



GOVERNMENT OF PUDUCHERRY

DEPARTMENT OF SCIENCE, TECHNOLOGY & ENVIRONMENT

ANNUAL REPORT

2012 - 2013



DEPARTMENT OF SCIENCE, TECHNOLOGY & ENVIRONMENT

Puducherry Pollution Control Committee
Puducherry Council for Science & Technology
Puducherry Coastal Zone Management Authority
State Environment Impact Assessment Authority

The U.T. of Puducherry



where development & environment synergize *naturally*

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The background of the entire page is an abstract, flowing pattern of green and yellow hues, resembling liquid or smoke in motion. The colors transition from a bright yellow-green at the top to a deeper green at the bottom, with various curved lines and swirls creating a sense of dynamic movement.

**DEPARTMENT OF SCIENCE,
TECHNOLOGY & ENVIRONMENT**

Annual Report
2012-2013



MESSAGE

During the last few decades, it has become very clear that we can no longer think of socio-economic development without addressing the environmental issues. Failure in arriving at conscious decisions at Copenhagen Conference for combating global warming implies that the environment issue is quite complex.

Being a small U.T., rich in diversity of ecosystems, Government is keen to put inbuilt environmental protection measures while framing development projects. Preventing salt water intrusion in the coastal aquifer, improvement of quality of ground water and air quality, banning of use of plastics are some of the positive outcome of the Government green initiatives.

I am glad to note that Department of Science, Technology and Environment is bringing out the Annual Report 2012-13 which would be of immense help as a reference material to all concerned.


(N. RANGASAMY)

Puducherry
03.06.2013

T. THIAGARAJAN
MINISTER FOR SCIENCE
TECHNOLOGY & ENVIRONMENT
CHAIRMAN (PCS&T)
GOVERNMENT OF PUDUCHERRY



MESSAGE

Environmental protection and development must be interdependent and indivisible and the resultant issues have to be dealt with scientifically. In keeping with national legal framework and guidelines on environmental protection and conservation of resources, the Government has been taking measures to arrest the degradation of our environment and concurrently to promote the economic development.

Imposing ban on usage of thin plastic articles of lesser than 51 micron thickness, is one of the green initiative of the Government towards environment protection.

I am glad to note that Department of Science, Technology and Environment is publishing "Annual Report" in connection with World Environment Day, 2013. I am confident that the report will be useful to planners, policy makers, scientists and NGOs involved in the field of ecology and environment.

(T. THIAGARAJAN)

Puducherry
03.06.2013

DR. S. SUNDARAVADIVELU
SPECIAL SECRETARY
(SCIENCE, TECHNOLOGY & ENVIRONMENT)
CHAIRMAN (PPCC/EC, PCS&T/PCZMA)
GOVERNMENT OF PUDUCHERRY



PREFACE

Sustained and equitable development is possible only with the conservation of environment. Global warming and the consequential climate change are the major challenges being faced by all living beings. The concept of waste is misused resource is attaining the society. Considering this, the theme for this year's World Environment Day has been declared as "Think. Eat. Save".

Puducherry like other coastal territories faces various environment related challenges like coastal erosion, industrial pollution, inadequate disposal of municipal and bio medical wastes, vehicular emission, loss of biodiversity etc. Puducherry Pollution Control Committee having realized the necessity of protecting the fragile ecosystems is taking concerted efforts to resolve various issues pertaining to environment degradation. DSTE has prepared Draft Action Plan on combating Climate Change.

Thanks to the continuous financial and technical support of Ministry of Environment and Forests and Central Pollution Control Board, PPCC has been strengthened considerably. This Annual report for the year 2012-13 throws light on various activities performed and initiatives taken during the financial year 2012-2013 and makes an overall presentation on the environmental scenario in the U.T of Puducherry.

(DR. S. SUNDARAVADIVELU)

Puducherry
03.06.2013

M. DWARAKANATH
DIRECTOR (DSTE)
MEMBER SECRETARY
(PPCC/PCS&T/PCZMA/SEIAA)
GOVERNMENT OF PUDUCHERRY



FROM THE DESK OF DIRECTOR

Environment has close association with human beings. Good environment improve the productivity of mankind. Environment protection is a mandatory requirement. Protection of the environment is needed from various human activities. Waste, pollution, loss of biodiversity, introduction of invasive species, release of genetically modified organism and toxins are some of the issues related to environment protection.

PPCC is inspired by the success outcome of shifting of its approach from conflicts to collaboration in abating pollution in industrial sector. Creating awareness about the environment and an attitude of caring and sharing of natural resources in the minds of citizens of our nation is very important. Role of NGOs in bringing awareness about the Government ban on usage of carry bags of thickness of 50 micron or below to be appreciated. Much co-operation is solicited for the Public.

Industries located in Puducherry are vary in resource consumption and release of environment pollution. Technology need to be adopted also varies from case to case. PPCC is in a position to guide them to choose appropriate technology. As a result, the compliance status of various discharge / emission standards of the industry improved.

The concept of Sustainable Development and issues pertaining to Mitigation and Adaptation with respect to impacts of Climate Change is also being followed by PPCC while issuing legal consents. With these initiatives, the Environment Performance Index (EPI) is expected to be improved in coming years.


(M. DWARAKANATH)

Puducherry
03.06.2013

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INTRODUCTION

Department of Science, Technology and Environment (DSTE) was established on 1.1.1993 after merging of the erstwhile Science, Technology and Environment Cell functioning in the U.T. Administration.

The DSTE consists of the following Divisions:

❄ Puducherry Pollution Control Committee (PPCC)

PPCC is a statutory body for environmental protection and pollution control in the U.T. of Puducherry

❄ Puducherry Council for Science & Technology (PCS&T)

PCS&T is an autonomous body for application and promotion of S&T in the U.T. of Puducherry

❄ Puducherry Coastal Zone Management Authority (PCZMA)

PCZMA is a statutory authority to protect the environment in coastal areas of the U.T. of Puducherry.

❄ State level Environment Impact Assessment Authority (SEIAA)

SEIAA is a statutory authority for implementation of Environment Impact Assessment Notification-2006 in the U.T. of Puducherry.

Objectives:

- ❄ To create scientific awareness among the general public and students.
- ❄ To extend support in carrying out research projects / studies.
- ❄ To conserve and protect the environment in the U.T. of Puducherry.

Functions:

- ❄ Popularisation of Science and Scientific technologies.
- ❄ Promotion of technology transfer from lab to land.
- ❄ Facilitation of scientific research by way of grants for better applied research.
- ❄ Bringing awareness among the public regarding environmental issues by celebrating days of environmental importance.
- ❄ To advise the State Government on any matter concerning with the prevention and control of pollution.
- ❄ Implementation of Acts & Rules pertaining to environment & pollution control.
- ❄ Regularisation and enforcement of standards prescribed under various Acts & Rules pertaining to environment & pollution control.

Sectors operated by the Department:

- I. Scientific Research
- II. Ecology & Environment

Schemes Operated By The Department:

- I. Creation, Strengthening and Maintenance of Science & Technology infrastructure Programme.
- II. Creation, Strengthening and Maintenance of environment and pollution control infrastructure and programme.

Budget Details: (Rupees in lakhs)

Name of the Sector	B.E. 2013-14
Scientific Research	140.00
Ecology & Environment	120.00
TOTAL	260.00

DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT

Main Activities

Release of Grant-in-aid to the PCS&T for implantation of ongoing programmes / new initiatives

Release of GIA to R&D projects on the Thrust areas:

- * Environment
- * Popularisation of Science
- * Basic / Applied Scientific Research
- * Technology Transfer
- * Innovative Software Development
- * Water Resources Management
- * Information Technology

An inter-disciplinary Expert Committee scrutinises the proposals and recommend the projects on merits.

Grant-in-aid the eligible research scholars to carry out research projects during the current financial year 2012-13. In this regard, it is submitted that under the sector 'Scientific Research' a programme is being implemented wherein financial assistance is released in the form of GIA to eligible Research Scholars / Scientists whose research work will yield direct benefit to the people of this Territory.

An amount of ₹ 9.50 lakhs has been earmarked in the budget for this programme for the current year. A circular inviting Research project proposals from the Research / Educational Institution of our Territory for release of GIA to eligible projects during the CFY 2012-13 was issued vide No.10/DSTE/GIA/RP/SO/2012/761 dated 9.12.2012.

In response to circular, 42 research project proposals were received. The funds allocated are meant only for consumables, actual and travels. The Expert Committee recommended 17 research projects for release of GIA of ₹ 9.50 lakhs. The following R&D projects were awarded during the financial year 2012-13.

The following R&D projects were awarded during the financial year 2012-13.

Sl. No.	Name of the Principal Investigator & Institution	Title of the Project	GIA sanctioned (₹ in lakhs)
1	Dr. Pushapkala, Chennai.	Epidemiological studies on prevalence of breast cancer in Menopausal blind women in Puducherry.	0.50
2	Dr. P. A Azeez, Director, Salim Ali Centre for Ornithology and Natural History. Coimbatore	Investigations into the levels of pesticides and heavy metals in and around Oussudu Lake Puducherry	2.00
3	Dr S. Haripriya, Assistant Professor (S.S), Department of Food Science and Technology, Puducherry University, Puducherry-605014	Assessment of the Nutritional Status of Fishermen Population of Puducherry Region	0.50
4	Dr. B. Rajesh Assistant Professor of Anatomy, Sri Lakshminarayana Institute of Medical Sciences, Oususdu, Agaram village, Kudapakkam post, Puducherry - 605 502.	Detection of level of DNA damage in Petrol pump attendants of Puducherry union territory through Comet Assay	0.50
5	Dr. R. Rukkumani Assistant Professor Department of Biochemistry & Molecular Biology Puducherry University Kalapet, Puducherry. PIN: 605014	Environmental Jeopardy & Cancer Explosion: A Focus on the Evaluation of Anticancer Potential from Natural Products of Puducherry.	0.50
6	Dr. S.S. Das, Professor, Department of Veterinary Parasitology, Rajiv Gandhi College of Veterinary And Animal Sciences, Kurumbapet, Puducherry – 605009	Control of mosquitoes with bile and herbal extracts and assessment of resistance population of mosquito in Puducherry	0.50

7	D.Sendil Kumar Head of the Department Department of Mechanical Engineering Sri Ganesh College of Engineering and Technology Puducherry- 607 402	Nano-Refrigerator For Eco-Friendly And Clean Environment	0.25
8	Dr.K.K.Sivadasan Associate Professor of Botany Post Graduate Dept. of Plant Science Mahatma Gandhi Govt. Arts College, Mahe	Indigenous uses of plants as medicinal and social resources in Mahe region	0.50
9	Dr.K.Srinivasamoorthy, Associate Professor, Department of Earth Sciences, Puducherry University, Puducherry – 605014	Mapping of saline water intrusion along the coastal tracts of Puducherry region Using electrical resistivity methods.	0.50
10	Dr. E. Prabhakar Reddy, Dept. of Biochemistry, Sri Lakshmi Narayana Institute of Medical Sciences, Osudu, Agaram Village, Villianur Commune, Kudapakkam Post, Puducherry - 605 502	Prospective sequential study of short-term green tea consumption on circulating lipids and blood glucose.	0.25
11	Dr. V. Sundaram Associate Professor (Horticulture) PJNI College of Agriculture and Research Institute Karaikal 609 603	Studies on optimising storage conditions for vegetables in Zero Energy Cool Chamber under coastal conditions .	0.50
12	Dr. D. Ramamoorthy Associate Professor Department of Ecology and Environmental Sciences Puducherry University Puducherry – 605014	Assessment of heavy metal pollution and its impacts on soil physical, chemical properties and β —glucosidase activities in agricultural lands, Puducherry region.	0.50

