Submission of Monthly Progress Report for the Month of April- May, 2024 in the NGT Matter OA No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

I. Details of Sewage Treatment Plant (STP):

- **Total Generation of Sewage:** 82.4 MLD (in 20 ULBs)
- **Total Treatment Facility Operationalized:** 9.4 MLD (8 MLD STP at Chandinamura under Agartala MC & 1.4 MLD In-Situ Nalla flowing to river Howrah at Agartala MC).
- Another STP of 8 MLD capacity at Akhaura ICP has been constructed.

Detailed Status of existing STP/ Sewage Treatment Facilities:

- One 8 MLD STP is operational since 2017 at North Zone of Agartala Municipal Corporation, having around 10-12% additional treatment capacity of feacal sludge as input. Feacal sludge from Agartala city and surrounding areas is carried in by cesspool emptier vehicle and treated at this plant. To increase the utilization of STP to its optimal capacity through interception and diversion of drains, the work of installing additional sewage pumping station has been started and shall be completed by November 2024.

- In-Situ Nalla Treatment of drains on pilot basis: - 1.4 (One point four) MLD capacity In-Situ Nalla Treatment of five drains flowing to river Howrah at Agartala, which are smaller & can't be remediated through STP. The project is completed and all drains have been commissioned. The project has been taken up from Agartala Smart City on pilot basis.

- Another STP of 8 MLD capacity at Akhaura ICP has been constructed.

New Proposal for STP to mitigate the gap: (64.28 MLD)-

Detailed status of Ongoing Projects (67.7 MLD):

i) 4 (Four) STPs of total 31.5 MLD capacity has been taken up at Katakhal & Kalapania Khal in Agartala MC. Accordingly, works started by Agency is M/s Swapan Ch. De, Central Road Extension, Town Pratapgarh, Agartala, West Tripura vide LoA No.4 (131)/2022/ 8831-41 dated 22-06-2023.

ii) 17.5 MLD STP in 11 ULBs – Total works has been divided in 4 cluster wise package. Phased Work-order has been issued to agency and simultaneously works has started. Date of completion of the project is 31-03-2025.

(Name of 11 ULBs: Dharmanagar MC, Udaipur MC, Mohanpur MC, Kailashahar MC, Ranirbaza MC, Melaghar MC, Belonai MC, Khowai MC, Kumarghat MC, Ambassa MC & Teliamura MC).

iii) In-Situ Nalla Treatment of drains having total capacities of 9.7 MLD covering 8 ULBs- Works started by the agency and shall be completed by 31-12-2024.

(Name of 8 ULBs: Sabroom NP, Panisagar NP, Sonamura NP, Santirbazar MC, Jirania NP, Kamalpur NP, Amarpur NP, Bishalgarh MC).

iv) 2 (two) nos. Oxidation Pond having total capacity of 1 MLD covering 2 ULBs - Works started by the agency and shall be completed by 31-12-2024

v) One STP of 8 MLD capacity over Howrah: The project is under tendering stage.

Additional measures for Used Water Management:

- All drains flowing to river or water bodies are retrofitted with wired mesh to prevent the

flow of solid waste into the water body.

- A vast range of IEC activities targeting littering of water bodies, drains are being carried out in all ULBs. Several awareness campaigns involving eminent personalities, brand ambassador, school children, NGOs, market association, clubs, District Magistrate & Collectors, Elected Representatives etc. have been carried out. Short videos and Audio message are also being disseminated to aware citizens. Rigorous Social Media post are also being done to aware citizens.

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: - 350.2 TPD
- 350.2 TPD is collected, segregated and transported.
- Presently 350.2 TPD waste is being processed.

Bio-Degradable And Non-Biodegradable Waste Processing:

- There are total 20 ULBs in Tripura.
- In the State, biodegradable waste is managed with the help of 19 nos. decentralized Solid Waste Processing Facilities, while 2 (two) ULBs namely Bishalgarh MC and Jirania NP are using the neighboring facilities of Agartala MC and Ranirbazar MC respectively. These Waste Processing Facilities are equipped to process both Wet and Dry waste.

Name of ULB	No. of Solid Waste Processing Facilities/ MRF Centres	Capacity of Solid Waste Processing Facilities/ MRF Centres (in TPD)
Agartala MC	2*	275
Bishalgarh MC	0	Using pland of Agartala MC
Kamalpur NP	1	6
Dharmanagar MC	1	15
Panisagar NP	1	10
Kailashahar MC	1	10
Kumarghat MC	1	10
Ambassa MC	1	10
Khowai MC	1	10
Teliamura MC	1	10
Ranirbazar MC	1	10
Jirania NP	0	Using plant of Ranirbazar MC
Santirbazar MC	1	10
Mohanpur MC	1	10
Sabroom NP	1	10
Melaghar MC	1	10
Sonamura NP	1	10
Udaipur MC	1	10
Amarpur NP	1	10
Belonia MC	1	10
Total	19	446

* 1 MRF 25 TPD & 1 Solid Waste Processing Facility 250 TPD

- There are total 85 (eighty five) numbers of Segregation Sheds which are already functional and are linked to the 19 Solid Waste Processing Facilities/MRF Centres set up in decentralized manner to cover all 20 ULBs.

Facility	Type of Plant	Location	Number	Present Status
De-centralized Plants (ULB wise)	Segregation Sheds (Only Segregation of Dry waste into various categories is done by Women SHGs)	Agartala MC	16	All are functional
		Bishalgarh MC	2	
		Kamalpur NP	3	
		Dharmanagar MC	3	
		Panisagar NP	3	
		Kailashahar MC	3	
		Kumarghat MC	4	
		Ambassa MC	4	
		Khowai MC	6	
		Teliamura MC	6	
		Ranirbazar MC	3	
		Jirania NP	3	
		Santirbazar MC	3	
		Mohanpur MC	5	
		Sabroom NP	5	
		Melaghar MC	3	
		Sonamura NP	3	
		Udaipur MC	3	
		Amarpur NP	3	
		Belonia MC	4	
Total			**85 nos.**	

Landfill/ Dumpsite Remediation:

- Total 13 nos. Legacy Waste Dumpsites are identified in 13 ULBs as per SBM-U 2.O guidelines.
- Remediation works is taken up in all13 ULBs (Santirbazar MC, Belonia MC, Sabroom NP, Dharmanagar MC, Panisagar NP, Kailashahar MC, Kumarghat MC, Udaipur MC, Amarpur NP, Khowai MC, Melaghar MC, Sonamura NP & Ambassa MC).
- Out of 13 identified sites 8 nos. are already remediated and 5 nos. will be remediated by December, 2024.

