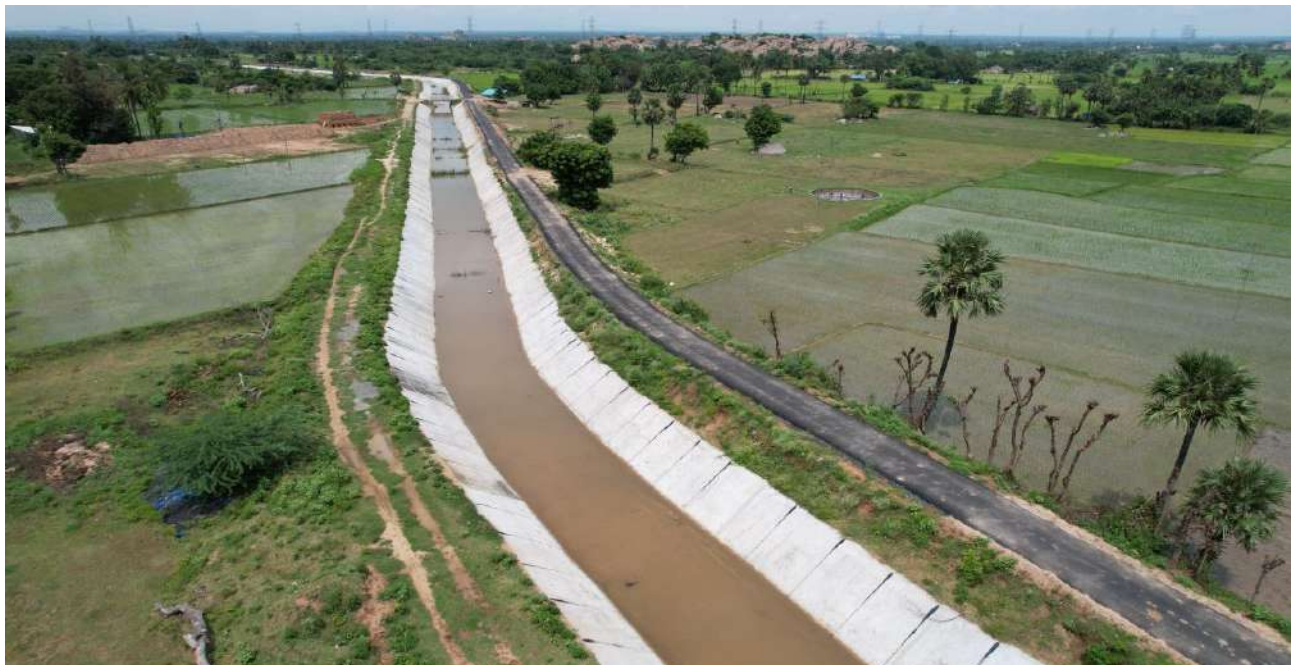
Theni District - Check dam across Manjalar River near Genguvarpatti village
Estimate Rs.2.36 crore - State Fund



Ramanathapuram District - Additional Vents across the Supply Channel of Ramanathapuram Big Tank – Estimate Rs.9.93 crore - State Fund

