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Development of ancillary industries related to mussel farming in Kerala

The commercialization of mussel farming in Kerala has created more part-time jobs dur-

ing the crop period and has also helped in the development of several ancillary industries. It

Table 1. Details of mussel farm for stocking 100 m of seeded rope in three major locations

	Kasaragod	Kozhikode	Malappuram
Size of farm (m)	4.5mx4.5m	20m x 3.5m	20m x 3.5m
Area (sq.cm)	20.25	70sqm	70sqm
Depth	1.5 to 3 m	>1.5m	1 to 2m
Total expense	6000	8500	8000
Method of tying mussel ropes	Vertical	Horizontal	Horizontal

is estimated that during 2005-06, in the three northern districts viz Kasaragod, Kozhikode and Malappuram, the farmed mussel production by the rack method was 7496, 211 and 399 tonnes (t) respectively. To support such extensive mussel farming, several ancillary industries have also developed and the impact is widespread (Fig. 1).

A study was conducted in the three districts to evaluate the development of other industries and the estimates and inferences are given below. Regional differences in farm structure and inputs used were observed (Table.1) in the three regions. The Korapuzha and Kadalundy estuaries in Kozhikode and Malappuram respectively, were shallow and the mussel ropes were not hung vertically instead they were tied horizontally. The price of seed varied depending upon the farm site. The main seed collection sites were at Kozhikode and the farmers at Kasaragod had to pay more for the seed including the transportation cost. Because of the shallow nature of the site and as the low tidal flow siltation is high at Kozhikode and Malappuram, the farmers have to bear additional expenses to

remove the silt which gets deposited beneath the farm. Based on these facts the quantity of inputs required for farming and the expenses incurred were estimated for unit area (Table.1) From the survey data, estimates of production and farm inputs and related labour days were made for the period 2005-06.

Part-time employment: Though the mussel farmers themselves attended to the farming activities, they also hire other villagers for seeding, farm construction, seeding and harvesting. Each year during the farming season, villagers, mostly women get part time employment in all the three districts. In North Kerala, during the year 2005-06 employment opportunities, exclusively for seeding, estimated as 12627 labour days was created which is worth to Rs.6.3 lakhs assuming that one person can seed 50 m rope at a daily wage of Rs.50. Nearly 50% of the seeding is done by women farmers. The flexibility of working hours and the nearness of work site has encouraged villagers to involve in mussel seeding during the stocking period.

Similarly, when the farms are harvested at a stretch, additional labour is hired by the farm-

