Impact of micro finance on dairy enterprise women – A case study in Rayalaseema region of Andhra Pradesh

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Abstract

Women constitute half of the world population, perform nearly two thirds of its working hours but still receive only one-tenth of income and one-hundredth of world's property. Gender discrimination is distinct and common in all developing countries in the world. Agricultural wages paid to women are on an average 30-40% less than those of men in India. Women have extensive workloads with dual responsibility for farm in general and livestock and house-hold production in India. Micro finance is a broad term that includes deposits, loans, payment services and insurances to poor people. The poor families with very small loans to help them engage in productive activities or grow their tiny business. The activities vary widely ranging from care of animals, grazing, fodder collection, cleaning of animals and sheds to processing milk and livestock products. In livestock management, indoor jobs like milking, feeding, cleaning is done by women in 90% of families while management of male animals and fodder production are affected by men. The multi-stage random sampling method has been followed to select rural women in Rayalaseema region (Anantapur, Chittoor, Kadapa and Kurnool districts) of Andhra Pradesh. The objectives are to study the socio- economic conditions of rural women beneficiaries and analyze the feasibility of investment on dairy enterprise. To assess the impact of micro finance on income and employment of rural women through dairy enterprise and constrains faced by rural women and suggest appropriate measures to improve economic conditions of the rural women dairy entrepreneurs.

Keywords: Women, Micro finance, dairy entrepreneurs, income and employment.

Women constitute half of the world population, perform nearly two thirds of its working hours but still receive only one-tenth of income and one-hundredth of world's property. Gender discrimination is distinct and common in all developing countries in the world. Agricultural wages paid to women are on an average 30-40% less than those of men in India. The Indian women are still in disadvantage in relation to survival, health, nutrition, literacy and productivity. 89% of total female labour are involved in agriculture and allied industrial sector. Women have extensive work loads with dual responsibility for farm in general and livestock and house-hold production in India. Women contribute considerably to income through farm and non-farm activities as in India are unskilled, restricting them to low paid occupations. Women form the backbone of agriculture, comprising the majority of agricultural labourers in India. Women play a significant role in agriculture and animal husbandry development. Gender divisions in agriculture are stark, with all activities involving manual labour assigned to women, while all operations involving machinery and drought animals are generally performed by men. Female agricultural labourers are among the poorest sections of Indian society. Besides agriculture, women are involved in most of the operations in animal husbandry enterprise like dairy, poultry, rabbit rearing and mushroom cultivation, etc. Women participated in activities having economic significance like cattle management, poultry keeping, preparing manure and carrying manure. In India,

the rural Indian women are extensively involved in agriculture activities. The nature and extent of their involvement differs with the variations in agro-production systems. The mode of female participation in agriculture production varies with the land owing status of farm households.

According to Amartya Sen, women are less likely to secure favourable outcomes for themselves in household decision making process. They feel that their long term security lies in subordinating their well being to that of male authority figures. Empowerment means that women live their own life in a way that think appropriate on the basis of their condition of family circumstances, qualities and capabilities of which they themselves are the best judges Empowerment of women encompasses many aspects such as economic opportunity, property rights, political representation, social equality, personal rights and so on. Historically the world over, either by law or by custom, the status of women is undermined by symmetrical power relationships in decision-making, personal and social rights, access to resources and entitlement. Women in many countries still lack rights to inherent property, own land, get education, obtain credit, earn income or work outside home, control their fertility they are still widely under-represented in involvement in decision making at the household or social and economic levels.

Micro Finance

Micro finance is a broad term that includes deposits, loans, payment services and insurances to poor people. The concept of micro finance and micro credit are used interchangeably. The poor families with very small loans to help them engage in productive activities or grow their tiny business. A success indicator of micro finance lies in a *credit-plus* approach, where the focus has not only been on providing credit, but to integrate it with other developmental activities. Today micro finance is very much in the agenda of public policy and it has been increasingly used as a vehicle for reaching the otherwise unreachable poor in the country.

In animal husbandry, women have a multiple role. The activities vary widely ranging from care of animals, grazing, fodder collection, cleaning of animals and sheds to processing milk and livestock products. In livestock management, indoor jobs like milking, feeding, cleaning is done by women in 90% of families while management of male animals and fodder production are affected by men. The dairy farming in India as traditionally practiced under mixed farming mode along with crop farming has been supplementary to the major occupation of crop farming. The traditional system of cattle keeping served the purposes of requirement of cattle and He-buffaloes for farm work, utilization of crop byproducts which otherwise shall go waste, utilization of surplus family labour, meeting the family requirement of milk and milk products and through sale of animals.

