



ENVIRONMENT, CLIMATE CHANGE AND FORESTS DEPARTMENT

ENVIRONMENT AND CLIMATE CHANGE

**POLICY NOTE
2026 – 2027**

DEMAND No. 15

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Change**

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Government of Tamil Nadu
2026

**DEPARTMENT OF ENVIRONMENT AND
CLIMATE CHANGE**

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TAMILNADU POLLUTION CONTROL BOARD

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DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE

*"இருபுனலும் வாப்பந்த மலையும் வருபுனலும்
வல்லரணும் நாட்டிற்கு உறுப்பு."*

திருக்குறள் – 737

ஊற்றும், மலையும் ஆகிய இருவகை நீர்வளமும், தக்கவாறு அமைந்த மலையும், அந்த மலையிலிருந்து ஆறாக வரும் நீர்வளமும், வலிய அரணும் நாட்டிற்கு உறுப்புகளாகும்.

1. Introduction

The Department of Environment and Climate Change was established in the year 1995 with the objective of promoting environmental conservation, ecological sustainability and climate resilience in Tamil Nadu. Over the years, climate change has emerged as one of the most pressing global challenges, affecting natural ecosystems,

water resources, agriculture, biodiversity, public health, and livelihoods. As one of the most industrialized states in India and endowed with a coastline of 1,068.69 km, Tamil Nadu is particularly vulnerable to the impacts of climate change, including extreme weather events, sea-level rise, biodiversity loss, and environmental degradation.

Recognising the need for a comprehensive and future-oriented approach, the Government of Tamil Nadu has adopted a series of pioneering initiatives to promote sustainable development, ecological restoration and climate resilience. The State, therefore has emerged as a national leader in climate action and environmental governance.

The Department serves as the nodal agency for formulating and implementing policies, programmes and initiatives relating to environmental protection, climate change mitigation and adaptation, biodiversity

conservation, sustainable resource management, and environmental awareness. Through mission-mode implementation and convergence among Government Departments, local bodies, academic institutions, civil society organisations, and local communities, Tamil Nadu is advancing towards a greener, climate-resilient and carbon-neutral future.

2. Vision, Mission and Objectives

2.1. Vision

To transform Tamil Nadu into a globally recognized model of environmental sustainability, sustainable development and climate resilient economy by conserving natural ecosystems, enhancing biodiversity, increasing green cover, promoting sustainable resource management, and ensuring a healthy, secure and prosperous future for present and future generations.

2.2. Mission

To protect and enhance the environment of Tamil Nadu through integrated climate change mitigation and adaptation measures, large-scale ecological restoration, conservation of forests, wetlands, water bodies and coastal ecosystems, promotion of carbon sequestration and sustainable livelihoods and implementation of innovative, science-based and community-driven initiatives that strengthen climate resilience and support sustainable development.

The Department shall work towards promoting nature-based solutions, facilitating carbon-neutral development pathways, strengthening the present environmental governance and fostering environmental awareness among all sections of society through mission-mode implementation and inter-departmental convergence.

2.3. Objectives

1. To formulate and implement comprehensive policies, strategies and action plans for environmental protection, climate change mitigation, adaptation and sustainable development in alignment with national and international commitments.
2. To strengthen climate resilience across sectors through science-based planning, climate-risk assessments and climate-resilient infrastructure development.
3. To prepare and implement the Climate Resilient Tamil Nadu Master Plan 2045 for achieving long-term environmental sustainability and climate resilience.
4. To promote nature-based solutions and ecosystem-based adaptation measures

for addressing climate change impacts and enhancing environmental security.

5. To facilitate carbon sequestration, carbon market participation and carbon credit opportunities for farmers, local communities and other stakeholders.
6. To strengthen conservation and restoration of biodiversity and ecological services through integrated landscape and ecosystem management approaches.
7. To promote sustainable and efficient use of natural resources, including land, water, forests, and energy resources, through environmentally responsible practices.
8. To develop science-based and community-centric coastal protection and restoration measures to enhance

the resilience of Tamil Nadu's coastline against climate change and coastal hazards.

9. To promote renewable energy adoption, green mobility, energy efficiency, green buildings, and low-carbon development pathways to reduce greenhouse gas emissions.
10. To strengthen environmental governance through mission-mode implementation, inter-departmental convergence and stakeholder participation.
11. To enhance environmental awareness, climate literacy and capacity building among students, youth, local communities, institutions, and other stakeholders.

12. To encourage research, innovation and collaboration with academic institutions, research organizations and development partners for advancing climate science and environmental management.
13. To support creation of sustainable livelihood opportunities for vulnerable communities and community-based environmental stewardship through participatory conservation and restoration initiatives.
14. To establish robust environmental monitoring, climate information and decision-support systems for evidence-based policy making and adaptive management.
15. To enhance the State's adaptive capacity and resilience to climate

change by strengthening climate risk management, promoting evidence-based adaptation measures and building resilient communities, ecosystems and infrastructure.

16. To promote heat mitigation and climate-resilient urban and rural development through nature-based solutions, sustainable planning, and measures to reduce heat stress and safeguard public health.
17. To promote a clean, green, climate-resilient and carbon-neutral Tamil Nadu for the benefit of present and future generations.

2.4. Functions of the Department

- Formulating policies relating to environmental issues for the Government of Tamil Nadu.

- Creating a framework to bring synergy among the line Departments of the State, thereby facilitating the evolution of policy initiatives.
- Integrating knowledge and best practices of National and International agencies through collaboration and partnership.
- Developing a framework for capacity building and awareness programmes for various stakeholders, including Line Departments, Institutions / Universities, Schools, Researchers, Experts, Non-Governmental Organisations (NGOs), Eco-clubs, and Environment Education Programme (EEP), on Climate Change Adaptation and Mitigation.

- Implementing the statutory provisions of the Coastal Regulation Zone (CRZ) Notification and the Environment Impact Assessment (EIA) Notification.

The Department handles all environmental protection and management efforts, except those managed by the Tamil Nadu Pollution Control Board. It is the nodal agency for formulating climate change-related schemes, plans, and programmes and implementing them in the State. The Department is also the nodal agency for creating environmental protection awareness through its vast network of Environment Education Programme (EEP) and Eco-clubs in schools and colleges.

3. Constitutional and Statutory Provisions for Environmental Safeguards

A sustainable economy is built on the principle of integrating economic growth, environmental

conservation, and social inclusion into the development process. It seeks to meet the aspirations of the present generation without compromising the ability of future generations to meet their own needs, while promoting equity, climate justice, and resilience through people-centered development.

The Indian Constitution is one of the first in the World to recognize the importance of environmental conservation.

The 42nd constitutional Amendment introduced Article 48 (A), which, as part of the Directive Principles of State Policy, directs, "The State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country."

Article 51 A (g), part of the Fundamental Duties, states, "It shall be the duty of every citizen of India to protect and improve the natural

environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures”

As the Constitution provides the framework for creating a welfare State, the country's finite natural resources must be optimally utilized without adversely affecting the health of the people or the environment.

This is the essence of sustainable development. Conservation-oriented development choices need to be made to avert pressure on Natural resources and life-support systems.

- **The Environmental Protection Act (EPA), 1986** was enforced in 1986 to protect and improve the environment and its related matters.
- **Environment Impact Assessment (EIA) Notification** was enacted in 2006 by the Government of India to

impose certain restrictions and prohibitions on new projects or activities or the expansion or modernization of existing projects or activities, based on their potential environmental impacts undertaken in any part of India.

- **Coastal Regulation Zone (CRZ) Notification** ensures conservation and protection of coastal stretches and livelihood security for fishermen and local communities living in coastal areas. The first CRZ notification was issued by the Ministry of Environment, Forests and Climate Change, Government of India, in 1991 under the Environmental (Protection) Act, 1986.

- Subsequently, CRZ notifications were issued in 2011 and 2019 to promote development in a sustainable manner based on scientific principles, considering natural hazards and sea level rise.

4. Key Missions of the Department

4.1. Tamil Nadu Green Climate Company (TNGCC)

The Tamil Nadu Green Climate Company (TNGCC) is a Special Purpose Vehicle (SPV) constituted by the Government of Tamil Nadu to spearhead the State's climate action and sustainability initiatives. As the nodal agency, it coordinates the implementation of Tamil Nadu's four flagship missions, promotes convergence across government departments and partner institutions and drives policies and programmes that foster environmental sustainability and climate resilience.

Recognizing the need for a coordinated response to climate change, the Government of Tamil Nadu is steering four core missions *viz.*,

- A. Green Tamil Nadu Mission (GTM)
- B. Tamil Nadu Wetlands Mission (TNWM)
- C. Tamil Nadu Coastal Restoration Mission (TN-SHORE)
- D. Tamil Nadu Climate Change Mission (TNCCM)

To enable efficient implementation of the four missions, a structured institutional and monitoring framework has been established.

A centralized tracker, integrated with dashboards, has been developed to monitor progress, assess performance and support timely interventions.

A. Green Tamil Nadu Mission

The Green Tamil Nadu Mission (GTM) is an initiative aimed at increasing the State's green cover to 33% through large-scale afforestation, ecological restoration, and sustainable landscape management. The Mission focuses on restoring degraded forests, barren lands, urban and rural public spaces, while promoting native species and ecologically appropriate plantations to enhance biodiversity, strengthen carbon sinks, improve public health, and support local livelihoods.

The Mission adopts a collaborative and technology-driven approach and promotes diverse plantation models, including agroforestry, Miyawaki urban forests, roadside avenues and institutional plantations, to maximize ecological benefits while enhancing biodiversity, carbon sequestration and landscape resilience.

B. Tamil Nadu Wetlands Mission

The Tamil Nadu Wetlands Mission (TNWM) is dedicated to the protection, restoration, and sustainable management of wetlands through scientific planning, policy innovation, and community participation. It focuses on mapping and categorizing wetlands across Tamil Nadu, preventing encroachment and pollution, restoring degraded wetlands, and preparing Integrated Wetland Management Plans (IWMPs) to safeguard ecological integrity. By enhancing groundwater recharge, conserving biodiversity, strengthening climate resilience, and promoting community stewardship through awareness and capacity-building initiatives, TNWM is ensuring the long-term conservation and sustainable use of the State's invaluable wetland ecosystems.

C. Tamil Nadu Coastal Restoration Mission (TN SHORE)

The Tamil Nadu Sustainably Harnessing Ocean Resources and Blue Economy (TN SHORE) is a World Bank assisted project, aimed to enhance coastal resilience and promote the sustainable management of coastal resources through an integrated blue economy approach. The project focuses on five key thematic areas: Enhancing Coastal Biodiversity, Coastal Protection, Improving Livelihoods, Pollution Abatement, and Project Management to strengthen ecosystems, improve livelihoods, and build climate resilience.

D. Tamil Nadu Climate Change Mission

Climate change has emerged as one of the greatest challenges confronting humanity in the twenty-first century. Scientific evidence from the Intergovernmental Panel on Climate Change (IPCC) and other leading institutions confirms that global temperatures are rising at an unprecedented

rate and the consequences are already visible in the form of extreme weather events, rising sea levels, biodiversity loss, water scarcity, food insecurity, public health risks, and economic disruptions.

Tamil Nadu, owing to its geographical location, long coastline, dependence on climate-sensitive sectors and rapidly growing urban centres, is particularly vulnerable to the impacts of climate change. The State has witnessed recurring floods, cyclones, droughts, heatwaves, coastal erosion, and ecological degradation over the past decade, causing significant losses to lives, livelihoods, infrastructure and the economy.

The Tamil Nadu Climate Change Mission aims to address this challenge by focusing on climate change adaptation and mitigation activities to build a sustainable and climate-resilient future for its citizens.

The objective of the mission is to adopt integrated, evidence-based planning to maximize co-benefits across climate mitigation, adaptation and sustainable development. Tamil Nadu will leverage the expertise of its academic and research institutions for policy making and implementation. It seeks to enhance sectoral understanding of climate impacts and foster coordinated responses, including emission reduction, resource mobilization, and improved resilience through sustainable infrastructure.

The Director, Department of Environment and Climate Change, heads the Tamil Nadu Climate Change Mission as Chief Mission Director, overseeing and coordinating the climate change issues in the State.

District Climate Change Mission

The District Climate Change Missions (DCCMs) have been established in all 38 districts to

strengthen grassroots climate action and integrate climate change adaptation and mitigation into district-level development planning.

The District Collector serves as the Mission Director in all districts, except Chennai, where the Commissioner, Greater Chennai Corporation, is the Mission Director, while the District Forest Officer functions as the District Climate Officer.

DCCMs focus on strengthening institutional capacity, establishing monitoring mechanisms for climate action, and facilitating the implementation of the climate initiatives of the Tamil Nadu Climate Change Mission (TNCCM) at the district level. In support of these objectives, the Department of Environment and Climate Change conducted District Stakeholder Workshops in all 38 districts to enhance climate awareness among line department officials and promote the integration of climate adaptation and mitigation into departmental planning.

The Tamil Nadu Climate Change Mission's key initiatives are implemented through the District Climate Change Missions (DCCMs), ensuring decentralized, district-specific climate action through stakeholder convergence and coordinated implementation.

