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CHAPTER - IV

A PROFILE OF THE STUDY AREA AND SAMPLE HOUSEHOLDS

In this chapter an attempt is made to analyse the socio-economic profile of the study area and sample households. An overall picture of the socio-economic characteristics of sample villages and households is highly essential to understand the importance of dairying in the sample villages and its economic impact on the sample households.

4.1 Details of Sample Villages

There are four taluks and 42 revenue villages in Idukki district. The sample households selected belong to 10 villages, spread in all the four taluks. The sample villages are Vellathooval, Pallivasal, Keezhanthoor, Kanthalloor, Rajakkad, Vandenmedu, Chakkupallam, Periyar, Purapuzha and Karimkunnam. Important details of these villages are given in table 4.1

Table 4.1

Details of Sample Villages

Sl. No.	Name of the Village	Area (Hectares)	Population (1991)	Percentage of main workers engaged in agriculture (excluding dairy) (1981)	Literacy rate (1991)
(1)	(2)	(3)	(4)	(5)	(6)
	Devicolam Taluk				
1.	Vellathooval	2815	14453	73.9	81.26
2.	Pallivassal	3849	9705	31.4	71.81
3.	Keezhanthoor	6788	3804	94.2	59.96
4.	Kanthalloor	4842	6461	86.2	61.97
	Udumbanchola Taluk				
5.	Rajakkad	3155	15298	65.9	83.75
6.	Vandenmedu	2912	8574	49.9	53.77
7.	Chakkupallam	2833	11307	37.7	68.82
	Peerumeda Taluk				
8.	Periyar	9314	24216	21.3	67.76
	Thodupuzha Taluk				
9.	Purapuzha	2354	11844	71.3	82.95
10.	Karimkunnam	2175	11663	64.1	83.54

Source: (1) Final Population Totals, Census of India, 1991

(2) District Census Handbook, Census of India, 1981, Directorate of Census Operations, Thiruvananthapuram.

Table 4.1 shows that the highest percentage of persons engaged in the agricultural sector excluding dairying is in Keezhanthoor and Kanthalloor. This means that only a small percentage of persons is engaged in dairying because of lack of infrastructural and marketing facilities. These two villages are far behind in literacy level too. Comparatively small percentage of main workers employed in agricultural sector excluding dairying in these villages implies that a considerable section of the people is engaged in dairying in those villages.

Among the 10 villages, Kanthalloor and Keezhanthoor represent the non-society area and all other villages represent the society area. The non-society area was selected from Devicolam taluk to contrast it with the society areas which are better organised with marketing and other facilities.

4.2 Details of Sample Societies

As stated in the first chapter, a total of eight Anand pattern societies and four traditional societies were selected at random on the basis of the daily procurement of milk. Table 4.2 depicts the details of societies selected for the study.

Table 4.2

Details of Sample Societies

Sl. No.	Name of the society	Year of starting	No.of members	Members supplying milk	Members supplying milk at least for the last five years	Daily procurement (ltrs)	Sample farmers selected
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Anand Pattern							
1.	Karimkunnam	1978	129	18	13	85	5
2.	Nediyasala	1978	170	26	19	130	5
3.	Chettukuzhy	1980	488	85	67	255	10
4.	Vellaramkunnu	1987	364	97	71	345	15
5.	Anakkara	1973	722	260	197	980	35
6.	Mandhippara	1981	684	221	192	870	25
7.	Puttady	1978	597	120	78	815	15
8.	Nettithozhu	1979	823	325	218	1720	40
9.	Sub.total		3977	1152	855	5200	150
Traditional Societies							
10.	Vazhithala	1979	127	22	13	180	5
11.	Rajakkad	1976	480	150	79	655	15
12.	Pottankad	1975	732	240	148	1240	20
13.	Ellackal	1974	2612	483	321	6050	60
14.	Sub.total		3951	895	561	8125	100
	Total		7928	2047	1416	13325	250

Source : Sample Survey

From table 4.2, it can be seen that though there are a total of 7928 members, there are only 2047 members supplying milk, constituting merely 25.8 percent of the total members. In other words, though there are an average of 661 members per society, milk supplying members are only 171 per society. This shows that there is a large number of passive members. Therefore sample farmers were selected only from the active members who have been supplying milk at least for the last 5 years and so the actual population consisted of only 1416 farmers.

