No. W.13055/1/2021-I&WR(CE)/Vol-II/
GOVERNMENT OF MIZORAM
OFFICE OF THE CHIEF ENGINEER
IRRIGATION & WATER RESOURCES DEPARTMENT
AIZAWL : MIZORAM

Dated Aizawl, the 29th June, 2024

To,

The Secretary,
Ministry of Jal Shakti
2nd Floor, Block-III, CGO Complex,
Lodhi Road, New Delhi - 110003.

Subj.: **Submission of Monthly progress report of Mizoram for the month of January - May, 2024 as per the revised format in compliance to Hon'ble NGT order dated 24.09.2020 in the matter of OA No. 673/2018**

Sir,

With reference to the above cited subject, I submit herewith monthly progress report of Mizoram for the month of **January - May, 2024** on OA. 673/2018 as per the prescribed format for favour of your kind information and further necessary action.

Enclosed: As above

Yours faithfully,

(LALROTLUANGA)
Member Secretary, RRC
& Chief Engineer,
Irrigation & Water Resources Department
Government of Mizoram

Memo No. W.13055/1/2021-I&WR(CE)/Vol-II/ : Dated Aizawl the 29th June, 2024

Copy to:

1. Member Secretary, Central Pollution Control Board for kind information.
2. PPS to Chief Secretary, Government of Mizoram for kind information.
3. Chairman, RRC & Principal Secretary, EF&CC Dept., Government of Mizoram for kind information.
4. Member Secretary, Mizoram Pollution Control Board for information.
5. Members, RRC, Mizoram for information.

Member Secretary, RRC
& Chief Engineer,
Irrigation & Water Resources Department
Government of Mizoram

Monthly Progress Report for the State of Mizoram for the month of Jan - May, 2024

(As per revised format)

(in compliance to NGT order dated 24.09.2020 in the matter of OA No.673 of 2018)

Overall status of the State:

I. Total Population: Urban Population & Rural Population (as per 2011census).

Urban & Rural Population	*2011*	*Projected population in 2021*
Urban Population	525435	638722
Rural Population	571771	632013
Total	**1097206**	**1270735**

II. Estimated Sewage Generation (MLD) as per projected population for 2021:

Urban	31.37 MLD
Rural (692 villages)	20.44 MLD
Total	**51.81 MLD**

Note*: The Sewage Generations are arrived taking into consideration the water supply at 55 lpcd and 70 lpcd in rural and urban respectively.*

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

- Existing no. of STPs and Treatment Capacity (in MLD):
  - 1STP in Aizawl with a capacity of 10MLD operational from 6th Feb., 2021
- Capacity Utilization of existing STPs:
  - **1.0 MLD**
- MLD of sewage being treated through Alternate technology:
  - 0.578 MLD (Bio Digester etc.) by PHED
  - 0.258 MLD Bio Digester constructed by SIPMIU
- Gap in Treatment Capacity in MLD:
  - 51.81 MLD – (10+0.258+0.578) MLD= 40.97 MLD
- No. of Operational STPs:
  - **1**
- No. of Complying STPs:
  - **1**
- No. of Non-complying STPs:
  - **Nil**

Details of each existing STP in the State

No.	*Location*	*Existing STP Capacity*	*Capacity Being Utilized*	*Operational Status of STP*	*Compliance Status of STP*
	Bethlehem Vengthang ,Aizawl	(10MLD)	1.0 MLD	• Operation has started on 6th February,2021) • **5207** registered Households benefitted till date. • Sewerage network – 76.20% • As water supply in Aizawl has not achieved the design 135 lpcd, the anticipated utilization is also considerably low. • As discussed in the 15th Meeting of CMC in the NGT matter O.A. No.673 of 2018, fund to complete the balance work has been requested to MoHUA.	- Consent to Operate for STP obtained from the Mizoram Pollution Control Board (MPCB). - Online Continuous Effluent Monitoring System (OCEMS) Installed as per the specific conditions of the CTO. Calibration of equipment is completed and functioning. Approval has been received from CPCB, complied status can be viewed from online vide: www.nevcodata. com