4.2. Rehabilitation of Coastal Habitats for Climate Change Adaptation through Nature-based Solutions

This scheme is being implemented with the aim of enhancing coastal ecosystems and resilience to address the impacts of climate change through eco-friendly nature-based solutions. Under this scheme, mangrove, casuarina and cashew saplings have been planted across a total area of 355 hectares in the coastal districts of Tamil Nadu using the modified fishbone method and degraded mangrove forests have been restored across approximately 700 hectares. Subsequently, casuarina saplings have been

planted in 190 hectares, and palm saplings in 120 hectares.

4.3. Climate Resilient Villages

While being one of the most urbanised states in the country, almost half of Tamil Nadu still resides in rural areas where agriculture fishing and allied activities provide livelihood for the local communities which are vulnerable to climate adversities. This project aims to enhance the resilience of local communities to climate impacts while promoting sustainable development and offers various line departments and district administration an opportunity to deploy innovative strategies to manage local climate risks, both direct and indirect. It also envisions the creation of new institutional structures that can help facilitate rapid information flow, aided with timely weather and climate advisories, and enhance the uptake of climate-smart technologies designed to suit local needs.

The project is proposed to be implemented in 11 villages in Tamil Nadu viz., Pichavaram, Kodyakkarai, Muthupet, Hogenakkal, Yercaud, Kodaikanal, Ooty, Courtalam, Tiruchendur, Rameswaram, and Kovalam.

Among which, Killai village, in Pichavaram, Cuddalore district, was the first village where key interventions such as renewable energy, waterbody conservation, mangrove plantation and livelihood development of the local communities through green jobs were taken up to promote environmental sustainability and strengthen community resilience.

4.4. Chief Minister's Green Fellowship Programme

The Chief Minister's Green Fellowship Programme (CMGFP) is a first-of-its-kind initiative in India designed to engage youth in climate action. Recognising Tamil Nadu's climate vulnerability and its commitment to building resilience and achieving carbon neutrality ahead of national targets, the

programme identifies, nurtures, and mentors passionate young individuals on environmental and climate issues. CMGFP aims to create a cadre of capable and committed young leaders to advance sustainable development and contribute to a climate-resilient Tamil Nadu.

The Government accorded administrative sanction for the programme, in collaboration with the Institute for Energy Studies, Anna University, as the Knowledge Partner. Accordingly, 40 Green Fellows were selected, trained, and subsequently deployed across all districts of Tamil Nadu to support District Administrations in implementing climate adaptation and mitigation measures. A new batch of 38 Green Fellows was selected through a competitive process from over 9,000 applications and trained by the Institute for Energy Studies, Anna University. The Fellows have been placed in districts and are working closely with District Collectors and District Forest Officers coordinating

the activities of District Climate Change Mission. They also undergo structured capacity-building programmes and are offered an exclusive Post Graduate Diploma in Climate Change and Sustainability to strengthen their technical expertise and leadership skills.

The programme has significantly supported in conducting awareness programs across the districts and sensitizing various stakeholders through campaigns for various activities and objectives of the Tamil Nadu Climate Change Mission (TNCCM).

4.5. Climate Literacy and Climate Education Initiative

Tamil Nadu Climate Change Mission has taken steps to create awareness of climate change impacts by educating students and youth on climate science. It also focuses on adaptation and mitigation activities, identifying best practices and practical solutions to climate change through

media and digital communication platforms. Students are engaged in climate change awareness campaigns, group discussions, digital poster making, street plays, skits, podcasts, public campaigns etc.

The following activities are carried out under the Climate Literacy component:

- Climate fun and learning sessions with game kits were designed for school children and were distributed to 500 Government Schools of Tamil Nadu.
- Climate Literacy Modules for School Children have been developed.
- An extensive activity calendar aimed at engaging around 58,000 schools across the State was prepared which serves as a structured framework to promote awareness and action on environmental sustainability among students through

a series of dedicated activities, themed observances, and pledges.

- Summer and Winter Nature Camps were conducted across all districts of Tamil Nadu to create awareness on ecology and environmental conservation with the participation of around 13,000 Government school students.
- The climate literacy campaign has been conducted in 21 educational institutions across Tamil Nadu with around 3000 college students from various institutions participating in the event.
- Residential training programs on climate change for 4,000 selected teachers is proposed to be conducted. As the first phase of this initiative,

one training camp was successfully organized at Yercaud, Salem.

4.6. Green Schools Scheme

Since climate change is a reality, it is essential for the younger generation and children to be prepared to accept it and mitigate its effects. Therefore, the Green School Initiative was launched to create awareness among students and develop climate-resilient school infrastructure.

So far, 297 schools have been covered under this scheme. An amount of Rs.59.40 crore has been provided to undertake various greening activities in these schools, such as energy conservation replacing conventional energy with solar for lighting and water pumps, rainwater harvesting, composting, creating vegetable and herbal gardens and planting fruit trees, water management, wastewater recycling, and establishing a plastic-free environment.

A Green School Committee has been formed in every district, headed by the District Collector, to ensure the successful implementation of this scheme.

4.7. Carbon Neutral Hubs

Four districts have been identified to be transformed into Carbon Neutral Hubs viz., The Nilgiris, Coimbatore, Virudhunagar and Ramanathapuram. Decarbonization Action Plans have been prepared for the four districts in consultation with various stakeholders in these districts. Furthermore, a Web tracker for Monitoring Tamil Nadu's Climate Actions has been developed.

4.8. Lifestyle for Climate

This initiative, aims to strengthen the State's resilience to climate change while promoting environmental sustainability and ecological conservation. Its primary objective is to establish

a comprehensive Green Building Certification Programme for existing buildings by assessing and recognising the adoption of sustainable practices and resource-efficient measures. To facilitate this, a dedicated digital platform has been developed to evaluate, rate, and certify buildings based on predefined sustainability criteria. The certification will serve as a credible recognition for private stakeholders contributing to Tamil Nadu's transition towards a greener, climate-resilient, and more sustainable future.

4.9. Retrofitting of Government Buildings

Retrofitting Government buildings improves energy efficiency, reduces greenhouse gas emissions, and enhances climate resilience by promoting thermal comfort, lowering heat stress and ensuring sustainable public infrastructure. Detailed Project Reports have been prepared for integrating climate resilience and sustainable

measures to reduce the carbon footprints of Stanley Medical College, Chennai and Rajiv Gandhi Medical College, Chennai.

4.10. Sustain TN

Tamil Nadu, like many other regions, is experiencing the effects of climate change, including rising temperatures, changing precipitation patterns, and increased frequency of extreme weather events. To address these challenges, the Department of Environment and Climate Change under Tamil Nadu Climate Change Mission has launched Sustain TN initiative, which aims to catalyse a wave of eco-innovations that is contributing to a more sustainable and Climate resilient future for Tamil Nadu and beyond.

Sustain TN seeks to engage students, individuals, teams, and start-ups in developing innovative solutions to address key environmental and climate change challenges faced by the state.

This initiative aims to harness the power of innovation and entrepreneurship to develop sustainable solutions aligned with Sustainable Development Goals (SDGs).

Accordingly, in collaboration with the Indian Institute Technology, Madras (IITM) as a knowledge partner, 10 potential startups with diverse backgrounds such as circular economy, renewable energy, agriculture, waste management etc., were identified through a rigorous selection process and were trained to develop their prototype, identify market opportunities and scale up their business and provided with a seed grant of Rs. 10.00 lakh.

4.11. Green Indexing

Green Indexing is a comprehensive indicator-based framework to systematically assess and rank the performance of all districts of Tamil Nadu on climate and environmental action.

To operationalize this initiative, an online dashboard will be established as the official platform to host the framework thereby establishing a robust, data-driven basis for competitive improvement, peer learning, and calibrated state support.

The creation and implementation of the Green Climate Index (GCI) framework will establish a quantitative baseline across all 38 districts of Tamil Nadu, evaluating them across 30 indicators and 7 green categories. Based on their Green Climate Index scores, the 38 districts of Tamil Nadu are categorized into three performance tiers: Aspirers (scores from 0 to 40), Learners (40 to 60), and Leaders (60 to 100). AI tools such as, Proposal Generator and Conversational Query Interface are added with the online dashboard.

4.12. Centre for Heat Resilience

The Government of Tamil Nadu has announced Heat as a disaster and is taking necessary efforts to mitigate the Urban Heat Island effect through various initiatives of the Government Departments. Accordingly, the Centre for Heat Resilience at the Tamil Nadu Green Climate Company (TNGCC) has been established as a dedicated platform to design and implement heat mitigation and passive cooling strategies across the state, with a special focus on vulnerable communities and public institutions.

The centre functions as the State's nodal institution for coordinated heat-risk management and passive cooling interventions, under a Memorandum of Understanding with the United Nations Environment Programme (UNEP) and allied partners. As part of this collaboration, the Centre has developed and notified Standard Operating Procedure (SOP) for cool roof coating application,

which is being used to guide implementation of cool roofs in public buildings and schools. Meanwhile, the cool roof initiative was proposed to be implemented in the Government Schools to enhance the thermal comfort and cognitive performance of the students.

Subsequently, Perunthalaivar Kamarajar Government Girls Higher Secondary School, Ambattur was taken as a pilot for cool roofing. The results ensure the reduction in temperature from 1.5°C to 3°C enhancing the thermal comfort of the students. It is proposed to scale up this initiative to other Government Schools and Government buildings of Tamil Nadu over a period of five years.

Tamil Nadu Green Climate Company has identified and submitted 15 low-embodied-energy passive cooling building materials to the Public Works Department for inclusion in the Schedule of Rates, thereby, facilitating mainstream

adoption of climate-responsive materials in Government construction. Passive cooling guidelines, structured according to Tamil Nadu's climate sub-classifications, have also been prepared under the Centre's leadership and formally approved by the Government, providing a state-endorsed technical framework for integrating heat resilience into future building and infrastructure projects.

5. Coastal Zone Management

Tamil Nadu possesses an extensive coastline, accounting for approximately 15 percent of India's total coastline. The State is endowed with a rich diversity of coastal and marine ecosystems, including mangroves, coral reefs, seaweeds, seagrass beds, salt marshes, mudflats, and sand dunes, which provide invaluable ecological, economic, and social benefits.

The conservation and sustainable management of these coastal and marine resources require an integrated and multidisciplinary approach that strengthens scientific, technical, and institutional capacities in areas such as coastal processes, shoreline management, coastal hazards, vulnerability assessment, and ecosystem-based management.

This Department is committed to achieve Sustainable Development Goal (SDG) 14 – Life Below Water, which emphasizes the protection and sustainable management of marine and coastal ecosystems.

5.1. Geographic Information System (GIS)

The GIS Cell of the Department of Environment and Climate Change is functioning from 2011 under the World Bank-funded Emergency Tsunami Reconstruction Project (ETRP).

Under the Coastal Regulation Zone (CRZ) Notification, 2011 and 2019, the GIS Cell has supported the preparation and implementation of the Coastal Zone Management Plan (CZMP) and Local Level Coastal Zone Management Plan (LLCZMP) through the National Centre for Sustainable Coastal Management (NCSCM) and the Institute of Remote Sensing (IRS).

The GIS Cell provides technical and GIS-based support to the Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) in implementing CRZ Notifications issued by the Ministry of Environment, Forest and Climate Change, Government of India. Its functions include pre-scrutinization of CRZ area, classification of CRZ clearance proposals, maintenance of the TNSCZMA website, implementation of coastal management plans, organizing awareness programmes, and technical support for Blue Flag Beach development. The Cell also supports

the monitoring of CRZ violations by assisting the Green Squad in identifying, surveying, and mapping violation sites, provides technical inputs for coastal regulation litigations, and coordinates with Government Departments and agencies on geospatial and technical aspects of coastal management.

5.2. Coastal Zone Management Plan (CZMP)

The CRZ Notification, 2011, was issued vide S.O. 19(E), dated 06.01.2011, by the Ministry of Environment, Forest and Climate Change, Government of India, under the provisions of the Environment (Protection) Act, 1986, with the objective of conserving and protecting coastal stretches while promoting sustainable development in coastal areas.

Under the CRZ Notification, 2011, coastal areas have been classified into the following five categories:

- CRZ-I (Ecologically sensitive and Intertidal Zone)
- CRZ-II (Developed area)
- CRZ-III (Development restriction and Rural area)
- CRZ-IV (Water area which includes the water areas upto 12 Nautical miles (Nm) of the territorial waters and the tide- influenced water bodies)
- CRZ-V (Areas requiring special consideration for protecting the critical coastal environment)

Preparation of the CZMP in accordance with the provisions of the CRZ Notification is mandatory for every coastal State.

In compliance with the provisions of CRZ Notification, 2011, the Department of Environment and Climate Change had entrusted the preparation of draft CZMP for all the coastal districts of Tamil Nadu to the National Centre for

Sustainable Coastal Management (NCSCM), Chennai, an agency authorized by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India.

The MoEF&CC, Government of India conveyed its approval for the CZMP of Tamil Nadu on 24.10.2018. The approved CZMP, comprising 117 maps, has been uploaded to the website of the TNSCZMA. Copies of the said approved CZMP have also been forwarded to all District Coastal Zone Management Authorities (DCZMAs) and stakeholder Departments for implementation and necessary action.