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**: 1940.26 kg/day (For the State)
- **No. of Hospitals and Health Care Facilities**: Total No. of Hospitals and nursing homes: 158 (bedded). 7 (seven) District hospitals are equipped with Liquid Waste Treatment Plant. Installation of ETP/STP is going on in other hospitals.
- **Status of Treatment Facility/ CBMWTF**: 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 presently working at Devendra Chandra Nagar in West Tripura District covering all the bedded Hospital of the State. There is no gap in processing the BMW in the State. Amongst the Public Health Facilities 03 state level hospitals namely GBP Hospital, IGM Hospital & Cancer hospital have their own incinerator.

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 has been done.

VI. Plastic Waste Management:

- Total Plastic Waste generation: As per annual report 2021-22, on PWM Rules, 2016, the amount of Plastic waste generated in the State is: 347.291 TPA.
- Treatment/ Measures adopted for reduction or management of plastic waste: Collected through MRF in each ULBs. There are 13 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.
- The RD Department has notified a Policy regarding use of plastic waste in road making in the State.
- Action Plan for phasing out Single Use Plastic is under implementation.
- The State has launched Plastic Mukta Tripura Abhiyan.

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 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 5 identified rivers of Tripura. However, few parameters exceed the normal standard for the Haora River occasionally.

River Wise Details:

Name of the River	River Stretch	Priority	Action Plan under implementation/ Proposed	Present Status
Burigaon	Along Bishalgarh	-	Compressive Action Plan for rejuvenation of the identified river stretches covering individual rivers have been prepared and submitted to Central Pollution Control Board. The Action Plan is under implementation.	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 5 (Burigaon, Gomati, Juri, Manu, Khowai) identified rivers of Tripura. However, few parameters exceed the normal standard for the Haora river occasionally. However, implementation of the Action Plan is going on. The River Rejuvenation Committee (RRC), Tripura is reviewing the implementation of the said Action Plan on regular basis.
Gumti	Telkajila To Amarpur	-		
Haora	Agartala to Champaknagar	v		
Juri	Along Dharmanagar	.		
Khowai	Along Teliamura	-		
Manu	Along Kailashahar	-		
The Water Quality analysis report of the six identified river stretches is enclosed as **Annexure-I.**				

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 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 (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.
- 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 place 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 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. Some of the major initiatives taken by the State in this regard are as follows:

a. 5 (five) drains have been identified discharging in the Haora River. *In-situ* Bioremediation is being carried out in those 5 drains. Work Completed.
b. Haora River Front Development Project has been launched having several objectives to protect this river.

c. Extensive river bank plantation has been done already.
d. Regular monitoring of Water Quality is being done by the State Board.
e. Flood Plain Zone has been identified.
f. The river bank is made encroachment free and regular monitoring is being done by the concerned Authority.
g. Proper monitoring is being done so that no solid waste dumped into the river from nearby markets.

XIII. Plantation activities along the rivers:

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

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, Tripura, 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. A dedicated team is formed to look after the gardens and parks in Agartala city.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	June, 16			July, 16			August, 16			September, 16		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.99	350	250	1.57	350	240	1.21	350	220	1.05	350	220
S 2	3.86	430	340	3.59	430	350	3.13	430	280	3.01	400	240
S 3	1.71	430	350	1.06	430	280	1.05	430	240	0.89	400	220
S 4	1.01	430	350	1.23	430	240	1.07	350	220	1.01	350	240
S 5	1.61	280	220	1.54	280	210	1.38	350	210	1.05	350	220
S 6	2.17	430	350	2.18	430	280	2.05	350	240	1.76	350	220
S7	3.89	350	220	3.15	350	240	3.08	350	220	2.88	350	220
S8	3.93	430	350	3.08	430	280	2.51	350	280	2.09	350	220
S9	3.02	540	350	3.17	540	350	3.05	540	350	2.31	540	280
S10	0.79	430	280	0.75	430	280	0.68	350	280	0.57	350	240
S11	1.30	350	280	1.47	350	280	1.09	350	240	0.69	350	220
S12	1.51	350	280	1.32	350	240	1.18	350	220	1.05	350	220
S13	3.49	430	280	3.35	350	240	3.01	350	240	2.59	350	220
S14	1.13	350	220	1.31	350	280	1.19	350	220	1.01	350	240
S15	2.04	430	350	2.13	430	280	1.89	430	280	1.63	400	240
S16	2.61	280	220	2.09	280	170	1.87	280	210	1.34	350	220
S17	2.57	350	240	2.61	350	280	2.57	350	240	2.01	350	220
S18	4.85	350	280	4.31	350	280	4.09	350	280	3.56	280	220

