TRIPURA STATE POLLUTION CONTROL BOARD
(A Statutory Organisation under Government of Tripura)
Department of Science Technology & Environment

No.F.19 (7)/TSPCB/RRC/15335-38 **November 24, 2020**

To
Shri D. P. Mathuria
Executive Director- Technical
National Mission for Clean Ganga
Ministry of Jal Shakti (MoJS)
1st floor, Major Dhyan Chand National Stadium
India gate, New Delhi-110002.

Sub. : Submission of monthly progress report of six identified river stretches of Tripura for the month of October, 2020.

Sir,

In compliance to Hon'ble National Green Tribunal Order dated 6.12.2019 in O.A No.673/2018 in the matter of news item published in 'The Hindu' titled "More River Stretches are now critically polluted: CPCB", please find enclosed the monthly progress report for six identified river stretches of Tripura for the month of October, 2020 in the prescribed format for kind information.

Enclosed: as stated

Yours Sincerely,
24.11.2020
(Bishu Karmakar)
Member Secretary

Copy to:

1. PS to the Secretary, Science, Technology and Environment, Government of Tripura for kind information of the Secretary.
2. The Director, Science, Technology and Environment, Govt. of Tripura for kind information.
3. Mr. A. Sudhakar, DH, WQM-1 Division, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.

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Submission of Monthly Progress Report for the Month of October, 2020 in the NGT Matter OA No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

For the State of Tripura

Overall status of the State:

I. **Total Population:** Urban Population & Rural Population separately

As per Census, 2011, the Rural Population: 2712464

As per Census, 2011, the Urban Population : 961453

II. Estimated Sewage Generation (MLD): 82.4 MLD

[As per the Direction of Hon'ble NGT, the government has adopted new strategy such as bio remediation/phyto remediation and installation of Feacal Sludge Treatment Plant (FSTP) for the liquid waste management, therefore, the total sewage generation for the State will change and it will be informed accordingly]

III. Details of Sewage Treatment Plant:

- **Existing no. of STPs and Treatment Capacity (in MLD):** 1 nos. STP of 8 MLD capacity.
- **Capacity Utilization of existing STPs:** 3 MLD (Approx.). The State is in progress to utilize the full capacity of the existing STP by connecting the north zone and central zone with this existing STP.
- **MLD of sewage being treated through Alternate technology:** 0.72 MLD Faecal Sludge Co-treatment.
- **Gap in Treatment Capacity in MLD:** 74.4 MLD
  [As per the strategy of the government with respect to bio remediation/phyto remediation and FSTP, the gap will also change]
- **No. of Operational STPs:** 1 nos.
- **No. of Complying STPs:** 1 nos.
- **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
1	Barjala, Near Lankamura, Agartala. Latitude $23^0 85' 16.92"$ N Longitude $91^0 26' 34.63"$ E	8 MLD	3 MLD (approximately 40%)	Operational.	Complying with the standards.

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
1	Akhaora ICP, Agartala	8 MLD	Work awarded and site handed over to the agency. Civil construction started.	-	2022

Details of proposed STPs in the State :

Presently Tripura has shifted its strategy from sewage treatment to partial sewage treatment combined with faecal sludge treatment and bio-remediation/phyto remediation of drains. Therefore, 15 ULBs will install Feacal Sludge Treatment Plant (FSTP) in their jurisdiction and in-situ bio-remdiation of drains will be done.

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
15	All 15 ULBs	600 KLD FSTP	The technical specifications of Faecal Sludge Treatment Plants (***FSTPs***) of 600 KLD capacity has been finalized and uploaded in the website of Urban Development Department. Land has been identified by each ULBs for setting up of ***FSTPs.*** Tendering process are being initiated by the ULBs.	May 2021.
210 Drains	All ULBs	In-situ bio-remediation.	•All the ULBs have been directed to adopt in-situ Bio-remediation and phyto remediation of sewage in drains. And all the major drains have been identified. • The ULBs have identified 210 drains Bio-remediation works in the State. • Survey work is going on for preparation of baseline information for pollution abatement of storm drains through in situ bio remediation in 20 ULBs in Tripura. • The tender for Bio remediation for 5 drains as pilot basis in Agartala has been completed.	May 2021.