Subsequently, the MoEF&CC, Government of India issued the Coastal Regulation Zone (CRZ) Notification, 2019, in supersession of CRZ Notification, 2011, and directed all coastal States and Union Territories to prepare the CZMP in accordance with the provisions and guidelines of the CRZ Notification, 2019. Accordingly, for the

State of Tamil Nadu, the National Centre for Sustainable Coastal Management (NCSCM) has been entrusted with the preparation of the CZMP maps at a scale of 1:25000 in conformity with the provisions of the CRZ Notification, 2019.

5.3. Preparation of Local Level Coastal Zone Management Plan

The Government of Tamil Nadu, Department of Revenue and Disaster Management funded for preparation of Local-Level Coastal Zone Management Plan maps at a scale of 1:4000 under the Coastal Disaster Risk Reduction Project (CDRRP). The work has been completed through the Institute of Remote Sensing (IRS), Anna University and the same has been circulated to the coastal District Collectors, District Environment Engineers, line Departments, local bodies, and other stakeholder agencies for effective implementation of the Coastal Zone Management Plan.

5.4. Enforcement of Coastal Regulation Zone (CRZ) Notification

The CRZ regulations aim to conserve and protect coastal stretches, their unique ecosystems, and marine environments while promoting sustainable development based on scientific principles. They also seek to safeguard the livelihoods of fishing and other coastal communities. In Tamil Nadu, these regulations are implemented through the State and District Coastal Zone Management Authorities.

5.5. Tamil Nadu State Coastal Zone Management Authority (TNSCZMA)

To regulate development and construction activities and to check the violations in CRZ areas, the Ministry of Environment, Forest and Climate Change, Government of India has constituted Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) at the State level with the Additional Chief Secretary / Principal Secretary,

Environment, Climate Change and Forests Department, Government of Tamil Nadu as the Chairperson and the Director, Department of Environment and Climate Change as its Member Secretary. The Authority comprises senior officials from various departments and technical experts and representatives from NGOs. It is a State-level recommending body, recommending the proposal to MoEF&CC / SEIAA / local authorities based on the nature of the project for CRZ clearance.

5.6. District Coastal Zone Management Authority (DCZMA)

District Coastal Zone Management Authorities (DCZMAs), under the Chairmanship of the respective District Collectors, have been constituted in all the 14 coastal districts of Tamil Nadu. The DCZMAs convene periodic meetings to examine development proposals in Coastal Regulation Zone (CRZ) areas, ensure compliance with the provisions of the CRZ

Notification and applicable environmental regulations, and recommend eligible proposals to the TNSCZMA for further consideration.

5.7. Initiatives in Coastal Regulation Zone

- A dedicated web portal for the TNSCZMA has been developed to enhance transparency in the implementation of the CRZ Notification. Separate login credentials have been provided to the Chairman, Member-Secretary, and Convener to facilitate the online processing, scrutiny, and movement of CRZ proposals.
- Fourteen Assistant posts have been created, one in each coastal district, to support the DCZMAs in the effective implementation and enforcement of the CRZ Notification.

- An online e-payment system has been introduced for the collection of scrutiny fees for CRZ clearance applications, replacing the conventional Demand Draft mode of payment.
- The TNSCZMA organized three workshops in Chennai, Cuddalore, and Pudukkottai for stakeholders from the coastal districts of Chennai, Chengalpattu, Tiruvallur, Cuddalore, Villupuram, Mayiladuthurai and Pudukkottai to strengthen awareness and facilitate the effective implementation of the CRZ Notification, 2019.

6. State Level Environment Impact Assessment Authority (SEIAA) – Tamil Nadu

Under the Environment Impact Assessment Notification 2006, obtaining prior Environmental Clearance for greenfield and brownfield projects

based on their potential environmental impact is mandatory. EIA notification categorized all the projects into two categories - Category 'A' and Category 'B'. Projects falling under Category 'A' in the Schedule of the Notification required Environmental Clearance from the Ministry of Environment, Forest and Climate Change, Government of India. For matters falling under Category 'B', depending upon the threshold of the activities, requires clearance of the State Level Environment Impact Assessment Authority (SEIAA). The notification provides for the constitution of SEIAA, which is empowered to grant environmental clearance to mitigate pollution and protect the environment.

The current 6th State Level Environment Impact Assessment Authority (SEIAA) was constituted through the Ministry of Environment, Forest and Climate Change, Government of India, Notification S.O. No. 1098 (E), dated March 6,

2025. Tamil Nadu has two State Expert Appraisal Committees (SEAC-I and SEAC-II) to assist the SEIAA, in the processing of the applications.

The Authority comprises Chairperson, Member Secretary, and Member for SEIAA, along with one Chairperson, one Member Secretary, and seven Members each for SEAC-I and SEAC-II in Tamil Nadu, serving a term of four years. The State Expert Appraisal Committee (SEAC) appraises projects and forwards its recommendations to the SEIAA to decide on granting Environmental Clearance by following the statutory provisions stipulated under Environmental Impact Assessment Notification, 2006 and subsequent amendments.

The Central Government, in exercise of its powers under the Environment (Protection) Act, 1986, has constituted the Standing Authority on Environment Impact Assessment (SAEIA) and Standing Committee on Environment Impact

Assessment (SCEIA) for each State and Union Territory. The above constituted body exercises the powers and functions prescribed for Category 'B' projects under the Environment Impact Assessment (EIA) Notification, 2006, and functions as the State SEIAA/SEAC whenever the SEIAA/SEAC is not constituted or is non-functional, or discharges any other responsibilities assigned by the Central Government for a period of up to six months, extendable by a further six months.

Initiatives in handling Environmental Clearance files

- To enhance transparency in the processing of Environmental Clearance files, the PARIVESH Portal is utilized for the evaluation of Environmental Clearance applications. The average time taken for issuing Environmental Clearance is 50 days, making

Tamil Nadu one of the leading States in India in providing clearances expeditiously.

- The Environmental Clearance (EC) process has been transitioned to a completely paperless system, thereby, contributing to environmental protection. The State Level Environment Impact Assessment Authority (SEIAA), Tamil Nadu, no longer accepts hard copies of applications. Following the implementation of the e-office system, all aspects of the internal Environmental Clearance process and related files are managed exclusively through the e-office system, thereby, transforming the process into a paperless operation.
- An online e-payment system has been implemented for the State Level Environment Impact Assessment

Authority (SEIAA), Tamil Nadu, through the website www.seiaa.tn.gov.in. This system is used for the payment of scrutiny fees for Environmental Clearance (EC) applications, replacing the previous method of collecting scrutiny fees through Demand Drafts, thereby, facilitating ease of doing business and reducing physical interactions.

- SEIAA, Tamil Nadu, has improved transparency through online file allotment and tracking systems.

7. Tamil Nadu Marine Resource Foundation (TN-MRF)

Tamil Nadu, with a coastline of 1,068.69 km, possesses ecologically significant marine and coastal ecosystems, including mangroves, coral reefs, seagrass meadows, mudflats, estuaries, and sandy beaches. These ecosystems provide critical

ecosystem services such as coastal protection, biodiversity conservation, carbon sequestration, and livelihood support for coastal communities. However, climate change, habitat degradation, pollution, and unsustainable resource use pose significant threats to their long-term health and resilience.

TN-MRF envisions ensuring the long-term ecological health, resilience, and productivity of Tamil Nadu's marine and coastal ecosystems while enhancing the climate resilience, livelihoods, and well-being of coastal communities. Its mission is to protect, restore, and sustainably manage marine and coastal ecosystems through conservation, scientific research, ecosystem restoration, sustainable livelihood promotion, and environmental awareness.

The Foundation facilitates programmes relating to strengthening scientific research, monitoring, and knowledge management; and

fosters collaboration with Government Departments, academic and research institutions, industries, and civil society organisations for the cause of marine ecosystem conservation. The Foundation also mobilises financial resources through Government schemes, Corporate Social Responsibility (CSR) initiatives, Corporate Environment Responsibility (CER) and externally aided projects to implement priority interventions. In addition, it promotes innovative Blue Economy initiatives, nature education, eco-tourism, and public awareness on marine and coastal conservation.

8. Environment Management Agency of Tamil Nadu (EMAT)

The Environment Management Agency of Tamil Nadu (EMAT) was established in 2002 as an autonomous agency to execute and monitor projects under the National River Cleaning Programme (NRCP) and the National Lake

Conservation Programme (NLCP) funded by the Ministry of Environment, Forest and Climate Change, Government of India.

Over the years, EMAT has evolved into a key institution for coordinating, funding, monitoring, and facilitating environmental and sustainable development initiatives across the State. It works in close collaboration with Government Departments, Urban Local Bodies, District Administrations, and other implementing agencies to ensure effective planning and implementation of environmental programmes, through Corporate Environment Responsibility contributions and other government schemes.

EMAT supports a wide range of initiatives, including restoration of water bodies, biodiversity conservation, climate resilience, eco-park development, environmental infrastructure, and environmental awareness programmes. These projects are implemented through the respective

line departments and local bodies to promote ecological restoration and sustainable environmental management, with the technical support of EMAT.

9. Climate Studio

The Department of Environment and Climate Change has established the Centre for Climate Change and Disaster Management (CCCDM) at Anna University, to strengthen climate research, modelling, and adaptation planning in the State. The Centre houses the Climate Studio, a state-of-the-art high-performance computing facility dedicated to climate modelling.

It aims to develop high-resolution, cadastral-level climate scenarios for Tamil Nadu, to assess climate change impacts and vulnerabilities across sectors such as agriculture, water resources, forests, biodiversity, and coastal ecosystems, and generate sector-specific spatial information using

advanced climate and impact assessment models. The Centre also serves as a platform for disseminating climate knowledge and scientific information to policymakers, researchers, non-governmental organizations, and communities.

The Climate Studio supports evidence-based planning by providing climate and vulnerability data to government departments and other stakeholders. It undertakes capacity-building and training programmes on climate impact assessment, develops climate projections, and strengthens scientific research capabilities in the field of climate science. In addition, the Centre also promotes collaboration and data sharing with national and international climate research institutions, while regularly updating climate databases and enhancing public access to climate information through web-based platforms. The Climate Studio acts as a data partner and

knowledge partner to the District Climate Change Missions (DCCMs) in implementation of the Climate Change Action Plan.

10. Blue Flag Certification for Beaches

The Blue Flag Beach Certification Programme is an internationally recognised eco-label awarded by the Foundation for Environmental Education (FEE), Denmark, to beaches that demonstrate excellence in environmental management, bathing water quality, environmental education, safety and visitor services. The certification is awarded based on compliance with 33 stringent criteria, making it one of the world's most prestigious environmental certifications for beaches.

The Department of Environment and Climate Change is the Nodal Department for implementation of the Blue Flag Beach Programme in Tamil Nadu. The Programme is implemented through the Greater Chennai Corporation (GCC)

and respective District Collectors in coordination with the implementing agencies, namely, the District Rural Development Agencies (DRDAs), Municipalities and other concerned local bodies.

Under Phase-I, beach development works have been completed and inaugurated at Marina Beach, Chennai, Silver Beach, Cuddalore, Kameshwaram Beach, Nagapattinam, and Ariyaman Beach, Ramanathapuram.

Under Phase-II, development works are under progress Samiyarpettai in Cuddalore District, Keezhpudhupattu in Villupuram District and Kulasekarapattinam in Thoothukudi District. Detailed Project Reports (DPRs) have been prepared for the development of beaches at Palavakkam, Thiruvanmiyur and Uthandi in Chennai District and further steps are being taken to initiate the development works.

The Blue Flag Beach Programme aims to improve coastal environmental quality, conserve coastal and marine ecosystems, ensure safe and clean bathing water, promote sustainable tourism, strengthen environmental awareness, enhance visitor amenities, generate livelihood opportunities for local communities and establish Tamil Nadu as a model for sustainable coastal management in accordance with international standards.

11. Environment Education Programme

The Ministry of Environment, Forest and Climate Change, Government of India, is implementing the Environment Education Programme (EEP) under the Environment Education, Awareness, Research and Skill Development (EEARSD) Scheme to strengthen environmental awareness and promote sustainable practices among students and communities. Around 9,500 schools in Tamil Nadu have registered Eco-clubs in the EEP portal,

reflecting the State's extensive participation in environmental education initiatives. The programme is being implemented across all 38 districts through Eco-clubs, with financial assistance provided to around 1,700 Eco-clubs, covering 45 schools in each district. (FY 2025-2026)

A wide range of experiential learning activities, including nature camps, biodiversity exposure visits, nature walks, bird watching programmes, intergenerational green dialogues, environmental awareness campaigns, competitions, tree plantation, waste management, recycling initiatives, and cleanliness drives, are organised to foster environmental stewardship among students.

Nature camps and exposure visits are conducted at ecologically significant locations such as wetlands, mangroves, forests, biodiversity parks, and bird sanctuaries, enabling students

to gain first-hand knowledge of ecosystems and biodiversity conservation. Intergenerational Green Dialogues facilitate interactions between students, environmental experts, forest officials, and traditional knowledge holders, promoting awareness on climate resilience, water conservation, sustainable livelihoods, and community-based conservation practices.

