

**IN THE NATIONAL GREEN TRIBUNAL,  
NEW DELHI**

**MA No.58/2024 in OA No.147 of 2022**

**IN THE MATTER OF:**

Krishna Das K V

... Applicant

VS

State of Kerala

... Respondent

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Filed on: 16/02/2025

**Action Taken Report filed on behalf of the Chief Secretary, Government of Kerala (1<sup>st</sup> Respondent) before the Hon'ble National Green Tribunal, Principal Bench in MA No.58/2024 in OA No.147/2022**

**Krishna Das K V**

**Applicant**

**Versus**

**State of Kerala**

**Respondent**

The Hon'ble National Green Tribunal vide order dated 07/01/2025 in MA No.58/2024 in OA No.147/2022 had issued the following directions:

The Hon'ble NGT, Principal Bench, New Delhi has directed the Chief Secretary, Government of Kerala to furnish the details of the State Level Monitoring Committee chaired by Hon'ble Justice A.V. Ramakrishna Pillai (Former Judge, High Court of Kerala). In addition to the above, the Hon'ble Tribunal has ordered for furnishing details on the following points:

- “ Chief Secretary, State of Kerala should file its response as to what Steps that have been taken for protection of important Ramsar site (Ashtamudi Lake and Vembanad wetland) from its deterioration and damage in the manner it has been reported. Reply shall be filed by Chief Secretary, State of Kerala within three weeks.
- Chief Secretary, State of Kerala shall also submit particulars and details of action taken with respect of industries or local bodies, etc. which are discharging effluent and other polluting matter in the lakes, as also water quality of Ashtamudi lake
- Tribunal has earlier found that water quality of both water bodies is in Class ‘D’ of primary water quality criteria thereby not complying with ‘bathing’ standards. In view of earlier orders, we also issue further following directions to Chief Secretary to inform:

i. What is status of utilization of Rs.10 crores as compensation and extent of environmental compensation utilization for restoration?

ii. What concrete actions have been taken to prevent sewage disposed in two water bodies through House Boats, Panchayats, Corporations, industries, flat owners, resorts and others?

iii. What are achievements as per action plan with time bound activities to be completed? ”

It is respectfully submitted that the Principal Bench, Hon'ble NGT, New Delhi as per the order dated 16.01.2019 in OA No. 606/2018 had directed to constitute State Level Committee in Kerala instead of Regional Monitoring Committee under the Chairmanship of Hon'ble Justice A.V. Ramakrishna Pillai, Former



Judge, High Court of Kerala for monitoring the compliance of Solid Waste Management Rules 2016.

In compliance to the above order dated 16.01.2019, KSPCB vide order No.PCB/HO/EE4/NGT-SWM/SLC/8/2019 Dated 30.01.2019 has constituted the State Level Committee in Kerala for monitoring the compliance of Solid Waste Management Rules, 2016 under the Chairmanship of the Hon'ble Justice A.V. Ramakrishna Pillai, Former Judge, High Court of Kerala with the Member Secretary, Kerala State Pollution Control Board as the Member Secretary of the Committee, other members being Secretaries, Urban Development/Local Bodies/Local Self-Government, Environment, Rural Development, Health and representative of CPCB. (attached as **Annexure A**)

**The State Level Committee for monitoring the compliance of Solid Waste Management Rules, 2016 under the Chairmanship of the Hon'ble Justice A.V. Ramakrishna Pillai, former Judge High Court of Kerala is still continuing. The Committee have also submitted various reports to Hon'ble NGT. The last report on fish killing in Ashtamudi lake was submitted on 27.10.2024.**

It is submitted that various actions have been taken by the Government for the protection of the Vembanad and Ashtamudi lakes by the involvement of respective local bodies in the catchment area. The Kerala State Pollution Control Board is engaged in monitoring the consent conditions applicable to industries and taking action against any violations as and when noticed. No industries are allowed to discharge effluents without treatment to any waterbody. Continuous and consistent monitoring activities to the maximum extent possible are being carried out by local bodies and KSPCB to trace violations and to book the violators. The pollution sources include domestic sewage and solid waste. For proper enforcement of Solid Waste Management Rules, strict fining of violators and slapping of Environment Compensation notices were taken up. The institutions found evading the statutory consent regime were made to apply for statutory consents to scrutinize their function in respect of waste management. The Cochin Port Trust has now applied for the statutory consent of the Board and the application is being processed. The fishing harbours are also directed to register under the consent regime of the KSPCB for strengthening enforcement. Sanitation surveys like that at Ashtamudi lake (covering Kollam Corporation & 12 Panchayats) were taken up as part of identifying pollution. Pollution hotspots were identified and joint inspection of various stakeholder Departments were also carried out.