Sl. No.	October, 16			November, 16			December, 16		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.01	350	200	0.87	350	220	0.63	350	200
S 2	2.95	350	220	2.31	350	200	2.05	350	200
S 3	0.75	350	220	0.58	350	200	0.37	350	2200.61
S 4	0.89	350	220	0.75	350	200	0.61	280	170
S 5	0.95	350	220	0.88	350	240	0.77	350	200
S 6	1.65	350	220	1.23	350	220	1.09	280	170
S7	2.33	350	200	2.07	400	240	1.93	350	220
S8	1.97	350	220	1.08	400	200	1.02	350	180
S9	2.15	440	240	2.08	540	280	1.98	540	240
S10	0.48	350	220	0.39	350	240	0.21	350	220
S11	0.61	350	200	0.49	350	220	0.28	350	240
S12	0.91	350	220	0.88	350	200	0.81	350	200
S13	2.31	280	170	2.05	350	200	1.85	280	170
S14	0.89	350	220	0.81	350	200	0.57	280	170
S15	1.51	350	240	1.37	350	220	1.21	350	240
S16	1.04	350	200	0.87	350	220	0.81	350	220
S17	1.85	350	240	1.59	350	220	1.31	350	200
S18	3.21	280	170	3.08	280	170	2.77	108	170

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 17			February, 17			March, 17			April, 17			May, 17			June, 17		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	0.41	350	200	0.32	350	170	0.38	350	200	0.18	350	220	0.35	350	220	0.28	350	200
S 2	1.93	350	170	1.75	350	170	1.58	350	200	1.64	350	210	1.98	350	220	2.32	350	210
S 3	0.31	350	200	0.25	350	170	0.29	350	200	0.35	350	220	0.46	350	210	0.52	350	200
S 4	0.55	400	210	0.48	350	200	0.53	350	210	0.64	350	220	0.78	350	200	0.88	350	220
S 5	0.70	350	200	0.55	350	200	0.72	350	200	0.78	350	220	0.96	350	220	0.96	350	210
S 6	0.98	350	210	0.90	350	200	1.18	350	210	1.06	350	220	1.14	350	210	1.08	350	200
S7	1.69	350	200	1.30	350	170	1.45	350	200	1.54	350	210	1.68	350	200	1.84	350	210
S8	0.91	280	170	0.84	350	200	0.92	350	210	1.08	350	210	1.24	350	210	1.32	350	200
S9	1.57	540	220	1.32	540	200	1.54	540	210	1.62	540	220	1.84	540	220	1.98	540	210
S10	0.13	350	200	0.11	350	170	0.18	350	200	0.28	350	210	0.42	350	210	0.94	350	220
S11	0.20	350	200	0.15	350	200	0.19	350	200	0.28	350	210	0.35	350	200	0.86	350	210
S12	0.55	350	200	0.50	350	200	0.62	350	200	0.78	350	220	0.88	350	210	1.24	350	200
S13	1.59	350	200	1.18	280	170	1.27	350	200	1.38	350	220	1.48	350	220	1.58	350	210
S14	0.39	350	220	0.31	350	200	0.42	350	170	0.54	350	170	0.68	350	190	0.84	350	200
S15	1.01	350	220	0.78	350	200	0.82	350	210	0.98	350	220	1.24	350	200	1.48	350	210
S16	0.75	350	200	0.68	350	200	0.74	350	200	0.88	350	210	0.94	350	200	1.24	350	210
S17	1.08	350	220	0.59	350	200	0.65	350	210	0.88	350	220	0.94	350	200	1.25	350	210
S18	2.35	350	200	2.08	350	200	2.15	350	210	2.24	350	210	2.38	350	210	2.54	350	210

Sl. No.	July, 17			August, 17			September, 17			October, 17			November, 17			December, 17		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	0.34	350	210	0.86	350	220	0.58	350	210	0.28	280	170	0.20	280	170	0.12	280	170
S 2	2.08	350	210	2.44	350	210	2.18	350	210	1.56	350	170	1.18	350	170	0.96	280	170
S 3	0.94	350	210	1.34	350	210	1.14	350	210	0.84	350	170	0.68	280	170	0.44	280	140
S 4	1.28	350	210	1.54	350	200	1.28	350	210	0.96	350	210	0.74	280	170	0.58	280	170
S 5	1.24	350	220	1.38	350	220	1.26	350	210	1.04	280	170	0.64	280	170	0.48	280	140
S 6	1.28	350	210	1.96	350	210	1.64	350	210	1.18	350	210	1.02	350	210	0.68	280	170
S7	1.98	350	220	2.28	350	210	2.02	350	210	1.58	350	210	1.14	280	170	0.94	280	170
S8	1.54	350	210	1.88	350	220	1.56	350	210	1.08	350	210	0.56	280	170	0.44	280	170
S9	2.08	540	220	2.36	540	210	2.14	540	210	1.38	540	220	1.04	540	170	0.68	430	220
S10	1.28	350	210	1.36	350	220	1.22	350	210	1.04	350	210	0.68	350	210	0.52	280	170
S11	1.24	350	220	1.68	350	210	1.38	350	210	1.04	280	170	0.84	280	170	0.54	280	170
S12	1.48	350	210	1.88	350	220	1.56	350	210	1.22	350	210	1.04	280	170	0.68	280	170
S13	1.74	350	210	1.88	350	210	1.52	350	210	1.18	280	170	1.08	280	170	0.56	280	140
S14	0.96	350	210	1.34	350	200	1.08	350	210	0.58	350	210	0.42	350	210	0.36	350	210
S15	1.64	350	220	1.88	350	210	1.62	350	200	1.24	280	170	1.08	280	170	0.88	280	170
S16	1.36	350	210	1.88	350	210	1.46	350	210	1.24	350	210	1.04	280	170	0.82	280	150
S17	1.48	350	220	1.68	350	210	1.48	350	210	1.14	280	170	1.04	280	170	0.52	280	170
S18	2.68	350	200	2.88	350	210	2.38	350	210	2.04	280	180	1.46	280	180	1.08	280	170

