



ENVIRONMENT AND FORESTS DEPARTMENT

POLICY NOTE

DEMAND NO: 15

**ENVIRONMENT
2012-2013**

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MINISTER FOR ENVIRONMENT**

**GOVERNMENT OF TAMIL NADU
2012**

DEPARTMENT OF ENVIRONMENT

1. Introduction

Population growth increases the environmental load and rapid economic growth intensifies environmental degradation. Protecting the environment is the responsibility of the state as well as every citizen. Degradation of the environment imposes the maximum costs on the poor and underprivileged. Hence, by protecting the environment, the economic interests of the poorer sections of society are also safeguarded. Several initiatives have been taken by the Government for abatement of pollution in rivers and lakes besides involving the community and school children in implementing environmental protection programmes and bringing about environmental awareness. Networking the existing institutions for identification of pollution sources and prevention of pollution is very much needed for total environmental protection.

2. Environmental Management

The Department of Environment was created in 1995 as the Nodal Department for environmental management of the State and the department discharges its responsibilities in the following areas.

- (a) Implementing schemes supported by National River Conservation Directorate (NRCD) / MoEF through Environment Management Agency of Tamilnadu (EMAT), the Tamil Nadu Water Supply and Drainage Board (TWAD) and the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB).
- Abatement of pollution in 12 Towns on the banks of river Cauvery, Vaigai and Tamiraparani
 - Abatement of pollution in Chennai City waterways
 - Abatement of pollution in the selected lakes in the State

- b) Organizing various environmental awareness programmes for school students through National Green Corps
- c) Enforcing the provisions of the Coastal Regulation Zone (CRZ) Notification.
- d) Implementation of Emergency Tsunami Reconstruction Project (ETRP) with World Bank assistance.
- e) Providing web-based environmental details through Environment Information System (ENVIS)
- f) Preparation of Environment Management Plan for small towns.

3. Abatement of pollution in the rivers under National River Conservation Plan

Under NRCP, the sewage outfall from the towns into the rivers Cauvery, Vaigai and Tambiraparani has been diverted, collected and treated in Sewage Treatment Plants.

3.1. Cauvery

Interception & Diversion and Under Ground Sewerage Schemes 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 (10) Kumbakonam (UGSS has been implemented by Chennai Metro Water Supply & Sewerage Board). A sum of Rs.329.40 Crores has been spent by the implementing agencies against the sanction cost of Rs 380.58 Crore.

3.2. River Vaigai

Interception & Diversion works and Pumping stations (Phase I & II) were taken up by Chennai Metro Water Supply and Sewerage Board in 2007 and the works have been completed. Construction of Sewage Treatment Plant is under implementation by Madurai Corporation with JNNURM funding. An amount of Rs.111.90 crores has been spent for this work against the sanctioned cost of Rs.165.00 crores.

3.3. River Tamiraparani

The UGSS works in respect of Tirunelveli were taken up by Tamil Nadu Water Supply and Drainage Board at a sanctioned cost of Rs.66.00 crores during 2001. The scheme has been completed and an amount of Rs.56.90 crores was spent on this scheme.

3.4. Chennai City River Conservation Project (CCRCP)

This project aims for the upgradation of the sewerage system for preventing the entry of raw/partially treated sewage into the Chennai City waterways ie. Cooum, Buckingham Canal, Adyar, Otteri Nullah, Captain Cotton Canal and Mambalam drain and pumping it to the sewage treatment plants for treatment by constructing 4 sewage treatment plants (STPs) with a total capacity of 264 MLD of sewage treated by Chennai Metropolitan Water Supply and Sewerage Board. All the above works were completed. To further strengthen the sewerage system, additional works were taken up and are under progress. The total expenditure

incurred is Rs.391.77 crores against sanction cost of Rs.491.52 crores.

4. National Lake Conservation Plan (NLCP)

During 2004, MoEF requested the State Government to identify the polluted lakes as per the criteria stipulated in the Guidelines for consideration under National Lake Conservation Plan. The following 15 lakes were identified based on the revised NLCP Guidelines 2008 and forwarded to Gol.

Sl.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

4.1 Revival of Ooty Lake:

Government of India sanctioned Rs.1.75 crores for revival of Ooty Lake. All the works were completed by the PWD during 2005 at a cost of Rs.1.73 crores.

4.2 Revival of Kodaikanal Lake

The revised Detailed Project Report for Kodaikanal Lake was sanctioned for Rs.10.42 crores during 2007. The work is under progress. A sum of Rs.3.99 crores has been spent so far by the implementing agencies.

Detailed project report for Yercaud Lake has been prepared for Rs.5.48 crores and sent to National River Conservation Directorate for approval.

5. National Green Corps (NGC)

National Green Corps Programme has been launched in the State with MoEF, Government of India support during 2002. The main objective of the programme is to sensitise students about environment and related issues and involving students in action based programmes related to environment such as Tree planting, Environmental Awareness Rallies, Vermi composting, Enviro-expo, Enviro competitions, Anti plastic campaign, Cultural programmes, Nature Camp 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. Nearly 3,20,000 children are participating in the awareness movement under this programme.

