

### Harvest

After a period of 5 months the harvest was made. At harvest the grown lobsters were 211 to 273 grams. A survival of 95 % at the time of harvest was observed and a total of 126.4 kg of lobsters harvest was done.

### Revenue generation

The lobster harvest was sold at a farm gate price value of Rs. 2000 per kg and a total revenue of Rs. 2,52,800/- was generated.

### II. Lobster culture in Iron frame net-cage

#### Stocking of lobsters and feeding

Under this type of culture practice, the undersized baby lobsters (weight range from 40-60 grams) of 140 nos were collected from Sippikulam sea and stocked in Iron net-cages deployed at Sippikulam sea. The lobsters were fed ad libitum with trimmed cuttlefish waste and clam meat twice daily.



Sampling Lobster



Clam Feed

#### Grow-out culture and Harvest

Net-cage was cleaned based on the subjective assessment of fouling of the net in order to have sufficient water exchange. Random sampling for growth measurement was carried out at monthly intervals with a sample size of 30 numbers from the cage. The grow-out culture was carried out for a period of 120 days. A total 30.0 kg of lobster harvest was made.



Grown lobsters



Fishermen with harvested lobsters

### Revenue generation

The harvested lobsters were sold at a farm gate price value of Rs. 2000 per kg and the total value generated was Rs. 60, 000.

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## Success stories

### Lobster Farming in Model Sea-cage farm

at Sippikulam fisher village  
Thoothukudi District



ஐ.சி.ஏ.ஆர் - மத்திய கடல்மீன் ஆராய்ச்சி நிலையம்  
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**ICAR-CMFRI**, Kochi through its various centres conducts research and transfers the developed technologies to the end users under its technical guidance. Tuticorin research centre of CMFRI is a well known centre for carrying out pioneered researches on various fields of marine fisheries and mariculture in the past and present and the technology has been transferred to fisher folks and entrepreneurs. Recently, ICAR-CMFRI has successfully developed and demonstrated the Sea cage farming technique for fin and shell fishes of food value in the coastal villages i.e., Vizhinjam, Karwar, Goa, Mangalore, Chennai, Mandapam and Rameswaram etc. The diffusion of cage culture of food fishes at different fishing villages is quite encouraging during these years. Concurrently, to support the diffusion of the technology, ICAR-CMFRI carried out extensive research and successfully developed technologies for seed production of selected food fishes i.e., Cobia (*Rachycentron canadum*), Silver Pompano (*Trachinotus blochii*), Indian pompano (*T. mookalee*), orange spotted grouper (*Epinephelus coioides*) and pink ear emperor (*Lethrinus lentjan*) which are most suited for taking up Sea cage culture. Encouraged by the success of this venture, many fishermen groups in east and west coast of India have taken up Sea cage culture in their respective villages and reaped the benefits.

The following account details the 'Success Story of Adoption of Sea Cage Culture' by the fisher folk of Sippikulam with the Technical guidance of ICAR-CMFRI, Tuticorin. The fisher folk has shown exemplary interest in learning and successfully carried out the culture of Lobsters in two different culture systems i) Sea cages, ii) Iron frame net-cage and proved their ability of adopting the technology of Sea cage culture. The fisher folk of Sippikulam realised a financial benefit of Rs. 3,12,800/- in a culture period of 120 to 150 days from two different culture systems.

#### Technical guidance & monitoring by ICAR-CMFRI, Tuticorin Research Centre

The scientist and staff of ICAR - CMFRI, Tuticorin have given the technical support to the fisher folks in the following sequences of cage farming activities and followed the culture scrupulously.

#### Identification of village

Due to the high operational cost involved in marine capture fisheries and to have additional income generation, the fisher folk seeks alternative livelihood options in their villages. The awareness of successful Sea-cage farming practices by fisher groups under the guidance of ICAR-CMFRI at Mandapam and Rameshwaram coastal villages in Ramanthapuram district sets a good example to venture cage farming practice in a profitable way. In this juncture the interested fisher groups from Sippikulam village were adopted by ICAR-Tuticorin Research Centre of CMFRI for implementing the Sea cage culture technology under this technical guidance and support.

#### Site selection

The farming site was examined by conducting various observations on the bottom topography, environmental condition, soil and water parameters before selecting cage farming site.

#### Cage fabrication and Installation

The fisher groups fabricated Galvanized Iron (GI) net-cages in consultation with ICAR-CMFRI, Tuticorin. GI Sea cages & Iron cages were also provided by the State Fisheries Department and CMFRI, Tuticorin.

1. GI net-cages measured 7 mts dia. and 3 mts height with High density Polyethylene (HDPE) knotted mesh size with 30 mm (inner net) and 60 mm (outer net). The cage top was covered by a bird net of 80 mm mesh size. HDPE 200 litres drums (8 nos) were used as float for the cages and moored with 80 kg iron anchor at the selected site at Sippikulam.
2. Iron net-cages of 2 m x 1.5 m x 1.5 m was fabricated with 10 mm iron rod. HDPE knotted mesh size of inner and outer net; 20 mm and 30 mm were provided.

The cages were deployed in the selected sites at Sippikulam coastal village.



GI cage under fabrication



Iron frame cage fabrication



Deployed GI cage



Deploying Iron frame cage

#### Species used in culture

The undersized scalloped spiny lobsters (*Panulirus homarus*) collected from different landing centres like Idinthakarai, Manapad and Singithurai along Thoothukudi was used for the participatory mode of Sea cage culture by the Sippikulam fishermen group.

#### Grow out culture in different cages

##### I. Lobster culture in Sea cages

##### Stocking of lobsters and feeding

A total of 550 nos, individual total weight ranging from 60-80 grams were transported live from different landing centres and stocked in the GI net-cages. The plastic round pipes (30 cm length / 7.5 cm dia) were provided randomly as hideouts. The lobsters were fed with trimmed cuttlefish waste and clam meat ad libitum twice daily.



Lobsters in GI cage



Feeding clams to Lobsters

#### Grow-out culture and Harvest

Net-cages were changed based on the subjective assessment of fouling of the net in order to have sufficient water exchange. Random sampling for growth measurement was carried out at monthly intervals with a sample size of 30 nos. from the cage.



Lobster sampling in cage



Dignitaries with harvested lobsters