The table also reveals that the 12 societies together procure a total of 13325 litres of milk per day, contributing an average quantity of 1110 litres per society per day. This figure is much more than the average procurement of milk by the dairy co-operatives of the whole district and this higher average figure is mainly because of the inclusion of Ellackal society which is the largest milk society in Kerala working within the whole area of Vellathooval panchayat.

As shown in table 4.2, a total of 150 farmers from eight Anand pattern societies and 100 farmers from four traditional societies were selected. Detailed profile of sample farmers is given in the following part of this chapter.

4.3 Level of Literacy

Literacy level acts as a barometer of social and cultural status of the dairy farmers. Further, it throws light on the

mentality of the farmers in the adoption of new technology and modernisation of dairying. Table 4.3 shows the educational level of farmers of both society and non-society areas.

Table 4.3

Educational Level of Dairy Farmers

(Excluding children below 6 years)

Sl. No.	Educational level	Society area		Non-society area	
		No. of persons	percentage	No. of persons	percentage
(1)	(2)	(3)	(4)	(5)	(6)
1.	Illiterate	53	4.4	49	9.3
2.	Up to std 4	334	27.9	182	34.5
3.	Std 5-9	372	31.1	195	37.0
4.	S.S.L.C	263	21.9	59	11.2
5.	P.D.C	92	7.7	19	3.6
6.	Technical diploma	29	2.4	11	2.1
7.	Graduate	44	3.7	9	1.7
8.	Post graduate	11	0.9	3	.6
	Total	1198	100.00	527	100.00

Source: Sample Survey.

It is evident from table 4.3 that educational level is comparatively higher in society area than non-society area. Illiteracy rate is only 4.4 percent in the society area where as it is 9.3 percent in the non-society area. Similarly, while 21.9 percent of the farmers in the society area are of S.S.L.C level, the figure is only 11.2 percent in the non-society area.

4.4 Occupational Status

Owing to the general economic and industrial backwardness of the district, majority of the people are engaged in agriculture and allied activities including dairying. A general feature of both society and non-society areas is that the service sector plays only a less important role in the district. The occupational status of the family head is given in table 4.4

Table 4.4

Occupational Status of Family Heads

Sl. No.	Main Occupation	Society area No. of persons	Society area Percentage	Non-society area No. of persons	Non-society area Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1.	Cultivation	142	56.8	49	49.0
2.	Agricultural labour	48	19.2	37	37.0
3.	Dairying	30	12.0	8	8.0
4.	Service	17	6.8	4	4.0
5.	Trade and commerce	13	5.2	2	2.0
	Total	250	100.00	100	100.00

Source: Sample Survey.

Table 4.4 indicates the predominance of agriculture including dairying both in the society and non-society areas. While 88 percent of the family heads are engaged in agriculture including dairying in the society area, it is 94 percent in the non-society area. Taking dairying alone, the figure is 12 in society area and 8 in the non-society area. It is clear from the table that dairying is the third important main occupation next to cultivation

and agricultural labour. As far as dairying is concerned, it is the traditional occupation for 36 percent of the sample households in the society area and for 28 percent in the non-society area.[1]

4.5 Details of Housing

Housing facilities generally show the economic status and standard of living of the people. So the housing facilities of the households were also studied in the sample survey. Table 4.5 shows the details of housing facilities.

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1. It was found in the survey that dairying was the traditional occupation for 36 percent of the sample households in the society area and 28 percent of the sample households in the non-society area.

