Email:spcbsikkim@gmail.com

STATE POLLUTION CONTROL BOARD- SIKKIM

FOREST & ENVIRONMENT DEPARTMENT
GOVERNMENT OF SIKKIM
DEORALI, GANGTOK – 737102

F. No./09/SPCB/ 865- 866 . Dated: 18/11/2024

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 October , 2024 as per the direction of Hon'ble NGT in the matter of O.A No. 673/2018 dated 06/12/2019.

Sir,

Kindly find enclosed herewith monthly progress report for the month of October, 2024 with respect to the state of Sikkim as per the above cited subject.

Submitted for kind information and onward process please.

Thanking you,

Yours faithfully,

STATE POLLUTION CONTROL BOARD * GOVT OF SIKKIM *

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

Copy to:

1. Shri Vishal Gandhi, WQM-I Division, CPCB, MoEF&CC, Parivesh Bhawan East Arjun Nagar Delhi for kind information please.

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter O.A. No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)
State of Sikkim

Month – October, 2024

Overall status of the State:

I. **Total Population:** a) Urban Population - 153,578 (Census of India, 2011)

1.74 lakhs (UIDAI data, May, 2020)

b) Rural Population - 456,999 (Census of India, 2011)

5.16 lakhs (UIDAI data, May, 2020)

II. Estimated Sewage Generation (MLD):

Urban – 18.79 MLD (assuming 135 litres water supply per capita per day and 80% of it as the waste water generation as per the Public Health & Engineering Department (PHED), GoS)

III. <u>Details of Sewage Treatment Plant:</u>

Existing no. of STPs and Treatment Capacity (in MLD):

Sl. No.	Town/Location	Capacity (MLD)	Operational/Functional Capacity(MLD)	Actual flow (MLD)
1.	Gangtok Zone I, Adampool	8.0	7.50	6.50
2.	Gangtok Zone I, Adampool	4.69	4.50	3.90
3.	Gangtok Zone I, Adampool	Old 5.0 MLD conventional treatment plant is utilized as secondary treatment unit		Re-circulated from MBBR units
4	Gangtok Zone I, Ranipool	1.27	1.10	0.92
5.	Gangtok Zone IV, Lower Sichey	3.90	3.30	2.80
6.	Singtam	~~0.66~~	Entire visible treatment plant units are	

7.	Melli	~~0.50~~	washed away by the flash flood of October 2023. Temporary arrangements of diverting raw sewage into the pits are in operation.	
8.	Rangpo	~~1.40~~		
9.	SMIT, Majhitar (private facility)	0.48	0.40	0.40
10.	Gangtok Zone II, Lower Syari	1.60	1.50	1.0
Total		**19.94**	**18.3**	**15.52**

a) **Capacity Utilization of existing STPs:**An average of 15.12 MLD of raw sewage is received in the operational STPs under PHED against the functional/operational capacity utilization of 17.90 MLD. Thus, actual operation of 84.47% is maintained in the STPs run by the PHED under urban area of the state..

b) **MLD of sewage being treated through Alternate technology:** Sewage of towns and areas where there is no Sewage Treatment Plants is treated through anaerobic digestion in the septic tanks of individual households. Estimated treatment facilities through septic tanks in urban towns alone account for 10.00 MLD.

c) Gap in Treatment Capacity in MLD: The total capacity of STPs located in urban areas is 19.46 MLD and operational treatment capacity is 17.90 MLD. Total sewage received at the STPs is 15.12 MLD.

