

BEFORE THE HONOURABLE NATIONAL
GREEN TRIBUNAL
SOUTH ZONE, CHENNAI

Original Application No.184 of 2024 (SZ)

IN THE MATTER OF

Tribunal on its own motion – SUO MOTU based on the
News item Published in ‘The Hindu’, Kochi Edition dt.
21.05.2024 titled, “Another mass fish kill in Periyar River
in Kerala after suspected effluent release”.”

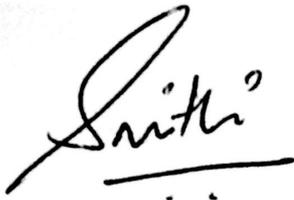
: Applicant(s)

Vs

The Principal Secretary to Govt. of Kerala,
Environment Department & Ors.

: Respondent(s)

REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER
FOR AND ON BEHALF OF THE KERALA STATE POLLUTION
CONTROL BOARD



Standing counsel for the 5th respondents in O.A 184 of 2024

Rema Smrithi. V. K., Advocate
Additional Standing Counsel, National
Green Tribunal, (SZ), CHENNAI

BEFORE THE HONOURABLE NATIONAL GREEN
TRIBUNAL

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Dated this the 19th day of August, 2024.

Rema Smrithi. V. K., Advocate

Standing Counsel for the 5th Respondents in O.A 184 of 2024

BEFORE THE HONOURABLE NATIONAL GREEN
TRIBUNAL
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: Respondent(s)

VOLUME – II

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Dated this the 19th day of August, 2024.

Rema Smrithi. V. K., Advocate

Standing Counsel for the 5th Respondents in O.A 184 of 2024

BEFORE THE HONOURABLE NATIONAL GREEN
TRIBUNAL
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The Principal Secretary to Govt. of Kerala,
Environment Department & Ors. : Respondent(s)

REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER
FOR AND ON BEHALF OF THE KERALA STATE POLLUTION
CONTROL BOARD

I, Baburajan P K, aged 53 years, working as Chief Environmental Engineer, Regional Office, Kerala State Pollution Control Board, Ernakulam. I am competent to and duly authorized to represent the 5th respondent in the above application. I know the facts and circumstances of the case. The factual submissions made here under are true and correct to the best of my knowledge, information and belief. In these circumstances, it is just and necessary that this Hon’ble Tribunal may be pleased to accept the accompanying information on file and it is so humbly prayed in the interests of justice in this case.

1.It is humbly submitted that immediately after this incident of fish kill, IA no. 2 of 2024 was filed in WP(C) 9534 of 2020 before the Hon’ble High Court of Kerala bringing the matter of



this fish-kill incident into notice of the Hon'ble Court. The petitioner in IA no. 2 of 2024 in WP(C) 9534 of 2020 had produced the newspaper report in The Hindu itself as Exhibit P-8 of the IA. A copy of the IA no. 2 of 2024 is marked and produced herewith as **Annexure R5-(a)**. The Hon'ble High Court while allowing the IA directed the respondents including the Board to file counter affidavit in WP (C) no. 9534 of 2020 on or before 30-05-2024 vide Order dated 24-5-2024. A copy of the Order dated 24-5-2024 is marked and produced herewith as **Annexure R5-(b)**. Based on the Order dated 24-5-2024, Board filed counter affidavit dated 31-5-2024 before the Hon'ble High Court on the matter of the fish kill occurred on 20-5-24 and 21-5-24. A copy of the counter affidavit is marked and produced herewith as **Annexure R5-(c)**. The Hon'ble Court considered the counter affidavit while considering the Writ Petition (Civil) Nos. 9534/2020 along with WP(C) 996/2012 and WP(C) 31236/2023, related to pollution of river Periyar, and passed Order dated 10.06.2024 directing the following.

- (i) *Let a Committee consisting of the Secretary, Directorate of Environment and Climate Change, Government of Kerala, the Regional Director, Central Pollution Control Board, Regional Directorate, Bangalore and the Chairman, Kerala State Pollution Control Board, be formed.*
- (ii) *The Committee shall visit all the places already visited by Mr. Ananthkrishnan A. Kartha, learned Amicus Curiae.*
- (iii) *The Committee shall ensure that the representatives of the petitioners as well as the learned Amicus Curiae accompany them during such visits.*
- (iv) *The Committee shall file their report containing the suggestions and action to be taken to curb the pollution in the Periyar River.*

Copy of the order dated 10.06.2024 is produced herewith and marked as **Annexure R5-(d)**.

2. It is respectfully submitted that in compliance with the Order of the Hon'ble High Court, a committee comprising following members was constituted by the State Government vide G.O.(RT)No.43/2024/ENVT dated 20-6-2024:

1. Secretary to Government, Environment Department
2. Regional Director, Central Pollution Control Board, Regional Directorate, Bangalore
3. Director, Environment & Climate Change
4. Chairperson, Kerala State Pollution Control Board

3. The observations and actions taken by the Committee for ensuring compliance to Hon'ble High Court of Kerala based on Order dated 10.06.2024 are detailed below.



a) Meeting held with the Petitioners on 24.06.2024

In compliance with the Hon'ble High Court of Kerala order dated 10.06.2024, the Committee held a meeting at 11 AM on 24.06.2024 at the 'Conference Hall of Eloor Municipality so as to hear the Petitioners. Apart from the Committee members the officials viz., 1. Smt. Meera K. IAS, Sub Collector, Fort Kochi and 2. Sri. Ananthakrishnan A. Kartha, learned Amicus Curiae have attended the meeting. Apart from the officials, following petitioners and the persons representing the petitioners also attended the meeting

1. Sri. Shibu Manuel- petitioner in WP (C) No. 31236 / 2023,
2. Sri. Sudheer Panicker, representing Sri. K.S.R. Menon, petitioner in WP (C) No.9534/2020
3. Sri. Shebeer O.V. representing Sri. Purushan Eloor, petitioner in WP (C) No.996/2012

During the meeting, the committee members heard the petitioners with regard to their objections, their concerns and the suggestions for control of pollution in river Periyar.

b) Site visit by the Committee along with the Petitioners on 24.06.2024 and 25.06.2024

After hearing the petitioners, The Committee visited places pointed out by petitioners including the locations which were visited by Amicus Curiae in Eloor Edayar industrial area, and the locations pointed out by the petitioners and the River Periyar during 24.06.2024 and 25.06.2024. During the site visit on 24.06.2024, the Amicus Curiae, the petitioners/representatives of the petitioners and officials of Irrigation Department also accompanied the Committee. On 24.06.2024, the committee visited the following locations.

1. Kuzhikandam Creek at the boundary of HIL (India) Ltd
2. Panachithodu Creek
3. Pallippuram Chal Creek
4. Unthithodu Confluence point at River Periyar
5. Pathalam Regulator cum bridge at Periyar River
6. Container Terminal Road near Anavathil junction - Gypsum deposit of FACT
7. Manjummal Regulator cum bridge at Periyar River
8. M/s. HIL (India) Ltd, Eloor
9. M/s. Merchem Ltd, Eloor
10. M/s. Fertilizers and Chemicals Travancore Ltd., Udyogamandal Division
11. Land of M/s Cella Space close to the boundary of M/s Cochin Minerals and Rutile Ltd

Edayar




BABURAJAN P.K.
Chief Environmental Engineer

As per the request of the petitioners, water samples and sediment samples were also collected by the officials of Kerala State Pollution Control Board for further analysis for relevant parameters from the locations pointed out by the petitioners.

c) Meeting held on 25.06.2024 with the Stakeholder Departments to assess the progress made on implementation of action plans for restoration of river Periyar

On 25.06.2024 the second day of visit, the Committee convened a meeting in the Chamber of District Collector, Ernakulam with the stakeholders Departments of Periyar River Action plan prepared as per Hon'ble NGT orders in OA No. 673/2018 and OA No. 395/2013 such as local bodies, District Industries Centre, Irrigation Department, Agriculture Department and Kerala Water Authority. The Fisheries Department and KUFOS also attended as per request. The Committee reviewed the progress made by each department in implementation of Periyar River action plan.

d) Boat survey on 25-06-2024 for assessing the discharge of industrial effluents and storm water discharges into the River Periyar

After the meeting on 25.06.2024, the Committee conducted a boat survey in the river Periyar along with the petitioners/representatives of the petitioners in the Eloor Branch and Edamula branch of the river and observed various authorized outlet points of various industries and stormwater drains joining the river Periyar and locations of monthly river water sampling carried out by the Kerala State Pollution Control Board. The Committee also directed the Kerala SPCB to conduct a separate sampling for collection of industrial discharge into river Periyar and river water samples in Eloor- Edayar stretches in the presence of representatives of petitioners on 26.06.2024.

e) Sampling at the authorized effluent outlets and storm water discharges planned on 26.06.2024

As directed by the Committee, the samples from the authorized effluent outlet discharges, storm water discharges into the river Periyar were planned for 26.06.2024. However, planned sampling could not be completed on 26.06.2024 in view of the heavy rains. Therefore, sampling was planned in the subsequent days as the ongoing rains were expected to recede by then. and samples from the authorized effluent outlet discharges, storm water discharges into the river Periyar were to be collected by the officials of Kerala State Pollution Control Board in presence of the petitioners for further analysis and for assessing the compliance status of industries.




BABURAJAN P.K.
Chief Environmental Engineer

4. An interim report was filed before the Hon'ble High Court of Kerala by the Committee during the hearing on 3-7-2024. On the same day, the Hon'ble Court has passed an Order with the following directions:

i. The inspection being conducted by the Committee constituted as per the order dated 10.06.2024 should continue. The industries on the upstream portion of Periyar river should also be inspected.

ii. In the meanwhile, the State Government should state as to whether a health survey of the residents in the affected area, as was done in the year 2008 can be conducted and an insurance scheme, as was done earlier, formulated and if not, why?

iii. The Kerala State Pollution Control Board shall make available a list of industries in the area functioning on the strength of the NOC issued by the Board.

Copy of the Order dated 3-7-2024 is marked and produced herewith as **Annexure R5-(e)**. The Committee constituted by the Hon'ble Court has complied with the Order dated 3-7-24. The matter has not been listed after 3-7-2024.

It is respectfully submitted that the Hon'ble High Court of Kerala has taken up the matter and is under the consideration of the Hon'ble Court.

All the facts stated above are true to the best of my knowledge, information and belief.

Dated this the 19th day of August, 2024.