IV. Details of Industrial Pollution:

- **No. of industries in the State:** 2466 Nos. industrial units exist in the state. However, there are only 179 nos. of industrial units identified within the 500 meters of catchment areas of the six identified river stretches in Tripura.
- **No. of water polluting industries in the State:** There are only 179 nos. of industrial units has been identified within 500 meters of the catchment area. Among these 179 nos. of industrial units, only 18 industrial units are foremost generator of industrial effluents. And almost all the industrial units have installed ETPs.
- **Quantity of effluent generated from the industries in MLD**: The total industrial discharge from the industries within the 500 meters of catchment area is 14427 LPD. A total of 179 industries are present within 500 meter of the catchment areas of the Six identified river. Out of 179 industries, most of the industries are not generating any industrial effluent and those who generates are already equipped with ETP.

Name of the River Stretches: Burigaon (Along Bishalgarh)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
1410 LPD	1410 LPD	Nil.	4	Most of the industries are very small. Basically, this waste water generates from Small Scale Auto Mobile & vehicle servicing units after cleaning of their tools & machineries.	Waste water is being discharged into concrete pit or drains after primary treatment. No waste water /effluent have been discharged directly into the river.

Name of the River Stretches: Gumati (Telkajla to Amarpur)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
157 LPD	157 LPD	Nil	3	Most of the industries are very small. Basically, this waste water generates from Small Scale Auto Mobile /LMV repairing unit. No such waste water generates from these units except the waste water from cleaning of tools & machineries.	Waste water are being discharged into concrete pit or drains after primary treatment. No waste water /effluent have been discharged directly into the river.
Name of the River Stretches: Haora (Agartala to Champaknagar)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
8860 LPD	8860 LPD	Nil	22	Most of the industries are very small. Basically, this waste water generates from Small Scale Auto Mobile /LMV repairing unit/confectionary. Very small quantity of waste generated from these units. The capacity of ETPs are i.Capacity (Below 2000LPD) : 10 Nos. ii. Capacity (2000 to 5000) : 4 Nos. iii.Capacity (above 10000LPD): 2 Nos.	Waste water are being discharged into concrete pit or drains after treatment through ETPs and primary treatment facilities. No waste water /effluent have been discharged directly into the river.
Name of the River Stretches: Juri (Along Dharmanagar)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
4000 LPD	4000 LPD	Nil	2	Most of the industries are very	Waste water are being

				small. Basically, these waste water generates from Small Scale Auto Mobile /LMV repairing unit/confectionary. Very small quantity of waste generated from these units. The capacity of ETPs are i)Capacity (Below 2000LPD): Nil ii)capacity (2000 to 5000):1 Nos iii)capacity (above 10000LPD):1 Nos	discharged into concrete pit or drains after treatment through ETPs and primary treatment facilities. No waste water /effluent has been discharged directly into the river.
Name of the River Stretches: Khowai (Along Teliamura)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
Nil	Nil	Nil	Nil	Nil	--
Name of the River Stretches: Manu (Along Kailashahar)					
Generated	**Processed/ Treated**	**Gap**	**No of industries discharging effluent**	**Capacity of ETP plants**	**Remarks**
Nil	Nil	Nil	Nil	Nil	--

- **Quantity of Hazardous Sludge generated from the Industries in TPD:** 0.077 MTPD
- **Number of industrial units having ETPs:** In the State of Tripura, there are 41 Nos. of Industries equipped with ETP. However, within the 500 meter of the catchment area of the 6 identified river stretches, there are 18 ETPs has been installed.
- **Number of industrial units connected to CETP:** 7 Nos.
- Number and total capacity of ETPs (details of existing/ under construction / proposed) : 41 nos. of ETPs were installed in the State. However, within the 500 meter of the catchment area of the 6 identified river stretches, there are 18 ETPs has been installed.