d) Sewage Management in urban areas:

i. Pollution abatement of Rani chu through Ro-Ro Chu - Gangtok sewers Zone III – Construction of sewer network and STP completed physically. Sewer connection forms are made available to intending house owners. Household connections have been initiated;

ii. Rehabilitation and upgradation of sewers in Zone I area Gangtok is nearing completion. Targeted to complete work by March 2025;

iii. Construction of sewer network for Mangan, Chungthang and Geyzing arte under progress. Construction of STPs is currently on hold due to unavailability of approach roads to proposed sites;

iv. Land for Jorethang has been finalized in existing forest land. Revised DPR is under preparation;

v. STP sites for Namchi has been finalized;

vi. Sewerage Projects for Pakyong, Singtam and Rangpo are under consideration of the Government. Tender date likely to be November 2024;

vii. Budgetary provisions for Tertiary Treatment System for STP at Gangtok Zone I has been earmarked and proposal is processed for sanction of the Government

Data validations of readings in the OCEMS are done regularly in the laboratory of the PHED at Adampool. The PHED has explored possible uses of treated waste water for secondary purposes(non-potable). A meeting in this regard was conducted with user agencies like Forest & Environment Department, Roads & Bridges (PWD) Department, NHIDCL, Ministry of Road and Transport, Rural Development Department and Agriculture Department. As deliberated in the meeting, areas of uses shall be watering in avenue plantation, extinguishing forest fire, dust mitigation and road pavement construction and recharging aquifers. Accordingly, PHED has initiated construction of treated waste water hydrant at STPs to facilitate drawl by user agencies

Sewage Management in rural and peri-urban areas:

Estimated Sewage Generation (MLD):

Rural – 21.41 MLD (assuming 55% water supply per capita per day as per the JJM Guidelines and 80% of it as waste water generation as per PHED, GoS)

i. The Faecal Sludge Management in rural and peri urban areas of the State depend on the usage of assets like Household Toilets, Community and Institutional Toilets and Sewer Line connections;

ii. Mobile Treatment Units-MTU -The Department has recently accorded approval to procure 07 MTUs under Swachh Bharat Kosh. The MTUs will de-sludge and treat the faecal at HH and CSC level without the need of taking it to the STPs for co-treatment;

iii. Co-treatment of faecal sludge at existing Urban STPs is being planned. Estimate has been prepared and under review for finalization.

iv. Land identification for establishment of Faecal Sludge Treatment Plant under progress.

v. WASH institute submitted final report on feasibility study for co-treatment of Faecal sludge at existing STPs of ULBs. Estimate preparation is under process.

vi. 326 nos. of community soak pits for grey water and 679 sanitary complexes have been constructed till date.

Domestic Sewage management has been included in State & District Environment Plans, which has been approved by the State Government and the same is available at ***http://www.sikkimforest.gov.in/index.html.*** In addition, preparation of new district plans as per the newly formed districts mainly, Gangtok, Geyzing, Pakyong, Soreng, Mangan &Namchi have been intimated to the District Magistrates/Collectors.

The data sought by the SPCB in the prescribed format to prepare a river centric approach in the planning for cities /towns on the banks of rivers have been submitted by the PHED Sikkim to the SPCB for onward submission to the Ministry.

The State of Sikkim faced devastating damages due to flash flood the occurred on 04/10/2023 wherein STPs, industrial units, Hydro Electric Projects and human settlements were damaged.

DAMAGES DUE TO FLASH FLOOD:

Sl. No.	**Location**	**Current Status**
1.	Singtam (0.66 MLD)	Entire visible structures of STP have been washed away. Sewers network submersed by the debris have been cleared. Temporary pits have been constructed to receive the sewage. Treatment of sewage is done through anaerobic actions. Proposal to restore STP has been forwarded to the authority for approval and sanction.
2.	Rangpo (1.46 MLD)	
3.	Melli (0.5 MLD)	
4.	Chungthang	Part of the ongoing work on sewers network have been washed away. Now the work is in progress.