The Irrigation Department and Kerala Water Authority under the Water Resources Department are engaged in desilting & rejuvenating the water bodies



and setting up & making operational sewage treatment plants / faecal sludge treatment plants respectively to treat the sewage waste generated respectively.

Multipronged approach with interdisciplinary involvement is vital to address the pollution problems in Vembanad & Ashtamudi as these are very complex ecosystems. Preventing entry of liquid & solid wastes into these systems and cleaning up the already polluted water bodies are part of the approach. Apart from this, protection of the biodiversity of the wetlands by taking measures under the Wetland Act/Rules and taking up IEC (Information, Education & Communication) initiatives to spread awareness and thereby preventing pollution are also vital in ensuring & sustaining the biodiversity of these systems.

The activities of the State Wetland Authority Kerala (SWAK) to comply with the Wetlands (Conservation & Management) Rules, 2017 is already taken up. The measures taken for ensuring sustainable clam cultivation, notification of wetlands, clean up programme under "Swachhta Pakhwada" campaign of the avian hotspots in Vembanad are some of the major initiatives taken under Wetland Rules. The Integrated Management Action Plan of Vembanad kol wetland complex is already revised as per the new guidelines of the scheme - National Plan for Conservation of Aquatic Eco-systems (NPCA) and the final draft is approved by the technical committee of SWAK and placed for the approval of the authority concerned. This will further be transmitted to Wetlands Divisions of MoEF&CC, GoI. Catchment conservation measures have also been initiated for the Ramsar wetland sites through Soil Survey & Soil Conservation Department. Waterbird Census Project in the Ramsar sites is awarded to Kerala Agricultural University. Continuous operational & regular water sediment quality monitoring is being carried out by CWRDM and Wetland Inventory Assessment and Monitoring System (WIAMS) projects in Ashtamudi & Vembanad kol Wetlands. The data is already uploaded and this is visible for stakeholders and the public. Based on the results the pollution abatement plan is also being prepared by CWRDM. As part of action in respect of Ashtamudi wetland, climate resilient farming will be implemented through Munroethuruthu agricultural Office and Munroethuruthu Grama Panchayat.

Monitoring Committee meetings under the chairmanship of the Secretary Environment Department were held on 21/12/2022, 04/01/2023, 25/02/2023, 22/03/2023, 30/03/2023, 28/04/2023, 17/05/2023 & 18/08/2023 for reviewing the activities taken up in connection with the protection of Vembanad & Ashtamudi lakes. Review meetings at Chief Secretary level were also taken up on 05/04/2022, 03/02/2023, 12/04/2023, 21/08/2023 and 08/07/2024.



It is submitted that in compliance with the order dated 07-01-2025 of the Hon'ble National Green Tribunal in MA No.58/2024 in OA No.147/2022 the activities undertaken so far for protection of Ramsar sites is hereby reported..

**1. Report on expenditure towards conservation/restoration of water quality in Vembanad and Ashtamudi Ramsar wetlands post Hon'ble NGT order dated 22/03/2023 in OA No.147/2022**

The details of various projects related to the rejuvenation of water bodies, including setting up of sewage treatment plants (STPs), faecal sludge treatment plants (FSTPs), and biomining under the directive of the National Green Tribunal (NGT) in connection with OA No.147/2022 are given below. The details reflect expenditure as of March 31, 2023 and from April 1, 2023 to January 15, 2025.

**1. Kollam Corporation**

**1.1 12 MLD STP at Kureepuzha, Kollam Corporation**

- Implementing Agency: KWA
- AS Amount: ₹31.92 Cr.
- Expenditure as on 31.03.2023: ₹ 11.37 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹10.90 Cr.
- Remarks: The excess approval for the 50 KLD FSTP tender is under government approval.

