

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

Original Application No.93 of 2023 (SZ)

Tribunal on its own motion SUO MOTU based on the news item published in
'The Hindu' Thiruvananthapuram E-edition dated 07.06.2023,
"Study finds disturbing evidence of marine plastic pollution off Kerala coast"

Versus

Member Secretary Kerala State Coastal Zone Management Authority (KSCZMA)
4th Floor, KSRTC Bus Terminal Thampanoor, Thiruvananthapuram Kerala and
Ors. and Ors.

...Respondent(s)

**REPORT AND ACTION PLAN FILED BY DISTRICT COLLECTOR,
TRIVANDRUM**

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Dated at Chennai on this the 21th February, 2024.

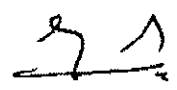

M/s. E.K.KUMARESAN

Standing Counsel for State Government of Kerala - NGT(SZ) Chennai Bench.

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REPORT OF DISTRICT COLLECTOR, TRIVANDRUM IN OA 93/2023
BEFORE THE HONORABLE NATIONAL GREEN TRIBUNAL, CHENNAI

The Hon'ble NGT had directed the State of Kerala to file a report vide its order dated 14/07/2023. In respectful compliance of the Order of the Hon'ble NGT, a meeting of the various stakeholders was held on 04/09/2023 for preparation of a comprehensive action plan. The various departments such as Local Self Government, Harbour Engineering, Irrigation, Police, Tourism etc were directed to submit individual reports incorporating the activities currently undertaken and also the activities proposed for the prevention and control of marine plastic pollution and for the protection of the estuarine and marine eco systems. A follow up meeting was held in the chamber of the Sub Collector on 11/09/2023. Meanwhile, in the hearing of OA No 93 of 2023(SZ) held on 29/11/2023, the Hon'ble NGT granted time upto 09/01/2024 for the District Collector, Thiruvananthapuram to file a comprehensive report. In compliance to the said order, an action plan submitted by the Kerala State Pollution Control Board after consolidating the reports received from the Local Self Government, Inland Navigation, Police Department, Irrigation Department, Thiruvananthapuram Corporation and Harbour Engineering Department is enclosed herewith for information and further necessary action.



DISTRICT COLLECTOR

TRIVANDRUM

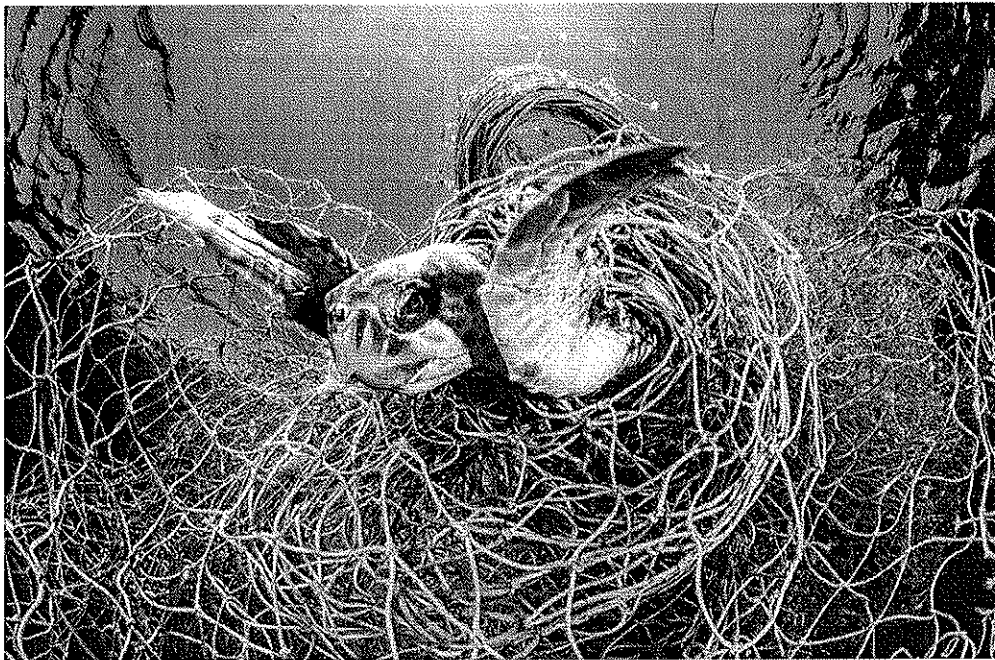


GEROMIC GEORGE IAS
DISTRICT COLLECTOR
THIRUVANANTHAPURAM

(2)