13	Dr. A.Kumaraguru Wildlife Conservation Scientist Biodiversity Conservation Foundation (BCF) Karaikkal Field Station: 398, Barathiyar Road, Thalatheru, Karaikkal, Puducherry-609 605	Survey on present status of Sacred Groves in Puducherry	0.50
14	Dr. P.G. Vimalraj, M.V.Sc., 26, Second Main Road, Barathidasan Nagar, Mudaliyarpuram, Puducherry-4.	Monitoring and Surveillance of avian influenza in migratory/ wetland birds of Puducherry, Union Territory, India.	0.50
15	Dr. S. Kothandaraman Professor of Civil Engineering Puducherry Engg.College. Puducherry- 605 014.	Studies on strength and performance Characteristics of concrete made with Improved surface quality.	0.50
16	Dr. K. Rajendiran Dept. of Plant Biology and Biotechnology Kanchi Mamunivar Centre for Post Graduate Studies, Lawspet, Puducherry - 605 008	Cytological investigation of the allelopathic dominance of the weeds over the crop plants in Puducherry	0.50
17	Dr. Mahipal Singh Shekhawat, Assistant Prof. of Botany Department of Plant Biology and Biotechnology K. M. Centre for Post Graduate Studies Lawspet, Puducherry PIN-605 008	Investigations on In vitro Regeneration of Couroupita guianensis Aubl. (Nagalingam Tree) –A Threatened but Medicinally Important Plant.	0.50
Total			₹ 9.50 Lakhs

(Rupees Nine Lakhs and Fifty Thousand only)

Best Science Students Awards:

Every year this Department is presenting Best Science Student Awards (BSSA) to the U.T. toppers in science subjects in Matriculation / Secondary / Higher Secondary Board Examinations. These cash awards are presented separately for Government and Private schools. The awards carries a cash prize of ₹ 3,000/-, ₹ 2000/- and ₹ 1000/- along with a certificate for first/second/third categories respectively.

The total numbers of awards for BSSA 2012 are 69, out of which 27 were bagged by Puducherry region, 18 by Karaikal, 10 by Mahe and 14 by Yanam region respectively. The cash awards pertaining to outlying regions were sent to the Collector / Regional Administrator of regions concerned for presentation to the awardees.



Student receiving Best Science Student Award from Hon'ble Minister for Environment

National Science Day

Every year 28th February is being celebrated as **National Science Day (NSD)** in our Country to commemorate the date of discovery of “**Raman Effect**” by **Sir C.V. Raman**, the Nobel laureate. The following activities are being carried by this Department on the observance of NSD in the UT of Puducherry.

Competitions were conducted among students on the theme of the NSD in coordination with STC, Dte. of School Education and prizes were distributed.

- ❖ Conduct of Invited Science Talks on the theme of the NSD in co-ordination with the Puducherry Science forum.
- ❖ An amount of ₹ 50,000/- was released for the Conduct of competitions among public & students by the Pudhuvai Vaani, Community Radio Station, Puducherry University.
- ❖ Celebration of NSD in outlying regions in coordination with O/o the Collector, Karaikal, Regional Administrator's of Mahe & Yanam regions.
- ❖ Advertisements were released in the newspapers to propagate the NSD theme.

An amount of ₹ 45,000/- was sanctioned from Puducherry Council for Science and Technology by the Chairman (EC,PCS&T) for organizing S&T awareness programme in 15 schools(10 Government and 5 Private schools) for the conduct of various competitions like painting & drawing (Middle School level), elocution, essay and quiz (High and Higher Secondary School level) on the given theme among students of Puducherry region in co-ordination with the State Training Centre, Dte. of School Education and distribution of prizes to the winners during the NSD function.

Formulation of U.T of Puducherry, Action Plan on Climate Change:

The Department of Science, Technology & Environment has been designated as the Nodal Department for Formulation of “U.T of Puducherry Action Plan on Climate Change (UTPAPCC)” on similar lines of “National Action Plan on Climate Change (NAPCC)”. The draft action plan has been submitted to the Government. Thereafter with the consent of MOE&F, GOI, the Action Plan will be implemented in the U.T. of Puducherry.

Celebration of World Environment Day, 2012

World Environment Day , 2012 was celebrated with the theme of “*Green Economy: Does it include you*” at Hotel Accord. Honb’le Chief Minister of Puducherry Thiru. N. Rangasamy presided over the function and released the Annual Environmental Survey Report. 2011-2012.



Hon'ble Chief Minister of Puducherry releasing Annual Environmental Survey Report 2011-2012

Technical presentations were made on E-waste management by MSTC, Chennai, M/s OHRust solutions, Chennai an authorised e-waste recycler and by M/s Eco-bricks, Puducherry.



Presentation on E-waste management

Greening the Puducherry

Thane cyclone which hit Puducherry last , uprooted thousands of trees. DSTE in collaboration with Agriculture department initiated a massive tree plantation programme in the Botanical Garden under the chairman ship of Shri.M.Chandrakasu , Hon'ble Minister for Agriculture.



Thiru.M.Chandrakasu, Hon'ble Minister for Agriculture, inaugurated tree plantation programme.

Celebration of National Environment Month 2012

National Environment Month is being celebrated every year from November 19th to December 18th to create awareness on environment among the students and the public by conducting various awareness programmes / workshops / student rallies etc., in co-ordination with State Training Centre, Environment Education Cell of Education Department and Non-Governmental Organisation.

Inaugural function for the National Environment Month was inaugurated in the Conference Hall of Labour Department, Gandhi Nagar, Puducherry. Hon'ble Minister for Environment presided over the function. Students from various schools and ITI students participated in the celebration. Hon'ble Minister delivered special address wherein he insisted students to acquire knowledge about the segregation of solid wastes generated from the source and its proper disposal and also insisted to bring out the innovative research work in this regard. Special Secretary (Environment) has delivered key note address wherein, he pointed out necessity of the Environment Protection, responsibility of the students in it and about better prospects in the Education sector.

In the function Hon'ble Minister for Environment released financial assistance of ₹ 45,000/- to Officer on Special Duty to organize Environmental awareness programmes for the benefit of students of various schools (15 Nos.) in Puducherry region through STC, Dte of School Education @ ₹ 3000/- each and ₹ 70,000/- to Non-Governmental Organisations @ ₹ 5000/- each (7 Nos.) to organize Environmental awareness programme in their locality with the concept of conducting rally / meeting / exhibition / health and hygiene / water conservation technique / awareness camp / competition / solid waste management etc., The programme ended with vote of thanks by Senior Scientific Officer.

Celebration of International Ozone Day

International Ozone Day is being celebrated all over the World on 16th September every year to create environmental awareness among the common people so as to conserve and protect our environment from its fast degradation in all aspects. To create awareness about “Preservation of Ozone Layer and its effect on Environment” the Department of Science, Technology and Environment of the Government of Puducherry organized Training Programme regarding “Handling and management of Ozone Depleting substances in Air-conditioning and refrigeration sector”. The training programme was held on 28.09.2012 in the Conference Hall of Labour Department Complex. The participants were students of ITI, Puducherry and Karaikal and Service Engineer (Air Conditioning and Refrigeration).



Technical presentation by Thiru. S.K.Sabapathi On Ozone layer protection

Thiru. S.K.Sabapathi, Chennai, Nominated Resource Person of Ozone Cell, Ministry of Environment and Forests, New Delhi delivered speech regarding impact of Refrigerants on Ozone Depletion and Global Warming and Good Service Practices for RAC-Service Engineer. Thiru. Avinash Mathur, Director, WhirlPool India, Puducherry delivered speech on Eco-friendly handling and Management of Ozone Depleting Substances. Certificate has been issued to the participants.

Participation in the Republic Day Celebration

In consonance with the **National Action Plan for combating Climate Change**, the U.T of Puducherry Administration has evolved **State Action Plan on Climate Change**. This Action Plan will be implemented for a period of 3 years from 2013 to 2016 through the Department of Science, Technology and Environment in coordination with 25 participatory Departments.

The theme of the Tableaux is **U.T of Puducherry Action Plan on Climate Change**. The Tableaux depicts the holistic representation of the Action Plan on Climate Change including the implementation of 6 missions viz., Solar, Energy Efficiency, Sustainable Habitat, Green Puducherry and Sustainable Agriculture, Water and Strategic Knowledge.



Tableaux depicting Action plan on combating climate change, floated in the Republic Day celebration

Shifting of laboratory to new location

Laboratory started functioning in a new building with separate Air & Water analytical laboratory along with facility for analysing micro-biological parameters. The new buildings is situated near Mettupalayam Industrial area.



Analytical Laboratory, Puducherry

Construction of Office Building

The Department is presently functioning in the PHB building, Anna Nagar, Puducherry. An acre of land was purchased at Olandaikeerapilayam, Puducherry for construction of office building to house the department and its autonomous bodies. Construction work by incorporating Green Building Concept has been entrusted to the PWD, Puducherry. Earth filling and construction of boundary wall have been taken up during the current financial year.



DSTE office building site

PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY

The Planning Commission, GOI has advised the U.T. Administration to set up an apex body to promote S&T applications in the U.T. of Puducherry. Accordingly, the Puducherry Council for Science & Technology was established in 1998 as an autonomous body under the Chairmanship of Hon'ble Chief Minister (Minister for Science & Technology) with Chief Secretary as Vice Chairman. The Executive Committee of the Council is headed by the Secretary (Sci, Tech. & Envt.) and Director (DST) is Member Secretary for the Council. The Council has been registered under the Societies Act, 1860. The Council functions with the financial support of DSTE, Puducherry & DST, GOI by way of Grants-in-aid.

Objectives:

- ❖ To identify areas for the application of S&T to the developmental needs of the U.T. of Puducherry.
- ❖ To advise the Government on the formulation of the policies and measures which will promote applications of science & technology to the identified needs, objectives and goals.
- ❖ Financial assistance to pursuing research in the area of Science, Technology and Environment.
- ❖ Popularization of science among students and the public.