**2. Kochi Corporation**

**2.1 5 MLD STP at Elamkulam, Kochi Corporation**

- Implementing Agency: KWA
- AS Amount: ₹16.52 Cr.
- Expenditure as on 31.03.2023: ₹ 13.72 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.94 Cr.

**2.2 Biomining at Kochi Corporation**

- Implementing Agency: Bhumi Green Energy
- Revised AS Amount: ₹142.6 Cr.



- Expenditure as on 31.03.2023: ₹ 8.53 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹44.24 Cr.

### 2.3 1.1 MLD STP at Ambedkar Colony, Div-16, Edakochi South, Kochi Corporation

- Implementing Agency: Kochi Corporation
- Revised AS Amount: 18.66 Cr
- Expenditure as on 31.03.2023: ₹ 0.55 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹10.86 Cr

## 3. Alappuzha Municipality

### 3.1 240 KLD STP at General Hospital, Alappuzha Municipality

- Implementing Agency: Alappuzha Municipality
- AS Amount: ₹3.45 Cr.
- Expenditure as on 31.03.2023: ₹ 0.63 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹2.60 Cr.

### 3.2 Mobile FSTP (10 KLD x 2 nos.), Alappuzha Municipality

- Implementing Agency: Alappuzha Municipality
- AS Amount: ₹1.15 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.83 Cr.

### 3.3 Biomining at Alappuzha Municipality (1<sup>st</sup> Phase)

- Implementing Agency: SBM/SKU/CFC
- AS Amount: ₹7.4 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹3.7 Cr.

### 3.4 Mobile Treatment Unit at Alappuzha Municipality

- Implementing Agency: Alappuzha Municipality
- AS Amount: ₹1.15Cr

- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.48 Cr.

### 3.5 Rejuvenation of Canals within Alappuzha municipality

- Implementing Agency: Alappuzha Municipality
- AS Amount: ₹ 48.17 Cr
- Expenditure as on 31.03.2023: ₹ 43 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹ 47.93 Cr

## 4. Cherthala Municipality

### 4.1 250 KLD FSTP at Cherthala Municipality

- Implementing Agency: IMPACT Kerala
- AS Amount: ₹7.83 Cr.
- Expenditure as on 31.03.2023: ₹ 0.19 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹4.65 Cr.

### 4.2 Rejuvenation of Canals within Cherthala Municipality

- Implementing Agency: Cherthala Municipality
- AS Amount: ₹0.36 Cr.
- Expenditure as on 31.03.2023: ₹ 0.15 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.22 Cr.

## 5. Kottayam Municipality

### 5.1 Side Protection of Various Thodu at Kottayam Municipality

- Implementing Agency: Kottayam Municipality
- AS Amount: ₹0.50 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.48 Cr



## 6. Marad Municipality

### 6.1 Rejuvenation of Canals within Maradu Municipality

- Implementing Agency: Municipality
- AS Amount: ₹1.21 Cr.
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.63 Cr.

## 7. Changanassery Municipality

### 7.1 Rejuvenation of Canals within Changanassery Municipality

- Implementing Agency: Municipality
- AS Amount: 0.5 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.36Cr

### 7.2 Biomining at Fathimapuram Dumping Site

- Implementing Agency: Socio Economic Foundation Unit
- AS Amount: 0.65 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.065 Cr.

## 8. Vaikom Municipality

### 8.1 Rejuvenation of canals within Vaikom Municipality

- Implementing Agency: Municipality
- AS Amount: ₹1.20 Cr
- Expenditure as on 31.03.2023: ₹0.36 Cr
- Expenditure (from 01.04.2023 till 15.01.2025): ₹0.84 Cr

Total expenditure towards conservation / restoration of Ramsar sites –  
Ashtamudi/Vembanad lakes after Hon'ble NGT order 22/03/2023 in  
present case is Rs 129.75 Cr

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## 2. ACTIONS TAKEN TO PREVENT SEWAGE DISPOSAL IN ASHTAMUDI AND VEMBANAD LAKES

The Kerala State Pollution Control Board had developed action plan for waste management in 2022 for the local bodies situated in the catchment area of both the lakes. The main local bodies in the Vembanad lake are Kochi Corporation and Municipalities namely Alappuzha, Cherthala, Aluva, Marad, Thripunithura, Vaikom, Kottayam and 36 grama panchayats. The main local bodies situated in the catchment area of the Ashtamudi lake are Kollam Corporation and 12 grama panchayats. These action plans are being implemented by the concerned authorities and Local bodies.