6. Coastal Zone Management (CZM)

In order to protect the coastal environment and to regulate development activities along the coastal areas, Government of India issued the Coastal Regulation Zone Notification in 1991 amended in 2011 under Environment (Protection) Act, 1986 aiming to ensure livelihood security to the fisher communities and other local communities living in the coastal areas and to conserve and protect the coastal stretches, promoting sustainable development taking into account the dangers of natural hazards in the coastal areas including sea level rise due to global warming. As per this notification, the coastal areas include 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 whichever is less on the landward side along the tidal influenced water bodies, the intertidal zone and the water area between the LTL to the territorial water limit (12 Nautical miles) in case of sea and the water area between LTL at the bank to

the LTL on the opposite side of the bank, in case of tidal influenced water bodies.

6.1. Coastal Zone Classifications and Management Authorities

- 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 Nm of the territorial waters and the tidal influenced water bodies.)

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. The present State Coastal Zone Management Authority was

constituted by Government of India vide its notification S.O.91 (E) dated 18.01.2012 and the State Coastal Zone Management Authority has cleared 14 projects and recommended 8 projects to Government of India in the year 2011-2012.

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 was entrusted to Institute of Remote Sensing, Anna University during the year 2007. The preparation of HTL maps has been completed and an amount of Rs.2.19 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 m interval at a cost of Rs.1 crore. This work has been commenced during the year 2007-08 and 513 pillars have been erected in 3 Districts at a cost of Rs.16.50 lakhs. Works in the balance ten Districts has been entrusted with Forest Department and fixing HTL points in 9 Districts is under progress and it is proposed to complete all the works during 2012-13.

7.3 Preparation of Integrated Coastal Zone Management Plan (ICZMP)

The coast of Tamil Nadu is replete with several economic activities like industries, tourism and fisheries. To minimize the conflicts of interest, an appropriate management plan rationally integrating the activities of all the stakeholders will be essential. In order to achieve economic prosperity without sacrificing ecological security, an Integrated Coastal Zone Management Plan is being prepared for the coastline of Tamil Nadu at a cost of Rs.4.92 crore. The work commenced during the year 2007.

The preparation of this plan envisages

- Land Use and Land Capability Assessment Report
- Intersectoral Environmental Impact Study Report with composite risk and coastal vulnerability maps
- Sectoral Activity Plan with GIS Maps
- Special Area Management Plan
- Training Programme and Modules

- ICZMP with Maps

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 made use of to assess the damage and plan for remedial measures at times of coastal hazard. It is proposed to complete the work by June, 2012. So far, an amount of Rs.2.42 crores has been spent on this work.

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 after obtaining the training module from the consultant during 2012-13.

7.4. Formation of GIS cell

Setting up of a GIS cell in this Department at a cost of Rs.23.00 lakhs with World Bank assistance has been sanctioned. This cell will keep various sets of information about the Coast, both spatial and aspatial in different layers. In addition to

this, information can be retrieved and used for generating many alternative solutions. The information available in GIS platform can be easily accessed by line Departments whenever required for their planning activities in the coastline. The software and required equipments have been procured for the cell and the cell will be made functional in full scale during 2012-13.

7.5 Capacity Building & Awareness Programmes in Environment related issues.

Capacity building is a key element in addressing environmental issues. Efforts to build capacities at different levels namely, institutional (relevant government agencies, departments, local governments, educational institutions etc.,) and community level (user groups, village councils etc.,) is a priority for the Department. Training and education focusing on imparting both the soft and technical skills to handle local environmental issues will be organized under various programmes. For example, to bring practical elements to the ongoing successful eco-clubs program at the school level,

introducing hands on experience and training will be attempted to provide a solid foundation of understanding in the minds of children while at the same time create useful data bases.

8. Environment Information System (ENVIS)

The Environment Information System Centre sponsored by the Government of India is functioning in the Department of Environment from October 2002. This environment information system Centre provides information on various aspects about the state of environment of Tamil Nadu.

ENVIS centre is engaged in collection, collation, storage, retrieval and dissemination of environmental information through a website www.tnenvis.nic.in Newsletters, online quiz, online chat, creation of database and answering environmental queries and conducting training. To facilitate easy access for college students, Government agencies and researchers, the ENVIS Centre has created a computerised database of the books available. A tracking mechanism of data use to assess the number of hits with identified source

to enhance the value of the data and in converting such data into information will be put in place.