After taking up the temporary restoration works, the proposal for permanent restoration has been prepared by PHED and submitted to the Ministry of Home Affairs, GoI and Post Disaster NEED Assessment through SSDMA under Land Revenue and Disaster Management Department, GoS for sanction. The PHED has also submitted requisition to MoJS for sanction of special grant to take up permanent restoration works. The proposal is under consideration by the National River Conservation Directorate.

a) **No. of Operational STPs:**5

b) **No. of Complying STPs:**5

c) **No. of Non-complying STPs:** nil

Details of each existing STP in the State

Sl. No.	Location	Existing STP Capacity MLD	Capacity Being Utilized (%)	Operational Status of STP	Compliance Status of STP
1.	Gangtok Zone I, Adampool	8.0	81	Operational	Compliant.
2.	Gangtok Zone I, Adampool	4.69			
3.	Gangtok Zone I, Ranipool	1.27	71	Operational	Compliant
4.	Gangtok Zone IV, Lower Sichey	3.90	70	Operational	Compliant
5.	Singtam	0.66	~~80~~	Not Operational	Damaged due to flash flood
6.	Melli	0.50	~~80~~	Not Operational.	Damaged due to flash flood
7.	SMIT, Majhitar (private facility)	0.48	70	Operational	Compliant

8.	Rangpo	1.40	~~15~~	Not Operational	Damaged due to flash flood
9.	Gangtok Zone II, Lower Syari	1.60	63	Operational	Compliant

Status of OCEMS installation

Sl. N.	Town/location	Capacity(MLD)	Status
1.	Gangtok Zone I, Adampool	8.0	Installation completed
2.	Gangtok Zone I, Adampool	4.69	Installation completed
3.	Gangtok Zone I, Ranipool	1.27	Installation kept in abeyance
4.	Gangtok Zone II, Lower Syari	1.6	Installation completed
5.	Gangtok Zone IV, Lower Sichey	3.9	Installation completed
6.	Singtam	~~0.66~~	Damaged by flash flood of October 2023.
7.	Melli	~~0.5~~	
8.	Rangpo	~~1.4~~	

Details of under construction STPs in the State

Sl. No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1.	Gangtok Zone III, Tathangchen	3.25	100	Construction of structural part of sewer network and STP is completed.	Final rectification work under progress.

Details of proposed STPs in the State

Sl. No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1.	Namchi	3.63	Ste has been finalised.	December 2025
2.	Jorethang	1.6	Revised DPR preparation under progress.	December 2025
3.	Geyzing	1.80	39% progress is achieved.	2026
4.	Mangan	0.98	42% progress is achieved.	2026
5.	Chungthang	0.72	47% progress is achieved.	2026
6	Soreng	-	Survey completed. DPR preparation in progress	-
7	Rabong	1.50	DPR submitted to the Ministry of Jal Shakti, GoI.	-

IV. Details of Industrial Pollution:

- **No. of industries in the State:**1081 nos. of industrial units were granted Consent to Establish and Operate (including renewal) by SPCB-Sikkim in the financial year 2023-2024. This includes hotels, healthcare facilities, DG sets and garages, restaurants etc.
- **No. of water polluting industries in the State:** 63
- **Quantity of effluent generated from the industries in MLD:**2.895 MLD
- **Quantity of Hazardous waste generated from the industries in TPD:**

  1. Incinerable -6.67 (approx);

  2.Recyclable - 0.09(approx);
- **Number of industrial units having ETPs:** 64

- **Number of industrial units connected to CETPs:** nil
- **Number and total capacity of ETPs (details of existing/ under construction / proposed)**
    a) Total no. – 63
    b) Capacity – 5.35 MLD
    c) Under construction/proposed – nil
- **Compliance status of the ETPs:** compliant
- **Number and total capacity of CETPs (details of existing/ under construction / proposed)** - nil
- **Status of compliance and operation of the CETPs**

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
No CETPs has been established in the state of Sikkim.				

