

## CHAPTER -19

### Environment Conservation

A. **The Department of Science & Technology (DST)** is the Nodal Department for promotion of **Science and Technology in Andaman and Nicobar Islands**. The Department is headed by Secretary (Sc. & Tech.), Director and a skeletal strength of 14 staff. The mandate of the Department is:

- a) Promotion of Scientific temper/technology development.
- b) Capacity building/co-ordination with R & D institutions.
- c) Promotion and implementation of climate change action plan in ANI.

The major initiatives taken in the past few years are:

- i) In the year 2010, the Administration has **imposed complete ban** on use, storage, import, manufacture, transportation, distribution or sale and disposal of **plastic carry bags** irrespective of thickness, size, colour in the entire union territory of Andaman and Nicobar Islands vide Gazette Notification No. 202 dated 02-08-2010.
- ii) **Guidelines for sitting up of Stone Crusher Units** in Andaman and Nicobar Islands are notified vide Notification No. 154 dated 03-08-2017
- iii) To regulate the effluents, sewage and solid waste generated by the **Hotel/Resort/lodges/Restaurants and Automobile Service Centres, guidelines** were published vide notification No. 234 dated 22-09-2017.
- iv) In compliance of the Hon'ble NGT directions, **Andaman and Nicobar Idol Immersion Rules, 2018** was notified vide notification No. 23 dated 05-03-2018 to regulate and control the pollution during the festivals.
- v) **Administration has banned the single use plastic, PET bottles etc in all meeting/seminars/workshops and function of the Administration, central government organisation, PSUs in Andaman and Nicobar Islands vide order 86 dated 14-09-2018.**
- vi) Implementation of a scheme namely "**Andaman and Nicobar Islands Scheme for Exemption of Freight Charges for transportation of Plastic, Glass & E-waste**".

<b>Details of plastic and glass waste transported to mainland under the scheme</b>		
<b>Year</b>	<b>Glass Waste (MT)</b>	<b>Plastic Waste (MT)</b>
2011	-	44.49
2012	235.99	253.62
2013	404.97	201.13
2014	642.51	403.59
2015	508.41	137.12
2016	527.8	216.02
2017	188.65	104.4
<b>Total</b>	<b>2508.33</b>	<b>1360.37</b>

- vii) **Technical guidance is being given to PBMC and local Government bodies** for scientific disposal of domestic waste; a Solid Waste Management Plan for Havelock Island was prepared and given to the local authority for its implementation.
- viii) **Technical Know-how** on the technology **use of waste plastic in road laying** has been provided to APWD and PBMC to use plastic waste in road laying.
- ix) Zonal and State level Science Exhibition-“**Gyanodaya**” are organised in collaboration with Education Department on regular basis for students to develop a scientific temper for which financial and other supported are provided .

**B.** Besides the usual duties and functions of the Department, the officers and staff also discharge the regulatory function of the Andaman and Nicobar Pollution Control Committee (ANPCC), formed as per the provisions of section 4 of Water (Prevention and Control of Pollution) Act, 1974 and section 6 of Air (Prevention and Control of Pollution) Act, 1981 and implement pollution related Acts and rules for maintaining the safe environment standards for sustenance of all forms including human beings on these islands. The main mandates and activities of ANPCC are:

- a) Monitoring of Pollution and Environment Standards by-
  - i) Consent Management for different units while ascertaining the compliance of various statutory provisions contained within the notified acts/rules/notifications.
  - ii) Obtaining quarterly monitoring reports from the all units that require ‘Consent to Operate’.
  - iii) Monitoring of ambient **air quality during festive season**.

Parameters	2014	2015	2016	2017	Prescribed Standards
SO2	35.5	30.88	40.33	21.8	80
NO2	29.92	17.03	40.3	16.1	80
PM10	32.58	51.91	134.43	56.83	100

- iv) Monitoring of **water quality** during festive season (Anexxure-1).
  - v) Monitoring of **ambient air quality and noise level** during festive seasons(Annexure-II )
  - vi) **A report on compilation of Ambient Air and Noise Data During Deepawali Festival: 2010-2017** was published.
  - vii) In compliance of the responsibility assigned under **National Oil Spill Contingency Plan**, the Andaman and Nicobar Pollution Control Committee has participated and coordinated off shore cleaning drive in the event of oil spill under the guidance of Indian Coast Guard, A & N Region on 06-12-2018.
- b) Implementation of statutory provisions of –
- The water (Prevention and Control of Pollution) Act, 1974.
  - The Air (Prevention and Control of Pollution) Act, 1981.
  - The Environment (Protection) Act, 1986.

- The Solid Waste Management Rules, 2016.
  - The Construction and Demolition Waste Management Rules, 2016.
  - The Plastic Waste Management Rule, 2016.
  - The E-waste (Management) Rules, 2016.
  - Hazardous and Other Waste (Management and Trans-boundary Movement), Rules, 2016.
  - The Noise Pollution (Regulation and Control) Rule, 2000.
  - The Batteries (Management and Handling) Rule, 2001.
  - The Bio-Medical waste Management rules, 2016.
- **An Online Consent Management and Monitoring System (OCMMS)** website made operation w.e.f 27<sup>th</sup> September 2018 in collaboration with the NIC, MoEF & CC for facilitating a single window system for according sanctions for different projects/units.
- c) Facilitate compliance of the directions issued from time to time by the Apex Court, NGT, CPCB, MoEF & CC through the different implementing agencies like, Revenue Authorities, PBMC, DHS, Tourism Dept., RD & Panchayat & Urban Development, etc.
- i. Enforcement of ban on plastic, Issuance of notices on abatement of noise pollution and regulation of idol immersion during festivals.
  - ii. Enforcement of mandatory establishment of ETP and STP in all units requiring 'Consent to Operate'.
  - iii. Enforcement of ban on use of Chinese manjha in kite flying.