- Compliance status of the ETPs: 41 nos. of ETPs were installed in the State. However, within the 500 meter of the catchment area of the 6 identified river stretches, there are 18 ETPs has been installed and all are functional.
- **Number and total capacity of CETPs (details of existing/ under construction / proposed) :** 1 nos. CETP has been installed with capacity of 500 KLD at Bodhjungnagar, Agartala.
- **Status of compliance and operation of the CETPs:**

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
Bodhjungnagar, Agartala	7	Rubber Processing Units, Food Processing units, beverage etc.	After primary treatment through the ETPs of the concerned industrial units the effluent goes to the CETP	Complying with the standards.

V. **Solid Waste Management:**

- **Total number of Urban Local Bodies and their Population:**
  Total No. of Urban Local Body: 20 Nos. and Population: 9.61Lakhs
- **Current Municipal Solid Waste Generation:**
  411.32 TPD as per Annual Report 2019-20 of TSPCB.
- **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), biomethanation, MRF etc:**
  - Already in Agartala (capital city), a 250 TPD capacity Solid Waste Processing Plant (composting plant) is operational with valid Authorization and Consent Certificate. This Plant is also catering the processing of solid waste from nearby 4 smaller urban local bodies, i.e., Bishalgarh Municipal Council, Mohanpur Municipal Council, Ranirbazar Municipal Council

& Jirania Nagar Panchayat. Further, a 6 (Six) TPD capacity Solid Waste Processing Plant is operating in Kamalpur Nagar Panchayat under Dhalai District.

- Setting up of Tertiary solid waste processing facilities is being started in 17 ULBs except Agartal Municipal Corporation (AMC), Kamalpur Nagar Panchayat and Bishalgarh, as they will be utilizing the existing infrastructure. Tendering process is going on. It is expected that by March, 2021, all the tertiary centres will be made operational.
- **Secondary centres/MRFs** – One centre is proposed for every 3-4 wards. Most of the ULBs have selected land for the same except (Bishalgarh, Udaipur and Belonia)

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

  Setting up of Tertiary solid waste processing facilities is being started in 17 ULBs (except AMC, Kamalpur and Bishalgarh, as they will be utilizing the existing infrastructure). . Tendering process is going on. It is expected that by March, 2021, all the tertiary centres will be made operational. One Secondary centre/MRF is proposed for every 3-4 wards. All 20 ULBs have selected land for the same.

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

  The State C&D Waste Management Policy has already been notified on 21st day of December 2019. It is planned to set up units for manufacturing of eco-bricks, mechanical hallow bricks, paver blocks, etc., on PPP basis, using construction and demolition waste. The urban local bodies themselves can have buy-back arrangements for procuring and using these products for their own construction works. One C&D waste processing plant being operated by SHG of Teliamura is available. UD Department issued instruction to ULBs to setup similar C&D waste processing plants in all remaining ULBs

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

Total no. of wards	310 nos.
No. of wards having door to door collection service	303 nos.
no. of wards practicing segregation at source;	275 nos.

- **Details of MSW treatment facilities proposed and under construction (no., capacity, and technology):**

  17 Nos Tertiary Centers (Here organic wet waste will be processed using Vermi-composting) is proposed for 17 ULB except (AMC, Kamalpur and Bishalgarh) who will use the existing infrastructure. Tendering process is going on. It is expected that by March, 2021, all the tertiary centres will be made operational. One Secondary Waste Segregation centers (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards is also proposed.

- **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 :** 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 :**

  210 small drains have been identified scattering all over the State. Wire mesh were installed in all the drains to prohibit the littering of any solid waste including plastic waste into any river.

  Status of ULB wise Management of Solid Waste:

ULB	**Total MSW generation in TPD**	**Total MSW being processed in TPD**	**Existing MSW facilities**	**Utilization Capacity of the existing MSW facilities**	**Proposed MSW Facilities & Completion Timeline**
Mohanpur Municipal Council	9.5	Processed : 8.5	Devendra Chnadra Nagar Solid Waste Processing Plant. (Capacity :	100% (This Solid Waste Processing Plant is commonly shared with AMC and	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and