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 18			February, 18			March, 18			April, 18			May, 18			June, 18		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	0.1	280	150	0.18	280	130	0.24	240	110	0.18	220	120	0.66	280	150	0.48	280	150
S 2	0.7	280	150	0.58	240	120	0.40	220	120	0.22	240	120	1.82	350	170	1.24	350	140
S 3	0.36	280	150	0.28	240	120	0.34	280	170	0.26	240	150	0.66	280	170	0.74	350	220
S 4	0.36	280	150	0.28	240	130	0.36	240	150	0.22	240	130	1.06	280	170	0.96	280	150
S 5	0.36	240	150	0.24	220	130	0.32	240	150	0.26	240	130	0.78	280	150	0.56	240	130
S 6	0.46	280	150	0.34	280	130	0.38	280	150	0.26	240	130	0.82	280	170	0.82	240	130
S7	0.72	280	150	0.58	220	120	0.40	220	130	0.32	220	110	0.68	280	170	1.22	350	170
S8	0.32	280	140	0.24	280	130	0.28	240	120	0.22	240	110	1.28	280	150	1.06	280	130
S9	0.54	350	210	0.36	280	170	0.30	240	150	0.22	210	130	0.38	430	220	0.94	430	240
S10	0.46	280	170	0.38	220	150	0.26	240	150	0.20	220	130	0.48	280	170	0.86	350	220
S11	0.38	280	150	0.30	220	130	0.26	240	140	0.22	220	130	0.46	280	170	0.58	350	170
S12	0.56	280	170	0.38	220	130	0.32	240	130	0.26	230	120	0.38	280	140	0.86	350	170
S13	0.40	220	140	0.36	220	120	0.38	230	140	0.30	230	120	0.98	280	170	0.82	280	150
S14	0.22	280	170	0.20	220	150	0.24	240	170	0.20	220	150	0.44	280	170	0.56	350	170
S15	0.62	280	170	0.48	240	150	0.42	240	130	0.36	210	120	0.48	280	140	0.94	350	170
S16	0.68	280	170	0.52	240	150	0.46	220	130	0.32	210	120	0.54	240	170	0.88	280	170
S17	0.40	220	150	0.34	220	130	0.38	240	170	0.32	220	150	0.58	280	170	0.98	280	170
S18	0.78	280	140	0.56	220	140	0.88	240	140	0.56	240	130	1.28	350	170	1.06	350	150

Sl. No.	July, 18			August, 18			September, 18			October, 18			November, 18			December, 18		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	0.40	280	120	0.46	280	170	0.40	280	150	0.40	350	170	0.62	280	150	0.54	240	130
S 2	1.08	280	130	0.74	280	150	0.58	280	130	0.58	280	150	0.64	240	130	0.48	220	110
S 3	0.62	350	170	0.54	350	170	0.94	350	170	0.68	280	140	0.52	220	110	1.06	280	150
S 4	0.78	350	170	0.62	280	140	0.54	280	150	0.38	220	120	0.24	220	110	0.58	240	170
S 5	0.48	240	110	0.42	280	120	0.58	280	130	0.44	240	110	0.36	220	110	0.86	220	130
S 6	0.68	280	130	0.52	280	120	0.78	350	150	0.66	240	120	0.52	220	110	0.94	280	170
S7	1.06	350	170	0.74	280	140	1.22	350	170	1.02	240	140	0.78	220	110	1.06	240	150
S8	0.84	280	130	0.68	280	110	0.52	280	120	0.50	280	140	0.38	240	120	0.32	220	110
S9	0.88	430	210	0.72	430	220	0.66	350	240	0.52	280	210	0.48	350	240	0.36	430	350
S10	0.68	280	170	0.54	240	140	0.86	280	150	0.58	240	130	0.34	220	120	0.48	240	140
S11	0.48	280	150	0.40	280	130	0.88	280	150	0.54	220	120	0.32	220	110	0.52	220	130
S12	0.64	350	170	0.58	280	140	0.92	280	130	0.64	240	120	0.52	220	110	0.74	240	150
S13	0.64	280	130	0.52	280	120	0.84	280	130	0.58	240	110	0.36	280	120	0.66	240	120
S14	0.42	350	150	0.36	350	130	0.42	350	140	0.30	280	130	0.26	220	110	0.34	240	130
S15	0.46	350	150	0.42	350	130	0.36	350	130	0.30	240	110	0.22	220	120	0.46	280	170
S16	0.54	350	170	0.44	350	150	0.62	350	170	0.54	280	140	0.42	240	120	0.48	280	170
S17	0.82	350	170	0.70	350	150	1.08	350	170	0.86	280	140	0.58	240	120	0.36	220	130
S18	0.68	280	110	0.48	280	120	0.64	280	150	0.48	240	110	0.26	240	120	0.54	240	130

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 19			February, 19			March, 19			April, 19			May, 19			June, 19		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	0.68	210	120	1.08	220	110	0.88	150	94	1.24	220	120	1.56	220	110	1.98	170	110
S 2	0.64	220	140	1.44	240	110	1.28	220	110	1.68	240	120	1.84	220	110	1.98	170	110
S 3	1.86	240	130	0.88	220	110	0.56	150	110	0.84	130	110	1.28	110	70	1.56	110	70
S 4	1.06	220	150	0.66	210	110	0.98	150	110	1.44	130	110	1.68	110	94	1.46	120	84
S 5	1.54	220	110	0.72	240	130	1.08	220	110	1.42	170	110	1.98	130	70	2.26	110	63
S 6	1.28	240	150	0.78	220	130	1.22	170	110	1.54	150	110	1.94	170	110	2.28	150	94
S7	1.15	220	130	1.08	220	150	1.14	220	130	1.56	210	150	1.94	170	84	2.36	150	70
S8	0.58	240	120	0.96	240	130	1.42	240	150	1.88	220	110	2.22	170	110	1.98	170	110
S9	1.58	430	280	1.26	280	220	1.58	350	220	2.18	430	180	2.88	540	220	3.18	920	240
S10	0.88	220	120	0.64	280	150	1.64	220	130	1.86	220	110	1.94	220	110	2.38	170	94
S11	1.02	220	110	0.88	220	120	1.18	220	120	1.36	170	120	1.94	150	94	1.82	130	84
S12	1.46	220	130	0.66	280	130	1.12	220	110	1.46	170	110	1.94	150	70	2.18	150	94
S13	1.22	220	110	0.58	240	170	0.98	220	150	1.16	170	110	1.86	150	110	1.94	130	94
S14	0.58	220	130	0.52	280	150	1.02	240	130	1.24	220	110	1.68	170	79	1.98	150	79
S15	0.94	240	130	0.64	240	150	1.22	220	130	1.56	150	110	1.88	130	94	2.38	150	84
S16	0.86	240	150	0.88	240	130	1.56	220	110	1.88	170	110	2.08	170	79	2.22	150	63
S17	0.56	220	110	0.84	220	110	0.98	170	110	1.14	150	110	1.52	130	94	1.86	120	84
S18	1.04	220	110	0.58	240	150	0.94	220	130	1.24	150	110	1.86	130	94	2.54	150	94