Details of under construction STPs in the State

No.	*Location*	*Capacity of the plant in MLD*	*Physical Progress In %*	*Status of I&D or House sewer connections*	*Completion Timeline*
	NIL				

Details of proposed STPs in the State

The Public Health Engineering Department (PHED) is proposing action plan under the AMRUT 2.0 framework, in which the project aim to revitalize **Tuikual Stream** through the implementation of a small-bore sewer system equipped with STP facilities. The project is scheduled for completion by 2025 as part of the stream's revival action plan.

- A Meeting addressing the issue of polluted rivers in Mizoram (O.A No. 673/2018) took place at the Office Chamber of **Aizawl Municipal Commissioner** on 29.11.2023. The meeting minutes highlight the requirement for users of Plastic Ready-Made Septic Tanks to establish

soak pits based on tank capacity. Each Local Council is tasked with checking if ready-made septic tank users in their respective areas have a soak pit; if not, penalties or fines will be imposed.

Under AMRUT,

i) Anaerobic Microbial Inoculum (AMI) manufacturing facility has been set up to culture the bacteria and reproduce them.

ii) Production of 908 biodigester tanks and 1664 conversion of conventional septic tanks have already been completed.

iii) Setting up of Septage Management Unit including Anaerobic Microbial Inoculum (AMI) & Bio Digester Manufacturing Facility at Aizawl amounting to Rs. 3.61 Cr has been completed.

iv) Small Bore Sewer System with STP facility is proposed for densely populated area of the city which is part of common watershed draining at Tuikual Lui with an estimated project cost of 39.22 Crore.

IV. Details of Industrial Pollution:

- No. of industries in the State:
  - 735 units
- No. of water polluting industries in the State:
  - 56 units
- Quantity of effluent generated from the industries in MLD:
  - 0.04384 MLD
- Quantity of Hazardous Sludge generated from the Industries in TPD:
  - Nil
- Number of industrial units having ETPs:
  - 56 units
- Number of industrial units connected to CETP:
  - Nil (No CETP exists)
- Number and total capacity of ETPs (details of existing/under construction/proposed)
  - 56 units with total capacity of 0.099 MLD
- Compliance status of the ETPs:
  - ETPs are functional and effluents are found to be complied with standards.
- Number and total capacity of CETPs (details of existing/ under construction/ proposed):
  - Nil (No CETP exists)
- Status of compliance and operation of the CETPs: No CETP exists

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
N/A				

V. Solid Waste Management:

- Total number of Urban Local Bodies and their Population:
  - 2 notified ULB in Mizoram i.e. Aizawl Municipal Corporation and Lunglei Municipal Council
  - Population: 293,416 and 57,011 (LMC) as per 2011census
  - 21 Urban Towns with Population: 278,355 as per 2011 census
- Total number of villages covered
  - 276 villages
- Current Municipal Solid Waste Generation:
  - 348.19TPD (23 Urban towns)
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing e.g.-Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), bio-methanation, MRF etc.:
  - Landfill: 44 TPD & Material Recovery Facility 74 TPD (Aizawl city)
  - Composting:
    i. Aizawl city: a) Landfill – 44 TPD
    b) Material Recovery Facility – 74 TPD
    c) Vermi-composting plant–22 TPD is operational
    d) Mechanical Composting Plant– 50 TPD is operational
    ii. Lunglei Town: SWMC with Vermi-composting Plant is under construction
    iii. Kolasib Town: Vermi-composting Plant of 6 TPD has been under construction.
    iii. Champhai Town: Vermi-composting Plant of – 25 TPD is under construction
    iv. Remaining 19 Urban towns: Vermi-composting Plant - 0.5 TPD has been constructed.
    v. Land Development for Solid Waste Management Centre for 5 (Five) district headquarter towns namely – Serchhip, Mamit, Khawzawl, Saitual, Hnahthial have been completed amounting to Rs 60.00 Lakhs each.
    vi. Out of the 23 Urban towns –
      a. 3 (three) Urban Towns namely – Aizawl, Kolasib and Sairang have functional SWM Centre.
      b. SWM Centre is under implementation 2 (two) other towns namely Lunglei and Champhai.
      c. SWM Centre for district headquarters towns namely – Serchhip, Mamit, Khawzawl, Saitual and Hnahthial is to be constructed from NESIDS funds under MoDONER.
      d. SWM Centre for other remaining urban towns is proposed to be constructed from State owned funds which has been ring fenced by Finance Department as per NGT Directions.

- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%):
    - ❖ Solid Waste Management Center at Tuirial, Aizawl started functioning since 12th December, 2019 which caters a total of 214 TPD including 44 TPD capacity Landfill,74 TPD capacity Material Recovery Facility, 50 TPD Mechanical Composting Plant and 46 TPD Vermicomposting Plant.
    - ❖ In order the bridge gap of Solid Waste Management at Urban Towns, UD&PA Department have prepared and submitted Concept Note to MoDONER to be funded under NESIDS for the following amount: -

Sl. No.	Dist. Hqr. Town	Location	Amount in Cr
1	Serchhip	Darzika Road	12.86
2	Mamit	Vaiza Ram	10.58
3	Khawzawl	Melkhat	10.58
4	Saitual	Ramlaitui Mual	10.58
5	Hnahthial	Sa Ang Ram	9.43
6	Siaha	Chhatlah	14

- No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction):
    - Nil

- Total no. of wards, no. of wards having door to door collection service, no. of wards practicing segregation at source:

i. Aizawl
- No. of wards in Aizawl city:19
- No. of wards having door to door collection service: 19
- No. of wards practicing segregation at source: 19

ii. Lunglei
- No. of wards in Aizawl city:11
- No. of wards having door to door collection service: 11
- No. of wards practicing segregation at source: 8

- Details of MSW treatment facilities proposed and under construction (no., capacity, and technology):
    - In addition to one existing MSW treatment facility at Tuirial (Eastern part of Aizawl city), 3 more sites have been identified for closing the gap in waste management at the following locations for which concept paper preparation is under process:

      i) Hualngo Hmun (southern part of Aizawl city)

      ii) Sihphir Neihbawih (Nothern part of the Aizawl city)

      iii) Luangmual (Eastern part of Aizawl City)

  The Status of ongoing and pipeline SWM Projects in Mizoram Urban Areas are:

Sl. No	Name of city /Town	2020 PopulationProjected	Projected SW Generation Per/capita/Day (TPD)	Plant Capacity		Funding	Project Amount	Status
				ExistingTPD	PipelineTPD			
1	Aizawl	343619	178.68	190		ADB	34Cr. (Approx)	Functioning since 12th December, 2019
2	Lunglei	66766	34.72	0.0	45	NLCPR (MoDONER)	600 Lakhs	Under construction
3	Champhai	38335	19.93	0.0	25	NEDP 2018-2019 (State Fund)	667 Lakhs	Under construction (90%Physical Progress completed)
4	Kolasib	28425	14.78	0.0	20	SBM (U) (MoHUA)	400 Lakhs	Functioning since 3rd September, 2021
5	Serchhip	24778	12.88	0.5	20	Rs.60 Lakhs each for Land Development have been received under special Assistance under Capital Expenditure Free Loan	Rs.60 Lakhs	Land Development under SASCE Completed. Proposal submitted to MoDONER for funding under NESIDS and is under consideration for approval.
6	Mamit	9233	4.80	0.5	15		Rs.60 Lakhs	
7	Saitual	13607	7.08	0.5	15		Rs.60 Lakhs	
8	Khawzawl	12908	6.71	0.5	15		Rs.60 Lakhs	
9	Hnahthial	8417	4.38	0.5	15		Rs.60 Lakhs	
10.	Siaha	29406	15.29	0.5	20	Concept note submitted to NEC, NLCPR, NITI Aayog.		DPR for Rs. 14 Crore is also submitted to MADC to Planning Department, GoM.
11	Lawngtlai	24394	12.68	0.5	20	Concept Note Submitted to NEC, NESIDS, NITI Aayog Etc for Solid Waste Management Centre		Existing facilities for Wet waste (vermi-composting) has been in placed in all urban towns.
12	Zawlnuam	4372	2.27	0.5	10			
13	Vairengte	12360	6.43	0.5	10			
14	Lengpui	3844	2.00	0.5	10			
15	N.Kawnpui	9055	4.71	0.5	10			
16	Thenzawl	8501	4.42	0.5	10			
17	Sairang	6968	3.62	0.5	10			
18	Tlabung	5333	2.77	0.5	10			
19	Bairabi	5059	2.63	0.5	10			
20	Darlawn	4414	2.30	0.5	10			
21	N.Vanlaiphai	4218	2.19	0.5	10			
22	Khawhai	2923	1.52	0.5	10			
23	Biate	2667	1.39	0.5	10			