Composition of the Puducherry Council for Science & Technology:

1.	Hon'ble Minister for Sci., Tech. & Envt.	- Chairman
2.	Chief Secretary	- Vice-Chairman
3.	Development Commissioner	- Member
4.	Secretary (Finance)	- Member
5.	Special Secretary (Sci., Tech. & Envt.)	- Member
6.	Secretary (Education)	- Member
7.	Secretary (Health)	- Member
8.	Secretary (Industries)	- Member
9.	Secretary (Agriculture)	- Member
10.	Director (JIPMER)	- Member
11.	Director (VCRC)	- Member
12.	Dean (RAGACOVAS)	- Member
13.	Nominee of Puducherry University	- Member
14.	Nominee of Planning Commission, GOI	- Member
15.	Nominee of DST, GOI	- Member
16.	Non-official members	- Three Members
17.	Director (DSTE)	- Member-Secretary

Executive Committee:

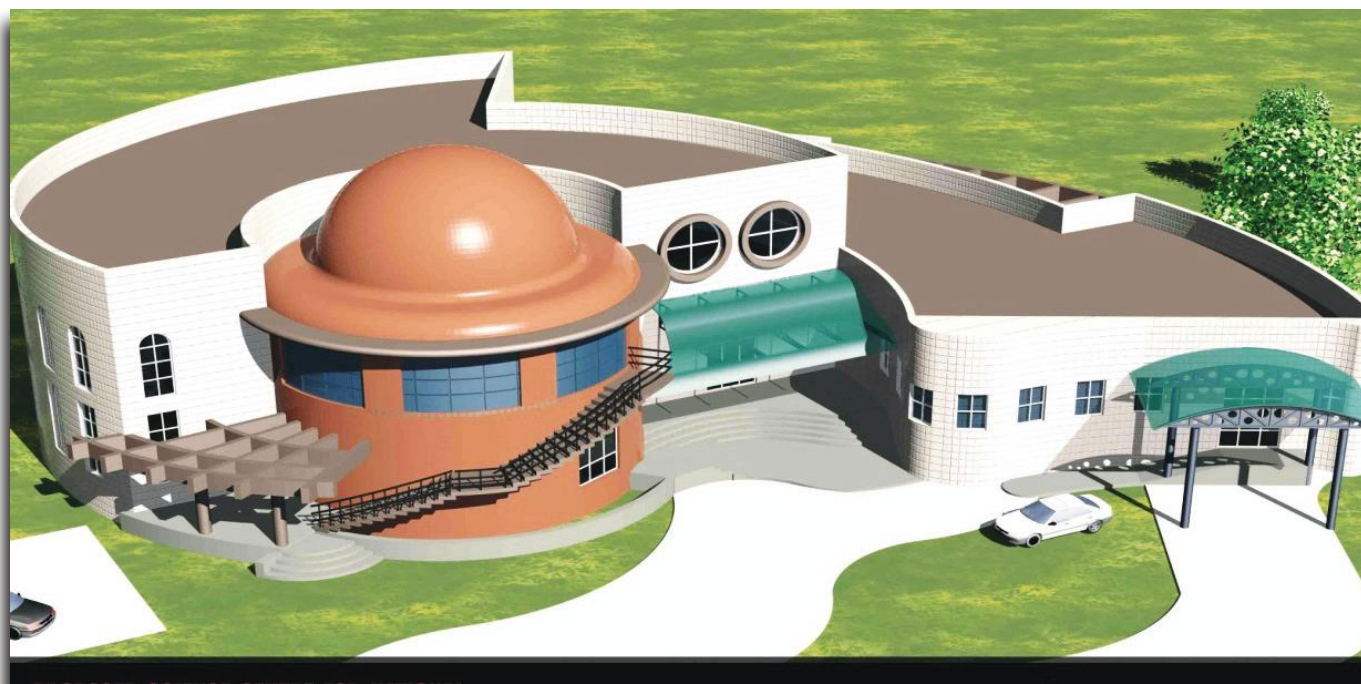
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|---|--------------------|
| 1. Special Secretary (Sci., Tech. & Env't.) | – Chairman |
| 2. Secretary (Finance) | – Member |
| 3. Secretary (Education) | – Member |
| 4. Non-official member | – Member |
| 5. Director (DSTE) | – Member-Secretary |

Activities of the Council**Release of partial financial assistance for conduct of Seminars / Conferences / Workshops on S&T topics**

An Amount of ₹ 10,000 / ₹ 50,000 / ₹ 1 Lakh is being released to academic institutions in the U.T. of Puducherry for conduct of Regional / National / International Seminars / Conferences / Workshops respectively on merits of the proposals. During the CFY2012–13 an amount of ₹ 6.62 Lakhs was released to 9 Institutions.

Release of Travel Grants:

Travel Grant of ₹ 30,000 or 50% of Air fare which ever is less is being released to the faculty members of academic / research institutions in the U.T. of Puducherry on case to case basis to attend the National / International Conference / Seminars on S&T areas for enrichment of their knowledge. During the CFY2012–13 an amount of ₹ 0.47 Lakhs was released to 2 eligible applicants.

Sub-Regional Science Centre (SRSC) cum planetarium:

Birds eye view of proposed Sub-Regional Science Centre (SRSC) cum planetarium



*Honble Minister for Science, Technology and Environment-cum-Chairman (PCS&T)
visit to the SRSC and Planetarium project*

A Sub Regional Science Centre (SRSC) along with 50 seat Planetarium is being constructed in Puducherry under the aegis of Puducherry Council for Science and Technology (PCS&T) in collaboration with the National Council for Science Museums (NCSM), Ministry of Culture, GOI, Kolkatta.

The cost of Sub-Regional Science Centre is ₹ 2.60 Crores and the cost of the Planetarium project is ₹ 80 lakhs. The total cost of the project initially is ₹ 4.00 Crores. The scheme of the Science Centre falls under 50% funding pattern of Ministry of Culture, Govt. of India and construction of Planetarium is a separate entity falls under the financial commitment of Govt. of Puducherry.

As on date the civil works of SRSC and Planetarium are nearing completion. NCSM has also dispatched Science Exhibits which are being installed. The SRSC and Planetarium will be inaugurated during the CFY 2013–14.

Workshop on Developing local specific, R&D, Demonstration Projects under the Special Component Plan of the Dept of Science & Technology, Govt. of India.

A One day workshop for developing local specific, Research & Development oriented, demonstration projects under the Special Component Plan of the Department of Science & Technology, Govt. of India, was organized by the Department of Science, Technology & Environment, on 9th August 2012 in co-ordination with the Pondicherry Science Forum.

Thiru. G. Nehru @ Kuppusamy, MLA. Govt. Whip and Dr. S. Sundaravadivelu, Special Secretary (Science, Technology & Environment) give a brief objective of the workshop and modalities of the project proposals respectively.

Thiru. T.Thiagarajan, Hon'ble Minister for Science, Technology & Environment, the Chief Guest, delivered the Inaugural Address.



*Hon'ble Minister for Sci., Tech. & Envt.
inaugurating the Workshop on Developing Location
Specific, R&D, Demonstration Projects.*

In the Technical Session of the Workshop talks were given on “Status of SC in Puducherry and their development priorities” and “SCP Scheme of the DST, GOI” by the all India Coordinator for the SCP Programme Dr. Reghu Ramdass followed by a feed back session and interaction with the participants.

About 60 participants representing various Non Govt. organizations from the Puducherry Karaikal, Mahe and Yanam participated in the workshop.

SRSC training to the staff of PCS&T

Training programme at National Council for Science Museums, Kolkatta and Visveswaraya Industrial & Technological Museum, Bengaluru

The Training programme for the upcoming Sub-Regional Science Centre at Lawspet, Puducherry for a period of three months was conducted under the auspices of the Director (Hqrs.), National Council for Science Museums (NCSM), Kolkatta. The training was imparted in Birla Industrial & Technological Museum (BITM), Kolkatta for a period of 2 months and at Science City, Kolkatta. At BITM training was given on demonstartion of Galleries, Taramandal shows, Science shows and Summer projects for school children. The Experiments/projects for summer camp are placed in the annexure. The training imparted included:

- ❖ Demonstration of Fascinating Physics Gallery, Television Gallery, Fun science Shows and training and practice of Taramandal, Popular Science Gallery, and life science gallery, Transport Gallery Surprising Chemical reactions Shows
- ❖ Demonstration of Electricity Gallery, Motive Power and Biotechnology Gallery, Science Magic & Miracle Shows, Summer training Camp activities/ projects on Physics & Chemistry
- ❖ Demonstration of Mathematics Gallery, Mock-up Coal Mine & Metals, Super Cooled Bodies Shows and training of Taramandal. Summer training Camp activities/ projects on Physics & Chemistry, Mock-up Coal mine & Fascinating Physics Gallery and Conducting Fun Science shows..
- ❖ Demonstration of Mock-up Coal mine, Taramandal & Fascinating Physics Gallery and Conducting Surprising Chemical Reactions.
- ❖ Demonstration of Mathematics Gallery & Television Gallery and Conducting Science magic and miracle shows.
- ❖ Demonstration of Popular Science Gallery & Taramandal and Conducting Super Cooled bodies shows.
- ❖ Demonstration of Electricity Gallery, Television Gallery and Conducting Fun Science shows.
- ❖ Nutrients making for Hydroponics, Plant propagation and raising nursery, Pot Making, Pot Filling, Plantation in Water, Collection of Sample plants & sorting and Uses of hydroponics.

After completion of three months training at Kolkatta, next training was carried out in Visveswaraya Industrial & Technological Museum, Bengaluru wherein preparation of pamphlets on the different exhibits displayed in the various galleries was given.



PCS&T staff during training at NCSM, Kolkatta

Mobile Science Exhibition Bus

Mobile Science Exhibition Bus is a specially designed bus having exhibits on scientific themes mounted in the bus along with other hardware like film projector, power generator and spares. This is like a science museum on wheels. In order to popularize science among the students, the Department of Science, Technology and Environment / Puducherry Council for Science & Technology has purchased the Mobile Science Exhibition Bus Unit at a cost of ₹ 18.50 lakhs from Tamil Nadu Science & Technology Centre, an establishment of Government of Tamil Nadu. The Mobile Science Exhibition Bus Unit contains 24 exhibits on scientific themes. For the current financial year 25 schools and a State Level Science Exhibition were attended, thereby a total of 21,398 students visited the Bus.



Students visiting the Mobile Science Exhibition Bus



PUDUCHERRY POLLUTION CONTROL COMMITTEE

Puducherry Pollution Control Committee(PPCC) is a statutory body constituted under Section 4, clause (4) of the Water (Prevention and Control of Pollution) Act, 1974 and Section 6 of the Air (Prevention and Control of Pollution) Act, 1981. PPCC has been playing a key role in abatement and control of pollution in the U.T.of Puducherry by enforcing various environmental legislations.

Genesis

- ❖ Pollution Control Acts were being implemented by Central Pollution Control Board (CPCB) till Mar'1992.
- ❖ CPCB delegated its powers and functions to PPCC from April 1992 vide S.O .787 (E) dated 10.03.1992 of Ministry of Environment and Forests, Government of India (under Sec.4 of Water (P & CP) Act 1974 and Sec.6 of Air (P&CP) Act 1981).
- ❖ Since then PPCC is implementing various Environmental and Pollution Control Acts with the technical staff of the DSTE. During February 2006, six technical staff were recruited for PPCC.
- ❖ PPCC has been reconstituted vide Notification No. 143 dated 01.06.2011 by the CPCB.
- ❖ So far 130 meetings of PPCC were convened.