Sanitation survey was carried out in Ashtamudi lake, using mobile app A-SAN, for identifying the pollution sources. The reports and findings of the survey were shared with Kollam Corporation & 12 Gramapanchayats concerned, Sanitation survey was also conducted along the drains leading to Ashtamudi lake namely Kollam canal, Manichithodu, TS canal with the support of students of Engineering College.

As part of containing pollution of Vembanad & Ashtamudi lake, the Kerala State Pollution Control Board had entrusted CSIR-NEERI to conduct a feasibility study on the development of process package for the treatment of domestic sewage of Edappally & Perandoor canal at Ernakulam and Pallikalar at Kollam for meeting environmental compliance. The pre monsoon and post monsoon field visit and monitoring of CSIR-NEERI has been completed and project is progressing.

Frequent inspections were conducted in hospitals, malls, flats, hotels and industrial units situated in the catchment area of Ashtamudi and Vembanad Lake and notices were issued in cases where violations were noticed. Further, hearings were also conducted and directions issued to ensure proper waste management facilities.

### **2A. A brief description of the major intervention to contain pollution of Vembanad and Ashtamudi through setting up of STPs/FSTPs is listed below:**

Since one of the main pollution source of Vembanad and Ashtamudi lake is the domestic sewage, it is important to provide STPs/FSTPs for treatment of sewage generated. Hence the following projects have been implemented.

- (a) In Kochi Corporation, KWA had established a 5 MLD common sewage treatment plant at Elamkulam and the plant is functional.
- (b) For the co-treatment of septage in this Elamkulam plant, modification of earlier tanks were done and the same is to be recommissioned. NIIST has submitted a report to KWA, and the matter is being closely monitored.



- (c) 1.1 MLD STP project at Ambedkar Colony in Edakochi is progressing. 51% physical progress has been achieved.
- (d) One more STP plant of 5 MLD is planned at Elamkulam and its STP package has been tendered and Technical sanction is to be issued by KWA for the sewer network package.
- (e) In Kollam Corporation, construction of 12 MLD STP at Kureepuzha by Kerala Water Authority is progressing. 92% of physical progress has been achieved. Action is being taken for providing pipelines for carrying sewage into the CSTP. The Kerala State Pollution Control Board had issued letter to Kerala Water Authority to make the septage treatment plant operational. KSPCB also addressed the Police Department to intervene to prevent septage disposal by unauthorized tankers in Kollam.
- (f) In Cherthala Municipality, construction of 250 KLD Faecal Sludge Treatment Plant (FSTP) is progressing and 93% of physical progress has been achieved for civil works.
- (g) In Alappuzha Municipality, 2 Mobile FSTPs has been supplied. The construction of 240 KLD STP at General Hospital located at Alappuzha has been completed and is operational.
- (h) KSPCB is monitoring the individual STPs provided for malls, hospitals, hotels and flats and is issuing directions in case of non-compliance. In the case of old apartments, it is ensured that septic tank and soakpit was provided and thus discharge into the drains is stopped.
- (i) 630 houseboats in Alappuzha and 35 houseboats in Kollam have obtained Consent to Operate from the Kerala Pollution Control Board. Septage from the bio toilets in these houseboats is collected periodically and arrangements have been made for transporting the same through tankers to the septage treatment facility at Kochi Corporation. The houseboat upgradation project (Conversion of Diesel engine to Hybrid engine) in Vembanad-Kol wetland complex has been sought by State Wetland Authority Kerala (SWAK) from Kerala Houseboat Owners Association (KHBOA), Alappuzha. The project proposal was approved in June 2024 as a pilot project and the project has been successfully completed as part of implementation of the approved management action plan (MAP) of Vembanad-Kol wetland complex.

