



ENVIRONMENT AND FORESTS DEPARTMENT

**POLICY NOTE
DEMAND No. 15**

ENVIRONMENT

2014-2015

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MINISTER FOR ENVIRONMENT**

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**GOVERNMENT OF TAMIL NADU
2014**

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1. Introduction

Environmental Protection is a practice of protecting the natural environment on individual, organizational or Governmental levels, for the benefit of both the natural environment and humans. Due to the pressure of population and technology, the biophysical environment is being degraded, sometimes permanently. This has been recognized and Governments have begun placing restraint on activities that cause environmental degradation. Since the 1960s, activity of environmental movement has created awareness about the various dimensions of the varied environmental issues.

Several initiatives have been taken by the Government for pollution abatement in rivers and lakes besides promoting environmental consciousness among the school children and the public at large.

Preserving and wherever possible, improving the quality of the environment and nurturing the cultural heritage of the State is an essential ingredient of the **Vision Tamil Nadu 2023** document. Environmental preservation would encompass the entire ecological footprint of human activity and it would include increasing forest cover, protection of wetlands, conserving groundwater, rivers and other water bodies, protection of the coastal zones and fragile ecosystems, conservation of the zoological and botanical diversity of the State, protection of soil and other natural formation from abuse on account of human activity, efficient recycling of solid waste ensuring minimal impact on the environment, minimizing atmospheric pollution

and in general maintaining the ecological balance across the entire State.

2. Directorate of Environment

The Department of Environment was created in 1995 for dealing with the task of promoting environmental awareness in the State. The Directorate is entrusted with the co-ordination of major projects like pollution abatement in the rivers Cauvery, Vaigai and Tamiraparani and in the waterways of Chennai City. The National Lake Conservation Programme, management of Coastal Zone and all other environment protection efforts except those dealt with by the Tamil Nadu Pollution Control Board are the responsibility of this Directorate.

The Directorate is headed by a Director in the rank of Chief Conservator of Forests who is assisted by an Additional Director in the rank of

Conservator of Forests. The sanctioned strength of the Directorate is 34.

3. Environment Management Agency of Tamil Nadu (EMAT) :

Environment Management Agency of Tamil Nadu (EMAT) was constituted in the year 2002 for co-ordination and liasoning between National River Conservation Directorate, Ministry of Environment & Forests, Government of India and various implementing agencies for implementation of works under National River Action Plan and National Lake Conservation Plan. The Principal Secretary to Government, Environment and Forest Department is the Chairman and the Director of Environment is the Member Secretary of the Environment Management Agency of Tamil Nadu.

The following schemes are co-ordinated by Environment Management Agency of Tamil Nadu:-

3.1. Abatement of pollution in the rivers under National River Conservation Plan (NRCP)

Under National River Conservation Plan (NRCP), the sewage outfall from the towns into the rivers Cauvery, Vaigai and Tamiraparani has been diverted, collected and treated in Sewage Treatment Plants.

3.1.1. Cauvery Stretch

This is a Centrally Sponsored Scheme under NRCP at an overall project cost of Rs.380.58 crores and implemented since 1996-97 for abatement of pollution in the stretches of river Cauvery. A sum of Rs.332.19 crores had been spent by the implementing agencies. Under Core activities Interception & Diversion and Under Ground Sewerage Scheme with sewage treatment plants have been implemented through

Tamil Nadu Water Supply and Drainage Board in (1) Erode, (2) Bhavani, (3) Komarapalayam, (4) Pallipalayam (5) Tiruchi (6) Thanjavur (7) Mayiladuthurai (8) Karur-Inam Karur (9) Tiruchi–Srirangam and by Chennai Metro Water Supply & Sewerage Board in Kumbakonam. Under Non Core activities, construction of low cost sanitation, crematoria and river front development have been completed by local bodies.

3.1.2. River Vaigai

The main works in Madurai have been taken up at an overall project cost of Rs.165.00 crores during 2007. Interception & Diversion works and Pumping stations (Phase I and II) were taken up by Chennai Metro Water Supply and Sewerage Board and the works have been completed. Till date, a sum of Rs.114.39 crores has been spent. The Interception & Diversion works, Construction of Sewage Treatment Plant is being implemented by Madurai Corporation.

3.1.3. River Tamiraparani

The Underground Sewerage Scheme (UGSS) works in respect of Tirunelveli were carried out by Tamil Nadu Water Supply and Drainage Board at a cost of Rs.54.78 crores. Solid Waste Management works have been completed at a cost of Rs.0.76 crores by local bodies.

3.1.4. Chennai City River Conservation Project (CCRCP)

A project which aims for the upgradation of the sewerage system and prevention of the entry of raw/partially treated sewage into the Chennai City waterways i.e. Cooum, Buckingham Canal, Adyar, Otteri Nullah, Captain Cotton Canal and Mambalam drain were implemented by Chennai Metropolitan Water Supply and Sewerage Board. A sum of Rs. 491.52 crores has been sanctioned by the Government of India as Grant for this project and so far, a sum of Rs. 394.73 crores

has been spent. The sewerage is pumped into the Sewerage Treatment Plants (STP) for treatment by constructing 4 STPs with a total capacity of 264 MLD of sewage, which is treated by Chennai Metropolitan Water Supply and Sewerage Board. All the above mentioned works are completed. Additional works namely strengthening the existing sewerage system and expanding capacity of Pumping Station under Chennai City River Conservation Project has been taken up for Rs.22.16 crores and the works are nearing completion. Under the non-core works, the local body of Alandur Municipality has completed a gasifier crematorium.