BABURAJAN P.K.
Chief Environmental Engineer

Baburajan P.K.
Chief Environmental Engineer

Annexure R5-(a)



E-IA NO : IA-202425975

BEFORE THE HONOURABLE HIGH COURT OF KERALA AT ERNAKULAM

IA No _____ Of Year 2024

In

WP(C) No 9534 Of Year 2020

K.S.R.MENON

: APPLICANT / PETITIONER (P1)

Vs

**STATE OF KERALA AND
OTHERS**

: RESPONDENTS/ RESPONDENTS



PETITION FOR ACCEPTING ADDITIONAL DOCUMENTS

FEES PAID & STATUS - 10 (Success)

Sd/-
E-VERIFIED
V. SHYAMOHAN
K/000824/2006



BEFORE THE HONOURABLE HIGH COURT OF KERALA AT ERNAKULAM

IA No _____ Of Year 2024

In

WP(C) No 9534 Of Year 2020

K.S.R.MENON : APPLICANT / PETITIONER (P1)

V/S

**STATE OF KERALA AND
OTHERS** : RESPONDENTS / RESPONDENTS

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Sd/-
E-VERIFIED
V. SHYAMOHAN
K/000824/2006

BEFORE THE HON'BLE HIGH COURT OF KERALA AT ERNAKULAM

I.A. NO. OF 2024

IN

W.P.(C) NO. 9534 OF 2020

K. S. R. Menon

...Applicant/Petitioner

Versus

State of Kerala and Others

...Respondents/Respondents

AFFIDAVIT

I, K. S. R. Menon, aged about 70 years, S/o Late G. K. Nair, residing at A1 A7 Periyar Hermitage, Comapanipadi, Aluva, Ernakulam, Kerala- 682016 do hereby solemnly affirm and state as under:

1. I am the Petitioner in the underlying Writ Petition filed in public interest. I am conversant with the facts and circumstances of the case. I am competent to swear to this Affidavit.
2. The underlying Writ Petition was filed, *inter alia*, seeking directions to the Respondemys to take steps for effectively curbing the pollution of Periyar river due to the illegal discharge of toxic effluents by the industries situated and operating in the river banks as well as from Aluva market.
3. Recently, dead fishes were found in large numbers in fish farms across panchayats such as Varapuzha, Kadamakkudy, and Cheranalloor along the banks of the river Periyar. It is submitted that although the cause of the above disaster is yet to be determined by the Kerala State Pollution Control Board, Respondent No. 3, the Petitioners believes that such environmental tragedy could be due to the discharge of toxic effluents by the industries functioning near the banks of river Periyar.
4. In the online news article titled, 'Mass fish death in Periyar river sparks protests in Kochi' dated 22.05.2024 published on Hindustan Times (<https://www.hindustantimes.com/environment/mass-fish-death-in-periyar-river-sparks-protests-in-kochi-101716369639112.html>) it is stated that as per the preliminary

K. S. R.

assumption by the Pollution Control Board, fishes might have died *en masse* due to a sudden and significant decrease in the oxygen level in the water. The District Collector has also directed the Environmental Engineer of the Pollution Control Board to report whether the mass death of fishes was a result of chemical effluents being discharged into the river. A true copy of the online news article titled '*Mass fish death in Periyar river sparks protests in Kochi*' dated 22.05.2024 published on Hindustan Times is produced herewith and marked as **Exhibit P-7**.

5. In another online news article titled '*Another mass fish kill in Periyar River in Kerala after suspected effluent release*' dated 21.05.2024 published on The Hindu (<https://www.thehindu.com/news/national/kerala/another-mass-fish-kill-in-periyar-river-in-kerala-after-suspected-effluent-release/article68198802.ece>), found several dead fishes along the Periyar river stretches. The Pathalam bund was reported to have turned black after shutters of the bund were opened on 20.05.2024, following heavy rain. It is stated that release of effluents from the industrial units upstream and downstream of the Pathalam bund had resulted in such a massive fish kill. The Purushan Eloor, spokesperson of the Periyar Malineekarana Virudha Samithi, has given a statement that in the year 2024 alone, he has seen eight fish kills in Periyar river. The river, it was stated, turned black over 15 times over the last four months. A true copy of the online news article titled '*Another mass fish kill in Periyar River in Kerala after suspected effluent release*' dated 21.05.2024 published on The Hindu is produced herewith and marked as **Exhibit P-8**.
6. It is respectfully submitted that after a lapse of more than four years, the Government/Respondents have not filed any statements or counter affidavit providing the information on the actions taken for curbing the pollution of the Periyar river and/or the restrictions placed on the industries functioning on the banks of the rivers.
7. The counsel for the Applicant had mentioned the matter on 23.05.2024 in the morning. This Hon'ble Court was pleased to direct the Registry of the Hon'ble Court to post the matter along with a note.
8. In view of the above, it is submitted that Exhibit P-7 and Exhibit P-8 are very

K.S.R.

important and vital for the adjudication of the issues involved in the underlying Writ Petition and therefore, it is humbly prayed that the above documents, i.e., Exhibit P-7 and Exhibit P-8 may be admitted in the files of the Writ Petition.

All facts stated above are true and correct.

Dated this the 23rd day of May, 2024.



Deponent

Solemnly affirmed and signed by the deponent who is personally known to me on this the 23rd day of May, 2024 at my office in Ernakulam.



V. Shyamohan

Counsel for the Application



BEFORE THE HON'BLE HIGH COURT OF KERALA AT ERNAKULAM

I.A. NO. OF 2024

IN

W.P.(C) NO. 9534 OF 2020



APPLICANT/PETITIONER

1. K.S.R.Menon,
Aged about 70 years,
S/o Late G.K. Nair
A1 A7, Periyar Hermitage Companipadi,
Aluva, Ernakulam, Kerala- 683016

Versus

RESPONDENTS/RESPONDENTS

1. State of Kerala
Represented by Chief Secretary,
Thiruvananthapuram, Kerala - 695 001.
2. The District Collector, Ernakulam
District Collectorate, First Floor-Civil Station,
Kakkanad Ernakulam, Kerala- 682 030
3. Kerala State Pollution Control Board
Represented by its Chairman
Head Office, Pattom. P.O,
Thiruvananthapuram, Kerala -695004
4. Chief Environmental Engineer
Kerala State Pollution Control Board
Ernakulam
MIG & HIG Colony Gandhi Nagar,
Elamkulam, Ernakulam, Kerala -682020.
5. Aluva Municipality
Represented by its Secretary
Office at PWD quarters,
Periyar Nagar, Aluva Ernakulam, Kerala -683101



**PETITION FILED UNDER RULE 154 OF KERALA HIGH COURT RULES FOR
ACCEPTING ADDITIONAL DOCUMENTS**

For the reasons stated in the accompanying Affidavit, this Hon'ble Court may be pleased to documents, i.e., Exhibit P-7 and Exhibit P-8 may be admitted in the files of the Writ Petition.

Dated this the 23rd day of May, 2024

V. Shyamohan
Counsel for the Applicant



The screenshot displays the Hindustan Times website interface. At the top, the navigation bar includes 'Explore', 'Search', and the Hindustan Times logo. The date is Thursday, May 23, 2024, and the location is New Delhi, 36°C. The main headline is 'Mass fish death in Periyar river sparks protests in Kochi'. Below the headline, there is a sub-headline 'Kochi, Thousands of dead fish were found floating in the Periyar river, sparking protests from local farmers and residents here on Wednesday.' The article text is partially obscured by a large watermark of the Supreme Court of India. To the right, there is an advertisement for 'REAL AI' by Juniper Networks, titled '4 of the Fortune 10 just switched to Juniper AI.' Below the main article, there is another advertisement for 'Zoho Books' with the text 'Make the switch to the future of business accounting. Try for free.' The left sidebar contains 'TOP NEWS' and 'TRENDING TOPICS' sections. The right sidebar features 'TRENDING PHOTOS' and a list of related images with captions like 'RR vs RCB, IPL 2024 Eliminator: Catch all the action from the match through these images'.

15Ld3vP5qH39fa...

The screenshot displays the Hindustan Times website interface. At the top, the navigation bar includes 'Explore', 'Search', and the 'Hindustan Times' logo. The date is Thursday, May 23, 2024, and the location is New Delhi 36°C. The main menu lists categories like Home, Latest News, Cricket, HT Premium, Elections, Education, India, World, Cities, Entertainment, Lifestyle, and Astro. A secondary menu shows live scores for RR vs RCB, Lok Sabha Election 2024, My First Vote, Heatwave News Live, IPL 2024, and RR vs RCB Live.

The central article, titled 'Local fish farmers, particularly those involved in cage farming, reported significant losses amounting to several lakhs due to the mass fish deaths.', discusses the incident in Kerala. It mentions that dead fish were found in large numbers in fish farms across panchayats such as Varapuzha, Kadamakkudy, and Cheranalloor. The article notes that widespread protests prompted the district administration to take action. District Collector N S K Umesh has ordered the state Pollution Control Board to investigate the cause of the fish deaths. The government has also formed a special committee under the aegis of Fort Kochi Sub-Collector to study the developments and submit a report within a week.

A Zoho Books advertisement is prominently displayed, featuring the text 'Make the switch to the future of business accounting.' and a 'Try for free' button. Below the article, a 'PROMOTED' section shows three news snippets: 'Airports Say Don't Use This Type Of Suitcase', 'How communities In Asla are coming...', and 'Janhvi Kapoor's priceless reaction to...'. A 'MOST POPULAR' section highlights 'Kerala Rains Live: IMD Issues 'red alert' for Pathanamthitta and Idukki'.

On the right side, there is a 'SHOP NOW' section with product recommendations from Amazon, including Honor X9b 5G smartphones and a Lava Blaze 5G smartphone, all with 'BUY NOW' buttons. A vertical sidebar on the left lists various product recommendations such as 'Best 32 Inch Tv', 'Best AC In India (April 2024)', and 'Best Laptop Under 50000'.

The screenshot displays the Hindustan Times website interface. At the top, the navigation bar includes the logo, date (Thursday, May 23, 2024), location (New Delhi 36°C), and options for Games, E-Paper, and Sign In. The main content area is divided into several sections:

- [DONT MISS]**: A section for featured stories, including a BollyWood article about Janhvi's panic attack and a Telugu Cinema article about Pushpa 2.
- CRICKET**: Articles about Ricky Ponting's confirmation as BCCI head coach and Kohli's prediction for the IPL.
- [LATEST NEWS]**: A section for current events, including a report on a bird flu case in the US and news about Kamal Haasan's new project.
- Main Article**: A large article about a mass fish death in Kerala, discussing preliminary assumptions, environmental factors, and the role of the District Collector.
- Advertisements**: Promotional banners for Zoho Books and Zoho Books, both featuring the slogan "Make the switch to the future of business accounting." and a "Try for free" button.
- [BEST DEALS]**: A section for product recommendations, including washing machines, ACs, TVs, and refrigerators.

The website also features sidebars with "Tally" and "MSME" logos and a "Nominate Now" button. A watermark for the High Court of Kerala is visible over the central article.

