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## 987 **Mussel farming by women's self help groups in Kasaragod district - a case study.**

Mussel farming has already been proved as one of the profitable enterprises in the coastal belts of North Malabar areas as a subsidiary income-deriving source of rural fishermen community. The experimental trials conducted by CMFRI have proved the techno-economic feasibility of mussel farming. As dense settlement of mussel spat can be seen during August to October all over the inter-tidal and submerged rocks along the coasts of North Malabar, seeds of suitable sizes are available in plenty from September to December in these areas. Kasaragod, the northern most district of Kerala is particularly notable for mussel farming as it has been successfully accomplished by the womens' Self Help Groups (SHGs) for the past few years. These groups were given financial assistance in the DWCRA (Development of Women and Children in Rural Areas) scheme as a component of IRDP (Integrated Rural Development Programme) by the state government.

Presently, all these development programmes are brought under a single scheme namely, SGSY (Swarnajayanthi Gramaswa Rosgar Yojana) which takes care of economic empowerment of weaker section. Subsidies, bank loans etc are the part and parcel of it and it essentially focuses attention on poverty alleviation through organised Self Help Groups. This programme looks into training, credit, marketing, technical knowledge and basic facilities necessary for the upliftment of the poor to bring them above the poverty line within three years in such a way that they should have a monthly earning of at least Rs.2000/-. It would be pertinent to have a look into the consequences of adoption and cost dynamics of mussel farming by the women's Self Help Groups in Kasaragod district.

This district possesses an area of 1992 km<sup>2</sup> with a population of 10,71,508 as per 1991 census. The district with a population density of 538 km<sup>2</sup> has an average growth rate of 22.78 and 82.51% literacy rate. Majority of the

villagers earn their livelihood by agriculture, fishing, coir retting, coconut husk, toddy tapping etc. There is tremendous potential for aquaculture diversification in Kasaragod coastal belts. Water bodies in the coastal belts have ample scope for the judicious utilisation for finfish culture, prawn and crab farming in Kasaragod.

This study was undertaken in two major panchayaths namely Cheruvathur and Padanna in Kasaragod district. Cheruvathur panchayath has an area of 18.37 km<sup>2</sup> with a population of 24,504 out of which 18,631 are literate. Agriculture is the main occupation of the majority and about 150 families are engaged in fishing as the main occupation and about 300 families as subsidiary occupation. Similarly, Padanna panchayath has an area of 13.08 km<sup>2</sup> with a population of 17,961 out of which 12,746 are literate. About 200 families are engaged in fishing as main occupation and about 400 families as part time occupation. The brackish water estuary is extremely suitable for mussel culture.

Three Self Help Groups of women from each panchayath were selected as the sample and the data were collected as explorative case studies through personal interviews of the respondents. The Benefit-Cost ratio was analysed in each group and cost dynamics were worked out. The problems and constraints faced by the women were thoroughly assessed in each case and listed out. The details of the basic data collected and the SHGs selected are shown in Table 1.

**Profile of cost estimates of mussel farming:** The major expenditure required for mussel farming is for the materials such as bamboo, nylon rope, coir, cloth, seed, etc. and labour costs essentially covering construction, seeding, harvesting etc. The pie-diagram (Fig.1) depicts a clear-cut view of expenditure details of mussel farming.

The womens' groups constituted in the scheme, DWCRA started mussel farming as

TABLE 1. Details of the basic data gathered in Kasaragod district.

Name of the panchayath	Area	Population	Samples selected (Self Help Groups)
1. Cheruvathur	18.37 km <sup>2</sup>	24,504	1. Mahatma Women & Children's Welfare Council 2. Kavunchira Kairali Mussel Unit 3. Kaithakkad Mussel Unit
2. Padanna	13.07 km <sup>2</sup>	17,961	1. Thekkekkad Mussel Unit 2. Vadakkekkad Mussel Unit 3. Ori Mussel Unit

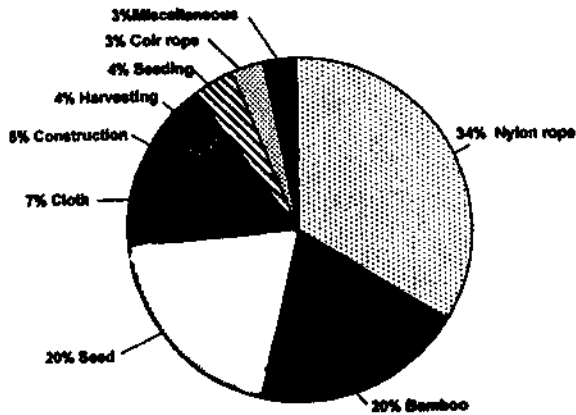


Fig. 1 Proportion of operating cost components in mussel farming

early as 1996-97 and are assisted by loan worth Rs. 8800/- per member with a subsidy of Rs. 4400/- which looks quiet fascinating. The duration of the loan is 5 years and the rate of interest is 12.5% per annum. In addition to this, a revolving fund of Rs. 5000/- was also provided without interest. When the SHGs' are economically empowered with the provision of loan facilities, the returns from mussel farming help them to repay the loan slowly.