8.1 State of Environment (SoE)

The preparation of State of Environment Report was undertaken at a cost of Rs.12.50 lakhs with financial assistance from the Government of India. A SoE Atlas, SoE Photo Catalogues, Video film on State of Environment and an interactive website have been prepared under this. Government of India has released Rs.2.20 lakhs for the preparation of State of Environment report for Chennai Metropolitan Area. The draft report has been sent to Ministry of Environment & Forest for approval. Besides providing inputs to the Ministry of Environment and Forest, the State will have its own report published at regular intervals. This report will aim at providing data on the State's environmental status that is comprehensive and available in one compendium covering critical issues and regions of the State. The report will serve as a useful tool and provide information to planners, policy makers, academicians and non

governmental organizations and civil society groups. The format of the report and the details of the chapters with focus issues (subthemes) would be worked out in consultation and involvement of key agencies, experts and institutions in the State.

9. Other Activities of the Department

9.1 Environment Awards

The State Government honour the best Non-Government Organizations, experts and individuals in recognition of their excellent contribution in the field of environment and distribute the environment awards during the World Environment Day celebrations on June 5th every year. The total number of awards per year is 10 with a Prize amount of Rs.72,500/-.The prize money has been increased from Rs.72,500/- to Rs.1,12,500/- from the year 2011-12.

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

A three day awareness campaign is organized by the Department of Environment

throughout Chennai City to create awareness about the ill effects of burning of tyres, plastics and other materials on the eve of Bhogi by requesting the public through television to refrain from burning of tyres etc., The Eco-clubs through out the State are also organizing similar campaigns in their areas every year. Because of this campaign, there has been significant reduction in the burning of plastics and tyres in the urban areas.

10. Environment Protection and Renewable Energy Development Fund

Government of Tamilnadu 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 environmental 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.

During 2011-12, a sum of Rs. 17.53 lakhs was released for the ongoing research projects / demonstration activities related with environmental issues taken up by the Member Secretary, State Planning Commission, Chennai.

From this fund, two major initiatives were taken up during the year 2011-2012.

i) Mass Drive for clearing accumulated plastics:

A sum of Rs.5.00 crores was sanctioned for conducting a mass drive for clearing the accumulated plastic with Rs.1.5 crore to Chennai Corporation, Rs. 1.5 crores to Directorate of Town

Panchayats, Rs. 1 crore to Commissionerate of Rural Development and Panchayat Raj and Rs. 1 crore to Commissionerate of Municipal Administration. For this purpose, the SHG's of women were also involved in the collection of waste plastic and throw away plastic materials. Likewise, the local bodies have established collection centres for the collection of waste plastic materials. All the local bodies are vigorously involved in collecting the plastic materials through public participation. As a result of this activity, the entire plastic materials collected will be reused scientifically.

ii) Relaying Roads using plastic wastes:

As part of plastic waste Management, from 2003-04 schemes were taken up in urban and rural local bodies to lay plastic roads. The Rural Development and Panchayat Raj Department had taken up the initiative of laying Bitumen Tar Road mixed with plastic wastes and completed the works successfully over a length of 1031 Km at a cost of Rs. 47.30 crores. Similar works were taken up in Chennai Corporation and other Municipal areas. As

the performance of these roads was reported to be better than the roads laid conventionally, Honorable Chief Minister sanctioned a sum of Rs.50.00 crores during the year 2011-12. An amount of Rs. 9.11 crores has been sanctioned to Chennai Corporation, Rs. 18.00 crores to Directorate of Town Panchayats, Rs.9 crores to Commissionerate of Rural Development and Panchayat Raj and Rs. 13.89 crores to Commissionerate of Municipal Administration. Works covering a total distance of 446.50 kms were taken up by 10 Corporations, 119 Municipalities, 90 Town Panchayats and 45 Village Panchayats.

11. Part II Schemes for 2011-12

The Department of Environment completed the following schemes at a cost of Rs.36 lakhs under Part-II schemes of 2011-2012.

- A comprehensive Environment Management Plan for Thirukazhukundram & Sathanur has been prepared at a cost of Rs.6.00 lakhs.

- Training to Municipal Engineers and Staff involved in Operation and Maintenance of Waste Water Management and Solid waste management has been conducted at a cost of Rs.6.00 lakhs.
- Training on Innovative Techniques for Greening Urban Areas was conducted by Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore at a cost of Rs.2.00 lakhs.
- For disseminating environmental information among the school children and the general public various publicity materials were printed and distributed at a cost of Rs. 5.00 lakhs
- A sum of Rs.2.00 lakhs has been spent for enhancing the water facility by rainwater harvesting at Government Girls Higher Secondary School, Mayiladuthurai in Nagapattinam.
- Environmental Information Dissemination Centres through Eco-Clubs were formed in

Theni and Thanjavur at a cost of Rs.3.00 lakhs and existing EIDCs were strengthened at a cost of Rs.2.00 lakhs.

- Six short thematic videos on Environment have been prepared by Doordarshan Kendra, Chennai at a cost of Rs.5.00 lakhs.
- A Guide on Trees of Tamil Nadu was published at a cost of Rs.5.00 lakhs.