Sl. No.	July, 19			August, 19			September, 19			October, 19			November, 19			December, 19		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	2.78	150	110	2.88	170	120	2.74	280	150	2.10	240	120	1.64	170	63	1.02	110	43
S 2	2.64	130	110	2.76	130	70	2.48	210	84	2.22	210	79	2.04	210	63	1.56	170	58
S 3	1.98	120	33	1.64	170	63	1.86	210	79	1.58	170	49	1.14	150	33	1.02	130	33
S 4	1.38	150	46	1.46	170	46	1.28	150	49	1.06	130	46	0.86	110	32	0.74	110	27
S 5	1.58	120	43	1.94	170	70	2.22	170	94	2.04	150	84	1.64	120	58	1.18	110	41
S 6	2.34	130	49	2.18	170	63	2.04	150	58	1.58	130	47	1.58	110	34	1.14	110	33
S7	2.48	120	46	2.26	150	79	2.04	220	110	1.82	220	110	1.24	170	46	1.08	150	31
S8	2.38	150	110	2.56	130	79	2.28	210	94	2.04	170	70	1.86	150	47	1.52	120	37
S9	3.44	920	220	3.86	920	280	2.98	920	350	2.54	920	350	2.22	540	280	2.14	430	220
S10	2.54	150	84	2.28	280	94	1.84	240	70	1.68	220	43	1.32	170	33	1.26	120	33
S11	1.98	150	70	1.56	170	79	1.28	150	63	1.16	150	47	1.16	150	47	1.02	120	39
S12	2.42	130	63	2.16	170	70	1.56	170	58	1.18	150	31	1.02	130	27	0.84	120	23
S13	2.16	150	58	1.56	170	63	1.78	220	79	1.52	210	70	1.18	170	70	1.01	120	58
S14	2.22	150	70	2.56	350	120	2.24	350	150	2.02	350	130	2.02	350	130	1.52	280	110
S15	2.42	120	63	2.38	170	79	2.14	170	70	2.08	150	63	1.48	120	48	1.24	110	41
S16	2.54	120	70	2.18	210	94	2.24	170	70	2.02	210	70	1.56	170	48	1.22	150	33
S17	1.54	150	63	1.22	170	94	1.68	220	94	1.32	220	84	1.04	170	58	0.84	140	41
S18	2.68	150	46	2.14	170	58	2.38	220	79	2.38	210	70	2.02	120	46	1.94	110	33

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 20			February, 20			March, 20			April, 20			May, 20			June, 20		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.28	110	33	1.04	84	27	1.54	220	63	1.36	210	58	1.58	170	26	1.74	150	26
S 2	1.34	150	46	1.08	130	38	1.7	280	70	1.4	220	58	1.56	170	58	1.76	220	70
S 3	0.92	110	26	1.36	70	25	1.2	170	43	1.0	170	32	1.18	150	40	1.12	120	38
S 4	0.82	110	22	0.78	63	17	0.5	170	41	0.3	140	31	0.88	130	27	0.56	110	25
S 5	1.02	110	33	1.10	70	21	1.1	140	34	0.9	110	25	1.26	94	25	1.04	84	31
S 6	1.36	110	32	1.12	63	25	1.1	120	27	0.9	94	22	1.38	120	33	1.12	94	26
S7	0.74	120	26	1.28	110	21	1.5	220	63	1.4	170	58	1.78	210	79	1.28	170	43
S8	1.24	110	26	1.08	94	26	1.5	240	39	1.3	220	27	1.14	210	31	1.62	220	49
S9	2.34	430	170	2.68	350	140	2.3	240	120	2.2	240	120	2.64	220	84	2.56	170	84
S10	1.08	110	31	1.16	84	22	1.5	240	48	1.2	220	47	1.56	210	41	1.32	170	41
S11	0.94	110	31	0.82	70	26	1.3	220	31	1.3	220	47	1.18	150	33	1.08	120	33
S12	0.68	110	23	0.86	70	21	1.4	150	34	1.0	120	22	1.26	110	33	1.08	110	33
S13	0.98	110	47	1.22	84	32	1.2	140	31	0.9	120	25	1.02	110	31	0.66	94	25
S14	1.38	240	94	1.04	140	84	1.2	79	31	1.0	63	22	1.14	70	26	1.02	58	25
S15	1.24	110	41	1.08	84	31	0.6	63	17	0.7	70	25	1.04	63	32	0.88	58	21
S16	1.06	120	25	1.14	94	21	1.3	120	26	1.2	94	17	1.56	84	34	1.12	58	15
S17	0.68	120	40	0.54	110	26	0.9	110	27	0.8	94	22	0.94	94	33	0.78	63	15
S18	1.82	110	31	1.28	58	17	0.6	110	25	0.6	94	25	0.88	110	32	0.52	84	27