3.2. National Lake Conservation Plan (NLCP)

As requested by the Ministry of Environment and Forests, Government of India in 2004, to identify the polluted lakes in the state and as per the revised NLCP Guidelines 2008 for consideration under National Lake Conservation Plan,

the following 15 lakes were identified and sent to the Government of India:-

SI.No	Name of District	Name of Lake
1	Nilgiris	Ooty
2	Dindugul	Kodaikanal
3	Kancheepuram	Kolavoy
4	Salem	Yercaud
5	Chennai	Velachery
6	Kancheepuram	Thiruneermalai
7	Coimbatore	Big Tank
8	Kancheepuram	Narayanapuram
9	Madurai	Madakulam
10	Coimbatore	Singanallur Tank
11	Coimbatore	Krishnampathy
12	Nagapattinam	Tamaraikulam
13	Kancheepuram	Nemilichery
14	Kancheepuram	Kadaperi
15	Kancheepuram	Peerkankaranai

3.2.1. Revival of Ooty Lake

The Government of India sanctioned Rs.1.75 crores for revival of Ooty Lake. All the

works were completed by the Public Works Department (PWD) during 2005 at a cost of Rs.1.73 crores with 100% grant from Government of India.

As per the instructions of the Hon'ble Chief Minister to clean up Ooty lake on war footing, a sum of Rs. 4.27 crores has been sanctioned from Environment Protection and Renewable Energy Development Fund (EPRED Fund) for carrying out the Action Plan to revive Ooty Lake. One time grant of Rs.0.50 crores was released to the Lake Management Committee under the Chairmanship of District Collector, Nilgiris.

During 2013-14, a sum of Rs. 2.12 crores has been released for bio-remediation of Ooty lake.

3.2.2. Revival of Kodaikanal Lake

During 2007, as per the revised Detailed Project Report, a sum of Rs.10.42 crores was sanctioned for the revival of Kodaikanal Lake.

A sum of Rs.2.43 crores has been spent so far by the implementing agencies and the work is under progress.

3.2.3. Revival of Yercaud Lake

Detailed Project Report for the revival of Yercaud lake in Salem district has been prepared by Tamil Nadu Water Supply and Drainage Board for Rs.8.46 crores and it has been sent to National River Conservation Directorate, Government of India for approval.

4. Eco- clubs

To bring children into direct contact with the environmental problems faced by the society in which they live in and to make them think of solutions, State funded Eco-clubs were formed at school levels which is first of its kind in India. The students of Eco-clubs are engaged in various environmental awareness programmes like

organizing rallies, marches, human chains, seminars, debates, tree planting, campus cleaning, rainwater harvesting, solid waste management including vermicomposting. At present, there are 8269 Eco-clubs functioning in the State.

5. National Green Corps (NGC)

National Green Corps Programme has been launched in the State with the support from Ministry of Environment and Forests (MoEF), Government of India from 2002. The main objectives of the programme is to sensitize students about environment and related issues and involving students in action based programmes related to environment such as tree planting, environmental awareness rallies, vermicomposting, enviro-expo, enviro competitions, anti plastic campaign, cultural programmes, nature camps and celebration of at least six green days in their surroundings.

National Green Corps is functioning in 8000 schools located in 32 Districts @ 250 Schools per district. The Government of India have approved a grant of Rs.2500/- per school every year. Training is given to master trainers and teacher coordinators of each district in NGC activities. 3,20,000 children are participating in the awareness movement under this programme.

6. Coastal Zone Management (CZM)

Tamil Nadu has a coastal length of 1076 kms. and it constitutes about 15% of the total coastal length of India. The Government of India issued the Coastal Regulation Zone Notification in 2011 under Environment (Protection) Act, 1986 to protect the coastal environment and to regulate development activities along the coastal areas, thereby aiming to ensure livelihood security to the fishing communities, other local communities living in the coastal areas, to conserve and protect the coastal stretches, to promote sustainable development in the coastal areas. As per this

notification, the coastal areas have been classified into four zones.

- CRZ-I (ecologically sensitive),
- CRZ-II (built-up area),
- CRZ-III (Rural area) and
- CRZ-IV (water area which includes the water areas up to 12 Nautical mile of the territorial waters and the tidal influenced water bodies.)

CRZ area includes the land area from High Tide Line (HTL) to 500mts on the landward side along the sea front, the land area between HTL to 100 mts. or width of the creek, water bodies etc. whichever is less.

6.1. Coastal Zone Management Authorities

The Government of India, Ministry of Environment and Forests, New Delhi has constituted State Coastal Zone Management Authority (SCZMA) with the Secretary, Environment and Forests Department, Government of Tamil Nadu as the Chairman and the Director

of Environment as its Member Secretary. District Coastal Zone Management Authorities under the Chairmanship of the respective Coastal District Collectors have been formed by the State Government during 1998. At present, the State Coastal Zone Management Authority is constituted by the Government of India vide its notification S.O.91 (E) dated 18.01.2012. The Authority meets periodically to take action on CRZ issues.

