



Chief Secretary, Government of Sikkim attended meeting with Hon'ble NGT, Principal Bench by video conferencing in the matter of compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues in O.A. No. 606 of 2018 on 03.11.2022.

The issues of solid and liquid waste management being monitored by the National Green Tribunal, P.B. as per orders of Hon'ble Supreme Court order dated 02.09.2014 in *Writ Petition No.888/ 1996, Almitra H. Patel vs. Union of India & Ors.*, with regard to solid waste management and order dated 22.02.2017 in *W.P. No. 375/2012, reported in (2017) 5 SCC 326, Paryavaran Suraksha vs. Union of India*, with regard to liquid waste management were taken up in respect of State of Sikkim.

The State had submitted a comprehensive report on status of solid and liquid waste management to the Hon'ble NGT, Principal Bench which was taken on record.

In view of the ground situation and submissions made by the Chief Secretary, Shri V.B. Pathak, IAS the Tribunal refrained from levying environmental compensation against Sikkim. The Tribunal has directed the State to take up remedial measures to address the gap in solid and liquid waste management and to file six monthly verifiable progress reports.

HIGHLIGHTS



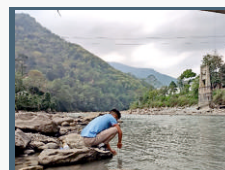
MEETING WITH PIBOs



AWARENESS PROGRAMME
ON SOURCE SEGREGATION



STATUS OF AMBIENT
AIR QUALITY
(OCTOBER 22 TO
MARCH 2023)



WATER QUALITY
MONITORING PRE & POST
DURGA PUJA 2022



Meeting with PIBOs

Dr. Gopal Pradhan, Member Secretary, SPCB-Sikkim conducted a meeting with Producer, Importer and Brand Owners (PIBOs) and Plastic Waste Processors (PWP) on 03.12.2023 regarding the Extended Producer Responsibility (EPR) which was also attended by Shri M.T. Sherpa, Secretary UDD in the conference hall of SPCB-Sikkim.

The main objective of the meeting was to develop a

mechanism in the State whereby PIBOs can fulfill their EPR targets by involving the seven Urban Local Bodies (ULBs) and enabling them for efficient waste management in the State. PIBOs and PWPs were forthcoming with their ideas about how they can participate in the EPR mechanism implementation in the State. PIBOs and PWPs were instructed to fulfill their responsibilities by enabling the ULBs.



Chief Secretary attends 15th Meeting of Central Monitoring Committee (CMC) in the NGT Matter OA No. 673 of 2018 through video conferencing.

On 10th January 2023 15th Meeting of Central Monitoring Committee (CMC) in the NGT Matter OA No. 673 of 2018 was chaired by Secretary, DoWR, RD & GR, Ministry of Jal Shakti. The status of sewage management and solid waste management were presented by the concerned Secretaries of PHED and UDD respectively in the august presence of Chief Secretary, Government of Sikkim.



Workshop on FSTP

SPCB-Sikkim attends one day workshop on "Faecal Sludge and Liquid Waste Management Strategy on 14th December 2022 at Deorali, Gangtok organized by Swachh Bharat Mission (Grameen), Rural Development Department (RDD) in partnership with WASH Institute

Awareness programme on Waste Management

SPCB-Sikkim in collaboration with Singtam /Rangpo Nagar Panchayats (ULBs) and officials from Public Health Engineering Department conducted awareness programme on solid waste management, plastic waste management, air pollution and sewage management at Singtam Nagar Panchayat conference hall on 01/12/2022. The said awareness program was part of source segregation campaign.



Joint Inspection by SPCB-Sikkim in collaboration with State Urban Development Department and State Police Department.

As per the direction of CPCB, joint inspection for SUP ban enforcement are being conducted by SPCB-Sikkim in collaboration with State UDD and with assistance from local SHOs four days a month. The inspecting teams are uploading inspection reports in SUP field

inspection app which are monitored by SPCB-Sikkim through SUP control room and all these reports are reflected in SUP Compliance Monitoring portal. So far no reporting has been found in SUP Grievance App in the State.

Routine SUP inspections conducted by SPCB staff in the GMC Area



Routine SUP inspections conducted by SPCB staff in the Mangan Nagar Panchayat Area



Routine SUP inspections conducted by SPCB staff in the Singtam Nagar Panchayat Area





Stack monitoring at Central Referral Hospital on 03.05.23 Stack monitoring at STNM Hospital on 11.05.23



Water quality monitoring during pre and post Durga Puja

As per the direction of CPCB for effective implementation of the 'Revised guidelines for Idol Immersion' during festivals of Durga Puja and Ganesh Chaturthi, SPCB-Sikkim published public notice for use of low height and eco friendly idols and to obtain registration/authorization from concerned ULBs for sale of such idols. SPCB-Sikkim also conducted pre puja and post puja analysis of river water to monitor water pollution.

