PARTICIPATION OF RURAL WOMEN IN DAIRYING ACTIVITIES

BY

PRIYA,S.

A THESIS SUBMITTED TO THE AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN (DEEMED UNIVERSITY) COIMBATORE-641 043.

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN HOME SCIENCE EXTENSION EDUCATION MAY 1993.

CERTIFIED AS BONAFIDE RESEARCH WORK

Signature of the Head of the Department	Signature of the Dean of the Faculty	Signature of the Guide 3.5.93

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MAY 1993

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INTRODUCTION

INTRODUCTION

> All Nations have attained greatness by paying proper respect to women. That country and that nation which do not respect women have never become great, nor will ever be in future
>
> - Swami Vivekananda

Agriculture is the backbone of Indian economy and is a broad discipline which includes in addition to crop husbandry, animal husbandry, fisheries, forestry and sericulture. Each one of its branches has link with crop husbandry and helps to sustain the agriculture enterprises economically viable (Manickam, 1992).

Economic regeneration attempted in succesive Five Year Plans have made agriculture a pride of national economy. Nearly 80 percent of the population live in rural areas and about 70 percent of the work force depends on agriculture (Desai, 1991). This sector continues to occupy the pride place in the Economy of Tamil Nadu (Rajagopalan, 1988). Agriculture and Dairying are interdependent and the development in one will be incomplete without the development in other (Makkar,

1989). Agriculture being only seasonal, the dairy industry provides off season work, steady income and keeps the rural population employed all the year round (Jitendra and Shankara Murthy, 1992).

Development of Dairy farming has not only provided abundant milk but has opened up ample avenues of self-employment in rural areas and generates employment and income throughout the year (Bharadwaj, 1991). Apart from the role of dairy animals in producing milk, they contribute a huge quantity of organic manure which is one of the major inputs in our agriculture and provides employment to millions of unemployed and underemployed, particularly to small farmers, marginal farmers and landless labourers. Adult female bovines also supply male progeny which supply one of the most important motive powers for almost all agricultural operations such as ploughing, lifting water from well and transporting produce from field to market (Raju, et al., 1992).

Animal husbandry along with agriculure, trade and cottage industries is now an integral part of rural economy. Dairying is one of the important allied activities to the unemployed and under employed thereby increasing their income in rural India (Mohamed Ali, et al., 1991). In the year 1970, co-operativization of dairying took place in our country to bring about a "White revolution" through various Dairy

Developmental Programmes. A major part of these programmes is being implemented through National Dairy Development Board under its revolutionary Operation Flood Programmes (Arunakumari, 1990).

The white revolution and the "Operation flood" have revolutionised the concept of dairying with the pioneering work, being done by the Anand Milk Union Limited. Around six million families in rural India are today using dairying as their passport to progress and prosperity. They are part of a movement that has made dairy co-operative a model of success. The NDDB, the apex body for dairy development, was responsible for the setting up of 56,700 village milk co-operatives on the Anand pattern in the country during the past 25 years (The Indian Express, 1989).

Milk production in the country had increased substantially in the last 20 years from 20 million tonnes in 1970 to 56 million tonnes now making India the second largest milk producing nation after Australia (The Hindu, 1993).

Nearly 54 per cent of the total milk production is from buffaloes and rest from cows. In North India buffalo milk production is more than in South India. Cross Jersey and Holstein Friesian cows play a significant role in the production of milk in India. As a result of upgrading and cross breeding programmes using exotic Jersey and Holstein Friesian semen, many of cross breed cows are now available in

our country with excellent yield. The per capita availability of milk now is 168 gm/day. Hence there is a lot of scope for dairy development (Manickam, 1992).

At present, Uttar Pradesh occupies the top rank, producing eight million tonnes every year, Punjab, second with 4.0 million tonnes and Tamil Nadu and Haryana, third with 3.1 million tonnes each year. The Tamil Nadu Government has a programme to attain the first place in milk production. The Tamil Nadu Government is aiming at producing an additional one million tonnes of milk every year (The Hindu, 1992).

The Tamil Nadu Co-operative Milk Producers' Federation has disbursed Rs.18 Crore to co-operative milk producers all over the state (The Hindu, 1992). Rs.8 crore modern dairy at Tiruchi would be commissioned early next year. The co-operative banks will advance loans for buying mini-dairy units to the units of Rs.22,000 to private parties (The Hindu, 1993).

The Government will be distributing two milk cows and quality fodder seeds to the poor (The Hindu, 1993). The quantum of financial assistance for purchase of milch animals for Adi-Dravidars would be from Rs.3,200 to Rs.4,500 (The Hindu, 1992).

Nearly 5,00,000 milk producers in Tamil Nadu have been covered under Life Insurance Scheme formulated by the state. Each and every active member, aged between 18 and 60 years, of the Primary Milk Producers' Co-operative Society anywhere in the state will have a free life insurance cover for Rs.5,000/- (The Hindu, 1993).

Women constitute 47.5 per cent of the rural population. Seventy per cent of the rural women are in small and marginal farm families. Hence farm women are the backbone of Indian agriculture. The entire range of agricultural operations, except perhaps involving heavy manual labour and animal and machine power are performed by women. These include transplantation (in South India), weeding, harvesting processing, cleaning and storing grains, feeding the animals, milking the cattle and poultry raising.

From times immemorial rural women have been playing an important role in dairying. By and large dairying is a domestic occupation and thus considered as an appropriate remunerative and dependable supplementary occupation for women (Arunakumari, 1990). The participation of rural women in livestock production process varies from state to state and region to region in India. The development programmes, initiated under the animal husbandry sector, particularly the provision of milk cattle give subsidiary occupation to the women folk (Chetty, 1991).

The size of land holdings that is large, medium, small and marginal and landless labour, exercises a commanding influence on work participation of rural women. Illiteracy, socio-economic constraints as well as lack of communication process pertaining to need based livestock production technologies are some relevant factors contributing to the extent of participation of women. In livestock production systems, woman has been considered merely a supporting worker. She has been denied the responsibility and fruits of independent decision making and handling of livestock enterprise (Arora, 1990).

Though national milk production has increased by approximately 170 per cent over the past four decades (Mudgal, 1989) some would question whether this growth has had a positive impact on the lives of women (Doornbos et al., 1990). Women are closely involved in every facet of milk production including animal health care, hygiene, feeding, reproduction and milking as well as preparation of milk products, selling of dairy products - ghee, curd etc., preparation of cow dung cake, collection and selling of grass etc., are some examples of women's total involvement (Uma Joshi, 1989). Women are also active in milk marketing and recently, in organisation of Milk Producer Co-operatives (Sharma et al., 1989; SEWA, 1989).

The involvement of women in an increased form in dairy development increases the productivity and prosperity. The contribution of women to dairy development is not fully recognised as it is an unorganised sector. So it is necessary to assess the extent of involvement of rural women in dairy development.

The participation of rural women workers in dairy keeping varies from state to state and region to region. Thus this study shall throw some light on the role of women in dairy development in the selected blocks in Coimbatore. The study has the following objectives: To

- Study the scope of dairy development
- Assess the participation of women in
    a. Decision making
    b. Involvement and
    c. Management of their farms
- Understand the constraints of women in this task and
- suggest suitable strategies for improvement.

REVIEW OF LITERATURE

II. REVIEW OF LITERATURE

The literature pertaining to this study is reviewed under the following headings:

A. Dairy development in India

B. Women in Dairy development and

C. Research perspectives in this field.

A. DAIRY DEVELOPMENT IN INDIA :

Indian agriculture is an economic symbiosis of crop and cattle production. Animal husbandry along with agriculture, trade and cottage industries is now an integral part of rural economy. India ranks first in world livestock population (Mohamed Ali, et al., 1991). Introduction to dairy development programme will lead to better utilization of land, water and human resources. Dairying is reckoned with as an instrument of social and economic change (Gopalakrishnan and Mohanlal,1986). India Facts, 1991, give a statistical picture of production of milk of some major livestock in the year 1991 as 54,900 tonnes. India owns nearly 23 per cent of world livestock population. The current population of different classes of livestock and poultry is being furnished for

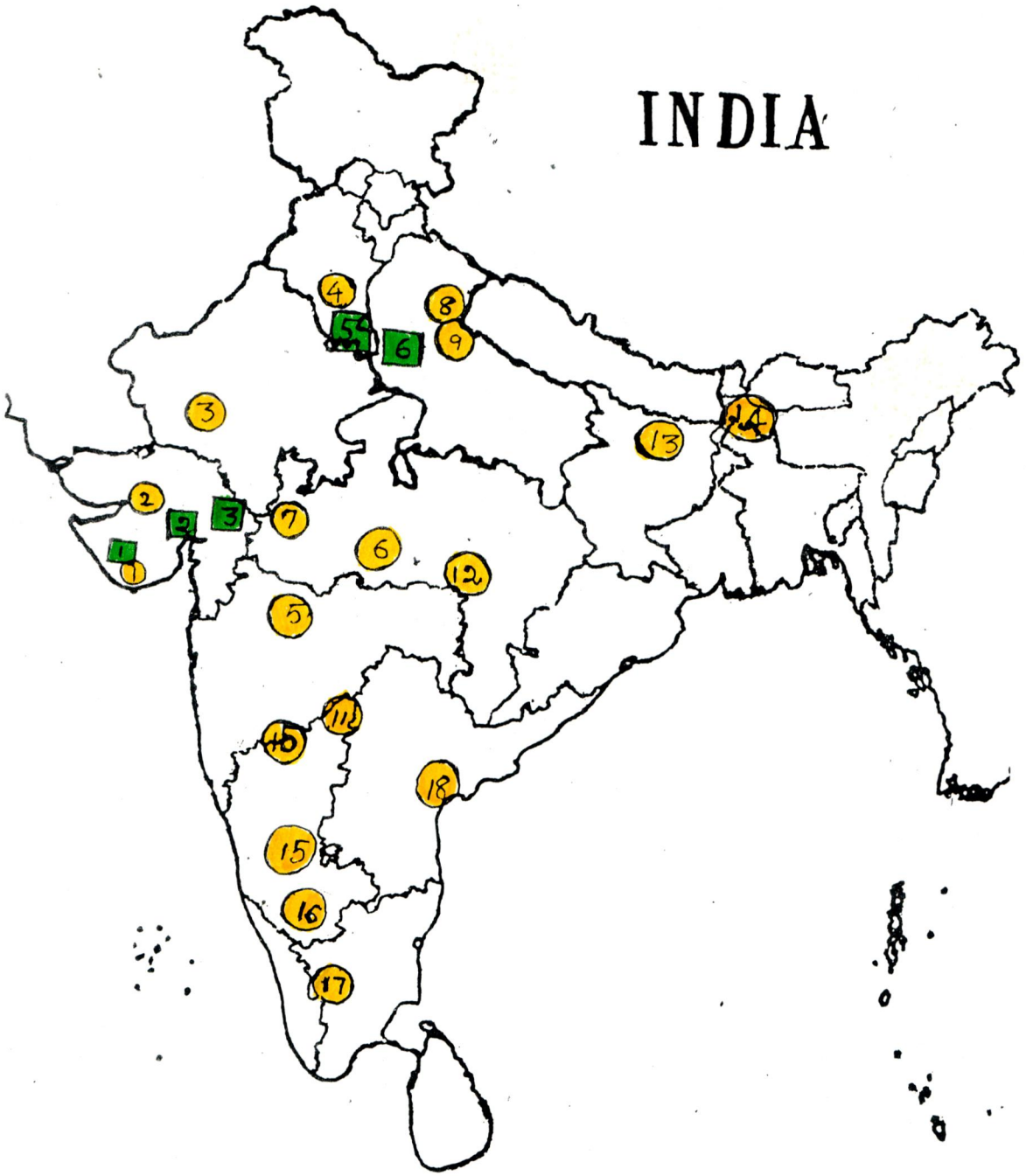
understanding the livestock wealth of our country (Manickam, 1992). (FIGURE-I).

