Field trials to demonstrate the utility of using square mesh codends in the fishery was carried out at Shakthikulangara Fishing Harbour, Kollam, Kerala. Two trawlers, with the same dimensions and the engine power were selected for the demonstrations on 23rd February 2021.

The control vessel used the traditional codend used for shrimp trawling which had a mesh size of 25 mm diamond mesh, whereas in the other trawlers, a square mesh codend made from 25 mm diamond mesh was used. All parameters like the design of the trawlnet, shooting and retrieval procedures of the net, the time of each haul, warp released etc. that could affect the overall catchrate was kept as constant in both the vessels. Mr. Chinnadurai, Scientist and Mr. Nobi, P.S. and Dr. Dhijudas, P.H., Technical officers from ICAR-CIFT were present onboard to manage the fishing operations and collect and quantify the catches.

Each haul was towed for 75 minutes duration and after the catch was emptied to the deck, the weight of the total catch and samples were collected from the total catch for species identification and length and weight measurements. A total of 3 hauls each were carried out using the diamond and the square mesh codends. The diamond mesh codend had a total catch of 295 kg, from all the three hauls, whereas the total catch from the square mesh codend was 270 kg, which is about 8.47% decrease in the quantity in square mesh codend, when compared to the diamond mesh. However, the retained catch (after throwing away the discards) in square mesh codend was 83 kg, compared to the 73 kg in diamond mesh codend. The percentage increase in the retained/ valuable catch in square mesh codend was 13.2%, compared to diamond mesh. The overall percentage decrease in the discards in square mesh codend was calculated as 8.26.

The total revenue generated by the diamond mesh rigged trawler for three hauls was Rs. 9700, compared to Rs. 12000 in the square mesh codend, which in percentage terms is 23.7.

The fishermen aboard were pleased with the square mesh codend's results and expressed a willingness to use it regularly. The clean catch, with less debris and other discards when using square mesh codend, was the most significant thing that drew them in. When compared to shrimp captured in diamond mesh codend, another aspect that raised the price of shrimp was the uniform shaped and larger shrimp caught. The length of shrimp captured in the square mesh codend improved by around 10% on average. Due to the lower count of shrimp collected in square mesh codend, fishers could get a better price per unit weight.

More demonstrations are scheduled for other fishing harbours in Kerala in the coming months to help fishermen realize the importance of adhering to the legal codends, both for the long-term sustainability of the resources and for earnings for their catch.

Figure 1. Length frequency distributions of *M. dobsoni* and *P. stylifera* from the diamond and square mesh cod-end.

