

India a leader in climate change mitigation efforts: PM on WED 2021



June 5, 2021: In his virtual address on World Environment Day 2021, the Prime Minister Shri Narendra Modi stated that India had emerged as a ray of hope in the global efforts to tackle the menace of climate change. India's capacity to generate renewable energy had increased by as much as 250% over the past 6-7 years and India is one of the top five countries of the world as far as installed capacity of renewable energy is concerned, he said. Of this solar energy capacity has increased by about 15 times in the last 6 years.

On the occasion, a detailed roadmap for the development of the ethanol sector was released. An ambitious E-100 pilot project for the production and distribution of ethanol across the country was launched in Pune. Ethanol produced mainly from sugar cane is being used as a bio-fuel and is being blended with petroleum. Presently, 8.5% of ethanol was being blended which is proposed to be increased to 20% by 2025. This will greatly benefit the environment as well as farmers.

On the issue of single use plastics the Prime Minister stated that a lot of awareness has been created regarding single use plastic.



Though people have been doing their bit in their own way but still more is needed to be done.

The Prime Minister also dwelt on India's age old tradition of balancing development and environment. He stated that the Kachra to Kanchan (Waste to Wealth) campaign was being taken forward very fast in a mission mode. Be it waste from households and

farms, scrap metal or lithium ion batteries, recycling was being encouraged through new technology in many such areas. He said that action plan related to this will be implemented in the coming months.

The Chairman, SPCB-Sikkim attended the virtual programme hosted by the Ministry of Environment, Forest and Climate Change.

Highlights



SPCB Sikkim conducts training for waste audit: Training imparted to volunteers for undertaking field and market surveys



Sensitization program on Waste Management for Councillors organized



SPCB Sikkim conducts inspection of Health Care Facilities in all four districts of the State



Status of Ambient Air Quality (April 2021 – September 2021) and River Water Quality (September 2021) across the State

Ozone Day 2021 observed

World Ozone Day 2021 was observed all over the world on 16th September with the theme of “Montreal Protocol – Keeping us, our food and vaccines cool”. SPCB – Sikkim organized a virtual program to observe the Day. In his welcome speech the Member Secretary Dr. Gopal Pradhan mentioned that the objective of declaring the day was to focus attention on the role of ozone as a protective layer around the earth and the need to preserve it by curtailing and phasing out of Chlorofluorocarbon (CFC) group of chemicals called Ozone Depleting Substances (ODSs) and used as coolant, in refrigeration, air conditioners, cold chain etc.

Three pharmaceutical units Torrent, Alkem and Cipla gave presentations on the science related to ozone depletion and the steps taken by the government to deal with the problem especially the phasing out of the ODSs in industrial processes. They also elaborated on the steps taken by them towards installing renewable and clean energy. At the end, the Chairman Dr. Thomas Chandy mentioned the steps taken by the Government of India including ratification of the protocol. He stated that the fight against ozone depletion is the most successful global endeavour on environment in which all members of UN are parties to the protocol and it is the best example of successful global action towards conservation.

SPCB Sikkim participates in Webinar on Plastic Waste Management

A webinar was organized by the Integrated Mountain Initiative (IMI) on 7th August 2021 on the problem of growing plastic waste in the Indian Himalayan Region (IHR). The objective was to share experience by waste management practitioners to strengthen the ban on plastics, especially single use plastics, in the IHR and discuss steps to enforce Extended Producer Responsibility (EPR) effectively. The findings of The Himalayan Cleanup exercise undertaken by IMI from home in 2021 were reported and discussed. Speakers who shared their experience on EPR mentioned how the rules and guidelines do not differentiate between mountain and plains and the higher cost of plastic waste retrieval in the mountains is not factored in. The Producer Responsibility Organizations model was being used by many companies to meet their EPR liabilities but these organizations were not working properly and transparently in most cases. Speaking on the scenario of plastic waste and solid waste management in Sikkim, Chairman SPCB-Sikkim highlighted the steps being taken and the awareness drive for plastic waste management which was planned in the short term by SPCB-Sikkim.

Central Government prohibits use of certain plastic items



The Central Government has imposed a ban on the use of certain single use plastic items in the country to contain the pollution caused by improper disposal of these items. By its Gazette notification no. 459 dated 12th August 2021, the Central Government amended the Plastic Waste Management Rules 2016 to prohibit these items.

Plastic carry bags of thickness less than 75 microns have been prohibited with effect from 30th September 2021. From 31st December 2022 plastic carry bags of thickness less than 120 microns will be prohibited. Hence the manufacture, import, stocking, distribution, sale and use of carry bags of sizes mentioned above will be prohibited from the dates mentioned above. Similarly, non-woven plastic carry bag shall not be less than 60 Gram Per Square Meter

(GSM) with effect from the 30th September, 2021 as per these newly notified rules.