The screenshot displays the Hindustan Times website interface. At the top, the navigation bar includes 'Explore', 'Search', and the Hindustan Times logo. The date is Thursday, May 23, 2024, and the location is New Delhi 36°C. The main menu lists categories like Home, Latest News, Cricket, HT Premium, Elections, Education, India, World, Cities, Entertainment, Lifestyle, and Astrc. A sidebar on the left features 'DONT MISS' highlights in Bollywood, Telugu Cinema, and Cricket. The main content area shows a news article with the headline: 'The protesters put dead fish in front of the office and raised slogans against the board officials, alleging they were not taking stringent measures against the factories that allegedly discharge chemical effluents into the River Periyar.' Below the headline is a Zoho Books advertisement with the text 'Make the switch to the future of business accounting.' and a 'Try for free' button. A large watermark 'HINDUSTAN COURTS OF KERALA' is visible over the article. At the bottom of the article, it states: 'This article was generated from an automated news agency feed without modifications to text.' The right sidebar contains a 'TRENDING VIDEOS' section and a 'Best air coolers in 2024' article preview.

Click here for our in-depth coverage of Lok Sabha and Assembly elections
#ElectionsWithTheHindu

Another mass fish kill in Periyar River in Kerala after suspected effluent release

Dead fish was found floating on a large-scale on the river from near Pathalam bund and downstream in Ernakulam district

Updated - May 21, 2024 11:07 pm IST Published - May 21, 2024 11:32 am IST - KOCHI

THE HINDU BUREAU



Dead fish found floating on the Periyar river in Ernakulam in Kerala on May 21 morning. | Photo Credit: Special Arrangement

A mass fish kill was reported in the Periyar river on May 20 night following suspected release of effluents from industries in the Eloor-Edayar industrial area in Ernakulam district of Kerala.



Dead fish found floating in a cage farm at Shappukadavu near Cheranalloor in Kochi on Tuesday following suspected release of effluents into the Periyar from industries in the Eloor-Edayar industrial area. | Photo Credit: R.K. Nithin

Dead fish was found floating on a large-scale on May 21 morning from near the Pathalam bund and downstream. Fishermen involved in cage farming in areas such as Cheranalloor reported loss to the tune of lakhs of rupees. River stretches near the Pathalam bund turned black after shutters of the bund were opened on May 20 following heavy rain.

Purushan Eloor, spokesperson of **the Periyar Malineekarana Virudha Samithi**, said the fish kill was reported along the stretch from Pathalam to Panampukadu near Mulavukad. The release of effluents from the industrial units upstream and downstream of the Pathalam bund had resulted in such a massive fish kill. The illegal discharge of effluents was carried out amidst the heavy rain over the last two days. The year 2024 alone has seen eight fish kills in Periyar. The river turned black over 15 times over the last four months, he alleged.

Pollution Control Board blamed

Mr. Purushan blamed the Kerala State Pollution Control Board for its alleged failure to check the illegal discharge of untreated effluents into the river, despite several such incidents in the past.

Despite repeated pleas and submission of evidence related to the illegal drains used to discharge effluents into the river, no concrete action has been taken by authorities. This has emboldened violators to continue with such illegal activities, he said.

Gratus, a resident of Cheranalloor who has been engaged in cage fish farming over the last four years, said he suffered losses to the tune of ₹15 lakh. "I had deposited 'kalanji' and 'karimeen' varieties as part of the farming four months ago. The fish were seen gasping for breath from Monday (May 20) night onwards. The water had a blackish-white colour from Monday night, indicating heavy chemical contamination," he said.

Fishermen in Varapuzha and Kadamakudi staged a protest at the board's office in Eloor demanding action against those responsible for the mass fish kill.

Officials of the Pollution Control Board were not available for comment.

IN THE HIGH COURT OF KERALA AT ERNAKULAM
PRESENT
THE HONOURABLE THE CHIEF JUSTICE MR. A.J.DESAI
&
THE HONOURABLE MR.JUSTICE V.G.ARUN

Friday, the 24th day of May 2024 / 3rd Jyaishta, 1946
WP(C) NO. 9534 OF 2020(S)

PETITIONER:

K.S.R.MENON, AGED 66 YEARS, S/O.LATE G.K.NAIR,
RESIDING AT: A1 A7, PERIYAR HERMITAGE, COMPANIPADI,
ALUVA, ERNAKULAM, PIN - 683 106, KERALA.

RESPONDENTS:

1. STATE OF KERALA, REPRESENTED BY CHIEF SECRETARY, THIRUVANANTHAPURAM, PIN - 695 001.
2. THE DISTRICT COLLECTOR, ERNAKULAM, HAVING OFFICE AT DISTRICT COLLECTORATE, FIRST FLOOR-CIVIL STATION, KAKKANAD, ERNAKULAM, PIN - 682 030.
3. KERALA STATE POLLUTION CONTROL BOARD, REP. BY IT'S CHAIRMAN, HEAD OFFICE, PATTOM P.O., THIRUVANANTHAPURAM, PIN - 695 004.
4. CHIEF ENVIRONMENTAL ENGINEER, KERALA STATE POLLUTION CONTROL BOARD, ERNAKULAM, HAVING OFFICE AT MIG AND HIG COLONY, GANDHI NAGAR, ELAMKULAM, ERNAKULAM, PIN - 682 020.
5. ALUVA MUNICIPALITY, REP. BY ITS SECRETARY, OFFICE AT PWD QUARTERS, PERIYAR NAGAR, ALUVA, ERNAKULAM, PIN - 683 101.

Writ petition (civil) praying inter alia that in the circumstances stated in the affidavit filed along with the WP(C) the High Court be pleased to direct the respondents 1 to 5 to submit a report before this honourable court as to the discharge of toxic effluents by the nearby industries of Periyar river and from Aluva Market after conducting an inspection and also explaining the measures taken by them to curb the pollution of Periyar river pending consideration of the above writ petition in the interests of justice.

This petition coming on for orders upon perusing the petition and the affidavit filed in support of WP(C) and upon hearing the arguments of M/S. MATHEW A KUZHALANADAN, KURIAKOSE VARGHESE, K.R.ARUN KRISHNAN, SUDEEP ARAVIND PANICKER & V.SHYAMOHAN, Advocates for the petitioner, GOVERNMENT PLEADER for R1 & R2, SRI.NAVEEN T, STANDING COUNSEL for R3 & R4 and of SRI.K.T.THOMAS, STANDING COUNSEL for R5, the court passed the following:

P.T.O.

A.J. Desai, C.J.

&

V.G. Arun, J.

=====

**I.A.No.2 of 2024 &
W.P.(C)No.9534 of 2020-S**

=====

Dated this the 24th day of May 2024

ORDER

A.J. Desai, C.J.

I.A.No.2 of 2024

Allowed.

W.P.(C)No.9534 of 2020

Respondents shall file their counter affidavits on or before
30.05.2024.

Post on 03.06.2024 along with W.P.(C)No.31236 of 2023.

It is needless to say that the respondent authorities shall take
immediate steps to prevent such incidents in near future.

Sd/-

**A.J. Desai
Chief Justice**

Sd/-

**V.G. Arun
Judge**

vpv

BEFORE THE HON'BLE HIGH COURT OF KERALA, ERNAKULAM**W.P.(C) No. 9534 of 2020**

K.S.R. Menon :: Petitioner
 Vs.
 State of Kerala and others :: Respondents

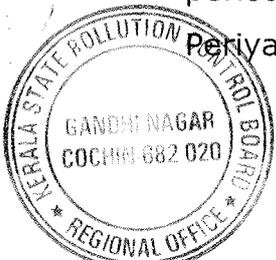
COUNTER AFFIDAVIT FILED ON BEHALF OF RESPONDETS 3 AND 4
IN THE ABOVE CASE, AS DIRECTED BY THIS HON'BLE COURT AS
PER ORDER DATED 24-05-2024.

I, Baburajan P.K., aged 52 years, S/o P. A. Kuttappan (Late), residing at Edapally, Ernakulam, working as Chief Environmental Engineer, Kerala State Pollution Control Board, Regional Office, Ernakulam, as directed by this Hon'ble Court as per order dated 24-05-2024.

1. I am the Chief Environmental Engineer, Kerala State Pollution Control Board, (hereinafter referred to as **Board**), Regional Office, Ernakulam. I am aware of the facts affirmed by me as revealed from the relevant records. I am filing this Counter Affidavit on behalf of Respondents 3 and 4 in the above Writ Petition, as duly authorized.

2. All the averments and allegations contained in the Writ Petition are hereby denied except those which are specifically admitted herein below.

3. The above Writ Petition is filed inter-alia for a direction to the respondents to take immediate steps to curb the discharge of toxic effluents by the Industries functioning in the river banks as well as from Aluva Market and also for a direction to the respondents to conduct periodical inspections to the Industries functioning at the river bank of Periyar and Aluva Market. The above counter affidavit is filed reserving



BABURAJAN P.K.
 Chief Environmental Engineer

the right of this respondent to file a detailed counter affidavit, if necessary.

4. It is respectfully submitted that Eloor-Edayar area in Ernakulam district is the major industrial area in Kerala where industries are located on either sides of River Periyar in its lower stretches. It is submitted that the Board takes all necessary steps to ensure safe disposal of all types of wastes from these industries and to facilitate preservation of the river and ambient air and also to redress the overall environmental issues in that area. An office of the Board (**Environmental Surveillance center**) is functioning in Eloor round the clock for continuous monitoring of the industries in the area. The Board has taken numerous steps as part of keeping surveillance over the industrial area and the river Periyar. The area of monitoring comprises of Eloor Municipality and Kadungaloor Grama Panchayath. The Eloor municipality area and Kadungaloor Grama Panchayath are situated on the two banks of the River Periyar and the smaller Edamula stream is flowing between Eloor municipality and Kalamassery Municipality.

5. The Environmental Surveillance Center has been equipped with 24 hour functioning surveillance vehicle. Patrolling of the Eloor – Edayar industrial belt is a routine job of the office and the vehicle is utilized for the complaint enquiry also. The Board has installed sufficient number of surveillance cameras (CCTV cameras) with online recording facility on either bank of River Periyar at strategic points so that any untoward physical change of river water or any illegal discharge into the river from any industries or any dumping of waste can be monitored. The live and recorded details can be viewed from the control room setup in the Environmental Surveillance Center. This has helped the Board, to carryout surveillance activities in the area more effectively. The CCTV cameras are installed at the following locations:


BABURAJAN P.K.
Chief Environmental Engineer

Side of Neptune Ready-Mix Concrete industry-upstream of river

Side of Merchem Ltd Edayar- upstream of river

Side of National Industry Edayar-upstream of river

Side of Travancore Cochin Chemicals (two cameras)

Side of FACT (two cameras)

Side of SreeShakthi Paper Mills Ltd.