12. Conclusion

The Department of Environment and Climate Change, Government of Tamil Nadu, as a pioneer in environmental and climate action, has consistently demonstrated strong leadership and an unwavering commitment. Through the implementation of dedicated missions, innovative programs, capacity building, and grassroots engagement, the Department has laid a robust foundation for a climate-resilient, sustainable, and equitable future. The achievements outlined reflect the integrated efforts of Government bodies, local

communities, academic institutions and civil society, all working towards the shared vision of a greener and more sustainable Tamil Nadu. The Department reaffirms to conserve natural ecosystems, enhance climate literacy, support nature-based solutions, and empower districts and communities to become stewards of nature. With continued focus, collaboration, and innovation, Tamil Nadu is poised to set an example for other states and regions in building a resilient future for generations to come.

TAMIL NADU POLLUTION CONTROL BOARD

"மணிநீரும் மண்ணும் மலையும் அணிநிழற்

காடும் உடைய தரண்."

திருக்குறள் - 742

மணிபோல் தெளிந்த நீரும், வெட்ட வெளியான நிலமும், மலையும், அழகிய நிழல் உடைய காடும் ஆகிய இவை நான்கும் உடையதே அரண் ஆகும்.

1. Introduction

Our environment forms the basis of life on the earth, upon which human health, economic progress, and social well-being is closely linked to it. It includes the air we breathe, the water we use, the land we depend on, and the natural systems that sustain life and development. A clean and healthy environment is vital for improving quality of life, supporting sustainable growth, and preserving resources for future generations.

In recent decades, rapid industrial growth, urban expansion, rising resource consumption, and changing climatic conditions have placed exceptional pressure on environmental systems. Pollution, waste generation, depletion of natural resources, and climate change have become major concerns that require urgent and continuous attention. Addressing these issues demands a balanced approach that combines environmental protection with economic advancement and social development.

Environmental protection is therefore a core responsibility and an essential component of sustainable development. It involves a broad range of measures designed to prevent pollution, conserve natural resources, reduce the effects of climate change, promote efficient resource use, and ensure compliance with environmental laws. Through effective policy measures, regulatory action, technological improvements, and public

participation, environmental protection aims to build a cleaner, healthier, and more resilient future for all.

The Government of Tamil Nadu established the Tamil Nadu Pollution Control Board (TNPCB) in 1982 as a statutory body entrusted with implementing environmental laws and regulations in the State. The TNPCB functions under the administrative control of the Department of Environment, Climate Change, and Forest. The Board consists of a Chairman, a Member Secretary, 5 official members nominated by the Government, 5 representatives from local authorities, 3 non-official members representing agriculture, fisheries, industry, trade, or other relevant sectors, and 2 members from State-owned companies or corporations.

2. Functions of the Board

- The Board is responsible for preparing a comprehensive programme for the prevention, control, and abatement of water and air pollution.
- It also advises the State Government on matters relating to the prevention, control, or abatement of such pollution.
- In addition, the Board collects and disseminates information on water and air pollution and related preventive measures.
- It encourages, conducts, and participates in investigations and research on the causes and control of water pollution.
- The Board also inspects sewage and trade effluent treatment plants to assess their effectiveness and review

plans and specifications for corrective measures.

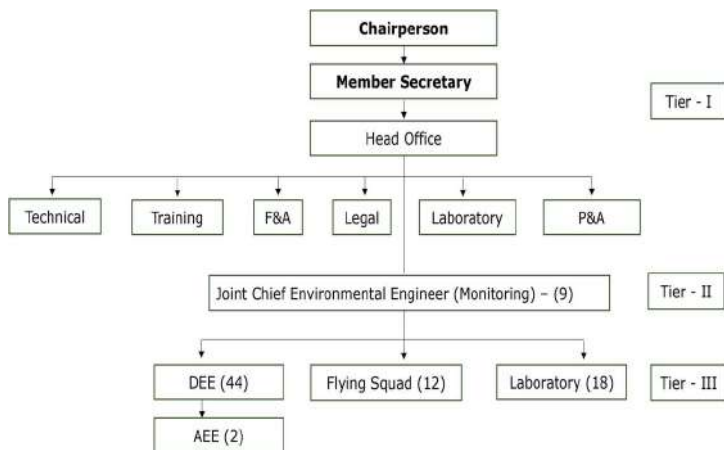
- It inspects industrial plants, manufacturing processes and issues directions for the prevention, control, or abatement of air pollution.
- It inspects air pollution control areas to assess ambient air quality and take appropriate action where required.
- Apart from these duties, the Board performs any other functions prescribed by the State Government or the Central Pollution Control Board.

3. Organizational Set-up

For efficient functioning, the Board follows a 3-tier structure comprising the Head Office in Chennai, 9 Zonal Offices, and 44 District

Environmental Engineer Offices. In addition, 12 Flying Squads headed by Environmental Engineers conduct surprise inspections and monitor the illegal transport and dumping of waste at inter-state borders.

The Board also has two Assistant Environmental Engineer offices located at Pallavaram and Mettur, both of which are important industrial hotspot areas. As part of its monitoring network, TNPCB has established 18 Environmental Laboratories across the State, including one at the Head Office, for the analysis of water and wastewater samples, air emissions, and for monitoring water sources and ambient air quality. The hierarchal structure of the board is given below:



4. Consent Mechanism

4.1. Industry Categorization

The CPCB, under the Revised Industrial Sector Classification Methodology - 2025 has classified industries to Red, Orange, Green, Blue and White categories based on their Pollution Index Score. The Blue Category covers Essential Environmental Services (EES) engaged in pollution control, waste management and environmental protection. It applies to eligible facilities that do not generate hazardous or infectious waste. The Pollution Index

and CTO requirements will continue as per the prescribed methodology, with an additional 2 years of CTO validity as an incentive.

For monitoring purposes, they are also grouped according to Pollution Index and Gross Fixed Assets (GFA) value.

Classification based on GFA	GFA (Rs in Crores)	Category based on Pollution Index			
		Red	Orange	Green	White
Large	> 10	Highly Polluting	Medium Polluting	Less Polluting	Least Polluting
Medium	5 - 10				
Small	≤ 5				
Pollution Index		≥ 80	55-79	25-54	< 25

Industries with higher GFA and higher pollution potential are placed in the appropriate category, while White category industries are considered least polluting and are exempted from obtaining consent from the Board. For White category units, intimation to TNPCB is sufficient.

The red, orange, and green categories fall within the consent mechanism and are subject to regulatory oversight. The details are given in Annexure – I.

4.2. Consent Conditions

TNPCB issues Consent to Establish (CTE) for setting up industrial activities, including the physical infrastructure and installation of machinery required for production, treatment systems for waste management, and associated monitoring devices. Consent to Operate (CTO) is granted only after ensuring compliance with the conditions prescribed under the CTE.

From 2021–2022 onward, CTO or Renewal of Consent (RCO) is issued in blocks with validity periods of 5 years for Red category industries, 10 years for Orange category industries, and 14 years for Green category industries, under the Ease of Doing Business initiative. The Board also

exempted Green category industries located in industrial use zones or industrial estates from obtaining CTE, allowing them to apply directly for CTO.

4.3. Online Consent System

TNPCB implemented the Online Consent Management and Monitoring System (OCMMS) on 19.01.2015. This system was introduced to streamline application processing, improve monitoring, and make consent management more efficient.

To ensure speedy disposal of applications, TNPCB has constituted several committees at different levels, including the Technical Sub-committee, Consent Clearance Committee, Zonal Level Consent Clearance Committee, and District Consent Clearance Committee. These committees examine applications based on the category and nature of the industry.

In addition to issuing CTE and CTO for industries, TNPCB also grants authorizations for the management of Hazardous and Other Wastes, Biomedical Wastes, and Solid Wastes.

4.4. Auto Renewal

The Board has also introduced an Auto Renewal system for Red-Small, Orange, and Green category industries. Under this system, consent is renewed without prior inspection on the basis of self-certification submitted by the industries, within 7 days.

The details of industries issued with CTE and CTO/RCO from 01.04.2025 to 31.03.2026 are given in Annexure – II.

5. Environmental Quality Monitoring for Water, Air, and Noise

Environmental quality monitoring and data analysis are essential for assessing environmental conditions and supporting policy formulation and

implementation. In accordance with the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, TNPCB monitors the quality of water, air, and noise across the State through various programmes and initiatives.

5.1. Integrated Environmental Monitoring Studio (IEMS)

The Integrated Environmental Monitoring Studio (IEMS), established at the Corporate Office of the Tamil Nadu Pollution Control Board (TNPCB), is India's first integrated environmental monitoring studio, created at a cost of Rs 1.5 crores. It serves as a centralized facility for real-time environmental monitoring and regulatory supervision across Tamil Nadu.

IEMS integrates data from Online Continuous Emission/Effluent Monitoring Systems (OCEMS), Continuous Ambient Air Quality Monitoring Stations (CAAQMS), River Water quality monitoring

systems, and several TNPCB applications into a high-resolution video wall for real-time observation and decision-making. The Studio continuously monitors emissions, effluent quality, ambient air quality, and the performance of Common Effluent Treatment Plants (CETPs), while generating automatic alerts to industries and TNPCB field officers whenever monitored parameters exceed the prescribed limits.

The Studio also integrates key TNPCB applications, including the Online Consent Management and Monitoring System (OCMMS), Grievance Redressal System, Legal Cases Management System, Laboratory Information Management System (LIMS), Hazardous Waste and Biomedical Waste Vehicle Tracking Systems, and Kurungadugal Monitoring Module. In addition, it provides real-time Air Quality Index (AQI) data, monitoring of consent applications, legal cases. By consolidating multiple monitoring and regulatory

functions on a single platform, IEMS strengthens compliance, enforcement, and data-driven environmental governance, thereby contributing to a cleaner and safer Tamil Nadu.

5.2. Water Pollution Monitoring Mechanism

17-category industries and Red-Large industries are required to provide a Zero Liquid Discharge (ZLD) system, supported by an Effluent Treatment Plant and followed by Reverse Osmosis, Multiple Effect Evaporator (MEE), and Agitated Thin Film Dryer (ATFD) or Elevated Solar Evaporation Pans, so that treated wastewater is recycled back into the process.

TNPCB monitors industrial treatment systems, Common Effluent Treatment Plants (CETPs), Sewage Treatment Plants (STPs), and discharge of sewage and trade effluents to ensure that prescribed standards are met before release into land, water bodies, or sea.

5.3. Common Effluent Treatment Plants (CETPs)

In Tamil Nadu, a scheme for CETPs have been developed for various industrial sectors to support clusters of small-scale industries in wastewater treatment. These include tanneries, textile processing units, electroplating units, hotels and lodges, and pharmaceutical formulation industries. In total, 37 CETP schemes are functioning in the State. The details are given below:

S. No.	Industrial Sector	No. of CETP Schemes
1.	Tanneries	13
2.	Textile Processing Units	19
3.	Electroplating Units	3
4.	Hotels & Lodges	1
5.	Pharmaceutical Formulation Industries	1
	Total	37

5.4. Seepage Treatment System at SIPCOT Industrial Growth Centre, Perundurai, Erode District

The Government accorded administrative sanction for the establishment of a 2000 KLD Common Seepage Water Treatment Plant with Zero Liquid Discharge at the SIPCOT Industrial Growth Centre, Perundurai, Erode District, at an estimated cost of Rs. 40 crores. The project is being implemented with financial participation from TNPCB, SIPCOT, and the industries operating in SIPCOT. TNPCB issued Consent to Establish (CTE) for this project on 23.12.2025.

5.5. Status of Sewage Treatment Plants of Urban Local Bodies

Sewage Treatment Plants established by Urban Local Bodies are classified by TNPCB as Red category units and are required to obtain CTE and CTO. The State presently has 129 STPs with a total treatment capacity of 2608 MLD. Of these, CTO has been issued to 100 STPs and CTE to 29 STPs.

To improve monitoring, directions have been issued to all common STPs to install Online Continuous Effluent Monitoring Systems (OCEMS) and a mobile application for effective supervision of the existing facilities.

5.6. Action taken by TNPCB to prevent discharge of untreated sewage into water bodies

TNPCB has directed the Chennai Metropolitan Water Supply and Sewerage Board, the Greater Chennai Corporation, the Commissionerate of Town Panchayat, and the Directorate of Municipal Administration to complete Underground Sewerage Systems (UGSS) in unsewered areas and to ensure that untreated sewage is not discharged into rivers or other surface water bodies. These line Departments have also been instructed to establish and operate STPs with valid consent from the Board.

For non-compliance, the Board imposes Environmental Compensation on local bodies. It has also taken action by directing the Transport Department to cancel the registration of tanker lorries found illegally transporting and discharging sewage into water bodies. During 2025–2026, TNPCB recommended the cancellation of 12 vehicle registrations. Further, local bodies have been directed to install Digital Lock systems with GPS in tanker lorries used for sewage collection and disposal.

5.7. Laboratories

TNPCB has established 18 Environmental laboratories across the State, comprising 8 Advanced Environmental Laboratories and 10 District Environmental Laboratories, to monitor water, air, and noise quality in accordance with CPCB guidelines and various CPCB-funded projects.

The Advanced Environmental Laboratories (AEL) are accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL), while the District Environmental Laboratories (DEL) are in the process of obtaining accreditation. The microbiological analysis wing has been upgraded in all AELs, and its establishment is underway in all DELs. Microbiological parameters such as Total Coliforms and Faecal Coliforms are analyzed in the AELs as per CPCB guidelines.