## 2B. Notification of Wetlands as per wetland Rules

As per Rule 5 of the Wetlands (Conservation & Management) Rules 2017, SWAK has to prepare a list of wetlands to be notified. Ground truthing/field verification were conducted along with KSREC and 40 wetlands were selected for notification as per the Rules implementation guidelines issued by MoEF&CC in January 2020. The 40 wetlands to be notified in the State were divided into 2 phases (each phase comprising 20 wetlands). District level consultation meetings with Local body secretaries, village officers, Taluk



officers and Deputy Collectors (LR) were already conducted for the 20 wetlands of the first phase in the years 2021 and 2023. The brief document preparation for the first phase has already been completed and approved by the Technical Committee, SWAK.

## **2C. Compliance to CRZ Notification of 2019**

Compliance to CRZ Rules, the State Government have prepared Coastal Zone Management Plan (CZMP) based on CRZ notification 2019. The MoEF&CC as per letter dated 16/10/2024 approved the CZMP of Kerala. Hence the provisions of CRZ notification 2019 is applicable to all Coastal Districts.

## **2D. Actions taken specifically for Vembanad-Kol Ramsar Wetland Complex**

1. 'Sustainable clam cultivation and enhanced livelihood for the Vembanad Estuary' Project was entrusted to CERC-ATREE and implemented as part of the approved management action plan (MAP) of Vembanad-Kol wetland complex. The project has been successfully completed and the major achievements of the project were clam relaying initiative, bamboo barriers installation, awareness creation and capacity building of the local fishermen, training on clam value addition and plastic waste collection from the estuary bottom sediment bed & recycling. Pathiramanal Island is an important ecological and avian hotspot in the Vembanad Estuary, south of Thanneermukkom Barrage. As part of the "Swatchchata Pakhwara" campaign, SWAK in association with CERC-ATREE, Alappuzha organized a clean-up drive in October 2023. Registered Wetland Mitras of the wetland complex along with Lake Protection Forum, NCC/SPC students and Muhamma Grama Panchayat Harithakarmasena members were engaged for the removal of plastics from the island.

2. For the Railway stations in Ernakulam North and South Environmental Compensation was imposed for not having adequate waste water treatment facility. Temporary facilities have been installed at North, South railway stations. Redevelopment activities including sewage treatment facility is progressing at the railway stations and matter is being followed up.

3. KSPCB had issued directions to comply with the environmental standards for waste disposal to KSRTC garage Aluva. A state wide study was undertaken by Suchitwa Mission, under the Local Self Government Department to access the gap in the Waste management of the establishments under the Kerala State Road Transport Corporation (KSRTC). This was undertaken as part of the "Malinyamuktha Nava Keralam" campaign of the State Government aided at ensuring Scientific Waste Management practices by all establishments in the state. Based on the findings of the study report further necessary actions will be taken up to address the gaps identified.



4.The remediation work of the oil contaminated area of 2000 sqft of the Diesel loco shed Ernakulam has been completed. It was reported by the railway that 32.875 MT of oil contaminated sludge was recovered from the contaminated area the same was disposed through Kerala Enviro Infrastructure Limited (KEIL), the authorised facility for handling hazardous waste.

5.Inspection was conducted at Railway marshalling yard and management of garbage was noted as improper. Instruction was issued to marshalling yard seeking explanation for not providing adequate waste water treatment facility at the unit.

6.After repeated communications with the Cochin Port, they have applied for Consent of the Kerala State Pollution Control Board to operate and the same is being processed.

7.Based on the inspection done at the Cochin Shipyard, directions were issued to take immediate action to treat the entire effluent generated and to handle the hazardous wastes as per Hazardous Waste Management Rules.

8.Surprise inspections done at service stations at Ernakulam and notices were issued to 8 units. Workshop was conducted for service station owners as part of awareness building and for ensuring compliance with environmental standards.

9.The Alappuzha District Enforcement Squad has conducted inspections at different units and 166 notices have been issued from KSPCB to the units where violations were noticed.

10.The society "Aroor - Chandiroor Common Effluent Plant for Treatment (ACCEPT)" constituted under the Chairmanship of District Collector, Alappuzha as a permanent solution for curbing pollution of Chandiroor Puthenthode from the fish processing and other industries situated in Chandiroor and action is being taken to implement a CETP project to treat the effluent generated from these units.

11.For the rejuvenation of Alappuzha-Sherthalai Canal (AS canal), Urban Water Body Rejuvenation Methodology Development Workshop was conducted at Thanneermukkam.