Sampling and Analysis of River and Lake water by NWMP staff



Air Monitoring during Diwali 2022 at M.G. Marg, Gangtok



Analysis of SO₂, NO₂, PM₁₀ and PM_{2.5} by NAMP Staff





SPCB-Sikkim participated in the joint inspection of Martam landfill site with line Departments, Bio-mining / Bio-remediation agencies in the presence of Technical Advisor, Dr. Sandeep Tambe, IFS, APCCF Environment, Government of Sikkim.



Water quality monitoring for pre and post Durga puja 2022

Station Code	Type	Sampling Date	pH	Cond. μ mhos/ Cm	NO ₃ -N mg/l	D.O mg/l	B.O. D. mg/l	T. Coliform MPN/ 100ml	Faecal Coliform /100ml	TDS mg/l	TSS mg/l
1805	River	12/09/2022	6.7	180	2.2	8.7	2.6	181	100	23	18
1806	River	12/09/2022	6.5	185	2.6	8.8	2.4	187	97	20	23
1807	River	13/09/2022	7.0	171	2.5	8.6	2.3	179	118	23	22
1808	River	13/09/2022	6.9	144	2.5	8.9	2.1	155	105	21	20
1809	River	16/09/2022	7.1	134	2.4	8.6	2.4	165	107	21	24
2038	River	20/09/2022	7.0	180	2.5	8.7	2.6	169	100	18	20

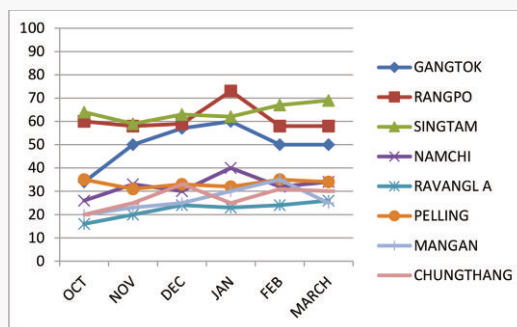
During Immersion

Station Code	Type	Sampling Date	pH	Cond. μ mhos/ Cm	NO ₃ -N mg/l	D.O mg/l	B.O. D. mg/l	T. Coliform MPN/ 100ml	Faecal Coliform /100ml	TDS mg/l	TSS mg/l
1805	River	05/10/2022	6.6	185	2.2	7.8	2.5	185	104	25	24
1806	River	05/10/2022	6.5	190	2.5	8.5	2.5	186	98	26	24

STATE POLLUTION CONTROL BOARD-SIKKIM AMBIENT AIR QUALITY MONITORING REPORT, AIR QUALITY INDEX (AQI) FOR THE PERIOD OF OCTOBER 2022-MARCH 2023.

State Pollution Control Board Sikkim has been conducting ambient air quality monitoring under the National Ambient Air Monitoring Programme in eight stations in the state. As per the comparative analysis of the data generated for the average air quality index from October 2022 to March 2023, Sikkim State is well within the permissible limits and has been mostly under 'Good' category of AQI.

SI No.	STATION CODE	LATITUDE/ LONGITUDE	STATION NAME	MONTHLY AQI FOR THE YEAR OCT 2022- MARCH 2023					
				OCT	NOV	DEC	JAN	FEB	MARCH
1.	521	i. 27.3183°N ii. 88.6063°E	Gangtok	34	50	57	60	50	50
2.	896	i. 27.1736°N ii. 88.5305°E	Rangpo	60	58	59	73	58	58
3.	897	i. 27.5144°N ii. 88.5305°E	Singtam	64	59	63	62	67	69
4.	898	i. 27.3028°N ii. 88.2344°E	Pelling	26	33	30	40	32	34
5.	899	i. 27.3075°N ii. 88.363°E	Ravangla	16	20	24	23	24	26
6.	900	i. 27.17°N ii. 88.35°E	Namchi	35	31	33	32	35	34
7.	901	i. 27.6033°N ii. 88.6469°E	Chungthang	20	25	33	25	31	30
8.	902	i. 27.5025°N ii. 88.5358°E	Mangan	17	29	26	31	37	43