Sl. No.	July, 20			August, 20			September, 20			October, 20			November, 20			December, 20		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.08	170	63	1.22	210	70	1.08	120	63	1.08	170	63	1.32	150	63	0.86	120	47
S 2	1.92	240	63	2.08	240	63	1.56	220	63	2.26	220	58	1.36	170	70	1.86	150	46
S 3	1.34	150	94	1.54	170	49	1.28	150	25	1.48	150	39	1.36	170	33	1.08	130	31
S 4	0.88	150	47	1.06	170	58	1.14	110	32	0.98	150	47	1.38	170	58	0.52	130	38
S 5	1.26	94	47	1.38	120	32	1.08	110	17	1.08	110	27	1.28	170	31	0.94	94	25
S 6	1.46	110	41	1.78	140	47	1.36	120	25	1.24	130	40	1.56	150	33	0.88	110	33
S7	1.34	220	48	1.28	220	58	1.10	170	38	1.48	220	47	1.78	220	58	1.14	150	31
S8	1.56	150	25	1.72	170	26	1.48	140	17	1.62	150	25	1.48	130	33	1.14	110	17
S9	1.34	220	94	1.98	280	70	1.26	240	58	1.84	220	63	2.04	220	58	1.12	280	48
S10	1.42	210	63	1.56	170	58	0.98	150	39	1.28	170	48	1.58	210	58	0.96	170	33
S11	1.26	170	47	1.36	150	48	1.28	120	39	1.22	130	32	1.28	130	40	0.98	110	25
S12	1.14	170	63	1.36	150	58	1.1	130	25	1.22	120	48	1.14	120	25	0.98	110	25
S13	1.08	94	41	1.22	84	33	0.88	84	17	1.08	63	17	1.36	150	31	0.78	48	11
S14	1.14	84	34	1.28	110	38	0.48	110	21	1.12	94	32	1.38	110	26	0.96	70	17
S15	0.98	94	46	1.14	140	58	1.02	120	58	1.02	110	40	1.42	210	58	0.76	63	25
S16	1.28	84	23	1.44	110	38	0.58	94	17	1.18	94	33	1.14	210	63	0.86	70	21
S17	0.98	84	23	1.12	84	32	0.56	70	26	1.02	63	25	1.26	130	33	0.74	40	21
S18	0.78	110	48	1.26	120	58	0.88	110	26	1.18	110	47	1.32	170	39	0.88	94	33

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 21			February, 21			March, 21			April, 21			May, 21			June, 21		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.08	170	47	1.36	170	63	1.5	170	58	1.4	210	70	1.5	220	70	1.8	240	70
S 2	1.56	210	58	2.48	210	58	2.5	350	47	2.7	240	84	2.8	280	84	2.9	280	94
S 3	1.46	150	47	1.58	170	58	1.8	210	33	1.6	210	63	1.8	240	63	1.9	280	63
S 4	1.32	150	33	1.48	170	58	1.5	210	47	1.7	220	70	1.8	240	70	1.9	280	70
S 5	1.14	120	33	1.18	130	47	1.3	140	48	1.3	140	58	1.6	170	63	1.8	210	63
S 6	1.56	150	41	1.64	170	58	1.8	170	58	1.8	220	84	1.9	240	84	2.1	280	84
S7	1.46	170	32	1.76	220	40	1.8	280	43	2.1	280	58	2.5	280	58	2.6	280	63
S8	1.22	150	17	1.56	170	27	1.2	280	15	1.8	210	38	1.9	240	40	2.3	280	58
S9	1.54	350	63	1.98	350	70	1.6	430	63	2.5	430	84	2.6	430	94	2.8	540	94
S10	1.46	210	33	1.74	220	48	1.6	220	43	2.0	280	58	2.2	350	63	2.6	350	63
S11	1.22	150	33	1.36	170	41	1.1	210	38	1.5	210	48	1.8	220	58	1.9	240	63
S12	1.36	150	26	1.44	150	32	1.2	170	38	1.8	170	40	1.9	210	47	1.8	220	48
S13	1.22	110	27	1.32	130	33	1.48	150	38	1.7	170	48	1.8	210	48	1.9	220	48
S14	1.32	110	33	1.46	120	40	1.1	150	43	1.6	170	63	1.8	210	63	1.9	220	63
S15	1.28	63	21	1.34	110	27	1.2	120	33	1.7	170	40	1.9	210	49	2.1	220	58
S16	1.18	63	26	1.42	63	32	1.2	70	40	1.6	94	58	1.8	110	58	1.9	140	58
S17	1.42	94	26	1.56	110	32	1.68	150	40	1.8	170	58	1.9	170	63	2.1	210	63
S18	1.22	94	38	1.56	110	40	1.6	150	43	1.8	170	58	1.7	210	63	1.8	220	70

Sl. No.	July, 21			August, 21			September, 21			October, 21			November, 21			December, 21		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.7	240	70	1.8	280	84	1.5	280	84	1.2	240	63	1.1	210	58	1.1	150	38
S 2	2.8	350	94	2.8	430	110	2.9	430	120	2.6	430	94	2.4	350	63	2.2	280	58
S 3	2.1	280	63	2.2	280	63	2.1	240	58	1.8	210	43	1.6	170	38	1.3	150	58
S 4	1.9	350	70	2.1	350	84	1.9	350	79	1.4	220	58	1.2	210	58	1.3	140	58
S 5	1.9	220	63	2.1	240	63	1.8	220	58	1.1	130	27	1.1	130	26	1.1	98	32
S 6	2.2	280	84	2.4	280	84	2.2	240	63	1.9	170	43	1.6	150	41	1.5	170	58
S7	2.8	350	63	2.9	350	63	2.6	350	63	2.4	280	58	2.2	240	49	1.7	210	47
S8	2.4	350	63	2.5	350	63	2.4	430	63	2.2	350	58	2.1	350	58	1.9	280	47
S9	2.9	540	94	3.2	540	94	2.9	540	94	2.6	540	84	2.4	430	70	2.5	350	84
S10	2.7	350	63	2.8	350	63	2.6	350	58	2.2	280	47	2.1	240	43	1.7	220	58
S11	2.1	280	63	2.2	280	63	1.9	240	58	1.5	210	41	1.2	170	32	1.3	170	31
S12	1.9	240	58	2.1	280	58	1.8	240	58	1.4	210	43	1.2	170	33	1.5	110	31
S13	2.2	240	58	2.3	240	58	2.1	220	48	1.8	170	47	1.6	150	40	1.5	110	41
S14	2.1	240	63	2.2	280	63	1.9	240	58	1.8	220	47	1.6	210	41	1.2	150	41
S15	2.4	240	58	2.5	240	58	2.3	220	47	1.8	210	40	1.5	210	38	1.5	150	33
S16	2.2	170	58	2.2	210	58	2.1	210	47	1.9	210	41	1.7	210	40	1.3	84	33
S17	2.4	240	63	2.5	240	63	2.1	220	47	1.8	170	43	1.6	150	41	1.5	130	38
S18	1.9	240	70	2.1	240	63	1.8	220	48	1.6	210	41	1.4	170	41	1.5	130	47