Pathalam Bund

6. Periyar river water quality is being monitored daily at five stations such as Pathalam Bridge, Pathalam bund (upstream), Pathalam bund (downstream) Vettukadavu (downstream) and Puthalamkadavu. Except the Puthalamkadavu, all the other four stations are in the Eloor (or Edayar) branch of Periyar and Puthalamkadavu Station is in Edamula branch of Periyar. Board had established an online continuous water quality monitoring station in 2012, at Methanam in Periyar which is a location downstream of all major industrial activities. The station has recently developed certain malfunction which is being repaired or replaced. Another online continuous water quality monitoring station is installed by the Board at upstream of Pathalam bund, the data from this station is being transmitted continuously to the control room of our office and the same is also displayed at the display Board at FACT junction.

7. In addition to the online water quality monitoring, the following monitoring programs are regularly carried out by the Board. Monitoring under National Water Quality Monitoring Program (NWMP). Under this Program, seven stations in river Periyar are being monitored, among which 5 stations are located at the industrial stretch. Monthly sampling is done at 12 locations close to the discharge points of industries.

8. Board has taken measures to upkeep the quality of the environment of Eloor area. All the industries are brought under the consent purview of the Board to ensure that they are operated with required pollution control facilities. The consent was issued with various

conditions specifying the quality and quantity for the effluent discharge and emissions. Periodical inspections are conducted by Board to these industries as a part of compliance monitoring of the consent conditions. In case of any violations are noticed, actions are taken then and there on the violations noted against such industry. Notices and closure directions are also issued to the industries as and when unauthorized effluent discharge or emissions are noticed. Board also continuously monitors surveillance cameras and in case of any unauthorized discharge found or abnormality, actions were being taken against the violators.

9. It is submitted that, under the compliance monitoring, the compliance of the conditions stipulated in the consent to operate are verified in the field and if any lapses by the units are noticed during enquiry, time bound direction will be given to that particular industrial unit. Industries will be inspected on monthly/ bimonthly based on the category of industries and periodical effluent samples will be collected from the authorized outlets. Since a full-fledged laboratory also is functioning under the district office, follow-up action on the basis of analysis report also can be taken without any delay. In order to reduce the impact of industrial pollution in the river, the Board have given certain general and specific directions to the industries located on the bank of the river. The general directions are as follows:

- i. All industries making direct discharge of treated effluent to Periyar, were directed to provide delay ponds so as to contain the effluent during any upset condition in the plant or in ETP.
- ii. Industries were directed to provide light arrangements on their area near to the riverbank.
- iii. As part of bringing down the consumption of water from Periyar for industrial activity, the industries were directed to reuse the treated effluent to the maximum extent possible.
- iv. All industries discharging effluent into Periyar were directed to raise their effluent discharging outlets much above the water level of the river.

- v. Industries were directed to provide energy meters exclusively for the effluent treatment plants, so as to monitor the working status of the ETP.
- vi. The industries which were discharging their treated effluent upstream of the bund were directed to shift the location to the downstream of the bund.

As directed by the Board, most of the industries shifted their outlet location to downstream of the bund. At present only one industry (TMS Leather) is having discharge point at the upstream of the bund.

10. The actions taken during the period (January – April 2024) are summarized below:

No of large scale red category industries	11
Frequency of inspection & sample collection	Monthly sample collected from all the large scale red category industries. From other industries, samples are collected once in two months/ three months. Also samples are collected and analysed in case of any complaints received/ any discharge noticed during surveillance inspection by the Board
No. of show cause notices issued based on exceedance of effluent parameters/ non compliance of consent conditions	18
No. of Consent Refusal intention notices issued	7
No. of consent refusal orders issued	3
No. of consent revoke intention notices issued	4
No. of consent revoke orders issued	1
No of closure intention notices issued	2
No of closure orders issued	2

From January 2021 to May 2024, the office of the Surveillance Centre, Eloor has received 276 public complaints either through telephone or

written. All these complaints have been enquired and necessary actions have been taken then and there.

11. It is submitted that complaints were received from the Eloor ferry area regarding fish death in the Periyar River on 20.05.2024, at around 9 PM. Pollution Control Board's surveillance team inspected the site and observed fish, including varieties like carp, Pearl spot, Tilapia floating in the river struggling to breathe. By dawn, on 21/05/2024, fish were found dead in various locations, including Vettukadav, Eloor Ferry, Cheranalloor, Varapuzha, Kadamakudy, and Kothadu. Samples of water and dead fish were collected from the area where dead fish were found. The dissolved oxygen (DO) level of the water sample found to be lower than that required for the survival of the fish. Analysis report of the river water samples is as follows:

KERALA STATE POLLUTION CONTROL BOARD ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR ANALYSIS REPORT OF RIVER WATER			
Station Name	PathalamBridge		
Source of Sample	River Periyar		
Parameters	Unit	20.05.2024 (Morning)	21.05.2024 (Morning)
pH		6.87	7.1
BOD	mg/L	0.2	2.5
COD	mg/L	16	6
Conductivity	µS/cm	301.2	70.29
Hardness	mg/L	42	18
Chloride	mg/L	48.12	12.23
Alkalinity	mg/L	26	20
TDS	mg/L	174.33	40.68
Dissolved Oxygen	mg/L	0.7	5.3

Station Name	Pathalam Bund Upstream			
Source of Sample	River Periyar			
Parameters	Unit	20.05.2024 (Morning)	20.05.2024 (9.30 PM)	21.05.2024 (Morning)
pH		6.75	6.58	7.18
BOD	mg/L	1	0.5	2.4
COD	mg/L	24	44.8	8
Conductivity	µS/cm	268.6	354.8	61.25

Hardness	mg/L	40	39	20
Chloride	mg/L	49.75	179.4	9.79
Alkalinity	mg/L	32	26	20
TDS	mg/L	155.47	205.36	35.45
Dissolved Oxygen	mg/L	1.3	1	4.4
Nitrite	mg/L	-	BDL	-
Nitrates	mg/L	-	1.8	-
Phosphate	mg/L	-	0.17	-
Sulphate	mg/L	-	101	-
Free Chlorine	mg/L	-	BDL	-
Sulphide	mg/L	-	BDL	-
Free Ammonia	mg/L	-	BDL	-
Total Kjeldahl Nitrogen	mg/L	-	2.24	-
Ammoniacal Nitrogen	mg/L	-	BDL	-
Phenolic Compounds	mg/L	-	0.04	-
Sodium	mg/L	-	85.1	-
Potassium	mg/L	-	5.45	-
SAR (Sodium absorption ratio)	mg/L	-	4.5	-
Hexavalent Chromium	mg/L	-	BDL	-
Cyanide	mg/L	-	BDL	-
Fluorides	mg/L	-	0.12	-
Zinc	mg/L	-	0.062	-
Lead	mg/L	-	BDL	-
Mercury	mg/L	-	BDL	-
Arsenic	mg/L	-	BDL	-
Cadmium	mg/L	-	BDL	-
Copper	mg/L	-	0.012	-
Chromium	mg/L	-	0.032	-
Manganese	mg/L	-	0.056	-
Nickel	mg/L	-	BDL	-
Boron	mg/L	-	0.04	-
Vanadium	mg/L	-	BDL	-

Station Name	Pathalam Bund Downstream			
Source of Sample	River Periyar			
Parameters	Unit	20.05.2024 (Morning)	20.05.2024 (9.30 PM)	21.05.2024 (Morning)
pH		6.85	6.68	6.91
BOD	mg/L	1.9	0.8	2.5
COD	mg/L	32	56	18
Conductivity	µS/cm	11320	2538	74.57
Hardness	mg/L	1400	500	16
Chloride	mg/L	2528.3	244.67	163.12

Alkalinity	mg/L	46	30	16
TDS	mg/L	6552.01	1468.99	43.16
Dissolved Oxygen	mg/L	2.7	2.1	4.6
Nitrite	mg/L	-	BDL	-
Nitrates	mg/L	-	1.3	-
Phosphate	mg/L	-	0.05	-
Sulphate	mg/L	-	9	-
Free Chlorine	mg/L	-	BDL	-
Sulphide	mg/L	-	BDL	-
Free Ammonia	mg/L	-	0.003	-
Total Kjeldahl Nitrogen	mg/L	-	3.36	-
Ammoniacal Nitrogen	mg/L	-	0.56	-
Phenolic Compounds	mg/L	-	0.04	-
Sodium	mg/L	-	86.4	-
Potassium	mg/L	-	5.5	-
Sodium Absorption Ratio	mg/L	-	4.6	-
Hexavalent Chromium	mg/L	-	BDL	-
Cyanide	mg/L	-	BDL	-
Fluorides	mg/L	-	0.17	-
Zinc	mg/L	-	0.015	-
Lead	mg/L	-	BDL	-
Mercury	mg/L	-	BDL	-
Arsenic	mg/L	-	BDL	-
Cadmium	mg/L	-	BDL	-
Copper	mg/L	-	BDL	-
Chromium	mg/L	-	BDL	-
Manganese	mg/L	-	0.042	-
Nickel	mg/L	-	BDL	-
Boron	mg/L	-	0.02	-
Vanadium	mg/L	-	BDL	-

Station Name	Vettukadavu			
Source of Sample	River Periyar			
Parameters	Unit	20.05.2024 (Morning)	20.05.2024 (9.30 PM)	21.05.2024 (Morning)
pH		6.89	6.75	7.21
BOD	mg/L	3.9	0.9	1.9
COD	mg/L	34	50.4	24
Conductivity	µS/cm	10690	8120	296.8
Hardness	mg/L	1500	1100	38
Chloride	mg/L	2691.41	2120.5	163.12
Alkalinity	mg/L	44	42	16
TDS	mg/L	6187.37	4699.86	171.79
Dissolved Oxygen	mg/L	6.8	3.2	4

Nitrate Nitrogen	mg/L	-	2.26	-
Fluorides	mg/L	-	0.54	-
Nitrites	mg/L	-	0.3	-
Nitrates	mg/L	-	10	-
Phosphate	mg/L	-	0.68	-
Sulphate	mg/L	-	590	-
Free Chlorine	mg/L	-	3.55	-
Sulphide	mg/L	-	BDL	-
Free Ammonia	mg/L	-	BDL	-
Total Kjeldhal Nitrogen	mg/L	-	2.24	-
Ammoniacal Nitrogen	mg/L	-	BDL	-
Phenolic compounds	mg/L	-	0.62	-
Hexavalent Chromium	mg/L	-	BDL	-
Cyanide	mg/L	-	BDL	-
Sodium	mg/L	-	112	-
Pottasium	mg/L	-	2.64	-
SAR(Sodium Absorption Ratio)	mg/L	-	1.1	-
Zinc	mg/L	-	0.035	-
Lead	mg/L	-	BDL	-
Mercury	mg/L	-	BDL	-
Arsenic	mg/L	-	BDL	-
Cadmium	mg/L	-	0.02	-
Copper	mg/L	-	0.072	-
Chromium	mg/L	-	BDL	-
Manganese	mg/L	-	0.043	-
Nickel	mg/L	-	0.064	-
Boron	mg/L	-	0.509	-
Vanadium	mg/L	-	BDL	-

