

Submission of Monthly Progress Report for the Month of October, 2022 in compliance with the NGT Order dated 24.09.2020 in the matter of OA No. 673 of 2018.

I. Details of Sewage Treatment Plant (STP) :

Existing and operational one 8MLD STP at Barjala, Agartala:

- Total Capacity of STP 8 MLD
- Present Utilization is about 37%
- Total of connections to the STP as of now is 3900 Nos. (as reported by Eco Protect O&M operator of this STP)
- O&M operator is ECO Protect ,who supplies operators and chemical. Total number of manpower deployed is 26 numbers
- Total 104.5 km sewer line is already connected to the STP including 9 pumping stations.
- Septage from Agartala city and surrounding areas are carried in by cesspool emptier vehicle and treated at this plant.
- For coverage of the remaining part of the area (provision of 34.16 km sewerage line and 1590 nos. household connection) to this STP plant a DPR has been prepared from the engg. Wing of UDD. The project cost is estimated to be 46.12 crores.
- As per the decision of competent authority financial assistance for the same has been requested from MoHUA.
- **Recently a physical meeting with Joint Secretary MoHUA took place on 23-08-2022, where the proposal of Rs. 47.00 Cr. for increasing the optimal capacity of the existing under-utilized STP at Chandinamura was taken up to which MoHUA has initially agreed. Accordingly an Action Plan under SBM-U 2.O is under preparation for submission to Ministry as per SBM-U 2.O Guidelines.**
- **As Agartala city is covered under AMRUT therefore there is no scope to sanction fund under SBM-U. However, steps have been taken to consider the same as Special Case. It is under active consideration of Ministry.**

Another 8 MLD STP at Akhaura (under Agartala Smart City):

- Total cost of the project is Rs. 24,73,50,000.00
 - Time of completion of Work- 2years
 - Date of LOA issued-11.02.2020
 - Piling works of 221 nos. out of 272 nos. has been completed, by the selected contractor (M/S Mecgale Premierworld JV) work is going on.
 - Fund sanctioned from State Government is under consideration.
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- 19 ULBs will install a combined Sewage Treatment Plant (STP) and Feacal Sludge Treatment Plant (FSTP) in their jurisdiction.

- Out of 19 ULBs setting up of STP cum FSTP plants for 12 ULBs have been taken up under ADB funded projects, it is at DPR preparation stage.
- As per recent physical meeting with Joint Secretary & National Mission Director SBM-U MoHUA on 23-08-2022 proposal for setting up of STP cum FSTP plants for remaining 8 ULBs have been taken up under SBM-U 2.O. MoHUA has assured to consider funding under a Special Case. Proposal is under preparation. Fund will be sanctioned after approval of Cabinet, GoI.
- As per the advice of Shri BB Barman advisor Ministry of Jal Shakti to treat the waste water flowing into the 6 polluted river stretches of Tripura, Department has submitted three concept plans of three ULBs namely Amarpur Nagar Panchayat, Bishalgarh Municipal Council and Teliamura Municipal Council to Ministry of Jal Shakti for setting up of STP. These ULBs are taken in the 1st batch for approval of Ministry of Jal Shakti. If approved the next batch of remaining 3 ULBs will be taken up.
- However, Ministry of Jal Shakti requested for a physical meeting to discuss on the already submitted 3 (three) concept proposal for setting up a STP cum FSTP plants mentioned above on 23.08.2022 at 11:00 AM in the office of NRCD. Ministries observation was the cost of the project is high, requested to revise the estimate considering clubbing STP and FSTP.

Bio-Remediation/in-Situ Nalla Treatment of Drains

- 5 (five) nos. of Drains flowing to river Haorah are taken up in pilot mode under Agartala Smart City through in-situ nallah treatment by proven technology under phytoremediation method on design, build and operate (DBO) basis and post completion operation and maintenance for two years including defects liability period of one year.
- An Agency (Bint Biotech Pvt. Ltd.) is selected for the same, Work order has been issued and agreement signed on 21st July, 2022. Mobilization work is going on.