Table 4.5

Details of Housing

Sl. No.	Description of houses	Society Area		Non-society area	
		Number	Percentage	Number	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
a)	Floor				
1.	Mud/Cow dung	67	26.8	76	76.0
2.	Cement	181	72.4	24	24.0
3.	Mossaic/Marble	2	0.8	0	0.0
b)	Wall				
4.	Leaves/ Grass	29	11.6	24	24.0
5.	Mud	36	14.4	34	34.0
6.	Bricks	172	68.8	32	32.0
7.	Timber	13	5.2	10	10.0
c)	Roof				
8.	Thatched	59	23.6	22	22.0
9.	Tiled	71	28.4	46	46.0
10.	Asbestos	113	45.2	32	32.0
11.	Concrete	7	2.8	0	0.0
d)	Electrified houses	141	56.4	24	24.0

Source: Sample Survey.

From table 4.5, it can be seen that housing facilities are better in the society area than in the non-society area. For example, while there are only 26.8 percent of houses having floor with mud or cowdung in the society area, it is 76 percent in the non-society area. Similarly while there are 68.8 percent of houses having wall with bricks in the society area, it is only 32 percent in the non-society area. Again while there are seven concrete houses in the society area, non-society area has no concrete house at all. About 45 percent of the houses haveroof with asbestos in the society area and the percentage of the same is about 60 in Vandenmedu and Chakkupallam areas mainly because of the windy nature and cold climate.

While there is an average number of 4.3 rooms per sample house in the society area, it is 3.27 in the non-society area. In the case of electrified houses too there is marked difference between the two regions. About 56 percent of the houses are electrified in the society area while only 24 percent is so in the non-society area.

From the above general picture of housing conditions, it is concluded that housing facilities are better in the society area than in the non-society area.

4.6 Land Holding Pattern

Land is an important asset to the farmers. So the general economic condition and economic inequality can be studied

from the size and nature of distribution of land holdings among the farmers. It has been found from the study that while the average size of holding is 2.2 acres in the society area , it is 1.6 acres in the non-society area. Sample households were divided into 5 classes on the basis of land holding as landless, holding between 1-100 cents, 101-250,251-500 and above 500 cents. Table 4.6 gives a picture of land holding pattern of sample households.

Table 4.6

Land Holding Pattern

Sl. No.	Size of holdings	Society area		Non-society area	
		Number	Percentage	Number	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1.	0	0	0.0	8	8.0
2.	1-100	75	30.0	41	41.0
3.	101-250	86	34.4	29	29.0
4.	251-500	80	32.0	18	18.0
5.	501 and above	9	3.6	4	4.0

Source: Sample Survey.

Table 4.6 reveals that there exists considerable inequality in the distribution of land holdings both in the society area and in the non-society area. It is interesting to note that while

there are no landless farmers in the society are, eight percent of them are landless in the non-society area. Yet another feature in the land holding pattern is that while the greatest percentage of sample households in the society area belongs to the 101-250 cents class, it is the 1-100 cents class in the non-society area. While 41 percent of sample households in the non-society area have land area less than one acre, it is only 30 percent in the case of society area.

4.7 Livestock Holding Pattern

Livestock is a major asset to the farmers, and it is, infact, the most important asset to those dairy farmers who mainly depend on dairying for their livelihood. As dairying is widespread in Idukki district, majority of the households keep one or two cattle or buffaloes. It is interesting to note that dairy farmers in the district consider cattle rearing as a source not only of quality milk and income but also of manure in the form of dung. Dung is an important manure for almost all crops of the district like pepper, cardamom, rubber, tapioca and coconut. Table 4.7 shows the livestock holding pattern of the sample households.