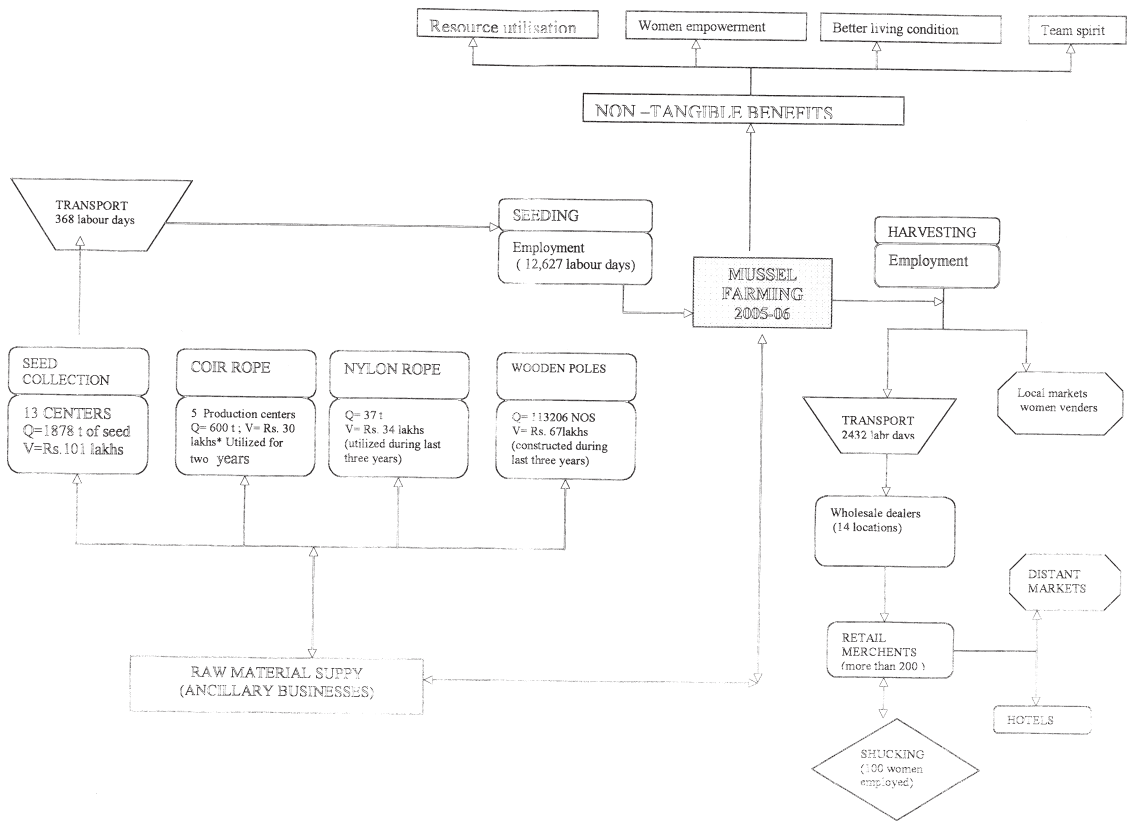


Fig. 1. Ancillary industries related to mussel farming

ers for declumping and loading the mussels to the transportation trucks. More business opportunities are created. During the period April to May, mussels are harvested almost everyday by farmers and these are sold in small quantities in the nearby markets by other villagers, mostly women who are not directly involved in mussel farming. Nearly 10% of the mussel production is marketed by the villagers in the local market.

Mussel seed collection and supply: The mussel seeds required for farming at North Kerala are supplied by mussels fishers from 13 main collection centers namely Anangadi,

Bakel, Beypur, Chaliyam, Chettikulam, Chombala, Kanhangad, Kannor, Kasargod, Kottikulam, Kozhikode, Manjeswaram and Thuvappara. During the period 2005-2006 approximately 1799 tones of mussel seed valued at Rs.98 lakhs were collected and supplied to mussel farmers in Kasargod. The mussel farmers at Kozhikode and Malappuram utilized approximately 29 and 49.8 t seed valued at Rs.1.02 and 1.7 lakhs respectively. Altogether 1878 t of seed valued at Rs.101.7 lakhs collected from different centers was utilized for mussel farming.

For collecting the seed required for Kasargod,

Kozhikode and Malappuram, employment opportunities in terms of labour days has been estimated as 17991, 292 and 499 respectively (Total=18783 labour days). The business turn-over at collection site is estimated as Rs.5397386, Rs.87750 and Rs.149696 (Total = Rs.5634832 or Rs.56.3 lakhs) respectively when the price per 100 kg of seed mussel is Rs.300.

Production of material for farming: Coir rope spun at 5 centers in and around Kasaragode district was used for seeding by mussel farmers of Kasaragode. Nylon rope, bamboo poles and other materials used by mussel farmers were supplied by traders in north Kerala. During 2005-06, approximately 600 t of coir rope worth Rs. 30 lakhs, cotton cloth valued at Rs.30 lakhs and nylon thread worth Rs.4.5 lakhs were used as inputs in the industry. 19 main centers were identified as the major centers which supply material for mussel farming. (Anayarangadi, Athani, Atholi, Beypur, Chaliyam, Cheruvathoor, Elathoor, Faroke, Kadalundi, Kattilappedika, Koilandi, Kotta, Kozhikode, Oori, Padanna, Parappanangadi, Thekkae Kattil, Thuruthi and Vadakkaekad).

Development of mussel markets: Widening of mussel markets in the state is a direct outcome. From north Kerala farmed mussels are marketed to the southern regions even upto Kollam, about 500 km from the production sites. There are 14 major purchase points at seven locations such as Kannur (4),

Koduvally (2), Thalasherry (1), Muttangal (1), Payyoli (1), Kozhikode (4), and Chaliyam (1). This has helped the mussel venders to get a consistent supply of mussels in addition to normal supply from natural beds. Related to this, a market chain itself has developed linking the farmers, agents, wholesalers, retailers, restaurants and even meat shucking units by women. There are about 100 women earning livelihood through shucking of mussel under major mussel venders for supplying mussel meat to restaurants.

Transport of raw and farmed material : Supplying seed to the farmers and distribution of harvested mussels from the farm site to the distant markets is done by coastal villagers. Trucks with a capacity of 3, 4, 6 or 10 t ply between the production and distribution sites. Based on the quantity of seed utilized, it has been estimated that for transportation of seed for supplying at Kasargod, Kozhikode and Malapuram approximately 360, 3 and 5 labour days (Total = 368 labour days) @ 2 persons for 10t capacity truck) and for transporting harvested mussel from farm site 2249, 63 and 120 labour days of employment for truck drivers respectively will be created (@ 2 persons per truck of 6 t capacity, Total = 2432 labour days). Thus during the crop season of 2005-06, 2807 labour days related to main transport alone has been created.

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