TABLE 2.1 LIVESTOCK CENSUS (1990) (MILLIONS)

S.No.	Particulars	Tamilnadu	India
1.	White cattle (Cows)	13.6	182.0
2.	Black cattle (Buffaloes)	3.2	70.0
3.	Sheep	5.5	61.7
4.	Goat	5.2	105.0
5.	Pigs	0.7	10.5
6.	Poultry	18.2	185.0

Dairying is one of the most important allied activities to the unemployed and under employed thereby increasing their income in rural India. The per capita availability of milk in India is 157 gms per person per day against the ICMR recommendation of 281 gms per person per day (Mohammed Ali , et al., 1991). Milk and milk products form a vital part of human diet in most societies throughout the world. Milk provides nutrition and supplementary income to the weaker sections (Rajagopalan,1988).

Dairying and milk supply is another allied economic sector of agriculture. This sector has been contributing a lot to the agricultural economy and rural progress. The state has good potential for dairy



■ IMPORTANT BUFFALO BREEDS IN INDIA

● IMPORTANT COW BREEDS IN INDIA

IMPORTANT BUFFALO BREEDS IN INDIA

1. JAFFARBADI	2. SURTI	3. MEHSANA	4. NAGPURI
5. MURRAH	6. BHADAWARI		

IMPORTANT COW BREEDS IN INDIA

1. GIR	2. KANKRAJ	3. NAGORI	4. HARIANA
5. DANGI	6. NIMARI	7. MALVI	8. DONWAR
9. KHERIGARH	10 KRISHNA VALLEY		11. DEONI
12. GAOLAO	13 BACHAUR	14. SIRI	15. AMRITMAHAL
16. HALLIKAR	17 KANGAYAM		18. ONGOLE

FIGURE I

development and therefore substantial importance has been given for its development. The organisation of milk industry ultimately encourages milk production in rural areas. On the other hand supplements the income of the farmers. For mass consumption the milk of cow and buffalo is important. The milk of other animals like goat, sheep and ass is less consumed (Rayudu, 1989). Yeild of milk can be substantially increased by better health care and management (Srivastava, 1988).

The importance of dairying extends well beyond the mere production of milk and milk products. It has provided numerous small/marginal farmers and agricultural labourers with supplemented employment and regular source of income. The significant role played by co-operatives in stimulating dairying has also proved to be an important instrument of progress (India, 1991). It has been proved that dairying is an effective field which would bring in an economic and social change on community basis in rural areas (Kothari, 1991).

Co-operative dairy societies had played a major role in the marketing of milk in India. Major quantity of milk is produced in rural areas while the profitable market for milk and milk products is largely in urban areas. In addition to the sale of milk, the dairy co-operatives are expected to provide veterinary aids, supply cattle feed and arrange for supply of credit for related purpose (Inmake, et al., 1989).

The Indian Government had launched a 'Technology mission' on dairy development, to raise overall dairy productivity, and to use dairy farming as a means to accelerate the pace of increasing rural employment and income. The mission had also commenced work in coordinating efforts of research institutions in the country (India, 1991).

The National Dairy Research Institute in the National Centre Research Manpower Development Extension/consultancy in the Dairy Industry was established at Karnal in 1955. Research activities of the NDRI are mainly to the areas of Dairy Production, Dairy processing/management/extension etc (ICAR, 1988).

An amount of Rs.25.00 lakhs was incurred during the first plan and Rs.34.42 lakhs, during the second plan on dairying and milk supply. During third five year plan an amount of Rs.255.98 lakhs was incurred on this sector. The orginal outlay was Rs.296.00 lakhs which was subsequently revised to Rs.227.30 lakhs. During the fourth plan a sum of Rs.385.46 lakhs was provided for dairying and milk supply schemes. The fifth plan outlay was Rs.630.00 lakhs under dairying and the milk supply of which Rs.465.69 lakhs was for strengthening of existing dairies including the supply scheme.

The total amount proposed during the sixth five year plan period for dairy development in seven districts of non-operation flood-II area of dairy infrastructure was Rs.600.00 lakhs. Though an amount of Rs.600.00 lakhs was provided for dairy development during the sixth plan, the actual expenditure incurred was Rs.1417.50 lakhs.

The seventh five year plan proposed to take up many new schemes like centralised technical inputs, special programme for induction of rural women into dairying, special assistance to the APDDCF for maintaining the prices to the consumers and products, and for generation of funds for implementing the technical inputs programme, creation/expansion of chilling processing facilities, milk transport, milk distribution, etc. Thus for all the schemes the outlay proposed, during the seventh plan for dairy development was Rs.2970.00 lakhs both for state wide schemes and district schemes (Rayudu, 1989).

At the end of operation flood-III about Rs.2000 crores had been invested in milk co-operative sector (The Hindu, 1993). The operation flood is the world's largest integrated dairy development programme designed to establish a linkage between rural milk producers and urban consumers by replication "Anand pattern", dairy co-operatives in the country is

THE MARKETING MODEL

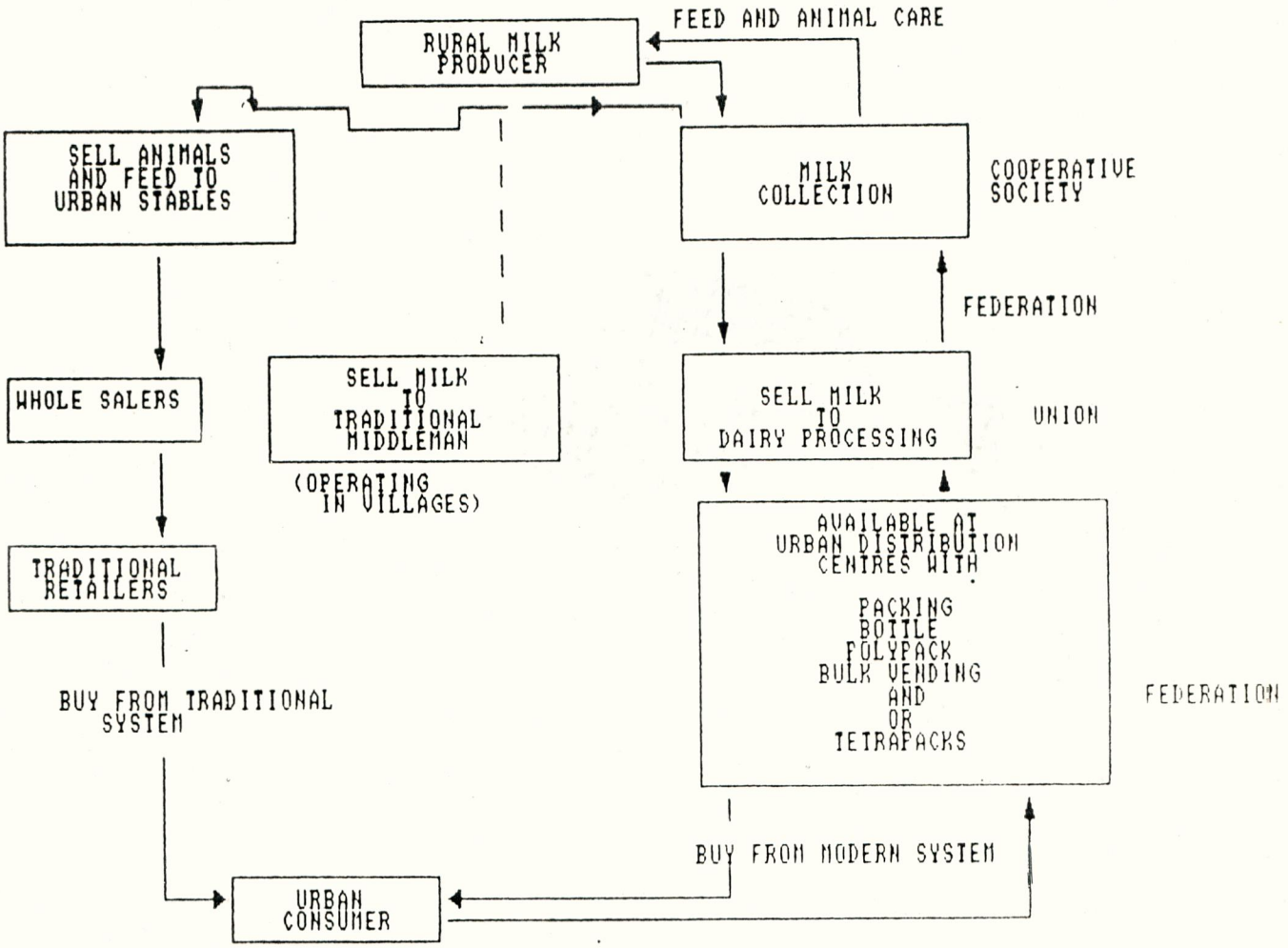


FIGURE-II

currently in its third phase of implementation which will run through 1994. The programme is being implemented in 74 milk sheds spread over 22 states/UTs. Over 73 lakhs farm families had been brought under co-operative ambit through a net work of more than 62,600 dairy co-operative societies. About 14 per cent of the total members of dairy co-operatives are women. These societies procured on an average, 94.7 lakh kgs. of milk per day during April-December, 1990, which was higher by more than three per cent compared to the corresponding period of 1989. The milk marketing also registered an impressive rise of 10.5 per cent during April-December, 1990, compared to the corresponding period 1989. An important achievement of the programme is the emergence of National Milk Grid (NMG) which helps off-set regional and seasonal imbalances in milk collection and distribution (India, 1991). (FIGURE -II).

The Operation Flood statistics are listed below:

(Indian Dairy Manual, 1988)

TABLE 2.2. OPERATION FLOOD (STATISTICS)

S.No.	Particulars	1970	1975	1981	1987	1990
1.	Function of co-operatives (thousands)	1.3	3.0	13.3	38.6	50.0
2.	Members (Millions)	0.25	---	1.74	4.91	10.02
3.	Annual average milk procurement (Million litres/day)	0.53	0.87	2.56	8.12	13.20
4.	Of milch animals (Millions)	__	--	--	5.45	15.28
5.	Of milk sheds	5.00	25.00	39.00	167.00	176.00

B. WOMEN IN DAIRY DEVELOPMENT :

Women's role is part of the organisational aspect of family household which acts as a collectively deciding a large number of specific activities of such as production, allocation of work and resources, division of labour, investments for the future, etc. Among the poor, women's contribution is central (Mitra, 1991). Livestock and dairy has been one of the sectors where female work force participation has been high (Kulandaisamy, 1988).

The women found engaged in small animal husbandry are of two kinds - either from a family which traditionally raises small animals as their caste occupation or women who are trying to bring in some extra income outside of their agricultural work (Bhatt, 1988). From various studies it has emerged clearly that rural poor women perform a large part of the work related to the maintenance of dairy cattle and milk production and processing.

In traditional milk production system, which comprises of rearing of zebu cattle and buffaloes at complementary or supplementary level of crop residues and by products with marginal inputs from green fodder, little emphasis has been laid on developing this enterprise as a commercial venture. However, this enterprise is alsmost completely women's responsibility and they participate in activities like harvesting and

transporting of fodder, chaffing of fodder, feeding of animals, cowdung cake making, cleaning of animal sheds, milking and processing of milk into indigeneous milk products such as curd, ghee etc.

Women's labour inputs into livestock maintenance and dairy products varies over land holding and livestock holding classes. Generally speaking women of landless, small and marginal farmer households perform the maximum labour in livestock maintenance. The difference arises over the nature and labour intensity of jobs performed. For poor rural women, dairying is an additional job which is taken on along with other wage and not wage work and most of the dairy related jobs such as cutting and fetching grass and fodder, bathing of the buffaloes, cleaning of cattle sheds, milking, pouring the milk at the co-operatives or other collection centres which are all labour intensive and performed by the women in poor households (Landless and small peasent households).