5.8. Monitoring of Water Bodies

5.8.1. National Water Quality Monitoring Programme (NWMP)

Under the National Water Quality Monitoring Programme (NWMP), TNPCB monitors inland water quality across Tamil Nadu through 178 stations, with funding shared between TNPCB and CPCB in a ratio of 70:30. Monthly or half-yearly samples are collected

from rivers, lakes, groundwater sources, seawater, sewage treatment plants, drains, canals, tanks, and 20 RAMSAR sites. The details are enclosed in Annexure – III.

The results are regularly disseminated through the TNPCB and the CPCB website to public.

5.8.2. Polluted River Stretches (PRS)

Based on NWMP data, CPCB declared 296 river stretches in the Country as Polluted River Stretches (PRS) in 2025 and identified 9 river stretches in Tamil Nadu under this category. These stretches were classified into five priority levels based on Biochemical Oxygen Demand (BOD) values as detailed below:

Sl. No.	Priority Class	Biochemical Oxygen Demand (BOD mg/L)
1.	I	> 30
2.	II	20 – 30
3.	III	10 – 20
4.	IV	6 – 10
5.	V	3 – 6

The identified 9 River Stretches (PRS) are given below:

S. No.	Name of the River	Length (km)	Polluted River Stretches	Priority Year 2025
1.	Sarabanga	70	Thathayampatti to T. Konagapadi (15 km)	I
2.	Thirumanimutharu	120	Salem to Papparapatti (15 km)	I
3.	Vasista	87	Manivizhunthan to Thiyaganur (10 km)	I
4.	Cooum	70	Avadi to Sathya Nagar (31.70 km)	I
5.	Adyar	42.5	Tambaram to Nandanam bridge (30.10 km)	I
6.	Cauvery	253	Mettur to Mayiladuthurai (200 km)	II
7.	Thamirabarani	128	Pappankulam to Arumuganeri (80 km)	IV
8.	Bhavani	217	Sirumugai to Kalingarayan (60 km)	V
9.	Vaigai	266	Solavandan to Chakkudi (42 km)	V

Pollution in these stretches is primarily attributed to the discharge of untreated domestic sewage, sullage, and dumping of municipal solid waste by urban local bodies.

TNPCB, in coordination with the line departments, has prepared action plans for 8 PRS, which are under implementation except for the newly identified PRS of Vaigai stretch. The Water Resources Department has submitted the Preliminary Project Report for rejuvenation of River Vaigai, and a time-bound action plan will be prepared after approval by the River Rejuvenation Committee. The implementation of these action plans is monitored by the concerned State and Central authorities.

The National Centre for Coastal Research (NCCR), Chennai, has prepared a comprehensive action plan for mitigating coastal and marine pollution along the Tamil Nadu coast.

5.8.3. Real-Time Water Quality Monitoring Stations (RTWQMS)

TNPCB has established Real-Time Water Quality Monitoring Stations (RTWQMS) at 8 locations across the State. These stations

continuously measure pH, temperature, dissolved oxygen (DO), turbidity, conductivity, total dissolved solids (TDS), total suspended solids (TSS), biochemical oxygen demand (BOD), and chemical oxygen demand (COD).

The data from these stations is transmitted to TNPCB servers at the Integrated Environmental Monitoring Studio (IEMS) Chennai and is published on the TNPCB website. This enables the identification of pollution sources and supports timely measures to protect water resources.

5.9. Air Pollution Monitoring Mechanism

5.9.1. National Air Quality Monitoring Programme (NAMP)

Under the National Air Quality Monitoring Programme (NAMP), TNPCB monitors ambient air quality at 85 stations in major cities and industrial clusters across the State, with sampling carried out twice a week as per CPCB protocol. The monitoring covers PM₁₀, PM_{2.5},

sulphur dioxide (SO₂), nitrogen dioxide (NO₂), and ammonia (NH₃). The details of NAMP stations are given below:

NAMP Locations - 85 Stations
Chennai (8), Coimbatore (3), Madurai (3), Salem (3), Tiruchirapalli (5), Thoothukudi (3), Mettur (3), Cuddalore (5), Dharmapuri (3), Nagercoil (3), Perambalur (3), Sivagangai (3), Thiruvavarur (3), Theni (3), Villupuram (3) Thiruvannamalai (3), Alandur (2), Dindigul (2), Vellore (2), Avadi (2), Tiruppur (2), Tirunelveli (2), Thanjavur (2), Nagapattinam (2), Kanchipuram (2), Rajapalayam (2), Erode (3) & 5 Rural stations each at Mettupalayam, Hosur, Tenkasi, Thiruthani and Tiruvengadu.

5.9.2. Continuous Ambient Air Quality Monitoring (CAAQM) Stations

For continuous surveillance, TNPCB has also installed 34 Continuous Ambient Air Quality Monitoring stations to measure PM₁₀, PM_{2.5}, SO₂, NO₂, NH₃, ozone, carbon monoxide, and benzene, toluene, and xylene. The data is linked to the TNPCB website and uploaded to CPCB's Electronic Air Quality Data System.

5.9.3. Non-Attainment Cities

Based on NAMP data, CPCB has identified 130 cities in the country as non-attainment cities due to particulate matter levels exceeding the annual standard of 60 $\mu\text{g}/\text{m}^3$. In Tamil Nadu, Thoothukudi, Tiruchirapalli, Madurai, and Chennai have been identified under this category.

The National Clean Air Programme, launched in 2019, aims to reduce PM₁₀ levels by 40% or achieve the national ambient air quality standard. In Tamil Nadu, mitigation measures are implemented in areas such as vehicle emissions and road dust, construction and demolition waste, and biomass dumping and burning, in coordination with line departments.

5.9.4. Comprehensive Environmental Pollution Index (CEPI)

TNPCB monitors land, air, and water quality in 11 Polluted Industrial Areas (PIA) across the State

during both pre-monsoon and post-monsoon seasons through third-party NABL-accredited laboratories. The Comprehensive Environmental Pollution Index (CEPI) is used to classify polluted areas into critically polluted, severely polluted, normally polluted, and other polluted categories based on the score range.

The CEPI scores are categorized as follows:

CEPI score	>70	60-70	50-60	40-50
Category	Critically Polluted Area	Severely Polluted Area	Normally Polluted Area	Other Polluted Area

Every year, monitoring has been conducted during pre-monsoon and post-monsoon, and the CEPI scores for the 11 PIAs have been compiled.

The pre and post-monsoon monitoring for the year 2024 and 2025 has been completed, and the details are as follows:

S. No	Name of Location (PIA)	CEPI Score			
		Pre-monsoon 2024	Post-monsoon 2024	Pre-monsoon 2025	Post-monsoon 2025
1.	Manali	29.31	19.50	23.698	30.0
2.	Ranipet	14.96	16.30	17.705	21.8
3.	Tiruppur	23.31	23.80	30.20	25.2
4.	Mettur	20.99	20.99	23.693	19.7
5.	Thoothukudi	2.734	22.59	24.150	24.7
6.	Coimbatore	4.317	13.73	17.945	17.9
7.	Cuddalore	23.72	29.69	31.414	37.1
8.	Erode	19.68	33.35	29.255	27.8
9.	Perundurai	7.80	19.01	22.86	20.6
10.	Pallipalayam	12.42	15.65	13.056	13.1
11.	Kumarapalayam	12.42	12.95	13.056	23.4

CEPI Scores of all PIAs for the year 2025 show a decrease and is below 40.

5.10. Ambient Noise Monitoring Mechanism

Under the National Ambient Noise Monitoring Network Programme, TNPCCB, in collaboration with CPCB, has established real-time ambient noise monitoring stations at 10 locations in Chennai,

covering silence zones, residential areas, commercial areas, and industrial areas.

S. No	Location	Classification	Avg. Value (Day) (dB)	Standard (Day) (dB)	Avg. Value (Night) (dB)	Standard (Night) (dB)
1	Egmore (Eye Hospital)	Silence	56	50	54	40
2	T.Nagar	Commercial	64	65	61	55
3	Perambur	Commercial	61	65	60	55
4	Guindy	Industrial	65	75	64	70
5	Triplicane	Residential	62	55	54	45
6	Anna Nagar	Silence	69	50	63	40
7	Pallikaranai	Commercial	71	65	70	55
8	Sowcarpet	Residential	66	55	59	45
9	Velachery	Residential	60	55	56	45
10	Washermenpet	Commercial	68	65	67	55

The day and night noise levels recorded at these stations are uploaded to the CPCB website and are used to support noise mitigation measures and effective noise pollution management.

5.11. Noise Mapping Study in Million Plus Cities of Tamil Nadu - Chennai

A noise mapping study for Chennai city was carried out by the Indian Institute of Technology Madras (IITM), with noise sensors, installed at 60 locations at a cost of Rs.50 lakh. The sensors

were linked in real time to the Integrated Environmental Monitoring Studio (IEMS) at TNPCB's Corporate Office.

The data collected from all 60 monitoring locations is being analyzed and compiled into a comprehensive report. The study reports support evidence-based policy formulation, urban planning, and targeted noise reduction measures.

5.12. Laboratory Information Management System (LIMS)

TNPCB has developed a web-based Laboratory Information Management System (LIMS) to digitize and streamline laboratory operations related to environmental monitoring. The system supports sample collection scheduling, sample tracking, laboratory analysis, report generation, and online payment of analysis fees.

LIMS functions as a centralized repository for laboratory data and analytical reports, improving

efficiency, transparency, data integrity, and accessibility. It also strengthens environmental compliance monitoring and supports evidence-based regulatory decision-making by the Board.

6. Waste Monitoring Mechanism

6.1. Bio-Medical Waste Management

Bio-medical waste comprises waste generated during the diagnosis, treatment or immunization of humans or animals, in research activities related thereto, or in biological production and testing laboratories. The Bio-Medical Waste Management Rules, 2016 (BMWM Rules) delineate responsibilities for waste generators and operators of Common Bio-Medical Waste Treatment and Disposal Facilities (CBMWTFs) to ensure safe handling and disposal. The Tamil Nadu Pollution Control Board (TNPCB) issues authorizations to Health Care Facilities (HCFs) and CBMWTFs and

monitors compliance with the Rules. A State-Level Advisory Committee has been constituted to oversee implementation.

Authorizations have been issued to 33,940 private and Government hospitals in Tamil Nadu including bedded and non-bedded hospitals, clinics, veterinary institutions, pathological laboratories, blood banks and research institutions under the BMWM Rules, 2016, as of March 2026.

6.1.1. Common Bio-medical Waste Treatment Facilities (CBMWTFs)

CBMWTFs provide collection, transportation, treatment and scientific disposal services for bio-medical waste from HCFs. The State's daily average bio-medical waste generation was 61.39 tonnes, according to the Annual Report 2025 submitted to the Central Pollution Control Board (CPCB). 11 CBMWTFs are operation in the State with a combined installed capacity of 101.63 tonnes per day. 3 additional CBMWTFs are under

establishment in Tiruvallur, Sivagangai and Kancheepuram districts. Movement of vehicles transporting bio-medical waste to CBMWTFs is tracked by GPS within the State.

Details of Common Bio-medical Waste Treatment and Disposal Facilities (CBMWTFs) in Tamil Nadu – Under Operation

Sl. No	Name & Address of CBMWTFs	Equipment capacity		Districts covered
		Incinerator (Kg/day)	Autoclave (Kg/day)	
1	M/s. G. J. Multiclave (India) Private Limited, Chengalpattu District.	10,800	3,052	Parts of Kancheepuram, Tiruvallur, Chennai and Chengalpattu Districts.
2	M/s. Re Sustainability IWM Solutions Limited., Chengalpattu District.	9,000	1,000	Chennai (North), Part of Kancheepuram, Tiruvallur, Chengalpattu and Cuddalore Districts.
3	M/s. Medicare Enviro Systems, Thanjavur District-	3,600	2,000	Thanjavur, Thiruvarur, Trichy, Nagapattinam, Pudukottai, & Sivagangai Districts.

4	M/s. Ken Bio Links Private Ltd., Vellore District.	6,000	3,600	Vellore & Tiruvannamalai Districts.
5	M/s. Re-sustainability Healthcare Solutions Limited, Salem District.	3,300	825	Salem, Namakkal, Erode & Karur Districts.
6	M/s. Kovai Biowaste Management (P) Ltd, Coimbatore District.	6,000	4,800	Parts of Coimbatore, Tiruppur & Nilgiris Districts
7	M/s. Teknotherm Industries, Coimbatore District.	6,000	12,000	Parts of Coimbatore, Nilgiris & Tiruppur Districts.
8	M/s. Aseptic System Bio Medical Waste Management Tirunelveli District.	4,000	2,800	Tirunelveli, Thoothukudi, Tenkasi & Kanyakumari Districts.
9	M/s. Re Sustainability IWM Solutions Limited, Krishnagiri District.	1,550	450	Dharmapuri & Krishnagiri

10	M/s. Pondicherry Solid Waste Management Company Private Limited, Cuddalore District.	12,000	2,347	Part of Cuddalore, Villupuram, Perambalur, Ariyalur, Kallakurichi Districts
11	M/s. Re Sustainability IWM Solutions Limited, BMW Division, Tiruvallur District.	4,000	1,000	Part of Chennai and Tiruvallur districts

Details of Common Bio-medical Waste Treatment and Disposal Facilities (CBMWTFs) in Tamil Nadu – Under Establishment

S. No.	Name & Address of the CBMWTFs	Equipment capacity	
		Incinerator (Kg / day)	Autoclave (Kg / day)
1.	M/s. Medicare Environmental Management Private Limited, Sivagangai District.	12,000	5,100
2.	M/s. S Growth Alliances LLP, Kancheepuram District.	19,200	8,000
3.	M/s. Parisudh Eco Concepts Pvt Ltd, Tiruvallur District.	12,000	8,000

6.2. Battery Waste Management

The Battery Waste (Management) Rules, 2022, as amended, apply to producers, dealers, consumers and entities involved in collection, segregation, transportation and recycling of waste batteries, irrespective of battery chemistry, form factor, weight or use. The Rules impose Extended Producer Responsibility (EPR) on producers (manufacturers and importers) for meeting collection and recycling targets.