12.Inauguration of "Plastic Vimuktha Vembanad Mega Campaign" was conducted on 18.01.2025 at Punnamada. The Campaign focused mainly on two municipalities and 10 Gramapanchayats.

13.The activities namely desiltation of drains, installation of CCTV cameras and providing of fencing near waterbodies are being taken up.

14.The Kerala State Pollution Control Board is conducting inspection drives for thorough inspection at waste collection centres, material collection facilities,

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Resource recovery facilities and waste management facilities in local bodies and in health care facilities through employing 48 technical staffs (3 for each) to ensure compliance as per environmental norms in each district office of the Board for a period of 4 months. Actions are progressing in this regard.

## 2E. Actions taken specifically for Ashtamudi Ramsar Wetland

Kollam Municipal Corporation was directed to revise its project in compliance with the Wetlands (Conservation and Management) Rules, 2017 and to comply with the orders of the Hon'ble NGT(PB) in OA 147/2022. The project entitled 'Jeevananu Ashtamudi, Jeevikkanam Ashtamudi' - Rejuvenation of Ashtamudi water body by Kollam Municipal Corporation is a major intervention in the case of removal of sludge and wastes near the Asramam area of the Ashtamudi Ramsar wetland. The silts and waste materials near the Asramam link road were removed using silt pusher. Directions were also given to all the Local Self Governments near the wetlands to make sure that no wastes are deposited in the wetlands, invoking the statutory provisions of the Wetlands (Conservation and Management) Rules, 2017.

A project under the banner 'Suchitwa Sagaram' was implemented in Neendakara, Kollam which encouraged fisherman to scientifically dispose the plastic waste caught in fishnets while fishing. The joint venture of Fisheries & Harbour Departments helped the fishermen to bring back the plastic waste so caught in the fishnets to the harbour area and to enable proper clean up and shredding of plastic waste for further uses in a plant set up for the purpose. It is proposed to extend this type of activity to other harbours in the state as well.

## 2F. Monitoring of Vembanad and Ashtamudi Wetlands

The Kerala State Pollution Control Board is monitoring the water quality of 24 stations in Vembanad lake and 6 stations in Ashtamudi lake. Annual average values of the parameters pH, BOD, Dissolved Oxygen, Total coliform and Faecal coliform for the years 2022, 2023 and 2024 are attached as **Annexure B. The BOD value in 2024 is within the range of 3 mg/l (prescribed limit for bathing)** in all monitoring stations except in Andakaranazhi in Vembanad lake (4.25 mg/l) and Thoppilkadavu (the BOD value improved from 15.6 mg/l in 2022 to 3.1 mg/l in 2024) and near KSRTC bus depot (the BOD value improved from 17.9 mg/l in 2022 to 3.5 mg/l in 2024) in Ashtamudi lake. From the values it is clear that there is considerable improvement in water quality as has been observed in both the lakes in terms of BOD



### 3. ACHIEVEMENTS AS PER ACTION PLAN WITH TIME BOUND ACTIVITIES TO BE COMPLETED

1. As the water quality monitoring data from 24 stations in Vembanad lake and 6 stations in Ashtamudi lake, the average BOD value in 2024 is within the range of 3 mg/l (prescribed limit for bathing) in all monitoring stations (**Annexure B**) except in Andakaranazhi in Vembanad lake (4.25 mg/l) and Thoppilkadavu (the BOD value improved from 15.6 mg/l in 2022 to 3.1 mg/l in 2024) and near KSRTC bus depot (the BOD value improved from 17.9 mg/l in 2022 to 3.5 mg/l in 2024) in Ashtamudi lake. So, only 3 stations out of the 30 water quality monitoring stations situated in the lakes have BOD slightly more than 3 mg/l, which is a significant improvement in terms of BOD.

2. The projects 240 KLD STP at General Hospital, Alappuzha Municipality, 5 MLD STP at Elamkulam(1<sup>st</sup> Project) are completed. Mobile FSTPs at Alappuzha (2 Nos) are under trial run. The FSTP Cherthala, CSTP Kureepuzha are in the final stages of completion.