Mass Awareness Campaign

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, Rs 31.00 lakhs has been spent for creating awareness through NGOs to sensitize the school students and Public. This awareness activities were carried out at Kancheepuram, Tiruvallur, Cuddalore, Vellore, Salem, Namakkal, Dindigul, Theni, Madurai, Ramanathapuram, Sivagangai, Nagapattinam, Thanjavur, Tiruppur, Thoothukudi and Tiruvannamalai. Walkathon, Cycle rally, Essay and Drawing competition on the above topic were some of the activities carried out by the

NGOs. Emphasis was given to use cloth bags, paper bags, jute bags and paper cups as the alternative to plastic in the above awareness campaigns.

12. Proposals for the year 2012-13

12.1 Financial Assistance to the existing Eco-Clubs

For carrying out more environmental activities, it is proposed to strengthen the State funded eco clubs by sanctioning a sum of Rs.46.73 lakhs under Part II Schemes for the year 2012-13 @ Rs.2,500/- per school for 1869 schools.

12.2. Relaying Roads using plastic wastes

It is proposed to continue the scheme of Relaying Roads using plastic wastes at a cost of Rs.100.00 crores during the year 2012-13.

TAMILNADU POLLUTION CONTROL BOARD

1. INTRODUCTION

The Tamilnadu Pollution Control Board (TNPCB) was constituted by the Government of Tamilnadu in pursuance of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974) and started functioning from 27.2.1982. It enforces the provisions of 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, and the rules made under the Environment (Protection) Act, 1986 which includes

- The Environment (Protection) Rules, 1986
- The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and its amendments.
- The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended in 1994 and 2000

- The Biomedical Waste (Management and Handling) Rules, 1998 as amended in 2000 & 2003.
- The Plastic Waste (Management and Handling) Rules, 2011.
- The Noise Pollution (Regulation and Control) Rules, 2000 as amended
- The Municipal Solid Wastes (Management and Handling) Rules, 2000
- The Battery (Management and Handling) Rules, 2001 and its amendments.
- E-Waste (Management & Handling) Rules, 2011

2. CONSTITUTION OF TNPCB

The 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. The TNPCB has established its organization structure with a two-tier system consisting of head-office at Chennai and district offices with total staff strength of 697. There are 31 district offices of which 28 are headed by District Environmental Engineers and 3 offices by Assistant Environmental Engineers. To assist the Board in monitoring the industries, 5 Advanced Environmental Laboratories, 8 District Environmental Laboratories and one Mobile Environmental Laboratory are functioning. These laboratories carry out analysis on samples of sewage, trade effluents, emissions and hazardous wastes.

3. FUNCTIONS

The main functions of the TNPCB are to plan a comprehensive programme for the prevention, control and abatement of water and air pollution, inspection of sewage and trade effluent treatment plants for their effectiveness, inspection of industrial plants control equipment and to give

directions to take steps for the prevention, control or abatement of air pollution, collect samples of sewage, trade effluents, emissions of air pollutants and to analyze the same for specific parameters and to perform such other functions as may be prescribed by the State Government or the Central Pollution Control Board.

4. MONITORING OF INDUSTRIES AND ISSUE OF CONSENT

With the increasing pace of industrialization in Tamilnadu, the need for continuous monitoring of pollution due to industrial sources has become significant. Industries are required to provide pollution control measures to meet the standards prescribed by the Board. 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 effluent and emissions and to monitor their performance. They also investigate complaints of pollution received from the public, organizations and the Government. For effective

monitoring, industries are categorized as ultra Red, 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. Depending upon the category and size, industries are monitored periodically.

5. PROCEDURE FOR ISSUE OF CONSENT

Industry requires 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 and to operate the plant in air pollution control area of entire Tamilnadu under the Air (Prevention and Control of Pollution) Act, 1981. 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'.

As on 29.2.12, TNPC Board has granted 14930 orders for Consent to Establish and 33977 orders for Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974. Similarly as on 29.2.12, 14798 orders for Consent to Establish and 31121 orders for Consent to Operate were issued under Air (Prevention and Control of Pollution) Act, 1981. The Board has issued 860 orders for Consent to Establish and 792 orders for Consent to Operate during the period from 16.5.2011 to 29.2.2012.

Processing of files for issue of consent/renewal of consent, issue of authorization etc is done manually through file system at present. In order to speed up the processing of files for consent, authorization etc., it has been decided to develop office automation process by developing customized software. Tamil Nadu Pollution Control Board introduced on-line filing of applications on 10.6.2011 and 27 applications have been filed on-line till 28.3.2012.