V. Solid Waste Management:

- **Total number of Urban Local Bodies and their Population:** 7 nos.
  Population -147695
  1.74 lakhs (UIDAI data, May, 2020)
- **Current Municipal Solid Waste Generation :**69.68 TPD (2023-24 Annual report)
- **Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg- Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), bio-methanation, MRF etc:**
    a) 50 TPD capacity compost plant installed at Martam Landfill;
    b) Organic Waste Converter at Lal Bazaar Vegetable Market- 1 ton per day capacity
    c) 25 kg capacity Organic Waste Converter installed at Vegetable Market, Mangan Nagar Panchayat;
    d) PET bottles shredding machine having a capacity of 800-1000 bottles storage installed at Mangan Nagar Panchayat;

e) Bio-digester plant of capacity 5 MT installed at Gyalshing Nagar Panchayat;

f) Material Recovery Facilities (MRF) have been constructed and made functional in all the ULBs to facilitate segregation and transportation of the recyclable waste materials to the recycling plants preventing such materials to be dumped in the landfill. The MRFs have been provided Bailing Machines in all ULBs to manage their dry waste by reducing volume and making it easier for ULBs to transport to the recyclers.

g) 317 waste collection and segregation sheds and 340 community compost pits have been constructed in rural areas.;

h) Currently, the Gram Panchayats, Blocks have decentralized waste processing/management facilities like waste segregation sheds (317), RRC (33), PWMU (17). The Department has 279 waste collection vehicles for the transportation of solid waste and additional 14 RRVs shall be procured in the present financial year under SBM(G)

i) At least one Plastic waste management unit for each Block is being planned. 17 have been completed.

j) 5MT/day bio-methanation plant has been installed and is operational at Solid Waste Management facility at Martam. The biogas generated shall be utilized for electricity generation at Solid Waste Management facility at Martam;

k) Vacant government lands have been identified for setting up of new MRFs;

- **Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%) –**

1. The Total generation of solid waste for FY 2023-24 is 69.68 Tons per day where Total waste processed has increased from 34.47% to 52.48%. There has been a remarkable improvement during the last six months.
2. The Bio-Mining work has started at the Martam Landfill through trench method. Around 40% of the work has been completed till the month of May 2024. A total of 92,350 MT of 233,000 MT of legacy waste has been bio-mined. The total quantity of rejects generated is 14,875 tons is under the process of being transported to co-processing facilities
    i. C&D waste and inerts are being used in filling of low-lying areas;
    ii. Forest & Environment, Agriculture and Horticulture Departments have been approached for collection and utilization of good earth;
3. Seven (07) Nos. of Weighing Machine with a capacity of 1 ton is provided to all the Urban Local Bodies, namely Gangtok Municipal Corporation, Namchi

Municipal Council, Mangan, Gyalshing, Naya Bazaar Jorethang, Rangpo, Singtam Nagar Panchayats for quantification of generated waste.

4. Initiatives have been taken to engage Self HELP Groups (SHGs) through National Urban Livelihood Mission (NULM) for making reusable carry bags made out of old clothes.
5. The State Pollution Control Board-Sikkim conducted capacity Building programme on solid waste management for implementing agencies and safaimitras at Mangan Nagar Panchayat;
6. The SPCB-Sikkim conducted awareness programme including field visit to solid waste management facility for Government and Private school students located in and around Gangtok
7. 06 Nos of Bailing Machine are delivered in all ULBs which are being installed in the above mentioned MRFs to manage their dry waste by reducing their volume and making it easier for ULBs to transport to the recyclers.
8. Domestic Hazardous waste collection centre has been set up in Lal Market, Gangtok;
9. Night shift for better collection of waste from NH10 highway from Gangtok Municipal Corporation has been initiated from September 2023;
10. Bulk waste generators have been strictly instructed to install compost plant within their premises;
11. Reduce-Reuse-Recycle centres have been established in all ULBs for collecting old/used clothes to avoid being dumped in landfill;
12. Five (05) Nos of PET Bottle Shredding Machines are being installed at the following ULBs
    i. 2. No of Pet Bottle Shredding Machine are being installed at MG Marg , the heart of town with highest footfall.
    ii. 1 No of Pet Bottle Shredding Machine is being installed at Namchi Taxi stand where the moment of tourist and locals are heavy.
    iii. 1. No of Pet Bottle Shredding Machine is being installed at the main highway of Rangpo Bazaar.
    iv. 1 No of Pet Bottle Shredding Machine is being installed at Jorethang near the Taxi Parking Plaza.