In addition to these, some other commonly used single use plastic items have also been prohibited with effect from 1st July 2022. These include the following: Ear buds with plastic sticks, plastic sticks for balloons, plastic flags, plastic candy sticks, plastic ice-cream sticks, polystyrene (thermocool) for decoration. Plastic plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 micron thickness and plastic stirrers. Hence the manufacture, import, stocking, distribution, sale and use of the above mentioned items will also be prohibited from 01.07.2022.



On-site training on survey of Single Use Plastics at Martam, East Sikkim by SPCB Sikkim



SPCB conducts training for waste audit

The State Pollution Control Board - Sikkim in coordination with GMC and Central Pollution Control Board conducted a training of volunteers for undertaking survey of single use plastics at Martam, East Sikkim on 24th September 2021. The training was imparted to volunteers who will be undertaking field and market surveys of selected wards under different local bodies of the State to assess the availability and use of single use plastics. This exercise will be taken up over a period of more than one year to gauge the impact of the ban that has been imposed on certain single use plastics with effect from next year by the recent amendment to the Plastic Waste Management Rules, 2016.

The surveys will be taken up in the solid wastes generated from selected wards of urban local bodies and sixteen panchayat wards designated as model panchayats for the management of solid wastes. It is also proposed to take up the same exercise in few tourist areas of the State.

The resource persons were drawn from the multi-disciplinary committee consisting of State Government officers from UDD, RDD, SPCB and GMC as well as NGOs WWF, ECOSS, VHA. Shri Ritesh Gurung of CPCB Regional Directorate Shillong also took part in the deliberations as a resource person.

Single Use Plastic related Committee formed

The Central Government notified an amendment to the Plastic Waste Management Rules 2016 by which it has prohibited the manufacture, import and use of certain types of single use plastics all over the country from specified dates. The Ministry of Environment, Forests and Climate Change as well as the Central Pollution Control Board directed all PCBs to undertake surveys to assess the availability and use of prohibited single use plastics as well as that of permitted ones.

Accordingly, SPCB – Sikkim formed a committee consisting of officers drawn from Forest and Environment Department, Rural Development Department, Urban Development Department and from NGOs.



Sensitization program on Waste Management for Councillors organized

New measures have been announced by the Central and State governments for plastic waste reduction recently. In line with this, the State Pollution Control Board Sikkim organized a sensitization programme on municipal solid waste management on 28th September 2021 at the Conference Hall of Gangtok Municipal Corporation, Gangtok. The programme which was organized for councillors of East and North District urban local bodies saw the participation of Mayor and Deputy Mayor of GMC as well as Councilors from GMC, Rangpo, Singtam and Mangan municipal bodies.

The Joint Director of SPCB-Sikkim, Mrs. Kusum Gurung explained the principles of solid waste management and its reflection in the Solid Waste Management and Plastic Waste Management Rules of 2016. She emphasized on the importance of segregation of wastes into biodegradable, non-biodegradable

and domestic hazardous wastes by the waste generator and how this facilitates waste management at subsequent stages in landfills. Shri Ranjan Rai, Executive Environmental Engineer SPCB - Sikkim provided a glimpse into the technologies for waste management available which ought to be introduced for minimization of waste entering landfills. Shri Ritesh Gurung of Central Pollution Control Board's Regional Directorate, Shillong discussed some of the best practices adopted in the North East Region.

The participants interacted and discussed various aspects of waste management and practical problems encountered in waste management in their local bodies and options to deal with these. It may be recalled that the Central Government has imposed a ban on certain single use plastics by its recent amendment of Plastic Waste Management Rules, 2016.

13th and 14th Board Meetings held



The 13th and 14th meetings of SPCB-Sikkim were held on 17th August 2021 and 14th September 2021 respectively. The 13th Board meeting was held in virtual mode, the first time in SPCB-Sikkim's history. The annual budget of the Board for 2021-22 was deliberated, discussed and approved by the Board. The Member Secretary, Dr. Gopal Pradhan briefly introduced the technical subjects for which it was decided that a detailed and physical meeting would be organized in the near future to approve and take necessary action.