7. Emergency Tsunami Reconstruction Project (ETRP)

To reconstruct the coastal stretches affected by the Tsunami and to have a comprehensive management plan for the entire coast of the State, the following schemes were sanctioned with financial assistance from World Bank.

7.1 Demarcation of High Tide Line (HTL) along the Coast of Tamil Nadu from Palar River Mouth to Thengapattinam in Kanyakumari District

The Department of Environment has demarcated high tide line for the stretch of the coastline including tidal influenced water bodies from Palar River mouth to Thengapattinam in Kanyakumari District. The high tide line reference points have been superimposed on the village cadastral maps on a scale of 1:5000. This work has been entrusted to Institute of Remote Sensing, Anna University during 2007. The preparation of HTL maps has been completed and an amount of Rs.2.20 crores has been spent on this work. The HTL maps are made available to the District Authorities.

7.2. Erection of Stone Pillars on High Tide Line (HTL) reference points

In order to facilitate the coastal community to identify the high tide line on ground, high tide line

stone pillars have been proposed along the coast at 250 mtr. interval at a cost of Rs.1.00 crore. The works has been entrusted to Forests Department and completed in 7 districts except Nagapattinam, Thoothukudi and Ramanathapuram at a cost of Rs.97.42 lakhs. The remaining works will be completed during 2014-15.

7.3 Preparation of Integrated Coastal Zone Management Plan (ICZMP)

The Integrated Coastal Management Plan has been prepared for the coastline of Tamil Nadu at a cost of Rs.4.84 crores during 2013-14. This information will be the base for taking appropriate action in deciding any developments to be undertaken along the coast and the different layers of information can be used to assess the damage and plan for remedial measures at times of coastal hazard.

7.4 Training and awareness programme

To develop awareness about the Integrated Coastal Zone Management Plan among the various stakeholders and coastal community, training and awareness programmes are proposed in the 13 coastal Districts at a cost of Rs.1.00 crore. The training module from the Consultant has been received and the training will be conducted on approval of necessary financial sanction from the Government during 2014-15.

8. Environmental Information System (ENVIS)

The Environmental Information System Centre sponsored by the Government of India is functioning in the Department of Environment from October 2002. This Environment Information System Centre will provide information on various aspects about the State of environment and related issues of Tamil Nadu.

ENVIS centre is engaged in collection, collation, storage, retrieval and dissemination of environmental information through a website *www.tnenvis.nic.in* and publication of Newsletters, creation of web based database answering environmental queries etc. are some of the activities covered under ENVIS.

9. Other Activities of the Department

9.1. Environment Awards

The best Non-Governmental Organizations, experts and individuals who make an excellent contribution in the field of environment education and awareness, Environment Protection and Management are honoured by the State Government, every year. These Environmental awards which were instituted during the year 2000 are distributed on the World Environment Day celebrations on June 5th every year. Apart from the above category environmental award is also given

for the best Research Paper. Ten awards per year are given worth a Prize money of Rs.1.13 lakhs.

9.2. Awareness about ill effects of burning of Rubber and Plastic Materials

In order to create awareness about the ill effects of burning of tyres, plastics and other materials on the eve of Bhogi a three day awareness campaign is organized by the Department of Environment throughout Chennai City. The Public are addressed through Public Address System, visual media to refrain from burning of plastic, tyres etc., Hand Bills are distributed to the Public and the Eco-clubs throughout the State. Similar campaigns are organized every year. Because of this campaign, there has been significant reduction in the burning of plastics and tyres on the eve of Bhogi. Bhogi awareness activities were carried throughout the State by NGC Eco clubs.

10. Environment Protection and Renewable Energy Development Fund

The Government of Tamil Nadu in G.O.(3D) No 43 / Environment & Forest (EC-2) Department dated 19.7.2010 created an “Environment Protection and Renewable Energy Development Fund” for implementing schemes for the protection of the environment and promotion of clean energy in the State.

This fund will be utilized both for (a) promotional and (b) project based activities and will cover activities of greening of Tamil Nadu through planting of trees outside the forest areas, initiatives and interventions in the field of renewable energy and prevention of environment degradation through Government Departments, Public Sector undertakings/ organizations, non-governmental organizations, Voluntary Organizations, Self-Help Groups, Tree Grower Societies, Community Based Organizations, Educational and Research Institutions / organizations and individuals.

10.1. Relaying of Roads using plastic waste collected from Local Bodies

As desired by the Hon'ble Chief Minister of Tamil Nadu to make Tamil Nadu a plastic free State it was decided to use the plastic waste collected by the local bodies for relaying of roads. Plastic roads were laid at a length of 1104 kms. during the year 2011-12 & 2012-13 at a cost of Rs.142.88 crores. During the year 2013-14, a sum of Rs.50.00 crores was sanctioned, of which plastic roads were laid at a length of 260 kms., at a cost of Rs.35.18 crores. The remaining works are in progress.

10.2. Eco Restoration activities

A sum of Rs. 50.00 crores was allocated for carrying out various eco restoration activities such as bioremediation of Chetpet lake, Udthagai lake, Shola regeneration, eco-restoration activities in Guindy National Park, Vedanthangal Birds

Sanctuary and Arignar Anna Zoological Park, Vandalur, installing 1.5 MW Wind Turbine at Kayathar etc. during the year 2013-14.