6. CARE CENTRE

The Tamil Nadu Pollution Control Board 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 at a single point. In the first phase, this Centre caters to the needs of industries / local bodies located in Chennai, Tiruvallur and Kancheepuram Districts, comprising industries in Chennai, Tambaram, Ambattur, Kancheepuram, Sriperumpudur and Tiruvallur areas. The Care Centre has simplified and standardized the receipt of applications. It effectively monitors the application from the time of its receipt to the issue of the consent order. The Centre counsels industries on the rules, helps them to file the applications, gives the status of pending applications, and despatches consent orders within specified time limits through the single window. Three officers have been specifically posted to the Care Centre for this purpose. During the year

2011-12, 1937 applications were received by the Care Centre and 1159 consent orders have been issued. Consent fees to the tune of Rs. 7.35 crores was collected by the Care Centre.

7. INSPECTION OF INDUSTRIAL UNITS

The field engineers in the District Office inspect the large scale ultra red industries every month and ordinary red category units once in three months. The medium scale red category units are inspected once in four months and the small scale red category units once in a year. Similarly the large and medium scale orange category units are inspected once in six months and the small scale orange category units once in two years. The less polluting green category units are inspected once in two years.

8. COMMON EFFLUENT TREATMENT PLANTS

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 individual effluent treatment plants. The Board assists the units in mobilization of financial resources and in the technical scrutiny of the proposals for the establishment of common effluent treatment plants.

8.1 STATUS OF COMMON EFFLUENT TREATMENT PLANTS (CETP)

Common effluent treatment plants have been formulated in the following sectors:-

Tanneries	15 Schemes
Textile Bleaching & Dyeing Units	31 Schemes
Hotels & Lodges	1 Scheme
Total	47

Out of 15 CETP schemes in Tannery sector, 6 CETPS have completed the Reverse Osmosis (RO) and Reject Management System (RMS) which are under trial run and for another 7 CETPs works for RO Plant are under progress. The remaining 2 CETPs at Dindigul and Madhavaram have a proposal to mix the treated tannery effluent from their CETP with one third of the treated sewage

from the proposed Sewage treatment Plant (STP) of their Municipalities, to meet the Total Dissolved Solids (TDS) standards of 2100 mg/l. Among the 31 CETPs in Textile Sector, 19 CETPs have completed the construction of ZLD system consisting of RO with RMS and commissioned the ZLD system. The remaining 12 CETPs have installed conventional Treatment system and not yet installed the ZLD system. 1 CETP scheme for hotels and lodges is in operation.

8.2 ACTION TAKEN REGARDING THE DYEING / BLEACHING UNITS OF TIRUPPUR

The Noyyal River Ayacutdars Protection Association filed a contempt petition before the Hon'ble High Court of Madras and in due compliance of its order dated 28.01.2011, the Tamilnadu Pollution Control Board in its proceedings dated 01.02.2011 closed 754 bleaching and dyeing units covered under 20 CETPs/IETPs of Tiruppur.

To resolve this serious issue affecting the livelihood of thousands of workers and the export units, Hon'ble Chief Minister of Tamilnadu on 28.07.2011 held a meeting with the representatives of the Dyers Association of Tiruppur and announced the grant of an interest free loan of Rs. 200 Crores for modifying the existing Zero Liquid Discharge system of the CETPs following which the Handlooms, Handicrafts, Textiles and Khadi Department issued G.O.Ms. No.11 dated 31.01.2012, sanctioning Rs.179.34 Crores in this regard to 18 CETPs.

Further, 10 CETP Companies covering 317 member units have been permitted by the Board to commence their trial run with the existing ZLD system, capable of achieving a maximum of 30% to 50% of their capacities, to demonstrate and prove these technologies. Apart from this, 40 IETPs are also permitted to operate with ZLD system by Tamil Nadu Pollution Control Board.

At the same time, to complete the distribution of compensation to the affected

farmers, the Government sanctioned Rs.2.55 crores to the Collectors of Tiruppur and Erode in September 2011. Apart from this, a sum of Rs.75.00 crores was sanctioned in G.O.(Ms).No. 209 dated 31.12.2011 by the Environment and Forests (EC-1) Department to the Tamilnadu Pollution Control Board for payment to the farmers belonging to the Noyyal River Ayacutdars Protection Association numbering 535 to alleviate the sufferings of those farmers who have been waging a legal battle for the past 15 years. Further, in order to mitigate the pollution of Noyyal River, the Board has identified 133 unauthorised units and sealed 90 such units through the District Collector, Tiruppur.

8.3 ACTION TAKEN ON TANNERIES IN TAMILNADU

In Tamilnadu State, there are 775 tanneries mainly located at Vellore, Kancheepuram, Dindigul, Tiruvallur, Tiruchirapalli and Erode Districts, involved in the processing of Hides / Skins adopting

East Indian tanning / Chrome tanning process to produce finished leather.

Of these 775 units, 641 units are members of 15 functioning common effluent treatment plants. The remaining 134 units have provided their individual effluent treatment plants. In that, 75 individual Tanneries have provided R.O. Plant followed by Reject Management system and operating the same.