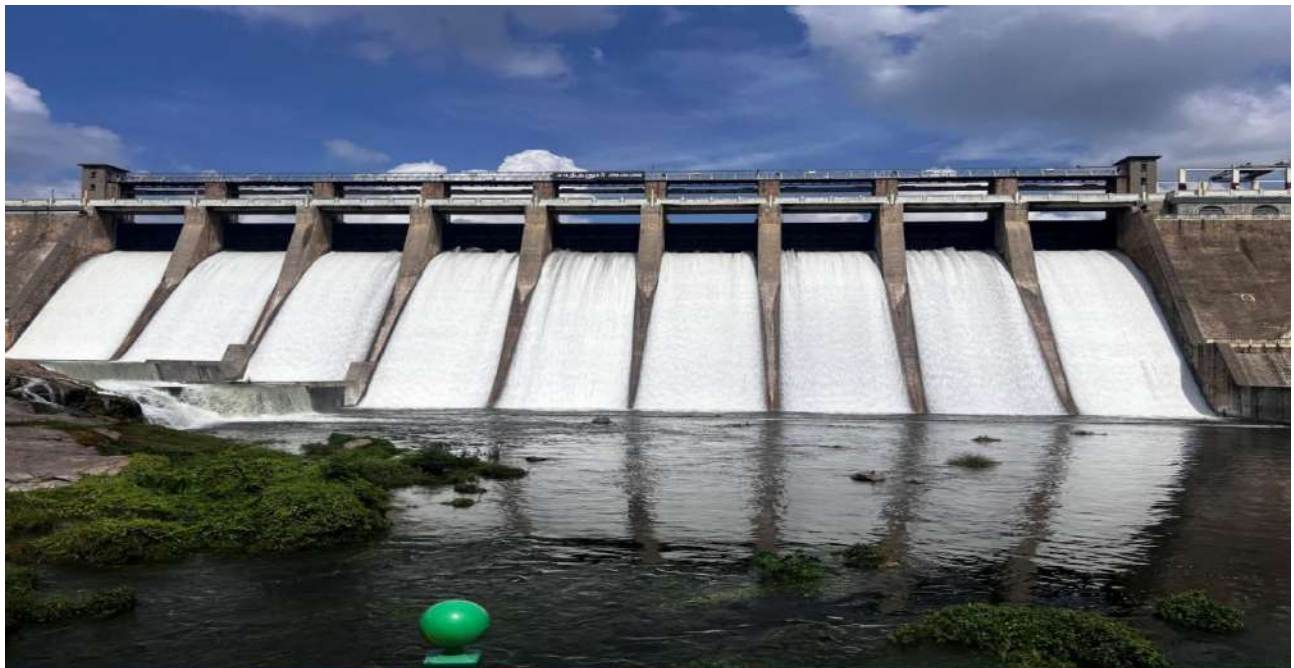


Madurai District - Check Dam and Recharge shaft across the Vaigai River near Aarapalayam
Estimate Rs.11.98 Crore – NABARD Fund

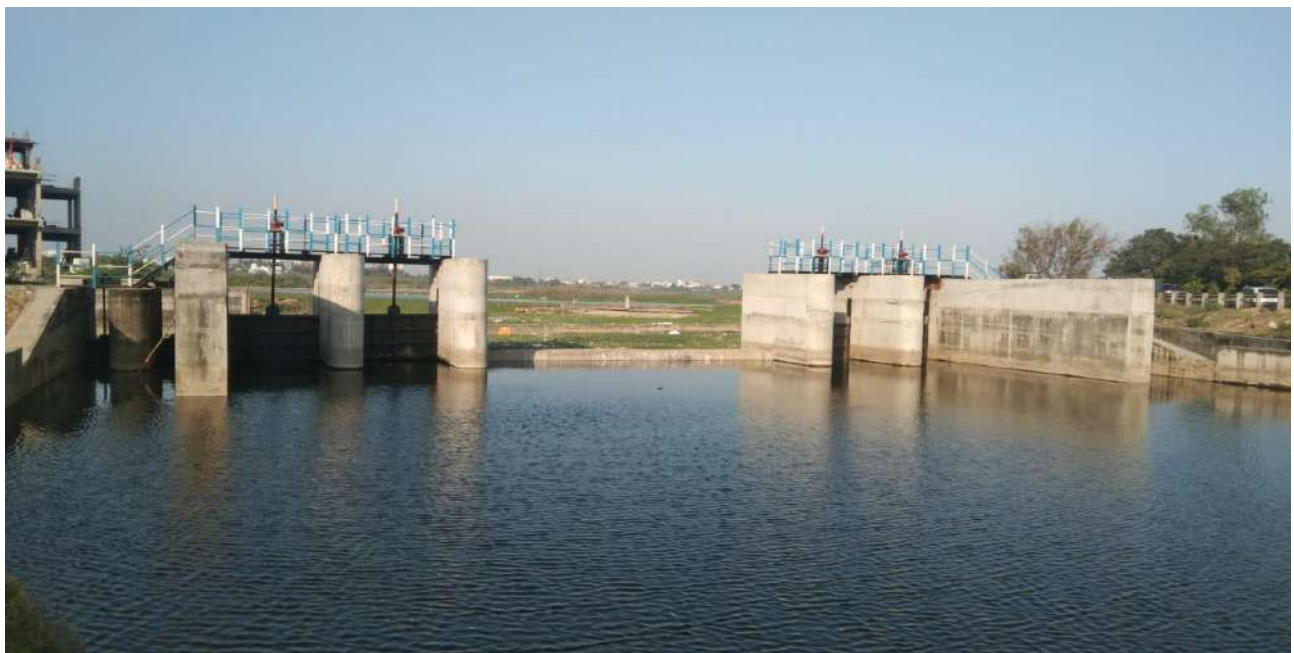


Villupuram District - Improvements to Nandhan Channel From LS12.400 Km to LS 37.880 Km in Gingee, Vikkravandi and Villupuram Taluks - Estimate Amount Rs. 26.57crore - NABARD