Producers, recyclers and refurbishers must register on the centralized CPCB portal at <https://eprbatterycpcb.in>, which improves accountability, traceability and transparency and serves as the single-point data repository for implementation orders and guidance.

As on 31st March 2026, 319 producers and 14 battery waste recyclers had registered the CPCB battery EPR portal with TNPCB respectively; and the details are available on the TNPCB website

(<https://tnpcb.gov.in>) and the CPCB portal. Producer approvals are issued by CPCB; recycler and refurbisher approvals are issued by the TN Pollution Control Board (TNPCB). TNPCB has published a Handbook on EPR Guidelines for Battery Waste Management for producers, recyclers and refurbishers; the handbook is available on the TNPCB website.

6.3. Solid Waste Management (SWM)

The Solid Waste Management Rules, 2026, notified by the MoEF&CC, Govt of India under the Environment (Protection) Act, 1986 and effective from 1st April 2026, supersede the 2016 Rules. They are aimed at scientific waste management through segregation, recycling, composting and resource recovery, and strengthen accountability via, online monitoring, Extended Bulk Waste Generator Responsibility (EBWGR) and the Polluter Pays principle.

The Rules require four-stream segregation: (i) Wet Waste, (ii) Dry Waste, (iii) Sanitary Waste and (iv) Special Care Waste. Bulk Waste Generators are defined as entities with floor area $\geq 20,000$ sq. m., or water consumption $\geq 40,000$ litres per day, or solid waste generation ≥ 100 kg per day; such entities are subject to EBWGR. CPCB will develop a centralized online portal for tracking SWM.

TNPCB is the monitoring authority and is responsible for granting authorizations to local bodies for setting up waste processing, treatment or disposal facilities when waste generation exceeds 5 MT per day, including sanitary landfills. Accordingly, TNPCB has issued Authorization to 245 local bodies.

Directions under Section 5 of the Environment (Protection) Act, 1986 have been issued to 36 local bodies to remit Environmental Compensation for non-compliance with SWM Rules.

6.3.1. Bio-mining of legacy waste

As per SWM Rules, local bodies are to undertake bio-mining and reclamation of old dumpsites. In Tamil Nadu, bio-mining has been initiated at 290 locations; reclamation has been completed at 241 locations and are ongoing at the remaining 49. To date, 1,206 acres of land have been reclaimed.

6.4. Plastic Waste Management

Population growth, urbanization and industrial expansion have increased plastic waste generation significantly. In the State of Tamil Nadu, the total generation of plastic waste has been reported to be 2,170 tonnes per day (TPD). Of this, 99.7% (2,163 tonnes/day) was collected and channelized for recycling and other authorized uses.

6.4.1. Ban on Single-Use Plastics (SUP)

The State Government issued G.O.(Ms) No.84 E&F Department dated 25.06.2018 banning

specified one-time use and throwaway plastic items, including plastic carry bags, effective from 01.01.2019. The Government of India further notified a ban on manufacture, import, stocking, distribution, sale and use of 19 Single-Use Plastic items vide notification dated 12.08.2021, effective from 01.07.2022.

The list of banned items and their details is as follows:

S. No	List of Banned Items	S. No	List of Banned Items
1.	Plastic sheet / cling film used for food wrapping	15.	Ear buds with plastic sticks
2.	Plastic sheet used for spreading on dining table	16.	Balloons with plastic sticks
3.	Plastic Thermocol plates	17.	Candy with plastic sticks
4.	Plastic coated paper plates	18.	Ice-cream with plastic sticks
5.	Plastic coated paper cups	19.	Polystyrene for decoration
6.	Plastic tea cups	20.	Cutlery such as plastic forks
7.	Plastic tumbler	21.	Plastic spoons
8.	Thermocol cups	22.	Plastic knives
9.	Plastic carry bags of all size & thickness	23.	Wrapping or packaging films around sweet boxes

S. No	List of Banned Items	S. No	List of Banned Items
10.	Plastic coated carry bags	24.	Wrapping or packaging films around invitation cards
11.	Non-woven Carry Bags less than 60 GSM	25.	Wrapping or packaging films around cigarette packets
12.	Water pouches / packets	26.	Plastic or PVC banners less than 100 micron
13.	Plastic straw	27.	Plastic stirrers
14.	Plastic flags	28.	Plastic trays

6.4.2. Enforcement of Ban on SUP

From January 2019 to March 2026, TNPCB issued closure and power disconnection directions to 293 industries engaged in manufacturing banned plastic items (including non-woven carry bags, plastic carry bags and water pouches). Local body officials conduct frequent raids and impose penalties on violators. Between 2019 and March 2026, 18,20,554 raids were reported (note: original source figure), yielding seizure of 2,779.42 tonnes of banned SUPs and collection of penalties amounting to Rs. 23.98 crores by local bodies.

6.4.3. Special Enforcement Activities

Pursuant to CPCB directions, intensive enforcement actions were undertaken in a four-year window targeting street vendors, flower and fruit sellers, local and wholesale markets, industrial areas, interstate borders and relevant industries across all districts. During this period, 1,14,624 entities were inspected; 31,380 violations were recorded, approximately 168.23 tonnes of banned SUP items were seized and forwarded for recycling, and fines totaling Rs. 1.31 crores was collected by the local bodies.

6.4.4. Awareness Activities on SUP Ban

TNPCB's awareness measures include district-level campaigns coordinated with local bodies, educational institutions and NGOs; vehicle campaigns; pamphlet distribution; poster displays in government offices, schools, colleges, commercial establishments, markets and transit hubs; and press releases in English and Tamil on

SUP harms. TNPCB also conducts a state-wide plastic collection and cleanup drive on the fourth Saturday of every month, engaging both urban and rural communities.

6.4.5. Extended Producers Responsibility (EPR) for plastic packaging

EPR for plastic packaging is implemented under the Plastic Waste Management Rules, 2016 (as amended in 2022). Producers, Importers and Brand Owners (PIBOs) must ensure processing of plastic packaging waste via recycling, reuse or authorized end-of-life routes (co-processing, waste-to-energy, plastic-to-oil, road construction, industrial composting, etc.). PIBOs register on the CPCB-developed centralized EPR portal (<https://eprplastic.cpcb.gov.in>). The registration module for manufacturers, sellers and importers of plastic raw materials, and for micro and small producers, became operational on 12.04.2024.

Plastic Waste Processors (PWPs) register with TNPCB via the CPCB EPR portal. PIBOs fulfill EPR obligations by procuring EPR certificates from PWPs through the portal. As of 31.03.2026, TNPCB issued registrations to 1,519 entities (170 Producers, 1,134 Importers, 100 Brand Owners and 1 Seller) and 114 PWPs. TNPCB has registered 158 urban local bodies on the EPR portal.

Key actions to strengthen EPR in Tamil Nadu

- Established an EPR Cell that operates on weekdays to support EPR registration and compliance; received approximately 3,055 calls seeking clarifications.
- Issued directions to 1,681 unregistered entities (801 Producers, 396 PWPs, 484 Brand Owners) to regularize EPR compliance.

- Conducted over 20 training sessions and workshops for TNPCB officials, ULBs, PIBOs and PWPs covering registration, target fulfillment and compliance processes.
- Published an EPR Handbook, a user booklet and a recycling directory to assist stakeholders.

6.4.6. Special Task Force (STF)

A State-level Special Task Force (STF) for SUP, chaired by the Chief Secretary, and District-level Task Forces under the District Collector/Commissioner (for Greater Chennai Corporation) monitor implementation of the SUP ban. The STF meets periodically and issues action points to line departments, which submit action-taken reports.

6.5. Construction and Demolition (C&D) Waste Management

The Environment (Construction and Demolition Waste Management) Rules, 2025, notified under the Environment (Protection) Act, 1986 and effective from 01.04.2026, supersede the 2016 Rules. The Rules provide measures for environmentally sound management of C&D waste and introduce provisions such as EPR and Environmental Compensation to promote circular economy principles and resource efficiency.

TNPCB has directed relevant departments — Municipal Administration and Water Supply; Rural Development and Panchayat Raj; Greater Chennai Corporation; Housing and Urban Development; Revenue and Disaster Management; and Public Works — to ensure compliance. The Rules require formation of a State Monitoring Committee chaired by the Secretary in charge of the State Environment Department, with representation

from relevant stakeholders, to supervise implementation.

Greater Chennai Corporation operates two C&D waste processing facilities, each with 400 tonnes per day capacity, located at Kodungaiyur and the Perungudi dumpsites, and maintains collection centres in 15 zones for C&D waste receipt.

6.6. E-Waste Management

The E-Waste (Management) Rules, 2022 provide an enhanced EPR regime for e-waste recycling and require manufacturers, producers, refurbishers and recyclers to register and submit returns via the CPCB E-Waste EPR portal (<https://eprewastecpcb.in>). As of 31.03.2026, registrations on the CPCB portal from Tamil Nadu included 22 manufacturers, 17 recyclers, 2 refurbishers and 1,280 producers of Electrical and Electronic Equipment (EEE).

6.7 Hazardous Waste Management

Hazardous waste in Tamil Nadu is managed under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. As of March 2025, TNPCB identified 5,259 industries generating hazardous waste and issued Authorizations under the Rules. During 2024–2025, 11.20 lakh tonnes of hazardous waste were generated, 1.24 lakh tonnes (11.11%) were landfillable, 0.36 lakh tonnes (3.26%) incinerable, 6.19 lakh tonnes (55.29%) recyclable and 3.39 lakh tonnes (30.31%) utilizable.

6.7.1. Common HW Disposal Facilities (Landfillable & Incinerable of Hazardous Waste)

Three common Hazardous Waste Treatment, Storage and Disposal Facilities (HW-TSDFs) operate in the State. The details are as follows:

Location	Details of Facility		Authorized capacity (TPA)	Cumulative HW disposed (Tons)
	Facility Type	Year of Commission		
Thiruvallur District	Landfill	Nov 2007	3 Lakh	9.64Lakh
	Incineration	Nov 2009	0.12 Lakh	0.573 Lakh
	Pre-processing	Mar2023	0.50Lakh	0.029 Lakh
Virudhunagar District	Landfill	Dec2016	2.4 Lakh	1.14 lakh (Not in operation since 31.03.2023)
	Pre-processing	April 2022	0.1 Lakh	
Krishnagiri District	Landfill	Jun 2023	0.909 Lakh	0.26 Lakhs
	Pre-processing	Jun 2023	0.303 Lakh	0.043

6.7.2. Utilization & Recycling of Hazardous Waste

6.7.2.1. Co-Processing of Hazardous Waste in Cement Plants

Following CPCB guidelines, TNPCB has permitted use of hazardous and other wastes in cement kilns either as Alternate Raw Material (ARM) or Alternate Fuel Resource (AFR), subject to compliance criteria and requisite authorization

under the HWM Rules, 2016. 15 cement industries have been authorized to co-process 19.43 lakh tonnes per annum of utilizable waste. During 2024–2025, approximately 2.40 lakh tonnes of hazardous waste was converted to AFR/ARM and utilized in cement kilns in Tamil Nadu.

6.7.2.2. Hazardous Waste Recycling Facilities

TNPCB has authorized 96 recycling facilities for nine categories of hazardous waste with a total authorized capacity of 8.01149 lakh tonnes per annum. The details are given in the table below:

S. No	Type of Recycling Facilities	No of Facilities authorized for recycling	Total Authorized Capacity (MTA)
1	Brass Dross	2	1120
2	Zinc Bearing Waste	10	9482
3	Copper Bearing Waste	8	149110
4	Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt	1	12000
5	Lead bearing waste including battery waste	16	431172

S. No	Type of Recycling Facilities	No of Facilities authorized for recycling	Total Authorized Capacity (MTA)
6	E- waste	2	1385
7	Paint and ink Sludge/ residues	2	2800
8	Used oil	39	150538
9	Waste oil	16	43540
	Total	96	801149

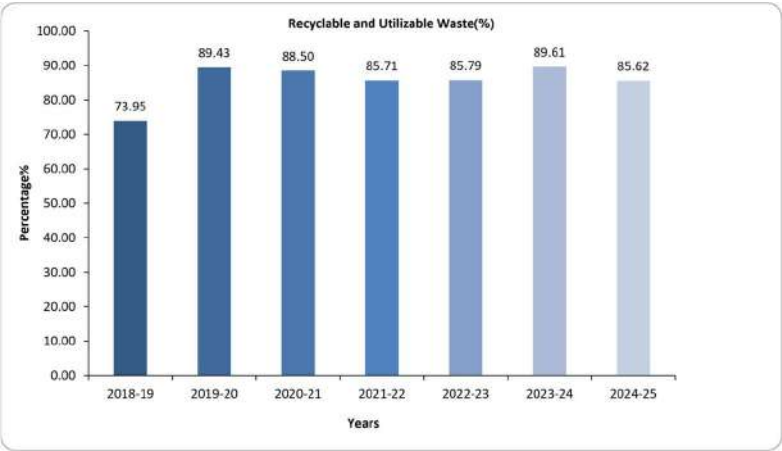
6.7.2.3. Hazardous Waste Pre-Processing Facilities

To facilitate co-processing, 10 hazardous waste pre-processing units are operational to produce homogenized feedstock suitable for cement kilns as raw material substitution or supplementary fuel. These units pre-processed approximately 97,576.443 tonnes of hazardous and other wastes during 2024–2025 for subsequent co-processing.