Further, out of the above 15 CETPs, 3 CETPs at Perundurai SIPCOT in Erode District, Thuthipet in Ambur and Melvisharam of Vellore District have completed and commissioned the RO & RMS. Another 3 CETPs at Pernampet and at Ranipet (including for Melpudupet) have completed the RO & RMS and which are under trial run. In 5 CETPs at Udayendram along with Valayampet in Vaniyambadi, Maligaihope in Ambur, SIDCO Ranipet and SIPCOT phase II of Vellore District, the works for RMS are nearing completion. The CETP at Pammal - Pallavaram of Kancheepuram District has completed the RO Plant and the works

for RMS are under progress. The CETP at Trichy has completed and commissioned RO plant only and the RO rejects is being disposed through solar evaporation pan.

The CETPs at Dindigul and Madhavaram have a proposal to mix the treated tannery effluent from their CETP with one-third of the treated sewage from the proposed STP of the Municipalities to meet the TDS standards. These are under process.

9. WASTE MANAGEMENT

9.1 MANAGEMENT OF HAZARDOUS WASTE

The TNPCB is taking effective steps in handling and management of hazardous chemicals and treatment and disposal of hazardous wastes in an environmentally safe manner. The Board has identified and listed out 2869 units generating hazardous wastes under the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 as on 31.03.2012. A common hazardous waste treatment storage and

disposal facility (TSDF) is established at SIPCOT Industrial Estate, Gummidipoondi and is in operation. The federation of common effluent treatment plants, Tiruppur, has identified a site at Karupagoundarpalayam, Nallur village, Tiruppur Taluk, Tiruppur District and the federation of CETPs & ETPs in Karur have identified a site at Mathagiri Village, Krishnarayapuram Taluk, Karur District to establish a secure landfill facility for disposal of sludge generated from treatment of textile dyeing effluents. Consent to establish has been issued by the Board to these two facilities. To adopt recycling and reuse principles, cement industries are encouraged to utilize the hazardous sludge from various industries like Textile, Engineering, chemical, petroleum etc., Various cement industries are using these hazardous wastes either on trial basis or permanently as raw materials/fuel. Further, action is being taken to establish a common hazardous waste treatment storage and disposal facility at SIPCOT, Perundurai, Erode District and SIPCOT has been addressed to

allocate a suitable site in Sriperumpudur, Kancheepuram District.

9.2 MANAGEMENT OF BIOMEDICAL WASTE

The Biomedical Waste (Management & Handling) Rules, 1998 applies 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 rule, authorization of Tamil Nadu Pollution Control Board is required for handling of bio-medical waste. It is the duty of the occupier of an institution generating biomedical waste to take all steps to ensure that the biomedical waste is handled without any adverse effect to human health and environment.

Board has inventorised 3743 Private hospitals and 470 Government hospitals in the State. All these hospitals have made agreement with the Common Biomedical Waste Treatment Facilities (CBMWTF) for the disposal of the biomedical waste. The CBMWTF consists of autoclave, shredder, incinerator and secured land

fill facilities. In Tamilnadu, 11 such common facilities are in operation. TNPCB issued authorization to the 11 common facilities and 3406 health care facilities in the State. 622 medical units have been added during the year 2011-12.

9.3 MANAGEMENT OF MUNICIPAL SOLID WASTE

With increasing urbanization and rising levels of municipal solid wastes generation, there is an urgent need to evolve scientific approaches for the management of municipal solid wastes. The Board is advocating the concept of segregation of wastes at source, reduction, recycle and reuse of waste. The Board has issued authorisation to 5 Corporations, 76 Municipalities and 45 Town panchayats for composting of municipal solid waste and setting up waste processing facility. Tamil Nadu Pollution Control Board issued consolidated guidelines for Solid Waste Management in Urban Local Bodies on 18.02.2012 and conducts training for all the local body officials periodically.

9.4 MANAGEMENT OF PLASTIC WASTE

The use of non-biodegradable material especially plastics has been increasing rapidly in the state of Tamilnadu in recent years. After use, these non-biodegradable materials are thrown in open places, roads, canals, lakes, water bodies, besides finding their way in to the municipal solid waste and landfills. Plastic waste pollutes the land, water and air.

Tamilnadu Pollution Control Board has identified 1941 industries manufacturing plastic products like carry bags, plastic sheets, plastic ropes, PVC pipes etc. Out of these 1941 industries, around 150 industries are manufacturing the plastic products from recycled plastics. In Tamilnadu, about 10,400 tons of municipal solid waste is generated every day. It has been estimated that around 9% (936 tons) of the municipal solid waste by weight contains plastics. Out of 936 tons of plastics, 749 tons are recycled and the balance of 187 tons is non-recyclable plastics which are

dumped on land or burnt causing environmental pollution.