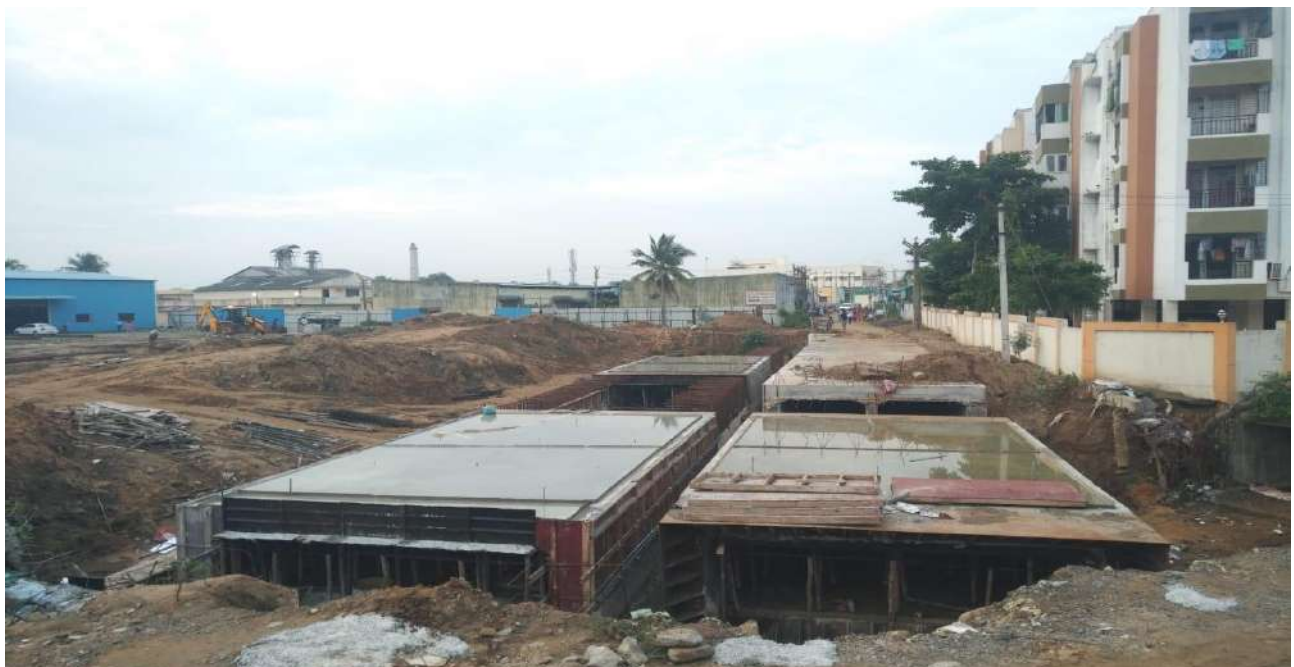
Thiruvannamalai District - Rehabilitation and Improvements to the Nandhan Channel form L.S. 0 Km to 12.40 Km in Thiruvannamalai and Kilpennathur Taluk - Estimate Amount Rs. 7.26 crore – NABARD Fund