### TIME LINE FOR THE MAJOR PROJECTS AND PHYSICAL PROGRESS

S/N	Project	Physical Progress	Timeline
1	12 MLD STP at Kureepuzha, Kollam Corporation	92%	Was expected to be completed on 31.01.2025. But it may take some more time.
2	Co-treatment Works of the 5 MLD STP at Elamkulam, Kochi Corporation		Temporarily stopped due to choking. KWA has initiated action for rectification
3	1.1 MLD STP at Ambedkar Colony, Div-16, Edakochi South, Kochi Corporation	51%	30.06.2025
4	5 MLD STP at Elamkulam (2nd STP) & Associated Network, Kochi Corporation	Proposed	31.12.2026
5	105 KLD STP for RAY Flat, Fort Kochi, Kochi Corporation	Proposed	31.12.2026
6	1 MLD FSTP at Brahmapuram, Kochi Corporation	Proposed	31.12.2026

7	Mobile FSTP (10 KLD x 2 nos.), Alappuzha Municipality	FSTPs completed	Trial run going on
8	5 MLD STP at Alissery & Associated Network, Alappuzha Municipality	Proposed	31.12.2026
9	250 KLD FSTP at Cherthala Municipality	95%	28.02.2025

It is submitted that sincere efforts are being taken in a co-ordinated time bound manner for the conservation of Ramsar Sites (Ashtamudi lake and Vembanad lake)

Thus it is humbly requested that the above action taken report in compliance with the order dated 07.01.2025 of the Hon'ble Tribunal may kindly be accepted.

Dated this the day of 10<sup>th</sup> February 2025.



**SANTHOSH KUMAR. L.T.**  
**PEN 101730**  
**Additional Secretary to Govt.**  
**Environment Department**  
**Government Secretariat**  
**Thiruvananthapuram**  
**Phone : 0471 2510000**

Sub: Logistics and other facilities by the State Pollution Control Board to the Committee constituted by the Hon. NGT in OA No. 606/2018–Sanctioned-Orders issued

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**KERALA STATE POLLUTION CONTROL BOARD**

No. PCB/HO/EE4/NGT-SWM/SLC/8/2019

Dated: 30.01.2019

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Read: 1. Order of Hon. NGT in OA No. 606/2018 dated 16.01.2019

**ORDER**

Vide read (1), the Hon'ble NGT, Principal Bench, New Delhi has directed to constitute State Level Committee in Kerala instead of Regional Monitoring Committee under the Chairmanship of Hon'ble Justice A.V. Ramakrishna Pillai, Former Judge, High Court of Kerala for monitoring the compliance of Municipal Solid Waste Management Rules 2016.

Hence sanction is hereby accorded to constitute the State Level Committee in Kerala for monitoring the compliance of Municipal Solid Waste Management Rules, 2016 under the Chairmanship of Hon'ble Justice A.V. Ramakrishna Pillai, Former Judge, High Court of Kerala with Member Secretary, Kerala State Pollution Control Board as the Member Secretary of the Committee, other members being Secretaries, Urban Development/Local Bodies/Local Self-Government, Environment, Rural Development Health and representative of CPCB.

In view of Hon'ble NGT order, following directions are also issued.

1. Kerala State Pollution Control Board will provide Logistics and honorarium which can be met out from Environment Compensation funds on the basis of 'Polluter Pays Principle' or otherwise.
2. The Committees may work tentatively for six months or as may be found necessary.
3. The Committees may hold their first meeting positively before 15.02.2019 and thereafter hold meetings periodically as may be found necessary as per direction of the Chairperson of the committee.

4. Expenditure in connection will be met from the head of account 'State Level Monitoring Committee for Solid Waste Management Rules 2016'.