- **No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction) –**Sikkim State Construction & Demolition Waste Policy has been notified vide GoS Gazette Extraordinary No. 23 dated 28/01/2023. Selection of suitable sites for disposal of C&D waste has been assigned to Forest & Environment Department & Land Revenue & Disaster Management Department.
- **Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source –**
    a. Door to Door:51 wards (100%)
    b. Source segregation: 48 wards (94.33%)
- **Details of MSW treatment facilities proposed and under construction (no., capacity, and technology) –** Nil.
- **No. and area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills -** Nil
- **No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers** – Bio-mining has been initiated from January 2024
- **No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers –** 11 in Gangtok. Wire mesh installed in all the 11 drains. Pre Monsoon cleaning of drains has been completed in Gangtok. The wire mesh from drains was removed as collection of water due to clogging of the drain would have resulted in slope failure.

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in TPD	Total MSW being processed in TPD*	Existing MSW facilities	% processed	Proposed MSW Facilities & Completion Timeline
Gangtok Municipal Corporation	49.12	24.08	1 (common for Singtam and Rangpo as well)	49.02%	Nil

Gyalshing Municipal Council	2.2	1.2	1 (commonlandfill for Namchi&Nayabazar-Jorethang)	54.55%	Nil
Mangan Nagar Panchayat	0.76	0.49	1 (landfill)	64.47%	EC obtained from SEIAA. CTE granted by SPCB-Sikkim
Namchi Municipal Council	5	3.1	1(common landfill for Geyzing&Nayabazar-Jorethang)	62%	Nil
Rangpo Nagar Panchayat	4.1	2.7	1	65.85%	Nil
Singtam Nagar Panchayat	3	1.5	1	55%	Nil
Nayabazar-Jorethang Municipal Council	5.5	3.5	1(common landfill for Geyzing&Namchi)	63.64%	Nil

*Note: With regard to the total MSW processed, the figure denotes the waste processed in compost plants only. Recyclable waste such as plastic, glass, paper, aluminum foil is channelized to recyclers.

V. Bio-medical Waste Management:

- **Total Bio-medical generation –** 586 kg/day (2023-24 annual report)
- **No. of Hospitals and HCFs who have been granted authorisation:**342
- **Status of Treatment Facility/ CBMWTF:** captive treatment in all facilities.

VI. Hazardous Waste Management:

- **Total Hazardous Waste generation (2023-24 Annual Report):**
    1. 2003.49 MT of incinerable Hazardous waste for the year 2023-24
    2. 28.28 MT of recyclable waste for the year 2023-24
- **No. of Industries generating Hazardous waste:** 59
- **Treatment Capacity of all TSDFs:** There are no TSDF in the state. All HW generated in the transported outside the state for treatment and disposal. The SPCB-Sikkim has also granted permission to facilities in Chhattisgarh and Jharkhand for co-processing and TSDF and Refineries in West Bengal for incineration & recycling respectively.
- **Avg. Quantity of Hazardous waste reaching the TSDFs and Treated –**159.69 MT transported to Haldia, West Bengal for treatment & disposal, 327 MT transported to Assam, 1312.47 MT to Chhattisgarh and 248.86 to Jharkhand for co-processing in cement plant sand 33.05 MT transported to West Bengal recycling respectively in the year 2023-24.
- **Details of on-going or proposed TSDF:**Selection of land for CHWTSDF is under process.