The 14th meeting of the Board was held on 14th September 2021 in the conference room of SPCB-Sikkim. The detailed agenda points that were covered included technical matters. The Board made several decisions relating to use of Central funds for abatement of pollution, fees to be collected from healthcare facilities while issuing authorization for handling and storage of biomedical wastes and from industries for handling and storage of hazardous wastes. The Board adopted the CPCB guidelines for waste management by hotels and restaurants with minor changes. The Board also approved the proposal for issue of Request For Proposal (RFP) notice in newspapers for installation of automatic AI based river water quality monitoring system. The steps to be taken for implementing the directions of CPCB and MoEF&CC regarding survey of Single Use Plastic was also discussed and approved in this meeting.



Inspection of Health Care Facilities

SPCB – Sikkim officials conducted inspection of Health Care Facilities at all four districts of the State to check how the covid bio medical wastes were being managed by hospitals and covid care centers. The inspection covered hospitals at Gangtok (STNM and Central Referral Hospital), Singtam, Namchi, Geyzing, Mangan and covid care centers at Palzor stadium, Kyongsa, Soreng and Chisopani.

The main checks were undertaken on the mode of collection and storage of various categories of biomedical wastes into different colour coded bins and dedicated storage areas, the functioning of autoclaves, shredders, captive incinerators authorized by SPCB – Sikkim and the effluent discharge and ash collection. The record of wastes collected and the reporting regularity were also checked. The maintenance of deep burial pits, sharp pits and provision of protective gear to staff were examined. Based on the observations of the inspecting officials, several lacunas were pointed out to the concerned management of the HCFs for rectification. Rectifications were carried out by some of the HCFs and information regarding the same was sent to SPCB.

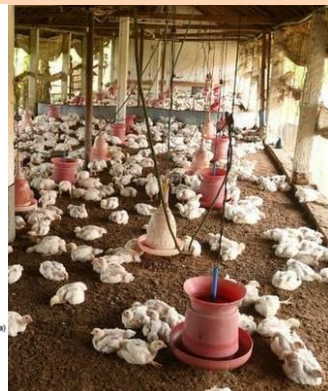
IMPORTANT WEB UPDATES

Environmental Guidelines for Poultry Farms



Central Pollution Control Board
(Ministry of Environment, Forest and Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar
Delhi-110032

(August 2021)



Environmental Guidelines for Poultry Farms

August 2021 | Central Pollution Control Board

Check out the revised guidelines for addressing Environmental issues of Poultry Farms

<http://spcb.sikkim.gov.in/docs/environmental%20guideline%20for%20poultry%20farm.pdf>

भारत का राजपत्र The Gazette of India

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Plastic Waste Management (Amendment) Rules, 2021

August 2021 | The Gazette of India

Central Government notifies the Plastic Waste Management (Amendment) Rules, 2021, prohibiting identified single use plastic items by 2022. Thickness of plastic carry bags to be prohibited increased from 50 to 75 microns from 30th September, 2021 and to 120 microns with effect from the 31st December, 2022. Guidelines for Extended Producer Responsibility are given legal force.

[http://spcb.sikkim.gov.in/docs/notifications/Plastic%20Waste%20Management%20\(Amendment\)%20Rules%202021.pdf](http://spcb.sikkim.gov.in/docs/notifications/Plastic%20Waste%20Management%20(Amendment)%20Rules%202021.pdf)

SNIPPETS

PM launches SBM-U 2.0 and AMRUT 2.0

On 1st October 2021, Prime Minister Narendra Modi launched two flagship schemes aimed at environmental preservation. The Swachh Bharat Mission – Urban (SBM-U) 2.0 for making Indian cities garbage free and Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 for making them water secure and ensure proper sewage management so that river water pollution by dirty water is curbed.

Training of Animal Husbandry officials on Biomedical Waste Management:

The SPCB and CPCB together conducted a training of officials of Animal Husbandry department on 29th September on biomedical waste management and the provisions of the Biomedical Waste Management Rules, 2016. Biomedical waste management as per these Rules is to be practiced by all Veterinary hospitals and dispensaries of the State.



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STATE POLLUTION CONTROL BOARD
DEPARTMENT OF FORESTS & ENVIRONMENT
GOVERNMENT OF SIKKIM
DEORALI – 737102

F. No. 1073 /SPCB/ 527

Dated:07/07/2021

NOTICE

**FOR REGISTRATION OF PRODUCERS, IMPORTERS &
 BRAND-OWNERS UNDER PROVISION OF PLASTIC WASTE
 MANAGEMENT (PWM) RULES**

Producer, importer & Brand-owner (PIBOs) under Plastic Waste Management Rules 2016 are required to fulfil Extended Producer Responsibility (EPR) for the plastic waste generated due to the products introduced by them in the market. EPR is the responsibility of a producer/ importer/ brand- owner for environmentally sound management of the product till the end of its life.

