

MUSSEL CULTURE IN MALABAR PROSPECTS AND CONSTRAINTS



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Cochin - 14, India
May 2002



MUSSEL CULTURE IN MALABAR AREA

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Introduction

Mussel culture is fast becoming popular in the Malabar area since last five years following the success achieved by CMFRI in rearing green mussel in the backwaters. The simple methods employed for mussel farming was transferred to progressive farmers who took up mussel culture in the backwaters. Soon they found the venture profitable. Demands came from new entrepreneurs for training and mussel farming spread from Kasaragod to Ponnani. From a total of 250 tonnes of mussels harvested in 2000, the total harvest estimated for the year 2002 is 800 tonnes.

Mussel culture in the backwaters of Kerala was first started in Padanna and Cheruvattur Panchayats in Hosdurg Taluk of Kasaragod district. Later it was taken to Elathur in Calicut district and Vallikunnu and Ponnani in Malappuram district. This has happened mainly due to the popularisation efforts by the CMFR Institute. This year the Padanna farmers go for the fifth harvest.

Initially this low cost technology of farming was transferred to five groups with 15 to 21 members at Cheruvattur and Valiyaparamba. Financial assistance was provided by the North Malabar Gramin Bank and Cheruvattur Farmers Co-operative Bank. They provided a loan of Rs.2,60,200/= for the implementation of the project with a subsidy component of 50% . These groups harvested 67.4 tonnes of mussels during May-June 1997. A portion of the harvested and shucked meat (2000-Kg) was sold to the Integrated Fisheries Project, Cochin at a rate Rs.45 per Kg. The remaining harvest was sold in the domestic market. The groups could realise Rs.3,34,555/= from the harvest with a net profit of Rs.1,04,455/= within a period of 6 months.

Major areas of Mussel culture

Kasaragod district :

The culture is done in the Padanna backwater system in Hosdurg Taluk. In Cheruvattur Panchayat, five groups were formed at Koyambram, Kavunchira, Kayuthakadu and Paranthamadu and in Padanna panchayat three groups were formed at Badkekad, Ori and Thekkekadu. At Padanna it was individuals who have done mussel culture and there are eleven such mussel farmers. At

Malappuram district:

TTC training was given to 45 trainees at Vallikunnu panchayat during September 1999 by CMFRI. Subsequently, during January 2001, training was imparted to 60 trainees of Malappuram district under the self-help group (SHG) training programme of the State fisheries Department. This training was conducted at Balathurithi. These trainees did mussel culture in Vallikunnu and Puthuponnani. TTC training was given to 20 trainees at Puthuponnani. They have taken up mussel farming under the auspices of the Organisation named 'Youth power'.

Kozhikode district:

Mussel culture is being done in the Korapuzha estuarine system. Training was imparted to 20 persons under the self-help group (SHG) training programme of the State fisheries Department. At Elathur three units are doing mussel culture. Two units by individuals and the third by a group of 10 members.

Production

The total green mussel production by capture fisheries from Malabar area was 6317 tonnes during 2001. The total production from culture was 400 tonnes. This forms only 6.3 % of the total mussel production from Malabar, which had increased from 4.62 % during 1999.

The yields obtained by some of the groups and the numbers of ropes suspended are given below:

Sl.No.	Place	Total yield (tonnes)	No. Of ropes	Yield/rope (Kg.)
1.	Koyambram	22.75	700	32.5
2.	Kayuthakadu	36.22	900	40.24
3.	Kavunchira	25.2	900	28
4.	Paranthamadu	12.75	300	42.5
5.	Badkekad	18.75	625	30
6.	Ori	13.5	482	28
7.	Thekkekadu	22	760	29
Total		151.75	4667	32.89 (Av.)

In Kasargod thirteen persons started mussel culture as individual enterprise in

2000. The total production from these farms was 97.5 tonnes and the total production from Kasaragod district was 248.97 tonnes.