VII. Plastic Waste Management:

- **Total Plastic Waste generation:**160.716 tonnes per annum (2023-24annual report)
- **Treatment/ Measures adopted for reduction or management of plastic waste:**
    1. District Monitoring Committee has been constituted.
    2. Establishment of border check post point to ensure there is no cross boundary movement of banned SUP across state.
    3. Alternatives like drinking water vending machines have been installed by the ULBs for public convenience.

4. Gangtok Municipal Corporation has successfully transported 49.15 MT of plastic waste (RDF) to Dalmia Cement Bharat Limited, Lamshong,Meghalaya under EPR activity in collaboration with Swachh Sustainable Solutions Pvt Ltd(RE CYCLE), a Central Pollution Control Board (CPCB)registered company for EPR;
5. The SPCB-Sikkim conducted awareness programme on alternatives to SUP for government school students located in and around Gangtok
6. Rangpo Nagar Panchayat has deployed staff at Sikkim-West Bengel Check Post for SUP verification;
7. PET bottle drop in cages have also been installed at Check posts.

VIII. **Details of Alternate Treatment Technology being adopted by the State/UT:** none

IX. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment:

Inventorization 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.

X. Details of Nodal Officer appointed by Chief Secretary in the State/UT:

Ms. Kusum Gurung, SFS,Joint Director cum Nodal Officer

SPCB-Sikkim & Environmental Monitoring Cell (Office of the Chief Secretary)

XI. **Details of meetings carried under the Chairmanship of Chief Secretary in the State/UT:**

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

National Water Monitoring Programme data for October, 2024

Sl. No.	**Parameters**	**River/Station Code**			
		Chungthang-Teesta (1801)	**Maneykhola (1803)**	**Ranichu (1806)**	**Rangit-Triveni (2034,2035,2036,2037,2038) - Average**
1.	**pH**	7.1	7.1	7.1	7.1 (approx.)
2.	**Conductivity**	114	123	132	145(approx.)

	µmhos/cm				
3.	**NO_3-N mg/l**	2.3	2.4	2.0	2.3(approx.)
4.	**D.O. mg/l**	8.1	8.4	8.3	8.2(approx.)
5.	**B.O.D. mg/l**	2.3	2.3	2.1	2.3(approx.)
6.	**T. Coliform MPN/100ml**	41	43	64	76(approx.)
7.	**F. Coliform MPN/100ml**	21	24	49	35(approx.)
8.	**TSS mg/l**	21	22	23	25(approx.)
9.	**TDS mg/l**	15	13	19	20(approx.)

XIII. Ground water regulation:

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. Guidelines for preparation of GIS based water conservation plans and inventory of water bodies in the districts under the Jal Shakti Abhiyan: Catch the Rain Campaign.(JSA:CTR) campaign has been forwarded to the concerned authorities for information & onward action.

SPCB-Sikkim has directed all industries abstracting ground water to conduct water quality analysis by NABL accredited laboratories on quarterly basis and submit the same to the Board.

Co-ordination meeting was held by RDD, GoS regarding survey of area where ground water abstraction is being practiced.

State Level Committee has been formed under Water Resources Department, GoS to monitor & regulate Ground water abstraction

Nodal Department – Water Resources Department, GoS

XIV. Good irrigation practices being adopted by the State:

Utilization of ground water for agricultural purposes is not practiced in the state. DharaVikas 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.

The Rural Development Department has identified 203 sites for Mission Amrit Sarovar and 199sarovars have been completed till date.

XV. Rain Water Harvesting:

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 but the installation of said system is underway for all industries. In the matter of O.A. No. 325/2015 Lt. Col. Sarvadaman Singh Oberoi Vs. UOI, the Rural Development Department has carried out the following activities:

1. Construction of 1489 water harvesting tanks of capacity 40 KL in 13 drought prone areas under National Adaptation Fund for Climate Change (NAFCC).
2. Construction of 72,900 water harvesting structures for rainwater recharge of 4374 ponds
3. Work for revival of 7 hilltop lakes have been under taken out of which 4 have been completed and 3 are under process

XVI. Demarcation of Floodplain and removal of illegal encroachments:

There are no flood plains in the state of Sikkim.