			250 TPD)	other three ULBs)	One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Agartala Municipal Corporation (AMC)	250	Processed: 229	Devendra Chnadra Nagar Solid Waste Processing Plant. (Capacity : 250 TPD)	100% (This Solid Waste Processing Plant is commonly shared with Mohanpur and other three ULBs)	Existing infrastructure is sufficient.
Panisagar Nagar Panchayet	3.8	Land filled: 2.2	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Dharmanagar Municipal Council	23.6	Land filled: 22.1	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be

					segregated in 157 categories and recycled) for every 3-4 wards.
Kailasahar Municipal Council	16.18	Land filled: 14.25	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Kumarghat Municipal Council	7.2	Land filled : 5.3	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Ambassa Municipal Council	10	Land filled : 8.5	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation

					center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Kamalpur Nagar Panchayet	4.6	Processed:: 3.5	Kamalpur Nagar Panchayet Solid Waste Processing Plant (Capacity : 6 TPD)	80%	Existing infrastructure is sufficient.
Sabroom Nagar Panchayet	4	Land filled : 3	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Belonia Municipal Council	13.64	Land filled: 10.25	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.

Santirbazar Municipal Council	6.9	Land filled: 5.9	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Amarpur Nagar Panchayet	2.8	Land filled: 2.2	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Udaipur Municipal Council	17.5	Land filled: 16.9	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories

					and recycled) for every 3-4 wards.
Teliamura Municipal Council	10	Land filled: 9.2	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Khowai Municipal Council	5	Processed:0.40 Land filled: 2.6	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Melaghar Municipal Council	10.4	Land filled: 10.2	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be

					segregated in 157 categories and recycled) for every 3-4 wards.
Bishalgarh Municipal Council	11.5	Processed: 10.2	Devendra Chnadra Nagar Solid Waste Processing Plant. (Capacity : 250 TPD)	100% (This Solid Waste Processing Plant is commonly shared with AMC and other three ULBs)	Existing infrastructure is sufficient.
Sonamura Nagar Panchayet	2	Land filled: 1.8	-	-	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.
Ranirbazar Municipal Council	1.2	Processed: 0.90	Devendra Chnadra Nagar Solid Waste Processing Plant. (Capacity : 250 TPD)	100% (This Solid Waste Processing Plant is commonly shared with AMC and other three ULBs)	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.

Jirania Nagar Panchayet	1.5	Processed: 1.10	Devendra Chnadra Nagar Solid Waste Processing Plant. (Capacity : 250 TPD)	100% (This Solid Waste Processing Plant is commonly shared with AMC and other three ULBs)	Tertiary Processing Centers (Here organic wet waste will be processed using Vermi-composting) and One Secondary Waste Segregation center (here dry waste will be segregated in 157 categories and recycled) for every 3-4 wards.

VI. Bio-medical Waste Management:

- **Total Bio-medical generation:** 1401.5 kg/day (As per Annual report of TSPCB 2019-20)
- **No. of Hospitals and Health Care Facilities:**
  Total No. of Hospitals and nursing homes: 158 (bedded).
- **Status of Treatment Facility/ CBMWTF:**
  As of now no Common Bio-Medical Waste Treatment Facility (CBWTF) exists in Tripura and the Bio-medical Waste is being managed in a decentralized manner by concerned Public Health Facilities through their captive treatment facilities. Amongst the Public Health Facilities 03 state level hospitals namely GBP Hospital, IGM Hospital & Cancer hospital have their own incinerator. Other Public Health Facilities are managing the biomedical waste through disinfection, deep burial & sharp pits. As per data obtained from Tripura State Pollution Control Board a total of 1401.5 Kg of Biomedical waste is generated per day in Tripura.
  One CBWTF Operator has been selected by Health & Family Welfare Department, Govt. of Tripura through open tendering through e-

Procurement for the whole State of Tripura. The CBWTF is under construction at Debendra Chandra Nagar in West Tripura District.

VII. Hazardous Waste Management:

- **Total Hazardous Waste generation:** 360.14 MTA
- **No. of Industries generating Hazardous waste:** 172 nos.
- **Treatment Capacity of all TSDFs:** There is no TSDF facility available in the State.
- **Avg. Quantity of Hazardous waste reaching the TSDFs and Treated:** There is no TSDF facility available in the State.
- **Details of on-going or proposed TSDF:** Yet to be finalized.