II. Solid Waste Management:

- **Door to Door Waste Collection & Source Segregation of Waste** - Presently 100% door to door waste collection along with source segregation is being practiced in **all 334** wards.
- Total municipal solid waste generated: - 333.1 TPD
- Wet waste 55% & Dry waste- 35%, Sanitary waste-2 % & Domestic hazardous waste-2%, E-waste-2% & Other inert Waste-4%
- AMC generate @ 427 grams/per capita/per day

- Other ULBs generate @ 199-294 grams/per capita/per day
- 273 TPD is collected out of 333.1 TPD (82 %). Rest are used for home composting.
- 273 TPD is segregated and transported.
- Only 206.5 TPD waste is being processed as of now. (250 TDP processing – AMC, 10 TDP at Kamalpur NP and 75 Secondary Centres).
- Gap of 66.5 TDP will be mitigated after operationalization of all the waste processing centres (16 nos. Tertiary Waste Processing Plants & 19 nos. Secondary Waste segregation centres).
- **Tertiary Waste Treatment Plant (for organic waste):**
 - The Tertiary waste Treatment Plant (TWTP) to treat organic/wet waste & to store segregated dry waste of Sabroom NP was inaugurated by Hon'ble CM on 11-08-2022.
 - The remaining construction works of TWTP of 15 ULBs will be completed by December 2022.
 - In Amarpur construction works halted due to public protest.
 - Bishalgarh is using the existing plant of AMC at D.C Nagar & Kamalpur is using their own existing waste treatment plant.
 - Jirania will utilize the TWTP of Ranirbazar MC.
- **Secondary Waste Sorting & Segregation Centre (for dry waste):** Total target for setting up of Secondary Waste Segregation Centres is **94 nos.** out of which **82 nos.** are already operationalized and remaining **12 nos.** centers are under construction which will be operationalized shortly for dry waste segregation, storage and recycling.
- **Landfill/ Dumpsite Remediation:**

Action Plan for remediation of identified Legacy Waste of 13 ULBs (Santirbazar, Belonia, Sabroom, Dharmanagr, Panisagar, Kailasahar, Kumarghat, Udaipur, Amarpur, Khowai, Melaghar, Sonamura & Ambassa) have been prepared by ULBs. Which is subsequently approved by State and Ministry of Housing & Urban Affairs, Govt. of India. Accordingly, Ministry has placed a fund of 4.73 crore as 1st installment.

A model RFP for Dumpsite remediation has been prepared and shared with all 13 ULBs. ULBs are in a process of floating e-tender.

III. 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.

IV. Bio-medical Waste Management:

- **Total Bio-medical generation:** 2800 kg/day (in the ULBs and Towns of catchment areas of the six rivers) 10 Tripura RRC
- **No. of Hospitals and Health Care Facilities:** Total No. of Hospitals and nursing homes: 158 (bedded). Work order has been issued to install STP in seven district hospitals.
- **Status of Treatment Facility/ CBWTF:** 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 working at Devendra Chandra Nagar in West Tripura District. 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.

V. 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.
- Fresh inventorization of the Hazardous Waste generation will be done. Tendering process has already been completed for selection of the Agency and work order has been issued.

VI. Plastic Waste Management:

- Total Plastic Waste generation: As per annual report 2020-21, on PWM Rules, 2016, the amount of Plastic waste generated in the State is: 61.65 TPA.
- Treatment/ Measures adopted for reduction or management of plastic waste: Collected through MRF in each ULBs. There are 19 registered Recyclers in the State.

- Details of Alternate Treatment Technology being adopted by the State/UT : Recently, the State has started using the plastic wastes in road making purpose.

VII. 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. According to the latest analytical report of the six river water, the BOD level were found within prescribed standard limit for the 6 identified rivers of Tripura. Accordingly Tripura Pollution Control Board (TSPCB) have sent a proposal of delisting of 6 identified rivers of Tripura in connection with the OA No. 673 of 2018 vide letter no No.F.19(07)/TSPCB/673/5972-977 dated 06-08-2021 to CPCB.

VIII. Ground water regulation :

- As per report of the Central Ground Water Board, in Tripura State Annual Replenishable Ground Water Resources is 2.19 billion cubic meter (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.
- 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/ 14 Tripura RRC 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.
- In the year 2005, analysis of 3682 water samples was carried out through the All India Institute of Hygiene & Public Health (AIHH&PH), Kolkata and presence of Arsenic in 8 samples above permissible limit (0.05 mg/ltr 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.

- 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.
- 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.
- 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 15 Tripura RRC the ground water through ground water recharging pit.
- 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.
- 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.
- Direction has been issued to all the industries which are extracting ground water for industrial purpose and also for compliance of environmental norms.

IX. 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.

X. 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.

XI. Demarcation of Floodplain and removal of illegal encroachments:

Flood Plane Zones of six identified river stretches were already identified.

XII. Model River:

The State of Tripura has identified Haora river stretch as the Model river for implementation of Action Plan for restoration of the river. This is also communicated to the NMCG with a copy to CPCB.

XIII. 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%.

XIV. 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, 17 Tripura RRC 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.