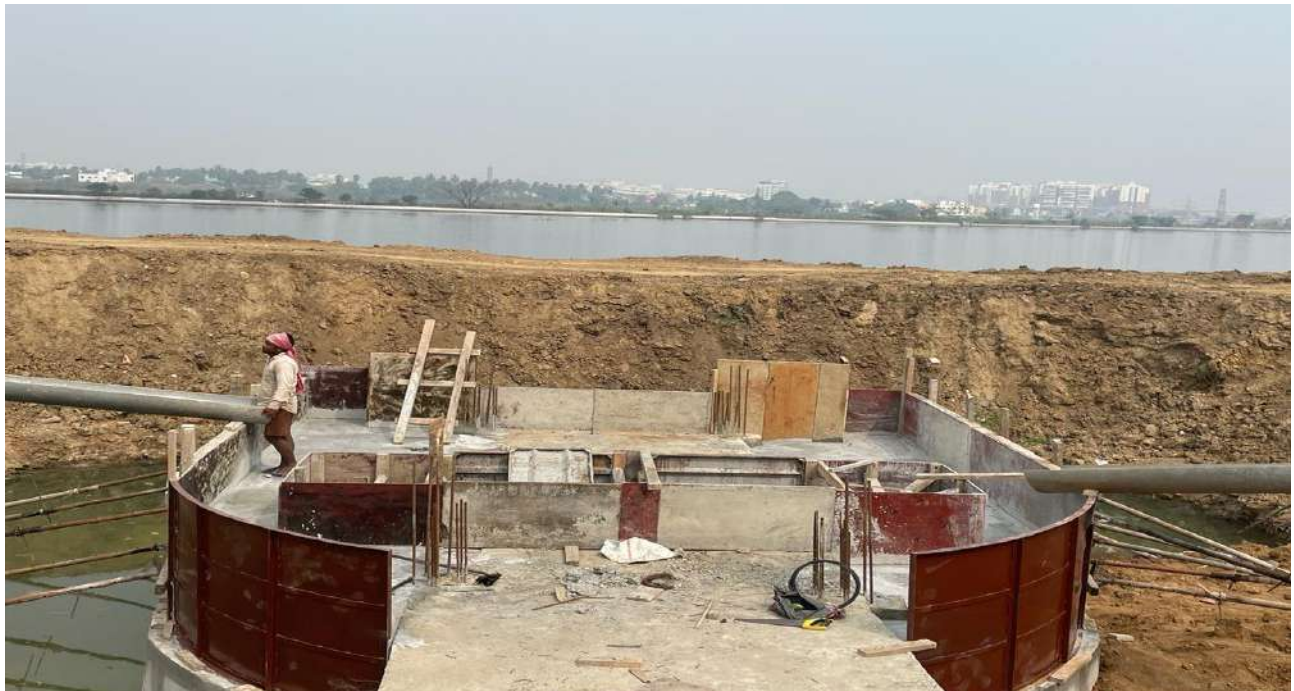
Thiruvannamalai District - Rehabilitaiton and Improvement to Sathanur Dam in Thandarampattu Taluk of Tiruvannamalai District- Estimate Amount Rs.90 crore- DRIP II.



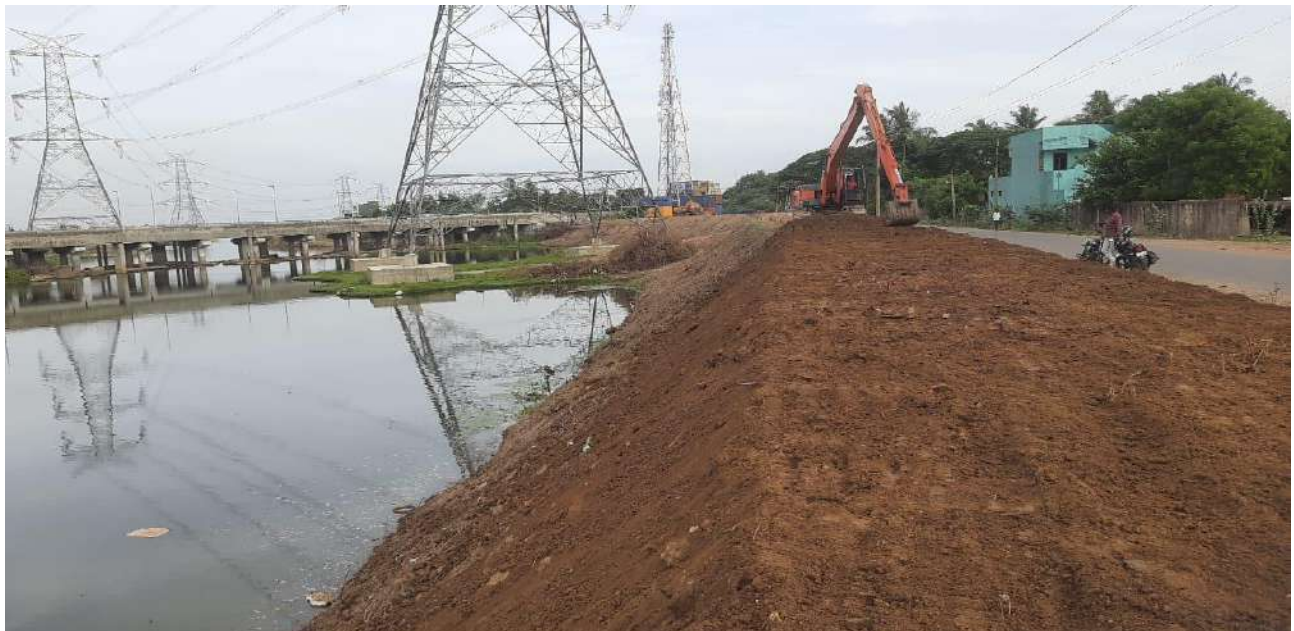
Kancheepuram District-Improvements to Porur Tank Surplus Course and Regulator Arrangements-
Estimate Amount Rs. 34.00 crore - State Fund