In medium farmer households, women are engaged in dairy related work which is confined to the house such as feeding, milking while more streneous outside jobs are done by hired labour. In rich farmer households women's role in livestock maintenance and dairy production is mainly supervisory (Mitra, 1991).

With a view to elicit effective participation, farm women should be equal in technical information and

training and it is essential to create awareness among them about their role and they should be duly compensated with economic benefits of independent handling of livestock enterprise (Arora, 1990).

The SEWA (Self Employed Women's Association), established in 1972, is a trade union for women who are self employed. The union attempts to organise and empower women, so that they are more effective in withstanding exploitation and injustice. In 1979, despite opposition by those who had been exploiting women dairy farmers, the first women's milk co-operative was launched in Ahmedabad district. Today there are 23 women's dairy co-operatives of which 13 were registered in 1989. The SEWA provides organisational links with the National Dairy Development Board (NDDB), the police and the banks, arranges for women to attend training courses in dairy and co-operative management, health care, and milk testing. It also supervises society's book keep (SEWA,1989).

Regarding access to milk and milk products, across class, gender is a line of differenciation and women and female children are always relatively deprived even within households where there is a higher incidence of milk consumption.

The income from dairying rarely reaches the women directly. Men of the household as head of household, market the milk and collect the income. In various

cases, men's role is limited to marketing (Mitra, 1991).

In the dairy sector women have frequently been neglected, which prevents them from realising the full benefit of their labour (Sharma et al., 1989 and Chen et al., 1986).

The most common problem encountered by women dairy farmers relates to the overall health productivity of their animals. Many other problems seem related to poor health. Various factors have led to this state including lack of adequate medical care facilities, unavailability of technical personnel, poor feeding practices, and a limited knowledge of dairy management. This has resulted in malnourished milch animals which give low milk yields, have shortlactation periods, do not come into heat easily and exhibit high calf mortality rates. In addition, when a family owns only one animal and it dries, so does their source of income (Sreen and Sreen, 1992).

Percentage distribution of females (5 years and above) usually engaged in household duties and willing to accept work at their residence by type and nature of work acceptable is shown in the following table (NSSO, 1987).

TABLE 2.3 PERCENTAGE DISTRIBUTION OF FEMALES IN RELATION TO TYPE OF WORK ACCEPTABLE

Type of work acceptable	Rural			Urban		
	Full time	Part time	Occas-ional	Full time	Part time	Occas-ional
Dairy	30.07	62.27	5.66	35.37	61.20	3.43
Poultry	26.69	65.87	7.44	34.48	53.91	11.82
Other animal husbandry	29.79	57.28	12.94	43.98	49.32	6.70

C. RESEARCH PERSPECTIVES IN THIS FIELD :

Sreen and Sreen (1992) carried out a study entitled "Constraints faced by Women Dairy Farmers in India and Strategies to overcome them". This study identifies three major constraints and offers potential strategies for overcoming them. Three dairy programmes were visited, Dairy Development Programme in Lohardaga district, Bihar, the community services guild, Kalrayan women's Development Schemes in the Kalrayan hills of Tamil Nadu, and the Self Employed Women's Association in Ahmedabad. The study reveals that in both Lohardaga and Ahmedabad women stated that medical care was insufficient. Other three major constraints identified in the study were: Poor health, nutrition and productivity of milch aninmals, Inadequate training opportunities and inadequate institutional support.

Usha Rani,et al ., (1991) conducted a case study entitled "Role of Women in Dairy Development - a Case Study", in Chittoor district, Andhra Pradesh. Two women dairy co-operative societies were taken up, and 98 women milk producers were selected at random for the study. The findings indicated that female labour employment per annum increased from 428 hours (before becoming a member) to 937 hours (after becoming a member) which meant increased employment for women dairy co-operatives.

Mitra (1987) carried out a study entitled "women's work: Gains analysis of women's labour in Dairy Production", in Andhra Pradesh. The data was based on a study of the total population of five villages in each of three selected districts of Andhra Pradesh, namely Nalgonda, chittoor and Krishna Districts. The results revealed that in terms of time allocation, 185 women reported that dairy related work took them, on an average, two and a half hours per day and 212 reported spending approximately two and a half hours per day on house work.

Aruna Kumari (1990) conducted a study entitled "Women in Dairying" in Andhra Pradesh and the findings of the study reveals that more than 171 women DWS (District Welfare Society) were organised in the their districts of A.P., Viz., Chittoor, Krishna and Nalgonda with about 12,000 women members working

succesfully as testimonials.

A study entitled "Dairy Development: an experiment with rural women", by Susheela Hippargi (1988) was conducted in Dharwad district. It indicated that India's development services have helped the women to understand the importance of dairying and how they can implement those ideas in their dairy societies.

A research study entitled "Impact of Dairying Schemes on the living conditions of scheduled castes", by Jyothi Rani and Probhakar (1991) was conducted in Telengana region of Andhra Pradesh. One of the findings of the study stated that 30 per cent of the sample belonged to the category of marginal farmers while the remaining 70 per cent to small farmers.

A study entitled "Milch Animal Scheme in Drought - Prone Areas: A case study", was conducted by Jayachandra (1991) in Chittoor district, Andhra Pradesh. Two women dairy co-operative societies were selected at random for the study. A case study of a rural woman named Raniamma, a widow, was conducted to find the impact of milch animal scheme on her. The study reported that Raniamma found dairying easier than working in other fields.

A study entitled "The Role of Rural Bangladeshi Women in Livestock rearing", was undertaken by Fazila Banu Lily, (1987), in Kangpur and Jamalpur, Bangladesh. The study revealed that women were more reliant in buying and selling of livestock.

METHODOLOGY

III. METHODOLOGY

When we talk of research methodology, we not only talk of research methods but also consider the logic behind the methods we use in the context of our research study and explain why we are using a particular method or technique and why we are not using others so that research results are capable of being evaluated either by the researcher himself or by others (Kothari, 1990).

The methodology of this study included the following:

A. THE TOPIC
B. THE AREA
C. THE SAMPLE
D. THE TOOLS AND
E. THE ANALYSIS

A. THE TOPIC:

The topic selected for the study was titled as "Participation of rural women in dairying activities in Coimbatore district". This topic was selected for the following reasons:

1. The Indian Government attaches great importance to livestock and dairying development programmes. The

intensity of participation of the rural women in dairy management is not that similar among the states and regions of India. This study would throw some light on this aspect in Coimbatore district.

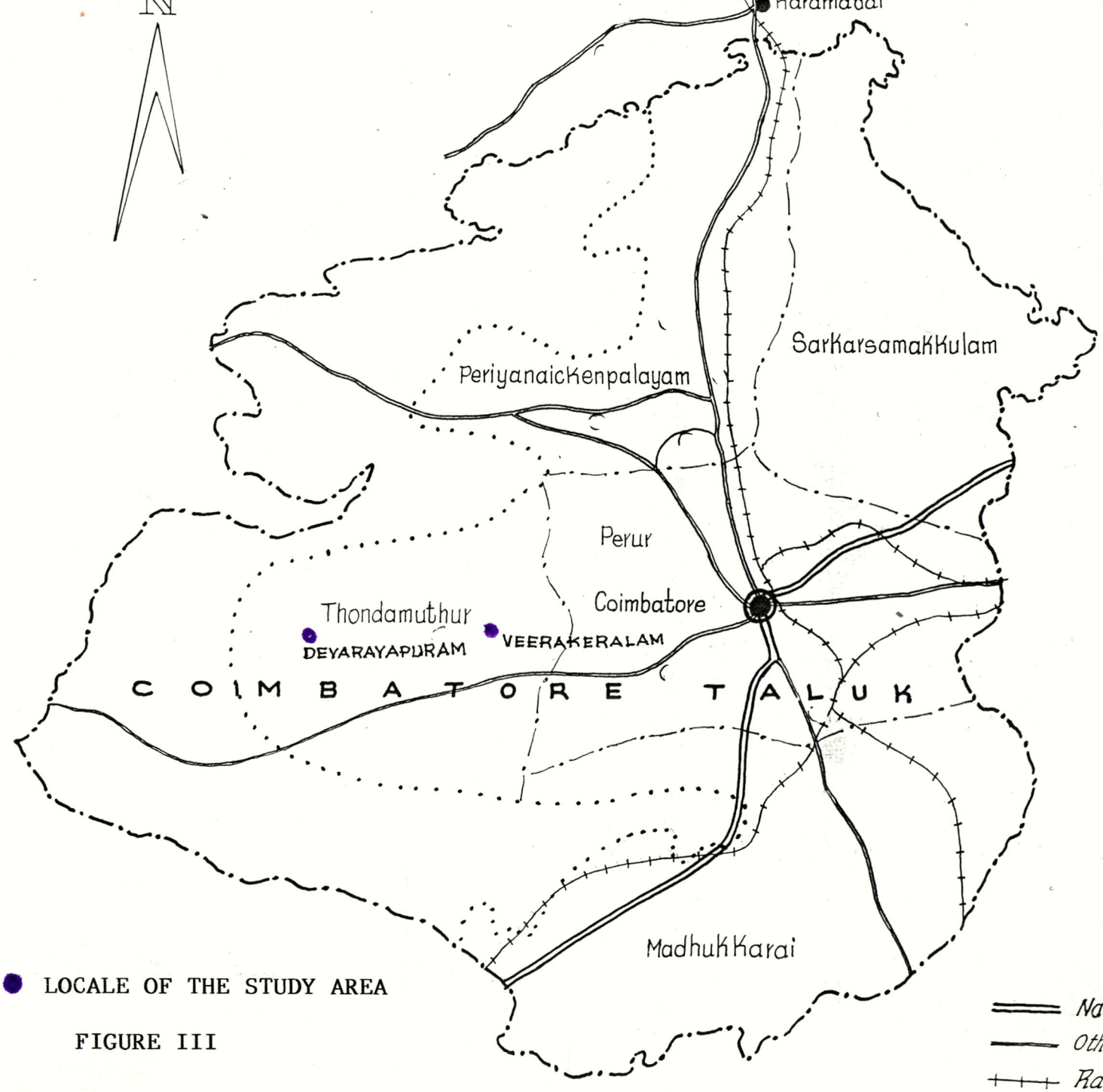
2. The participatory role of rural women in dairy sector is not fully recognised as it is an unorganised sector. Hence this study was undertaken to find out the extent of participation of women in dairying.

B. THE AREA:

The primary data utilised for the study were collected from two blocks (Periyanaickenpalayam and Thondamuthur) of Coimbatore district. The district is situated North West of Tamil Nadu. The combination of both these blocks provided fairly good representation to assess the participatory role of women folk in dairy development.

Two villages one from each block namely Veerakeralam from Periyanaickenpalayam block and Devarayapuram from Thondamuthur block were selected for the study, which are shown in Figure-III

Veerakeralam village lies 5 kilometres away from the Avinashilingam Deemed University. Its population is roughly 1,850. It is situated on the west part of Coimbatore. Here the milk co-operative society is not in existence.



● LOCALE OF THE STUDY AREA

FIGURE III

Devarayapuram village is located in the south west of Coimbatore. It lies 10 kilimetres away from the Avinashilingam Deemed University. A milk co-operative society is in existence since 1988 in this village. The strength of the members in the society is 210 and the population of this village is roughly 1,700.

C. THE SAMPLE:

The sample is the part of the universe which will be studied and which will make it possible to understand by extrapolation, the characteristics of the totality of the universe. The representative nature of the sample depends on its size, but it is not proportional to it (Johari, 1988).