XVII. Maintaining minimum e-flow of river:

E-Flow meters have been installed in the following Hydro Electric Projects (HEPs) of the four river stretches:

a)ManeyKhola (Adampool to Burtuk Stretch) – NO HEPS in this stretch

b) Rangit River (NHPC dam site to Triveni) :96 MW Jorethang Loop HEP, Namchi District & 97MW Tashiding HEP, Geyzing District

c)Rani Chu (Namli to Singtam): 510 MW Teesta Stage V, Balutar, Gangtok District& 115MW Madhya Bharat Power Corp. Ltd., Nimtar,Gangtok District

d) Teesta (Melli to Chungthang): 99MW Chujachen HEP (2 nos), Pakyong District, 1200 MW Teesta Stage II HEP Chungthang, Mangan District, 96MW Dikchu, HEP Mangan District

The SPCB-Sikkim has issued directions under Section 5 of the EPA, 1986 to all HEPs vide F. No. 3007/SPCB/925 dated 01/10/2022. The directions ensures installation of e-flow meter along with stipulated minimum discharge rate of each HEP separately. The real time e-flow data is available in SPCB-Sikkim's website.

The HEPs 510 MW Teesta Stage V, Balutar and 1200 MW Teesta Stage II HEP Chungthang has been severely damaged due to flash flood.

XVIII. Plantation activities along the rivers:

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 four polluted river stretches.

Action Plan regarding the same has been included in delisting report submitted to MoJS.

XIX. **Development of Biodiversity Park:** Matter has been apprised and information awaited from implementing department.

XX. **Reuse of Treated Water:**

All industries requiring ETP are directed to maintain Zero Liquid Discharge in their premises. Treated effluent is to be utilized in cooling towers, evaporation or flushing purposes. To ensure that no effluent is discharge all pharmaceutical units in particular have installed CCTV in drain outlets of their premises as per the directions of the SPCB-Sikkim and footage is submitted to SPCB on regular basis.

The SPCB is also in process of ensuring that all industries have installed RO cum ZLD systems where feasible

XXI. **Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:** Maney khola, East Sikkim

The River Rejuvenation Committee has been notified as Nodal Agency for protection of all water bodies in the State by Govt. of Sikkim vide Ref No. 205/GOS/F&ED/SECY dated 21/01/2021. First meeting for the same was held on 28/01/2021. Status Report on Implementation of Action plan has been sought from line departments for further submission to the CPCB.

Action Taken Report on Status of Implementation of action plans submitted in compliance to the Hon'ble NGT orders in O.A. 673/2018 in the matter of 'News item published in the Hindu authored by Shri Jacob Koshy titled 'More River stretches are now critically polluted: CPCB', with Dr. Tudi Indrasena Reddy & Ors. Vs. UoI&Ors.for delisting of the four polluted river stretches in the state of Sikkim has been submitted on 02/08/2021. In the recent Central Monitoring Committee meeting held on 12.09.2023 it is reported that at present no river stretches have been identified as polluted river stretches.

As per the directions of the MoEF&CC, Public notice has been issued in local newspapers on Idol Immersion guidelines before festival/puja season.

Pre, During and Post festival monitoring of rivers has been conducted in October, 2024.Analaysis report is under preparation.

XXII. **Status of Preparation of Action Plan by the 13 Coastal States:** Not applicable.

XXIII. **Regulation of Mining Activities in the State/UT:** overseen by Department of Mines & Geology. Collection of loose boulders and loose sand are being undertaken under the supervision of the Department of Forest & Environment, Government of Sikkim.

XXIV. **Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:**

1. Grievances have not been received in the month of October, 2024 in the NMCG portal.
2. Grievances related to water pollution have not been received in public grievance portal of SPCB-Sikkim for the month of October, 2024.