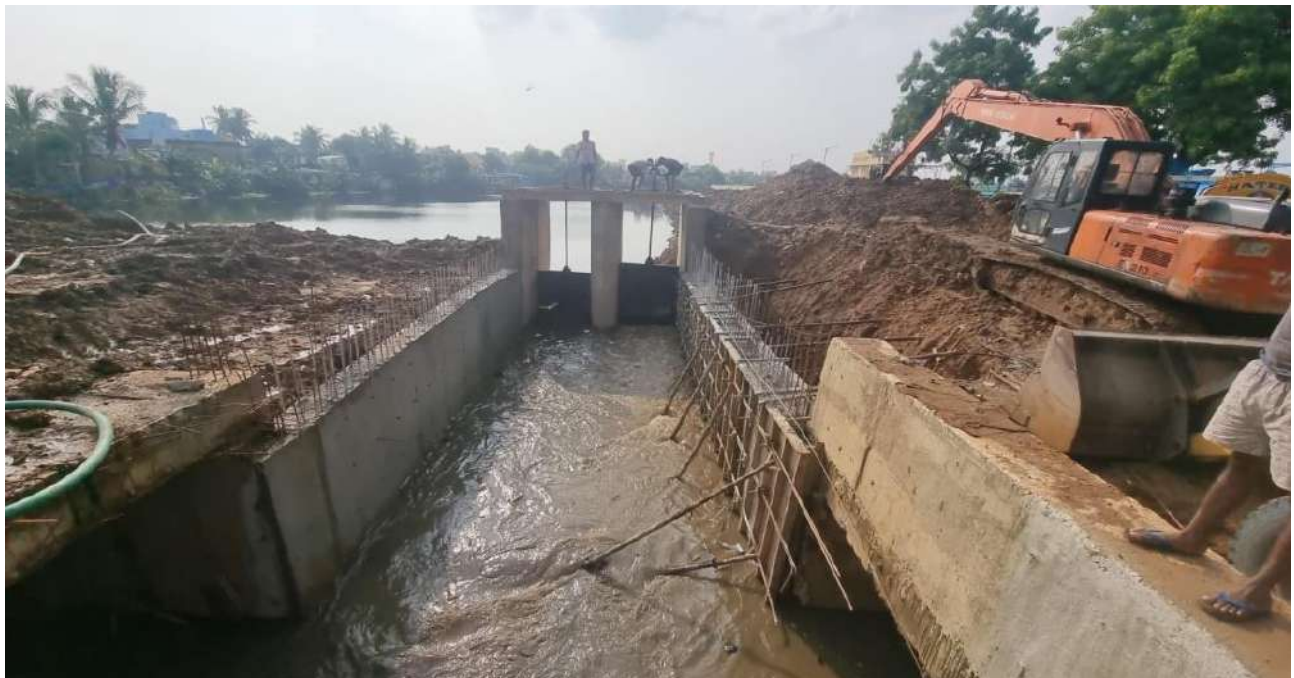
Kancheepuram District- Providing additional Box culverts at NH Bypass -
Estimate Amount Rs. 9.70 crore- State Fund



Kancheepuram District- Head Regulator in Porur tank – Estimate Amount Rs. 39.60 crore- State Fund