Table 4.7

Pattern of Livestock Holdings

Sl.No.	Description	Society area	Non-society area
(1)	(2)	(3)	(4)
1.	Total bovine	864	336
2.	Cross-bred cows	657	178
3.	Local cows	102	84
4.	Buffaloes	105	62
5.	Work animals	0	12
6.	Percentage of cross-breds	86.6	67.9
7.	Average number of bovine per sample family	3.46	3.36
8.	Average value of bovine per family	Rs.13988	Rs.7436

Source: Sample Survey

Table 4.7 reveals that while there is an average number of 3.46 bovines in the society area, the figure is 3.36 in the non-society area. While 86.6 percent of cattle are crossbreds in the society area, it is 67.9 percent in the non-society area. It is interesting to note that though the number of bovine per family is more or less the same in both the areas, there is great difference in their average values. While the average value of

bovine per family in the society area is Rs.13988, it is Rs.7436 in the non-society area. There are two main reasons for this difference. Firstly, as dairying is wide-spread in the society area there is higher demand for cattle and so cattle value is higher there, that is, while the value of cow-in-milk is Rs.1169 per litre in the society area, it is only Rs.884 in the non-society area. It shows that the price of cows-in-milk of the same yield is about 24 percent higher in the former area. This difference in price is due to the fact that price of milk is comparatively higher in the society area. Further analysis reveals that while price of milk is less by 35 percent in the non-society area, price of cows-in-milk is less only by 24 percent there. Secondly, average yield per milch animal is higher in the society area. The higher yield per milch animal together with higher price per litre of milk results in the higher price of the milch animal. While average yield per milch animal during lactation period is 1949 litre in the society area, it is only 1419 in the non-society area, which shows 27 percent more yield in the former.

4.8 Relationship between Land and Bovine Holdings

Land and bovine are the two most important assets of dairy farmers. Dairying in many respects is helped by the size of land holding. Larger the size of land holding greater will be the facilities for dairy farming. Inspite of this, dairying is

followed by all classes of land holders, including the landless, in the study area.

It is interesting to note that eventhough there is an increasing trend in the average number of bovine holding per family with the increase in the size of land holding, the tendency to concentrate is not so significant. This is clear from table 4.8.

Table 4.8

Land and Bovine Distribution Among the Sample Households of Society area

Sl.No.	Size of Holdings (cents)	Percentage of farmers	Percentage of land	percentage of bovine
(1)	(2)	(3)	(4)	(5)
1.	Less than 100	30.0	6.7	26.5
2.	101--250	34.4	27.1	34.8
3.	251--500	32.0	53.9	33.5
4.	Above 500	3.6	12.3	5.2

Source: Sample Survey.

Table 4.8 shows that bovine distribution is more equitable than the distribution of land. The bottom 30 percent of the

households with less than 100 cents own 26.5 percent of bovine whereas their land holding constitutes only 6.7 percent of the total land holdings. Similarly the top 3.6 percent of the households with more than 500 cents of land own only 5.2 percent of bovine whereas they hold about 12 percent of the total land holdings.

A regression analysis is made to find out the relationship between land holding and number of cattle with land holding as the independent variable and number of cattle as the dependant variable for both the society and the non-society areas. The results are given in table 4.9

Table 4.9

Results of the Regression Analysis

	Society area	Non-society area
Co-efficient	0.2096	0.2548
t values	4.726	4.035
Constant	2.997	2.935
R^2	0.083	0.142
F	22.33	16.28

The regression analysis reveals that even though the co-efficients are significant, changes in the land size can

explain only a small portion of the changes in the number of cattle both in the society and non-society areas.

4.9 Distribution of Income

The size and nature of distribution of income among the sample households give a general picture of the economic status and standard of living of the households. It has been found from the sample survey that the sample households have an average income of Rs.12105 per year excluding dairy income in the society area. This is mainly constituted of the income from agriculture, wage, salaries and other sources. It is a matter of vital importance that agricultural income of the sample households changes year by year mainly because of two reasons. Firstly, almost all crops of the district are subjected to wide fluctuations in productivity and production due to climatic and other reasons. For example, production of pepper, cardamom and coffee largely depends on the nature of climate. Secondly, prices of the important crops of the district are also subjected to wide fluctuations. For example, while the averge price of pepper was about Rs.60 per kg in October 1987, it decreased to Rs.24 per kg in March 1994 and again reached up to Rs.80 per kg in October 1994. Similarly, while the price of coffee was only about Rs.22 per kg in March 1994 it reached up to Rs.120 per kg in October 1994 and then decreased to Rs.90 per kg in April 1995. What emerges from the

fluctuating trends in agricultural income is that agriculture is not at all a dependable source of income. Here comes the importance of dairying as an additional source of income which is more stable and hence dependable than agricultural income.