A sample of 100 rural women (50 non-members of milk co-operative from Veerakeralam village and 50 members of the milk co-operative from Devarayapuram village) involved in dairying were selected from the considered blocks. The sample was selected at random.

A random sample is a sample selected in such a way that every item in the population has an equal chance of being included (Happer, 1988).

The sample thus selected from each village was classified as given below.

TABLE 3.1 CLASSIFICATION OF THE SAMPLE ON THE BASIS OF LAND OWNERSHIP

Aspect	Member (Devarayapuram village)	Non-member (Veerakeralam village)
Landless (L)	22	26
Marginal Farmer (MF)	9	11
Small Farmers (SF)	6	7
Big Farmers (BF)	13	6
Total	50	50

Note:

Landless (L) - Owning no or less than 0.022 hectare (Sarvant, 1992)

Marginal Farmer (MF) - A cultivator with a land holding up to 1.25 acres of wet land or 2.5 acres of dry land

Small Farmer (SF) - A cultivator with a land holding upto 2.5 acres of wet land or 5 acres of dry land

Big Farmer (BF) - A cultivator with a land holding of more than 2.5 acres of wet land or more than 5 acres of dry land (Dhillon, 1991).

D. THE TOOLS:

The main tool constructed by the investigator for the study was the Interview schedule. The primary data required were collected with the help of this schedule (Appendix-I).

Schedule is the name usually applied to a set of questions which are asked and filled in a face to face situation with another person (Gupta, 1991).

A five point score card was also developed by the investigator to pursue the extent of decision making by the sample (Appendix-II)

Score card is the most elaborate form of rating instrument often called a numerical rating scale. There is no sharp dividing line between rating scale and score card (Sidhu, 1985).

Observation technique was also used while collecting the data by the investigator.

E. THE ANALYSIS.

Percentage analysis was used to analyse the data collected with the help of the schedule. The findings of the study were analysed and discussed under the following heads:

1. Socio-economic profile of the sample
2. Details of dairy farming
3. Participation of the sample in dairying activities
4. Constraints of the sample and
5. Proposals of the respondents for improvement

All these aspects are dealtin detail in the successive chapter. In addition,the best one among the sample was selected and a case study was conducted which is also presented at the end.

RESULTS AND DISCUSSION

IV. RESULTS AND DISCUSSION

The Primary empirical data collected for the study are presented and interpreted as under:

A. Socio-economic profile of the sample
B. Details of dairy farming
C. Participation of the sample in dairying activities
D. Constraints of the sample and
E. Proposals of the sample for improvement

A. SOCIO-ECONOMIC PROFILE OF THE SAMPLE:

With a view to estimate the participation of the sample in dairying activities, it is relevant to have a general background of both economic and non-economic conditions of the respondents. The prevalance of joint type of families were limited as compared to the nuclear families (above 60 per cent). The other aspects of the socio-economic background are studied under the following heads:

1. Caste-wise distribution of the sample
2. Age-wise classification of the respondents
3. Educational level of the sample
4. Occupational pattern of the families of the sample
5. Distribution of the sample according to monthly family income and
6. Classification of the sample on the basis of dairy income

1. CASTE-WISE DISTRIBUTION OF THE SAMPLE:

The caste wise distribution of the sample is presented in table 4.1.

TABLE 4.1. DISTRIBUTION OF RESPONDENTS ACCORDING TO CASTE (IN PERCENTAGE)

Group	Member			Non-Member		
	SC	MBC	BC	SC	MBC	BC
L	59.1	18.2	22.7	11.5	11.5	76.9
MF	22.2	--	77.8	--	--	100.00
SF	16.7	--	83.3	--	--	100.00
BF	--	--	100.00	--	--	100.00

The above table gives a combination of different castes of the lower strata living in the selected villages.

2. AGE-WISE CLASSIFICATION OF THE RESPONDENTS:

The age-wise classification of the sample is stated in Table 4.2.

TABLE 4.2. AGE-WISE CLASSIFICATION OF THE SAMPLE (IN PERCENTAGE)

Group	Member (In years)				Non-Member (In years)			
	21-30	31-40	41-50	51-60	21-30	31-40	41-50	51-60
L	31.8	40.9	18.2	9.1	23.1	34.6	34.6	7.7
MF	--	44.4	22.2	33.3	9.1	54.5	27.3	9.1
SF	50	--	33.3	16.7	28.6	14.3	42.9	14.3
BF	23.1	61.5	15.4	--	--	33.3	66.7	--

The age groups between 31 and 50 were found to be involved more in dairying activities, than the other age groups.

3. EDUCATIONAL LEVEL OF THE SAMPLE:

The Educational level of the respondents is shown in Table 4.3.

TABLE 4.3 EDUCATIONAL LEVEL OF THE SAMPLE (IN PERCENTAGE)

Group	Member			Non-Member		
	Illiterate	Schooling	Graduation	Illiterate	schooling	Graduation
L	54.5	40.9	4.5	53.8	46.2	--
MF	55.6	44.4	--	45.5	54.5	--
SF	66.7	33.3	--	42.9	57.1	--
BF	--	92.3	7.7	--	83.3	16.7

More than 50 per cent of the sample had an education between primary and school final, followed by illiterates, a considerable 43 per cent and graduation only upto three per cent, in both the member and non-member categories. The female literacy needs to be strengthened.

4. OCCUPATIONAL PATTERN OF THE FAMILIES OF THE SAMPLE:

Table 4.4 depicts the details of occupations of the families of the sample.

TABLE 4.4 OCCUPATIONAL PATTERN OF THE FAMILIES OF THE SAMPLE (IN PERCENTAGE)

Group	Member				Non-Member			
	Agri-culture	Busi-ness	Labour	Ser-vice	Agri-culture	Busi-ness	Labour	Ser-vice
L	--	9.1	72.7	18.2	--	38.5	38.5	23.1
MF	22.2	11.1	55.6	11.1	18.2	18.2	18.2	45.5
SF	100.0	--	--	--	100.0	--	--	--
BF	100.0	--	--	--	100.0	--	--	--

Agriculture was the major occupation for 62 per cent (member) and 66 per cent (non-member), labour for 42 per cent (member) and 24 percent (non-member), service for 12 per cent (member) and 22 per cent (non-member) and business for six per cent (member) and 24

per cent (non-member) of total sample households.

All the respondents stated dairying as a subsidiary occupation for their families which denied the participation of women in other economic activities such as poultry.

5. DISTRIBUTION OF THE SAMPLE ACCORDING TO MONTHLY FAMILY INCOME:

The classification of the sample according to the total monthly family income is produced in table 4.5.

TABLE 4.5. TOTAL MONTHLY INCOME OF THE SAMPLE HOUSEHOLDS (IN PERCENTAGE)

Group	Member (in Rupees)				Non-Member (In rupees)			
	500-1000	1001-1500	1501-2000	2001 &above	500-1000	1001-1500	1501-2000	2001 &above
L	59.1	22.7	13.6	4.5	46.2	30.8	19.2	3.8
MF	77.8	11.1	11.1	--	54.5	27.3	18.2	--
SF	--	66.7	--	33.3	--	71.4	28.6	--
BF	--	--	--	100.0	--	--	--	100.0

Among the selected four categories, the big farmers found to be earning Rs.2001/- and above per

month in both the selected villages, the small farmers between Rs.1001 and Rs.1500 per month, majority of the marginal farmers and the land less groups were earning below Rs.1000 per month, which speaks for the need for more developmental programmes for such categories by the authorities concerned.

6. CLASSIFICATION OF THE SAMPLE ON THE BASIS OF DAIRY INCOME:

Table 4.6 indicates the monthly income of the sample from the dairy.

TABLE 4.6 INCOME OF THE SAMPLE FROM DAIRY PER MONTH

(IN PERCENTAGE)

Group	Member (In Rupees)					Non-Member (In Rupees)				
	100-500	501-1000	1001-1500	1501-2000	2000 &above	100-500	501-1000	1001-1500	1501-2000	2000 &above
L	86.4	13.6	--	--	--	76.9	23.1	--	--	--
MF	100.0	--	--	--	--	72.7	18.2	9.1	--	--
SF	66.7	16.7	16.7	--	--	71.4	--	28.6	--	--
BF	46.2	15.4	23.1	--	15.4	16.7	33.3	16.7	16.7	16.7

All the four categories in both the selected villages earned upto Rs.500 per month from dairy. A considerable percentage of big farmers earned above

Rs.2001 per month from dairy alone. This may be because, the big owners possessed more number of cattle than the other three categories. Therefore rearing of more than three cow units are preferred for maintaining the continuity in dairy income.

B. DETAILS OF DAIRY FARMING:

Facts about the dairy farming practices in the selected villages comprised of the following heads:

1. Period of and sources of information about dairy keeping
2. Types of Cattle reared by the sample
3. Feeding practices followed by the respondents
4. Facilities utilised by the sample and
5. Loan availed by the sample

1. PERIOD OF AND SOURCES OF INFORMATION ABOUT DAIRY KEEPING:

The details about the period of and sources of information about dairy keeping for the sample households are given in table 4.7.

TABLE 4.7 PERIOD OF AND SOURCES OF INFORMATION ABOUT DAIRY KEEPING (IN PERCENTAGE)

Particulars	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a. Period of dairy keeping								
Upto 5 years	45.5	22.2	--	--	30.8	9.1	--	16.7
6 - 10 years	18.2	--	16.7	--	26.9	--	--	--
11-15 years	18.2	--	--	--	--	9.1	14.3	--
16-20 years	4.5	--	--	--	--	--	--	--
Above 21years	13.6	77.8	83.3	100.0	42.3	81.8	85.7	83.3
b. Sources of Information								
Relatives	45.5	22.2	--	--	50.0	--	--	16.7
Neighbours	22.7	11.1	16.7	--	7.7	18.2	14.3	--
Friends	18.2	--	--	--	--	--	--	--
Ancestors	13.6	27.3	83.3	100.0	42.3	81.8	85.7	83.3

The period of dairy keeping was upto five years for half of the total landless sample households. A considerable percentage (more than 20 per cent) of the marginal and small farmers were involved in

dairying since 20 years. The period of dairy keeping was above 20 years for 85 per cent of small farmers and 92 per cent of the big farmers, including both member and non-member categories, as their cattle have been passed on to them from their ancestors.

For the sample households who were involved in dairying since 20 years, (nearly 40 per cent) the source of information about dairying was their relatives. On the otherhand the information on dairying was passed on with the cattle to the sample households, from their ancestors, who had been involved in dairying above 20 years.

Further, changes like increase in the quantity of milk consumed, additional income and reduced leisure were observed in the sample households, who have taken dairying as their subsidiary occupation.

2. TYPES OF CATTLE REARED BY THE SAMPLE:

The data pertaining to the types of cattle reared by the respondents are presented in table 4.8.

TABLE 4.8. TYPES OF CATTLE REARED BY THE SAMPLE (IN PERCENTAGE)

Aspect	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Breed Name:								
Jersey Cross	40.9	55.6	16.7	61.5	42.3	27.3	50.0	83.3
Non-descript	59.1	44.4	83.3	38.5	57.7	72.7	50.0	16.7
b) Unit size:								
One cow unit	86.4	100.0	66.7	46.2	76.9	72.7	71.4	16.7
Two cow unit	4.5	--	16.7	15.4	9.1	--	--	33.3
Three cow unit	9.1	--	16.7	--	15.4	18.2	--	--
Four cow unit	--	--	--	23.1	--	9.1	28.6	16.7
Five cow unit	--	--	--	7.7	--	--	--	16.7
Above five cow unit	--	--	--	7.7	--	--	--	16.7

The majority of livestock and poultry are of non-descript nature and poor producers. However breeds are well acclimatised to harsh climatic conditions, tropical disease problems and poor management conditions. They are thus mated to high-yielding exotic breeds to evolve cross breds having moderately good production as well as suitability to our condition (Rao, 1992). Only a limited percentage of the sample reared buffaloes of non-descript nature.