The Board has been taking many initiatives to deal with the plastic wastes. TNPCB has instructed all the local bodies to pass resolution and ban the use of throw carry bags, cups, tumblers, sheets, plastic plates etc. In continuation to the above, many awareness programmes were conducted by TNPCB on the ill effects of plastics and the need to use alternatives to the use and throw plastic items. All the marriage halls, hotels, educational institutions and Government offices in Tamilnadu were instructed not to use the use and throw plastic items. The Board has sanctioned Rs. 32 lakhs during the year 2011-12 for the conduct of awareness programmes in all the 32 Districts in the State. The first awareness programme was inaugurated on 13.1.2012. Awareness programs regarding avoidance of use and throw plastic items were carried out at Tiruvannamalai on 7.12.2011 and at Srirangam on 4.1.2012. The Board has actively participated in plastic waste reduction

awareness campaigns at Madurai and Ramanathapuram organized by Director of Environment. The Board in coordination with Directorate of Environment will conduct awareness programme in all the Districts as well as create awareness for 52 weeks through All India Radio.

The Ministry of Environment and Forests, Government of India vide notification dated 4.2.2011 notified '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.

9.5 CO-INCINERATION OF PLASTIC WASTE IN CEMENT KILNS

Tamil Nadu Pollution Control Board is taking various initiatives to safeguard the environment from degradation due to the hazardous wastes and plastic wastes. As part of this endeavour, the Board is directing the cement industries to co-incinerate the plastic waste as an alternate fuel in the cement

kiln. The cement industry at Tirunelveli is utilizing the plastic wastes in the cement kiln regularly. The Board is insisting on the other cement industries to co-incinerate the plastic waste in their cement kilns.

9.6 MANAGEMENT OF E- WASTE

TNPCB has been taking several initiatives in the management of E-waste generated in Tamilnadu. A committee consisting of experts from Anna University, representatives of NGOs and from National Metallurgical Laboratory has been formed towards the management of E-Waste generated in Tamilnadu. A workshop on E-waste was held to create awareness among the stakeholders. TNPCB has issued consent to 19 E-waste recyclers for segregation and recovery of PCB, IC, Iron Copper, Rubber, Glass etc., PCB/IC wastes are exported to foreign countries such as USA, Singapore and Malaysia to recover the heavy metal present in the said wastes. Other wastes are sent to authorized industries in the country for recycling them.

Ministry of Environment and Forests, Government of India has notified the e-waste

(Management and Handling) Rules, 2011. These Rules will come into effect from 1st May, 2012. As per these Rules, TNPCCB has to carry out inventorization of e-waste generating units, grant & renew Authorization, register recyclers of e-waste, monitor compliance of authorization and registration conditions, maintain information on the conditions imposed for authorization etc., implementation of programmes to encourage environmentally sound recycling, action against violations of these rules, and any other function delegated by the Ministry of Environment and Forests, Government of India.

10. MONITORING OF AIR & WATER QUALITY

10.1 AIR QUALITY MONITORING

With the increased industrial activities and vehicular pollution in the vicinity of major cities, the quality of ambient air is affected. As per the Air (Prevention and Control of Pollution) Act, 1981, the entire State of Tamilnadu has been declared as air pollution control area. The Board is monitoring the ambient air quality in Chennai (3 stations),

Coimbatore (3 stations), Thoothukudi (3 stations), Madurai (3 stations) and Salem (1 station) under the National Air Quality Monitoring Programme (NAMP). In addition the Board has established 5 Ambient Air Quality monitoring stations in Chennai City and 5 in Thiruchirapalli. The ambient air quality in residential, industrial, commercial and mixed zones is monitored by these stations. Besides these, TNPCB is also monitoring the Air Quality level in major cities / towns in Tamilnadu during the festival seasons like Deepavali & Bhogi. The Ministry of Environment & Forests, Government of India has revised the air quality standards since 18.9.2009. In order to meet the requirement of monitoring capabilities due to the revised standards, Board has approved the proposal to upgrade all its 13 Air Monitoring Laboratories by providing PM₁₀ & PM_{2.5} samplers at a cost of Rs.2.53 crores.

10.2 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, 85 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 monitored at the centre. During the year 2011 – 2012, 28 major industrial units started uploading the details to the CARE AIR centre.

The data generated from various monitoring networks set up around industrial clusters will be fed into a centralized database system for the

State. The value of the data base would be enhanced by pooling such data from various sources viz. PWD, CGWB, Metro water, TWAD etc. Consolidation of data collected by these agencies will help provide a larger picture of the issues and necessary clues to design effective measures besides helping in cross checking of the data. TNPCB is in the process of establishing a Technology Demonstration Centre in collaboration with leading institutions in the State. Every effort will be taken to provide a focal point of reference on all environment related issues in the TNPCB.

10.3 VEHICLE EMISSION MONITORING

The Government of Tamilnadu made necessary amendments in the Tamilnadu Motor Vehicle Rules, 1989 to get Pollution Under Control (PUC) Certificate for Goods Vehicles in Chennai City from authorised private testing centres also like other vehicles. Prior to that, testing and issuing of PUC for Goods Vehicles in Chennai City was entrusted only to TNPCB. Accordingly, 74

authorised private centres in Chennai City are testing & issuing PUC for Goods vehicles.