Solid Waste Management Centres Proposed under SBM(U) 2.0:

Sl. No	Name of ULB	Amount (In Crore)	Plant Capacity (TPD)	Facility Type	Plant type	Plant sub type	Amount Allocated for Wet Waste (In Crore)	Facility Type	Plant type	Amount Allocated for Dry Waste (In Crore)
1	Khawzawl	5	10	Processing Plant	Composting	Windrow	2	MRF cum RDF	Mechanical	3
2	Mamit	5	10	Processing Plant	Composting	Windrow	2	MRF cum RDF	Mechanical	3
3	Champhai	2	10	Processing Plant	Composting	Windrow	0.8	MRF cum RDF	Mechanical	1.2
4	Vairengte	3.15	10	Processing Plant	Composting	Windrow	1.26108	MRF cum RDF	Mechanical	1.89162
5	Tlabung	2.20	4	Processing Plant	Composting	Windrow	0.8814	MRF cum RDF	Mechanical	1.3221
6	Lengpui	2.49	8	Processing Plant	Composting	Windrow	0.9944	MRF cum RDF	Mechanical	1.4916
7	Kawnpui	2.49	8	Processing Plant	Composting	Windrow	0.9944	MRF cum RDF	Mechanical	1.4916
8	Thenzawl	2.36	7	Processing Plant	Composting	Windrow	0.94468	MRF cum RDF	Mechanical	1.41702
	Total:	**24.68**					**9.87**			**14.81**

- No. and area (in acres) of uncontrolled garbage dump sites and Sanitary Landfills:
  - One at Tuirial Dumping Ground having approximately 487 sq.m. It has been closed recently since 1st November 2020 following the commissioning of the newly constructed Waste Management Centre at Tuirial.
- No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers:
  - Nil
- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers:
  - Nil

➢ A meeting addressing the issue of polluted rivers in Mizoram (O.A No. 673/2018) convened in the Office Chamber of the Aizawl Municipal Commissioner on 29.11.2023, and the meeting minutes are outlined below:

- In matters concerning RCC landfill reconstruction, information should be provided to the Central Pollution Control Board (CPCB) and the State Level Environment Impact Assessment Authority (SEIAA)/State Environmental Appraisal Committee (SEAC).
- Priority should be accorded to initiating the establishment of Construction & Demolition Waste Management Centers in accordance with the Construction & Demolition Waste (C&D Waste) Management Rules of 2016.