Women hardly own the cattle they look after and maintain. The type of breeds reared by the sample are of either jersey cross or non-descript. More than 50 per cent of the landless and marginal farmers possessed cows of non-descript nature. Around 67 per cent of small farmers reared non-descript cattle, whereas about 72 per cent of big farmers had jersey cross bred cows in their units.

Around 95 per cent of the landless, marginal farmers and small farmers owned one to three cow units while a considerable per cent of big farmers (39 per cent, member and 50 per cent, non-member) had four, five and more than five cow units.

3. FEEDING PRACTICES FOLLOWED BY THE RESPONDENTS:

The data comprising of the feeding practices followed by the sample are illustrated in Table 4.9.

TABLE 4.9. FEEDING PRACTICES ADAPTED BY THE RESPONDENTS (IN PERCENTAGE)

Details	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Amount spent on fodder/cattle/ day:								
Rs.20 - 25	45.5	55.6	66.6	--	73.1	72.7	42.9	--
Rs.26 - 30	54.5	44.4	16.7	--	26.9	18.2	28.6	--
Cultivated	--	--	16.7	100.0	--	9.1	28.6	100.0

Details	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
b) Frequency of feeding per day:								
7-8 times	100.0	100.0	83.3	53.8	92.3	100.0	57.1	50.0
9-10 times	--	--	16.7	46.2	7.7	--	42.9	50.0
c) Amount of water provided /cow/day:								
upto 20 litres	40.9	55.6	16.7	61.5	57.7	90.9	42.9	16.7
21-30 litres	59.1	44.4	83.3	38.5	42.3	9.1	57.1	83.3

Based on the moisture content, fodders are classified as succulent fodders and dry fodders. Succulent (eg.grasses, maize etc.,) are those with moisture content more than 65 per cent while dry fodders (eg.Straw, hay etc.,) are those with more than 65 per cent dry matter, in them. Cattle are also fed with concentrates like ground nut cake, linseed oil cake, etc., (Rao, 1992).

Around 59, 64 and 54 per cent of landless, marginal and small farmers respectively spent around Rs.20 to 25 for fodder purchase per cow per day,

while the rest of these three categories expenditure for fodder purchases was around Rs.25 to 30 per cow per day. All the big farmers cultivated the required fodder in their land. Hence there was no necessity for them to purchase the fodder.

Cent per cent of the landless, marginal farmers (98 per cent) and above 50 per cent of small farmers have fed each of their cattle from 7 to 8 times a day. Every single cattle was fed for 9 to 10 times per day by more than 50 per cent of the big farmers.

From those who cultivated the fodder more than 84 per cent (member) and around 56 per cent (non-member) of marginal and small farmers cultivated maize alone and rest of the sample (both member & non-member) and 83 per cent of the big farm sample (non-member) cultivated both maize and grass in their fields.

Usually each of the non-descript cattle was provided with 20 litres of water twice a day whereas each of the jersey cross type cow was given around 30 litres of water twice a day.

A Gobar Gas Plant

PLATE - I

4. FACILITIES UTILISED BY THE SAMPLE:

Table 4.10 depicts the facilities utilised by the respondents.

TABLE 4.10. FACILITIES UTILISED BY THE SAMPLE (IN PERCENTAGE)

Facility	Members				Non-Members			
	L	MF	SF	BF	L	MF	SF	BF
a) Fodder availed at door steps	100.0	100.0	83.3	--	100.0	90.9	71.4	--
b) Milkman availed for milking the cattle	14.0	22.2	100.0	100.0	93.3	100.0	100.0	100.0
c) Sufficient milk availed for domestic use	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
d) Milk products prepared	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
e) Veterinary services availed through:								
(i) door to door and group contacts	--	--	--	--	100.0	100.0	100.0	100.0
(ii) Group contact alone	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
f) Immunization	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
g) Deworming	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
h) Insemination	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
i) Cross breeding	40.9	55.6	16.7	61.5	42.3	27.3	50.0	83.3

Facility	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
j) Marketing manure at door steps	100.0	--	--	--	92.3	--	--	--
k) Dung cake prepared	--	--	--	--	7.7	--	--	--
l) Assistance and incentives availed for setting up gobar gas plant	--	--	--	46.2	--	--	--	16.7
m) Loan availed	72.7	--	--	--	26.9	--	--	33.3
n) subsidy availed	59.1	--	--	--	--	--	--	--

Though a veterinary centre was not at a convenient distance for the sample in Veerakeralam, visits by the veterinary staff were found to be almost regular and both individual and group contacts with the people were done and all the sample in this village were benefitted out of it. In Devarayapuram the people were contacted in groups by the veterinary staff. The co-operative society in the village arranges for the veterinary services. Cent per cent of the landless and 91 per cent of marginal farm women (member and non-member respectively) and 83 per cent and 71 per cent of

small farmers had not cultivated the required fodder and hence purchased it from the street vendors. The cows were cross bred with Jersey semen by more than 40 per cent of the landless sample, 56 and 17 per cent of marginal and small farmers respectively and 62 per cent of big farmers (member) and 42, 27, 50 and 83 per cents of landless, marginal, small and big farm women (non-member) respectively.

Adequate milk was available for domestic use for all the family members of the sample and milk products such as curd, ghee, etc., were also prepared.

Milk man was availed for milking the cattle by 14 per cent (member) of landless, 93.3 per cent (non-member) and 22 per cent (member) of marginal farmers and by Cent per cent of the small and big farmers.

Veterinary services like immunization, deworming and insemination, were utilised by every sample in both the villages.

Cent per cent (member) and 92 per cent (non-member) of landless category sold the prepared manure at door step. Only eight per cent of the landless (non-member) prepared dung cakes from the manure and they used it as a fuel for domestic purpose. The left over dung was also given at free of cost to the neighbours for domestic use.

Forty six per cent and 17 per cent of the big-farmers in Devarayapuram and Veerakeralam respectively had installed Gobar gas plants in their houses. Adequate steps need to be taken to popularize the gobar gas plants.

Loan facilities were availed by only the landless (73 per cent, member; and 27 per cent, non-member), and big farmers categories (33 per cent, non-member). Subsidy was given to the scheduled caste (SC) group alone. All the SC sample from Devarayapuram had availed this benefit, but none from Veerakeralam had availed and the reason reported by those sample was that they were not aware of such facility.

The findings of this study related to veterinary services was found satisfactory when compared to one of the findings of a study carried out by Kokate and Tyagi (1991) entitled "Dairy farming practices of Tribal Cattle owners", reveals that majority (63 per cent) of the respondents got their animals treated by a priest, because of the non-availability of veterinary services and proper communication.

5. LOAN AVAILED BY THE SAMPLE:

Table 4.11. reveals the information about the loan availed by the sample.

TABLE 4.11. LOAN AVAILED BY THE SAMPLE

Aspect	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Loan amount:								
Rs.1000 - 5000	58.8	--	--	--	57.1	--	--	--
Rs.5001 to 10,000	31.3	--	--	--	28.6	--	--	--
Above Rs.10,000	--	--	--	--	14.3	--	--	100.0
b) source of the loan:								
Bank	--	--	--	--	42.9	--	--	100.0
Milk co-operative	81.3	--	--	--	--	--	--	--
Relatives	18.8	--	--	--	57.1	--	--	--
c) Repayment Schedule:								
Rs.100/month	68.8	--	--	--	42.9	--	--	--
Rs.200/month	31.3	--	--	--	57.1	--	--	100.0
d) Installments repaid:								
fully repaid	81.3	--	--	--	57.1	--	--	100.0
10-15 times	6.3	--	--	--	42.9	--	--	--
16-20 times	12.5	--	--	--	--	--	--	--

It is evident from the above table a higher percentage (90 per cent) of the landless sample (member) had borrowed a loan amount (from milk co-operative) varying from Rs.1,000/- to Rs.10,000/- and

71 per cent (non-member) from banks depending on their unit size. All the borrowers of big farm house holds (non-member) had obtained a loan of more than Rs.10,000 from the banks.

Sixty nine and 43 per cent of the landless sample (member and non-member respectively) had repaid Rs.100/ month and the rest of the borrowers Rs.200/ month. All the borrowers of big farm households had repaid Rs.200/ month. The interest for the loan collected by the banks was 90 paise/Rs.100 and by the co-operative was only 50 paise/Rs.100.

The majority (81 and 57 per cent) from landless in both villages and 100 per cent borrowers of big farm category had repaid their loans.

Getting loans from co-operatives seems to be advantageous and economical for the borrowers. The facility needs to be extended to all in the villages.

C. PARTICIPATION OF THE SAMPLE IN DAIRYING ACTIVITIES:

To have a better picture of the extent of participation of the sample in the field of dairy, discussion has been carried out thus:

1. Involvement of the sample in dairying activities
2. Decision-making by the sample and
3. Managerial qualities of the sample

1. INVOLVEMENT OF THE SAMPLE IN DAIRYING ACTIVITIES:

Table 4.12. exhibits the extent of involvement of the sample in dairying activities.

TABLE 4.12. INVOLVEMENT OF THE SAMPLE IN DAIRYING ACTIVITIES (IN PERCENTAGE)

Activity	member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
Grazing & collecting the fodder	63.6	55.6	66.7	---	15.4	54.5	100.0	---
Feeding and care of the cattle	100.0	100.0	100.0	---	100.0	90.9	100.0	---
Milking the cow	50	44.4	---	---	7.7	18.2	---	---
Selling the milk	59.1	55.6	33.8	---	19.2	---	---	---
Maintaining accounts	100.0	22.2	50.0	92.3	65.4	45.5	42.9	100.0
Bathing the cattle	100.0	100.0	67.0	---	92.3	90.9	57.0	---
Cleaning the shed	100.0	100.0	67.0	---	92.3	90.9	43.0	---
Disposal of dung	100.0	100.0	67.0	---	92.3	100	43.0	---
Preparation of Manure	100.0	77.8	50.0	---	92.3	100.0	43.0	---
Preparation of Fuel	---	---	---	---	11.5	---	---	---
Sale of the manure	100.0	---	---	---	92.3	---	---	---

A higher percentage of the landless sample performed tasks related to dairying such as grazing and collecting the fodder (64 and 15 per cent in Devarayapuram and Veerakeralam villages, respectively), feeding and taking care of the cattle (100 per cent in Devarayapuram and Veerakeralam villages respectively), milking the cow (50 and eight per cents in Devarayapuram and Veerakeralam villages respectively), selling the milk (60 and 19 per cents in Devarayapuram and Veerakeralam villages, respectively), maintaining the accounts (100 and 65 per cents in Devarayapuram and Veerakeralam villages, respectively), bathing the cattle, cleaning the shed. disposal of dung, preparation of manure (100 and 92 percents in Devarayapuram and Veerakeralam villages, respectively), preparation of fuel (11 per cent in Veerakeralam village only) and sale of manure (100 and 92 per cents in Devarayapuram and Veerakeralam villages, respectively).

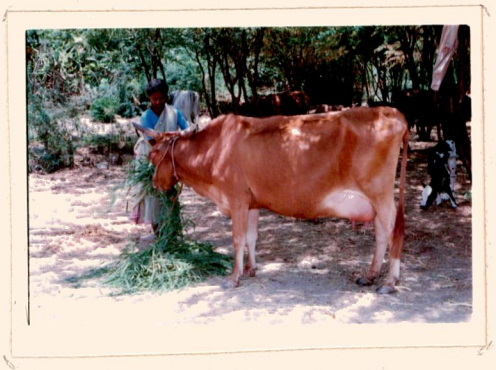
Almost the same per cent of sample of marginal farm category was involved in the stated activities except in the case of sale of manure. None sold the manure because it was used for their lands.