During the year 2002, the numbers have dramatically increased and the total production estimated is 750 tonnes. The total production from Malabar is estimated at 800 tonnes. The number of groups and individuals engaged in mussel culture has gone up dramatically now. It is interesting to note that the number of single holding has increased and most of them are run by male members.

At Vallikunnu panchayat in Malappuram district, farming is done in the Kadalundi estuarine system. The total production from this area during this year is estimated to be 15 tonnes. Most of the units are maintained by groups. In Elathur area, the total production from a single group and two individuals are about 13 tonnes.

Financial assistance: Mussel culture was initiated in Kasaragod district through the DWCRA (Development of Women and Children in Rural Areas) scheme. Loan amount sanctioned was Rs.8800/= per member with a subsidy component of 50%. The amount was to be paid back in five years and the rate of interest was 12.5% per annum. A revolving fund of Rs. 5000/= without interest is also provided.

At Vallikunnu, a subsidy of Rs. 1200/= was given to each farmer of the group by the Panchayat. In 2000 the total production by the trainees was 5 tonnes. This was the first time that a commercial scale mussel culture operation was done at Vallikunnu. During the previous year there was only demonstration culture. The harvest was sold in the local markets as well as among the growers themselves. The markets were the nearby areas of Calicut and Malappuram district. This year, the estimated production is 15 tonnes. Some of the trainees have trained other members also and they have done mussel culture on their own.

At Elathur, although the mussel culture is developing very fast, no financial assistance was given to the farmers. Two culture units started as individual enterprise is also being operated successfully at Elathur.

Inputs: In Kasargod, the net operating profit ranged from Rs. 7,646/= in Jayambram to Rs. 16,413/= at Badkekad. The cost analysis of mussel culture at adanna showed that the major cost was that of Nylon rope (34%), Bamboo (20%) and seed (20%). The other expenditures involved cloth (7%), construction cost (5%), harvesting (4%), seeding (4%) and coir rope (3%).

Constraints

Availability of seed : The seeds required for culture is presently collected from

sel fishermen. Hence it is essential that additional spat collectors has to be established along the coast to ensure supply of seeds to the farmers.

2. Marketing : The harvesting seasons of cultured mussels is mostly during April – May months and farmers are forced to sell their crop before the onset of monsoon to avoid mass mortality of mussels due to freshwater influx into the backwater system. At present only a few processing plants purchases cultured mussels from the farmers and as a result the local market are flooded with cultured mussels during these months resulting in fall in the prices and thereby affecting the profitability of the operation.

3. Depuration system : The main constraint in the export of cultured mussels is the lack of proper depuration techniques. Sufficient depuration plants are needed along the coast so as to depurate the cultured mussels for export processing.

4. Storage facility : If sufficient cold storage facility is provided, cultured mussels can be depurated, shucked and stored not only for export market but also for local market throughout the year. This will increase the profitability of the culture operation.

5. Post harvest technology : Value added products of longer shelf life need to be developed from mussel meat to increase the revenue realization from cultured mussels. Mussel fry, mussel pickle etc. are some of the best examples for value added products. More studies are needed to develop ethnic cuisines with longer shelf life.

6. Siltation of backwaters : Some areas in the backwater system have very high siltation levels especially during rainy season. This often results in mortality of mussels in the farms. Hence scientific feasibility studies are required to demarcate potential culture sites.

Prospects

1. Backwater mussel culture is a recent phenomenon along the Malabar coast and opens immense potential for resource and employment generation among coastal communities especially women living below poverty line.

2. Mussel culture is a low investment activity with very good returns. If promoted properly, mussel farming can be used as a tool for women empowerment in the coastal areas and can stimulate a healthy socio-economic development in the area.

3. Better post harvest technologies can develop attractive value added products. Since very good export markets are available for mussels, there is a challenging opportunity for technicians and scientists in this field.

In the western countries, mussel is considered as poor man's oyster. But in India, mussel can be considered as tool for the upliftment of the poor people living in the coastal areas especially along the Malabar Coast.