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 22			February, 22			March, 22			April, 22			May, 22			June, 22		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.18	130	41	1.1	130	39	1.3	150	47	1.4	170	58	1.5	170	63	1.7	210	70
S 2	2.14	170	58	1.9	150	47	2.1	170	58	2.4	240	63	2.5	280	70	2.6	350	94
S 3	1.12	130	47	1.2	110	38	1.4	130	47	1.6	150	58	1.8	210	58	1.9	220	84
S 4	1.12	110	38	1.1	94	26	1.3	110	41	1.4	150	58	1.4	170	58	1.6	210	63
S 5	1.08	84	25	1.1	63	21	1.2	84	34	1.2	110	46	1.3	120	48	1.4	150	58
S 6	1.34	150	48	1.2	130	32	1.5	150	58	1.8	170	63	1.9	210	63	2.2	240	70
S7	1.52	170	32	1.3	150	32	1.6	170	39	1.9	240	58	1.5	280	63	2.4	350	84
S8	1.28	150	22	1.2	120	21	1.5	140	26	1.8	210	48	2.1	220	58	1.4	240	63
S9	2.26	280	63	2.1	280	47	2.4	350	58	2.7	430	70	2.8	430	79	2.9	430	84
S10	1.1	170	41	1.4	150	32	1.8	170	38	1.9	210	58	2.0	220	63	1.9	240	70
S11	1.22	150	25	1.1	130	21	1.3	170	27	1.4	170	31	1.5	210	40	1.8	240	47
S12	1.36	84	25	1.2	63	21	1.4	84	26	1.5	94	27	1.7	150	39	1.9	210	48
S13	1.36	84	33	1.4	94	31	1.4	94	31	1.5	110	39	1.6	120	48	1.8	130	48
S14	1.18	130	38	1.1	120	27	1.3	150	38	1.4	170	41	1.5	170	43	1.6	210	58
S15	1.34	120	21	1.2	110	21	1.4	130	32	1.4	150	40	1.5	170	40	1.7	210	48
S16	1.14	58	17	1.1	48	17	1.4	58	17	1.4	63	22	1.4	110	38	1.6	140	47
S17	1.38	110	21	1.2	84	21	1.3	94	22	1.3	110	38	1.5	120	40	1.6	150	48
S18	1.32	110	38	1.4	110	39	1.4	110	39	1.5	120	39	1.6	150	48	1.8	170	58

Sl. No.	July, 22			August, 22			September, 22			October, 22			November, 22			December, 22		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.9	220	83	1.9	220	83	1.8	210	70	1.3	150	47	1.2	130	47	1.2	110	43
S 2	2.7	350	94	2.8	350	94	2.6	350	84	2.1	220	63	1.1	210	63	1.8	170	63
S 3	2.1	240	84	2.3	280	94	2.1	240	94	1.4	150	48	1.3	130	47	1.2	120	41
S 4	1.7	220	63	1.8	240	63	1.6	220	58	1.4	130	47	1.3	120	41	1.2	110	39
S 5	1.5	170	63	1.7	210	63	1.5	170	58	1.1	110	43	1.1	110	41	1.1	110	39
S 6	2.4	280	84	2.6	280	84	2.2	240	70	1.6	150	63	1.5	130	58	1.4	120	49
S7	2.5	430	110	2.7	430	130	2.6	430	110	1.8	220	58	1.7	210	58	1.5	170	48
S8	2.2	280	79	2.4	280	63	2.2	240	63	1.5	210	47	1.3	170	38	1.3	170	38
S9	3.1	430	94	3.3	430	110	3.1	430	94	2.6	430	70	2.2	430	63	2.1	430	63
S10	2.5	280	84	2.4	280	94	2.2	240	84	1.8	210	48	1.7	170	46	1.6	170	43
S11	1.8	240	58	1.9	280	63	1.7	240	58	1.3	150	31	1.2	130	31	1.2	120	31
S12	1.6	210	48	1.7	220	58	1.6	210	58	1.4	94	26	1.2	94	26	1.2	94	26
S13	1.9	150	58	1.9	170	58	1.8	150	47	1.3	110	32	1.2	94	32	1.2	94	26
S14	1.5	220	63	1.6	240	63	1.4	220	63	1.3	150	38	1.2	130	38	1.2	120	32
S15	1.8	220	58	1.9	240	58	1.6	220	58	1.3	150	38	1.3	130	38	1.2	120	38
S16	1.7	170	58	1.8	210	58	1.6	210	48	1.3	63	22	1.2	58	22	1.2	58	22
S17	1.8	170	58	1.9	210	63	1.7	170	58	1.2	94	38	1.1	94	33	1.1	94	31
S18	1.9	170	58	2.2	170	58	2.1	140	43	1.4	110	39	1.5	94	27	1.6	94	27