**PREVENTION OF MARINE PLASTIC POLLUTION
THIRUVANANTHAPURAM DISTRICT**

ACTION PLAN



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1. Background

A news item was published in the Thiruvananthapuram E-edition dated 07/06/2023 of "The Hindu" under the headline "Study finds disturbing evidence of marine plastic pollution off Kerala coast". According to the news report, in an expedition to document underwater diversity led by the European Union supported Project Ecomarine in the Department of Aquatic Biology and Fisheries, University of Kerala the study team found plastic bottles, bags, fishing nets and fragments of single-use plastics in the reefs beyond depth of 40m off the Kerala coast. The Hon'ble National Green Tribunal had registered Suo Motu O.A no. 93 of 2023(SZ) based on the said news report. The Member Secretary, Kerala State Coastal Zone Management Authority (KSCZMA) and Additional Chief Secretary, Department of Environment were the 1st and 2nd respondents respectively. Later the Hon'ble National Green Tribunal vide order dated 31/07/2023 impleaded the Chairman, Kerala State Pollution Control Board (KSPCB) also as the 3rd respondent.

In connection with the above matter, the Member Secretary of Kerala State Pollution Control Board convened a meeting with Dr. Biju Kumar, Professor, Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram who had conducted the study and representatives of the departments concerned on 27/07/2023. The representatives of the following departments attended the meeting.

- i) Kerala State Coastal Zone Management Authority,
Thiruvananthapuram
- ii) Director of Tourism, Department of Tourism, Government of
Kerala, Thiruvananthapuram
- iii) Director of Fisheries, Directorate of Fisheries,
Thiruvananthapuram
- iv) Director of Urban Affairs, Swaraj Bhavan, Thiruvananthapuram
- v) Director of Panchayath, Panchayat Directorate,
Thiruvananthapuram
- vi) Executive Director, Suchitwa Mission, Thiruvananthapuram.

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Dr. Biju Kumar reported that in the underwater survey carried out along the coast of Trivandrum, the underwater sites were found littered with plastic waste including bottles, bags, fishing nets and fragments of single use plastics (SUP). Fishing gears were also observed. The hotspots identified in coastal waters were Vizhinjam, Kovalam, Poonthura, Valiathura, Sanghumuham and Veli in Thiruvananthapuram Corporation area, in the proximity of tourism destinations, fishing villages and the discharge points of canals, rivers and drains joining the sea, indicating the potential sources of plastic waste.

The following decisions were taken in the said meeting:

- (i) To identify all sources of entry of plastic into the coastal waters in Thiruvananthapuram Corporation.
- (ii) To collect the details of action taken by the Thiruvananthapuram Corporation for managing plastic waste.
- (iii) To arrive at an action plan for filling the gap in plastic waste management in Thiruvananthapuram Corporation.
- (iv) To develop and implement an action plan to remove discarded fishing gears and plastic waste from rocky reefs of coastal waters and plastic dumps from rocky reefs.
- (v) To launch awareness drives in tourism destinations, fishing villages and coastal villages which requires good community participation.
- (vi) To provide incentives to fishermen community to collect Single Use Plastics (SUP) from the sea under "Suchitwa Sagaram Sundara Theeram" project so that that could be brought into the domain of Extended Producer Responsibility (EPR) that will result in better plastic waste management.
- (vii) To develop mechanism for collection of discarded Nylon fish nets in shore area.

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The Hon'ble NGT had directed the State of Kerala to file a report. In respectful compliance of the Order of the Hon'ble NGT, the District Collector held a meeting of the various stakeholders on 04/09/2023 for preparation of a comprehensive action plan. The various departments such as LSGD, Harbour Engineering, Irrigation, Police, Tourism etc. were directed to submit individual reports incorporating the activities currently undertaken and also the activities proposed for the prevention and control of marine plastic pollution and for the protection of the estuarine and marine eco-systems. A follow up meeting was held in the chamber of the Sub-Collector of 11/09/2023. LSGD, Inland Navigation, Police Department, Irrigation Department, Thiruvananthapuram Corporation and Harbour Engineering Department submitted reports. Meanwhile in the hearing of O.A.no.93 of 2023(SZ) held on 29.11.2023, the Hon'ble NGT granted time up to 09.01.2024 to the District Collector, Thiruvananthapuram to file a comprehensive report. Accordingly an action plan has been prepared.