10.3. Incentive scheme and awareness activities

As desired by the Hon'ble Chief Minister to make Tamil Nadu a plastic free state, incentives to the tune of Rs.30.00 lakhs at the rate of Rs.5.00 lakhs, Rs.3.00 lakhs, Rs.2.00 lakhs as first, second and third prize respectively, have been distributed to the best three plastic free Villages, best three Self-help groups who play a major role in collecting maximum plastic waste in their area and best plastic free, green & clean three Schools in the State.

11. State Action Plan on Climate Change

Climatic change is a major global environmental problem and also an issue of great concern to a developing country like India. Integrating the issue of Climate Change adaptation

in various sector policy decisions that reduce risk and enhance the adaptive capacity, the States in India are preparing the State Action Plan on Climate Change (SAPCC). The SAPCC of Tamil Nadu focuses on Sustainable Agriculture, Water Resources, Forest & Biodiversity, Coastal Area Management, Energy, Sustainable Habitat and Knowledge Management sectors.

The strategies and actions indicated in the State Action Plan on Climate Change will be implemented by the Government of Tamil Nadu on the approval of said plan by the Government of India.

12. Part II Schemes for 2013-14

1. Environment Profile for the regions where there is significant environmental impacts due to industrialization for Northern Region comprising Chennai, Thiruvallur, Kancheepuram, for Western Region comprising Coimbatore, Thiruppur, Erode, Karur and for Southern Region comprising

Thoothukudi, Tirunelveli and Kanniyakumari districts have been prepared by Environmental Information Centre at a cost of Rs.30.00 lakhs under Part-II Scheme 2013-14. These Environmental Profiles will help in the formulation of an appropriate policy for environmental management.

2. Environment Information Dissemination Centres were formed at a cost of Rs.20.00 lakhs in 10 districts. These Centres have been created with a library containing environmental related books, display charts, boards, blow ups (both in English and Tamil) highlighting issues related to Biodiversity hotspots, climate change, global warming etc. and also with audio and video facilities.

13. Mass Awareness Campaign in 2013-14.

For sensitizing the public about the ill effects of non degradable plastics and to avoid the usage of plastics to control the degradation of

Environment, Awareness Programmes through “Message on Wheels” were carried out through Non Governmental Organizations in all the 32 districts of the State at a cost of Rs. 64.00 lakhs.

14. Part II Proposals for the year 2014-15

1. Two Eco sensitive areas of the State which requires immediate attention by adopting integrated management approaches to carry out restoration programmes that have been damaged or degraded by past activities will be identified and Environment Management will be prepared at a cost of Rs.10.00 lakhs each.

2. A sum of Rs.10.00 lakhs has been allocated for strengthening of the existing Environment Information Dissemination Centres.

3. A sum of Rs.50.00 lakhs has been sanctioned for carrying out various awareness programmes such as conducting Seminar &

Workshops, erecting Hoardings in 32 districts and Web Hosting (Online Quiz).

4. A sum of Rs.10.00 lakhs has been allocated for the establishment of Climate Change Cell.

5. A sum of Rs. 1.00 crore has been allocated for strengthening the best performing 500 Eco clubs of the State as an innovative measure during the year 2014-15.

15. Eco Restoration activities in 2014-15

A sum of Rs. 100.00 crores has been allocated for carrying out various eco restoration activities during the year 2014-15. A sum of Rs.30.00 crores will be utilized for the restoration of Chetpet lake and the balance funds will be used to restore lakes, water bodies and for other works like relaying of roads using plastic wastes in Tamil Nadu.

TAMILNADU POLLUTION CONTROL BOARD

1. INTRODUCTION

The Tamilnadu Pollution Control Board (TNPCB) was constituted by the Government of Tamilnadu in 1982 in pursuance of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974). It enforces the provisions of the:-

- The Water (Prevention and Control of Pollution) Act, 1974
- The Water (Prevention and Control of Pollution) Cess Act, 1977
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The Environment (Protection) Rules, 1986
- The Noise Pollution (Regulation and Control) Rules, 2000 as amended
- The Municipal Solid Wastes (Management and Handling) Rules, 2000

- The Biomedical Waste (Management and Handling) Rules, 1998 as amended in 2000 & 2003
- The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended in 1994 and 2000
- The Battery (Management and Handling) Rules, 2001 and its amendments
- The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and its amendment
- The Plastic Waste (Management and Handling) Rules, 2011
- e-Waste (Management & Handling) Rules, 2011.

2. FUNCTIONS

The main functions of the TNPCB under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 are as follows:-

- To plan a comprehensive programme for the prevention, control and abatement of water and air pollution.
- To inspect sewage and trade effluent treatment plants for their effectiveness and review plans, specifications for corrective measures.
- To inspect industrial plants or manufacturing process, any control equipment and to give directions to take steps for the prevention, control or abatement of air pollution.
- To lay down, modify or annul effluent standards for the sewage and trade effluents and for the emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source.

- To collect samples of sewage and trade effluents and emissions of air pollutants and to analyze the same for specific parameters.
- To collaborate with the Central Pollution Control Board in organizing training of persons engaged or to be engaged in programme relating to prevention, control or abatement of water and air pollution and to organize mass education programme relating thereto.
- To advise the State Government on any matter concerning the prevention, control or abatement of water and air pollution.
- To perform such other functions as may be prescribed by the State Government or Central Pollution Control Board.