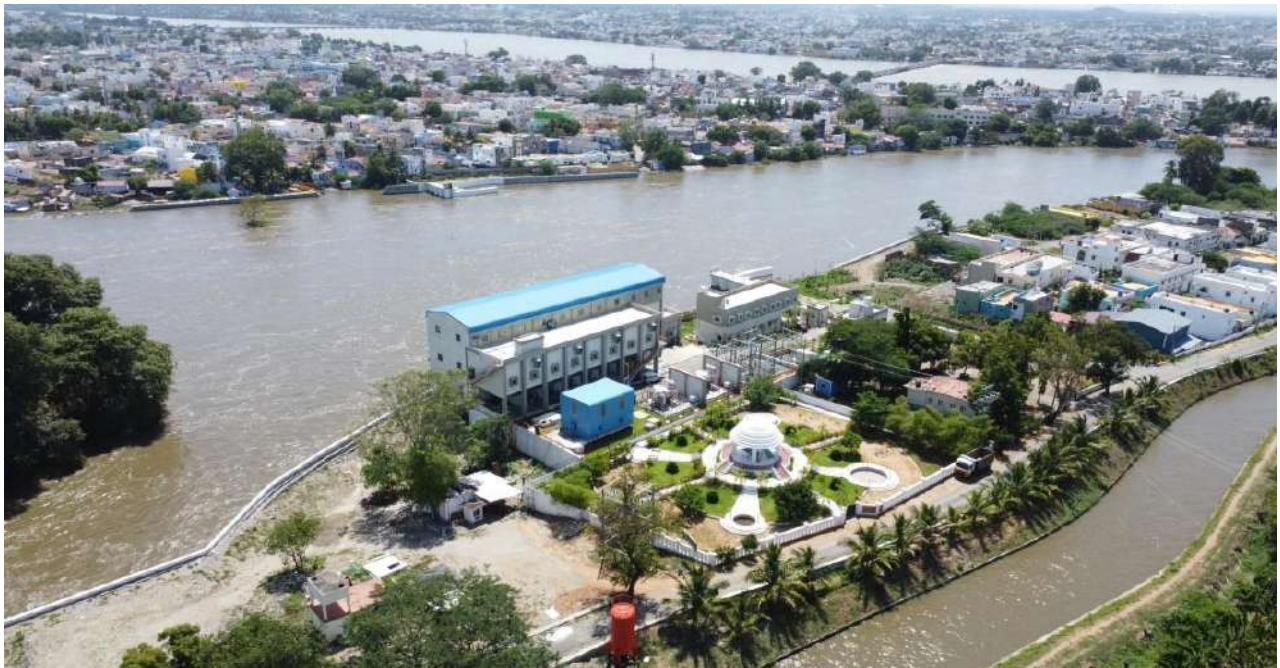


Thiruvallur and Chennai District- Restoration and Reformation of River Bund and regradation of River Bed in Kosasthalaiyar River - Estimate Amount Rs. 15.00 crore - State Fund