Manay studied socio economic characteristics of rural families in Bangalore rural district of Karnataka state. The study revealed that 89.4% of the families were nuclear and 10.6% were joint families. Also 87.8% families with less than 5 acres of land and only 6.1% of them had more than five acre of land. The researcher found that agriculture was the main occupation of the village and 81% of the families possessed dairy which was important secondary occupation.[1]

Savitha in her study on role of rural women in animal husbandry found that nearly half (48.80%) of the respondents were middle age group, majority of them (75.50%) were illiterates, farm labour (61.80%), nuclear family (54.40%), low income group (45.50%), medium flock size (53.30%). It was also found that majority are married (91.10%), no land (62.20%), medium family size (47.70%), low institutional (58.85%) and low mass media participation (62.50%).[2]

Mishra *et al.* studied the impact of rural SHGs on generation of income and employment among the beneficiaries identified the major constraints and problems faced by the groups, and suggested measures for overcoming these problems in Faizabad district of eastern Uttar Pradesh. For the purpose of the study, five SHGs in Amaniganj block of the district were selected randomly. It was observed that SHG members were mainly from OBC community whose main occupations were agriculture, small businesses, labour etc. Ninety-three% of the SHG members were male and only 7% were female. Majority of the members lived below the poverty line. The average monthly savings ranged from ₹15 to ₹50. Repayment performance was good.

The results of the survey showed that SHGs have helped to increase the income of the participants by 10 to 15%. The major problems that the members faced were lack of training, credit and marketing facilities, entrepreneurship and high interest rate. It was suggested to involve Commercial Banks, RRBs and Primary agricultural co-operative societies to provide liberal credit at cheaper interest rate to the poor through SHGs.[3]

In recent years, the specialized dairy farming and commercialization in dairy enterprise, in which, the major share of income of the farmer is derived from the dairying. The reasons can be attributed to this development. The enhancement of milk processing capacity manifolds as a result of entry of many big business houses in the milk sector and setting up of a large number of milk processing plants. The dairying has been considered as a potential means of alleviating large scale unemployment, especially in rural areas. The women play a key role in animal farm and home management. Successful dairy husbandry enterprise not only improves the socio-economic status of rural women, but also assures a sustained and assured means of income to supplement their income from the main enterprise. To improve the economic conditions of rural women in Rayalaseema region of Andhra Pradesh in India.

Objectives

☐ To study the socio- economic profile of rural women beneficiaries.

☐ To analyze the feasibility of investment on dairy enterprise.

☐ To assess the impact of micro finance on income and employment of rural women through dairy enterprise and constrains faced by rural women.

☐ To suggest appropriate measures to improve economic conditions of the rural women dairy entrepreneurs.

Hypothesis

☐ The rural women are economically very poor in rayalaseema region.

☐ Investment on dairy enterprise is financially feasible and economically viable in rayalaseema region.

☐ Micro finance enhances income and employment of rural women in dairy enterprise in rayalaseema region.

Sampling Design

Multi-stage random sampling method has been followed to select rural women in rayalaseema region of Andhra Pradesh. Physiographically, the state of Andhra Pradesh is broadly divided into three regions viz. Coastal Andhra, Rayalaseema and Telangana. The Rayalaseema region consists of the districts of Anantapur, Chittoor, Kadapa and Kurnool, which occupies about 67.41 lakh SQ. KM of the total area of the state. For the present study, Rayalaseema region is universe and district is distributed into mandals in second stage. Mandals are divided into villages. One mandal from each district and two villages from each mandal have been selected randomly. A Sample of 75 rural women is selected from each district. Eight villages were selected randomly, out of which 300 sample rural women beneficiaries were selected for the study. The present study is based on an exclusive interview method. Schedules has been prepared and canvassed for the collection of data.

Statistical Tools

The collected data were analyzed with appropriate statistical tools in the study. To fulfill the specific objectives of the study, the data generated was subjected to statistical analysis using the analytical tools and techniques are used for the study. The techniques are tabular presentation, averages, percentages and financial feasibility analysis.