Regarding grazing, collecting the fodder, feeding and taking care of the cattle almost the same per cent of small farm household sample were involved like the landless and marginal categories. Regarding the activities like bathing the cattle, cleaning the shed and disposal of dung, maintaining the accounts and preparation of manure, 50 to 67 per cent of the sample in Devarayapuram and 43 to 57 per cent in Veerakeralam were involved. But none of the small farm household sample was involved in fuel preparation nor in sale of the manure as the cow-dung was used as a manure for their lands.

The involvement of the selected women of big farm households in various activities related to dairying was very limited. Their involvement was mere supervisory, and all the work related to dairy were performed by the hired labour except in the case of maintaining the accounts. (PLATE-II AND FIGURE VI).

The above findings of this present study is supported by the findings of another study entitled "Women's work: Gains analysis of women's labour in dairy production" by Manoshi Mitra (1987) in Krishna, Chittoor and Nalgonda of Andhra Pradesh, which depict

DAIRYING ACTIVITIES



1. FEEDING

2. MILKING

3. SELLING THE MILK

4. BATHING THE COW

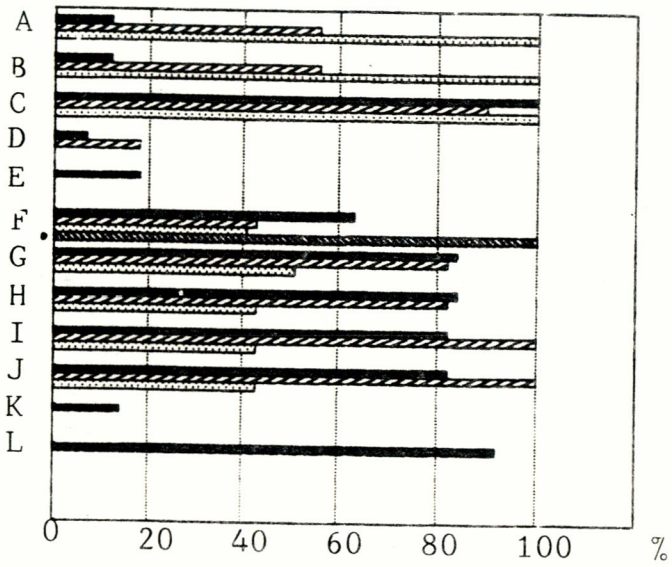
5. CLEANING THE SHED

6. PREPARING FUEL

PLATE - II

INVOLVEMENT OF THE SAMPLE IN DAIRYING ACTIVITIES

VEERAKERALAM



DEVARAYAPURAM

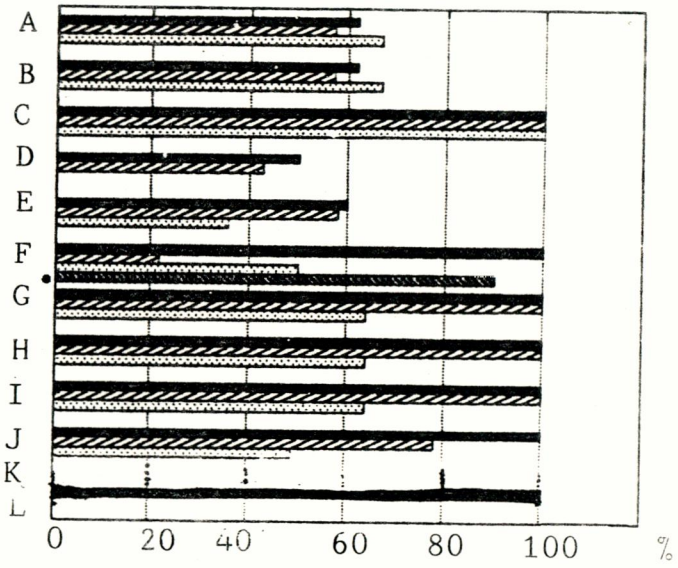


FIGURE VI

■ LANDLESS

▨ MARGINAL FARMERS

⊡ SMALL FARMERS

▩ BIG FARMERS

A - GRAZING
B - COLLECTING THE FODDER
C - FEEDING AND CARE OF CATTLE
D - MILKING THE COW
E - SELLING THE MILK
F - MAINTAINING THE ACCOUNT
G - BATHING THE CATTLE
H - CLEANING THE SHED
I - DISPOSAL OF DUNG
J - MANURE PREPARATION
K - FUEL PREPARATION
L - SALE OF THE MANURE

that the tasks performed by the landless women were cleaning of cattle sheds, bathing of cattle, milking the cattle and preparing dung cakes.

The male members of the family assisted in cutting grass and fodder and sale of milk.

2. DECISION-MAKING BY THE SAMPLE:

The tabulation below gives the numbers of scores obtained by the sample with regard to the extent of decision-making in dairy management.

TABLE 4.13. SCORES OBTAINED FOR DECISION-MAKING BY THE SAMPLE IN DAIRY MANAGEMENT (IN PERCENTAGE)

Aspect and score	Member				Non-member			
	L	MF	SF	BF	L	MF	SF	BF
a) Construction of shed:								
One to two points	--	--	--	--	--	--	--	--
Three points	9.1	--	--	--	3.8	--	--	16.7
Four points	45.5	22.2	16.7	--	19.2	--	--	16.7
Five points	--	--	--	--	--	--	--	--
b) Maintenance of cow shed:								
One point	--	--	--	7.7	--	9.1	--	33.3
Two points	4.5	11.1	50.0	7.7	--	9.1	28.6	16.9
Three points	27.3	44.4	33.3	--	23.1	36.1	--	--
Four points	59.1	44.4	16.7	76.9	76.9	45.5	71.4	50.0
Five points	4.5	--	--	--	--	--	--	--

Aspect and score	member				non-member			
	L	MF	SF	BF	L	MF	SF	BF
c) Preparation of fuel:								
One to four points	--	--	--	--	--	--	--	--
Five points	27.3	--	--	--	--	--	--	--
d) Preparation of Manure:								
One point	--	--	--	--	--	--	--	--
Two points	4.5	11.1	33.3	--	--	9.1	28.6	--
Three points	22.7	44.4	16.7	--	19.2	27.3	--	--
Four points	40.9	44.4	33.3	--	42.3	45.5	28.6	--
Five points	4.5	--	--	--	26.9	9.1	14.3	
e) Sale of milk:								
One point	--	--	--	--	--	--	--	--
Two points	4.4	--	33.3	7.7	--	--	--	16.7
Three points	31.8	11.1	50	7.7	--	--	--	16.7
Four points	54.5	66.7	16.7	69.2	23.1	--	--	--
Five points	4.5	--	--	--	--	--	--	--
f) Type of cattle to be purchased:								
One to Two points	--	--	--	--	--	--	--	--
Three points	13.6	--	--	--	7.7	--	--	--
Four points	59.1	18.2	16.7	--	34.6	--	14.3	--
Five points	--	--	--	--	--	--	--	--

Aspect and score	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
g) Types of fodders to be fed, health care, spending and savings:								
One point	--	--	--	--	--	--	--	--
Two points	6.0	--	83.3	38.5	--	--	14.3	--
Three points	--	--	--	--	7.7	--	--	--
four points	27.3	44.4	16.7	46.2	--	18.2	--	--
Five points	--	--	--	--	42.3	--	14.3	50.0

NOTE:

One point : Minimum score, when consulted with every in-laws, children and husband

Two points : Below average, when consulted with mother and father in laws, children and husband

Three points: Average, consulted with children and husband

four points : Above average, when consulted with husband only

Five points : Maximum, independent decision making.

For various aspects of dairy management such as construction and maintenance of the shed, preparation of fuel and manure and sale of it, sale of milk and place of sale of milk, type of cattle to be purchased, type of fodder to be fed, health care of the cattle, spending of the income from dairy, spending money for the maintenance of dairy, maintaining the

accounts and saving, on an average around 50 per cent of the landless women scored four points. This shows that they had a higher status in terms of independence and decision-making which would be due to their direct involvement in dairying activities and lesser number of memebers in their family.

Though the marginal farm household women too had a direct involvement in the dairying tasks, considerable percentage of the (less than 12 per cent) sample scored only two points. This is due to the domination of joint family system where the elders at home dominate. Decision-making in 14 to 83 per cent of the small farm category was done by consulting their mother and father in-laws. They scored only two points which shows their lower status in terms of independence and decision-making.

Though there is no direct involvement from the side of big farm household women in dairying activities their scores reached four points regarding decision-making. In the case of sale of milk, type of fodder to be fed, health care of their cattle, spending, maintaining the accounts and savings as they had moderate independence.

Besides dairying women of landless, marginal and small farms were also involved in cooking, sweeping, washing the cloths, taking care of children and their husbands and purchase of household items including food articles. Since they had to allot time for these activities, they lacked rest.

From the percentage analysis done so far, as the average of number of landless women participating in the total number of dairying activities, was observed to be more (210/12 = 17.5, Landless women, Devarayapuram village; > 13/12 = 1.1, Big farmer household women, Devarayapuram village and 204/12 = 17, Landless women, Veerakeralam village, > 6/12 = 0.5, big farmer household women, Devarayapuram) when compared to the big farmhouse hold women, it can be inferred thus:

1. From the sample's point of view, the intensity of involvement was more in the case of landless and less in the case of big farm households as the tendency was more towards the use of hired labour in big farm groups and

2. Women of landless households had a higher status in terms of independence and decision-making in more number of dairying activities than the women

belonging to the large landholding households as the landless women's labour gave them a greater degree of self-assertiveness and independence.

3. MANAGERIAL QUALITIES OF THE SAMPLE:

Table 4.14 shows the managerial qualities of the sample in various aspects of dairy management.

TABLE 4.14. MANAGERIAL QUALITIES OF THE SAMPLE

Aspects	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Identify the cattle in heat	63.6	55.6	66.7	--	15.4	54.5	42.9	--
b) Pregnancy diagnosis above 6 months	63.6	55.6	66.7	--	15.4	54.5	42.9	--
c) Housing: Have separate shed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
d) Milk utilised for domestic use: (in litres)								
1 to 1.5	86.4	55.6	16.7	7.7	53.8	27.3	14.3	--
1.6 to 2	13.6	44.4	83.3	69.2	46.2	63.6	85.7	50.0
More than 2	--	--	--	23.1	--	9.1	--	50.0
e) Profit in dairy is utilised for:								
a) family expenses	100.0	100.0	18.3	--	100.0	100.0	85.7	--
b) saving	--	--	16.7	100.0	--	--	14.3	100.0
f) Time spent for dairy management per day:								
2 - 3 hours	--	--	--	7.7	--	--	--	50.0
3 - 4 hours	--	--	16.7	69.2	--	--	42.9	50.0
More than 4 hours	100.0	100.0	83.3	23.1	100.0	100.0	57.1	--

A perusal of the table indicates that majority of the respondents from landless, marginal and small farm categories (around 60 per cent - members; around 30 per cent - non-members) could identify the cow in heat by observing the symptoms like bellowing, mounting on other animals, nudging and frequent urination. All the sample had belief in the modern breeding practices of insemination.

A same percentage of sample from landless, marginal and small farm groups who could identify their cattle in heat, could also diagnose pregnancy in the advanced stage through external appearance. They explained that there would be a considerable increase of the cattle's belly and pelvic region in the latter stage of pregnancy. They also reported that urine turns whitish in the case of pregnant cattle.

All the sample had cattle sheds. Moreover the amount of milk utilised for their family use was found to be around one to two litres/day in the landless group, from one to two litres/day in the marginal and small farm categories and from 1.5 litres to more than 2 litres/day in the case of big farm group. The landless and marginal sample prepared

mostly curd and butter milk, while in small farm group, mostly curd, butter milk, butter and ghee were prepared and sweets were also prepared in addition, by the big farm household sample.