VIII. Plastic Waste Management:

- **Total Plastic Waste generation:**

  As per annual report 2019-20, on PWM Rules, 2016, the amount of Plastic waste generated in the State is: 32.1 TPA.
- **Treatment/ Measures adopted for reduction or management of plastic waste:**

  Collected through MRF in each ULBS. There are 17 registered Recyclers in the State.

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

Plastic wastes may be used in road making.

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

- All the ULBs have been directed to adopt in-situ Bio-remediation and phyto remediation of sewage in drains. **(Annexure 1)**
- All the major drains have been identified.
- The ULBs have identified 210 drains Bio-remediation works in the State.

- Survey work is going on for preparation of baseline information for pollution abatement of storm drains through in situ bio remediation in 20 ULBs in Tripura. After completion of base line study of each drains (length, widths, flow, discharge etc.) tender will be floated by UDD for each ULBs for execution of in situ bio remediation works.
- The tender for Bio remediation for 5 drains as pilot basis in Agartala has been completed.
- The technical specifications of Faecal Sludge Treatment Plants (***FSTPs***) of 600 KLD capacity has been finalized and uploaded in the website of Urban Development Department. Land has been identified by each ULBs for setting up of ***FSTPs.*** Tendering process are being initiated by the ULBs.

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

River Rejuvenation Committee has been constituted by the Government to look after the implementation of Action plan for identified river stretches.

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

The Chief Secretary, Tripura is conducting monthly review meeting to address the issue of six identified river stretches along with other environmental issues**. (Annexure- 2)**

Moreover, the River Rejuvenation Committee (RRC) is conducting meetings to review the progress in implementation of the action plan for restoration of the six identified river stretches in Tripura. The Minutes of the said meetings are enclosed as **(Annexure 3)**

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

Tripura State Pollution Control Board (TSPCB) is conducting water quality monitoring on monthly basis under National Water Quality Monitoring Programme (NWMP) of Central Pollution Control Board for the following six identified polluted river stretches in the State:

River	River Stretch
Burigaon	Along Bishalgarh

Gumti	Telkajila To Amarpur
Haora	Agartala To Champaknagar
Juri	Along Dharmanagar
Khowai	Along Teliamura
Manu	Along Kailashahar

From the analytical report for all the monitoring locations of six rivers entered in EWQDES portal of CPCB by TSPCB since June, 2016, it has been observed that the BOD values for the six identified polluted river stretches were within prescribed standard limit (3 mg/l) except for some specific months in respect of Gumati river (June, July, August & September, 2016 at Sonamura location), Haora river (June & July, 2016 at Chandrapur location; June to August, 2016 at Dashamighat location) Juri river (June to November, 2016 at Krishnapur location) Manu river (June to August, 2016 at Kailasahar location). It is relevant to mention that for all the monitoring locations of Khowai river, the BOD value was within prescribed standard limit (3 mg/l) since June, 2016. The month wise latest analytical report in respect of BOD values for the six identified polluted river stretches are at **(Annexure -4)**

XIV. Ground water regulation:

a. For drinking water, rural area in Tripura State is mostly dependent on underground water sources. The underground water is lifted through the schemes like Deep Tube Well, Small Bore Tube Well, Mark-11 /III, Ordinary Hand Pump etc. In rural areas, where flow of water in river and cherra is adequate, many surface water treatment plants have already been setup and works of many other plants are in progress.

b. Scenario of Rural Water Supply Sources in Tripura State as on **22.01.2020 is as follows:**

a)	Deep Tube Well (DTW) in Nos	:	1841
b)	Small Bore Tube Well (SBTW) in Nos	:	3625
c)	Surface Water Treatment Plant (SWTP) in	:	36

	Nos		
d)	Ground Water Treatment Plant(GWTP) in Nos	:	35
e)	Spot Source like Markll/III, OHP etc in Nos	:	16079
I)	Innovative Water Supply Scheme in Nos	:	256

c. Scenario of (Urban Water Supply Sources of Tripura State as on Date is as follows:

a) Deep Tube Well (DTW) in Nos	:	174
b) Small Bore Tube Well (SBTW) in Nos	:	84
c) Surface Water Treatment Plant (SWTP) in Nos	:	18
d) Ground Water Treatment Plant(GWTP) in Nos	:	03
e) Spot Source like Mark II/III, OHP etc in Nos	:	170

d. As per report of the Central Ground Water Board, in Tripura State Annual Replenishable Ground Water Resources is 2.19 billion cubic metre (BCM), Net Annual Ground Water' Availability is 1.97 BCM, Annual Ground Water Draft is 0.17 BCM, Stage of Ground Water Development is 9%. Critical stage of Ground- water development is 70 % or above.

