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STATE POLLUTION CONTROL BOARD

DEPARTMENT OF FOREST & ENVIRONMENT
GOVERNMENT OF SIKKIM

DEORALI - 737102

F. No. 1026/SPCB/1238 & 1239

Dated 20/10/2020

To,

The Executive Director (Technical),
National Mission for Clean Ganga,
Department of Water Resources,
River Development & Ganga Rejuvenation
Ministry of Jal Shakti,
Major Dhayan Chand National Stadium,
India Gate, New Delhi-110002.

Sub: Monthly Progress Report for the Month of September, 2020 as per the direction of Hon'ble NGT in the matter of O.A No. 673/2018 dated 06/12/2019.

Sir,

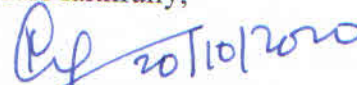
I have been directed to forward herewith monthly progress report for the month of September, 2020 with respect of the state of Sikkim as per the above cited subject.

Submitted for your kind information and onward process please.

Thanking you



Yours faithfully,


(Kusum Gurung, SFS)
Joint Director
State Pollution Control Board-Sikkim

Copy to:

1. Shri A Sudhakar, DH, WQM-I Division, CPCB, MoEF, Parivesh Bhawan East Arjun Nagar Delhi for kind information please.

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National Mission for Clean Ganga

Format for submission of monthly progress report by States/UTs
(Hon'ble NGT in the matter of OA No. 673/2018 dated 06.12.2019)

State: Sikkim

Month & year: September, 2020

Sl. No.	Activity to be monitored	Timeline	Submission of progress by state/UT-Compliance
1.	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2020	<p>In consideration of the sewage generated in the relevant towns/habitation all the existing STPs (7) are ensuring 100% treatment of the sewage inflow to the facility. As per the directions of the Hon'ble NGT in the matter of O.A. No. 593/2017 dated 21/05/2020, meeting has been held with the Public Health & Engineering Department, Government of Sikkim to apprise them with the directions in case of non compliance and the compensation that shall be levied. The Board has also issued directions to the said department for installation of OCEMS in STPs operating and proposed as per the directives of the CPCB for real time monitoring of the effluent compliance as per the CPCB guidelines of 07/11/2014. Action has been initiated on the said matter for issuing expression of interest for organization and vendors for OCEMS.</p> <p>As per the directions of the Hon'ble NGT in the matter of Lt. Colonel Sarvadaman Singh Vs. UOI & Ors O.A. No. 325/2015 sampling and analysis of fresh water lakes in the East District has been conducted by Environment & Soil Conservation Division, Forest & Env. Department, Govt. of Sikkim in co-ordination with SPCB-Sikkim. The report shall be submitted by Environment Department, Govt. of Sikkim.</p>
2.	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	<p>Currently there are 7 STPS that are established in major towns viz.</p> <ol style="list-style-type: none">1. Gangtok Zone I (3 nos) – Adampool I, Adampool II and Ranipool;2. Gangtok Zone IV3. Singtam;4. Majhitar;5. Melli; <p>Three STPs are nearing completion/ under repair</p> <ol style="list-style-type: none">1. Gangtok Zone II (Syari);