Fluctuating nature of agricultural income directly affects the employment opportunities and income of agricultural labourers too. Agricultural labourers get more employment opportunities when agricultural production or prices show an increasing trend. In such periods their bargaining capacity too increase leading to higher income. It was found through the sample survey that the average wage of male labourers was Rs.36 and that of female labourers was Rs.23. Because of the seasonal nature of most of the crops in the district, they get employment for an average of 128 days in a year. This shows that agricultural labourers are unemployed for about two thirds of the year. Here arises the role of dairying as a subsidiary occupation giving employment throughout the year.

The previous analysis was on the fluctuating nature of agricultural income and employment. Now, a broad view of the nature of income distribution may be made. Table 4.10 shows the pattern of income distribution (excluding dairy income) among the sample households.

Table 4.10

Pattern of Income Distribution Among the Sample Households

Sl. No.	Size of Income	Society area		Non-society area	
		No.of house-holds	Percentage of households	No.of house-holds	Percentage of households
(1)	(2)	(3)	(4)	(5)	(6)
1.	Below 5000	33	13.2	42	42.0
2.	5001--10000	121	48.4	38	38.0
3.	10001--15000	43	17.2	12	12.0
4.	15001--25000	38	15.2	6	6.0
5.	25001--35000	9	3.6	2	2.0
6.	Above-35000	6	2.4	0	0.0
	Total	250	100.0	100	100.0

Source: Sample Survey.

Table 4.10 reveals that there exists considerable inequality in the distribution of income among the farmers in both the areas. While there are only 13 percent of farmers having income less than Rs.5000, in the society area, it is 42 percent in the non-society area. Similarly, while the percentage of people with income between Rs.5001 and Rs.10,000 is about 48 in the society area, it is 38 in the non-society area. The average income of sample households in the society area is Rs.12,105 whereas it is only Rs.7160 in the non-society area. As is clear from the table, a good majority of the farmers does have an income less than Rs.10000

per year and for this section dairy income is a great help as an additional source of income.

4.10 Consumption Pattern

Consumption pattern of the sample households was studied in detail for two reasons. Firstly, to understand how far dairying and dairy co-operatives affect consumption expenditure of the sample households by providing additional income to purchase goods and services or in other words to see how far dairying bridges the gap between income and expenditure of the households. Secondly, to study the general standard of living of the people, because consumption level is considered a good indicator of the standard of living of the people.

It is important to note that there exists considerable difference between consumption expenditure of the sample households belonging to the society area and to the non-society area. The monthly consumption expenditure of the sample households on various items are given in table 4.11

Table 4.11

Monthly Consumption Expenditure of Sample Households

Sl. No.	Items	Society area		Non-society area	
		Amount	Percentage	Amount	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1.	Food	1012	61.9	780	68.6
2.	Clothing	179	10.9	105	9.2
3.	Education	147	9.0	48	4.2
4.	Medical Service	123	7.5	76	6.7
5.	Travel	68	4.2	45	4.0
6.	Smoking/liquor	41	2.5	37	3.3
7.	Periodicals	19	1.2	7	0.6
8.	Fuel	18	1.1	16	1.4
9.	Others	28	1.7	23	2.0
	Total	1635	100.0	1137	100.0

Source: Sample Survey.