Composition of PPCC

- | | |
|---|-----------------------|
| 1. Special Secretary to Government
(Science, Technology & Environment)
U.T. of Puducherry | - Chairman |
| 2. Director of Industries
U.T. of Puducherry | - Member |
| 3. Director of Agriculture
U.T. of Puducherry | - Member |
| 4. Director of Health and Family Welfare Services
U.T. of Puducherry | - Member |
| 5. Commissioner, Puducherry Municipality
U.T. of Puducherry | - Member |
| 6. Senior Town Planner,
Town and Country Planning Department
U.T. of Puducherry | - Member |
| 7. Commissioner, Karikal Municipality
U.T. of Puducherry | - Member |
| 8. Principal, Pondicherry Engineering College (PEC)
U.T. of Puducherry | - Member |
| 9. Director,
Department of Science, Technology and Environment
U.T. of Puducherry | - Member
Secretary |

Pollution Control Acts

1. The Water (Prevention and Control of Pollution) Act, 1974
2. The Air (Prevention and Control of Pollution) Act, 1981
3. The Environment (Protection) Act, 1986

Rules And Notifications Under Environment (Protection) Act,1986

- ❄ Bio-Medical Waste (Management and Handling) Rules, 1998.
- ❄ Municipal Solid Waste (Management and Handling) Rules, 2000.
- ❄ Noise Pollution (Control and Regulations) Rules, 2000.
- ❄ Ozone Depleting Substances Rules, 2000.
- ❄ Batteries (Management and Handling) Rules, 2001.
- ❄ Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- ❄ Plastic Waste (Management and Handling) Rules, 2011.
- ❄ Electronic Waste (Management and Handling) Rules, 2011.

Functions of PPCC

- ❄ to plan a comprehensive programme for the prevention of pollution of stream or well / Ambient air in the State and secure the execution thereof.
- ❄ to advise the State Government on any matter concerning the prevention of pollution, location of Industry.
- ❄ to encourage, conduct and participate in investigation and research relating to problem of pollution and prevention.
- ❄ to collaborate with Central Board in organizing training for the person engaged in programme relating to prevention and control of pollution.
- ❄ to inspect Air pollution control measures, sewage, trade effluent treatment plants, etc,
- ❄ lay down standards.
- ❄ establish laboratory.

Consent Mechanism

For establishment of any industrial/ Commercial plant, the project proponent shall obtain Consent to Establish from PPCC as per the provisions of Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 of the Air (prevention and Control of Pollution) Act, 1981.

Details of Consent to Establish, Operate and Renewal Issued

Sl. No.	Month	Issued Number(s) of Consent to				
		Establish	Operate		Renewal	
			A	W	A	W
1.	April 2012	9	0	0	4	3
2.	May 2012	21	1	1	5	5
3.	June 2012	8	1	1	1	1
4.	July 2012	8	2	0	1	1
5.	August 2012	13	2	2	3	3
6.	September 2012	22	1	1	5	5
7.	October 2012	21	2	2	5	4
8.	November 2012	8	1	0	5	4
19.	December 2012	5	0	0	7	7
10.	January 2013	26	3	3	6	5
11.	February 2013	10	2	3	2	2
12.	March 2013	16	3	4	6	6
Total		167	18	17	50	46
Grand Total		298				

Incorporation of Green Conditions for better Environment Management System

PPCC from the financial year 2012, started to incorporate the following green conditions in all the Consent to Establish, Consent to Operate and Consent Renewal being issued.

- ✧ Appropriate Rain Water Harvesting Structures installation.
- ✧ The unit shall provide bio gas plant, in situ green waste management and solar water heater for hot water generation inside the premises for steam generation, preheating or cooking requirements.
- ✧ Energy conservation measures like installation of CFLs/TFLs for lighting the areas inside and outside the building, Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid toxic contamination.
- ✧ Use of solar panels to be adopted to the maximum extent possible, especially for street lights
- ✧ 5% of power requirement of the unit to be met out from renewable energy sources within period of three years as per PPA Building Bye-Laws vide G.O.Ms.No.5/2012 dt., 05.03.2012 etc.

Environmental Performance Index (EPI) of the U.T. Puducherry

Union Territory of Puducherry has been ranked 16th position based on the Environmental performance Index (EPI) by the Planning Commission of India. The Cumulative EPI is a measure of the Environmental well being of the state EPI is based on 5 Category Comprising 16 indicators namely, Air Pollution, Forest, Water quality, Waste Management and Climate Change.

Union Territory of Puducherry has been ranked 16th position among 28 states and 7 Union Territory based on the following criteria.

Sl.No	Criteria	Ranking
1	Air Pollution	1
2	Forest	35
3	Water quality	5
4	Waste Management	12
5	Climate Change	25

The Union Territory of Puducherry has performed better in criteria viz Air Pollution, Water Quality and Waste Management, and in other two criteria viz. Forest and Climate Change, pushed Union Territory of Puducherry to the 16th position where it has been worked out on cumulative basis.

It was brought to the notice of Planning Commission of India that tree cover in the Union Territory of Puducherry has not been taken in to account which forms 6.44% of total geographical area.

In the current evaluation completion of draft action plan on climate change is also not taken into account. This fact was brought to the notice of the Planning Committee of India for the Union Territory of Puducherry. In view of the above two facts, the EPI of the Union Territory of Puducherry is expected to go higher in the EPI ranking in the present year and also in the coming years.

Status of Air Quality

Puducherry Pollution Control Committee is monitoring ambient air quality at the following three Air Quality Monitoring stations:

1. Local Administration Department near Bharathi Park (Residential)
2. Department of Science, Technology & Environment, Anna Nagar (Residential cum Commercial).
3. PIPDIC Industrial Estate, Mettupalayam (Industrial).

Under the National Air Quality Monitoring Programme (NAMP) in Puducherry region. Each station is being monitored for 24 hours a day and two days in a week in a cyclic manner. The pollutant assessed are Particulate Matter i.e size less than 10 μm , Sulphur-di-oxide (SO_2) and Nitrogen di oxide(NO_2).

Table 2. The Annual Average Concentration of Ambient Air Quality

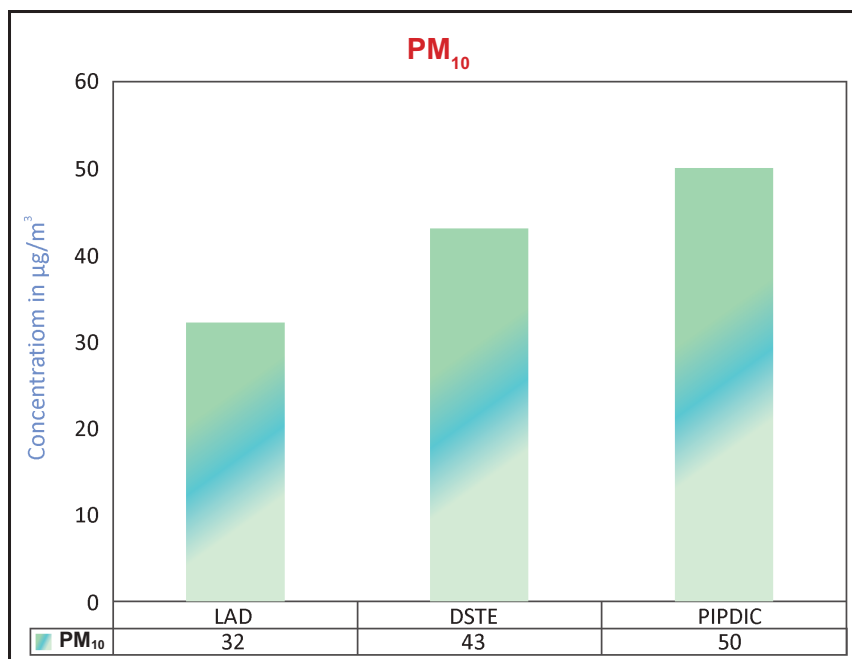
<i>Pollutants</i>	<i>Local Administration Department(LAD)</i>	<i>DSTE</i>	<i>PIPDIC</i>	<i>Annual Average standard</i>
PM₁₀ ($\mu\text{g}/\text{m}^3$)	32	43	50	60
SO₂ ($\mu\text{g}/\text{m}^3$)	6.7	7.6	8.3	50
NO₂ ($\mu\text{g}/\text{m}^3$)	12.4	14.3	14.9	40

The monitoring result reveals that the annual average concentrations of the pollutants in all the three National Air Quality Monitoring locations are within the prescribed standard limits. PM₁₀ are the Particulate Matter having aerodynamic diameter less than 10 μm and it is a fraction of the particulate matter suspended in air and it represents the fraction that is considered to enter the respiratory system. Sources of PM₁₀ include road dust, emission from petrol and diesel exhaust, construction and fireplaces. PM₁₀ may also be formed from other pollutants (Acid rain, NO_x, SO_x, organics) and from incomplete combustion of any fuel.

Concentration of Particulate Matter less than 10 Micron in the ambient air monitored in all the three locations are in the ranges from 15 – 96 ($\mu\text{g}/\text{m}^3$).

The minimum and maximum value found in LAD was 16($\mu\text{g}/\text{m}^3$) & 47($\mu\text{g}/\text{m}^3$)

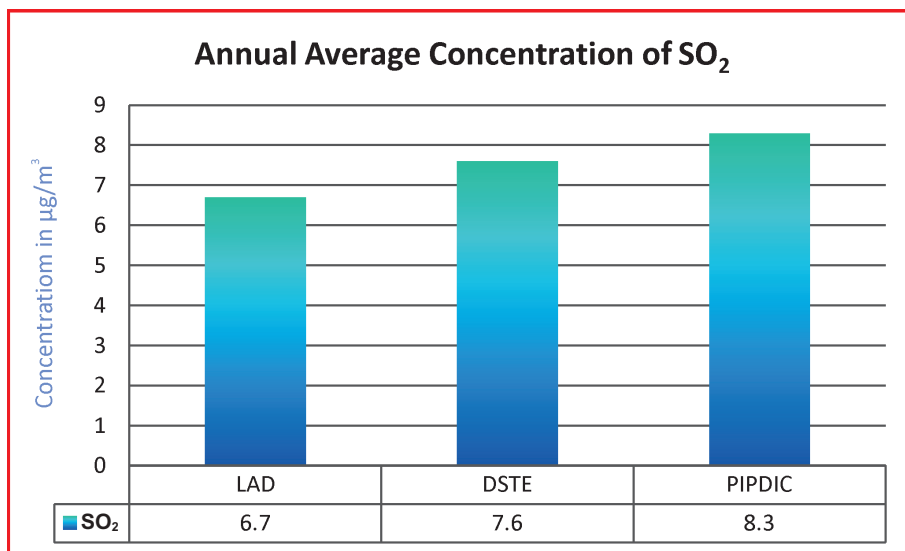
In DSTE Office Building it was 15($\mu\text{g}/\text{m}^3$) & 86($\mu\text{g}/\text{m}^3$) and in PIPDIC Industrial Estate it was 15($\mu\text{g}/\text{m}^3$) & 96($\mu\text{g}/\text{m}^3$).