e. As per earlier NRDWP guidelines (para 9.4 page number 11), 10% of the NRDWP fund shall be utilized for Sustainability of rural water supply schemes. Relaxation will be available only to those States/ areas that are 'Water Surplus' (with annual normal rainfall more than 1500mm). In the State of Tripura the average annual rainfall is more than 1500mm recorded.

f. In the year 2005, analysis of 3682 water samples was carried out through the All India Institute of Hygiene & Public Health (AIIH&PH), Kolkata and presence of Arsenic in 8 samples above permissible limit (0.05 mg/1tr as per BIS 10500), iron in 3511 samples above permissible limit (1 mg/ltr as per BIS 10500) were found. No other heavy metals i.e. Lead, Zinc, Manganese were found. The presence of Arsenic beyond permissible limit was detected in Ordinary Hand Pump and Mark-11 only. As Arsenic in drinking water is health hazard,

at once all the above 8 no. water sources were sealed and alternative sources were created for drinking water supply to that locality.

g. Accordingly, 17 numbers new water testing laboratory in the District and DWS Sub Division level have been setup and strengthened the existing water testing laboratory to develop adequate competency and efficiency of the water quality monitoring & surveillance throughout the State. Every year, almost 80% of water supply sources are being tested through laboratory as well as Field Test Kits and the results are being uploaded in the online IMIS of Ministry of Drinking Water & Sanitation, Government of India.

h. From the test results, it is observed that the underground water of Tripura State is mainly infested **with iron beyond** permissible limit. There is no presence of Arsenic beyond permissible limit in drinking water sources at present. Moreover, presence of Lead, Zinc, Manganese etc. in the drinking water sources is not detected so far. Iron removal plant (IRP) has been installed in almost every places in Tripura.

i. While issuing the Consent to Establish & Operate Certificate by TSPCB to any industry where extraction of ground water has been done, the permission of Central Ground Water Authority is required as pre requisite condition for obtaining the consent certificate from Tripura State Pollution Control Board. In addition, the industries using ground water are also being directed to recharge the ground water through ground water recharging pit**.**

j. Moreover, the industries handling with chemicals and hazardous wastes are also being directed not to inject any chemicals/hazardous wastes into the ground water as well as water body without any treatment.

k. Central Ground Water Board under the Ministry of Jal Shakti, Department of Water Resources, Government of India issued Show Cause Notice to 04 nos. of Industries for not applying to the Board to renew the NOC for extracting ground water in due time.

l. Direction has been issued to all the industries which are extracting ground water for industrial purpose and also for compliance of environmental norms.

XV. Good irrigation practices being adopted by the State: •

Generation of mass awareness to conserve water and also for good irrigation practices is being carried out by the farmers in the catchment areas of the River.

XVI. Rain Water Harvesting:

•All the industries using in the catchment areas responsible for using ground water for industrial purpose is directed to construct rain water harvesting plant and the compliance has been ensured. Accordingly, Rain water harvesting plant has been constructed by almost all the concerned units.

•A comprehensive Rain water harvesting plan has submitted to CPCB.

•In the new Building Rules, the roof top Rain Water Harvesting systems have been included for all new building.