The loan was granted through Farmers' Service Co-operative Banks and North Malabar Gramin Banks in Cheruvathur and Padanna panchayaths of Kasargod district. The amount of credit availed and the repayment particulars are given in the Table 2. It is obvious from the table that, in some of the groups, the extent of repayment requires improvement. However, majority of the SHGs' show considerable progress in repayment of the loans, which can be concluded as an indication of the profitability of mussel farming. The expenditure details of the selected SHGs' in the initial year of mussel cultivation are shown in the Table 3.

TABLE 2. Details of the loan availed and the extent of repayment in selected SHGs.

SHGs	No. of members	Loan sanctioned	No. of crops taken	Total repayment
1.	13	78,000/-	4	27,615/-
2.	15	90,000/-	4	31,000/-
3.	13	90,000/-	4	90,000/-
4.	12	1,06,000/-	4	66,000/-
5.	15	69,000/-	4	31,000/-
6.	11	98,000/-	4	21,000/-

The Net Operating Profit in all the six SHGs' was computed and found as substantially good which proves the profitability of mussel farming in the initial trial itself. During the subsequent years, material costs such as those of bamboo, rope, cloth and labour cost in construction etc. are negligible and this ensures reasonable profit as a major consequence of adoption of mussel farming enterprise bringing about economic empowerment of rural women through organised Self Help Groups.

Experiences and observations already indicated that for a group to be developed as an SHG, it requires a period of at least 36 months and it is a hectic process. It has to pass through various phases such as Formation phase, Stabilisation phase and Self Helping phase. Eventhough these groups of women can not be called entirely as Self Help Groups in the strict literal sense, it should be encouraged and appreciated that these groups promote a co-operative, participative and empowerment culture among the members which ensures the probability of reaching the Self Helping phase in the near future.

The loan sanctioning, utilisation, accounts maintenance and timely repayment

TABLE 3. Operational costs of the SHG's in mussel farming in Kasaragod district.

	SHG1	SHG2	SHG3	SHG4	SHG5	SHG6
I No. of ropes	500	800	600	750	900	725
II Material cost (Rs)						
Bamboo	6400	9600	7980	9000	11437	7800
Nylon rope	9954	17500	12000	15000	18000	14500
Coir rope	1100	1500	1200	1587	2000	1450
Cloth	3000	3250	1700	3338	3600	2250
Seed	6500	10000	8700	9000	10800	9770
III Labour cost (Rs)						
Construction	1600	2400	2170	2250	2700	2200
Seeding	1500	2565	1500	1875	2500	1800
Harvesting	1300	2000	1500	2000	2750	1875
Miscellaneous	1000	1600	1200	1500	1800	1450
IV Total cost (Rs)	32,354	50,415	37,950	45,550	55,587	43,095
V Returns (Rs)	40,000	64,000	48,000	60,000	72,000	58,000
VI Net operating profit (Rs.)	7,646	13,585	10,050	14,450	16,413	14,905

of loans etc. are perfectly done with proper maintenance of the records by the group members. This ascertains the economic empowerment of the members through organised Self Help Groups.

**Problems and constraints faced by the women in mussel farming :** Mussel farming faces a number of impediments like water salinity, seed availability, selection of site, climatic vagaries, identification of proper beneficiaries and proper monitoring opportunities. The major problems and constraints faced by the women in mussel cultivation are as follows.

- \* Meat shucking problems.
- \* Marketing of mussels.
- \* Unpredictable seed availability.
- \* Mortality of seeds during transportation.

- \* Reduced growth during certain periods.
- \* Social constraints like caste splits, conflicts etc. to a limited extent.

All the group members are of unanimous opinion that the government agencies should come forward with improved marketing facilities as marketing of mussel was perceived as one of the biggest constraints. Provision of loans with lower interest rates and freezer facility for storage of harvested mussels can bring about a breakthrough in this sector in the near future.

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