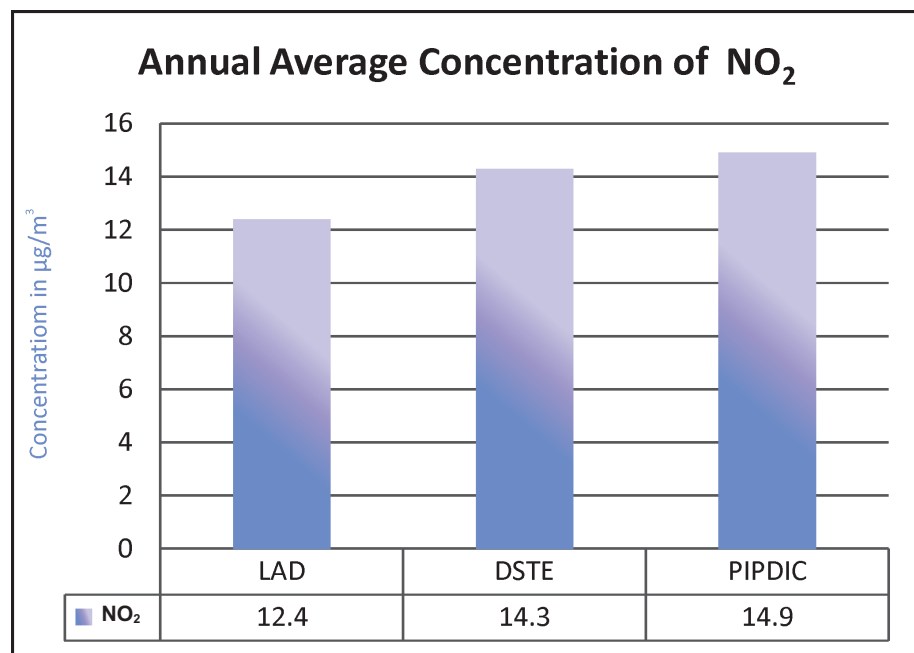
Trends in annual average concentration of PM₁₀ for the year 2012 in Puducherry Region

Sulphur-di-oxide is released by various industrial processes during burning of fossil fuel like Coal and Petroleum used in boilers, furnaces. Since coal and petroleum often contain sulfur compounds, their combustion generates sulfur dioxide unless the sulfur compounds are removed before burning the fuel. Sulfur dioxide emissions are also a precursor to particulates in the atmosphere.

Concentration of Sulphur di oxide in the ambient air monitored in all the three locations are in the ranges from 2-15.2 ($\mu\text{g}/\text{m}^3$) & The minimum and maximum value found in LAD was 2 ($\mu\text{g}/\text{m}^3$) & 13.3 ($\mu\text{g}/\text{m}^3$). In DSTE it was 2($\mu\text{g}/\text{m}^3$) & 9.6($\mu\text{g}/\text{m}^3$). In PIPDIC Industrial Estate it was 4 ($\mu\text{g}/\text{m}^3$) & 15.2($\mu\text{g}/\text{m}^3$) respectively.



Trends in annual average concentration of Sulphur dioxide for the year 2012 in Puducherry Region



Trends in annual average concentration of Nitrogen dioxide for the year 2012 in Puducherry Region

Nitrogen-di-oxide The major source of nitrogen dioxide is released during burning of fossil fuels: coal, oil and gas. Most of the nitrogen dioxide comes from motor vehicle exhaust. Other sources of nitrogen dioxide are petrol and metal refining, electricity generation from coal-fired power stations, other manufacturing industries and food processing.

Ambient Air Quality and Noise Level during Deepavali Festival

Noise Level during Deepavali 2012

Puducherry Pollution Control Committee has conducted Noise monitoring as per the guidelines of CPCB in residential area on the occasion of Deepavali festival to assess the environmental impact of bursting crackers.

Puducherry Pollution Control Committee conducted Noise Level monitoring during normal day on 06.11.2012 and on the occasion of Deepavali on 13.11.2012. The noise level was monitored from 6.00 P.M. – 12.00 midnight continuously and Leq was recorded on hourly basis. The measured noise levels due to bursting of crackers were found to be within the prescribed standards of the Hon'ble Supreme Court directions. During Normal Day the noise level was observed in the range of 51.3 Leq dB(A) – 56.5 Leq dB(A) and in Deepavali day the noise level was slightly higher and in the range of 38.5 Leq dB(A) - 82.6 Leq dB(A). It was noticed from the monitoring report that the average noise level has come down to 62.7dB(A) when compared to that of last year Diwali 73.7dB(A).

Ambient Air Quality during Deepavali, 2012

Puducherry Pollution Control Committee has also conducted Ambient Air Quality Monitoring on 05.11.2012 (Pre monitoring) and on 13.11.2012 (Deepavali). Monitoring report reveals that the concentration of Respirable Suspended Particulate Matter was increased on Diwali 2012. The values of the Particulate matter (PM) was higher ($155 \mu\text{g}/\text{m}^3$) than the prescribed standard limits of $100 \mu\text{g}/\text{m}^3$ which is also higher when compared with the normal day value ($38 \mu\text{g}/\text{m}^3$). The concentration of gases viz., SO_2 and NO_2 are within the prescribed standard limit of ($80 \mu\text{g}/\text{m}^3$) and the concentration levels of SO_2 are $19.2(\mu\text{g}/\text{m}^3)$ and NO_2 $25.6(\mu\text{g}/\text{m}^3)$ during Deepavali day and SO_2 $9.3(\mu\text{g}/\text{m}^3)$, NO_2 $28.4(\mu\text{g}/\text{m}^3)$ during normal day respectively.

Boghi Festival (Makara Sankranti): Awareness was created among public through mass media by releasing press note depicting messages on causes of burning of unwanted material on Boghi festival and its impact on environment. Ambient Air Quality Monitoring was carried out to assess the pollution load on the said occasion. The analysis report reveals that the Particulate Matter level monitored on Boghi day is higher ($168 \mu\text{g}/\text{m}^3$) than the prescribed standard limit of $100 \mu\text{g}/\text{m}^3$. During the monitoring period, the weather was calm and the meteorological conditions were unfavourable for easy dispersion of pollutants due to burning of debris and old materials and

this may be a cause for higher concentration of particulate matter. The concentration of gases viz., Sulphur di oxide and Nitrogen di oxide are within the prescribed standard limit of ($80 \mu\text{g}/\text{m}^3$) and the recorded values of SO_2 are $4.0 \mu\text{g}/\text{m}^3$, $9.2 \mu\text{g}/\text{m}^3$ while the values of the NO_2 are $18.4 \mu\text{g}/\text{m}^3$ and $30.2 (\mu\text{g}/\text{m}^3)$ respectively.

Status of Water Quality

National Water Quality Monitoring Programme, a CPCB funded project

Under this programme water quality is being monitored at thirteen locations in Puducherry, three each in Karaikal, Mahe and Yanam Regions. It includes eleven borewells, three open wells and eight surface water bodies in the U.T of Puducherry.

Status of Ground Water Quality in Puducherry and Karaikal

Sulphate and Nitrate at all locations in Puducherry and Karaikal are well within the limit. Total Dissolved Solids (TDS), Chloride and Total Hardness (TH) exceeds the desirable limit of $500\text{mg}/\text{l}$, $250 \text{ mg}/\text{l}$ and $300\text{mg}/\text{l}$ respectively at some of the locations viz., Vadamattam and T.R.Pattinam in Karaikal, Thengaithittu, Mettupalayam, R.K.Nagar, Mission St., and Uruvaiyar in Puducherry. TDS ranges from $170 - 2974 \text{ mg}/\text{l}$. The highest concentration is at R.K.Nagar. Chloride is observed in the range of $25 \text{ mg}/\text{l} - 1280 \text{ mg}/\text{l}$. The concentration of Total Hardness varies from $27\text{mg}/\text{l} - 808.2 \text{ mg}/\text{l}$. The higher concentrations of TDS Chloride and TH may be due to ingress of salt water and geological condition of the area.

Status of Surface Water Quality in the U.T of Puducherry

The Dissolved Oxygen (DO) in Coringa River (Tidal Lock), Yanam is $3 \text{ mg}/\text{l}$ which is slightly lower than the criteria. This may due to discharge of sewage water. In all other locations the parameters pH, DO, BOD and Free Ammonia are well within the criteria (pH $6.5 - 8.5$; DO – $4 \text{ mg}/\text{l}$ or more; BOD – $3 \text{ mg}/\text{l}$; Free Ammonia – $1.2 \text{ mg}/\text{l}$ or less) of use based classification of surface water. During the year 2012, water sample was not collected at Arasalar River due to no flow of water. Ammonical Nitrogen and BOD in some of the locations are nil.



Surface Water Quality Monitoring by the Lab staff

Status of open wells in Puducherry and Mahe

In Mahe all the parameters monitored are well within the norms of drinking water quality. At Mission St., the concentration of TDS, Chloride and Hardness are slightly higher. This may be due to intrusion of coastal water.

Evaluation of ground water contamination

Thiru. L. Periyasami, M.L.A. of Nettapakkam Constituency complained about supply of sedimented drinking water to the Eripakkam village people. He alleged the possibility of industrial effluent disposal for the contamination. A team of officials from DSTE inspected the drinking water supply point along with M.L.A. and collected the samples. The analysis report revealed that the sedimentation was due to mixing of rust material from the water supply pipe and not by any industrial effluent disposal.



Ground water sampling at Eripakkam in view of allegation of ground water contamination.

Thiru L.Periyasami, M.L.A. is also present

Details of Monitorings and Analysis conducted during 2012–13

Sl. No.	Type of Monitoring	No of Monitorings carriedout
1	Ambient	166
2	Stack	44
3	Effluent Analysis	38
4	Noise	3

Issue of Direction to the defaulting industries

PPCC as a Statutory body, keep continuous vigil on the compliance of environmental standards by the industries. Directions under Section 33 (A) of Water (Prevention and Control of Pollution) Act, 1974, Section 31 (A) of Air (Prevention and Control of Pollution) Act, 1981 and Section and 5 of Environment (Protection) Act, 1986 are being issued to the industries which violate the Consent to Establish/Operate conditions.

