

JUSTICE A V RAMAKRISHNA PILLAI
(Former Judge, High Court of Kerala)
CHAIRMAN

State Level Monitoring Committee, Kerala

(An authority constituted by the
National Green Tribunal)
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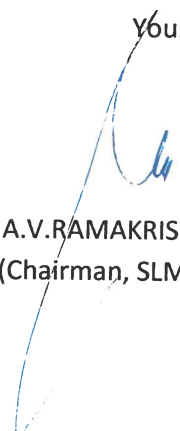
27.05.2024

Sir,

Kindly see the appended report regarding the mass fish kill in Periyar River in Ernakulam District, Kerala during the night of 20th May 2024.

The same may kindly be placed before the Hon'ble Tribunal for consideration and orders.

Yours Sincerely,


JUSTICE A.V.RAMAKRISHNA PILLAI,
(Chairman, SLMC, KERALA)

To
The Registrar,
National Green Tribunal, Southern Zone Bench,
Kalas Mahal, Kamarajar Salai, PWD Estate,
Chepauk, Triplicane, Chennai, Tamil Nadu-600005.

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

NEW CASE

REPORT

PRESENTED BY JUSTICE A.V.RAMAKRISHNA PILLAI
(FORMER JUDGE, HIGH COURT OF KERALA)
CHAIRMAN, STATE LEVEL MONITORING COMMITTEE, KERALA
(FOR AND ON BEHALF OF THE AFORESAID COMMITTEE)
RELATING TO THE MASS FISH KILL IN PERIYAR RIVER IN KERALA
DURING THE NIGHT OF 20TH MAY 2024.

PRESENTED ON : 27.05.2024

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REPORT

A mass fish kill, the magnitude and impact of which are unprecedented, was reported in the Periyar river, during the night of 20th May 2024 triggering an outrage.

Dead fish in enormous quantity was found floating in the river on May 21st morning from the Pathalam bund and downstream. Reportedly, fisherman involved pisciculture (cage farming) in areas around Cheranellur, Kothad, Kadamakkudy, etc. sustained loss to the tune of lacks of rupees. Local inhabitants allege that the river stretches near the Pathalam bund turned black on the previous day and they suspect the release effluents into the river from the nearby industries in Eloor – Edayar area in Ernakulam District.

I received a telephonic information in the morning of 21st May, 2024 regarding the incident same from a reporter of a leading Malayalam daily and I reached the ferry behind the forest depot, Eloor by 10 A.M. on the same day. I sought assistance from the Chief Environmental Engineer, Regional Office, KSPCB, Ernakulam for my inspection. However, as he was at Thiruvananthapuram, he had deputed one Assistant Executive Engineer to assist me in the inspection. At the time of my inspection, media persons were there and during the course of my inspection, a team headed by the Chief Medical Officer, Family Health Centre, Cheranelloor had also arrived there. **Annexure A-I series** are the photographs taken at the time of inspection.

Dead fish in large quantity [kindly see Annexures AI(a), AI(b) and AI(c)] was found floating near the ferry. An artificial mud bund starting from the southern bank of the river and extending few meters towards north (to the middle of the river) was also noted (kindly see Annexure-AI(g)). A banner raising protest against the Municipality for not removing the same was also seen there (kindly see Annexure-AI(h)). Locals allege that when the banks were covered with mud and silt, to facilitate a navigable path across the river, the mud was moved to the side at the instance of the local body and thus the present bund



was formed. They also allege that unless it is removed from the river it will cause obstruction to the flow of water during heavy rain thereby leading to flooding of the banks on either side.

As directed by me, the Chief Environmental Engineer, Regional Office, KSPCB, Ernakulam submitted a preliminary report (**Annexure-II**) along with a covering letter (**Annexure-III**) regarding the incident.

Meanwhile, the Kerala University of Fisheries and Ocean Studies (KUFOS) after testing the samples from the river submitted a report to the Government pointing out the high concentration of ammonia and hydrogen sulphide in Periyar river.

DISCUSSION AND CONCLUSION

I had already presented three reports before this Hon'ble Tribunal in O.A.No.395/2013(SZ) on 14.8.2020, 8.1.2021 and 26.10.2021, pointing out the sad plight of Periyar river. This report may kindly be treated as the continuation of the aforesaid reports.

The river which, originates from Idukki District in Kerala and passes through the districts of Ernakulam and Thrissur before it finally joins the Arabian Sea, is the main source of drinking water of the inhabitants of Kochi Corporation and nearby areas. In Idukki, it touches the local limits of Kattappana Municipality and thirty village panchayaths. In Ernakulam district, it passes through the local limits of Corporation of Kochi, nine Municipalities and forty village panchayaths. The river divides into two in the district of Ernakulam; one branch joining the Vembanad lake and the other branch proceeding to Thrissur district, to join Arabian Sea, after passing through Kushur, Methala and Eriyad Village panchayaths in Thrissur District.

This river was known for its unique biodiversity decades ago. However, the nature of the river has changed due to excessive inflow of pollutants into the river, indiscrete sand mining, ruthless encroachment of the river etc.