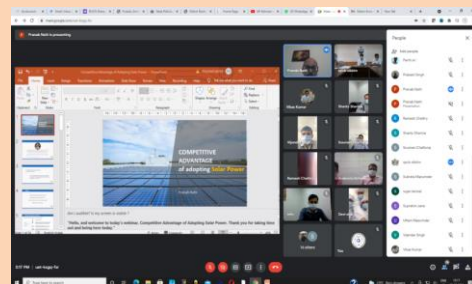
PIBOs are requested to obtain registration from CPCB, if operating in more than two States/ UTs and from concerned SPCB/PCC, if operating in one or two States/UTs only

This notice is being issued to inform all the PIBOs to obtain Registration from CPCB/SPCB/ PCC (as applicable). Those PIBOs who have not yet applied for registration are informed that they shall submit application for registration complete in all respects, to CPCB (for those operating in more than two States/UTs). Action, as deemed fit under Environmental (Protection) Act, 1986, including levying of Environmental Compensation and closure of PIBO's operations shall be initiated against defaulters.

sd/-

Member Secretary
 State Pollution Control Board Sikkim

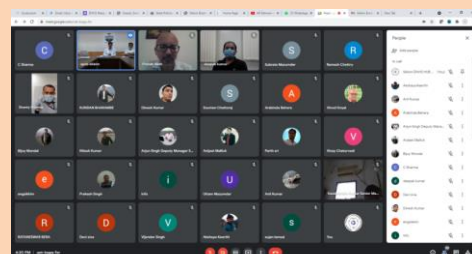
Webinar on Competitive Advantage of Adopting Solar Power for Industrial Units of Sikkim organized



State Pollution Control Board Sikkim in collaboration with Sikkim ENVIS Hub of Forest and Environment Department, Government of Sikkim organized a webinar on "Competitive Advantage of Adopting Solar Power" for industrial units of Sikkim on 9th of July 2021 from 3pm to 4pm.

The webinar had about 40 participants from various industrial units of Sikkim state. The meeting was chaired by Dr. Thomas Chandy, Chairman SPCB Sikkim. The technical insights on the agenda of the meet was provided by the expert from PM Engineering Haryana Mr Pranab Kumar Nath. The interactive session was actively participated to discuss the current scenario and future plans in terms of use of solar plants in industrial units. The Member Secretary SPCB Sikkim Dr Gopal Pradhan made welcome remarks and highlighted the importance and need for shifting to renewal energy to reduce the carbon footprint in industrial sectors. During the interaction with participants it was observed that Cipla has been operating Solar plants through opex model and the same was being considered by Alkem as well in near future.

Towards the end of the webinar the Chairman SPCB Sikkim Dr Thomas Chandy stressed on the need to promote green economy by making industrial production greener through replacement of DG sets with solar power. The webinar ended with vote of thanks by Joint Director SPCB Sikkim Mrs Kusum Gurung.

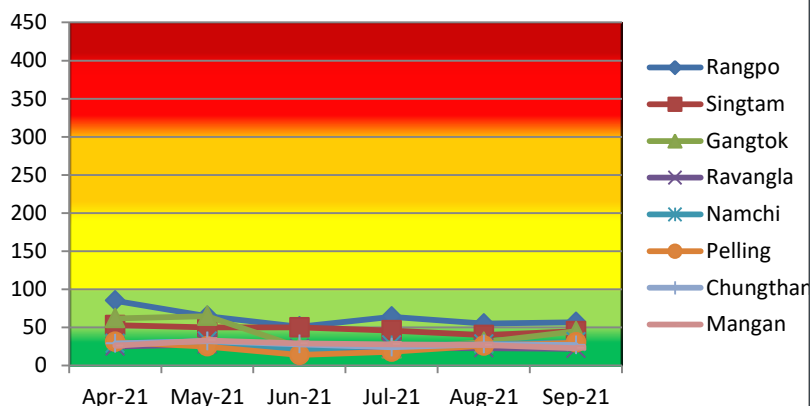


Monthly AQI of Sikkim Recorded from Eight Air Quality Monitoring Stations of Sikkim: April 2021 – September 2021

State Pollution Control Board Sikkim has been conducting ambient air quality monitoring under the National 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 April 2021 to September 2021, Sikkim State is well within the permissible limits and have been mostly under 'Good' category of AQI health index.