Good (0-50)	Minimal Impact	Poor (201-300)	Breathing discomfort to people on prolonged exposure
Satisfactory (51-100)	Minor breathing discomfort to sensitive people	Very Poor (301-400)	Respiratory illness to the people on prolonged exposure
Moderate (101-200)	Breathing discomfort to the people with lung, heart disease, children and older adults	Severe (>401)	Respiratory effects even on healthy people

- There are a total eight stations under National Ambient Air Quality Monitoring Programme(NAMP).
- Three parameters, namely SO₂, NO₂ & PM₁₀ are monitored at seven stations. In addition to these parameters, PM_{2.5} is also monitored, but only at the Gangtok station starting from November 2022.
- The AQI from periods October 2022- March 2023 of Gangtok, Rangpo and Singtam stations is Satisfactory and the AQI of other five stations i.e. Pelling, Ravangla, Namchi, Chungthang and Mangan were Good.
- The PM₁₀ levels of Rangpo and Singtam stations is quite high as compared to other stations due to heavy traffic movement, proximity to highway, shearing border with West Bengal, nearby industrial area and ongoing construction of railway lines nearby.
- During Diwali, continuous air quality monitoring was conducted at two specific stations, i.e. at Deorali Station and MG Marg, Gangtok. All four parameters (SO, NO₂, PM₁₀& PM_{2.5}) were monitored at both Deorali and MG Marg.
- The Air Quality Index of this period ranged from satisfactory to good.
- Received training at Central Pollution Control Board, Parivesh Bhawan, New Delhi, on air monitoring in various fields, including stack monitoring and the detection of heavy metals.



Diwali Air Monitoring at MG Marg



Diwali Air Monitoring at Deorali.



Analysis of SO₂ and NO₂(Air parameters)



NWMP March 2023

Station Code	Type	Sampling Date	pH	Cond. μ mhos/Cm	NO ₃ -N mg/l	D.O mg/l	B.O.D mg/l	T. Coliform MPN/100ml	Faecal Coliform 100/ml	TDS mg/l	TSS mg/l
1801	R	20-03-2023	7.1	148	2.3	7.0	2.0	116	24	25	20
1802	R	20-03-2023	7.4	122	2.4	8.1	2.3	107	36	20	18
1803	R	17-03-2023	6.9	132	2.1	7.5	2.5	113	32	20	19
1804	R	17-03-2023	7.2	166	2.6	8.2	2.6	196	93	28	23
1805	R	17-03-2023	7.2	176	2.2	8.0	2.6	123	39	25	18
1806	R	29-03-2023	7.0	173	2.4	8.1	2.1	141	34	23	20
1807	R	29-03-2023	6.8	171	2.5	7.4	2.0	178	49	26	21
1808	R	29-03-2023	7.2	140	2.1	8.3	1.8	136	29	28	19
1809	R	21-03-2023	7.1	132	2.0	8.5	2.4	103	53	20	18
2034	R	23-03-2023	7.3	173	2.5	8.3	1.7	108	71	18	19
2035	R	23-03-2023	7.0	191	2.3	8.6	1.5	133	66	19	20
2036	R	24-03-2023	6.9	174	2.5	8.6	2.3	125	31	25	19
2037	R	24-03-2023	6.8	179	2.2	8.1	2.2	161	76	24	17
2038	R	21-03-2023	7.3	173	2.5	8.2	2.0	143	39	23	20
5281	R	Sampling was not carried out because of road blockage due to landslide.									
5282	R	Sampling was not carried out because of road blockage due to landslide.									
5283	R	27-03-2023	6.7	136	2.5	8.1	2.2	164	70	26	18
5284	R	27-03-2023	6.9	101	2.2	8.3	2.1	129	74	27	18
5285	R	27-03-2023	6.8	364	2.5	8.1	2.0	106	62	22	20
5286	R	28-03-2023	6.9	36	2.2	7.5	1.8	137	46	20	22
5287	R	28-03-2023	7.0	34	2.3	7.9	1.6	112	54	20	19
5288	R	28-03-2023	7.1	36	2.1	7.0	2.1	143	41	25	17
5289	R	28-03-2023	6.8	35	2.0	7.3	2.0	126	71	26	20
Changu	L	Sampling was not carried out because Station remained inaccessible due to snowfall.									
Menmoitso	L	Sampling was not carried out because Station remained inaccessible due to snowfall.									

R: River L: Lake

Disclaimer

Efforts have been made to make the data and information provided in this newsletter as accurate as possible. The use of data and information published by SPCB Sikkim should be duly cited.

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