During unavoidable circumstances the unsold milk was converted into ghee, curds, butter and sweets, by 100 per cent of the sample. Only the big farm household women store the excess milk in refrigerator as they had it in their homes.

The dairy women received assistance from their husbands, grown up children in the case of Nuclear families and from the elders and in-laws in Joint type of families.

Cent per cent of the sample of big farm category saved the dairy income while the rest of the sample of other three categories spent it for domestic purposes. The landless, marginal and small farm household sample spent more time (more than four hours) in dairying than the big farm household sample.

To promote effective participation, dairy women should have access to technical information and training.

D. CONSTRAINTS OF THE SAMPLE:

Table 4.15. states the problems faced by the women in dairying.

TABLE 4.15. CONSTRAINTS OF THE SAMPLE (IN PERCENTAGE)

Constraint	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Inadequate time to maintain the unit	72.7	55.6	66.7	--	65.4	45.5	42.9	--
b) Place of sale of milk is far	63.6	44.4	22.2	84.7	15.4	--	--	--
c) Cattle affected by diseases	63.6	55.6	66.7	46.2	92.3	90.9	83.3	42.9
d) No veterinary hospital and milk co-operative	--	--	--	--	100.0	100.0	100.0	100.0
e) Veterinary centre is far	63.6	44.4	22.2	84.7	--	--	--	--
f) Poor breed	59.1	44.4	83.3	38.5	57.7	72.7	50.0	16.7
g) Lack of money	86.4	88.0	--	--	92.3	90.9	--	--
h) Non-availability of labour	--	--	22.2	46.2	--	--	28.6	83.3
i) No rest	72.7	55.6	66.7	--	65.4	45.5	42.2	--

From the above table it is clear that more of constraints were reported by the sample in Veerakeralam than in Devarayapuram like lack of time to maintain the units and no time for rest (65, 46 and 43

per cents of the landless, marginal and small farmers respectively) and had to take the milk to distant places (15 per cent of landless).

The problems in dairying work are most acute for landless women, because they have limted access to fodder (Bhatt, 1988). The same problem was observed in the present study also.

Cattle, affected by disease (92, 92, 83 and 43 per cents of landless, marginal, small and big farm groups, respectively), no veterinary hospital, nor a milk co-operative society in their area (100 per cent of the sample), poor breed (58, 73, 50, and 17 per cents of landless, marginal, small and big farm groups, respectively), lack of money (92 per cent and 91 per cent of landless, and marginal farm groups, respectively) and non-availability of labour (29 per cent and 83 per cent of small and big farm categories) were the other problems of the sample.

E. PROPOSALS OF THE SAMPLE FOR IMPROVEMENT:

The proposals of the sample for improvement are illustrated in table 4.16.

TABLE 4.16. PROPOSALS OF THE SAMPLE FOR IMPROVEMENT

Proposal	Member				Non-Member			
	L	MF	SF	BF	L	MF	SF	BF
a) Veterinary centre and milk co-operative to be established in each village	--	--	--	--	100.0	100.0	100.0	100.0
b) Subsidy should be given to all the castes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
c) Formalities in taking loan should be made simpler	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
d) Training should be given in dairy management	63.6	55.6	66.7	46.2	92.3	90.9	83.3	42.9

Veterinary hospital and milk co-operative society are to be established in their dwelling areas, subsidy for loans should be given to all the castes and formalities to obtain loan should be made simpler were the proposals putforth by the sample for improvement. In addition, from 46 to 67 per cent of the sample in Devarayapuram and 43 per cent to 92 per cent in Veerakeralam proposed that training in dairy management should be given to the women in their areas to gain more knowledge in this field.

A SUCCESS STORY - PROSPERITY FORSEEN FOR SELF-ASSERTIVENESS

Rukumani is the third daughter of Marappa gounder, a mill worker. When she was studying B.Com., second year in 1979, she got married to Rangaswamy gounder, an agriculture owning 7 acres of wet land. (Rangaswamy gounder was earlier married to Rukumani's elder sister through whom he has three sons who now jointly own a workshop). After the marriage she continued her B.Com., and completed it in 1981. She gave birth to a girl child in August 1981. When her daughter was studying in the fourth standard, Rukumani felt that her attention could be diverted in a more useful way since her daughter was aged enough to look after herself. She decided to start a dairy farm which is an allied activity of agriculture. After consulting her husband she applied and got a loan of Rs.20,000/- from Vijaya Bank to start a dairy farm. She purchased five cows (Jersey cross breed) and developed interest in dairy.

After six months she expanded the farm with five more cows of the same breed duly purchased from another loan of Rs.50,000/- from the same bank. By

1990 her farm had about 15 cows. In the same year she sold their three old cows in February, 1991, and another two, in December, 1991. By this time the other cows have given birth to calves and they were also grown up. As on date she is owning 14 matured cows and nine calves in her farm. Among the calves, two were twins born to a black Jersey cow in December, 1992. The calves now are five months old and healthy. All the cows are insured in United India Insurance Company Limited. The rate of interest for the loan taken from bank is 12.5 per cent per annum and by 1991 end the entire loan amount had been repaid fully.

Out of 7 acre of agricultural land, 2 acres are exclusively set apart for cultivating fodder like grass, and maize for the use of cattle. After meeting the expenses to maintain the dairy farm, which includes Rs.500/- month to a veterinary doctor, who visits twice in a week and also two servants for a salary of Rs.500/- month to assist her in the dairy maintenance, she earns an income of Rs.2000/- month from the dairy. She has constructed a cattle shed with all basic requirements to an area of 1782 square feet (81'.0" x 22'.0"). The shed is maintained hygienically. For this purpose the shed is washed daily once with phenoyl

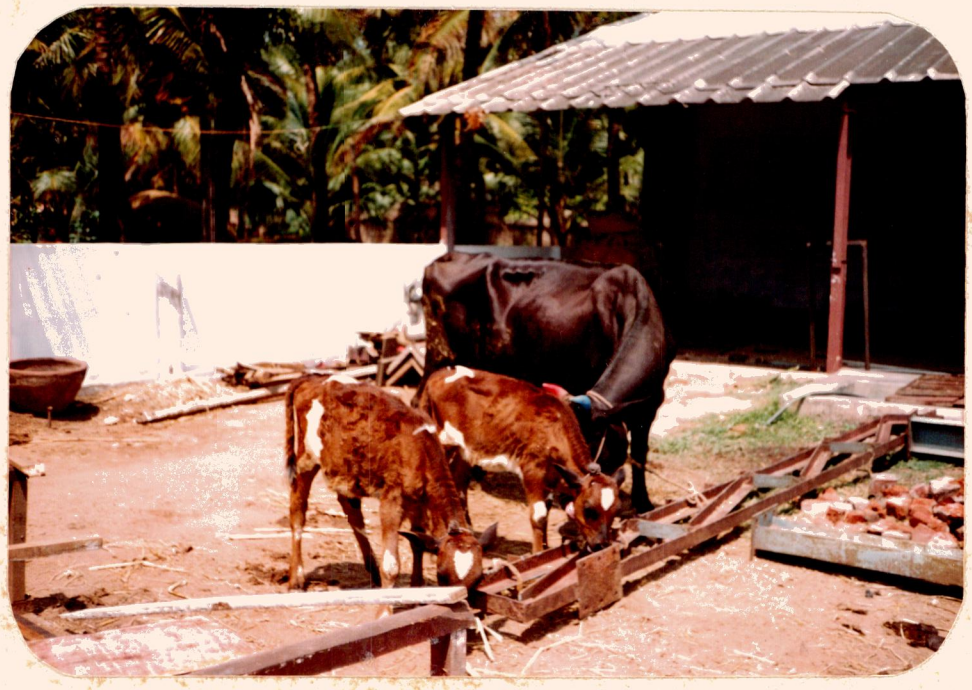
and Bleeching powder. The cows are bathed twice in a week. Inspite of this 'Finit' a mosquito repellent, is used. (PLATE-III).

The cows are fed with green fodder of 30 kilo/cow for three times a day and dry fodder for two kilo/cow for twice a day. Thirty litres of water per cow per day along with concentrates is fed twice a day. Grazing of the cattle is also being done for around 2 hours per day. Rukumani spends 3 hours in the morning and 3 hours in the evening for the dairy maintenance. She spends the day time in a small cottage built adjacent to the cattle shed.

Being a commerce graduate, Rukumani is able to manage the dairy efficiently and is innovative to the technology transfer. She has planned to set up a community gobar gas plant of Janata Model by the month of June 1993. Rukumani faces some constraints such as labour problem, no leisure and over alertness on cattle health. She feels that the availability of a veterinary hospital and a milk co-operative society in her village would facilitate her job.

THE SUCCESS STORY - IN PRACTICE

A WELL MAINTAINED CATTLE SHED



IDENTICAL TWINS (CALVES) BORN TO A

BLACK JERSEY

PLATE III

SUMMARY AND CONCLUSION

V. SUMMARY AND CONCLUSION

A study on the participation of rural women in dairying activities was carried out in two selected villages in Coimbatore district. The major findings of this study are summarised thus:

A. SOCIO-ECONOMIC PROFILE OF THE SAMPLE:

1. The majority of the sample were of backward caste leaving Scheduled caste a minority.
2. The age groups between 31 and 50 were found to be involved in dairying activities more than the other age groups. Experience always counts.
3. More than 50 per cent of the sample had their education between primary and school final followed by illiterates (43 per cent). Literacy would create more awareness.
4. Agriculture was the primary occupation (62 per cent, member; 66 per cent, non-member) and dairying was taken as subsidiary by every sample.

5. Attention for development should be turned to the landless and marginal landholding groups, as the majority (nearly 50 per cent) of these categories were earning below Rs.1,000/- per month.

6. Around 45 per cent from the big farm category reared more than five cows; their income from dairy varied from Rs.1,500/- to above Rs.2,000/- per month.

B. DETAILS OF DAIRY FARMING:

1. Among the sample who were involved in dairying for above 20 years, the majority (above 83 per cent) were from the big farm groups and the information had been passed on to them from their ancestors.

2. The types of breed reared by the sample were of either Jersey cross or non-descript. Nearly 95 per cent of the landless, marginal and small farmers possessed one to three cow units and the rest owned more than three cow units. More than a three cow unit would be advisable for better prospects.

3. Nearly 59, 64 and 54 per cent of landless, marginal and small farmers, respectively

spent around Rs.20 to 25 for fodder purchase/cattle/dayand cent percent of these categories fed each of their cattle 7 to 8 times a day. There was no necessity for the big farmers to purchase the fodder as they cultivated it in their lands and around 50 per cent fed their cattle 9 to 10 times a day.

The size of cattle holding tends to be greater in the higher landholding categories and correspondingly lower in the lower categories. Producers from higher landholding categories had advantages such as availability of grazing land, diversified fodder from crop by-products and even more the required fodder was also cultivated in their lands. All these ensured a higher yield per unit for big and small farmer producers as compared to marginal farmers and landless producers.

4. Though there was no veterinary hospital in Veerakeralam, the veterinary services like immunization, deworming, insemination (Cent percent) and cross breeding were availed by the sample from the visits of veterinary

staff out side. The fodder was bought and manure sold at their door steps, in both the selected villages. Gobar gas plants were installed only in 46 per cent (member) and 17 per cent (non-member) of big farm house hold sample. Loan facilities were availed by 73 per cent (member) and 27 per cent (non-member) of the landless category and 33 per cent (non-member) of big farm category.

5. A higher percentage (90 per cent, member, from the milk co-operative and 71 per cent, non-member from the Bank) of landless had borrowed Rs.1,000/- to Rs.10,000/-(loan) and cent percent big farm borrowers (non-members) had taken a loan of more than Rs.10,000/- from banks. An amount of Rs.100/ month (69 and 43 per cent of landless, member and non-member respectively) and Rs.200/ month (rest of the sample) were repaid. The Interest for the loan collected by the banks was 90 paise/Rs.100/- and by the co-operative was only 50 paise/Rs.100/-. This was found to be more satisfactory.