SN	Name of Station	Monthly AQI for the Year 2021					
		April	May	June	July	August	September
1	Rangpo, East Sikkim	85	65	51	64	55	57
2	Singtam, East Sikkim	53	50	50	46	40	45
3	Deorali, East Sikkim	62	65	24	22	31	45
4	Ravangla, South Sikkim	25	28	22	23	23	22
5	Namchi, South Sikkim	29	32	20	27	28	31
6	Pelling, West Sikkim	31	25	14	18	26	30
7	Mangan, North Sikkim	26	33	29	28	27	23
8	Chungthang, North Sikkim	29	32	28	24	28	27

Monthly AQI (April 2021 - September 2021) - Sikkim



AQI Category Associated Health Impact

Good (0 to 50)	Minimal impact
Satisfactory (51 to 100)	May cause minor breathing discomfort to sensitive people
Moderately Polluted (101 to 200)	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults
Poor (201 to 300)	May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease
Very Poor (301 to 400)	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases
Severe (401 to 500)	May cause respiratory effects even on healthy people and serious health impacts on people with lung/heart diseases. The health impacts may be experienced even during light physical activity

Construction of accommodation for setting up of Ambient Air Quality system

SPCB-Sikkim is going to set up a real time ambient air quality monitoring system with digital display for public information. In its 14th meeting the Board approved the proposal to construct rooms for housing the computer system and office for the same. The construction is being taken up through the Engineering Cell of the Forest and Environment Department. It is proposed to set up two display boards, one at zero point and the other one at M.G.Marg, Gangtok. The construction is expected to be over by the middle of October 2021 after which the system will be set up by the concerned firm.

Checkout River Water Quality Data September 2021 | See Page 8

Designated Best Use Water Quality Criteria:

Designated Best Use	Class of water	Criteria
Outdoor bathing (Organized)	B	Total Coliforms: MPN/100ml shall be 500 or less. pH: between 6.5 and 8.5 Dissolved Oxygen: 5mg/l or more. Biochemical Oxygen Demand: 5 days 20C 3mg/l or less

Source: Central Pollution Control Board (CPCB)

River Water Quality Data for the Month of September, 2021

Station Code	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
1801	01/09/21	7.0	255	1.6	10.0	2.4	110	50
1802	03/09/21	7.0	245	2.1	9.6	2.2	125	50
1803	06/09/21	6.8	215	2.0	8.9	2.4	155	55
1804	07/09/21	7.0	205	2.1	8.0	2.6	210	100
1805	07/09/21	6.8	200	2.6	8.5	2.6	195	110
1806	09/09/21	6.7	185	2.4	9.5	2.3	195	95
1807	09/09/21	7.0	195	2.1	9.5	2.4	180	100
1808	13/09/21	6.5	200	2.2	10.0	2.1	180	85
1809	13/09/21	6.9	205	2.3	9.5	2.4	185	80
2034	16/09/21	7.1	245	2.4	9.5	2.3	120	60
2035	16/09/21	7.0	225	2.0	10.0	2.3	125	60
2036	21/09/21	6.9	200	2.4	09.5	2.2	130	55
2037	27/09/21	6.5	205	2.1	10.0	2.4	135	65
2038	27/09/21	7.1	240	2.2	09.5	2.5	165	70

The details of the monitoring stations are as under:

SN	Station Code	Name of Station	Latitude ° N	Longitude ° E
1.	1801	River Teesta after confluence of Rivers Lachenchu and Lachungchu, CHUNGTHANG, North Sikkim.	27.602	88.649
2.	1802	River Dikchu before confluence with River Teesta near NHPC hydro-electric power project, DIKCHU, East Sikkim.	27.40	88.52
3.	1803	River MANEY KHOLA AT BURTUK near Army Base Camp 4 km U/s of Gangtok, East Sikkim	27.35	88.61
4.	1804	River Maney Khola after confluence with Ray khola at ADAMPOOL AFTER MEETING TREATED WASTE WATER of STP, Gangtok, East Sikkim	27.30	88.58
5.	1805	After confluence of Rani Chu and Rorachu at RANIPOL, East Sikkim	27.29	88.59
6.	1806	Ranichu before confluence with River Teesta at SINGTAM, East Sikkim	27.22	88.49
7.	1807	River Teesta after confluence with River Ranichu at SINGTAM, East Sikkim	27.11	88.45
8.	1808	River Teesta after confluence with Rongpochu after meeting the industrial effluents from the town RANGPO, East Sikkim.	27.17	88.52
9.	1809	River Teesta at Melli Downstream, MELLI, South Sikkim	27.08	88.45
10.	2034	River Rangit at dam site (NHPC), South Sikkim	27.29	88.29
11.	2035	River Rangit at Legship , West Sikkim	27.27	88.27
12.	2036	River Rangit at Reshi , West Sikkim	27.22	88.30
13.	2037	River Rangit at Jorethang , South Sikkim	27.13	88.27
14.	2038	River Rangit at Treveni , Melli, South Sikkim	27.08	88.41

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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