- As desired by the 18th Meeting of the Central Monitoring Committee held on 11.01.2024 regarding polluted rivers on NGT matter OA No 673/2018, updated status of Champhai and Lunglei SWMCs as follows:

1. Construction of solid waste management centre at Champhai

A. Identification Particulars

1. Name of Project : Solid Waste Management Centre at Champhai
2. Location : Champhai
   State : Mizoram
   District : Champhai
3. Approved Cost (Rs. in lakh) : 686.50 lakh
4. Capacity : 10 TPD
4. Date of Commencement of Project/Scheme : 14th Sept. 2023
5. Target Date of Completion Of Project/Scheme : 30th Sept. 2024
6. Executing Agency (State Gov't/ PSU/Other agency (specify) : UD & PA Department, Mizoram

B. Overall Physical and Financial Progress

Sl. No	Items	Progress	
		Physical	**Financial**
1	Composting building	100%	
2	Dry waste management centre	100%	
3	Sanitary platform	100%	
4	te preparation work and RCC tanky	100%	
5	Sanitary landfill and Leachate treatment plant	Procurement of contractor in process	
6	Cement concrete approach road and RCC drain	Procurement of contractor in process	
7	Brick wall fencing with Gate	Procurement of contractor in process	
8	Machinery:	100%	
9	Trommel sorting machine	Procurement under process	**50%**
10	Weigh bridge	Procurement under process	
11	Conveyor machine	Procurement under process	
12	Shredder	Procurement under process	
13	Bailing machine	Procurement under process	
	Sieving machine	Procurement under process	
	Pad incinerators	Procurement under process	
	IEC & CB	Action plan under process	
14	O&M	NIL	
	Environment impact assessment	Under process	
15	External power supply	Under process	
	External water supply	Under process	
	Overall physical Progress	**55%**	

2. Construction of solid waste management centre at Lunglei

A. Identification Particulars

1. Name of Project : Solid Waste Management Centre at Lunglei
2. Location : Lunglei
   State : Mizoram
   District : Lunglei
3. Approved Cost (Rs. in lakh) : 600 lakh
4. Date of Approval of Project/Scheme : 18.12.2017
5. Tender Cost (Rs. in lakh) : 600 lakh
6. Date of award of Contract : 7th June 2018

(Copy of work Order to be attached (only once for the Quarter in which it was issued need not be submitted if submitted in earlier quarter) : Already Submitted

7. Whether Contract awarded on turnkey basis. : Yes, Turnkey Basis
8. Whether awarded work is being executed based on PERT/CPM : CPM
9. Original date of Completion of Project/Scheme : 30th June 2019
10. Re-schedule Date of Completion Of Project/Scheme : 30th Sept. 2024
11. Executing Agency (State Gov't/ PSU/ Other agency (specify) : UD & PA Department, Mizoram

C. Overall Physical and Financial Progress

No	Items	Progress	
		Physical	Financial
1	Two cover bins for each HH- 11591	**100%**	**73% (Rs.438.70 lakh)**
2	Vehicle for transportation of Waste (4 Nos)	**100%**	
3	Wheel Barrows for street Sweepers	**100%**	
4	PPE's like Gloves, Boots, Uniforms for Waste collector, sweepers, Etc.	**100%**	
5	Street Bins for each ward	**100%**	
6	10TPD Capacity Resource Management Centre	**100%**	
7	Sanitary Platform	**100%**	
8	Site Preparation,	**100%**	
9	Site Office and Weigh Bridge	**100%**	
10	Approach Road	**100%**	
11	Water Tank	**100%**	
12	Fencing	**100%**	
13	Vermi-Compost Plant	**95%**	
14	Sanitary Landfill	**NIL**	
15	Capacity Building, IEC	**NIL**	
	Overall Progress	**95%**	

VI. Bio-medical Waste Management:

- Total Bio-medical waste generation:
  - 863.13 Kg/day
- No. of Hospitals and Health Care Facilities:
  - 144 (Bedded Hospitals & Nursing Home - 64, Clinics & Dispensaries- 76, Veterinary institution-1, Nursing Institution- 2)
- Status of Treatment Facility/CBMWTF
  - Treatment Facility – 3 Nos. of incinerator
  - Captive Disposal – Deep burial pit/sharp pit
  - Setting up of one CBMWTF is being initiated by the state Government for which public hearing was already conducted on 30.09.2021. It is proposed to be set up at Tuirial near Solid Waste Management, Center, Aizawl District, Mizoram.