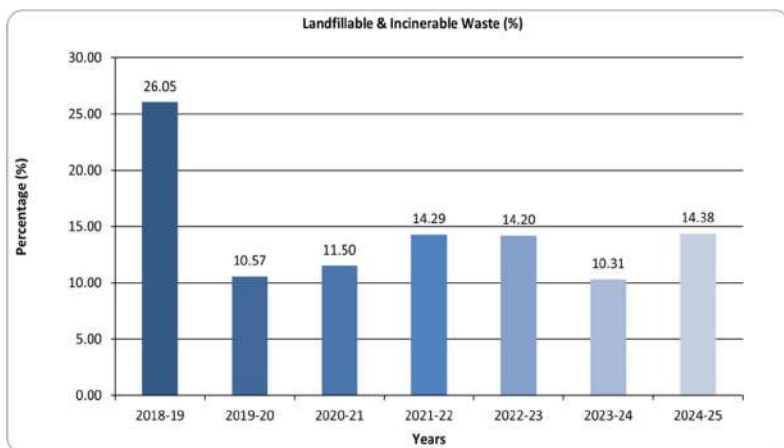
6.7.2.4 Hazardous Waste Utilization Facilities

The Board has authorized 28 industries for the utilization of the following HW categories in the table below:

S. No	Type of Hazardous wastes Utilised	No of Facilities for utilization / Recovery	Total Authorized Capacity (MTA)
1	Spent solvents	10	24598
2	Contaminated drums/containers/ barrels	18	51475
	Total	28	76073



The Graphs showing the trend of Recyclable / Utilizable Waste over the years 2018- 19 to 2024 - 2025



The Graphs showing the trend of Landfillable & Incinerable Waste% over the years 2018- 19 to 2024 - 2025

6.7.2.5. Extended Producers Responsibility (EPR) for Used Oil

MoEF&CC, GoI notified EPR for used oil under the HOWM (Amendment) Rules, 2023. CPCB developed the used oil EPR portal (<https://eprusedoil.cpcb.gov.in>) for registration of producers, collection agents, recyclers and importers. EPR obligations became operative in 2024–2025. As of 31.03.2026, Tamil Nadu had 10 producers and 7 recyclers have been issued EPR certificates for used oil.

6.8. Extended Producers Responsibility (EPR) for Waste Tyre

EPR for waste tyres is prescribed under the HOWM (Amendment) Rules, 2022. CPCB operates an online portal (<https://www.eprtyrespcb.in>) for registration of stakeholders. As of 31.03.2026, 30 tyre producers and 37 recyclers had been issued EPR certificates.

6.9. Utilization of Mixed Salt

6.9.1. Textile units

Approximately 1,92,382 tonnes of mixed salts generated from Zero Liquid Discharge (ZLD) systems of textile processing units are stored in closed sheds on impervious floors within premises of Individual Effluent Treatment Plants (IETPs) and Common Effluent Treatment Plants (CETPs). Pursuant to CPCB Standard Operating Procedures (SOPs), a treatment and disposal facility in Ramanathapuram District is operational and holds Consent to Operate from TNPCB valid until

31.03.2028. To date, 54,589 tonnes of mixed salt from textile units have been received at this facility for further processing.

6.9.2. Tannery Units

About 163,761 metric tonnes of mixed salts from tannery ZLD systems are stored within industry/CETP premises in closed sheds. A CPCB SOP for utilization of tannery mixed salt is pending issuance. M/s Ranipet Tannery Effluent Treatment Company (CETP) has obtained central Govt. approvals and TNPCB NOC for an upgradation that includes a common salt purification plant; implementation of this technology is expected to provide a long-term solution for mixed salt management in the tannery sector.

6.10. Remediation of Contaminated Sites

6.10.1. M/s. Hindustan Unilever Limited, Kodaikanal

Hindustan Unilever Limited operated a clinical glass mercury thermometer manufacturing unit

at Kodaikanal from 1984 to 2001, resulting in mercury contamination across 17,858 m². Site-Specific Target Level (SSTL) for soil was fixed at 20 mg/kg by the Scientific Expert Committee, NEERI and CPCB. Remediation activities — including soil excavation, washing, retorting, homogenization and backfilling — commenced in March 2021. The delineated area (17,858 m²) has been remediated; IIT Madras validated the remediation and reported that treated soil met the remediation criterion of 20 mg/kg at all sampled locations. Further demolition and remediation of the factory building remain to be undertaken in accordance with CPCB SOPs.

6.10.2. M/s. Tamil Nadu Chromates and Chemicals Limited, Ranipet

TCCL (closed in 1995) was identified as a chromium-contaminated site with approximately 220,000 tonnes of chromium sludge dumped over two hectares. The National Green Tribunal (SGZ)

in OA No. 186 of 2020 directed TNPCB to implement interim remedial measures within one year (order dated 02.09.2022). A Technical Document proposing capping of hazardous waste stockpiles, construction of drainage networks and cut-off trenching, creation of a rainwater pond and erection of a new boundary wall was prepared at an estimated cost of Rs. 15 crores. The Board approved interim remedial expenditure from the Environmental Compensation fund. M/s Chennai Environmental Management Company of Tanneries (CEMCOT) was appointed for project and bid management services.

TNPCB approval has been granted for interim remedial works, which commenced in the third week of February 2026. A technical committee was constituted to review and monitor execution until completion. The committee inspected the site on 06.05.2026 and observed partial levelling and sloping of hazardous waste in Area-1 and

deployment of geomembrane covering on one side of the levelled stockpile.

7. Legal Enforcement Mechanism for defaulting/erring units

Tamil Nadu Pollution Control Board is authorized to initiate legal proceedings, direct closures and order disconnection of power against non-complying units under relevant environmental statutes.

Appellate Authority

The Appellate Authority in Chennai, operational since 2000, adjudicates appeals filed by industries against Tamil Nadu Pollution Control Board orders.

National Green Tribunal

The Southern Bench of the National Green Tribunal (NGT) in Chennai has been functioning since 2012 to hear environmental matters arising in the State.

7.1. Online Legal Case Management and Monitoring System (OLMMS)

TNPCB has developed and deployed the Online Legal Case Management and Monitoring System (OLMMS) to record and track litigation instituted before multiple judicial and quasi-judicial bodies like Hon'ble Supreme Court of India, Hon'ble High Court of Madras, Hon'ble National Green Tribunal (NGT) and Appellate Authority.

All case files are processed exclusively through this software. OLMMS enables efficient management of legal proceedings, monitoring of stays and orders, and timely implementation of compliance requirements.

8. Other Activities

8.1. Environmental Training Institute

Established in 1994, the Environmental Training Institute (ETI) provides specialised training in pollution control and environmental protection. Its programmes target TNPCB

personnel, industry representatives, corporate executives, urban local body officials, line department staff and NGOs, focusing on environmental laws, regulations and contemporary management technologies.

During the last Financial Year, ETI conducted 14 in-house training sessions for 678 participants drawn from the Board, line departments and other stakeholders. Additionally, 57 TNPCB officials attended 25 external training programmes. A week-long induction training for newly recruited Assistant Engineers was held in April–May 2025 to acquaint them with TNPCB operations and applicable environmental legislation.

8.2. Environmental Awareness Programme

The Board organises annual awareness initiatives to inform and motivate citizens on environmental protection. Activities include rallies, quizzes, tree planting, auto-rickshaw campaigns, pamphlet distribution, display boards, FM

broadcasts and screening of short films, especially during festivals such as Deepavali, Bhogi, Vinayagar Chathurthi and Karthigai Deepam.

Solid waste management awareness is implemented in coordination with local bodies and district administrations. Self-explanatory models demonstrating waste management, ETP/STP operation, the SUP ban and eco-alternatives are exhibited at the Island Ground Trade Fair, Government exhibitions and district book fairs.

8.3. Action taken on erring units

Last Financial Year, TNPCB issued closure orders to 132 erring industrial units and served show-cause notices on 5,613 industries for breaches of consent conditions and environmental regulations.

8.4. Open House Session

To enhance transparency and public confidence, TNPCB conducts monthly Open House Sessions (OHS) at all offices on the 5th of each month, allowing members of the public to meet officials and resolve grievances. Last FY, 105 grievances were registered and addressed.

9. Sustainable Development Goals

Sustainable Development Goals (SDGs) comprise 17 goals and 169 targets adopted at the UN Summit in September 2015 to end poverty, protect the planet and promote prosperity. India is committed to the 2030 Agenda. The following SDGs and targets are pertinent to TNPCB under Tamil Nadu's State Indicator Framework (SIF).

Goal: 6, Clean Water and Sanitation

Target 6.3

By 2030, improve water quality by reducing pollution, eliminating dumping, minimizing

hazardous releases, halving untreated wastewater and substantially increasing recycling and safe reuse. Indicator 6.3.2 (percentage of industries complying with CPCB wastewater standards) guides progress. TNPCB enforces effluent treatment via ETPs and, for high-volume effluent generators, ZLD systems to achieve Zero Liquid Discharge and promote treated effluent reuse, thereby conserving raw water.

Goal: 9, Industry Innovation and Infrastructure

Target 9.4

By 2030, upgrade and retrofit industries for sustainability, improved resource efficiency and adoption of clean technologies. Indicator 9.4.1a (number of air quality monitoring stations) is tracked. TNPCB monitors ambient air quality at 122 stations (85 NAMP stations, 34 CAAQMS stations, 1 mobile CAAQMS and 2 mobile environmental laboratories) across district headquarters and industrial clusters. Four cities —

Chennai, Trichy, Madurai and Thoothukudi — are identified as non-attainment with respect to particulate matter and are subject to corrective actions. TNPCB operates a Voluntary Green Rating Mechanism to evaluate industrial environmental performance, including air quality, and to incentivise adoption of best practices (Platinum, Gold, Silver, Bronze ratings).

Goal: 12, Responsible Consumption and Production

Target 12.4

Target 12.4 (by 2020) aims for environmentally sound management of chemicals and wastes throughout their life cycle and significant reduction in releases. Indicator 12.4.2a (environmental quality monitoring by expanded monitoring stations) is used. TNPCB monitors water quality under the NWMP and Chennai City Waterways Monitoring Programme, and ambient

air quality under NAMP; ambient noise is monitored at 10 locations in Chennai.

Target 12.5

Target 12.5 (by 2030) seeks substantial reduction in waste generation through prevention, reduction, recycling and reuse. Indicators 12.5.4 (per-capita hazardous waste generated) and 12.5.5 (ratio of hazardous waste processed and sent to recyclers) apply. TNPCB has authorised hazardous waste generators under HOWM Rules, 2016 and promotes scientific disposal routes (recycling, utilization, co-processing, incineration, landfilling). Recent trends show reduced volumes to incineration and landfilling due to increased waste minimization, reuse and resource recovery.

Goal: 13, Climate Action

Target 13.3

Target 13.3 promotes education, awareness and capacity building for climate mitigation,

adaptation, impact reduction and early warning. Indicator 13.3.2 measures strengthening of institutional and individual capacities for adaptation and mitigation. TNPCB conducts capacity building through ETI, encourages participation in technical trainings and leads public awareness events (World Environment Day, World Ozone Day, World Earth Day) and festival-season campaigns across districts. Sustainable Development Goals (SDGs) are an inter-governmental agreed set of targets relating to international development to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

10. Reforms in TNPCB

10.1. Simplification of Consent Procedures under Ease of Doing Business Initiatives

TNPCB streamlined consent processes to expedite industry clearances. Consent to Operate validity has been extended to block periods:

5 years for Red category, 10 years for Orange and 14 years for Green, reducing renewal frequency. Green category industries may obtain Consent to Establish via self-certification through the Online Consent Management and Monitoring System (OCMMS) without field inspection, subject to documentary compliance. The White category list expanded from 37 to 609 categories; White category units need only submit prescribed intimation without further field scrutiny.

10.2. Strengthening Environmental Surveillance

TNPCB deployed 12 dedicated Flying Squads in key industrial hotspots, including textile and tannery clusters, for continuous surveillance and surprise inspections to prevent illegal effluent discharge and environmental violations. Monitoring across State borders has been intensified to deter illegal dumping and cross-border transport of bio-medical and other wastes.