List of industries for which directions /closure orders issued

Sl. No.	Name of the unit	Nature of violation	Date of issue of direction	Compliance status
1	M/s. Super New Paints & Chemicals	Compliant regarding Heavy Noise Pollution caused. Direction issued to change the Broken glass windows on the west side	11-Apr-12	Changed the Glass windows on the west side. Verified with Noise meter on 09.07.2012. Complied.
2	M/s. Airport Authority of India	Carrying out Airport activities without Air & Water Consent & Environmental Clearance	28-Jun-12	Air & Water Consent Obtained.
3	M/s SRK Industry R.S.No.124/3, Jeeva Nagar, Kottucherry	Direction issued for Wash water of the empty Acid Slurry Barrels, let out in to the soil and waste wrappers and HDPE bags physically incinerated in the premises.	24-Aug-12	Stopped washing of Empty Acid Slurry Barrels and incinerating the waste wrappers and HDPE Bags in the premises. Instructed the workers for the same. Verified on 19.11.2012.
4	M/s Sri Sivasakthi Flour and Oil Mill, , Thiruvanamalai Road, Thirukanoor	Not provided dust control measures	11-Sep-12	Complied
5	M/s Fine Automotive & Industrial Radiators Pvt. Ltd., 67, 7th Cross, PIPDIC Road, Sedarapet	Spray painting carried in operational area leading to contamination of water and soil	13-Sep-12	Spillages cleared, paint booth installed with proper arrangement for collection paint sludge.
6	M/s. PWD, Puducherry	Compliance to condition laid in NOC issued for Dubryanpet STP	25-Sep-12	Follow up action to be taken.
7	M/s. PWD, Puducherry	Compliance to condition laid in NOC issued for Lawspet STP.	16-Oct-2012	Follow up action to be taken.
8	M/s. Devi Shika Turmeric Powder	Closure direction was issued For causing public nuisance by operating a reprocessing of the plastic unit	04-Oct-12	Stopped the operation of the reprocessing of the unit.
9	M/s. Indira Gandhi Medical College and Research Institute	Direction was issued to stop the discharge of waste water into the Kanaganeri Lake.	23-Oct-12	Stopped the discharge.

Sl. No.	Name of the unit	Nature of violation	Date of issue of direction	Compliance status
10	M/s. Sri Balaji Industries R.S.291/1B, 57/1A, 1B, Kalitheerthalkuppam & Thirubhuvanai, Madagadipet Post,Pdy	To provide concrete structures in and around the storage tanks, to put a STP for the treatment of the domestic waste water and to provide strip curtains to the storage area	30-Nov-12	Compliance report submitted
11	M/s. Sarispat Pvt. Ltd., R.S. 214,215, Kalitheerthalkuppam, MCP	For exceeding the prescribed standard for the particulate matters in the ambient air quality and to provide an STP	30-Nov-12	The unit has changed the stack ladders, platform and putting up of STP civil works has been initiated will be completed within june
12	M/s. Adithya Ferro Alloys(P) Ltd., S.F.No.242/1, Surakudi Village, Peralam Main Road, Thirunallar Commune	Direction issued for letting out the Domestic waste water generated by the resident workers into the Surakudy, Melakarai, PallaVaikal	24-Dec-12	Complied with by providing a collection pit for the domestic waste water and the overflow water used for gardening, solid waste settled are being composted for natural manure and plantations of Kalvazhai, developed to back up the same. The Water outlet to the said vaikkal has been closed. Verified on 28.02.2013.
13	M/s. Omkar Fine Organics Pvt. Ltd., R.S.23/2, Mangalam Road, Uruvaiyar,VCP	Transporting of effluent without prior consent from PPCC	04-Jan-13	Furnished records of effluent treated and transport for the year 2011-2012
14	M/s. Vinayaka Missions Medical College and Hospital Keezhakasakudimedu, Kottucherry	Direction was issued for improper Bio-Medical Waste Management and also to provide STP.	07-Jan-13	Compliance report is yet to be received.
15	M/s. Ranjan Plasts R.S.95/3, Door.No.2, Moorthikuppam Road, Sulliyankuppam, Utchimedu Revenue Village	Air pollution problems cerated. Directed to shift to industrial area	11-Jan-13	Not committed to shift

Sl. No.	Name of the unit	Nature of violation	Date of issue of direction	Compliance status
16	M/s. Chellam Industries Madukarai, Puducherry	Shifting of CNSL resin plant	28-Jan-13	Dismantled the plant at unauthorized site
17	M/s. J.R.Foods R.S.No.64/3, 65/4, 65/11, Pondy Villupuram Road (NH), Thirubhuvanai	For unauthorized change of fuel in the boiler, to provide porthole to the stack for monitoring and to submit the cess fee, to inform the authority before operation of the refinery after rectification. And to put flow meters to the ETP.	31-Jan-13	Provided the port hole to the stack, taken steps to revamp the ETP. Refinery not in operation till oct 2013
18	M/s. JB Aluminium Extrusion Thirukanchi Road, Odiampet	i. Spillage of caustic soda solution ii. Spillage of furnace oil in ground	05-Feb-13	i. Collected caustic spillages and recycled to ETP ii. Provided concrete platform for furnace oil area
19	M/s. Mahatma Gandhi Medical College cum Hospital R.s.56/1,58, Pillayarkuppam, BCP	Discharge of treated effluent on the irrigation canal	19-Feb-13	Partially stopped
20	M/s. Ranjan Plasts R.S.95/3, Door.No.2, Moortbikuppam Road, Suliyankuppam, Utchimeddy Reve Village	Closure direction & direction of power issued	14-Mar-13	Closed operation
21	M/s. Snam alloys (P) Ltd. Unit-II Kariyamanickam, Nettapakkam Commune Panchayat	Poor slag storage arrangement, fugitive emission, improper maintenance of pollution control devices	26-Mar-13	Bag Filter has been upgraded. Separate slag storage provisions has been provided
22	M/s. R.K. Industries R.S.197/17, Kanniakoil Street, BCP	i. Noise pollution causing disturbance to surrounding ii. Directed to shift to non-residential area	28-Mar-13	i. Replied to PPCC with request to consider 3 months time for shifting

Sl. No.	Name of the unit	Nature of violation	Date of issue of direction	Compliance status
23	M/s. Mahalakshmi Sweets & Bakery 13, Vanidasan Street, Kosapalayam,	Unauthorized activity	28-Mar-13	Follow-up action to be taken
24.	M/s. B.R. Fibres, 61A, First Cross Extn, Krishna Nagar	Unauthorized FRP article industry	26-Apr-2012	Unit Closed
25.	M/s. SUMangla Steels, Mettupalayam	TO improve Air Pollution Control measures	07-Sep-2012	Complied
26.	M/s. Sai Supreme Textiles (P) LTd., Kurumbapet	i. Overflow of waste water from ETP causing seepage of water into walls of neighbor	14-Mar-2013	Maintenance of ETP is carried out properly. ETP is proposed to be modified
27.	M/s. Pushpit Steels Nettapakkam	Hood on the furnace was damaged & oil coated scrap was used as raw material	11-July-2012	New hood has been placed. Shredding machines has been installed. Stopped to use Oil coated scraps.
28.	M/s Goodrej Consumer Products Ltd (previously Goodrej Household Products ltd), Nallur village, Mannadipet commune, Puducherry	For exceeding the standard for particulate emission in the stack and to provide the multi cyclone separator	21-Jan-2013	The unit has yet to install the multicyclone
29.	M/s Srinivasa Chemicals Enterprices, R.S No 4/2, Sanyasikuppam road, Thirubhuvanai, Puducherry	For exceeding the standard of SO ₂ in the ambient air and for installation of D.G set without the permission and to provide the dyke wall around the LABSA storage yard.	28-Jan-2013	The unit has submitted the application for the DG set and in the process of putting a scrubber. Unit has provide the concrete platform.

Status of Implementation of Government Order on ban on usage of thin plastic articles

Government of Puducherry has imposed ban on sale, stock and usage of plastic carry bags, plates and disposal cups of lesser than 51 microns thickness vide G.O.No.97 dt.9.12.2009. Eight department officials have been notified as implementing authority. Official of DSTE in collaboration with Revenue Department conducted many surprise checks in industries and commercial establishments.

Surprise inspection was carried out in the premises of M/s.Victory Polymers on 2.8.2012 and noticed large scale stocking of banned plastic articles. The premises of M/s.Victory Polymers was sealed as per the provision of Section 5 of the Environment (Protection) Act, 1986. After obtaining

an undertaking from the proponent to the effect that he shall not stock any banned plastic articles,



*Measuring thickness of carry bags in the premises of
M/s. Victory Polymers*

the premises was unsealed on 13.12.2012 in the presence of officials from Revenue Department. Inventorisation of the stocked items was done. Banned plastic items of 36 bundles of carry bags and 6 bundles of marriage Tambulam bags are seized and sent to M/s.F.F.Polymers, Sedrapet Industrial Estate, PPCC authorized waste plastic recycler for reprocessing.

Surprise inspection was conducted in Mettupalayam

Industrial Estate on 29.9.2012. It was noticed that M/s.Ultra Polymers Pvt.Ltd. was involving in manufacturing of carry bags of lesser than 51 micron thickness. The unit was directed to stop the manufacturing of carry bags of lesser than 51 micron thickness and the same has been complied with.

Scientific and Sustainable solution for Solid waste disposal problem

Puducherry Municipality and Oulgaret Municipality collectively generate 400 TPD of municipal solid wastes. Its heterogeneous nature and almost nil source segregation make any solid waste management project failure. After usage of plastic bags enter into the life style of the society, solid waste disposal became greater challenge as it became difficult to decompose. Disposal of MSW through incineration process is one of



Presentation by Korean team on scientific disposal of MSW

the viable option available. M/s,Chosun Refractions Engineering Co.Ltd., Korea made presentation on 21.11.2011 in the presence of the Hon'ble Chief Minister, Minister for Environment, Minister for Local Administration, Chief Secretary, Secretary for LAD and Environment.

Green Vinayaga (Ganesh)Chathurthi

Earlier, the Vinayaga idol was used to be manufactured by plaster of paries and coloured with chemical paints. This year PPCC created awareness about the ill effect of usage of plaster of paries and chemical paint to the aquatic system through various media. Officials conducted surprise inspection in the idol manufacturing places. By this initiative usage of plaster of paries and chemical paints have been drastically reduced in this year vinayaga chthurthi celebration.



Flowers and pooja materials are collected from the Vinayaga idol procession before immersed in sea

Collection of Flowers and Pooja materials from Vinayaga procession

It is a traditional practice of immersion of decorated Vinayaga idol in the sea after third day of the celebration of Vinayaga Chathurthi. The flowers and other pooja articles also get immersed along with idol in the sea resulting in littering of coastal area. This year PPCC in collaboration with Evergreen Foundation organized Flowers collection centre in the Port. Volunteers of the Foundation collected all the flowers and pooja materials from the vinayaga procession before idol get immersed in the Sea. The collected materials were segregated and the biodegradable materials are composted and plastic materials are sent to waste plastic recycling unit.

Inspection of pollution potential industrial units by the Expert Committee



Inspection of upgraded Effluent Treatment Plant at M/s.Puducherry Cooperative Milk Society by Expert Committee



Joint inspection of M/s.Shasun Drugs by the Expert Committee

Monitoring of Pollution Potential Units by CPCB team:

PPCC has been receiving lot of public complaints on pollution potential units viz., Steel, Ferro Alloys and Pharma units. In order to ascertain the emission level and adequacy of existing pollution control devices, a technical team consisting of Senior Environmental Engineer and Scientists from

CPCB head quarters Delhi and Regional Office Bangalore have visited Puducherry during October 19th – 21st 2012 and conducted air emission and effluent monitoring to the following units:

1. M/s. Snam Alloys
2. M/s. MRF Tyres
3. M/s. Berger Paints
4. M/s. Pulkit Steels Pvt. Ltd
5. M/s. Skol Breweries Ltd
6. M/s. Chemfab Alkalies
7. M/s. Shasun Chemicals
8. M/s. Sar Ispat Pvt Ltd
9. M/s. EID Parry
10. M/s. Sumangala Steel (P) Ltd
11. M/s. JB Aluminium Extrusion



Stack monitoring was carried out under the guideline of CPCB officials

Based on their recommendations, appropriate follow up actions by way of issuing direction under Section 33(A) of Water (Prevention & Control of Pollution) 1974 and Section 31(A) of Air (Prevention & Control of Pollution) 1981 have been issued to all the industry.