## Annexure-I

## WATER QUALITY MONITORING REPORT DURING GANESH PUJA-2018

Station/ location	Parameters	Sippighat N11 <sup>0</sup> 36'28.0" E92 <sup>0</sup> 41'52.3"			Chatham N11 <sup>0</sup> 41'07.7" E92 <sup>0</sup> 43'24.4"			Shore Point/ Bambooflat N11 <sup>0</sup> 42'13.2" E92 <sup>0</sup> 43'12.2"		
		Pre Immersion	During Immersion	Post Immersion	Pre Immersion	During Immersion	Post Immersion	Pre Immersion	During Immersion	Post Immersion
<b>S.NO</b>	<b>Date of sampling</b>	12.09.18	18.09.18	24.09.18	12.09.18	18.09.18	24.09.18	12.09.18	18.09.18	24.09.18
1	pH-value	7.53	4.94	7.89	8.01	8.06	18.16	7.44	8.06	8.18
2	Electrical Conductivity, $\mu\text{S/cm}$	22600.0	29600.0	29800.0	21600.0	29600.0	29800.0	28800.0	28400.0	31100.0
3	Total Dissolved Solids, mg/l	14464.0	18944.0	19072.0	13824.0	18944.0	19072.0	15232.0	18176.0	19904.0
4	Total Solids, mg/l	16980.0	20810.0	22320.0	15820.0	21820.0	23150.0	18120.0	21520.0	22650.0
5	Turbidity, NTU	2.80	3.10	2.60	1.8	2.3	2.1	2.60	2.12	2.35
6	Dissolved Oxygen, mg/l	5.8	5.6	5.8	7.6	7.7	6.6	5.8	5.4	5.8
7	Chemical Oxygen Demand, mg/l	24.4	30.0	26.2	52.4	58.0	56.0	29.8	35.4	28.0
8	Biological Oxygen Demand, mg/l	3.0	4.0	3.0	6.0	8.0	8.0	4.0	6.0	4.5
9	Lead(Pb) mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
10	Copper mg/l	0.05	0.06	0.07	0.06	0.06	0.08	0.08	0.05	0.08
11	Zinc(Zn) mg/l	0.02	0.03	0.05	0.02	0.02	0.03	0.05	0.02	0.03
12	Chromium(Cr) mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

**WATER QUALITY MONITORING REPORT DURING DURGA PUJA-2018**

S.NO	Parameters	Sippighat N11°36'28.0" E92°41'52.3"			Chatham N11°41'07.7" E92°43'24.4"			Shore Point/Bamboo flat N11°42'13.2" E92°43'12.2"		
		Pre Immersion	During Immersion	Post Immersion	Pre Immersion	During Immersion	Post Immersion	Pre Immersion	During Immersion	Post Immersion
	Date of sampling	11.10.18	20.10.18	28-10-2018	11.10.18	20.10.18	28-10-2018	11.10.18	20.10.18	28.10.2018
1	pH-value	7.21	7.10	7.10	7.80	7.50	7.65	7.72	7.42	7.65
2	Electrical Conductivity, µS/cm	24080.0	28210.0	20380	25310.0	31520.0	27805	28200.0	31250.0	27805.0
3	Total Dissolved Solids, mg/l	16411.0	18052.0	18250.0	16138.0	20150.0	18250	18068.0	20025.0	18250.0
4	Total Solids, mg/l	18500.0	21280.0	20180.0	18950.0	23580.0	21510	20150.0	23850.0	21510.0
5	Turbidity, NTU	2.3	2.80	2.50	1.8	2.80	1.65	2.6	3.50	1.65
6	Dissolved Oxygen, mg/l	5.8	5.2	6.0	5.6	4.6	5.8	5.2	4.20	5.8
7	Chemical Oxygen Demand, mg/l	81.72	120.0	90.0	108.96	160.0	120.0	172.52	210.0	120.0
8	Biological Oxygen Demand, mg/l	16.0	32.0	20.0	20.0	45.0	25.0	35.0	48.0	25.0
9	Lead(Pb) mg/l	<0.005	0.08	<0.005	<0.005	0.10	<0.005	<0.005	0.12	<0.005
10	Copper(Cu) mg/l	0.08	0.20	0.09	0.05	0.10	0.06	0.09	0.18	0.06
12	Zinc(Zn) mg/l	0.02	0.18	0.05	0.03	0.28	0.08	0.05	0.16	0.08
13	Chromium(Cr) mg/l	<0.02	0.06	<0.02	<0.02	0.08	<0.02	<0.02	0.08	<0.02

## I. Noise Level during Deepawali Festival, 2017:

Location	Normal Day (15-10-2017)			Deepawali Day(19-10-2017)					
	19.00 Hrs -20.00 Hrs			19.00 Hrs -20.00 Hrs			20.00 Hrs –21.00 Hrs		
Time duration	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
Aberdeen Bazaar	52.4	70.2	61.3	56.3	86.7	71.5	55	82	68.5
G.B Pant Hospital	42	45	43.5	40.8	55.8	48.3	42	55	48.5
Haddo	55	62	58.5	56.6	90.7	73.65	59	70	64.5
Dairy Farm	60	65	62.5	51.5	61.5	56.5	50	65	57.5
Shadipur	50	59	54.5	48.7	67.9	58.3	45	65	55

## II. Ambient Air Monitoring during Deepawali festival, 2017:

Monitoring location	Parameters monitored					
	Normal Day (15-10-2017)			Deepawali Day (19-10-2017)		
	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>	PM <sub>10</sub>
Aberdeen Bazaar	14.9	10.4	51.29	21.8	16.1	56.83
NAAQ Standards	80	80	100	80	80	100