

## SOCIO-ECONOMIC CHARACTERISTICS OF HOMESTEAD FARMING IN SOUTH KERALA

A homestead is a functional and self sustaining farm unit which consists of a collection of crops and multipurpose trees, planted arbitrarily, with or without animals / poultry / apiculture / fish, owned and primarily managed by the dwelling farm family, with the objectives of satisfying the basic family needs (food, fuel, timber) and/or cash income generation. The farmers of the State undertake intensive cultivation in their homesteads based on their perception and conventional wisdom. The products produced are those preferred by the household, within the limits set by the household assets and the socio-economic environment. Instances have been reported where commercialization has led to replacement of less valued crops and reduction of species diversity (Soemarwoto, 1987). Social acceptability is closely linked to the economic feasibility of the system. The present study was carried out to understand the socio-economic factors and constraints that influence farming in the homesteads of southern Kerala.

A detailed survey covering 400 homesteads was undertaken as part of an ICAR *ad hoc* project entitled "Homestead Agroforestry Systems of Kerala - Productivity of the Extant Homestead Models and Increasing the Efficiency of the Models". Twenty farmers each were selected randomly from twenty randomly identified panchayats of Thiruvananthapuram district of Kerala and interviewed personally using a questionnaire to assess the farming practices adopted, availability of credit and marketing facilities, constraints faced and economics of cultivation in the homesteads. The size of home gardens varied from 0.04 ha to 3.6 ha with an average of 0.33 ha per holding. The size of an overwhelming number (58.25%) of holdings was small (0.20 - 0.80 ha), a probable consequence of the high population density as suggested by Nair and Krishnankutty (1984). This was followed by very small holdings (0.02-0.20 ha) which constituted 37%. The large sized holdings (>2.00 ha) constituted only 1.25 %. In the past, the joint family system kept the size of farms, intact, despite the rise in the number of family members from generation to generation. But

now each member of the family, when grown up wants to set up his separate family resulting in subdivision and fragmentation of holdings.

The farmers deliberately retained and managed numerous species of crops and trees in their homegardens. An average of 14-15 species and 397 plants per homestead was observed, in the region as a whole, indicating a high degree of crop combination and diversification. Among the different crop categories cultivated in the entire region, tuber crops ranked first, followed by fruits, coconut, rubber, spices, vegetables, timber and fuel trees and fodder. The tree density was found to increase as the size of the homestead decreased. An assessment of the farming systems adopted by the farmers in their homegardens revealed that in 17.5 per cent of the homesteads cattle rearing was undertaken as a complementary enterprise while 30.25 per cent raised poultry along with crops. Most farm families (30.50%) had animals like cow, bullock, goat, sheep, buffaloes and birds like chicken, duck, quail and turkey. The package of practice recommendations for various crops were adopted fully only by 8.5 per cent of the farmers and partially by 38.5 per cent, whereas, majority continued with the unscientific and indigenous practices. The reason for the continued adoption of indigenous farm technologies was mainly its lesser investment.

It was observed that the farmers (43.50%) mainly approached co-operative societies for their requirement of credit for various purposes. Agricultural credits were being arranged through co-operative banks (4.5 %) and milk marketing societies (5.5 %). However, the inadequacy of credit was felt more by farmers with smallholding as they do not have adequate assets which would be acceptable to financial institutions as security for loans. The sale of produce from the homegardens took place mostly through middlemen (42.25%), thus making marketing defective. Co-operative markets, regulated markets, stabilization of prices, storage facilities, arrangement for effective transport and market information could be suggested as measures

to improve the defective marketing system. Milk marketing societies undertook supply of cattle/poultry feed and collection and distribution of dairy and poultry products. The marketing of perishable seasonal crops (vegetables, papaya, pineapple) and crops that are produced in bulk (ginger, turmeric) was noticed as a serious problem. The study of the constraints (Table 1) faced by the farmers showed labour scarcity as the major issue despite the increased family labour utilization. The farmers (77.25%) were of the opinion

that acute labour scarcity was experienced, especially during the periods of peak agricultural operations. They (97.75%) felt that the high labour cost resulted in increased cultivation cost. The farmers experience problems relating to absence or lack of grading, lack of storage and transport facilities. Marketing facilities are poor to fair. Moreover, the homegardens provide significant quantities of perishable food. The poorly developed marketing infrastructure poses more problems for large growers.

Table 1. Constraints experienced by the homestead farmers of southern Kerala

Constraint	Percentage of farmers that perceived the constraint as		
	High	Medium	Low
Cultivation cost	97.75	2.25	0
Labour availability	11.25	11.50	77.25
Credit availability	45.00	35.25	19.75
Technical information availability	46.75	15.75	37.50
Availability of manures and fertilizers	72.75	18.50	8.75
Availability of plant protection chemicals	73.00	17.50	9.50
Marketing facilities	32.50	47.75	19.75
Storage facilities	25.50	32.75	41.75

The economic analysis of the homegardens revealed that the system in general was profitable. The average total investment was Rs 21077 and the total returns Rs 49609 per ha per year resulting in a net profit of Rs 28532. The income generated from the home gardens was sufficient to meet the home demands of the farm family. This is in concurrence with the findings of Salam and Sreekumar (1990). The average benefit:cost ratio of the homegardens was 2.35. The total investment was found to significantly increase, with increase in area ( $r = 0.345$ ), number of coconut ( $r = 0.511$ ), number of rubber trees ( $r = 0.230$ ) and cattle number ( $r = 0.476$ ). This was probably due to the fact that the larger the farm the greater is the use of labour. Also, the harvesting of crops such as coconut and rubber is considered as skilled work, which is usually not done by family labour, and such operations constitute the major labour requirement in the system. In the case of cattle, the high

input cost increases the investment. The total returns increased significantly with increase in area ( $r=0.637$ ), coconut ( $r=0.441$ ), tuber crops ( $r=0.327$ ), rubber ( $r = 0.538$ ) and cattle ( $r=0.336$ ). A similar trend was noticed in the case of the net profit obtained from each homestead. The value of the marketed produce accounted for 76 per cent of the total returns, the remaining being value of the consumed produce. The value of the marketed produce was significantly and positively correlated with coconut ( $r=0.400$ ), fruits ( $r=0.313$ ), tubers ( $r=0.314$ ), rubber ( $r=0.579$ ) and cattle ( $r=0.290$ ). However, the value of the consumed produce increased with increase in tuber crops and timber/fuel trees only.

Homestead farming constitutes a means by which the farm family is able to maintain diverse self-subsistence production against the impulse to specialize completely in cattle or to grow cash crops in monoculture. There are

many constraints, however, that must be overcome to sustain the social acceptability and economic viability of homestead farming. Efforts should be made for co-coordinating and integrating all the agencies directly or

indirectly related to farming operations in homesteads. Development experts need to bestow more attention to surmounting the technical and operational constraints faced by this system.

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