			<p>2. Rangpo (under repair & retrofitting); 3. Gangtok Zone III (Chandmari); Two STPS are proposed viz. 1. Jorethang; 2. Namchi</p> <p>To ensure that untreated sewage does not end up in drains the ULBs ensures that grant of building permit includes a septic tank for the household. Cess pool vehicles are utilized to clean the soak pits.</p> <p>Sanitation bye laws of the state is being modified to ensure inclusion and penalty provisions to non complying households.</p> <p>As per the information provided by the Rural Development Department, Government of Sikkim, under the Swacch Bharat Mission (Grahmin) Phase-II, 64 villages (2 villages per block) have been selected and work has been initiated for scientific management of sewage at village level also.</p>
3.	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31.03.2020	<p>1. Gangtok – Zone II (Syari)– under commission 2. Gangtok Zone III (Chandmari)– nearing completion, work has been stalled due to COVID-19 3. Rangpo - repair and retrofitting, work has been reinitiated after lifting of inter-state travel movement. 4. Survey and investigation is being conducted for feasibility of STP installation in locations of Gyalshing, Soreng, Mangan, Chungthang & Rabong.</p>
4.	<p>Chief secretaries may set up appropriate monitoring mechanism at state level</p> <ul style="list-style-type: none"> • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose. 	22.01.2020	<p>1. River Rejuvenation Committee, Government of Sikkim is regularly monitoring the activities of all Nodal Departments.</p> <p>2. Environmental Monitoring Cell has been formed in the Chief Secretary’s Office, Government of Sikkim. All issues related to environmental matter in purview of the Hon’ble NGT is monitored by the Cell.</p> <p>3. Attended VC on 6th Central Monitoring Committee meeting to review the progress of made by states on Action Plan (in particular with regard to solid waste & industrial waste, adoption of model river stretch by State/UT from the polluted river stretches, and reuse of treated water) under O.A. No 673 of 2018 of North East states under the Chairman,</p>

			Ministry of Jal Shakti on 30/09/2020.
	<ul style="list-style-type: none"> Monitoring at state level must take place 	Fortnightly Commencing 21.12.2019	Complied
5.	<p>Progress report may be furnished by the States/UTs to</p> <ul style="list-style-type: none"> Secretary, Ministry of Jal Shakti Member Secretary, CPCB 	Monthly (preferably before 20 th of every month.	MPR has been submitted from January till August, 2020.
6.	<p>Progress report may be comprised of details along with completion timelines on:</p> <p>i. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in situ treatment:</p> <p>a) Maney Khola (Adampool to Burtuk Stretch) – The main source of pollution in the location is domestic waste water from residential buildings, hotels, commercial establishments hospitals & garages. The existing STPs cater to these non point sources. To ensure that no untreated waste water is being discharged into the water body, inventorisation of hotels and commercial establishments is taken up by SPCB-Sikkim, washing of vehicles in streams have been prohibited. Wire mesh have been installed in 13 major drains to ensure solid and plastic waste does not end up in water body by the Water Resources & Irrigation Department.</p> <p>b) Rangit River (NHPC dam site to Triveni) – Industries such as Pharmaceuticals, Distillery, Alcohol blending and bottling along with domestic sources have been identified. However, the SPCB-Sikkim has made it mandatory in the Consent to Operate conditions for all such industries to maintain a Zero Liquid Discharge Status in their establishments. All treated effluent is to be utilized for flushing, cooling towers, irrigation of green belt or evaporated. Installation of Online Continuous Effluent Monitoring System (OCEMS) in all pharmaceutical industries has been completed and monitored by the Board.</p> <p>c) Rani Chu (Namli to Singtam) - Industries mainly Pharmaceuticals, along with domestic sources have been identified. However, the SPCB-Sikkim has made it mandatory in the Consent to Operate conditions for all such industries to maintain a Zero Liquid Discharge Status in their establishments. All treated</p>		

effluent is to be utilized for flushing, cooling towers, irrigation of green belt or evaporated. Installation of OCEMS in all pharmaceutical industries has been completed and monitored by the Board.

d) Teesta (Melli to Chungathang) - Industries such as Pharmaceuticals, Breweries, Alcohol blending and bottling along with domestic sources have been identified. However, the SPCB-Sikkim has made it mandatory in the Consent to Operate conditions for all such industries to maintain a Zero Liquid Discharge Status in their establishments. All treated effluent is to be utilized for flushing, cooling towers, irrigation of green belt or evaporated. Installation of OCEMS in all pharmaceutical industries has been completed and monitored by the Board.