XVII. Demarcation of Floodplain and removal of illegal encroachments:

Flood Plane Zones of six identified river stretches were already identified. The details of flood plain area for the identified six river stretches are as follows:

Name of river	Flood plain areas
Burigaon	Laxibil, Chandranagar, Naraura, Raghunathpur, Jangalia, Kadamtali, Gazaria, Dhakarbari, Rahimpur, Rangapani, Sikria, Andigang.
Gumti	Uttar Maharani, Udaipur, Palatana, Shilghati, Melaghar, Sonamura.
Haora	Khayerpur, Kashipur, Baldakhal, Aralia, Jogendranagar, Joynagar (Dashamighat).
Juri	Satshangam, Kadamtala, Sharaspur, Churaibari,

Name of river	Flood plain areas
	Maheshpur, Laxminagar, Bishnupur, Chandrapur, Dharmanagar, Radhapur.
Khowai	Dashamighat (TLM), Baishghar, Maiganga, Isharbill, Hadrai, Moharcherra, Kalyanpur and Dwarikapur.
Manu	Latiapura, Srirampur, Kailasahar, Chantail, Jalai, Pecherdhahar, Dalogaon, Fatikroy, Taraninagar, Masauli.

The PWD (Water Resource) Department, Government of Tripura prepared Flood Plan Zoning maps showing the flood plain area for the six identified river stretches. The Flood Plan Zoning maps have been enclosed as **(Annexure-5).**

XVIII. Maintaining minimum e-flow of river:

- Bamboo Plantation on sides of the river banks has been done in collaboration with Forest Department, Tripura. Target achieved 100%.
- Check dam has been installed to maintain the E-flow of the river.
- The status report of river bank plantation and installation of check dam has been annexed as **(Annexure-6).**

XIX. Plantation activities along the rivers:

Bamboo Plantation on sides of the river banks has been done in collaboration with Forest Department, Tripura. Target achieved 100%.

XX. Development of biodiversity park:

Extensive Bamboo Plantation on sides of the river banks has been done.

XXI. Reuse of Treated Water:

- The Urban Development Department and Urban Local Bodies has taken many initiatives for utilization of treated sewage effluent.

- AMC had prepared the Action Plan for utilization of treated waste water from Sewage Treatment Plant (STP) located at Barjala, Agartala. The said Action Plan was sent to Central Pollution Control Board (CPCB) in March 2019.
- AMC is already using treated waste water from the Barjala (Near Lankamura) STP for various activities including watering of gardens & open space in Agartala city, road watering in dry seasons, irrigation of agricultural fields etc.
- A notification has been issued by AMC to use only treated water for the watering of gardens & open space in Agartala city, road watering in dry seasons and never to allow use of drinking water for these activities. AMC also confirms that presently no surface or ground water is used for watering parks and gardens in the city**.**
- As per the revised Action Plan for utilization of treated water, the additional steps taken by AMC for full compliance of the Hon'ble NGT order are as follows.
  - A dedicated team is formed to look after the gardens and parks in Agartala city. At present watering is done by jetting machines which collect treated waste water from the STP at Barjala.
  - Under ADB support, 15 no. of tankers filled with suction pump will be shortly delivered to AMC out of which 6 no. of vehicles shall be utilized for watering parks and gardens across the city.
  - AMC has received 3 no. of heavy duty sweeping machine with water tanks from the Department under ADB project. Watering on roads are continued with these machines.

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

From the analytical report for all the monitoring locations of six rivers, it has been observed that the BOD values for the six identified

polluted river stretches were within prescribed standard limit and fit for bathing purpose.

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

Not applicable for Tripura.

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

- Only sand mining is being carried out in the State. The Chief Secretary, Tripura is reviewing the matter on a regular basis through State Level Committee meeting every month.
- There has been no illegal sand mining in the state of Tripura.
- Forest Department has taken several initiatives like conducting meeting with local people of those areas to stop illegal sand mining. Joint raid with Police Department has been conducted and regular monitoring is going on.
- The existing provision of Tripura Minerals Concession Rules, 2014, the amendments proposed as "Tripura Minor Minerals Concession (Amendment) Rules, 2018. Further, the approval of mining plan is being decentralized for ease of governances.
- All the interested Project Proponents were requested to submit sand mining plan as pre requisite of Environmental Clearance for sand mining in a legal way.
- As on date 159 numbers of Environmental Clearance has been issued by the State Environment Impact Assessment Authority. The mining activity is allowed for Govt. work and bonafide use only as per guidelines of MOEFCC.
- Extensive river bank plantation has been done in the river banks of all the rivers by the Forest department as a part of restoration.

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

Strict action will be taken against the violators.