10.4 WATER QUALITY MONITORING

The basic objective of the Water (Prevention and Control of Pollution) Act, 1974 is to protect the quality of water resources. To ensure this objective, regular monitoring of water quality is required. The TNPCB is monitoring the Cauvery and its tributaries river water quality at 29 locations under Monitoring of Indian National Aquatic Resources (MINARS) programme and 4 locations under the Global Environmental Monitoring System (GEMS). Apart from this, under MINARS programme, the rivers Thamiraparani, Palar and Vaigai and lakes such as Udhagamandalam lake, Kodaikanal lake, Yercaud lake, Veeranam lake, Poondi lake, Red hills, Porur and Pulicat lake are being monitored.

The water quality of River Cauvery, Thamiraparani, Palar and Vaigai are categorized for the designated best use of outdoor bathing and drinking water source with conventional treatment followed by disinfection. Further, the Cauvery

water is used for fish culture and wildlife propagation.

The water quality of the Udthagamandalam, Kodaikanal, Yercaud, Veeranam, Poondi, Redhills, Pulicat and Porur lakes are categorized for the designated best use of drinking water with conventional treatment followed by disinfection and fish culture and wild life propagation.

10.5 MONITORING OF CHENNAI WATER WAYS

Water ways of Adyar, Cooum, Buckingham Canal and Otteri Nullah are being monitored at 34 river stations and 24 industrial outlets.

11. OTHER ACTIVITIES OF THE BOARD

11.1 ENVIRONMENTAL TRAINING INSTITUTE

Environmental Training Institute (ETI) is an organizational wing of TNPCB established in 1994. 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 2011-12, the Environmental Training Institute has

conducted 14 training programmes, in which 757 participants have been trained.

11.2 ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

As a part of the awareness campaign to create awareness among the public about the health effects caused due to air and noise pollution by bursting of crackers continuously, special monitoring programs were launched by TNPC Board for 2011-12. During Deepavali noise level and Ambient Air Quality are monitored. During Bhogi festival Ambient Air Quality is monitored. A special ambient air quality survey on pre-bhogi, bhogi and post-bhogi days is carried out in Chennai at nine places viz. Anna Nagar, Besant Nagar, Kilpauk, Royapuram, Thiyagaraya Nagar, Vallalar Nagar, Vyasarpadi, Triplicane and Mandaveli.

As part of the awareness programmes, a mobile exhibition vehicle is sent to all schools of Tamil Nadu for creating awareness among the students and in the Anna FM, environmental

programs are broadcast. During 2011-2012, the Board carried out 147 awareness programmes.

11.3 CLEANER TECHNOLOGIES

The 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, the industrial units in Tamilnadu 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. At present, serious initiatives to bring in the Zero Liquid Discharge concept fully in the textile and tannery sectors are being taken by the Board.

11.4 PROGRESS ON ANNOUNCEMENTS MADE DURING 2011-2012

Awareness programme and training on usage of plastic products through TNPCB

- The first awareness programme was inaugurated on 13.1.12.
- Awareness program regarding avoidance of use and throw plastic items was done at Tiruvannamalai on 7.12.11 and at Srirangam on 4.1.12.
- The Board in coordination with Director of Environment will conduct awareness programme in all the Districts as well as create awareness for 52 weeks through All India Radio.

Training programme for industries regarding cleaning of effluent tanks to avoid accidental deaths during cleaning operation.

- The training programme for industries regarding cleaning of effluent tanks to avoid accidental deaths during cleaning operation was carried out on 10.2.2012 and at Tiruchi on 13.3.12.
- Similar programs in 8 other different locations will be completed by end of April 2012.

Green Award presentation

- District Collectors have been addressed for furnishing of the work done by them for betterment of the Environment in their Districts for evaluation.
- Based on evaluation, Green Awards will be presented to the District Collectors / Industries during the World Environment Day on 5.6.12.

Strengthening of Law section

- Law officer appointed during December 2011

Bifurcation of O/o DEE, Coimbatore and formation of one more new office.

- Government orders issued on 29.03.2012.

Continuous online Monitoring of the Water quality of Noyyal River and Kalingarayan Canal.

- Process of procurement of instruments is in progress and expected to be completed by 31.5.2012.

Monitoring of particulate matter in the Environment.

- Process of procurement of equipments is in progress and expected to be completed by 31.5.2012.

Upgradation of the CARE Air Centre in Board office.

- Government orders will be issued shortly.

Formation of new Technology Demonstration Centre

- Discussions have been held with IIT, Madras for establishment of the Centre and Memorandum of Understanding is under process.

11.5 LIBRARY

The TNPC Board 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 those involved in environmental concerns.

11.6 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 and District Collectorates in the State. Copies of this newsletter are sent to other State Pollution Control Boards in India.

**B.V. RAMANAA
MINISTER FOR ENVIRONMENT**