From table 4.11, it can be seen that while the monthly consumption expenditure of sample households of the society area is Rs.1635, it is only 1137 in the case of the households in the non-society area, which shows that consumption expenditure is about 30 percent higher in the society area. Item-wise expenditure shows that the highest percentage is spent on food, while the second important is on clothing in both the areas. It is interesting to note that the percentage of income spent on food

is lower in society area with higher income and it is in accordance with the Engels' law of consumption. The second important item is clothing constituting around 10 percent in both the areas. But while education is the third important item of expenditure in the society area, it comes only after medical expense in the non-society area.

It is to be particularly noted that there exists considerable gap between consumption expenditure and income of the sample households in both the areas. While the average annual income of the households in the society area is Rs.12105, their annual consumption expenditure is estimated to be Rs.19,620 and this shows a gap of Rs.7515 per year. Similarly, while annual consumption expenditure in the non-society area is Rs.13644, their annual income is only Rs.7160 showing a gap of Rs.6484 per year. Here arises the importance of dairying as a subsidiary source of income to farmers, especially to those whose income is less than the minimum consumption expenditure. Infact the gap between income and consumption is filled by dairying.

Dairying in the district is important not only in filling the gap between income and consumption expenditure but also in providing a regular and stable pattern of consumption throughout the year. As almost all the important crops and the demand for agricultural labour are seasonal in nature, agricultural

income also will be seasonal and this will create serious difficulty for the farmers in maintaining a stable consumption level throughout the year. Dairying provides income throughout the year and helps farmers to maintain atleast a minimum consumption level at all times.

4.11 Possession of Consumer-Durables

Possession of consumer-durables is also studied because it is an asset and its possession generally shows the economic status of a person. Radio, taperecorder, bicycle, television, fan, mixi, pressure cooker, camera, two wheeler, phone, motor vehicle, VCR, refrigerator and washing machine are the important items of consumer durables considered. It has been found from the study that there exists considerable difference between the society area and non-society area in the possession of consumer durables. Table 4.12 shows details of possession of consumer durables.

Table 4.12

Possession of Consumer Durables

Sl. No.	Items	Society area		Non-society area	
		Percentage of households having the item	Average value (Rs)	Percentage of households having the item	Average value (Rs)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Radio	90.8	320	62.0	306
2.	Tape recorder	19.2	430	10.0	420
3.	Cycle	11.6	525	6.0	500
4.	Television	7.2	7917	4.0	7500
5.	Mixi	3.6	1550	4.0	1500
6.	Pressure cooker	2.8	400	2.0	400
7.	Fan	2.4	1354	0.0	0
8.	Camera	1.6	1850	0.0	0
9.	Two wheeler	0.8	17250	2.0	18000
10.	Phone	0.8	5000	0.0	0
11.	Motor vehicle	0.4	125000	0.0	0
12.	V.C.R	0.4	8500	0.0	0
13.	Refrigerator	0.0	0	0.0	0
14.	Washing machine	0.0	0	0.0	0

Source: Sample Survey.

Table 4.12 reveals that radio is the most commonly possessed item both in the society and in the non-society areas. While 90.8

percent of the households in the society area possess radio, only 62 percent possess radio in the non-society area. Tape recorder is the second important item of consumer durable and bicycle comes third in importance. No one among the sample households hold refrigerator and washing machine. Besides these, sample households in the non-society area do not possess items like fan, camera, phone, motor vehicle and V.C.R. In short, while sample households in the society area hold consumer durables for an average value of Rs.1845, it is only Rs.990 in the non-society area which constitutes only 54 percent of the former.

In the analysis of possession of consumer durables, it is to be particularly noted that certain items like television, fan refrigerator and washing machine are either extremely low in number or absent because of three reasons. Firstly, majority of the farmers are very poor and so they cannot even imagine the purchase of such items. Secondly, majority of the houses are not electrified. Thirdly, certain items like fan and refrigerator have little use in almost all parts of the district, except in the low ranges of the district, because of the cold climate throughout the year. In certain places of the district like Vandenmedu, Kanthalloor and Keezhanthoor their usage is extremely limited.