3. CONSTITUTION OF TNPCB

TNPCB is constituted by the State Government. It comprises a full time Chairman, 5 officials nominated by the State Government, 5 persons to represent local authorities, 3 non-officials to represent the interests of agriculture, fishery or industry or trade, 2 persons to represent the companies or corporations owned by the State Government and a full time Member Secretary.

4. ORGANISATIONAL SET UP

The TNPCB has established its organization structure with a three-tier system consisting of head-office at Chennai, Regional offices and District offices with total staff strength of 768. There are 34 District offices, 32 of which are headed by District Environmental Engineers and 2 by Assistant Environmental Engineers. Two flying squads are also functioning at Erode and Tiruppur. To assist the Board in monitoring the industries, 5 Advanced

Environmental Laboratories and 10 District Environmental Laboratories are functioning. These laboratories carry out analysis on samples of sewage, trade effluents, emissions and hazardous wastes.

5. MONITORING OF INDUSTRIES AND ISSUE OF CONSENT

Industries have to obtain consent for discharge of sewage / trade effluent into any stream or well or into sewer or land under the Water (Prevention and Control of Pollution) Act, 1974 as amended and to operate the plant in air pollution control area of entire Tamil Nadu under the Air (Prevention and Control of Pollution) Act, 1981 as amended. Industries are categorized as, Red, Orange, and Green according to their pollution potential. The industries have also been classified as Large, Medium and Small scale based on the gross fixed assets of the industry and they are monitored periodically.

The consent is issued to industries in two stages. 'Consent to Establish' is issued depending upon the suitability of the site before the industry takes up the construction activity. 'Consent to Operate' is issued before commissioning the industrial unit after the compliance of conditions of 'Consent to Establish' is issued. The field officers of the Board inspect the industries under their jurisdiction periodically to assess the adequacy of pollution control measures provided by the industries to treat sewage, trade effluents and emissions and to monitor their performance. They also investigate complaints of pollution received from the public, organizations and the Government.

During the year 2013-2014, the Board has issued 1,700 'Consent to Establish' orders and 1,709 'Consent to Operate' orders under the Water (Prevention and Control of Pollution) Act, 1974 as amended and the Air (Prevention and Control of Pollution) Act, 1981 as amended. During the year 2013-14, ambient air quality surveys were

conducted in 1,156 industries and 22,368 samples of sewage and trade effluents were collected for analysis.

6. CARE CENTRE

TNPCB has established a “CARE Centre” (Central Application Receiving Centre) as an industry friendly initiative to help industries to file applications painlessly and to expedite the process of issue of consent / authorization. The Centre counsels industries on the rules, it helps them to file the applications, it gives the status of pending applications and despatches consent orders within specified time limits through the single window system. Applicants can know the status of their applications online by accessing the TNPCB website. This Centre caters to the needs of industries/ local bodies located in Chennai, Tiruvallur and Kancheepuram Districts.

During the year 2013-14, 2,430 applications were received by the Care Centre and

1,556 consent orders have been issued. Consent fees of Rs.11.51 crores has been collected by the Care Centre.

7. INSPECTIONS OF INDUSTRIAL UNITS AND SAMPLE COLLECTION PERIODICITY

The Board vide B.P. Ms No. 22 dated 25.2.2004 has fixed norms for inspection and sample collection from the industries as follows:-

Type of Industry	Category	Inspection	Sample Collection
Large	Red	Once in 3 months	Once in a month
	Orange	Once in 6 months	Once in 4 months
	Green	Once in 2 years	----
Medium	Red	Once in 4 months	Once in 3 months
	Orange	Once in 6 months	Once in 6 months
	Green	Once in 2 years	----
Small	Red	Once in a year	Once in 3-6 months
	Orange	Once in 2 years	Once in 6 months
	Green	Once in 2 years	----
17 Category of Industries		Once in a month	Once in a month

8. COMMON EFFLUENT TREATMENT PLANTS STATUS

The TNPCB plays an important role in the establishment of Common Effluent Treatment Plants (CETPs) for clusters of small-scale industries in various parts of the State. Small-scale industries often express financial difficulties, lack of space and other reasons which prevent them from putting up required individual Effluent Treatment Plant (ETP). The Board in coordination with other Departments assists the units for preparation of proposals, obtaining approvals, mobilization of financial resources and in the technical scrutiny of the plan proposals for the CETPs.

CETPs are formulated in the following sectors:-

Tanneries	13 Schemes
Textile Bleaching & Dyeing Units	30 Schemes
Hotels & Lodges	1 Scheme

Out of 13 CETP schemes established for tanneries, 11 CETPs are under operation with

Zero Liquid Discharge (ZLD) system. The remaining two CETPs for tanneries have opted for dilution of tannery effluent with sewage to achieve the standards prescribed by the Board.

Out of 30 CETPs established for textile dyeing processing units, 19 CETPs have implemented the ZLD system. Among the remaining 11 CETPs, 10 CETPs are closed in view of orders of Hon'ble High Court. The other one CETP is permitted to operate for preparation of ZLD proposal.

For the 18 CETP schemes of textile dyeing processing units in Tiruppur, the State Government has sanctioned Rs.179.34 crores, out of Rs.200 crores interest free loan announced by the State Government for modernization/improvement of ZLD system. The sanctioned amount is released to the respective 18 CETP schemes for textile dyeing processing units by the Director of Handlooms and Textiles.