Primary Data

The data needed for the study was collected from the respondents by personal interviews method using pre-tested schedule prepared for the purpose. Majority of the respondents have not maintained records of expenditure and income relating to the dairy enterprise they have taken up. Hence, the data collected was based on the memory of the respondents. At the time of interview, personal bias of the sample rural women was minimized by convincing them about the genuinely of the purpose for which the data were collected in the study area. The data collected from the beneficiaries pertaining to the socio-economic status, establishing cost and

maintenance cost incurred in management of dairy enterprises. Similarly, the data on income and employment generated through dairy enterprise and constraints faced while managing dairy enterprise was collected in the study area. The distribution of rural women such as Caste, Age, Education and size of the family levels are discussed. The rural women of a Caste, Age, Education and Size of the Family are presented in Table 1.

were illiterates. The size of the families majority of the families are 41% are small size families, 38.67% medium size families and 20.33% large size families in the study area.

Cost and Returns per Buffaloes in the Study Area

Costs and returns per buffaloes in the Rayalaseema region in the districts most of the sample beneficiaries were poor and mainly depends on agriculture and wage earning for their livelihood. In the districts

Table 1. Distribution of Rural Women by Caste, Age, Education and Size of the Family in Rayalaseema Region of Andhra Pradesh

	1		2		3		4
Caste	Number	Age	Number	Education	Number	Size of the Family	Number
OC	82 (27.33)	Below 25	34 (11.33)	Illiterates	118 (39.33)	Small	123 (41)
BC	127 (42.33)	25-35	69 (23)	Primary Level	65 (21.67)	Medium	116 (38.67)
SC	65 (21.67)	35-45	123 (41)	Secondary Level	99 (33)	Large	61 (20.33)
ST	26 (8.67)	Above 45	74 (24.67)	Higher Level	18 (6)	Total	300 (100)
Total	300 (100)	Total	300 (100)	Total	300 (100)		

Source: Field Data

From the Table 1 shows that 42.33% of the respondents belong to backward castes, 27.33% belong to the forward caste, 21.67% belong to schedule caste and the remaining 8.67% were from schedule tribes. Thus, it can be observed that almost all the respondents belong to the socially disadvantaged sections of the population.

Majority of the respondents were of the age group 35-45 accounting for 41%, 11.33% between age group below 25, 23% between 25-35 and 24.67% in above 45. Most of the respondents (41%) between 35-45 years age group in the study. It is evident that 21.67% of the respondents were primary level. Slightly greater than 39.33% was having illiterate groups. However, secondary educated respondents 33% and 6% higher education level. Most of the respondents (39.33%)

they were provided with a buffaloes as dairy unit to enhance their income level. The average cost incurred and returns realized per buffaloes by the beneficiaries was computed and presented in Table 2.

From the Table 2 shows that the total cost over entire two years in Rayalaseema region and it was found to be cost (₹ 20203) in first year and second year was found to be ₹23361. The average total cost was worked out to be ₹ 21782. In variable cost labour cost constituted highest and average labour cost it was worked out to be ₹ 8244 followed by dry fodder cost ₹ 3609 concentrate cost ₹ 1439, green fodder cost ₹ 2854, Miscellaneous cost ₹ 2188 and variable cost ₹ 18966 respectively.

Table 2. Costs and Returns per Buffalo on Sample Dairy Enterprise in Rayalaseema Region of Andhra Pradesh

S.No	Particulars	I st Year	II nd Year	Average
1.	**Variable Cost (₹)**			
	Dry Fodder	3375	3843	3609
	Green Fodder	2533	3175	2854
	Concentrates	1331	1547	1439
	Labour	7506	8982	8244
	Miscellaneous	2108	2268	2188
	Interest on Working Capital	506	758	632
	Total Variable Cost	17359	20573	18966
2.	**Fixed Cost (₹)**			
	Depreciation on fixed capital	1878	1695	1786.50
	Interest on fixed capital	966	1093	1029.50
	Total fixed cost	2844	2788	2816
3.	Total Cost	20203	23361	21782
4.	**Total Returns (₹)**			
	Milk Production (Liters)	1998	2065	2031.5
	Value of Milk	35964	41300	38632
	Sale of FYM and calf	1028	1186	1107
5.	Gross Returns	36992	42486	39739
6.	Net Returns (5-3)	16789	19125	17957

Source: Field Data

Table 3. Employment and Income Generated by Rural Women Dairy Entrepreneurs in Rayalaseema Region of Andhra Pradesh