Municipal Solid Waste Management

In view of the public objection and intervention of National Green Tribunal, South Zone Bench, Municipal Solid Waste (MSW) Dumping site at Karuvadikuppam has been closed. MSW collected from urban area are currently being disposed at Kurumbapet site.

Biomedical Waste Management

Puducherry Pollution Control Committee is designated authority of enforcing the provisions of Bio-Medical Waste (Management and Handling) Rules, 1998. The details of authorization issued during the year is given in the table:

Authorisation issued to the Health Care Facilities

Sl. No.	Region	Issue of Authorisation	Renewal of Authorisation
1.	Puducherry	6	4
2.	Karaikal	--	--
3.	Mahe	--	--
4.	Yanam	--	--
	Total	6	4

Direction has been issued to M/s Mahatma Gandhi Medical College and Hospital, Pillaiyarkuppam, M/s Puducherry Institute of Medical Sciences, Kanagachettikulam, M/s Vinayaka Mission medical College and Hospital, Karaikal and General Hospital, Karaikal for non-compliance under Water Act. Direction has been issued to 45 Health Care Facilities for non compliance (non-submission of Annual report) under Bio Medical Waste (Management & Handling) Rules, 1998 and Environment (Protection) Act, 1986

Status of Common Bio-Medical Waste Treatment Facility

M/s. Puducherry Solid waste Management Company Private Ltd., Thuthipet has commenced its operation. 6 Government Hospitals, 7 Private Medical colleges, 40 Private Hospital/ Nursing homes/ Clinics, 7 Eye & Dental Hospital/clinics and 48 Laboratories have entered an agreement with the Common Facility. Apart from this 27 Pharmaceutical Industries have entered an agreement with this Common Facility for disposal of date expired medicine and the ETP sludge. The details are given in the following table.



Evaluation of Common Bio-Medical Waste Treatment Facility, Thuthipet for the CPCB specifications by the technical team

No. of HCF entered agreement with CBMWTF

Sl. No.	Type of Hospital	Total No. of Beds	No. of units
1.	Govt. Hospital	1606	6
2.	Private Medical College and Hospital	3925	7
3.	Private hospital / Nursing Home / Clinic	622	40
4.	Eye & Dental hospital / Clinic	188	7
5.	Laboratories	55	48
Total		6396	108

Hazardous Waste Manamagement

117 units have been identified as Hazardous waste generating industries. Out of this, 102 units have obtained authorization from PPCC. No Objection Certificate was issued to M/s Larson & Toubro Ltd., Sedarapet for incinerating the hazardous waste generated by their unit. During the last 5 units have been issued fresh authorization and 5 units have been renewed under Hazardous waste (Management, Handling and Transboundary Movement) Rules, 2008.

Authorisation issued to the HW generating units

Sl. No.	Region	Issue of Authorisation	Renewal of Authorisation
1.	Puducherry	4	5
2.	Karaikal	1	--
3.	Mahe	--	--
4.	Yanam	--	--
	Total	5	5

Region wise Break-up of Hazardous Waste based on Disposal Method

Sl. No.	Region	Quantity of Hazardous waste in TPA			Total
		SLF*	RCL**	INC***	
1.	Puducherry	129.2	32401.605	22.72	32554.005
2.	Karaikal	3.36	63.42	0.96	67.74
3.	Yanam	--	3017.8	1.2	3019
4.	Mahe	--	--	--	--
	Total	132.5	35482.805	24.92	35640.745

Note: SLF* - Secured land filling; RCL**- Recyclable; INC***-Incinerable

Plastic waste management

Plastic Wastes (Management & Handling) Rules, 2011 is being implemented by PPCC. So far, 121 units have obtained Consent to Establish. As per the provisions of Plastic waste Rules, 8 applications were received for registration under this Rules.

As per the Rule 10, explicit pricing of carry of bags are being charged by the shop owners.

Road construction on trial bases was carried out using Plastic waste. Consent to Establish was granted to a unit for conversion of Plastic waste into fuel. Direction under section 5 of Environment (Protection) Act, 1986 were issued to 11 stockist / shop owners and 4 direction to manufacturers of Plastic carry bag was issued.

Inspection & Monitoring in outlying regions

Pending Industrial Inspection & Monitoring were also carried out in Mahe and Yanam regions for processing the applications of Industries for issue of Consent to Establish/Renewal on merits.



Inspection and monitoring in Yanam region



Computerisation and Data base

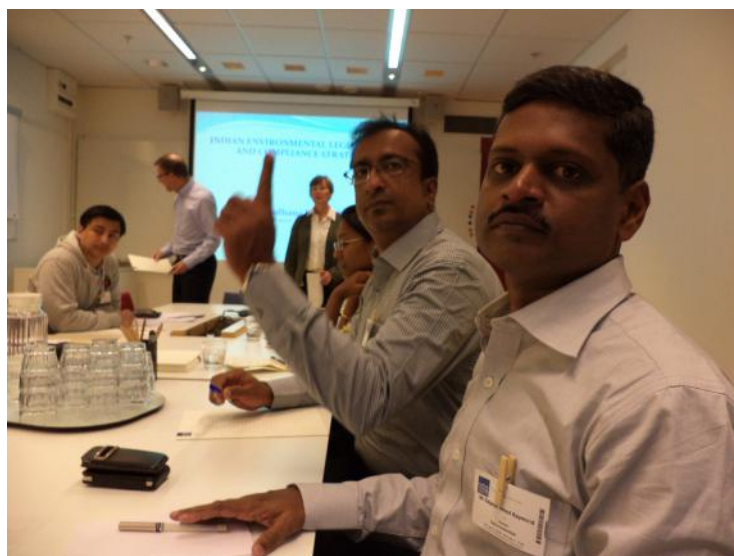
Computerisation of all existing industries data and new applications seeking issue of Consent to Establish/Renewal and grant of authorisations have been started during the Current Financial Year and about 80% of the same is completed.

Environmental Information System (Envis)

- * The MoE&F has entrusted 90 Centers all over the country to collect and disseminate information on various environmental topics.
- * The topic assigned to Puducherry Center (PPCC) is Solid Waste Management.
- * This Centre is bringing periodical newsletter and hosting them on departmental web site.

Trainings attended by the Staff

Best Practices in Environmental Governance: Centre for Science and Environment (CSE), New Delhi in agreement of co-operation with Swedish Environmental Protection Agency (SEPA), Sweden organized a training programme on ‘Best Practices in Environmental Governance’ to train Environmental regulators from India from October 9 – 20, 2012 at New Delhi and Stockholm, Sweden. As part of this programme, SEPA organized a study visit to twenty-five (25) Indian environmental regulators in Sweden from October 13 – 20, 2012. Dr. R. Sagaya Alfred, Senior Scientific Officer of the Department of Science, Technology and Environment was selected and attended the said Training Programme. The programme includes lectures and workshops in addition to study visits to various industrial sites, recycling stations, waste water treatment plants, hazardous and solid waste management etc.,. The programme was financed by the Swedish International Development and Co-operation Agency (SIDA) at Sweden.



ESCI Training: Tvl. K. Kalamegam and N. Prabhu, Junior Engineers (DSTE) during a field visit to RAMKY Common bio-medical waste treatment facility (CBMWTF) located at Patancheru, Hyderabad as part of CPCB sponsored Training programme on “Operating Mechanism and Performance Evaluation of CETP’s/STP’s and CBMWTF” conducted by Engineering staff College of India, Hyderabad.



CSE training

Centre for Science and Environment , Delhi. Conducted one month training programme for Environmental Regulators in “**Compliance, Monitoring and Enforcement**”. Various Pollution Control Board Officials have participated in the training programme. Thiru P. Vipin Babu, Junior Scientific Assistant of PPCC attended the training.

The training programme provided a platform for the officials working in the Regulatory Agency in framing of the policy matters, solving environmental issues, legal aspects in the Environment sector, Monitoring mechanism in the environmental studies. The international inputs , sector specific industrial details related to the environment was elaborated by the speakers/regulators from Swedish EPA officials.



Thiru P. Vipin Babu, JSA, PPCC attended the training programme.

PUDUCHERRY COASTAL ZONE MANAGEMENT AUTHORITY

The Central Government in the Ministry of Environment and Forests (MoEF) issued the Coastal Regulation Zone (CRZ) Notification, 1991 vide S.O. 114(E) dated the 19th February 1991 imposing restrictions on industries, operations and processes in the Coastal Regulation Zone (CRZ), keeping in view the importance of the coastal environment and the need to protect the coastal ecosystems from the pressures of developmental activities. The Puducherry Coastal Zone Management Authority (PCZMA) is responsible for implementing the said Notification in the U.T. All developmental activities in CRZ require prior clearance of competent authority (MoEF / PCZMA) under this Notification. In order to further strengthen this Notification a new Coastal Regulation Zone Notification, 2011 has been published by MoEF on 06.01.2011 replacing the Coastal Regulation Zone Notification, 1991. The details of various activities of PCZMA during the year March 2011 to March 2012 is given below

Reconstitution of PCZMA:

The tenure of the earlier composition of PCZMA was over by August 2011. The PCZMA was reconstituted for a period of three years by the Ministry of Environment and Forests, Government of India vide S.O.956(E) dated 01.05.2012 with following composition:

1.	Secretary, Department of Environment, Government of Puducherry, Puducherry	- Chairman
2.	The Director, Dte. of Fisheries and Fishermen Welfare, Puducherry	- Member
3.	The Chief Town Planner, Town and Country Planning Department, Puducherry	- Member
4.	Prof. Dr. R. Ramesh, Director, National Centre for Sustainable Coastal Management, Anna University, Chennai – 600 025	- Member
5.	Dr M.V. Ramana Murthy, Scientist 'F' & Head Offshore Structures Division, National Institute of Ocean Technology, NIOT Campus, Velachery – Tambaram Main Road, Narayanapuram, Pallikaranai, Chennai – 600 100	- Member
6.	Thiru Jurgen Putz, Director, Palmyra, Centre for Ecological Landuse, Water Management and Rural Development, Auroville, Tamil Nadu	- Member
7.	Member Secretary, Puducherry Pollution Control Committee, Puducherry	- Member Secretary

Table 8. Details of PCZMA meeting held from April 2011 to March 2012:

Details of Meeting	Date	No. of No. of Projects Cleared by PCZMA	Projects Recommended to MoEF	No. of Projects Rejected	No. of Projects deferred /other decisions	General Agenda
27 th PCZMA meeting	07.11.2012	3	2	1	3	4

CRZ Violations / Directions issued:

A proposal for construction of Hotel in the name and style of M/s. Hotel Manjula at No.33, Dumas Street, Puducherry was received by PCZMA from Puducherry Planning Authority for views. This was discussed in the 27th PCZMA meeting held on 07.11.2012 and it was observed that the project proponent has already commenced construction. Hence the committee directed Member Secretary, PPA to inspect and take action as per PPA by laws and furnish report within one month. PPA has issued directions on 18.03.2013 to stop construction and demolish unauthorized construction within one month.