Inventorisation of non point sources such as Hotels & Commercial establishments under the directions of the Hon'ble NGT in the matter of O.A. 400/2017 Westland Green Farms Vs. Union of India& Ors which was taken up by SPCB has been completed. The inventory has been submitted to CPCB. The data submitted was for establishments that were open and operating during lockdown, Now that the lockdown has been lifted completely survey for remaining Inventorisation shall commence once more for the remainder.

ii. Status of STPs, I&D and sewerage networks: Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline

a) Maney Khola (Adampool to Burtuk Stretch):

Sl. No.	Facility	Capacity MLD	Capacity utilization MLD	Gap MLD
1.	Gangtok (Zone I)	12.69	11	nil
2.	Gangtok (Zone IV)	3.9	3.2	Nil
3.	Gangtok (Zone II)	1.6	Commissioning phase	
4.	Gangtok (Zone III)	3.25	Almost completed	

b) Rangit River (NHPC dam site to Triveni) :

Sl. No.	Facility	Capacity MLD	Capacity utilization MLD	Gap MLD
1.	Melli	0.5	0.5	nil
2.	Namchi	3.63	proposed	
3.	Jorethang	1.70	proposed	

4.	Gyalshing	Survey phase
5.	Soreng	Survey phase

c)Rani Chu (Namli to Singtam)

Sl. No.	Facility	Capacity MLD	Capacity utilization MLD	Gap MLD
1.	Ranipool	1.27	1.27	nil
2.	Singtam	0.66	0.44	nil

d) Teesta (Melli to Chungthang)

Sl. No.	Facility	Capacity MLD	Capacity utilization MLD	Gap MLD
1.	Rangpo	1.40	Repair & retrofitting under progress.	
2.	Majhitar, SMIT (Private holding)	0.48	0.48	nil
3.	Mangan	Survey phase		
4.	Chungthang	Survey phase		
5.	Rabong	Survey phase		

iii. Status of CETPs: Details of existing CETP and ETP infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status.

There are no CETPS in the State of Sikkim. All industries generating waste water is practices treatment in dedicated ETPs which are fully operational. All pharmaceuticals formulation units have installed Online Continuous Effluent Monitoring System despite falling under orange category as per the directions of the SPCB-Sikkim. The state has a single 17 category of highly polluting industry, Lahag Spirits, Manpur, South Sikkim which has been closed by CPCB.

Inventorisation of river basin wise status of ETPs under the direction of the Hon'ble NGT in the matter of 593/2017 Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors. has been prepared and uploaded in the CPCB portal.

	<p>iv. Status of solid waste management & details of processing facilities Details of existing Infrastructure, gap analysis, proposed along with completion timeline</p> <ol style="list-style-type: none"> 1. At present, only Martam waste processing facility, East Sikkim is being used for disposal of Solid Waste generated in the East District. 2. At present, the South and West districts avail the facility at Sipshu landfill. 3. Door to door collection of waste along with ringing of bell is being carried out in all the ULBs of Sikkim through garbage collection vehicle. 4. Ringdham in Dzongu, North district has been identified for establishment of sanitary landfill facility. 5. As per the orders of the Hon'ble NGT all 32 Blocks in the state have initiated Resource Recovery Centre development. 6. Garbage collection vehicles with GPS tracking are being used in Gangtok city & Namchi town. 7. Separate collection vehicle are being used for solid waste generated by home isolation cases of COVID19. All waste collectors have been trained on the precautionary/safety measures to be undertaken during collection. 8. As per the information provided by the Rural Development Department, Government of Sikkim, under the Swacch Bharat Mission (Grahmin) Phase-II work has been initiated for installation of community compost pits in all the villages of 32 blocks in the state. 9. Bio degradable wastes are converted into compost in processing facilities of the ULBs or in cases rural areas, most household use biodegradable (food) waste for pig or cattle feed. Composting is also prevalent in rural areas. 10. State Level Advisory Board (SLAB) Meeting for solid waste management was held on 19/09/2020 and the ULBs have been apprised of their duties on the management of solid waste as per the latest order of the Hon'ble NGT. 11. District Environment Plan is being prepared under the guidance of CPCB-Regional Directorate, Shillong.
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12. Details of Solid Waste Management and Processing facility, Martam:

Sl. No.	Waste Generation TPD	Waste Processing TPD	Waste disposed in Landfill TPD
1.	74.7	12.56	62.032

v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;

Sl. No.	Parameters	River/Station Code			
		Chungthang-Teesta (1801)	Maneykhola (1803)	Ranichu (1806)	Rangit-Triveni (2034,2035,2036,2037,2038) - Average
1.	pH	7.5	6.5	6.5	6.8
2.	Conductivity μ mhos/cm	260	240	180	232
3.	NO ₃ -N mg/l	1.2	2.2	2.3	2.08
4.	D.O. mg/l	10.5	8.5	9.5	9.6
5.	B.O.D. mg/l	2.1	2.5	2.2	2.24
6.	T. Coliform MPN/100ml	100	130	190	126
7.	F. Coliform MPN/100ml	40	55	80	57

vi. Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic waste and decentralizing waste processing, including waste generated from hotels, ashrams etc.

All domestic & hotel wastes generated excluding bio-medical waste are disposed at Waste processing facility at Martam for East district, Sipshu site for West and South districts of Sikkim and Chandey site for North district Health care facilities in the state practices captive treatment. Major hospitals are equipped with incinerator for disposal of Bio-medical wastes.

vii. Ground water regulation

Utilization of ground water for domestic purposes is not practiced in the state. All industries that are abstracting ground water have been granted permission by Central Ground Water Authority. No new application for borewell has been received from any industrial unit.

<p>viii. Adopting good irrigation practices</p> <p>Utilization of ground water for agricultural purposes is not practiced in the state. Dhara Vikas or spring shed development under the Rural Development Department programme has been focusing on the dry areas for effective use of rain water. Water Resource Department is executing 156 Nos. of Surface Minor Irrigation (SMI) Schemes under PMKSY (AIBP) in the State of Sikkim, sanctioned under the Ministry of Water Resources, Ganga Rejuvenation and River Development Government of India as per the information provided by Water Resources Department, Government of Sikkim</p> <p>ix. Protection and management of Flood Plain Zones (FPZ)</p> <p>There are no flood plains in the state of Sikkim</p> <p>x. Rain water harvesting</p> <p>The NOC issued by CGWA for abstraction of ground water includes condition for installation of rain water harvesting system by the industrial units. The land survey have been conducted by CGWA officials and the Installation of said system is under progress.</p> <p>xi. Maintaining minimum environmental flow of river</p> <p>E-Flow meters have been installed in the following Hydro Electric Projects (HEPs) of the four river stretches:</p> <p>a) Maney Khola (Adampool to Burtuk Stretch) – NO HEPS in this stretch b) Rangit River (NHPC dam site to Triveni) : 96 MW Jorethang Loop HEP, South Sikkim & 97MW Tashiding HEP, West Sikkim c)Rani Chu (Namli to Singtam): 510 MW Teesta Stage V, Balutar, East Sikkim. Direction has been issued to install e-flow meter to one HEP located at this belt. The project is still under construction phase. d) Teesta (Melli to Chungthang): 99MW Chujachen HEP (2 nos), East Sikkim, 1200 MW Teesta Stage II HEP, 96MW Dikchu, HEP North Sikkim</p> <p>No new proposals or construction has been reported w.r.t. HEPs in the abovementioned stretches.</p> <p>xii. Plantation on both sides of the river</p> <p>The Environment & Soil Conservation Division, Forest & Environment Department has submitted action plan for further conservation activities that shall take place under the guidance of River Rejuvenation Committee. Plantation along with engineering works has been proposed for rejuvenation of the 4 polluted river stretches.</p> <p>xiii. Setting up biodiversity parks on flood plains by removing encroachment</p> <p>There are no flood plains in the state of Sikkim</p>
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