Station Name	Eloor Ferry		
Source of Sample	River Periyar		
Parameters	Unit	20.05.2024 (9.30 PM)	21.05.2024 (Morning)
pH		6.85	7.1
BOD	mg/L	0.5	1.7
COD	mg/L	61.4	28
Conductivity	µS/cm	10160	1254
Hardness	mg/L	1300	38
Chloride	mg/L	2202.07	55.46
Alkalinity	mg/L	46	14
TDS	mg/L	5880.61	725.82
Dissolved Oxygen	mg/L	2.1	5.4

Nitrite	mg/L	BDL	-
Nitrates	mg/L	16	-
Phosphate	mg/L	1.08	-
Sulphate	mg/L	340	-
Sulphide	mg/L	BDL	-
Free Ammonia	mg/L	BDL	-
Total Kjeldhal Nitrogen	mg/L	1.12	-
Ammoniacal Nitrogen	mg/L	BDL	-
Residual Chlorine	mg/L	7.09	-
Phenolic compounds	mg/L	0.698	-
Fluoride	mg/L	0.57	-
Sodium	mg/L	148.2	-
Pottasium	mg/L	8.7	-
SAR(Sodium Absorption Ratio)	mg/L	6	-
Hexavalent Chromium	mg/L	BDL	-
Cyanide	mg/L	BDL	-
Zinc	mg/L	BDL	-
Lead	mg/L	BDL	-
Mercury	mg/L	BDL	-
Arsenic	mg/L	BDL	-
Cadmium	mg/L	BDL	-
Copper	mg/L	BDL	-
Chromium	mg/L	BDL	-
Manganese	mg/L	0.041	-
Nickel	mg/L	BDL	-
Boron	mg/L	0.02	-
Vanadium	mg/L	BDL	-

Station Name	PuthalamKadavu		
Source of Sample	River Periyar		
Parameters	Unit	20.05.2024 (Morning)	21.05.2024 (Morning)
pH		6.72	7.04
BOD	mg/L	2.9	1.8
COD	mg/L	12	8
Conductivity	µS/cm	92.63	71.49
Hardness	mg/L	16	19
Chloride	mg/L	17.94	13.86
Alkalinity	mg/L	20	24
TDS	mg/L	53.61	41.38
Dissolved Oxygen	mg/L	4.2	3.9

The fish sample was sent to the Kerala University of Fisheries and Ocean Studies (KUFOS) for analysis and the results are awaited.

12. The above analysis reports reveal that the pH of the river water is well within the standards prescribed by the CPCB for the surface water quality. Since there is tidal effect upto the Pathalam Bund, fluctuation in the river water quality is common in the parameters like TDS, electrical conductivity, Hardness, Chloride etc. Also presence of certain metals like Zinc, Manganese, Nickel, Boron, Copper etc are detected in negligible concentration in the river water. The Periyar River downstream of the Pathalam Regulator bund is classified as Class E as per the best designated usage, which is Irrigation, Industrial Cooling, Controlled Waste disposal. The upstream of Pathalam Bund is classified as Class C as per the best designated usage, which is drinking water source after conventional treatment and disinfection. The classification table is given as below:-

Designated Best Use	Class of Water	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	<ul style="list-style-type: none"> • Total Coliforms Organism MPN/100ml shall be 50 or less • pH between 6.5 and 8.5 • Dissolved Oxygen 6mg/l or more • Biochemical Oxygen Demand 5 days 20C 2mg/l or less
Outdoor bathing (Organised)	B	<ul style="list-style-type: none"> • Total Coliforms Organism MPN/100ml shall be 500 or less • pH between 6.5 and 8.5 • Dissolved Oxygen 5mg/l or more • Biochemical Oxygen Demand 5 days 20C 3mg/l or less
Drinking water source	C	<ul style="list-style-type: none"> • Total Coliforms Organism

after conventional treatment and disinfection		MPN/100ml shall be 5000 or less <ul style="list-style-type: none"> • pH between 6 to 9 • Dissolved Oxygen 4mg/l or more • Biochemical Oxygen Demand 5 days 20C 3mg/l or less
Propagation of Wild life and Fisheries	D	<ul style="list-style-type: none"> • pH between 6.5 to 8.5 • Dissolved Oxygen 4mg/l or more • Free Ammonia (as N) 1.2 mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	<ul style="list-style-type: none"> • pH between 6.0 to 8.5 • Electrical Conductivity at 25C micro mhos/cm Max.2250 • Sodium absorption Ratio Max. 26 • Boron Max. 2mg/l

13. In this regard it is respectfully submitted that, on 20/05/2024, at 3 PM, three shutters at the Pathalam regulator-cum-bridge were opened by Irrigation Department. It was observed that the water with high organic load and very low Dissolved Oxygen (DO) levels, along with the settled sludge, with biological waste settled at the bottom of the bund causing anaerobic condition upstream of bund, gushed out through the 3 shutters and mixed up with the saline water at the downstream side of the bund. The situation had become vulnerable because of high-tide condition in the downstream side within hours since the shutter has opened. The DO measurements taken on the morning and night on 20.05.2024 are given below.

Dissolved Oxygen Levels:

Location	20.02.2024, 7.30	20.05.2024, 9.30
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	am(mg/L)	pm(mg/L)
Pathalam Bund Upstream	1.3	1.0
Pathalam Bund Downstream	2.7	2.1
Vettukadavu	6.8	3.2
Eloor Ferry	-	2.1

14. It is submitted that the opening of the Pathalam bund's shutter with discharge of high organic load seems to have led to a decline in dissolved oxygen (D.O.) levels in the downstream areas. On 20.05.2024, at Vettukadavu, the D.O. concentration dropped from 6.8 mg/L in the morning to 3.2 mg/L at night, within hours since the shutters got opened. It is presumed that this change in DO level is the result of the shutter opening. The reports of the Pollution Control Board in the last few years regarding the water quality changes related to the Pathalam regulator were also examined. It has been observed that during the summer months when the bund is closed for a long time, organic wastes reach the river from several residential/commercial areas ultimately deposited at the river bed of the upstream side of the bund. As per preliminary investigations, this fish death is due to the sudden, continuous and strong flow of DO depleted water along with deposited sludge of high organic load that occurred when the bund was opened, which caused the drop of DO in the downstream of the bund. It has been observed that the prolonged closure of the shutters in the Pathalam bund for several days results in the accumulation of organic load which subsequently cause drop-down of dissolved oxygen (DO) levels in the upstream water of the bund. Therefore, in order to maintain the minimum flow in the river, instructions have been given to the Irrigation Department since 2018 to maintain the minimum flow in the river based on the order of the Honorable NGT's O.A 408/2015 dated 09.08.2017. In this context it is submitted that instructions were issued to the Irrigation Department on 10.01.2024 to maintain minimum flow in the river. True copy of the letter dated 10-01-2024 issued by the Board is produced

herewith marked as **Exhibit R-3 (a)**. However, the Irrigation Department has not taken any action to maintain the minimum flow or to intimate the Board or other relevant departments regarding the opening of the shutters.

15. The scientific reason behind the phenomena of DO depletion, which causes fish kill is briefly explained below. The settled biological sludge at the bottom of the river scoured along with the water during the opening of the shutters at the bund. On the course of its movement downwards the sludge causes further depletion of DO of water as per oxygen sag curve and finally causes critical oxygen depletion in water which may lead to fish kill kilometers downstream of the river. In addition, the following factors may affect in fish kill:

- Fluctuation in climate and change in temperature
- Disturbance in the ecosystem of aquatic life
- The fishes used for the cage fish culture are of saline breeds. The abrupt change in the concentration of salinity may also affect the fishes.

16. At present, five industries have been permitted to discharge treated effluent into the Periyar River. During the inspection on 21.05.2024, illegal or untreated waste water discharge from these industries was not noticed. Unauthorized discharges were not detected from the surveillance camera footages also. The details of industries permitted with authorize outlets to river Periyar is given below.

SI No	Name	Authorized Quantity
1	The Fertilizers and Chemicals Travancore Limited, Udyogamandal	12000 m ³ /day (Pathalam bund downstream), 9840 m ³ /day(Edamula Branch of Periyar)
2	IREL (India), Limited	400 m ³ /day
3	Sud-chemie India Pvt. Ltd	450 m ³ /day
4	Cochin Minerals and Rutile Limited (CMRL)	659 m ³ /day

5	TMS LEATHERS	75 m ³ /day
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At present only one industry (TMS Leather) is having discharge point at the upstream of the bund. However, traces of effluent discharge were observed from a chicken waste rendering unit namely "Alliance Marine Products" to the river. As the unit was also observed with odour nuisance problems, a closure order was issued to the company on 22.05.2024. True copy of the order dated 22.05.2024 issued by the Board to the Unit is produced herewith marked as **Exhibit R-3(b)**.

17. In the context of the fish kill incident on 21.05.2024, industries in the Eloor-Edayar area having waste water generation were inspected and samples were collected for analysis. All the large scale red category industries were inspected under the above inspection. Notices were issued to three Industries, namely, (1) M/s. Arjuna Natural Extracts (2) M/s. The Fertilisers and Chemicals Travancore Limited (FACT), Udyogamandal Complex (3) AK Chemicals based on the violations observed during the inspections on the subsequent days. True copies of the Orders dated 27.05.2024, 28.05.2024 and 27.05.2024 issued by the Board to the above three Industries are produced herewith and marked as **Exhibits R-3(c), R-3(d) and R-3(e)** respectively.

18. Findings of previous studies conducted in River Periyar:

A) Study Conducted By the Board in Muttar River (Edamula Stream) in the Year 2016.

Board conducted a detailed study of pollution causing in Muttar River in the year 2016. The study report includes the causes of pollution and also recommendations to improve the water quality. The suggestions of the study are as follows:

1. The discharge of untreated/partially treated sewages from open municipal drains, lodge and residential area into river is a key issue.
2. Centralised treatment facility for municipal wastes in the area is required.

Leachate from Kalamassery dumping yard also affecting water quality.