2. Local Bodies along the Coastal Belt

There are a total of 14 local bodies including one Corporation, one Municipality and 12 Grama Panchayats located in the coastal area of the district of Thiruvananthapuram. The said local bodies are:

Urban Local Bodies

- 1) Thiruvananthapuram Corporation
- 2) Varkala Municipality

Grama Panchayats

- 1) Anchuthengu
- 2) Azhoor
- 3) Cheruniyoor
- 4) Chirayinkeezhu
- 5) Edava
- 6) Kadinamkulam

- 7) Karumkulam
- 8) Kottukal
- 9) Kulathoor
- 10) Poovar
- 11) Vakkom
- 12) Vettoor

3. Action taken by Departments:

1) Local Self Government Department (LSGD)

The LSGD Planning had prepared master plans for Thiruvananthapuram Corporation and Varkala Municipality. The key sector that is relatable to marine littering aspect is sanitation. According to the report of the Town Planner, aspects regarding solid waste, liquid waste and storm water management were studied and requisite proposals regarding the same were included in the master plans. As per the report of the Joint Director, LSGD there are 118 numbers of mini MCFs, 6 numbers of MCFs and 3 numbers of RRFs in Thiruvananthapuram Corporation. Currently there are 56 numbers of vehicles for collection of biodegradable and non-biodegradable solid waste. Out of the 85 TPD of non-biodegradable waste generated, 50 TPD is being disposed scientifically through the existing facilities. A fraction of the remaining quantity is collected by private agencies. There are 2 numbers of MCFs in operation in Varkala Municipality. The Municipality had conducted gap analysis and had initiated projects to bridge the gap accordingly. Tender proceedings have been completed for a fecal sludge treatment plant (FSTP) in the Municipality. There are 6 numbers of MCFs, 5 numbers of temporary MCFs and 274 mini MCFs in total in the 12 Grama Panchayats. Non-biodegradable waste is collected by Haritha Karma Sena (HKS) in all local bodies. A user fee is charged for the services of the HKS. The non-biodegradable waste so collected is segregated and disposed through approved agencies. Necessary vehicles have been provided to the local bodies for the same. Cleaning drives are

organized in co-ordination with NSS, NGOs etc to make the beaches waste free. Also awareness programmes are conducted for the fishermen and residents of coastal areas. Community toilets/public toilets have been constructed in these areas and the same are in operation. Action has been taken to provide FSTP in Azhooor Panchayat. Tendering procedure is in progress for an FSTP in Kulathoor Panchayat. A mobile FSTP is included in the project of Chirayinkeezhu Panchayat. A chicken waste rendering plant is proposed in Thiruvananthapuram Corporation. Further projects for the scientific disposal of sanitary napkins and diapers have been undertaken by Thiruvananthapuram Corporation and Varkala Municipality.

On evaluation of the present status report submitted by various offices of the LSGD, it is observed that though actions are carried out for management of plastic waste in the coastal area the frequency of door to door collection needs to be increased, segregation of solid waste at source shall be ensured and proper documentation and tracking of the waste transporting vehicles shall be done to ensure that the waste is reaching the designated recipient agency.

2) Harbour Engineering Department

Permissive sanction has been given to the Corporation for construction of material recovery facility (MRF) in 15 cents of land owned by the Harbour Engineering Department. 2 locations (South Fish Landing Center and Harbour Road Side) were allotted for installing Thumboor Mozhi model waste management systems and the same are currently operated by the Corporation. Periodic cleaning is carried out at the fish landing center and harbour project areas. Master plans are being prepared for Vizhinjam Fishing Harbour and Vizhinjam South Fish Landing Center.

3) Irrigation Department

The estuaries under the Irrigation Division, Thiruvananthapuram are Poovar, Poonthura and Veli.

1. Poovar Estuary

The estuary of Poovar is where the Neyyar river merges with the Arabian sea in Poovar of Kulathoor Panchayat. Kulathoor Panchayat is doing the dredging works of this estuary. To remove the waste materials and silt deposited in Neyyar river, works for an amount of Rs.13 lakhs under Operation Jaladhara and works of an amount of Rs.3 lakhs under pre-monsoon works were executed by the Irrigation Department. The dredging had reduced the waste materials entering the sea from Neyyar river.

2. Poonthura Estuary

The dredging works of this estuary and opening of the inlet is entrusted to the Major Irrigation Department. The works carried out for the cleaning of Karamana and Killi rivers under Operation Jaladhara, Pre-monsoon works, City – Flood works and Urban Flooding works (total amount Rs.94.2 lakhs) has resulted in the reduction of inflow of waste to Poonthura Estuary located at the mouth of Karamana river. As per the action plan prepared in connection with O.A.673/2018, work of periodical cleaning of Thiruvallam thodu of Karamana river basin was carried out for an amount of Rs.24.60 lakhs and works of Karamana and Killi river were carried out for an amount of Rs.100.60 lakhs by the Major Irrigation Department.