10.3. TN Kurunkadugal Thittam

TNPCB launched the Kurunkadugal Thittam to promote large-scale, industry-funded afforestation. The target is 1,000 micro-forests using native species, raising State green cover from 23.8% to 33% by 2030–31. To date, 1,734,306 native saplings were planted across 924.4065 hectares; geotagging of planted trees was done. Tamil Nadu Agricultural University is conducting third-party evaluation on survival, health and socio-environmental impact.

10.4. Online Waste Exchange Bureau (OWEB)

To promote circular economy practices, TNPCB developed the OWEB portal to connect waste-generating industries with authorised recyclers, co-processors and receivers. As of March 2026, 432 waste generators and 151 waste receivers are registered, facilitating industrial waste utilisation and recovery.

10.5. Voluntary Green Rating for industries

The Voluntary Green Rating recognises industrial environmental performance across five tiers — Platinum (81–100), Gold (61–80), Silver (41–60), Bronze (21–40) and Certified (15–20) — incentivising energy efficiency, GHG reduction, water conservation, renewable energy adoption and circular waste management to support net-zero goals by 2030.

10.6. Manali-Ennore Restoration & Rejuvenation Council (MERRC)

Established in 2024, MERRC is a multi-stakeholder council focused on greening, waterbody and mangrove restoration, solid waste and pollution control, and community infrastructure improvements in the Manali–Ennore area. MERRC established an office and Emergency Response Centre with an integrated dashboard for industrial data, consent management and real-time monitoring of effluents, emissions and ambient air

quality. 40 mechanised road sweepers were provided to Greater Chennai Corporation to remove fine dust and debris and reduce pollution and drainage blockages. Additional MERRC initiatives are ongoing.

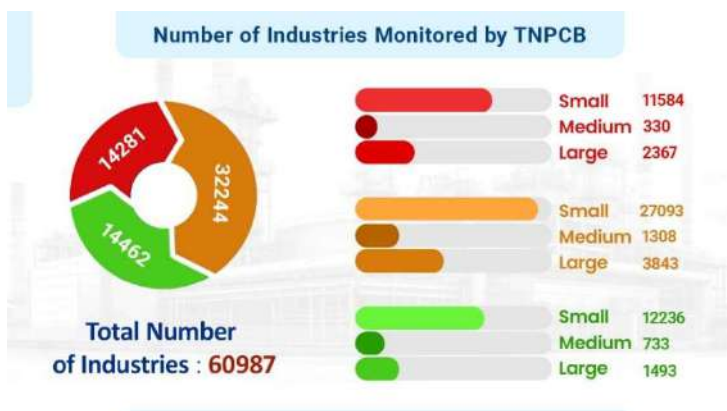
10.7. Massive Plastic Collection and Clean-up Drive (MPCD):

TNPCB's year-long collection and cleanup campaign across urban and rural local bodies collected approximately 1,931 tonnes of waste, including 743 tonnes of plastic. Of this, 389 tonnes were sent for recycling and 354 tonnes for co-processing.

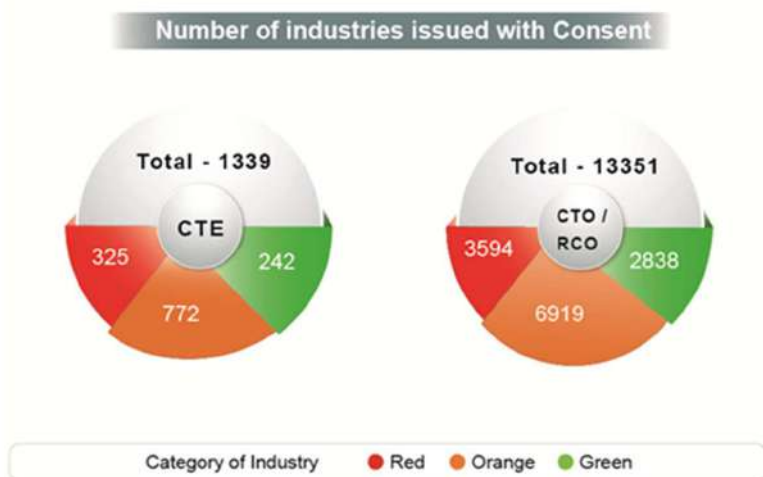
10.8. Tamil Nadu Fishnet Initiative

To address marine plastic pollution, TNFI established the first Discarded Fishnet Collection Centre at Kasimedu, Chennai, collecting 36,605 kg of discarded fishnets and diverting them for recycling. Fishermen were remunerated Rs. 13.12 lakhs for recovered nets. Expansion across all 14 coastal districts is underway.

Annexure - I



Annexure - II



Annexure - III

Water Body	Locations	Details
Rivers (12)	71	Cauvery, Tamirabarani, Bhavani, Palar, Vaigai, Thirumanimutharu, Sarabanga, Vennar, Vasista, Amaravathi, Cooum and Adyar
Lakes (8)	8	Udhagamandalam, Kodaikanal, Yercaud, Veeranam, Porur, Poondi, Pulicat and Redhills
Groundwater Sources (8 Districts)	22	Erode, Namakkal, Salem, Karur, Trichy, Tirunelveli, Thoothukudi, & Tiruvallur Districts
Seawater (14 Coastal Districts)	34	Coastal – 32 Beach – 2
Sewage Treatment Plants	16	Chennai, Cuddalore, Madurai, Trichy, Tirunelveli, Salem, Erode (Perundurai) and Dindigul Districts
Drains	4	Chennai
Canals	2	Chennai
Tanks	1	Tiruvallur
RAMSAR sites	20	Pichavaram Mangrove, Koonthankulam Bird Sanctuary, SuchindramTheroor Wetland Complex, Vembannur Wetland Complex, Point Calimere Wildlife and Bird Sanctuary, Udhayamarthandapuram Bird Sanctuary, Vaduvur Bird Sanctuary, Chitrangudi Bird Sanctuary, Kanjirankulam Bird Sanctuary, Gulf of Mannar Marine Biosphere Reserve,

Water Body	Locations	Details
		Vellode Bird Sanctuary, Karikili Bird Sanctuary, Vedanthangal Bird Sanctuary, Pallikaranai Marsh Reserve Forest, Karaivetti Bird Sanctuary, Longwood shola Reserve Forest, Nanjarayan Bird Sanctuary, Kazhuveli Bird Sanctuary, Sakkarakottai Bird Sanctuary, Therthangal Bird Sanctuary.
Total	178	

Dr. V.K. Rajeev
Minister for Environment and
Climate Change



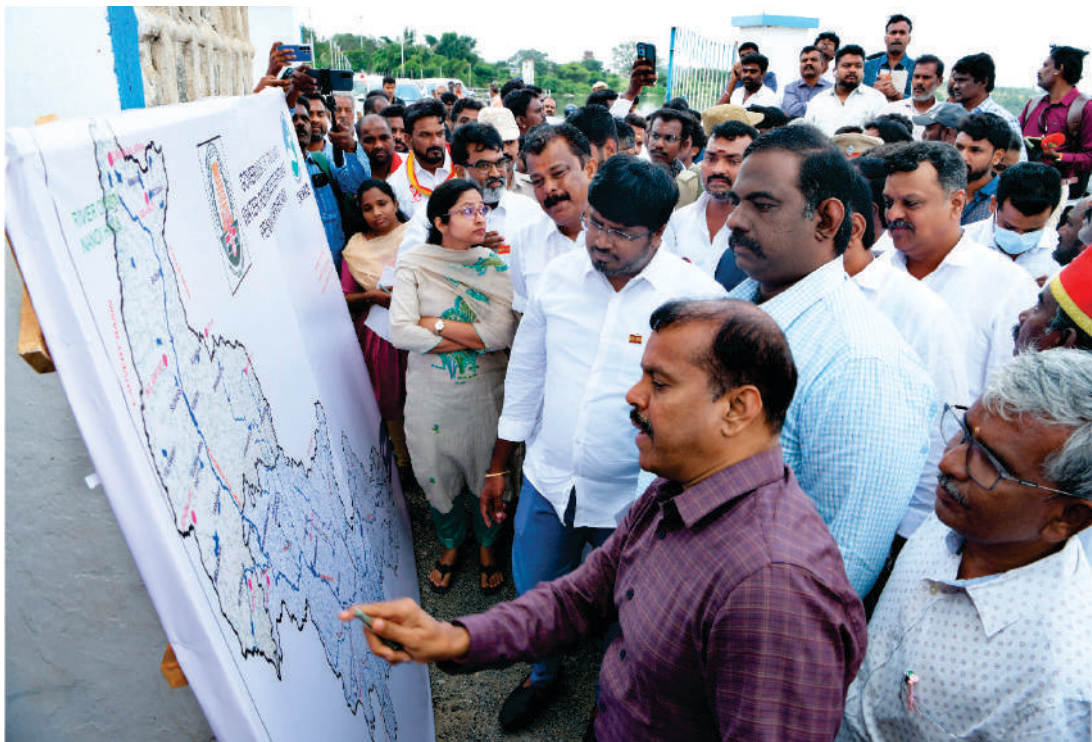
The Hon'ble Chief Minister of Tamil Nadu presented Appointment orders to the newly recruited personnel in Tamil Nadu Pollution Control Board.



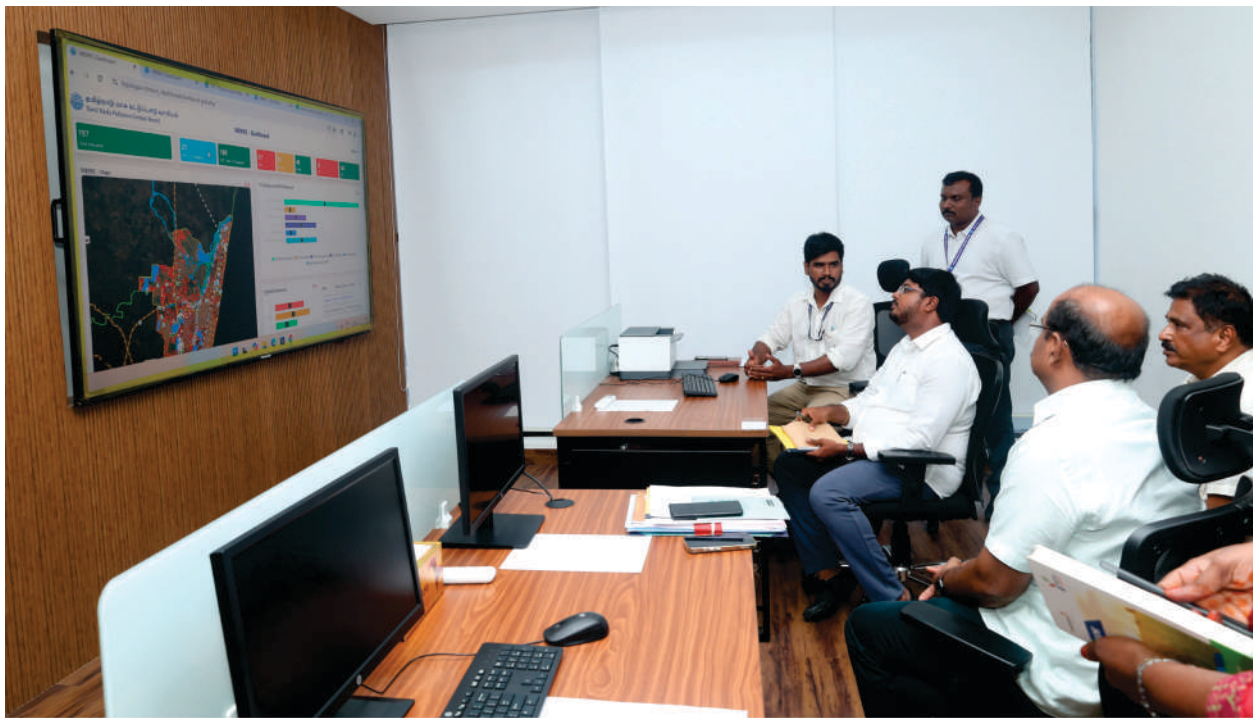
Hon'ble Minister for Environment and Climate Change launched MERRC Website and White Category Industry Portal at TNPCB Head Office, Chennai.



Hon'ble Minister for Environment and Climate Change visited Integrated Environmental Monitoring Studio (IEMS) and Eco alternatives Expo at TNPCB Corporate office.



Hon'ble Minister for Environment and Climate Change inspected Kelavarapalli dam on 07.07.2026.



Hon'ble Minister for Environment and Climate Change visited the MERRC office and reviewed ongoing restoration initiatives.



Mobile Environmental Laboratory - A field-based facility equipped for on-site environmental monitoring, sampling and analysis to support effective pollution assessment and regulatory compliance.



Chief Minister's Green Fellowship Programme – Phase II – Launch of PG Diploma on Climate Change and Sustainability.



Chief Minister's Green Fellowship Programme – Phase II – PG Diploma Launch Event – Group Photo.



Aspiring Blue Flag Beach – Kameshwaram Beach, Nagapattinam.



Aspiring Blue Flag Beach – Kameshwaram Beach, Nagapattinam



இயற்கையிலிருந்து ஊக்கம் பெறுவோம்!

காலநிலைக்காக!

நமது எதிர்காலத்திற்காக!