

**GOVERNMENT OF KERALA****Abstract**

Local Self Government Department - Operational Guidelines for the collection and transportation of Fish Waste - Approved - Orders issued.

**LOCAL SELF GOVERNMENT (WM) DEPARTMENT**

G.O.(Rt)No.648/2025/LSGD Dated, Thiruvananthapuram, 09-03-2025

Read:- Letter No. SM/977/2024-C4 dated 12.02.2025 from the Executive Director, Suchitwa Mission.

**ORDER**

As per the letter read above Executive Director, Suchitwa Mission submitted draft operational guidelines for the collection and transportation of fish waste.

(2) Government have examined the matter in detail and are pleased to approve the Operational Guidelines for the collection & transportation of Fish Waste, as enclosed herewith, and orders issued accordingly.

(By order of the Governor)  
ANUPAMA T V  
SPECIAL SECRETARY

The Principal Director, Local Self Government Department.

The Project Director, KSWMP.

The Executive Director, Suchitwa Mission.

The Director, Fisheries Department.

The Member Secretary, Kerala State Pollution Control Board.

The Chief Engineer, Harbour Engineering Department.

All District Joint Director, LSGD (through PD, LSGD)

All Secretaries of Local Self Government Institutions (through PD, LSGD)

The I&PR (Web and New Media) Department.

The Executive Director, IKM.  
Stock File / Office Copy

Forwarded /By order

Signed by

Manish V V

Section Officer  
Date: 10-03-2025 08:35:16

Copy to:-PS to Minister, Local Self Government Department.

PA to Special Secretary, Local Self Government Department.

**OPERATIONAL GUIDELINES FOR THE COLLECTION &  
TRANSPORTATION OF FISH WASTE**

## TABLE OF CONTENTS

Sl.No	Title	Page No.
1	Background	3
2	Objective	3
3	Definition	3
4	The Stakeholders	4
5	Roles and Responsibilities of Various Stakeholders	4
	5.1 Local Self Government Institution	4
	5.2 Fish Stalls/ Sellers/ Market	5
	5.3 Fish waste collection agencies	5
	5.4 Waste processing agencies	7
	5.5 Harbour Engineering Department	7
	5.6 Kerala State Pollution Control Board	7
	5.7 Suchitwa Mission	8
6	Conclusion	8
	Annexure I - Fish Waste Storage Container	9
	Annexure II - Format of Fish Waste Transportation Manifest	10
	Annexure III - Fish Waste Transporting Concealed Refrigerated Vehicles	12

# OPERATIONAL GUIDELINES FOR THE COLLECTION & TRANSPORTATION OF FISH WASTE

## 1. BACKGROUND

Processing of fish for human consumption generates significant amount of waste including skin, heads, viscera, scales, bones, trimmings, and frames. The amount of waste produced varies depending on the fish type, size and the specific product being manufactured. Typically, industrial fish processing yields only 40% edible flesh, with the remaining 60% discarded as waste. Annual discards from the world fisheries were estimated to be approximately 20 million tonnes per year <sup>[1]</sup>. Recognizing the potential value in this waste, various technologies have been developed to convert fish processing by-products into valuable products for human consumption, animal feed, pharmaceutical or nutraceutical applications. Prominent uses of fish waste include production of fishmeal, extraction of collagen and antioxidants, development of cosmetics, generation of biogas/biodiesel, production of chitin and chitosan, food packaging (gelatin, chitosan) and enzyme isolation. Fish waste is prone to very fast spoilage since it contains easily digestible protein. The microbial population associated with the digestive process are the major reasons for spoilage. Since the fish merchants/shops do not bother to scientifically manage the fish waste, the problem of environmental pollution is enhanced.

## 2. OBJECTIVE

These guidelines aim to standardize the collection & storage facilities for the proper operation of service providers for the collection of fish waste from the local bodies in Kerala. Local bodies must adhere to these guidelines while entering into agreement with service providers for the collection of fish waste in their jurisdiction.

## 3. DEFINITION

In these guidelines unless the context otherwise requires,

1. "Fish" generally refers to aquatic vertebrates, in this context, it specifically means those sold at fish stalls, markets or fish processing facilities primarily for human consumption.
2. "Fish waste" consists of the head, tails, skin, gut, fins and frames of fish leftover after filleting or processing.
3. "Fish Stall" in this context denotes the shops, fish markets, outlets and any other establishments involved in the cutting, handling and sale of fish.
4. "Fish processing facilities" in this context denotes the facility where fish and fishery products are prepared, processed, chilled, frozen, packaged and stored.
5. "Agency" in this context refers to the firms involved in the collection of fish waste.
6. "Fish waste processing units" refers to facilities which convert fish waste to value added products.