9. WASTE MANAGEMENT

9.1 MANAGEMENT OF MUNICIPAL SOLID WASTE

The Municipal Solid Wastes (Management & Handling) Rules, 2000 has been notified by Government of India for the proper management of municipal solid wastes. The role of Pollution Control Board is to issue authorisation to municipal authorities, to monitor the compliance of the standards regarding ground water, ambient air, leachate quality and the compost quality including incineration standards for waste processing and disposal facilities. The Board has issued authorisation to 5 Corporations, 50 Municipalities and 87 Town Panchayats for composting of municipal solid waste and setting up of waste processing facility. The Board is advocating the concept of segregation of wastes at source, reduction, recycle and reuse of wastes to avoid any environmental issues during handling.

9.2 MANAGEMENT OF PLASTIC WASTE

The Ministry of Environment and Forests, Government of India vide Notification dated 4.2.2011 notified “The Plastic Waste (Management and Handling) Rules, 2011”. As per this notification, no person shall manufacture, stock, distribute or sell any carry bag made of virgin or recycled or compostable plastic, which is less than 40 microns in thickness. Plastic carry bags, multilayered plastic pouch (or) sachet units, recycle plastic carry bags shall obtain registration certificate from Pollution Control Board. The role of Pollution Control Board is to enforce the provisions of these rules which are related to authorization, manufacture, recycling and disposal of plastic wastes.

Awareness programmes were conducted for the Public/Government bodies by TNPCB on the ill effects of plastics and the need to use alternatives to the “use and throw plastic” items. In order to implement the Plastic Waste (Management &

Handling) Rules, 2011 in all the Districts of Tamil Nadu, on 24.10.2013, a drive was carried out under the chairmanship of District Collector, in co-ordination with the officials of TNPCB and officials of local bodies, to ensure that the traders do not sell the banned plastic carry bags and for imposing fine on defaulters.

9.3 MANAGEMENT OF HAZARDOUS WASTE

TNPCB is taking effective steps in handling and management of hazardous wastes, its treatment and disposal in an environmentally safe manner. The Board has identified and listed out 3,067 units generating hazardous wastes under the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 as on 31.03.2014.

A common hazardous waste Treatment Storage and Disposal Facility (TSDF) is established at SIPCOT industrial estate, Gummidipoondi and it is in operation. The federation of common effluent

treatment plants, Tiruppur, has identified a site for CETP at Nallur village, in Tiruppur District. The federation of CETPs & ETPs in Karur have identified a site at Mathagiri Village, in Karur District to establish a secure landfill facility for disposal of sludge generated from treatment of textile dyeing effluents. A common treatment storage and disposal facility is proposed to be established in Virudhunagar District for which Environmental Clearance is awaited. Further, action is being taken to establish a common hazardous waste treatment storage and disposal facility at SIPCOT, Perundurai.

Textile hazardous waste generated from the sludge of ZLD is being used in co-processing of cement factory as an alternate method of disposal. Prior to it, a detailed study and evaluation was done at a cement factory in the presence of Central Pollution Control Board (CPCB) and it established the compatibility of textile hazardous waste that can be used in co-processing in cement factory.

Similarly, tannery hazardous waste from the sludge of ZLD is used in cement factory, as an alternate method which is under trial in a cement factory for establishing the hazardous waste compatibility.

9.4 MANAGEMENT OF BIOMEDICAL WASTE

The Biomedical Waste (Management & Handling) Rules, 1998 are applicable to every occupier of an institution generating, collecting, receiving, storing, transporting, treating, disposing and / or any other form of handling of bio-medical waste. As per the Rules authorization of State Pollution Control Board (SPCB) is required for handling of Bio Medical Waste (BMW). It is the duty of the occupier of an institution generating BMW to take all steps to ensure that the BMW is handled without any adverse effect to human health and environment.

The Board has so far inventorised 6,246 private and Government hospitals in the State. All these hospitals have made agreement

with the Common Biomedical Waste Treatment Facilities (CBMWTF) for the disposal of the BMW. The CBMWTF consists of autoclave, shredder, incinerator and secured land fill facilities. There are 12 CBMWTFs in Tamil Nadu out of which 11 are in operation and one at Uthukottai in Tiruvallur District is under construction. All the 11 common treatment facilities have been issued authorisation by the Board and so far 5,679 health care facilities have also been issued authorisation. About 38.93 Tonnes per day of BMW is handled by the CBWTF facility.

Global Healthcare Waste Project – Tamil Nadu Component

The Global Environment Facility (GEF) an international funding body under the United Nations Development Program (UNDP) identified Tamil Nadu State for funding the project titled ***‘Demonstrating and promoting best techniques and practices for reducing health care waste to avoid environmental releases of***

dioxins and mercury'. GEF has granted about Rs.1.4 crores and the fund is routed through Ministry of Environment and Forests, Government of India.

Under this project, 14 hospitals with a composition of 6 Government hospitals, 8 private hospitals and one common treatment facility (CTF) have been identified for up-gradation and development. The CTF was provided with an autoclave, shredder, online stack monitor and software for waste tracking. The 14 hospitals were provided with needle hub cutters (totally 300 nos.), non-mercury BP apparatus (totally 869 nos.), non-mercury thermometers (totally 1,288 nos.) so as to complete elimination of using mercury devices. In addition, the government hospitals were provided with electronic weighing scales, and consumables. They were also trained on bio-medical waste management, mercury spill management etc.