3. Veli Estuary

The dredging works of the estuary and opening of the inlet are entrusted to Major Irrigation Department. The Amayizanjana thodu under the control of the said department flows to the Akkulam kayal and joins the Veli lake before finally meeting the sea. For the cleaning and desiltation of Amayizanjana thodu, works amounting to Rs.9 crores are currently under progress. On completion of the same the issue of marine littering can be reduced to certain extent.

4) Inland Navigation

The Assistant Executive Engineer, Inland Navigation Sub Division had reported that the department is currently carrying out only the cleaning of water hyacinth in the Veli Lake.

5) Police Department

The DySP, Special Branch, Thiruvananthapuram Rural had reported that the coastal area of Tiruvananthapuram Rural District are under the jurisdiction of the Police Stations of Anchuthengu, Varkala, Kadinamkulam, Poovar, Pozhiyoor and Kanjiramkulam. In addition to the above there are Anchuthengu Coastal and Poovar Coastal Police Stations. Kadalora Jagrata Samiti has been constituted including the natives of the coastal areas and fishermen. The activities of the same are reviewed monthly and awareness programmes were conducted for the environmental upkeep of the coastal areas. Instructions had also been given to report the defaulters involved in dumping of waste in these areas. Prior to the tourism season, beach cleaning campaign is organized regularly at Varkala involving the Coastal Police, Jana Maitri Police, NGOs and local residents. All SHOs had been given directions to initiate strict action in the matter of waste dumping.

On evaluation of the reports submitted by the various responsible agencies, it was noticed that though various actions have been taken for the management of plastic waste and protection of water bodies in the coastal area, there are certain gaps between the quantity of waste generated and the quantity disposed scientifically. As a result, a considerable fraction of plastic waste is getting dumped on land and water bodies. The plastic waste entering the various water bodies eventually reach the ocean through the drains, rivers and estuaries. An action plan involving various responsible agencies such as LSGD, Suchitwa Mission, Irrigation Department, Inland Navigation Department, Fisheries Department, Tourism Department, Police Department and KSPCB is hence necessary to bridge the gap between the generation and scientific disposal of plastic waste, remove the plastic waste already in the water bodies and also to prevent plastic waste from reaching the marine ecosystem.

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4. Action Plan

Sl no	Action points	Current Status		Action plan	Agencies Responsible	Target time for Compliance
1	Door to Door collection of plastic waste	Local Body	% collection	The service of HKS shall be extended to all wards. Frequency of collection shall be increased	LSGD	1 year
		Thiruvananthapuram Corporation	58.8			
		Varkala Municipality	100			
		Grama Panchayats	50			
2	Collection Centres	Local Body	Facilities	Adequate number of MCFs and RRFs shall be set up in the local bodies	LSGD	1 year
		Thiruvananthapuram Corporation	Mini MCFs: 118 MCFs: 6 RRFs: 3			
		Varkala Municipality	MCfs: 2			
		Grama Panchayats	Mini MCFs: 274 MCfs: 6 Temporary MCfs: 5			
3	Awareness programmes	Conducted in all local bodies		To be conducted regularly	LSGD, Suchitwa Mission, KSPCB, Police Dept	Half yearly
4	Beach cleaning drives	Conducted in all local bodies		To be conducted regularly	LSGD	Quarterly

5	Identification of sources of entry of plastic waste into coastal waters	In progress	Inspections shall be conducted frequently by the responsible agencies	LSGD, Suchitwa Mission, Irrigation, Inland Navigation, Tourism, KSPCB	1 year
6	Documentation of the action taken by the coastal local bodies for plastic waste management	In progress		LSGD Suchitwa Mission	1 year
7	Removal of plastic waste from the coastal waters and reefs	In progress		Irrigation Dept, Inland Navigation Dept, LSGD, Fisheries Dept	1 year
8	Facility for periodic removal of plastic waste from surface water bodies	To be provided		Irrigation Dept, Inland Navigation Dept, LSGD	1 year
9	Tracking of waste transporting vehicles	A district level monitoring committee had been constituted. Direction has been given to the local bodies that waste transporting vehicles shall have GPS tracking system.		LSGD	6 months
10	Ensuring that the plastic waste is reaching the designated destination	A manifest system is proposed.		LSGD	6 months

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11	Incentives	Incentives shall be given to fishermen for collection of plastic from sea		LSGD	1 year
12	Penalty for defaulters	Fine shall be imposed in accordance with the relevant GOs/ approved By-law under PWM Rules, 2016. Cases shall be registered against frequent defaulters.	Implemented	LSGD, KSPCB, Police Dept.	

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**REPORT AND ACTION PLAN FILED BY
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