S. No	Particulars	Anantapur		Chittoor		Kadapa		Kurnool		Overall	
		Number	Average	Number	Average	Number	Average	Number	Average	Number	Average
Employment (Man Days/Annum)											
1	Below 200	30 (43.47)	185.31	31 (39.74)	191.27	29 (39.18)	188.79	31 (39.24)	192.77	121 (40.33)	189.54
2	200-365	39 (56.53)	269.77	47 (60.26)	308.45	45 (60.82)	276.41	48 (60.76)	314.54	179 (59.66)	292.30
	Total	69	227.54	78	249.86	74	232.6	79	253.86	300	240.92
Income (₹/Per Annum)											
1	Below 20,000	8 (11.6)	19741	6 (7.69)	19913	5 (6.75)	19814	6 (7.59)	19968	25 (8.33)	19859
2	20,000-30,000	39 (56.52)	24712	45 (57.69)	28941	38 (51.35)	29475	39 (49.36)	29617	161 (53.66)	28186.25
3	Above 30,000	22 (31.88)	35031	27 (34.61)	38175	31 (41.89)	38797	34 (43.03)	39018	114 (38)	37755.25
	Total	69 (100)	26494.66	78 (100)	29009.66	74 (100)	29362	79 (100)	29534.33	300 (100)	28600.17

Source: Field Data.

The milk production was found to be 1998 liters in first year and 2065 liters in second year of the project and on an average two years was 2031.5 liters. The gross return and net return found in the first year of being ₹ 36,992 and ₹ 16,789 and the second year being ₹ 42,486 and ₹ 19,125 respectively. On an average the gross return and net return during the two years were ₹ 39,739 and ₹ 17957 respectively.

Employment and Income Generated by Rural Dairy Entrepreneurs

The detailed information on employment and income generated by sample respondents through dairy enterprise is presented in Table 3.

From the Table 3 it could be observed that in Anantapur district the beneficiaries (43.47%) generated employment below 200 mandays per annum with an average of 185.31 mandays per annum and about 56.53% had more than 200 mandays with an average of 269.77 mandays, whereas in Chittoor district about 39.74% of the beneficiaries generated employment below 200 mandays with an average of 191.27 mandays followed by more than 200 days of employment (60.26%) with an average of 308.45 mandays. In Kadapa district the beneficiaries (39.18%) generated employment below 200 mandays per annum with an average of 188.79 mandays per annum and about 60.82% had more than 200 mandays with an average of 276.41 mandays, whereas in Kurnool district about 39.24% of the beneficiaries generated employment below 200 mandays with an average of 192.77 mandays followed by more than 200 days of employment (60.76%) with an average of 314.54 mandays.

The average mandays 227.54 days in Anantapur, 249.86 days in Chittoor, 232.6 days in Kadapa district and 253.86 days in Kurnool district respectively. On an average overall 40.33% of the beneficiaries generated employment below 200 days per annum and 59.66% of the beneficiaries had more than 200 mandays per annum in the study area. The average employment generated through dairying per annum was found to be 240.92 mandays per annum in the study area.

With regard to income earned through dairy enterprise, in Anantapur district the beneficiaries (11.6%) had income below ₹ 20,000 with an average

of ₹ 19741, about 56.52% of the beneficiaries had income between ₹ 20,000 to 30,000 per annum with an average of ₹ 24,712 and 31.88% of the beneficiaries had income more than ₹ 30,000 per annum with an average ₹ 25031. In case of Chittoor district majority of the beneficiaries 7.69% had income below ₹ 20,000 with an average of 19913 and 57.69% had income between ₹ 20,000-30,000 with an average of ₹ 28941 and 34.61% of the beneficiaries had income more than ₹ 20,000 with an average of ₹ 28175. In Kadapa district the beneficiaries (6.75%) had income below ₹ 10,000 with an average of ₹ 9814, about 51.35% of the beneficiaries had income between ₹ 20,000 to 30,000 per annum with an average of ₹ 29475 and 41.89% of the beneficiaries had income more than ₹ 30,000 per annum with an average of ₹ 28797. In case of Kurnool district majority of the beneficiaries 39.24% had income below ₹ 20,000 with an average of 19968 and 49.36% had income between ₹ 20,000-30,000 with an average of ₹ 29617 and 43.03% of the beneficiaries had income more than ₹ 30,000 with an average of ₹ 39018.