9.5 MANAGEMENT OF e- WASTE

MOEF, GOI has published guidelines for Environmentally Sound Management of e-waste in March 2008. e-Waste (Management & Handling) Rules, 2011 was published by MOEF, GOI in Notification dated 12.05.2011 and is effective from 1.5.2012 in Tamil Nadu.

As per these Rules, Pollution Control Board has to issue authorisation for the producer of electrical and electronic equipments, e-waste recyclers, e-waste dismantlers and e-waste collection centres.

TNPCB has issued consent to 19 e-Waste recyclers for segregation & recovery of Printed Circuit Board (PCB), Integrated Chip (IC), Iron, Copper, Rubber and Glass from the mixed computer electronics and electrical goods scrap and sent for recycling. PCB/IC wastes are exported to foreign countries such as USA, Singapore and Malaysia to recover the heavy metals present in the said wastes and other wastes are disposed through the authorised inland recyclers.

TNPCB has issued registration to 16 units and authorisation for 23 units under the e-Waste (Management & Handling) Rules, 2011.

10 AIR QUALITY MONITORING

TNPCB is operating the following ambient air quality monitoring stations in Tamil Nadu under National Air Quality Monitoring Programme (NAMP).

SI. No.	CITY/ TOWN	LOCATION	LAND USE
1	Chennai	Kathivakkam	Industrial zone
		Manali	Industrial zone
		Thiruvottiyur	Industrial zone
		Kilpauk	Commercial (traffic intersection)
		Thiyagaraya Nagar	Commercial (traffic intersection)
		Vallalar Nagar	Commercial (traffic intersection)

		Anna Nagar	Residential zone
		Adyar	Residential zone
2	Thoothukudi	Raja Agencies	Industrial zone
		SIPCOT	Industrial zone
		A.V.M. Building	Mixed zone
3	Coimbatore	G.D. Matriculation School Building	Mixed zone
		Ponnaiya-rajapuram	Residential zone
		SIDCO Building	Industrial zone
4	Salem	Sowdeswari College	Mixed zone
5	Madurai	Highways Project Building	Residential zone
		M/s.Susee Cars and Trucks Co., Ltd.	Industrial zone
		Madurai Corporation Office (South)	Mixed zone

6	Trichy	Gandhi Market	Commercial zone
		Main Guard Gate	Traffic intersection
		Bishop Heber College	Mixed zone
		Golden rock	Residential zone
		Central bus stand	Traffic intersection

All the above stations are functioning on 24 hours basis, twice a week. The samples collected from NAMP stations are analysed for the Respirable Suspended Particulate Matter (RSPM) (RSPM is particulate matter less than 10 microns) and gaseous pollutants such as oxides of Sulphur and Nitrogen.

During 2013-14, the average values of oxides of Sulphur and Nitrogen were found to be well within the prescribed standards for Ambient Air in all the stations. However the average value of RSPM was found to have exceeded the prescribed standards in certain locations.

11 CARE AIR CENTRE

In order to monitor both source emissions and ambient air quality on a real time basis, TNPCB has established a Centre for Accessing Real Time Air (Quality) Information Report (**CARE AIR**) at the Head office of the Board. This is a continuous real time emission monitoring system which is functioning on 24 X 7 basis. This is the first of its kind in the whole country and has been appreciated by the Government of India. When the emission levels exceed the norms, an inbuilt alarm system has been established to inform the concerned industry and the District Environmental Engineer/Member Secretary through automated SMS for remedial action immediately. So far, 237 industries have been connected to the CARE AIR centre and the emissions are monitored continuously. Apart from the above, monitoring of effluent discharge has also been included and is being monitored at the centre.

12. WATER QUALITY MONITORING

TNPCB is monitoring the water quality of major rivers and its tributaries under the Monitoring of Indian National Aquatic Resources (MINARS) programme and under the Global Environmental Monitoring System (GEMS) as detailed below:-

Sl. No	Water Bodies	No.of stations	Water quality of water body
1	Cauvery and its tributaries	33	Suitable for outdoor bathing, drinking water source with conventional treatment followed by disinfection and also for fish culture and wild life propagation.
2	Tamirabarani	12	Suitable for outdoor bathing, drinking water source with conventional treatment followed by disinfection

3	Palar	1	Suitable for drinking water source with conventional treatment followed by disinfection.
4	Vaigai	1	Suitable for drinking water source with conventional treatment followed by disinfection.
5	Lakes	8	Suitable for drinking water with conventional treatment followed by disinfection and fish culture and wild life propagation

13. OTHER ACTIVITIES OF THE BOARD

13.1 ENVIRONMENTAL TRAINING INSTITUTE

Environmental Training Institute (ETI) established in 1994 is an organizational wing of TNPCB. The main objective of the training institute is to impart training to staff of the Pollution Control Board, representatives of Industry and non-governmental organizations. During the year 2013-14, the ETI has conducted 14 training

programmes, in which 757 participants have been trained. Training programme was conducted for the Medical College Students, Officials of Local Bodies, Fire Department and Deputy Collectors on pollution control legislations, decentralized treatment system for community sewage management, Biomedical Waste Management etc.,

