

The fate of used fishing nets and accessories: Field observation from Kerala

Prajith K.K.*

ICAR-Central Institute of Fisheries Technology, Cochin-29

**prajithkk@gmail.com*

Fishing gears and accessories are the important component of marine pollution which causes severe ecological and economic problems (Barnes *et al.*, 2009, Peng *et al.*, 2020). There is no clear estimation of the quantity of abandoned, lost or otherwise discarded fishing gears (ALDFG). Based on a rough estimate, globally 640,000 tonnes of ALDFG contribute to marine pollution every year (Macfadyen *et al.*, 2009). For the control of ALDFG, proper management measures are required. One of the reasons for increased pollution by the fishing gear is the poor waste management systems in the coastal region, where it ultimately dumbered. But in recent years, there are reports on the recycling and reuse of fishing nets from different parts of the world (Prajith and Parmar, 2018, GGGI).

In a recent field visit to Baypore harbour of Kozhikode, Kerala, operation of few scrap shops dedicated to the collection and reselling of used fishing nets, ropes and fishing accessories was noticed (Fig.1). A detailed discussion with the shop keepers indicated that used trawl nets (High-Density Poly Ethylene - HDPE), and seine nets (nylon multifilament) are mainly taken by the sellers (Fig.2). Irrespective of the material, all the nets are collected for 30-40INR/Kg. In the case of polyethylene rope, good quality ropes are collected for 35-40 INR and the poor quality one is priced 8-10INR.

Retail sale of the used net is mainly happening in the local market. Agriculture farmers from the nearby Districts, Wayanad and Malappuram are mainly procuring these nets to

ward off wild animals which cause damage to agricultural crops. Depending on the area of the farmland, 5-50kg of nets are purchased by individual farmers. Besides agricultural use, the nets are used in poultry farms and aquaculture ponds. In poultry farms they use as fencing whereas in fish farms they serve as a barrier to protect fishes from aquatic birds and other predatory animals.

The bulk quantity is exported mainly to Gujarat and Maharashtra for recycling. There are some agents who collect the nets and ropes in bulk at a definite interval. Transportation of nets in bulk is done by means of the road (Fig.3). Sale and procurement of the net vary depending on the season. During off-season (Trawl ban period), the sale will be less compared the active season. A maximum of one ton of used gear materials per month is procured by the scarp shops in the active season.

Material recycling and chemical recycling are the two most efficient methods for the disposal of fishing nets (Kanehiro, 2004). In fishing nets and accessories, polyethylene and nylon are dominant groups subjected to material and chemical recycling. Using the discarded fishing materials for the production raw materials like nylon, substitution/partial replacement of material in construction works (Eg: road tarring), reshaping into decorative articles etc. are the some of the innovative options. Turning used fishing gears into raw material is not only good resource management, also a great win for the environment as the discarded equipment will not end up in the marine environment .



Fig.1 One of the scrap shop at Baypore, Kozhikode , Kerala



Fig.2 View of used fishing nets and ropes made ready for sale



Fig.3 Loading of fishing nets for the transportation

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