#### **4. THE STAKEHOLDERS**

All those who are engaged in activities relating to the generation, processing and disposal of fish waste should be well acquainted with the content and purpose of this guideline, as this guideline is structured for establishing safe practices within the sector, for developing progressive measures to enhance the business scope, minimise the accumulation of fish waste and to transform the sector into an organized industrial sector.

The stakeholders includes:

- LSGIs.
- Fish Stall/ Sellers/ Market.
- Collection agencies.
- Waste processing agencies.
- Harbour Engineering Department.
- Kerala State Pollution Control Board.
- Suchitwa Mission.

#### **5. ROLES AND RESPONSIBILITIES OF VARIOUS STAKEHOLDERS**

##### **5.1 Local Self Government Institution**

Local Self Government Institutions shall,

- Ensure and facilitate fish stall & fish processing units to enter into agreement with fish waste collection agencies.
- Issue new license or renew the old license of existing fish stall/ fish processing facilities only upon the registration of agreement with the empanelled agency for waste collection.
- Regulate all illegal collection, transportation and dumping of fish waste and penalize the defaulters as per the legal provisions.
- To bring to the notice of Suchitwa Mission regarding the failure of the empanelled agency in proper collection and transportation of fish waste as per the agreement.
- Authorize collection agencies in the local harbour/markets to pack and load waste even during late-night hours.
- Renew the license to fish stall & fish processing units only after receiving the monthly waste collection certificate from the collection agency.
- Monitor the records maintained by fish stalls, fish processing facilities and collection agencies regarding the quantity of waste generated, quantity of waste collected & transported.
- Local bodies shall provide necessary support/ facilities to the waste collecting agency if needed or if a situation arises.
- Fix the tipping fees for fish waste collection in consultation with the stakeholders and relevant authorities.

## **5.2 Fish Stalls/ Sellers/ Market**

Fish Stall Owners/ Fish markets shall,

- Enter into agreement with authorized fish waste collection agencies for daily removal /collection of the waste and shall strictly abide by the protocol for the storage of fish waste as per the directions and guidelines by Govt. authorities/ Local Bodies.
- While handing over the waste to the collection agencies big parts like the head and tail must be trimmed down to reduced size for easier transportation.
- Ensure that waste is handed over only to authorized fish waste collection agencies and not to any other agency/ person.
- The fish stalls & fish processing units have to store the waste as per this guideline and at a temperature level below 5 °C.
- Properly deposit the fish cutting waste into the collection container provided by the collection agency, with proper icing avoiding contamination and prevention of any foul odour.
- The shops have to clean their disposal containers on a daily basis before dumping the waste. Remove stains and ice particles from the container and the waste water so generated shall be treated scientifically. (Any defaulter if noticed shall be fined by the local authorities).
- Pay Tipping fees to the collection agency as per the agreement.
- The shops have to avoid dumping plastic and other foreign particles into the fish waste collecting containers.
- Collect monthly waste collection receipts from the collection agency and produce the same for license renewal.
- Inform the LSGI, if the fish waste is not regularly picked up by the waste collection agency.
- Fish stalls shall have necessary arrangements for keeping following operational records : (1) Daily stock log/register, (2) Daily sales log/register, (3) Data of the waste generated daily and waste handed over to the collection agency.

## **5.3 Fish waste collection agencies**

Empanelled service provider for the collection of fish waste shall,

- Collect, transport, store and handover fish waste for further processing on a daily basis as per this guideline and directions issued by Suchitwa Mission.
- Submit the agreement with the fish waste processing unit to the Suchitwa mission and to the corresponding local body.
- Inform the fish stalls & fish processing facilities of the waste collection schedule and ensure that the waste is collected within the designated time without any failure.
- Report the details of the waste transporting vehicle, including vehicle GPS tracking information to the Local Bodies and to Suchitwa Mission.
- The collection vehicle shall be washed regularly and the effluent water so generated shall be treated.