Intermittent change in the colour of the water in the river near Pathalam bund and downstream was noted on several occasions, suspectedly due to the unauthorised release of effluence from the industries in Eloor – Edayar areas. Those instances were reported in my previous reports. There is a feeling among the general public this is on account of the indifferent attitude of local bodies and other government departments in properly handling the waste management system as per the existing laws. The recurrence such instance including the present mass fish killing fortifies their suspicion.

In my suggestions in the report dated 14.8.2020, I have pointed out the necessity of constituting an independent committee vested with the powers detailed therein. However, when the matter came up for consideration of this Tribunal, the government maintained the stand there is already a committee which would take care of everything and therefore a new committee not be formed. Unfortunately, there was no change in the situation and incidents like the one now reported were being repeated time and again.

In the report submitted by the Chief Environmental Engineer, it is stated that the continuous and sudden upsurge of water due the opening of the Pathalam bund during the previous day might have led to severe decline of oxygen level at the downstream and that may be the main reason behind the fish death.

However, the report now submitted by KUFOS to the Government which points out high concentration of ammonia and hydrogen sulphide contradicts the opinion of the Kerala State Pollution Control Board. The presence of hydrogen sulphide in the river water indicates the entry of chemicals into the river presumably due to the unauthorised discharge of untreated water into the river system.

The report of the Chief Environmental Engineer, KSPCB, Ernakulam further says that routine inspections are carried by the Pollution Control Board on the banks of periyar river in the Eloor – Edayar industrial area. According to




him currently only five industries are permitted for the discharge of treated effluent into the river and parameters of the same are connected to the online system for continuous monitoring.

It is curious to note that though it is claimed that no unauthorised discharge was noticed on examining the footage from the surveillance camera, signs of effluent discharge from M/s. Alliance Marine, a chicken waste rendering unit was observed recently and show cause notice has been issued to them. This is a strong circumstance which supports the view that unauthorised pollutants are being discharged into the river by the nearby industrial area though it escapes the notice of the authorities concerned. This is the reason why the constitution of an independent body for inspection was suggested in my previous report dated 4.8.2020.

The present incident of fish kill is not a solitary one. It won't be the last also unless proper measures are taken on war footing by the authorities concerned for which interference of this Hon'ble Tribunal is necessitated.

Dated this the 27th day of May, 2024.


Justice A.V. Ramakrishna Pillai
(Former Judge, High Court of Kerala)
Chairman, SLMC, Kerala.

ANNEXUR. A I Seite



A. (a)

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- 5 -



A₁(6)

6
-6-



A1(c)



A1(8)



16
- 9 -

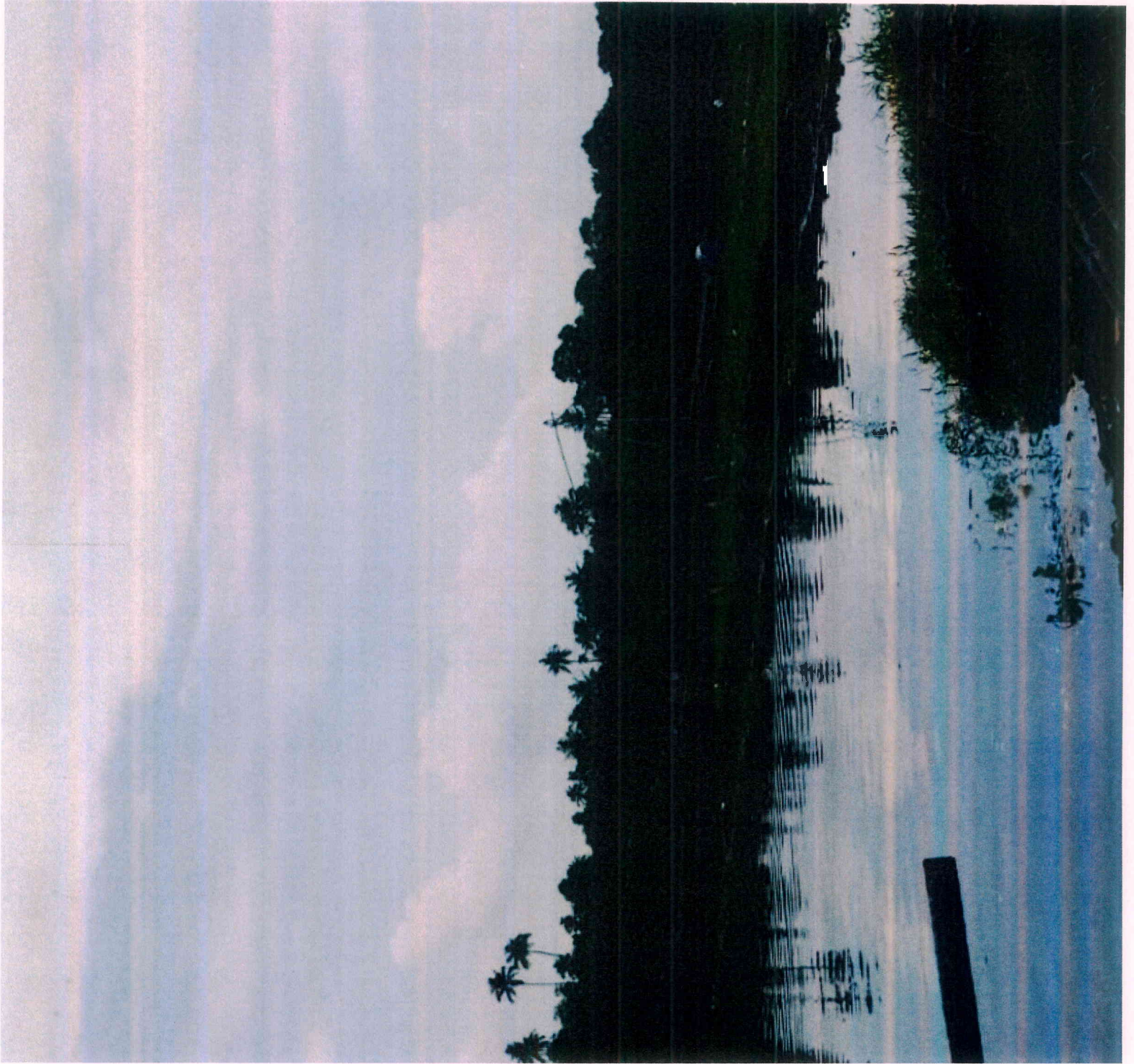
B. (L)



