

## FOCUS AREA

# 'Suchitwa Sagaram' project for eradication of plastic from sea

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**N**ETFISH, the extension wing of MPEDA has initiated a project entitled 'Suchitwa Sagaram' for the eradication of plastic wastes from the sea, at Sakthikulangara and Neendakara Fisheries harbours in Kerala in association with Boat Operators Association Kollam. This initiation has come up from the understanding that a large amount of plastic wastes have been accumulated at sea mainly by land runoff through rivers and by other human activities. NETFISH, as part of its extension programmes among fisherfolk, has been imparting awareness about the ill effects of plastic dumping in the sea. Interactions made in this regard with fishermen also provided vital information that plastic wastes are the real menace in sea bottom mainly up to 50-meter depth and it could create a lot of problems during fishing by way of entrapping in fishing nets and entangling with propellers of fishing vessels, etc.



Minister of Fisheries of Kerala, Mrs. J. Mercykutty Amma  
launching the bag for collecting wastes from sea

to this endeavor turning it as a big programme of this kind in the country.



Inauguration of the project by receiving the plastic waste  
containing bags from the fishers

## THE BEGINNING

NETFISH collected basic information from fisherfolk about the quantity of plastic wastes gathered to the fishing net during bottom trawling. A project proposal was developed by NETFISH which was supported by Boat Operators Association. This project proposal was then discussed with officials of Kerala Suchitwa Mission and sought the financial and technical help for setting up a plastic shredding machine at Sakthikulangara Fishing harbour. As decided, Boat operators made the announcement of the project 'Suchitwa Sagaram' in their 43<sup>rd</sup> Annual body Meeting held on July 22, 2017, at Sakthikulangara. Mrs. J. Mercykutty Amma, Minister for Fisheries was the chief guest of the programme.

A sample bag for collecting plastic wastes by fishermen in sea prepared by NETFISH was also presented in the programme. While discussing with the Minister for assistance to this programme, they immediately took a decision to support this programme by the Department of Fisheries and took a lead role in joining other departments to this project which ultimately made this a big programme. On August 5, 2017, the Minister inaugurated the project by receiving the wastes collected during fishing by boats, in the bags supplied by NETFISH.

As an initiation to remove these plastic wastes from the sea, NETFISH joined hands with Boat Operators Association of Kollam district and decided to start a pilot project on eradication of plastic wastes from the sea, by establishing a plastic shredding unit at Neendakara fishing harbor at Kollam in Kerala. Realizing the importance of the project, other departments such as Department of Fisheries, Harbour Engineering Department, Suchitwa Mission Kerala, Clean Kerala Company and SAF too joined



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The Harbour Engineering Department allocated a place in the Neendakara harbour for operating a unit managed by the Suchitwa Mission for segregation of the collected waste for shredding and recycling. Funding from various departments was flown to this project and the official inauguration of the shredding unit was conducted on November 20, 2017, at Neendakara Fisheries harbour.

## AGENCIES INVOLVED IN THE PROGRAMME

Along with NETFISH and Boat Operators Association Kollam, the initial partners of this project, various departments listed below were also joined and the role and duties of the partners of this programme are given in the table below (Table 1).

Sl. No.	Department /Agencies	Role in the Suchitwa Sagaram project
1	Suchitwa Mission, Kerala	Financial support for the establishment of plastic shredding unit at Neendakara fisheries harbour and training to members of SAF
2	Clean Kerala Company	Technical support before and after the establishment of the shredding unit
3	Harbour Engineering Department (HED)	Providing area and electrical connection for installation of Plastic shredding unit at Neendakara fisheries harbour
4	Society for Assistance to Fisherwomen (SAF), Department of Fisheries, Kerala	Running of the shredding unit including manpower, salary to the workers, electricity charges, etc.
5	Boat Operators Association, Kollam District	a. Overall monitoring and running of the project b. Bringing and collection of plastic from sea c. Deployment of sufficient manpower to look after the programme
6	NETFISH-MPEDA	Supply of eco-friendly bags for waste collection, awareness stickers to fishing boats & conducting awareness training for fishers

## RUNNING OF THE PROJECT

This project was run by Department of Fisheries by engaging lady workers from Society for Assistance for Fisherwomen (SAF). A total of 30 workers were involved in this project for collecting the bags from fishing vessels, sorting/segregation of plastic wastes, washing, drying and shredding (see Figures).

Various collection centers have been started in and around the harbour to collect the bags reached the harbour. Besides, other Panchayaths in the coastal belt were also been asked to join to this endeavor by supplying plastic wastes so that the entire capacity of the machine is fulfilled. Shredding unit is controlled by HED by

engaging one coordinator at the site. Adequate training programmes were given to the workers on handling of wastes, sorting and shredding by Department of Fisheries and Clean Kerala Mission.

NETFISH provided 2000 eco-friendly sacks for this programme which were supplied at a rate of 2 numbers each to every fishing vessels, to collect the plastic material that comes across the sea while fishing. Around 30-40 bags each weighing about 40-50 kg are landed daily at Sakthikulangara harbour. The machinery components established in this project are given below (Table 2). The shredded plastic will be used for suitable activities including road construction and initially HED will utilize the material in the roadworks they undertake.

Sl.No.	Item	Purpose
1	Shredding machine of capacity 1 ton/day	To shred the plastic wastes
2	Sharpening machine	To sharpen the blade of the shredding machine
3	Hydraulic Bailing machine	To keep the plastic bottles separately from the plastic wastes collected. This will be given to other parties for recycling.



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1. Receiving waste containing bags from boats. 2. Workers carrying the bags in trolleys to segregating area.
3. Segregation of wastes 4. Washing the plastic wastes. 5. Cleaned and dried wastes brought at shredding unit.
6. Loading the plastic wastes into the shredding machine. 7. Shredded plastic product.
8. Stored in sacks for further use.

## FUTURE EXPANSION

This project is expected to be expanded by introducing Effluent Treatment Plant, washing and drying machine, tube-well, overhead tank and sump, non-plastic waste digester, etc. for the smooth running of the programme. As decided, this project is also to be extended to the other coastal Panchayaths and facilities are being made to collect plastic wastes from land in order to meet the capacity of the shredding machine. Meetings were conducted to initiate the steps to include other regions to this project and training programmes have also been conducted in this regard. While expanding this programme, plastic wastes from all nearby coastal Panchayaths will be collected for this unit. This project will surely be a grant success as the first plastic eradication unit to clean the sea from plastic.



Official inauguration of the plastic shredding unit at Neendakara harbour by Dr. T. M. Thomas Issac, Finance Minister of Kerala