Sd/-

**CHAIRMAN**

To

1. Hon'ble Justice A.V. Ramakrishna Pillai  
Former Judge, High Court of Kerala  
Ampazhavelil, Raji Nagar, Elamakkra  
Kochi-26
2. Smt. S. Sreekala, Member Secretary
3. Committee Member, Environment Department
4. Committee Member, Local Self Government Department
5. Committee Member, Health & Family Welfare Department
6. Committee Member, CPCB

Copy to:

7. The Accounts Officer
8. CA to Chairman
9. CA to MS

**FORWARDED/BY ORDER**

*Slava AT*

**SENIOR ENVIRONMENTAL ENGINEER-2**

*MEMBER*

**TRUE COPY**

Name Of Water Body	STN Code	Name Of Monitoring Location	YEAR	pH	Dissolved O <sub>2</sub> (mg/L)	BOD (mg/L)	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)
ASHTHAMUDI	1441	At Neendakara	2022	7.7	5	3.7	1078	315
			2023	7.5	5.2	6.5	1050	322
			2024	7.9	4.7	2.4	1081	380
	5203	Mundrothuruth	2022	7.5	6.9	1.7	819	193
			2023	7	6.3	1.5	873	231
			2024	7.3	5.9	1.8	697	188
	5198	At Thoppilakadavu	2022	7.6	3	15.6	1029	319
			2023	7.7	2.2	11	1583	488
			2024	7.7	3.5	3.1	1400	467
	5199	At Near KSRTC Bus Depot	2022	8	2.6	17.9	1529	452
			2023	7.6	2	11	1315	349
			2024	7.6	3.7	3.5	1489	447
	5200	At Perumon	2022	6.4	3.3	10.2	1105	387
			2023	7.3	6	4	791	148
			2024	7.7	5.6	2.4	636	142
	5201	At Kundara Ceramics	2022	7.7	5.7	4.8	1018	232
			2023	7.2	5.3	2.2	803	154
			2024	7.7	5.1	2.6	640	115
Vembanad	5527	Vembanad lake At the U/S of Thanneermukkam bund (Monitoring started from 2023 )	2023	4.3	4.4	2.5	5442	1817
			2024	7.8	6.9	2.07	3467	1572
	5528	Vembanad lake at Padashekaram at Kainikkari(Monitoring started from 2023 )	2023	3.8	4	2.6	5920	1934
			2024					
	5529	Vembanad lake at Kottayam Ferry(Monitoring started from 2023 )	2023	3.9	4.1	2.7	6162	1985
			2024	6.5	4.8	1	633	233
	5530	Vembanad lake at Changanassery Ferry(Monitoring started from 2023 )	2023	3.9	4.1	2.8	6261	2021
			2024	6.6	4.1	1.5	542	187
	5531	Vembanad lake at Vaikkom Beach & Ferry(Monitoring started from 2023 )	2023	3.8	4.1	2.8	6339	2039
			2024	6.6	5.8	1	740	281
	5182	KOCHI LAKE AT GOSHREE BRIDGE, KOCHI	2022	8	6.2	3		3350
			2023	6.9	7	2		650
			2024	8.1	5.4	NA	NA	3100
	5183	KOCHI LAKE NEAR COCHIN PORT TRUST, KOCHI	2022	8	5.1	3.8		13249
			2023	7.1	6.8	1.5		645
			2024	7.91	4.26	2.48	NA	3090.9
	5184	KOCHI LAKE NEAR THOPUMPADY, KOCHI	2022	8	5.1	1.9		5717
			2023	7.2	6.9	1.6		384
			2024	8.05	3.97	1.92	NA	4300
	5185	KOCHI LAKE NEAR WELLINGTON ISLAND, KOCHI	2022	8	6	2.7		4122
2023			7.1	6.8	1.7		1233	
2024			7.9	4.4	NA	NA	2436	
5190	VEMBANAD LAKE AT ANDAKARANAZHI NEW BRIDGE, ALAPPUZHA	2022	7	5.3	4.1		488	
		2023	6.9	6.4	1.5		342	
		2024	8.04	5.26	4.25	NA	1575.45	
1575	VEMBANAD LAKE, KOCHI (OIL TANKER JETTY), KERALA	2022	7.5	4.9	2.6	76867	28983	
		2023	4.8	4.5	2.5	5310	1716	
		2024	8.4	4.5	2.3	74800	5536	

	LAKE VEMBANAD AT PATHIRAMANAL (ALAPPUZHA)	2022	7.1	7.3	2.4	407	203
2312		2023	5.4	4.8	2.6	4875	1465
K155		2024	7.8	6.9	2.08	1237	519
K156		2024					
K157		2024					
K158		2024					
K159		2024					
K160		2024					
K161		2024					
K162		2024					
K163		2024					
K164		2024					
K165		2024					

*M. S. M. S.*

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