A1(6)

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- 10 -



6

- 11 -

A, (g)



ജനകീയ പ്രതിഷേധം

- ▶ പെരിയാറിനെ സംരക്ഷിക്കുക
- ▶ കേന്ദ്രസർക്കാരിന് നിയമനിഷേധം
- ▶ സർക്കാർ കടമിടലിനെ തുടർച്ചയായി പാതയ്ക്കു പുറകിലേക്ക് നയിക്കുക

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B1 (H)

Report on fish death in Periyar on 21/05/2024

A complaint was received on 20.05.2024 at 9 PM stating that fish death was observed in Periyar in the Eloor Ferry area. Following this, the Surveillance Team of the Board inspected the site. Fish (such as Karimeen) were seen gasping for breath, floating in the river. Locals alleged that discharge of any factory effluent into the river has resulted in the fish death. Samples of water and dead fish were collected from the spot.

On analyzing the water sample collected, the Dissolved Oxygen Level was detected to be at a lower level than that required for the survival of fish. Analysis of other parameters is under progress at the Board's laboratory. Fish sample collected has been sent to Kerala University of fisheries and Ocean Studies (KUFOS) for analysis. Further, in relation to the fish death, special inspections were conducted in the Eloor-Edayar Industrial Area in addition to the routine inspections. Currently, only 5 industries are permitted for treated effluent discharge. The parameters of the same connected to the Online System, are being continuously monitored. Any unauthorized/untreated effluent discharge was not observed from the Eloor-Edayar Industrial Area during the inspection. Also, no unauthorized discharge was noticed on examining the footages from surveillance camera. However, signs of effluent discharge from M/s. Alliance Marine, a chicken waste rendering unit were observed for which a Show Cause Notice has been issued. It is observed that low Dissolved Oxygen Level was reported in the analysis reports of samples collected a week before fish death from Periyar river from Pathalam bund upstream and Pathalam bridge.

Due to intense rainfall, Pathalam regulator cum bridge was partially opened on 20.05.2024 at 3 P M. In this event, the sudden outflow of water with low Dissolved Oxygen Level from the upstream of regulator to the downstream, may have been a contributing factor to the fish death.

Variation in the Water quality related to Pathalam regulator of the past few years were also assessed from the analysis reports of the Board. It has been previously observed that during the summer months when the bund is closed for a long period of time, the river flowing through several residential areas has huge quantities of biodegradable waste which gets collected and deposited in the upstream of regulator. It is hereby reported that based on the preliminary investigation, the continuous and sudden upsurge of water due to the opening of the bund leading to severe decline of Dissolved Oxygen Level at the downstream, may be the main reason behind the fish death. Since the fish death were observed at areas such as Kadamakudy, Varapuzha etc. which are very downstream area of Periyar river, a detailed scientific investigation is required for ascertaining the factors that led to the incident.


Chief Environmental Engineer
Regional Office, Ernakulam

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കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
KERALA STATE POLLUTION CONTROL BOARD
മേഖലാ ഓഫീസ്, ഗാന്ധിനഗർ, കടവന്ത്ര പി.ഒ., എറണാകുളം-682020
REGIONAL OFFICE, GANDHI NAGAR, KADAVANTHRA P.O., ERNAKULAM- 682020



PCB/RO-EKM/GEN-280/20

Date: 22.05.2024

From

Chief Environmental Engineer

To

Justice A.V. Ramakrishnapilla
The Chairman
State Level Monitoring Committee

Sub:- Fish death in Periyar - reg.

Ref:- Telephonic instruction from your good self on 21/05/2024.

Sir,

As instructed, I am forwarding herewith the preliminary report on the fish death occurred in Periyar river on 20/05/2024 night, for kind information and further necessary action.

Yours faithfully,

CHIEF ENVIRONMENTAL ENGINEER

Encl:- as above