3. Facility for treatment of human waste in residential building to be ensured.
4. Continuous monitoring and surveillance in the Kalamassery Industrial Area required as pollution from industrial area also observed.
5. Decayed vegetations from paddy fields in Muttam yard area and Pallilamkara contributes high level of BOD to the Thumbungalthodu during starting of rainy season. Reuse of this land as paddy field again can prevent water stagnation and formation of high BOD oxygen less water.
6. Natural streams in this area to be conserved.

B) Study Conducted By the 'Supervised Committee' constituted by the Hon'ble NGT in O.A No. 560/2018 Dated 21.01.2019:

A detailed study was also conducted by the five members "**Supervised Committee**" constituted by the Hon'ble NGT as per direction contained in the order passed in O.A No. 560/2018 dt 21/01/2019. The committee consists of Officials from Central Pollution Control Board (**CPCB**), Kerala State Pollution Control Board (**KSPCB**), National Environmental Engineering & Research Institute (**NEERI**), State Environmental Impact Assessment Authority (**SEIAA**) and representative of District Magistrate. The Committee had conducted detailed studies of river water and sediments on 18.05.2019 and 30.08.2019 in-order to find contaminated stretch if any in River. Water and sediment samples from following stations were collected and analyzed. Sampling locations are given in Table below

SAMPLING LOCATIONS
Uliyannur bridge
Pathalam bridge
U/s of pathalam regulator bridge
Kalamassery bridge
PuthalamKadavu
U/s of manjummel regulator
Muttar bridge

U/s of unthithode second point
U/s of unthithode first point
Confluence point of unthithode
D/s of unthithode first point
D/s of unthithode second point
Eloor ferry- eloor&edamula stream
Eloor ferry- varapuzha bridge
Methanam bridge
Vettukadavu
D/s of IREL discharge point

Findings of the Study:

- i. The committee observed that except iron, no other heavy metals and Organo Chlorine Pesticides (OCPs) /Chlorinated Organic Compounds (COCs) were reported in the water samples taken from the Periyar River in the second monitoring. However, in the first monitoring, the concentration of heavy metals was found slightly higher than the prescribed standards in few locations. The reduction in the concentration of heavy metals in the event of second monitoring is most likely due to the ongoing monsoon.
- ii. It is observed that no significant pollution has occurred in Periyar river with respect to heavy metals and Organo Chlorine Pesticides (OCPs)/Chlorinated Organic Compounds (COCs). However, the committee felt that need of regular monitoring of these locations (as per the observed locations of first monitoring) with respect to heavy metals and identification of sources causing the traces of heavy metal in sediments. The regular monitoring may be carried out by KSPCB to keep close eye on illegal discharges from industries.

C) Study Conducted By Board, CWRDM And Kerala University on 22.04.2020:

Board received various complaints on black discoloration of river

Periyar on 30.03.2020 and 18.04.2020. It is noted that during the opening of the bund, black colored water containing sediments is flushed off to the downstream. The shutter is operated by irrigation department. Even after Board's repeated directions to maintain minimum flow and operate the regulator regularly, irrigation department failed to comply the Board's direction. As per the provisions of Disaster Management Act, District Collector had issued order entrusting the Chief Environmental Engineer, Regional Office, Ernakulam for a detailed enquiry on the causes of dis-colouration of river Periyar. Board had conducted a detailed enquiry in industries and also samples collected from Periyar for analysis. A team of experts viz. Dr. Sabu Joseph, Professor, Environmental Studies, Kerala University and Smt.Reshmi, Hydrologist, CWRDM, Calicut under the leadership of Chairman, Pollution Control Board had conducted an inspection and independent monitoring of the area on 22.04.2020.

The conclusion drawn from the study was that the dissolved oxygen levels of the bottom water samples showed the presence of organic matter turning it into anoxic in the inspected stretch of Periyar River.

D) KUFOS Report on fish kill incident of 2023:

Even in the last year, on 08.06.2023, when the Pathalam bund was opened for the first time after summer, there was fish death. A report furnished by KUFOS (Kerala University of Fisheries and Ocean Studies) in 2023 based on examination of fish samples from the incident stated that, from the available information on plankton diversity and having analyzed the dead fishes, it could be inferred that the fish kill should have occurred either due to a sudden decrease in the dissolved oxygen (DO) level, or increase in ammonia levels; it is also a possibility that a sudden influx of the water with lower DO level from the upper part due to excessive load of organic matter entering the lower reaches could also have caused an hypoxic conditions.

19. Important Findings of Board based on the above studies:

The study reports reveal that the heavy metals levels in river water and sediments are well within the limit. Variations are noted with respect to general parameters such as Chloride, TDS, Conductivity etc. which is mainly due to saline intrusion caused by tidal effect. High BOD is due to the organic load contributing from different sources of sewage discharges and also due to dumping of septage, solid wastes etc. in River. COD level in river is caused due to discharge from various drains of town ships and also effect of the industrial discharges. The standards for COD specified in treated effluent for river discharge is 250mg/lit. The treated effluent discharge from industries is permitted in class "E" river considering the stream flow and conditions. The stretch of Periyar downstream of Pathalam bund is classified as "E". The treated effluent conforming to the standards prescribed the Board is allowed to discharge the river considering the classification and stream flow as its effect will be nullified with abundant dilution attaining with the riverflow. During summer, at the time of closing of bund, there will be no enough dilution of treated effluent discharged due to stagnation of river. This may cause accumulation of organic load in the upstream. Hence, it is very mandatory to maintain Environment flow in river during lean period especially at the stretch where controlled waste disposal is permitted for industries.

20. It is humbly submitted that the present conclusion is arrived based on the preliminary investigation and laboratory results. A few more analysis reports are awaited. A final conclusion can be made only after obtaining the analysis reports and report of analysis of fish samples from M/s KUFOS. Based on the studies/investigations made as above the Board is of the opinion that the following measures are to be adopted by the stake holders for mitigating the recurring incidents of pollution in river Periyar.

1. A committee needs to be constituted consisting of Irrigation Department, Kerala State Pollution Control Board and Eloor Municipality as members. A protocol shall be made for operating the Regulatory-cum-bridge at Pathalam. The Irrigation department shall coordinate necessary action in this regard.
2. Expedite the action of irrigation department regarding the Construction of walkway, dyke wall at the Periyar River bank at industrial belt so as to have better surveillance and effective control on industrial discharges.
3. Industries department shall provide proper drainage system for storm water discharge and maintain internal roads inside the industrial area.
4. Constituting of a joint committee including the heads of various departments associated with River such as Revenue, Fisheries, Irrigation, PCB, LSGD, Industries etc. to specifically address the issue of recurring phenomena of Periyar River pollution and to prepare a comprehensive action plan.

21. The averments contained in the Writ Petition, to the effect that the 4th respondent cannot effectively prevent the discharge of effluents from the Industries functioning in the Periyar river banks is not correct and hence denied. As stated supra, the Board has field a comprehensive mechanism of surveillance of the Industries working at Periyar river banks. All the Industries are got under the consent purview and the Board ensures that these Units are operated by following the consent conditions, scrupulously. Whenever violations are noticed, stringent actions are being taken to curb any kind of pollution from such Industries.

22. For the reasons stated above it is submitted that there is no merit in the contentions taken in the Writ Petition and the Writ Petition is liable to be dismissed with costs to respondents 3 and 4.


BABURAJAN P.K.
Chief Environmental Engineer

23. All the facts stated above are true to the best of my knowledge, information and belief. What is stated in the above paragraphs are true to my knowledge and what is stated in those paragraphs are on information and belief derived from records and I believe the same to be true.

Dated this the 31st day of May, 2024.


BABURAJAN P.K.
Chief Environmental Engineer

DEPONENT

Solemnly affirmed and signed before me by the deponent on this the 31st day of May, 2024 in my Office at Ernakulam.

ADVOCATE



**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE**

FACT-Qr.No.S-5, UDYOGAMANDAL P.O., ERNAKULAM-683501.

Phone : 0484 2545678 , E-mail: esceloor@yahoo.co.in

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ

ഫാക്ട് ക്വാർട്ടേഴ്സ് നമ്പർ S-5, ഉദ്യോഗമണ്ഡൽ പി. ഒ.,
എറണാകുളം-683 501

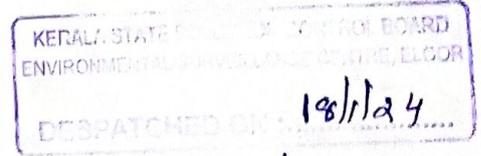


“ഭരണഭാഷ - മാതൃഭാഷ”

തീയതി: 10.01.2024

പിസിബി/ഇഎസ്.സി/സിഎം-33/08
പ്രേഷകൻ

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ,
എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ,
ഏലൂർ.



bjross

സ്വീകർത്താവ്

എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ,
ഇറിഗേഷൻ ഡിവിഷൻ,
സിവിൽ സ്റ്റേഷൻ 2nd ഫ്ളോർ,
കാക്കനാട്.

വിഷയം:- പെരിയാർ നദിയിലെ ഇടമുള കൈവഴിയിലെ 07.01.2024 ലെ മത്സ്യക്കുരുതി
- സംബന്ധിച്ച്.

സർ,

പെരിയാർ നദിയുടെ കളമശ്ശേരി, മഞ്ഞുമ്മൽ വഴി ഒഴുകുന്ന ഇടമുള കൈവഴിയിൽ കഴിഞ്ഞ ദിവസങ്ങളിൽ പുഴയിലെ ഓക്സിജന്റെ അളവ് കുറയുകയും പുഴയിലെ വെള്ളത്തിന് നിറവ്യത്യാസം കാണുകയും ചെയ്തിരുന്നു. മഞ്ഞുമ്മലിൽ 07.01.2024 തീയതിയിൽ മത്സ്യക്കുരുതിയുമുണ്ടായി. ഇത്തരം സാഹചര്യങ്ങൾ ഒഴിവാക്കുന്നതിന് പാതാളം, മഞ്ഞുമ്മൽ റെഗുലേറ്ററുകൾ വേലിയേറ്റം, വേലിയിറക്കം അനുസരിച്ച് കൃത്യമായി പ്രവർത്തിപ്പിക്കേണ്ടതും minimum flow maintain ചെയ്യുന്നതിനുള്ള നടപടികൾ സ്വീകരിക്കേണ്ടതുമാണ്.

വിശ്വസ്തതയോടെ,

എൻവയോൺമെന്റൽ എഞ്ചിനീയർ
(പൂർണ്ണ അധിക ചുമതല)

പകർപ്പ്:- ചീഫ് എൻവയോൺമെന്റൽ എഞ്ചിനീയർ,
മേഖല കാര്യാലയം,
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്,
എറണാകുളം.