- Collection agencies shall issue a monthly waste collection receipt to the fish stalls & fish processing plants detailing the total quantity of fish waste collected from them during that month.
- Store the collected waste in refrigerated containers/cold storages, in case it is not processed on the same day of collection.
- Collection and transportation shall be using concealed refrigerated vehicles, equipped with insulated containers, along with proper icing and packaging.
- Agencies shall ensure that their staff are well-trained and equipped for effective fish waste collection. Collection personnel should carry identity cards and wear uniforms.
- Periodic health checkups for collection agents shall be conducted and they shall be equipped with personal protective kits.
- Agency shall provide suitable containers as outlined in Annexure I, to the fish stalls and fish processing facilities for storing the fish waste.
- The collection staff shall carry a weighing machine, weigh the waste in the presence of the stall keeper, record the details on the manifest form provided as Annexure II, and obtain signature from the fish waste generator. The waste handed over to the authorized fish waste processing unit shall also be recorded in the manifest and signature from the authorized representative of the processing facility to be obtained.
- Levy of tipping fee should be in accordance with the terms specified in the agreement.
- Obtain statutory clearance/s (and renew it correctly on expiry) as per prevailing rules and provisions of the State.
- Own/ rent and maintain enough refrigerated vehicles as outlined in Annexure III for the transportation of waste. Ensure that the vehicles are with body stickers depicting the type of the waste being transported and that the crew carry proper manifests/documents when waste is transported.
- The vehicle shall be equipped with a leachate collection tank and the leachate so collected shall be treated scientifically to prescribed standards before disposal.
- Ensure that the collected waste is transferred only to authorized processing facilities.
- Shells, crab wastes and all other solid waste may not be taken by the collecting agencies, otherwise specified in the agreement. If collected, the collection agency should ensure scientific processing of all the collected items.
- Ensure that no spillage occurs during the transportation and take suitable measures to avoid any sort of pollution during transportation.
- Maintain all records and manifests pertaining to clients, including the quantity of waste collected, transported and delivered to the waste processing facility.
- Inform the LSGI in case the fish stall owner fails to provide the waste to the collection agents regularly.
- Monthly collection report shall be furnished to Kerala State Pollution Control Board and Suchitwa Mission.



#### **5.4 Waste processing agencies.**

Fish waste processing agencies shall,

- Process the collected fish waste based on the agreement with the collection agency/ fish stalls/ LSGIs/ markets on a daily basis without fail.
- Operate the facility as per KSPCB norms.
- Obtain statutory clearance/s (and renewal) as per prevailing rules and provisions.
- Maintain all records/manifests related to the quantity of waste obtained from the collection agency, quantity of waste processed, product obtained and sold, waste generated and treated etc.

#### **5.5 Harbour Engineering Department**

Harbour Engineering Department shall,

- The Harbour Engineering Department shall ensure that the agency engaged for the toll collection in harbour areas is having tie-up with the fish waste collection agencies for scientific processing of fish waste.
- The Harbour department shall facilitate the fish waste generators within their jurisdiction in handing over the generated fish waste to the collection agencies in accordance with this guideline and shall ensure that the waste generators are paying the tipping fee to the collection agency.
- Permit the collection agencies to access areas managed by the Harbour Department for the seamless collection of fish waste even during late-night hours.
- Provide necessary support/ facilities to the waste collecting agency if needed or if a situation arises.

#### **5.6 Kerala State Pollution Control Board**

Kerala State Pollution Control Board shall,

- Ensure that the agency operates in accordance with the environmental regulations and standards.
- Monitor and regulate the collection agency to prevent pollution while transportation of the fish waste.

## **5. 7 Suchitwa Mission**

Suchitwa Mission shall,

- Provide technical support and issue guidelines regarding fish waste management in the State.
- Empanel agencies engaged in fish waste collection and processing..
- Conduct regular technical audits to assess the performance of the empanelled agency.

## **6. CONCLUSION**

This guideline aims to enhance and streamline the fish waste management sector within the State, driving overall development and promoting its recognition as an industrial sector. It also focuses on creating a self-sustainable business model in an environmentally sound manner for the handling of fish waste.

## Annexure I

### Fish Waste Storage Container



## Specification

<b>Colour</b>	Blue
<b>Material</b>	High Density Polyethylene (HDPE)
<b>Product Dimensions</b>	24L x 24W x 64H Centimeters
<b>Capacity</b>	50 litres

## Annexure II

### Format of Fish Waste Transportation Manifest

**Manifest document No :**

**Date :**

**Empanelment Proceedings No. :**

**Time :**

1	Name, address & License No.of the fish waste generator  (including Phone No. and email)	
2	Name and address of the collection agency  (including Phone No. and email)	
3	Name and mobile number of collection agent	
4	Waste transporting vehicle registration No.	
6	Name and address of the receiver/ treatment facility  (including Phone No. and email)	
8	Total quantity collected	.....in Kg

10	Fish stall & Fish processing facility Certificate	I hereby declare that the contents of the consignment are fully and accurately described above with proper transportation details
	Date: _____ Name and designation : _____ Signature : _____	
11	Transporter acknowledgement of receipt of fish waste:	I hereby declare that the contents of the consignment described above has been received for transportation and are properly covered and are in all respects in proper conditions for transport by road according to applicable government regulations.
	Date: _____ Name and designation : _____ Signature : _____ Seal : _____	
12	Receiver's (Processing Facilities) certification for receipt of fish waste	I hereby declare that the contents and quantity of waste as described above has been received for temporary storage/treatment/disposal.
	Date: _____ Name and designation : _____ Signature : _____ Seal : _____	

### Annexure III

#### Fish Waste Transporting Concealed Refrigerated Vehicles