On an average overall about 8.33% of the beneficiaries earned income through dairying below 20,000 per annum with an average of ₹ 19859 whereas 53.66% of the beneficiaries earned income between ₹ 20,000 to 30,000 per annum with an average of ₹ 28186.25 and 38% earned more than ₹ 30,000 per annum with an average ₹ 37755.25. The average income earned through dairy enterprises was found to be ₹ 26494.66 in Anantapur, ₹ 29009.66 in Chittoor, ₹ 29362 in Kadapa and ₹ 29534.33 in Kurnool district. The average income earned through dairy enterprise was found to be ₹ 28600.17 per annum in the study area.

Constraints Faced by the Respondents

The sample rural women dairy entrepreneurs have encountered many problems in management of their units. The major problems faced by them are grouped under four categories are production, processing, marketing and technical problem are faced the respondents in the study area.

Production Problems

The production problems are high cost of concentrates and non-availability of veterinary services were the severe problems and all most all the respondents in the study area opined that non-

availability of green fodder during summer was the major problem in production of milk in their dairy unit. The respondents said that poor fodder quality, non-availability of fodder and high cost of fodder were not severe problems in maintenance of their dairy units. The overall view of the production problems in the study area revealed that high cost of concentrates was found to be the severe problem followed by non-availability of fodder during summer. The respondents viewed low milk yield and high cost of veterinary services under moderate category. More than two-third proportion of respondents opined that non-availability of water during summer, grazing land; concentrates and fodder were not severe problems in dairy units in the study area.

Processing Problems

The processing problems are analyzed in the study area. The problems are that lack of knowledge on processing technology and lack of storage facility were faced the problem of market for processed products severely. The problem of low local demand for processed products and low prices for processed products. The overall view of processing problem in the study area revealed that all the beneficiaries felt that lack of knowledge on processing technology and storage facility were the severe problems and market for processed products as moderate problem.

Marketing Problems

The marketing problems are all most all the respondents in all the districts said that non availability of scientific storage facility in villages and the low price of milk was a severe problem. The problem of less local demand for milk under severe category. Overall view of the marketing problems in the study area revealed that non availability of scientific storage facility in village was found to be the severe problem followed by low price of milk and less local demand for milk. The respondents viewed less local demand for milk and low price of milk under the study area.

Technical Problems

Technical constraints faced by rural women faced the problem of more incidences of diseases severely. The rural women lack of low scientific knowledge and low technical guidance under moderate category. The overall view of the technical problems in the study area revealed that more incidences of diseases followed by low scientific knowledge and low technical guidance were viewed under severe category. The respondents opined that low scientific knowledge and low technical guidance were the moderate problems in the study area.

Policy Implications

☐ Majority of the beneficiaries obtained microfinance for dairy enterprise were young and middle aged. Many more rural women who come forward to start dairy unit may be extended financial support by the banks.

☐ To keep one buffaloes was not sufficient to raise income and employment level. To earn income and generate employment throughout the year few more (one or two) buffaloes should be provided during dry period of animal for the beneficiaries by extending micro finance required based on the performance.

☐ Provision of short-term loan for purchase of green fodder and concentrates will be helpful to make project more feasible especially for landless labourers and marginal landholding beneficiaries.

☐ The micro finance was extended to only few poor rural women in the study area on pilot basis. Very few dairy entrepreneurs cannot supply milk regularly in sufficient quantity milk procurement centre or milk co-operative society. So to establish milk co-operative societies, financial support should be extended all the poor rural women who are interested to take up dairy enterprise.

☐ Dairy is feasible enterprise and very much suitable for rural women to practice and empower them economically and socially. So the financial institutions and NGO's should come forward to extend financial support and guidance for rural women through Self Help Groups to take up dairy enterprise as an income generating activity.

☐ Government and Animal Husbandry department should focus on dairy

development programmes in every village by establishing veterinary hospitals, mobile clinics, development of high yield breeds, and development of waste land to provide adequate grazing facilities.

❑ To tide over the problem of shortage of green fodder during summer season training should be given to beneficiaries about urea treatment for dry fodder to supplement the deficiency of protein and energy in cattle.

❑ Extension services must be strengthened in order to make the rural women dairy entrepreneurs more efficient in terms of increasing their management capacities to enhance milk productivity and net returns of the dairy unit.

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