KERALA STATE POLLUTION CONTROL BOARD ENVIRONMENTAL SURVEILLANCE CENTRE

FACT-Qr.No.S-5, UDYOGAMANDAL P.O., ERNAKULAM-683501,
Phone : 0484 2545678 , E-mail: esceloor@yahoo.co.in

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ
ഫാക്ട് ക്വാർട്ടേഴ്സ് നമ്പർ S-5, ഉദ്യോഗമണ്ഡലം പി. ഒ.,
എറണാകുളം-683 501



Exhibit R-3 (b)

REGD WITH AD

PCB/ESC/ CTE-11/2019

Date: 22.05.2024

- Ref:
- 1.Consent No. KSPCB/ESC/ICO/10032341/2023 issued on 07.09.2023, valid up to 31.07.2028
 2. Inspection conducted by Board officials on 20.05.2024, 21.05.2024 and 22.05.2024
 3. This office letter dated 21.05.2024.

CLOSURE ORDER

WHEREAS the Government of Kerala have constituted the Kerala State Pollution Control Board (hereinafter referred as the Board) as per Section 4 of the Water (Prevention & Control of Pollution)Act 1974;

WHEREAS the Board is the enforcing authority of Environmental legislations, in the Water(Prevention & Control of Pollution) Act 1974, the Air (Prevention & Control of Pollution) Act 1981 and the Environmental (Protection) Act 1986 in the state;

WHEREAS M/s. Alliance Marine Products, Industrial Development Area, Edayar,Muppathadom P.O, Ernakulam hereinafter referred to as the unit comes, under the purview of the Water (Prevention and Control of Pollution) Act 1974, Air (Prevention and Control of Pollution) Act 1981, and Environment (Protection) Act 1986;

WHEREAS you were bound to comply with the conditions of the consent issued by the Board as per Section 21 of Air (Prevention and Control of Pollution) Act 1981 and Section 25 of Water (Prevention and Control of Pollution) Act 1974;

WHEREAS as per reference (1) above, Board had issued consent to operate for operating a chicken waste rendering unit in Industrial Development Area Edayar;

WHEREAS a massive fish kill incident occurred in the river Periyar on 20.05.2024 and 21.05.2024;

WHEREAS inspection was conducted by Board officials in the area, your industry was also inspected on 21.05.2024 and 22.05.2024;

WHEREAS during inspection conducted on 20.05.2024 huge quantity of cooked product was seen dumped inside the processing area, front shutter was damaged, odour control system was not functioning and it causes intense foul smell in the nearby area;

WHEREAS during the inspection on 21.05.2024, traces of discharge of effluent was verified close to your storm water outlet pipe and it proves an unauthorized discharge of raw effluent through the storm water drain into the river periyar;

WHEREAS the discharge of effluent into the streams is a serious offence;

NOW THEREFORE Board intends to close down your unit as per Section 33A of Water (Prevention and Control of Pollution) Act, 1974 and as per the Section 31A of the Air (Prevention and Control of Pollution) Act, 1981. You are directed to close down the unit with immediate effect and report the action taken to this office at the earliest.

Dated this the 22nd day of May, 2024.



For and on behalf of the
KERALA STATE POLLUTION CONTROL BOARD

A handwritten signature in green ink, appearing to be "S. S. S."

ENVIRONMENTAL ENGINEER

ENVIRONMENTAL ENGINEER
KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE
ELOOR, UDYOGAMANDAL - 683 301

To

M/s. Alliance Marine Products,
Industrial Development Area,
Edayar, Muppathadom P.O,
Ernakulam

Copy to: The Chief Environmental Engineer
KSPCB, Regional Office, Ernakulam



**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE**

FACT-Qr.No.S-5, UDYOGAMANDAL P.O., ERNAKULAM-683501,

Phone : 0484 2545678 , E-mail: esceloor@yahoo.co.in

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ

ഫാക്ട് ക്വാർട്ടേഴ്സ് നമ്പർ S-5, ഉദ്യോഗമണ്ഡലം പി. ഒ.,

എറണാകുളം-683 501



Exhibit R-3(c)

PCB/ESC/CO-08/06

Date: 27.05.2024

Ref: 1. Consent to Operate KSPCB/ERRO/ICO/10029394/2023 dated 08/08/2023
valid up to 30/06/2028

2. Inspection conducted on 25/05/2024

CONSENT REVOKE INTENTION NOTICE

WHEREAS the Government of Kerala have constituted the Kerala State Pollution Control Board (hereinafter referred as the Board) as per Section 4 of the Water (Prevention & Control of Pollution) Act 1974;

WHEREAS the Board is the enforcing authority of Environmental legislations, in the Water (Prevention & Control of Pollution) Act 1974, the Air (Prevention & Control of Pollution) Act 1981 and the Environmental (Protection) Act 1986 in the state;

WHEREAS M/s. Arjuna Natural Extracts, Industrial Development Area, Edayar, Binanipuram comes under the purview of the Water (Prevention & Control of Pollution) Act 1974, Air (Prevention & Control of Pollution) Act 1981 and Environmental (Protection) Act 1986 and is bound to comply with the provisions of the said Acts;

WHEREAS The Board has issued the Consent to Operate to the unit as per reference 1;

WHEREAS inspection was conducted by Board officials in your unit on 25.05.2024;

WHEREAS during inspection conducted on 25.05.2024, blackish coloured discharge was seen through the stormwater drain inside the unit;

WHEREAS legal sample was collected and forwarded for analysis;

WHEREAS under section 24 of the Water Act, no person shall knowingly cause or permit to enter any poisonous, toxic or polluting matter, whether directly or indirectly, in to any stream or well or river or on land;

NOW THEREFORE the Board intends to revoke the Consent to operate issued vide reference cited 1 above due to the above reasons. You are hereby directed to show cause if any within 7 days of receipt of this notice as to why the Consent to Operate shall not be revoked.

Dated this the 27th day of May 2024.



For and on behalf of the
KERALA STATE POLLUTION CONTROL BOARD

A handwritten signature in green ink, appearing to be "S.A.", written over a faint rectangular stamp.

ENVIRONMENTAL ENGINEER

ENVIRONMENTAL ENGINEER
KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE
ELOOR, UDYOGAMANDAL - 683 501

To

M/s. Arjuna Natural Extracts,
Industrial Development Area,
Edayar.

Copy to: The Chief Environmental Engineer,
Kerala State Pollution Control Board,
Regional Office,
Ernakulam.

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE

FACT-Qr.No.S-5, UDYOGAMANDAL P.O., ERNAKULAM-683501,

Phone : 0484 2545678 , E-mail: esceloor@yahoo.co.in

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ

ഫാക്ട് ക്വാർട്ടേഴ്സ് നമ്പർ S-5, ഉദ്യോഗമണ്ഡൽ പി. ഒ.,
എറണാകുളം-683 501



Exhibit R-3(d)

PCB/ESC/CO-31/07

Date : 28.05.2024

Sub:- Direction issued under section 33A of Water (Prevention & Control of Pollution) Act, 1974 in the matter of Pollution caused by M/s. FACT, Udyogamandal complex, Udyogamandal P.O., Eloor, Ernakulam.

Ref : Consent No : PCB/HO/EKM-3/ICO-R/05/2023 dated 26.05.2023 and valid upto 30.06.2028.

DIRECTION

WHEREAS the Government of Kerala have constituted the Kerala State Pollution Control Board (hereinafter referred as the Board) as per Section 4 of the Water (Prevention & Control of Pollution) Act 1974;

WHEREAS the Board is the enforcing authority of Environmental legislations, in the Water (Prevention & Control of Pollution) Act 1974, the Air (Prevention & Control of Pollution) Act 1981 and the Environment (Protection) Act in the state;

WHEREAS M/s. The Fertilisers And Chemicals Travancore Limited (FACT), Udyogamandal Complex- Fertilizer Plants, Udyogamandal, Eloor, Kerala 683501(here after will be referred as unit) comes under the purview of the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 and Environment (Protection) Act,1986 and is bound to comply with the provisions of the said Acts;

WHEREAS during heavy rain fall on 28.05.2024, overflow of storm water was noticed from the sulphur unloading area of your unit in the river bank;

WHEREAS inspection was conducted by Board officials in the said area and found that storm water mixed with sulphur was seen flowing into the river from the unit premises;

WHEREAS you have not taken measures to contain the water from that area which will lead to river pollution;



**KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE**

FACT-Qr.No.S-5, UDYOGAMANDAL P.O., ERNAKULAM-683501,
Phone : 0484 2545678 , E-mail: esceloor@yahoo.co.in

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

എൻവയോൺമെന്റൽ സർവൈലൻസ് സെന്റർ

**ഫാക്ട് ക്വാർട്ടേഴ്സ് നമ്പർ S-5, ഉദ്യോഗമണ്ഡലം പി. ഒ.,
എറണാകുളം-683 501**



Exhibit R-3 (e)

PCB/ESC/CO-188/07

Date:27.05.2024

CLOSURE INTENTION NOTICE

- Ref:-
1. Consent No. PCB/ESC/CO/IC-52/R3/19 issued dated 20.11.2019 and valid upto 30.06.2020
 2. Application for ICO renewal dated 20.11.2023
 3. Inspection conducted by Board officials on 25.05.2023
 4. Show cause notice No. PCB/ESC/CO-188/07 dated 07.11.20223

WHEREAS the Government of Kerala have constituted the Kerala State Pollution Control Board (herein after referred as the Board) as per section 4 of the Water (Prevention & Control of pollution) Act, 1974;

WHEREAS the Board is the enforcing authority of Environmental legislations, in the Water (Prevention &Control of Pollution) Act, 1974, the Air (Prevention & Control of pollution) Act, 1981 and the Environmental (Protection) Act, 1986 in the state;

WHEREAS M/s. AK CHEMICALS, VI/587 A, Industrial Development Area, Edayar, Binanipuram P.O., comes under the purview of Water (Prevention &Control of Pollution) Act, 1974, and Air (Prevention & Control of pollution) Act, 1981 and is bound to comply with the statutory requirements and standards laid there under;

WHEREAS Board had issued consent to operate to you with specific conditions for control of Air and Water Pollution, but the validity of the consent was expired on 30.06.2020 and the application for consent to operate renewal was refused as per reference cited (2) above due to violations noticed;

WHEREAS during the inspection conducted on 25.05.2024 as per reference cited (3), sulphur powder spilled in your compound found mixed up with storm water, it discharged through the storm water drain and it ultimately reaches the river Periyar;

WHEREAS you have not given any reply to the letter referred (4) till date and not reported the compliance of instructions given by the Board;

WHEREAS operating the unit without consent of the Board since 2020 and other violations mentioned above are serious offences under the relevant sections of environment legislations;

NOW THEREFORE Board intends to close down your unit as per Section 33A of Water (Prevention & Control of Pollution) Act, 1974, and as per the Section 31A of the Air (Prevention & Control of pollution) Act, 1981. You may file objection, if any, within 7 days of receipt of this notice as to why the above mentioned directions shall not be issued.