C. PARTICIPATION OF THE SAMPLE IN DAIRYING ACTIVITIES:

1. Involvement of the Sample:

(a) More than 60 per cent of the landless women were involved in every facet of dairy keeping like grazing, collecting fodder, feeding and taking care of the cattle, milking the cow, selling the milk (19 per cent, non-member), maintaining the accounts (8 per cent, non-member), bathing the cattle, cleaning the shed, disposal of dung, preparation and sale of manure and preparation of fuel.

(b) The marginal farm women performed all the above stated activities except for sale of manure and preparation of fuel as the cow dung was used as manure for their lands.

(c) It was observed the same as marginal farm women in the case of small farm women, but they were not involved in milking the cow.

(d) The involvement of big farm women was very limited as their tasks were mere supervision.

The intensity of involvement was found to be more in the case of landless and less in the case of big farm house holds, as their tendency was more towards the use of hired labour.

2. DECISION - MAKING BY THE SAMPLE:

(a) Around 50 per cent of the landless women scored four points in decision-making regarding various tasks related to dairy maintenance. This was due to their direct involvement in dairying activities. Their families being nuclear type they had to consult only their husbands.

(b) Considerable percentage (less than 12 per cent) of marginal farm women scored only two points. This was due to the domination of joint families where they had to consult the elders also.

(c) The lower percentage of the small farm sample scored only two points, implying their lower status in terms of independence.

(d) Seventy per cent of big farm sample, though performed supervisory job scored four points in decision-making.

The involvement and decision-making of the sample were found to be indirectly proportional to the size of land holding.

The landless women's labour gives them, a greater degree of self-assertiveness and independence.

3. MANAGERIAL QUALITIES OF THE SAMPLE:

Around 60 per cent (member) and 30 per cent; (non-member) from landless, marginal and small farm sample could identify their cattle in heat and diagnose pregnancy in advanced stage. All the sample had cattle sheds.

The amount of milk utilised by the sample for domestic use was found to be around one to two litres per day in landless, marginal and small farm groups and from 1.5 to more than 2 litres/day in the big farm group.

All the sample prepared milk products but the number of items prepared varied among the sample of different landholdings. Sweets were prepared in addition to Ghee, butter, buttermilk and curd by the women of big farm category, while a considerable percentage of the landless category prepared curd and butter milk alone.

All the big farm sample saved the dairy income while the rest spent it for domestic purposes. Savings when encouraged promotes better standard of living. The landless, marginal and small farm house hold sample spent more than four hours in dairying and four hours in house hold tasks, which denied their involvement in other economic activities and

intensified their workload in dairy-related tasks.

D. CONSTRAINTS OF THE SAMPLE:

The constraints faced by the sample were inadequate time to maintain the cow unit and no leisure (exception, big farm women), place of sale of milk is far, cattle affected by diseases, poor breed, lack of money and non availability of labour (Only for big farm women).

Problems like no veterinary hospital and milk co-operative, were reported by the women in Veerakeralam.

E. PROPOSALS OF THE SAMPLE FOR IMPROVEMENT:

The sample proposed to have:

1. Veterinary hospital and milk co-operative in each village
2. Subsidy to all the castes
3. Loan formalities made simpler and
4. Training in dairy management

STRATEGIES FOR FURTHER DEVELOPMENT:

The strategies represent the choice of means and deployment of resources to achieve the objectives of the operations (Jain, 1985).

1. Necessary corrective steps should be taken by the Government to enable the milk producers get remunerative price for the milk produced and various malpractices followed at milk collection centres should be checked.

2. The present loaning procedure which is cumbersome and time consuming should be made simpler.

Payment should be made to the party directly to arrest the mis-utilization of loan by the borrowers.

3. The settlement and reimbursement procedure for insurance claims of milch animals should be streamlined.

4. Research should be conducted in the related field and findings should be disseminated and

5. Training in dairy management should be given a priority for all women, those who do not have the necessary skill and experience.

The strategies are interrelated and are proposed on the basis of analysis. These strategies must be implemented in close collaboration with agricultural universities, extension services, and other non-government organisastions. This will allow

for more efficient use of resources and expertise and provide a more holistic approach to solving problems in the dairy sector.

"Women, the dieties of prosperity,
the corner stone of an Ideal home,
should be adored and treated
with respect".

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APPENDICES

APPENDIX - I

AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN

(DEEMED UNIVERSITY)

COIMBATORE-641 043.

An Interview Schedule to elicit information on the PARTICIPATION OF RURAL WOMEN IN DAIRYING ACTIVITIES in selected villages in Coimbatore district.

1. Name of the Interviewer : Date:
2. Name of the Interviewee :
3. Address :

I SOCIO ECONOMIC CHARACTERISTICS: (PUT ✓ MARK)

1. a) Type of family : Joint ( ) Nulear ( )
   b) Community/Caste : SC ( ) ST ( )
   MBC ( ) BC ( )
   Others ( )

2. Family background :

S.No.	Name of the family member	Sex	Relation to the Head	Age	Educational Level			Occupation	Income per month in Rs.
					Studied upto	Studying	Illiterate		

3. Income from other sources : Amount in Rs. per month

a) Dairy :

b) Poultry :

c) Rent :

d) Small Scale business :

c) Investment :

f) Any other (Specify) :

II. **INFORMATION ABOUT LAND OWNERSHIP**

Landless ( ) Small farmer ( )

Marginal farmer ( ) Big farmer ( )

III. SOURCES OF AWARENESS ABOUT DAIRY KEEPING:

1. Is it Traditionally done?

Yes ( ) No ( )

2. If No, when was it started? (Give the year)

3. From where did you get the idea of starting it (awareness)?

a) Neighbours ( )

b) Friends ( )

c) Relatives ( )

d) Milk Societies ( )

e) Any other Specify ( )

IV. **CHANGES EFFECTED IN DAIRY KEEPING:**

1) If Dairy keeping is not done traditionally, is there any changes effected now?

Yes ( ) No ( )

2. If Yes,tick the changes effected:

1. Change in Food pattern
2. Health conditionimproved
3. Savings increased
4. Assets added (specify)

5. Fuel pattern improved

6. Conservation of fuel consumption

7. Additional income

8. Leisure time reduced

V. **INFORMATION ABOUT DAIRY FARMING:**

A. **DETAILS ABOUT THE CATTLE REARED:**

a) Type of cattle: Pure breeding ( ) Cross breeding ( )
Grading ( )

b) Name of the breed :

Kangayam ( ) Jersey cross ( )

Holestein (HF) ( ) Non-descript ( )

c) Unit Size :

One cow unit ( ) Two cow unit ( )

Three Cow unit ( ) Four Cow unit ( )

Five Cow unit ( ) More than five cow unit ( )

d) Total Capital investment :

e) Feeding cost / day / Cattle

f) Cost of the cattle

g) Production of milk:

S.No.	Breed Name	Yield/day

B. FEEDING PARCTICES FOLLOWED BY THE SAMPLE:

1. Type of fodder fed:

   a) Succulent
   b) Dry
   c) Concentrates
   d) All the three

2. Amount spent on Fodder/cattle/day:

   a) Below Rs.20
   b) Rs.21-25
   c) Rs.26-30
   d) Above Rs.30
   e) Cultivated

3. Frequency of feed /day:

   a) 7-8 times
   b) 9-10 times
   c) More than 10 times

4. Amount of water provided per cattle/day:

   a) 20-25 litres
   b) 26-30 litres
   c) Above 30 litres

C. FACILITIES UTILISED BY THE SAMPLE:

1. Fodder availed at door steps

2. Milk man availed for milking the cattle

3. Sufficient milk availed for domestic use.

4. Milk products prepared

5. Veterinary Services availed

   a) Door to door Contact
   b) group contact
   c) Both

6. Immunization

7. Deworming

8. Insemination

9. Cross breeding

10. Marketing mannure at door step

11. Dung cake prepared

12. Assistance and incentives availed for setting up gobar gas plant

13. Loan availed

14. Subsidy availed

D. **LOAN AVAILED:**

1. Amount availed:

   a) Rs. 1000 - 5000
   b) Rs. 5001 - 10,000
   c) Above Rs.10,000

2. Source of the loan:

   a) Bank
   b) Milk co-operative
   c) Relatives
   d) Neighbours/Friends
   c) Self

3. Repayment Schedule in Rs:

   a) 100 / month
   b) 200 / month
   c) 500 / month

4. Instalments of repayment:

a) 10-15
b) 15-20
c) Above 20
d) Fully paid

5. Interest given:

a) 50 paise/Rs.100
b) 75 paise/Rs.100
c) 90 paise/Rs.100
d) Rs.1 / Rs.100

6. Subsidy:

a) RS. 1000
b) RS. 2000
c) Above 2000

VI. **PERSONS INVOLVED IN DAIRY KEEPING:**

S.No.	Activity	By whom	Assisted by
a)	Grazing/colleting the fodder		
b)	Feeding and taking care of the cattle		
c)	Milking the cattle		
d)	selling the milk		
e)	Maintaining the accounts		
f)	Bathing the cattle		
g)	Cleaning the shed		
h)	Disposal of Dung		
i)	Preparation of fuel out of dung		
j)	Preparation of manure		
k)	Sale of the manure		

VII. MANAGERIAL QUALITIES OF THE DAIRY WOMEN:

1. Identify animal in heat

2. Diagnosis of pregnancy:

   0 -6 months
   After 6 months

3. Housing:

   No Separate shed
   Have separate sheds

4. Amount of milk utilised for domestic use:

   1 - 1.5 litres/day
   1.6 - 2 litres/day
   More than 2 litres/day

5. Milk products prepared:

   Curd
   Butter milk
   Butter/ghee
   Sweets

6. Milk stored in fridge

7. Profit utilised for:

   a) Domestic purpose
   b) saving

8. Time spent for daily management:

   2-3 hours/day
   4-5 hours/day

9. Time spent for household activities:

   a) 2 - 4 hours
   b) More than 4 hours

VIII. HOUSEHOLD ACTIVITIES PERFORMED BY THE DAIRY WOMEN :

S.No.	Activity	Involvement	
		Yes	No
1.	Cooking		
2.	Washing the cloths		
3.	Washing the vessels		
4.	Sweeping		
5.	Caring of children		
6.	Taking care of the elders		
7.	Assisting her partner		
8.	Purchase of household items		

IX. CONSTRAINTS FACED BY THE DAIRY WOMEN :

1. Inadequate time to maintain the cattle
2. Place of sale of milk is far
3. Cattle affected by diseases
4. No veterinary hospital
5. No milk co-operative
6. Veterinary centre is no at a reachable distance
7. Poor breed
8. Lack of money
9. Dairying is not profitable

10. Lack of assistance from the family members

11. Non availability of fodder

12. Non availability of labour

13. No rest

X. **What do you propose for the improvement of dairying?**

APPENDIX - II

SCORE CARD

AIM: TO ASSESS THE EXTENT OF INDEPENDENCE IN TERMS OF DECISION-MAKING

5 Point Scale

S. No.	Activity (Decision Making)	Empowerment (In points) of Women				
		1	2	3	4	5
1.	Purchase of Cattle					
2.	Types of fodders to be fed					
3.	Construction of shed					
4.	Maintenance of shed					
5.	Preparation of fuel					
6.	Preparation of manure					
7.	Sale of the milk					
8.	Place of sale of the milk					
9.	Spending the Income					
10.	Sale of Fuel					
11.	Sale of manure					
12.	Maintaining the Health of the cattle					
13.	Type of Gobar gas plant					
14.	Maintenance of Gobar gas plant.					