Other Activities:

- 1) **International Coastal Clean-up Day – 2012** was celebrated on 15.09.2012 in Puducherry in line with the International Coastal Cleanup Day. A massive coastal clean-up operation was carried out in the coastal stretches of Puducherry at Gandhi Statue, Vaithikuppam, Solai Nagar, Vambakeerappalayam, Kalapet, Narambai, Veerampatinam and Moorthykuppam. Local Administration Minister Thiru. N G Panneerselvam inaugurated the cleaning campaign in the presence of Thiru. K. Lakshminarayanan, M.L.A., Dr. S. Sundaravadivelu, Special Secretary – Environment and Senior Officials of the Territorial Administration. Nearly 1000 school children, 200 NCC cadets and NSS volunteers participated in the campaign. The Financial Component of this exercise to the tune of ₹ 1,12,415/- was met by Puducherry Coastal Zone Management Authority (PCZMA) as a part of its activity.



Inaugurating Coastal Clean up Day by Hon'ble Minister for Local Administration

- 2) DST&E has submitted a concept Note on 27-11-2012 to the Ministry of Environment and Forests, GOI for Developing and Implementing an Integrated Coastal Zone Management Plan for Puducherry Union Territory under the World Bank Assisted Integrated Coastal Zone Management (ICZM) Project of the Ministry of Environment and Forests, where in specific proposals for Shoreline Protection and Beach Restoration has been included in consultation with the line Departments. Phase I of the ICZM Project is presently being implemented in the states of Gujarat, West Bengal, Orissa and the Ministry have stated that the project would be extended to all other coastal states and UTs during Phase II. The ICZM Project for Puducherry will have four components namely i) Establishing an ICZM Project Management Unit ii) Formulation and implementation of ICZM plan, iii) Capacity building and iv) Developing and implementing pilot projects. The tentative cost of the project is estimated to be ₹ 398.09 Crores.

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC)

In exercise of the powers conferred by sub-section(3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and in pursuance of the Government of India notification number S.O 1533(e) dated 14th September 2006, the Central Government constituted the State Level Environment Impact Assessment Authority (SEIAA), Puducherry comprising of three members.

To assist the said authority, the Central Government in consultation with the State Government of Puducherry, constitutes the State Level Expert Appraisal Committee (SEAC), Puducherry which comprise of nine members vide S.O.2126 (E) dated 13.12.2007 of MoE&F, GOI.

With the recommendations of the UT administration, the SEIAA and SEAC were reconstituted by the MoE&F, GOI vide notification No. S.O.1424 (E) Dated 26.06.2012. The reconstituted composition of the SEIAA and SEAC are :

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)

- | | | |
|---|---|---|
| 1. Prof. M.A. Sivasankaran,
Head of the Department,
Department of Chemical Engineering,
Puducherry Engineering College,
Puducherry – 605 014. | - | Chairman
(Expert in Environmental Quality) |
| 2. Prof. Anisa Basheer Khan,
Dept. of Ecology and Environmental Sciences,
Puducherry University,
Puducherry – 605 014. | - | Member
(Expert in Life Sciences) |
| 3. Director,
Department of Science, Technology and Environment,
III floor, PHB Building, Anna Nagar,
Puducherry – 605 005. | - | Member Secretary |

STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC)

- | | | |
|--|---|---|
| 1. Prof. M.P. Ramanujam
Associate Professor (Retd.,)
K.M. Centre for PG Studies
Puducherry – 605 008. | - | Chairman
(Expert in Life Sciences) |
| 2. Dr. G. Poyyamoli
1 Associate Professor, | - | Member
(Expert in EIA Process) |

Department of Ecology and Environment
Puducherry University
Puducherry -605 014.

- | | | |
|--|---|---|
| 3. Dr.R.Saravanan,
Associate Professor,
Civil Engineering Dept.,
Puducherry Engineering College,
Puducherry -605 014 | - | Member
(Expert in Risk Assessment) |
| 4. Dr.T.Nambirajan,
Associate Professor,
Dept. of Management Studies,
Puducherry University,
Puducherry -605 014. | - | Member
(Expert in Management) |
| 5. Dean
PAJANCOA&RI,
Karaikal -609 603. | - | Member
(Expert in Life Sciences) |
| 6. Dr.S.Ganapathy Venkatasubramanian,
Professor,
Centre for Environmental Studies,
Anna University,
Chennai-600 025. | - | Member
(Expert in EIA process) |
| 7. Dr.K.K.Sivadasan,
Assistant Professor,
Dept. of Botany,
Mahatma Gandhi Govt. Arts College, Mahe.
New Mahe Post-673 311. | - | Member
(Expert in Life Sciences) |
| 8. Dr.S.Bhyravamurthy,
Principal (Red.),
Dr.S.R.K. Govt. Arts College,
Yanam – 533 464. | - | Member
(Expert in Environmental Economics) |
| 9. Senior Scientific Officer
Dept. of Science, Technology & Environment,
III floor, PHB Building, Anna Nagar,
Puducherry – 605 005. | - | Secretary |

So far six meetings of the SEIAA and eleven meetings of the SEAC were convened.



Meeting and site inspection by SEAC



KARAIKAL REGIONAL OFFICE

Activities

Establishment of National Ambient Air quality Monitoring Station

Karaikal District with an area of 161sq.kms and a population of 1,70,640 is one of the four regions of the Union Territory of Puducherry. Karaikal District comprises of one Municipality viz., Karaikal and five Communes viz., T.R. Pattinam, Neravy, Thirunallar, Nedungadu, and Kottucherry. The number of industries have increased manifolds in the recent past. In Karaikal District around 250 industries are functioning.

In Karaikal District one Rural Industrial Estate at Kottucherry Commune, identified industrial area at Vanjore and Keezhaiyur South and PIPDIC Industrial Growth Centre, Polagam in T.R.Pattinum Commune Panchayat are present. Further due to industrialization and urbanization vehicle plying on the road also increases. As per the request of Puducherry Pollution Control Committee, to ascertain the air pollution in Karaikal Region Central Pollution Control Board sanctioned three new Air Quality Monitoring Stations under National Air Quality Monitoring Programme.

Name of Station	Type of Station
Puducherry Power Corporation Ltd	Industrial area
Karaikal Municipality Office	Commercial Area
Perunthalaivar Kamarajar College of Education	Residential Area

Each station will be monitored 24 hours a day – twice a week in a cyclic manner. The monitoring of Ambient Air Quality of Puducherry region includes parameters of Respirable Particulate Matter, Sulphur-di-oxide (SO₂) and Nitrogen-di-oxide (NO₂).

Central Pollution Control Board has also released an amount of ₹ 8,16,000/- as financial assistance to procure the essential equipments to carry out the ambient air quality monitoring as per the guidelines.

Visit of Chairman, PPCC to Karaikal Region:

Chairman visited Karaikal region on 13.1.2013 and inspected various industries.



Dr. S.Sundravadivelu, Chairman, PPCC inspected M/s.Marg Port, Karaikal



Member Secretary inspecting M/s.Chemplast Sanmar

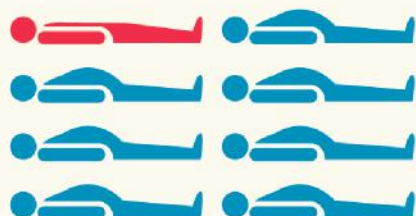


THINK·EAT·SAVE.

**WORLD ENVIRONMENT DAY
5TH JUNE 2013**

**BECOME AWARE OF THE
ENVIRONMENTAL IMPACT
OF OUR FOOD CHOICES.**

**AN ANTI-FOOD WASTE CAMPAIGN THAT ENCOURAGES
US TO REDUCE OUR FOOD RELATED POLLUTION.**



**1 IN EVERY 8 PEOPLE
IN THE WORLD
GO TO BED HUNGRY**

20, 

**CHILDREN UNDER
THE AGE OF 5 YEARS
DIE DAILY
FROM HUNGER**



**WHEN FOOD IS WASTED ALL THE RESOURCES USED
IN THE PRODUCTION OF THE FOOD IS ALSO LOST.**

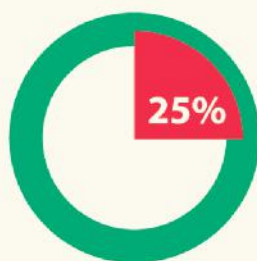


**1/3 OF GLOBAL FOOD
PRODUCTION IS EITHER
WASTED OR LOST**

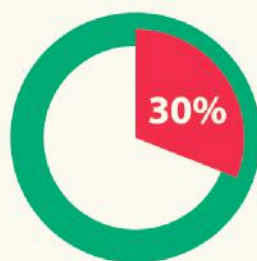
**1,000 Litres
WATER**

**FOR
1 Litre
MILK**

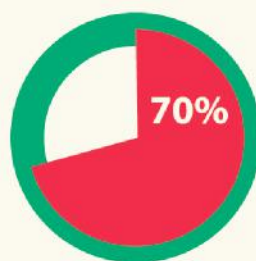
GLOBAL FOOD PRODUCTION IS RESPONSIBLE FOR



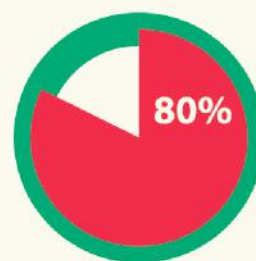
**USE OF ALL
HABITABLE LAND**



**OF GREENHOUSE
GAS EMISSIONS**



**OF FRESH WATER
CONSUMPTION**



OF DEFORESTATION

MAKE AN INFORMED CHOICE TODAY

- ☒ **ORGANIC FOOD = NO CHEMICAL PROCESSES / NO PESTICIDES**
- ☒ **LOCAL FOOD = NO TRANSPORT RELATED CARBON EMISSION**

SO THINK BEFORE YOU EAT & HELP SAVE OUR ENVIRONMENT!



GOVERNMENT OF PUDUCHERRY,
DEPARTMENT OF SCIENCE, TECHNOLOGY
AND ENVIRONMENT



PUDUCHERRY POLLUTION
CONTROL COMMITTEE

(SOURCE: UN FOOD AND AGRICULTURE ORGANIZATION)



DEPARTMENT OF SCIENCE, TECHNOLOGY & ENVIRONMENT

**Puducherry Pollution Control Committee
Puducherry Council for Science & Technology
Puducherry Coastal Zone Management Authority
State Environment Impact Assessment Authority**

III Floor, PHB Building, Anna Nagar, Puducherry-605 005, Ph: 0413-2201256, Fax: 0413-2203494
e-mail: dste.pon@nic.in - Web: <http://dste.puducherry.gov.in>