Dated this the 27th day of May 2024.



For and on behalf of the
KERALA STATE POLLUTION CONTROL BOARD

A handwritten signature in green ink, appearing to be "S.A."

ENVIRONMENTAL ENGINEER

ENVIRONMENTAL ENGINEER
KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE
ELOOR, UDYOGAMANDAL - 683 501

To

M/s. AK Chemicals,
VI/587 A, Industrial Development Area,
Binanipuram P.O.,
Edayar.

Copy to: The Chief Environmental Engineer,
Kerala State Pollution Control Board,
Regional Office,
Ernakulam.

IN THE HIGH COURT OF KERALA AT ERNAKULAM
PRESENT
THE HONOURABLE THE CHIEF JUSTICE MR. A.J.DESAI
&
THE HONOURABLE MR.JUSTICE V.G.ARUN

Monday, the 10th day of June 2024 / 20th Jyaishta, 1946
WP(C) NO. 9534 OF 2020(S)

PETITIONER:

K.S.R.MENON, AGED 66 YEARS, S/O.LATE G.K.NAIR,
RESIDING AT: A1 A7, PERIYAR HERMITAGE, COMPANIPADI,
ALUVA, ERNAKULAM, PIN - 683 106, KERALA.

RESPONDENTS:

1. STATE OF KERALA, REPRESENTED BY CHIEF SECRETARY, THIRUVANANTHAPURAM, PIN - 695 001.
2. THE DISTRICT COLLECTOR, ERNAKULAM, HAVING OFFICE AT DISTRICT COLLECTORATE, FIRST FLOOR-CIVIL STATION, KAKKANAD, ERNAKULAM, PIN - 682 030.
3. KERALA STATE POLLUTION CONTROL BOARD, REP. BY IT'S CHAIRMAN, HEAD OFFICE, PATTOM P.O., THIRUVANANTHAPURAM, PIN - 695 004.
4. CHIEF ENVIRONMENTAL ENGINEER, KERALA STATE POLLUTION CONTROL BOARD, ERNAKULAM, HAVING OFFICE AT MIG AND HIG COLONY, GANDHI NAGAR, ELAMKULAM, ERNAKULAM, PIN - 682 020.
5. ALUVA MUNICIPALITY, REP. BY ITS SECRETARY, OFFICE AT PWD QUARTERS, PERIYAR NAGAR, ALUVA, ERNAKULAM, PIN - 683 101.
ADDITIONAL R6 IMPLEADED
6. THE EXECUTIVE ENGINEER, IRRIGATION DIVISION, KAKKANAD P.O., ERNAKULAM, PIN - 682 030.
ADDL.R6 IS SUO MOTU IMPLEADED AS PER ORDER DATED 10/06/2024 IN WP(C) 9534/2020.

Writ petition (civil) praying inter alia that in the circumstances stated in the affidavit filed along with the WP(C) the High Court be pleased to direct the respondents 1 to 5 to submit a report before this honourable court as to the discharge of toxic effluents by the nearby industries of Periyar river and from Aluva Market after conducting an inspection and also explaining the measures taken by them to curb the pollution of Periyar river pending consideration of the above writ petition in the interests of justice.

This petition again coming on for orders upon perusing the petition and the affidavit filed in support of WP(C), this Court's order dated 24/05/2024 and upon hearing the arguments of M/S. MATHEW A KUZHALANADAN, KURIAKOSE VARGHESE, K.R.ARUN KRISHNAN, SUDEEP ARAVIND PANICKER & V.SHYAMOHAN, Advocates for the petitioner, GOVERNMENT PLEADER for R1 & R2 & R6, SRI.NAVEEN T, STANDING COUNSEL for R3 & R4 and of SRI.K.T.THOMAS, STANDING COUNSEL for R5, the court passed the following:

A. J. DESAI, C. J. & V. G. ARUN, J.

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W. P. (C) Nos. 9534 of 2020, 996 of 2012 & 31236 of 2023

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Dated this the 10th day of June, 2024

ORDER

A. J. Desai, C. J.

We have heard the learned counsel appearing for the respective parties. We have also gone through the report submitted by the learned Amicus Curiae and the counter affidavits filed by the parties to the proceedings.

2. Prima facie, we are of the opinion that the Committee constituted pursuant to the order passed by the National Green Tribunal way back in the year 2020 or the Central Pollution Control Board or the Kerala State Pollution Control Board have not taken appropriate steps to curb the pollution in and around Periyar river. The photographs produced by the learned Amicus Curiae along with the report speaks itself as to the extent to which the river is polluted by industrial effluents, which are hazardous to human beings as well the flora and fauna. Therefore, at this stage,

we pass the following order:-

(i) Let a Committee consisting of the Secretary, Directorate of Environment and Climate Change, Government of Kerala, the Regional Director, Central Pollution Control Board, Regional Directorate, Bangalore and the Chairman, Kerala State Pollution Control Board, be formed.

(ii) The Committee shall visit all the places already visited by Mr. Ananthakrishnan A. Kartha, learned Amicus Curiae.

(iii) The Committee shall ensure that the representatives of the petitioners as well as the learned Amicus Curiae accompany them during such visits.

(iv) The Committee shall file their report containing the suggestions and action to be taken to curb the pollution in the Periyar river.

The Executive Engineer, Irrigation Division, Kakkanad P.O., Ernakulam, is suo motu impleaded as additional 6th respondent in W. P. (C) No. 9534 of 2020.

Copy of the order shall be supplied to all concerned.

Post on 03.07.2024.

**Sd/-
A. J. DESAI
CHIEF JUSTICE**

**Sd/-
V. G. ARUN
JUDGE**

Eb



IN THE HIGH COURT OF KERALA AT ERNAKULAM
PRESENT
THE HONOURABLE THE CHIEF JUSTICE MR. A.J.DESAI
&
THE HONOURABLE MR.JUSTICE V.G.ARUN

Wednesday, the 3rd day of July 2024 / 12th Ashadha, 1946
WP(C) NO. 31236 OF 2023(S)

PETITIONER:

ASSOCIATION OF GREEN ACTION FORCE,
REPRESENTED BY ITS SECRETARY,
SHIBU MANUEL, THAIPARAMBIL DOOR NO. 393,
WARD 17, UDYOGAMANDAL, ELOOR SOUTH,
ERNAKULAM - 683 501.

RESPONDENTS:

1. UNION OF INDIA, REPRESENTED BY THE SECRETARY, MINISTRY OF ENVIRONMENT FOREST, CENTRAL SECRETARIAT, NEW DELHI - 110 001.
2. STATE OF KERALA, REPRESENTED BY CHIEF SECRETARY, SECRETARIAT, THIRUVANANTHAPURAM - 695 001.
3. THE SECRETARY, KERALA POLLUTION CONTROL BOARD, PATTOM PALACE P.O., THIRUVANANTHAPURAM - 695 004.
4. THE MEMBER SECRETARY, CENTRAL POLLUTION CONTROL BOARD, PARVESH BHAWAN, EAST ARJUN NAGAR, NEW DELHI - 110 032.
5. HINDUSTAN INSECTICIDES LTD., UDYOGAMANDAL, ELOOR, REPRESENTED BY ITS CHAIRMAN, UDYOGAMANDAL P.O., ERNAKULAM - 683 501.
6. FERTILIZERS AND CHEMICALS TRAVANCORE LTD., UDYOGAMANDAL DIVISION, REPRESENTED BY ITS CHIEF MANAGING DIRECTOR, UDYOGAMANDAL P.O., ERNAKULAM - 683 501.
7. M/S COCHIN MINERALS AND ROUTILES LTD., EDAYAR, ALUVA, KERALA, REPRESENTED BY ITS MANAGING DIRECTOR, EDAYAR P.O., ERNAKULAM - 683 502.
8. THE DISTRICT COLLECTOR, CIVIL STATION, KAKKANAD, ERNAKULAM - 682 030.
9. THE SUPERINTENDING ENGINEER, IRRIGATION DEPARTMENT, ADDL. IRRIGATION SUB DIVISION OFFICE, TOWN HALL ROAD, PWD QUARTERS, PERIYAR NAGAR, ALUVA - 683 101.

ADDL.R 10 IMPLEADED SUO-MOTU

10. ELOOR MUNICIPALITY, REPRESENTED BY ITS SECRETARY,
ELOOR FERRY ROAD, UDYOGAMANDAL, ELOOR, PIN – 683 501

ADDL.R 10 IMPLEADED SUO-MOTU AS PER ORDER DATED 30.11.2023 IN WP(C)

P.T.O.

Writ petition (civil) praying inter alia that in the circumstances stated in the affidavit filed along with the WP(C) the High Court be pleased to

i) Stay the excavation work of 9th respondent in Kuzhikandom creek, till the disposal of the above Writ Petition (C).

ii) Call for action taken report from the 2nd respondent pursuant to Exhibit P6 order, for the ends of justice.

This petition again coming on for orders upon perusing the petition and the affidavit filed in support of WP(C), this Court's order dated 10/06/2024 and upon hearing the arguments of M/S. A.X.VARGHESE, A.V.JOJO, B.M.JEEVAN RAJ, & HARISANKAR S, Advocates for the petitioner, SRI.T.NAVEEN, Standing Counsel for R3, SRI.M.AJAY, Advocate for R4, SRI.GOPIKRISHNAN NAMBIAR, SENIOR ADVOCATE along with M/S. K.JOHN MATHAI, JOSON MANAVALAN, KURYAN THOMAS, PAULOSE C. ABRAHAM, RAJA KANNAN, Advocates for R5 & R6, SNEHA RAJIV, Advocate for R7, SRI.K.S.ARUN KUMAR, Advocate for R10 and of ADV.ANANTHAKRISHNAN A.KARTHA, AMICUS CURIAE, the court passed the following:



P.T.0

A. J. DESAI, C. J. & V. G. ARUN, J.

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W. P. (C) Nos. 9534 of 2020, 996 of 2012 & 31236 of 2023

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Dated this the 3rd day of July, 2024

ORDER

V. G. Arun, J.

Having heard the learned counsel, we are of the opinion that the inspection being conducted by the Committee constituted as per the order dated 10.06.2024 should continue. The industries on the upstream portion of Periyar river should also be inspected.

2. In the meanwhile, the State Government should state as to whether a health survey of the residents in the affected area, as was done in the year 2008 can be conducted and an insurance scheme, as was done earlier, formulated and if not, why?

The Kerala State Pollution Control Board shall make available a list of industries in the area functioning on the strength of the NOC issued by the Board.

Post on 07.08.2024

**Sd/-
A. J. DESAI
CHIEF JUSTICE**

**Sd/-
V. G. ARUN
JUDGE**

Eb