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

ANALYTICAL RESULTS OF SURFACE WATER SAMPLES COLLECTED FROM SIX IDENTIFIED RIVER STRETCH OF TRIPURA

Sl. No.	January, 23			February, 23			March, 23			April, 23			May, 23			June, 23		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.1	110	41	1.1	94	39	1.1	110	39	1.3	120	41	1.4	130	47	1.6	150	47
S 2	1.6	150	58	1.5	130	47	1.6	130	48	1.8	150	58	1.9	170	63	2.2	210	63
S 3	1.2	110	41	1.1	110	39	1.2	120	39	1.2	130	47	1.3	150	58	1.5	170	58
S 4	1.1	110	39	1.1	94	27	1.1	94	27	1.3	110	38	1.3	110	46	1.5	120	58
S 5	1.1	110	38	1.1	110	38	1.4	110	41	1.5	120	47	1.5	130	58	1.7	150	63
S 6	1.3	110	47	1.2	110	43	1.2	120	43	1.3	120	48	1.4	120	58	1.6	140	58
S7	1.4	150	47	1.2	130	43	1.2	150	43	1.3	150	58	1.6	170	84	1.9	220	94
S8	1.2	140	38	1.2	130	38	1.3	130	38	1.3	150	47	1.5	170	63	1.7	210	63
S9	1.9	350	58	1.7	350	49	1.8	350	63	1.9	350	84	2.1	430	110	2.3	430	120
S10	1.4	170	43	1.2	150	43	1.4	170	58	1.4	220	63	1.5	240	63	1.8	280	70
S11	1.2	110	31	1.2	110	27	1.2	120	27	1.3	130	39	1.3	150	43	1.4	170	48
S12	1.2	94	26	1.2	94	23	1.3	110	25	1.4	120	32	1.4	150	38	1.5	170	41
S13	1.1	94	26	1.1	94	26	1.2	110	26	1.2	120	32	1.3	130	41	1.8	170	47
S14	1.2	110	31	1.1	94	31	1.1	94	31	1.2	110	31	1.3	120	34	1.4	140	43
S15	1.1	110	33	1.1	110	31	1.2	130	38	1.3	130	41	1.3	130	43	1.4	130	43
S16	1.2	58	22	1.2	49	22	1.2	63	25	1.4	110	31	1.5	170	47	1.6	170	48
S17	1.1	84	31	1.1	63	27	1.2	79	27	1.3	94	31	1.3	120	38	1.4	130	41
S18	1.4	84	27	1.3	84	27	1.3	94	31	1.3	110	38	1.3	120	38	1.4	120	38

Sl. No.	July, 23			August, 23			September, 23		
	BOD	TC	FC	BOD	TC	FC	BOD	TC	FC
S 1	1.7	170	47	1.8	210	58	1.7	210	48
S 2	1.9	350	94	2.6	350	110	2.4	350	84
S 3	1.6	210	58	1.8	240	63	1.5	220	63
S 4	1.7	170	58	1.8	210	63	1.6	170	58
S 5	1.8	170	63	1.9	210	63	1.8	170	58
S 6	1.7	150	58	1.8	170	63	1.6	150	58
S7	2.1	280	94	2.6	350	110	2.5	350	70
S8	1.8	220	63	1.9	240	70	1.8	220	58
S9	2.6	540	130	2.9	540	140	2.8	430	110
S10	2.2	350	94	2.6	430	110	2.6	350	90
S11	1.6	220	58	1.8	240	63	1.6	220	58
S12	1.6	210	47	1.8	220	58	1.6	220	48
S13	1.9	170	48	2.1	210	58	1.8	170	48
S14	1.6	170	47	1.8	210	58	1.8	210	48
S15	1.6	150	47	1.8	170	58	1.7	150	58
S16	1.7	170	48	1.9	210	58	1.7	170	58
S17	1.5	150	47	1.7	170	47	1.5	150	47
S18	1.5	140	41	1.6	150	48	1.4	150	48

**BOD = Bio Chemical Oxygen Demand, TC = Total Coliform, FC = Faecal Coliform*

Site of Collection

S-1: Gomti River at Jatanbari, S-2: Gomti River at Sonamura, S-3: Gomti River at Rajdharnagar, S-4: Gomti River at Amarpur, S-5: Gomti River at Tirthamukh, S-6: Gomti River at Subhashsetu, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-10: Haora River at Aralia, S-11: Haora River at Kalabagan, S-12: Haora River at Joynagar, S-13: Manu River at Kailasahar, S-14: Khowai River at Trishabari, S-15: Khowai River at Kumari Madhuti setu, S-16: Khowai River at Chakmaghat, S-17: Khowai River at Karailong, S-18: Juri River at Krishnapur.

A. Materials and Methods:

Surface water samples from the six identified river stretches of Tripura were collected on monthly basis. The collected samples were analyzed in the laboratory of TSPCB using the standard methods given in **APHA, 2012** (*American Public Health Association).*

B. Observations:

From the analytical results it has been observed that, in 2016, six river stretches in Tripura (S-2: Gomti River at Sonamura, S-7; Burigaon River at Bishalgarh, S-8: Haora River at Chandrapur, S-9: Haora River at Dashamighat, S-13: Manu River at Kailasahar, S-18: Juri River at Krishnapur) having BOD values beyond the prescribed standard limit of CPCB (3mg/liter) for June & July, 2016. The BOD values were higher than the prescribed standards for five locations (S-2: Gomti River at Sonamura, S-7; Burigaon River at Bishalgarh, , S-9: Haora River at Dashamighat, S-13: Manu River at Kailasahar, S-18: Juri River at Krishnapur) in August, 2016, Two locations (S-2: Gomti River at Sonamura, S-18: Juri River at Krishnapur) in September, 2016 & one location (S-18: Juri River at Krishnapur) for October & November, 2016 respectively. Following after 2016, among the six identified rivers stretches in Tripura, 5 stretches having BOD; Total Coliform & Faecal Coliform values were within the prescribed standard limit of CPCB for Class-B (Water for Outdoor Bathing). The BOD values of one river stretch that is Haora River were slightly beyond the prescribed standard limit of CPCB for particular one location (Dashamighat, Haora) for few months only.

01/12/2023

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