VII. Hazardous Waste Management:

- Total Hazardous Waste generation
  - 51.132 MTA (As per Annual Inventory report 2020-2021)
- No. of Industries generating Hazardous waste
  - 24
- Treatment Capacity of all TSDFs:
  - No TSDF exists at present.
- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated:
  - N/A
- Details of on-going or proposed TSDF:
  - Suitable Site at Industrial Growth Centre, Luangmual, Aizawl has been identified by the State Govt. for setting up common TSDF. The Commerce and Industries department is in search of consultancy firm for setting up of the common TSDF but is held back due to non-availability of empanelled firm in the state. The problem has been conveyed to the higher authority.

VIII. Plastic Waste Management:

- Total Plastic Waste generation:
  - *7905.5 TPA (Municipal Corporation) &3.1TPA (Urban and Rural areas)*
- Treatment/Measures adopted for reduction or management of plastic waste:
  - The Plastic Wastes Management Bye-laws, 20I9, prepared by Aizawl Municipal Corporation (AMC) was notified vide Mizoram Gazette Notification No.M.12011 /6/2014-AMCDt16.07.2019.
  - AMC has imposed complete ban on plastic carry bags below 50 micron within its jurisdiction with effect from1st August 2019.
  - The State Govt. has imposed ban on distribution or placing of packaged drinking water made of plastic in all official meetings or conferences or

gathering w.e.f 20th May 2019.

- The AMC has initiated of segregation of wastes at source and has set up **Plastic waste Collection Centre** at Riangvai Thlanmual, Zemabawk, Aizawl.
- As per initiatives taken by Mizoram Pollution Control Board, Public Works Department has initiated a program for utilization of plastic wastes in road construction following the 'Guidelines for utilization of plastic wastes' and has recently constructed 800 m long of road using plastics at Reiek, Mamit district.
- Extensive Awareness campaigns were launched in beating plastic pollution to schools and colleges by MPCB. As a result, the state now has 126 schools and 11 colleges declared as **"Plastic Free" institutions**.

- Two (2) units has been proposed for the FY 23-24. Seven (7) PWMUs has been set up, but only one (1) PWMU is making in the current FY 23-24.

IX. Details of Alternate Treatment Technology being adopted by the State/UT:

-

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

-Water quality of the polluted drains has been regularly monitored by Mizoram Pollution Control Board on quarterly basis and the data is accessible at https:// mpcb. mizoram. gov.in

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

- Mr. Lalrotluanga, Chief Engineer, Irrigation & Water Resources Department, Govt. of Mizoram Vide Notification No.A.46012/1/2019-GAD Dt.27.02.2020

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

- State Level Monitoring Committee has been constituted under the Chairmanship of Chief Secretary, Govt. of Mizoram notified vide letter No.C.18013/2/2020-I&WR/243dt.21.07.2020. The Committee comprises of the following members:

1. Chief Secretary	*Chairman*
2. Principal Secy. /Secy., EF&CC	*Member*
3. Secy., PHED	*Member*
4. Secy., LRS &WCD	*Member*
5. Secy., UD&PA	*Member*
6. Commissioner, AMC	*Member*
7. Chairman, MPCB	*Member*
8. Secy., IWRD	*Member Secy.*

- Review meeting under the Chairmanship of Chief Secretary, Govt. of Mizoram with Secretaries of the concerned departments to oversee implementation status of the Action Plan in the matter of the orders of the Hon'ble NGT in O.A No.673/2018 was held on 2nd February 2021.

