Sea Cage Culture of Cobia Fishes

Cobia grows to 5-6 kg per year and one kg fish can be sold at Rs.250-400/-

Technology Description

HDPE and wooden sea cages were installed in the sea at a depth of 4-5 m. Both inner and outer PE nets were used according to the size of the fish stocked. When the size of fish increases the net size was also increased for facilitating better water exchange. Cobia seeds raised up to 40 g size in concrete tanks were transferred to cages at the stocking density of 4 fish/m³. Formulated feed with 44-46% protein was used as feed. No disease has been reported in the culture period. The production of 8 kg per m³ was attained with an average weight of 4.5 kg in a period of ten months.

Benefits / Utility

A new alternative fish species to shrimp will provide more job opportunities to coastal fisherfolk. Mariculture entrepreneurship will be developed thereby marine fish aquaculture production in India will be increased.

Country Context

In India, marine finfish aquaculture is in low profile. In Coastal aquaculture, shrimp aquaculture alone is flourishing and recently the Seabass came to picture. Before this project, Cobia farming was nowhere in India and now it is picking up.

Scalability

Shrimp farming is the only commercial coastal aquaculture industry in India. Culture of cobia in sea cages has scope for industry expansion like shrimp farming with expected production of 8-10 kg per cu.m.

Background

30.03.2009 Cobia Launch Workshop
26.03.2010a 30.03.2010 Workshops on Value addition of cobia fish and Advanced Packaging technologies
11.01.2011 Workshops on Marine finfish farming and cobia to improve the livelihood of fishers
11.04.2011 Workshop on cobia and other marine finfish farming
01.03.2013 Workshops on cobia culture
02.03.2013

Business and Commercial Potential

Domestic and export demand for cobia. Sashimi grade cobia has good market in South East Asian Countries. Fast growing – Grows to 5-6 kg in a year. Good meat quality - White flesh – High Omega 3.

Potential investors to this technical innovation

Farmers, Fishermen, Entrepreneurs, Feed companies, Hatchery operators. Multinational companies

Financials

Economics of cobiaculture in wooden sea cage 36 cu.m(4x4x2.25) - 100% survival
- Recurring cost Cobia Seeds(90 nos.) - Rs. 2700.00
- Manpower - Rs. 12000.00
- Formulated Feed for cobia fishes - Rs. 57713.00
- Fuel for boat - Rs. 72413.00
- Income - Harvesting 405 kg fish (sold @Rs.250/- per kg) - Rs. 101250.00
- Profit - Rs. 28817.00

Target Market / Customer

Domestic fish consumers, Sea food Exporters, Local fish merchants, Sashimi restaurant markets, “White Table cloth” restaurant market

Limiting factors for large scale commercialization

Assured adequate supply of cobia seeds is the bottleneck. Cobia hatchery units at farmer’s level need to be started. Since cobia is a new candidate species for aquaculture in India, farmers are reluctant to take up farming. Shrimp aquaculture is short term crop while cobia is a long term crop (almost twofold increase in culture period) Channelized cobia export market need to be identified. Formulated feeds to be produced at reasonable price since the Food Conversion ratio (FCR) is high.

Social impact of the technology

Any other relevant information

The cobia seed production and availability should be ensured since the seeds are important input for farming of cobia. Since the cobia aquaculture is new to Indian context, the fisherfolk should be encouraged to involve in this cage farming by implementing subsidy to support the initiative.