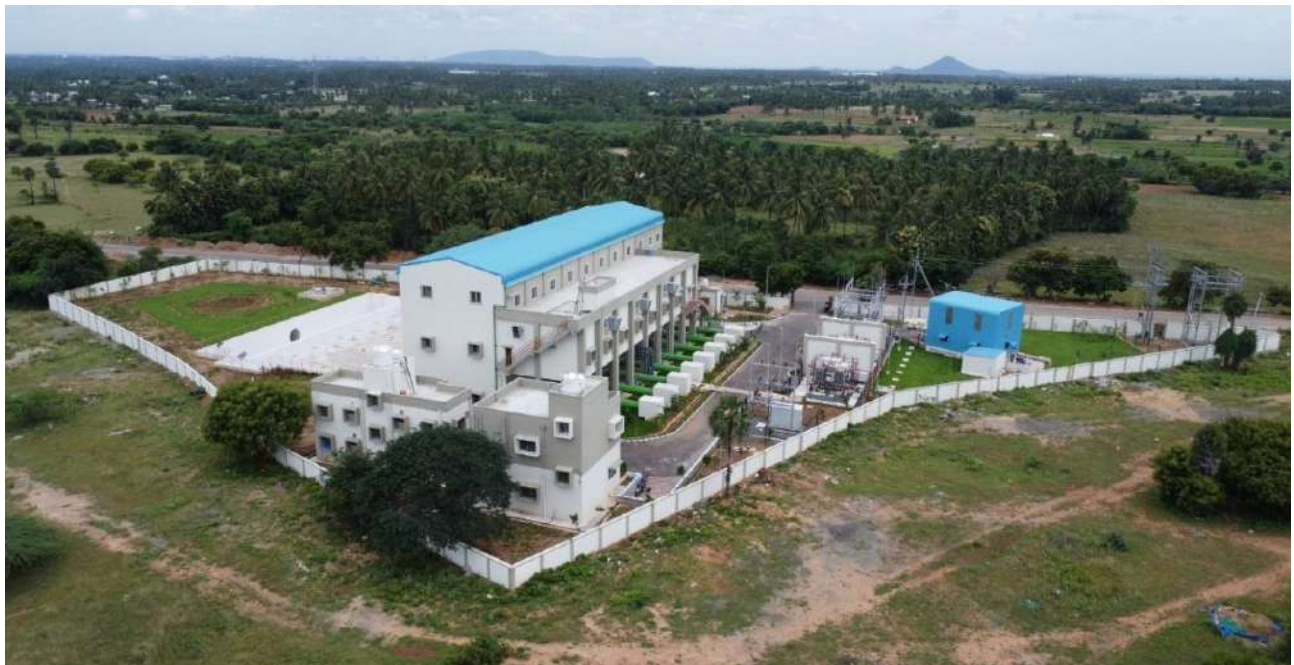


Chennai District- Restoration of bank and deepening of existing tank bed and improvements to its surplus course of Kolathur Tank - Estimate Amount Rs. 7.30 crore - State Fund

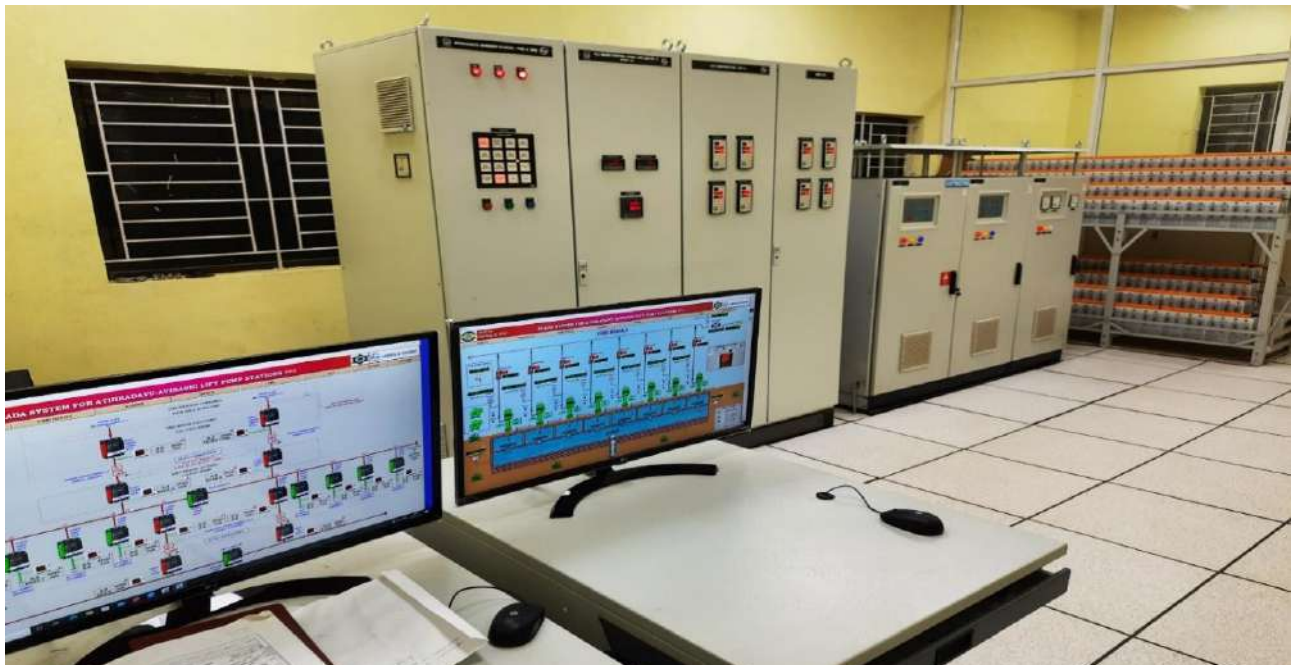
Villupuram District - Construction of Artificial Recharging Structure Across Nallavur River Near Kiliyanur Village in Vanur Taluk -Estimate Amount Rs. 3.91 crore - NABARD Fund



Erode District – Bhavani Taluk, Athikadavu Avinashi Pumping Scheme Pumping Station I at Bhavani– Estimate Amount Rs.1756.88 Crore – State Fund.