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

- Analysis of polluted river has been regularly undertaken by Mizoram Pollution Control Board and the water quality data of polluted stations is accessible at https:// mpcb.mizoram.gov.in

XIV. Ground water regulation

- In Mizoram, surface water serves as the main sources of water for drinking, domestic and industrial purposes. Ground water extraction is insignificant in Mizoram and even though the State Govt. has 'The Mizoram Water Resources (Management & Regulation) Act 2024' and 'The Mizoram Ground Water (Control and Regulation) Ordinance, 2023', followed in the state.

XV. Good irrigation practices being adopted by the State:

- Although e-flow is not yet assessed, discharge of streams/ rivers are never fully diverted for irrigation purposes.
- Guidelines for 'Environment Health & Social Safety' are incorporated in the Dept's Construction Manual which is expected to be approved soon.

XVI. Rainwater Harvesting:

- State Govt. has framed Rain Water Harvesting Policy for the state of Mizoram which is expected to be notified soon.
- Various stakeholder departments such as, PHE, Rural Development, PWD, AMC have taken up schemes for implementing construction of rainwater harvesting structures in the state.
- AMC has mandated provision of rainwater harvesting facility and discharge of rainwater in AMC Building Regulation, 2012No 5(6) and No.32.
- For rejuvenation of polluted rivers, construction of rainwater harvesting structures have been proposed to be constructed in the river catchment areas for which concerned department, PHED has initiated actions.

XVII. Demarcation of Flood plain and removal of illegal encroachments:

- Not relevant for the state as Mizoram is a hilly region and has no floodplain zone.

XVIII. Maintaining minimum e-flow of river:

For assessment of e-flow of the rivers, actions have been initiated as briefed below:

- Gauge and Discharge (GD) station is being set up. E-flow Assessment has been carried out by IWRD and the work had been initiated. Discharge measuring

instrument like Current meter, etc. had been purchased, GD station had been established and measurement of 5 out of 6 rivers had been started. Fixation of e-flows for the major river is expected soon.

XIX. Plantation activities along the rivers:

- Environment, Forests and Climate Change Department has been taking up plantation drives in the catchment areas of the polluted rivers with a targeted area of 595.5 ha out of which about 186.8 ha had been already covered.

XX. Development of biodiversity park:

- Some of the rivers already have Riverine Reserved Forests of about 800 metres on either side of the river banks which are well protected. As such, a separate biodiversity park was not proposed for rejuvenation of the polluted rivers, instead plantation drives have been undertaken in the catchment area of the polluted rivers.

XXI. Re-use of Treated Water:

The treated sewage water shall be utilized as per the action plan such as agriculture, irrigation/horticulture, and industrial re-use, construction activities, fire tender and urban reuse when the STP is fully operation.

XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:

- In Pursuance of the minutes of the RRC Meeting held on 20.06.2022, meeting of the expert team under the Chairmanship of Principal Secretary, EF&CC Dept, Govt. of Mizoram was held on 26.07.2022 to discuss Preparation of Action Plan for rejuvenation of Chite stream which is identified as a model polluted river. The meeting decided to select one (1) institution under Mizoram University in association with Save Chite Lui Co-ordination Committee for preparation of the action plan on urgent basis and follow up action be carried out vigorously by the stakeholders.

XXIII. Status of Preparation of Action Plan by the 13 Coastal States:

- Not applicable to the state of Mizoram as Mizoram is a landlocked state and has no coastal areas.

XXIV. Regulation of Mining Activities in the State/UT:

- In Mizoram, there are no major mining activities yet. Most of the mining activities are that of minor mineral mining such as sandstone (stone quarry) and sand mining (sand extraction from river beds)
- Mining activities are strictly regulated in the state under The Mizoram Minor Minerals Concession Rules, 2000, notified by the State Govt. on 20.09.2005 as per the provisions of Section 15 (i) of The Mines and Minerals (Development and Regulation) Act, 1957.
- Apart from the above Rules, provisions under Central Act and Rules such as,

The Explosive Rules, 2008 and The Mines Act, 1952 are effectively followed.

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

- Actions have been taken and fines imposed from time to time against the identified polluters, law violators in the past. However, during the reporting months, there is no such action taken.