13.2 CLEANER TECHNOLOGIES

TNPCB is involved in promoting a holistic approach of environment protection by cleaner technology options more than mere end-of-pipe treatment. With active support and encouragement from the Board, several industrial units in Tamil Nadu have switched over to cleaner technologies such as adoption of membrane cell instead of mercury cell in caustic soda manufacturing, adoption of dry process instead of wet process to reduce air pollution in cement factories, utilization of 25 to 30% of fly ash in PPC cement manufacturing, adoption of double conversion and double absorption technology in sulphuric acid

manufacturing, gas carburizing instead of cyanide salt in heat treatment and cyanide free electroplating. Pulp and paper industries are encouraged to go in for elemental chlorine free bleaching to reduce the formation of organo-chlorides including dioxins. Industries consuming ozone-depleting substances are systematically changing to environment friendly compounds. Recently TNPCB has initiated steps for demonstrating best available technologies for MSME through Technology Demonstration Centre established at IIT, Madras.

13.3 TECHNOLOGY DEMONSTRATION CENTRE

TNPCB has established a Technology Demonstration Centre at IIT, Madras, entered into an Memorandum of Understanding (MOU) and a sum of Rs.5 crores have been allocated for this purpose. The MOU has been signed with IIT in presence of Honourable Minister for Environment on 17.4.2013. The Technology Demonstration

Centre has conducted treatability studies for rice mills, sago and small scale textile processing units. This centre has also conducted awareness programme on landfill fire management on 2.5.14 for the Municipal Authorities, Fire Department and TNPCB officials. The centre has also conducted technical workshop for sago industries on 12.5.2014 and 13.5.2014 for better understanding the characteristics of sago waste water, anaerobic treatment, biogas generation, optimizing the process parameters to enhance the composition and quantity of biogas generated.

13.4 MASSIVE TREE PLANTING PROGRAMME

During the year 2012, to commemorate the 64th Birth Anniversary of the Hon'ble Chief Minister, 64 lakh seedlings were planted throughout Tamil Nadu through the Forest Department. TNPCB has funded the project.

In the year 2013 and 2014 to commemorate the 65th and 66th Birth Anniversary of the Hon'ble Chief Minister, TNPCB has provided funds to the

Forest Department for planting 65 and 66 lakh seedlings respectively.

13.5 OFFICE BUILDING CONSTRUCTION

TNPCB is having own buildings for 10 District offices. The remaining 24 District offices are functioning in rented buildings. During the last 3 years, TNPCB had initiated action for construction of 8 new District office buildings. The construction of new office buildings are in progress in Villupuram, Thanjavur, Pudukottai, Sivagangai, Dindigul, Virudhunagar, Namakkal and Coimbatore.

13.6 GREEN AWARDS

Green award is given to industries who have adopted best practices in achieving best environmental quality in emission, developing green belt, discharge of wastewater and solid and hazardous waste management.

13.7 ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

A special ambient air quality survey on pre-bhogi and bhogi days were carried out in Chennai at 15 places as a part of the awareness campaign among the public about the health hazards caused due to air pollution by burning of wastes. During Deepavali noise level and Ambient Air Quality are monitored. The Deepavali survey is carried out in the important cities viz. Chennai, Trichy, Coimbatore, Madurai, Tirunelveli, Vellore, Salem, Hosur, Tiruppur, Dindigul and Cuddalore.

13.8 TNPCB AND YOU

To guide the new entrepreneurs in understanding the various environmental legislations and the procedure for obtaining consent of TNPCB, the Board has published a book titled 'TNPCB and You' during the World Environment Day function. The soft copy of the book is also available in Board's web site (www.tnpcb.gov.in).

13.9 LIBRARY

The TNPCB Library was established during the year 1989. At present, it has a collection of about 11,092 books and reports. The Library subscribes to 76 Journals (English & Tamil), 9 Newspapers and 16 Magazines related to environment. Membership is open to all the stake holders in the environmental sector.

13.10 NEWS LETTER

TNPCB is publishing a news letter on quarterly basis, containing the news about the activities of the Board, environmental issues in various districts, poetry and essays on environmental issues etc. This news letter is widely circulated among the Government Departments, District Collectorates in the State. Copies of this newsletter are sent to other State Pollution Control Boards in India. All the awareness programme details, best practices in Industries, Climate change and mitigation and Board initiatives for better enforcement are the highlights of the news letter.

14. CONCLUSION

TNPSB has always set an example for the other State Pollution Control Boards in the country in helping the small scale sector to establish CETPs. TNPSB is the first Board in the country to establish the CARE AIR Centre for online continuous monitoring of air emissions, around 237 industries have been connected online and are being monitored 24 hours. TNPSB is also the first Board in the country to establish 11 CBMWTFs for treating and disposal of BMW. TNPSB is again the first Board to implement the ZLD system in the country effectively in more than 30 CETPs established for the textile dyeing units and tanneries.

TNPSB is taking all efforts to ensure that the effluent generated from industries is treated to the standards prescribed and the environment is protected. The Board under the able guidance of the Hon'ble Chief Minister is taking fullest efforts

to translate the “Vision 2023” into a reality for a sustainable development of the State and to make TNPCB the number one Board.

**THOPPU N.D. VENKATACHALAM
MINISTER FOR ENVIRONMENT**