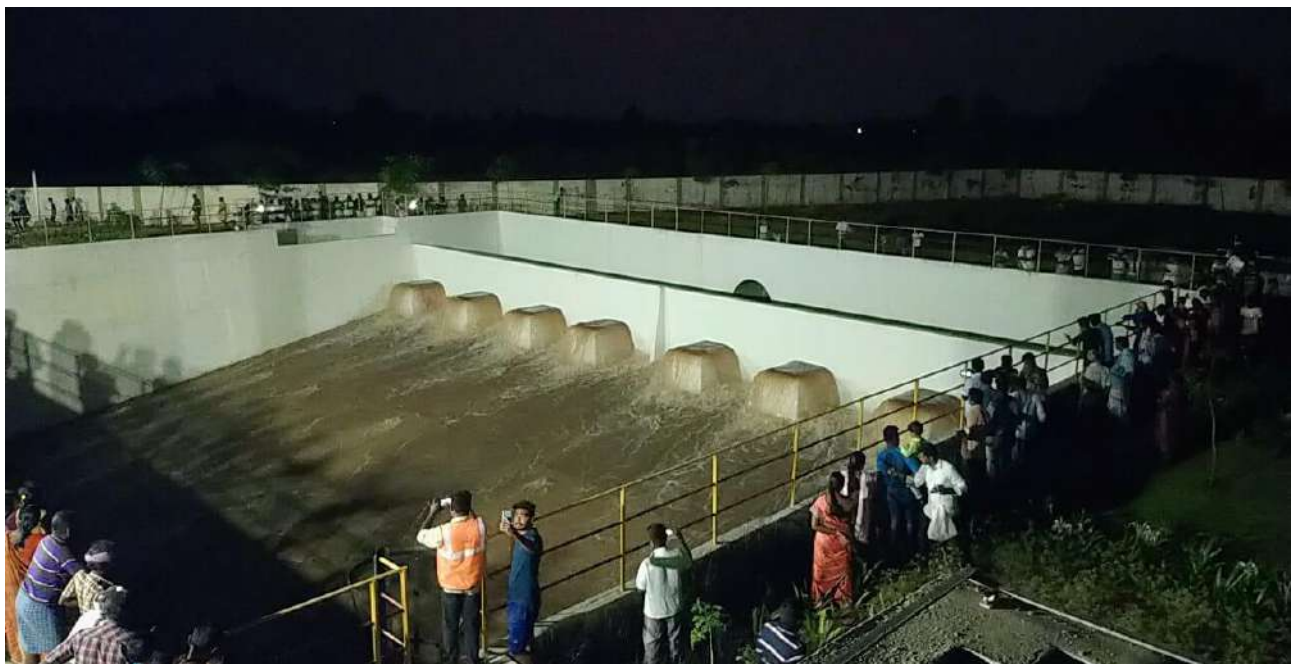


Erode District – Perundurai Taluk – Athikadavu Avinashi Pumping Scheme, Pumping Station IV – Polanaickenpalayam Village – Estimate Amount Rs.1756.88 Crore – State Fund



Erode District – Bhavani Taluk, Athikadavu Avinashi Pumping Scheme, Automated Control Room (SCADA) at Bhavani– Estimate Amount Rs.1756.88 Crore – State Fund

Athikadavu Avinashi Pumping Scheme – Test run from Pumping Station II, NallagoundenPalayam to Pumping Station III, Tiruvachi – Date 26.02.2023



Athikadavu Avinashi Pumping Scheme – Test run from Pumping Station III, Tiruvachi to Pumping Station IV, Polanaickenpalayam– Date 04.03.2023

Coimbatore District - Anaimalai Taluk, Rehabilitation of Pollachi Canal without lining of canal and bed from LS 0/000 Km to 20/000 Km and its distributaries - Estimate Rs.4.09 Crore - NABARD Fund

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