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A STUDY ON WOMEN DAIRY FARMERS IN MADURAI DISTRICT

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ABSTRACT

Dairy Farming is a major occupation of women in villages. In recent years there has been an increasing demand for milk through out the year as milk being highly nutritious, has an important place in the human diet. In livestock rearing, women decide disposal of milk and milk products and feeding of animals. The major constraints faced by the women dairy farmers are shortage of food for animals, lack of management, insufficient veterinary services and lack of access to finance. Although India is emerging as a leading dairy nation, the dairy industry is highly fragmented. Almost two-thirds of the dairy activities are mostly in the hands of small and marginal farmers and landless labourers. The present study was conducted among the selected dairy farmers in Madurai. There is a significant change in the economic condition of the women after taking up dairy farming. Profitability, job security, promotional measures of the Government, easy marketing, self esteem, financial independence etc. had influenced the opinion of the women dairy farmers about the benefit of dairy farming. Shortage of fodder for cattle, lack of veterinary services, late payment by purchasers, sickness of dairy animals and lack of proper management were identified as the major problems of dairy farmers.

KEY WORDS: Dairy farming, economic conditions, veterinary services, cattle, fodder

INTRODUCTION

India has become one of the largest producers of milk and value added milk and milk products in the world. More than 2.445 million people are economically active in agriculture in the world, probably 2/3 or even more than 3/4 of them are wholly or partly dependent on livestock farming. In our country 1 lakh people are employed directly in dairy farms, 30,000 works for dairy manufacturers and an estimated 70,000 work for supporting agribusinesses and another 20,000 people are employed indirectly (www.dairy.org).The dairy sector in India with 134 million cows and 125 million buffaloes has the largest population of cattle in the world. At present there are around 70,000 village dairy co-operatives across the country (Revathi, 2012).India is the leading producer of milk in the world.

OBJECTIVES OF THE STUDY

- ☆ To examine the economic conditions of women dairy farmers after taking up dairy farming.
- ☆ To find out the factors influencing women to take up dairy farming.
- ☆ To study the problems faced by the dairy farmers and to suggest suitable remedies to improve their participation.

SAMPLING DESIGN

The primary data were collected from 100 respondents through interview schedule by way of multi stage sampling method. Alanganallur Block was chosen as the study area which has 37 panchayats. Out of 37 panchayats, 10 panchayats were chosen since the production of milk and milk products such as curd, butter milk and ghee were high. From the 10 panchayats chosen, one village from each panchayat was selected. The 10 villages selected were China Elanthakulam, Manianji, Valasai, Pudupatti, Alanganallur town,

Thandalai, PeriyaOorseri,Alagapuri, Kottamedu, Kallanai. The list of women dairy farmers were collected from the Animal Husbandry Department,Alanganallur Block .Systematic random sampling method was used to select 10 respondents from each village.

TOOLS OF ANALYSIS

This study adopted various statistical tools and techniques. Conventional tools like percentage, tabular as well as graphical analysis were used to analyze the collected data along with appropriate tools to derive conclusions. SPSS 17 version was used to analyze the data. Paired sample t-test was used to study the economic conditions of the respondents before and after taking up dairy farming. Factor analysis was applied to find out the motivational factors behind dairy farming. The problems faced by women dairy farmers were analyzed by Garrett ranking technique.

ECONOMIC CONDITIONS OF THE RESPONDENTS

The first objective of the study is to examine the economic conditions of women dairy farmers after taking up dairy farming. It covers the income, expenditure, saving and debt of them before and after taking up dairy farming.

HYPOTHESIS STATED

Ho: There is no change in the economic conditions of the women after taking up dairy farming.

Ha: There is change in the economic conditions of the women after taking up dairy farming.

The Paired't' test was used to analyze the change in the economic conditions of the women after taking up dairy farming. Table No.1 presents the result of Paired't' test.

Table No.1 Economic conditions of women dairy farmers in terms of income, expenditure, savings and debt. Paired‘t’ Test Result.

| Variables | N | Mean | | Standard deviation | | t-value | Sig (2 tailed)* |
|-------------|-----|----------------------|---------------------|----------------------|---------------------|---------|-----------------|
| | | Before dairy farming | After dairy farming | Before dairy farming | After dairy farming | | |
| Income | 100 | 3600.00 | 4900.00 | 2316.607 | 2906.315 | 4.218 | 0.024 |
| Expenditure | 100 | 1825.00 | 2562.50 | 1260.622 | 1721.131 | 3.128 | 0.052 |
| Savings | 100 | 3300.00 | 4637.50 | 2444.381 | 2772.296 | 6.209 | 0.008 |
| Borrowings | 100 | 1093.75 | 681.25 | 592.444 | 427.870 | 4.883 | 0.016 |

Source: Computed from Primary Data.

* Significant at 5 per cent level

It is understood from the Paired‘t’ test result of Table No.1 that the mean monthly income of the respondents had increased from Rs.3600 to Rs.4900 after taking up dairy farming. The increase in monthly income was attributed to the rise in milk production and the increase in the price of milk and its value added products like butter, curd, ghee and milk based sweets. The mean monthly expenditure of the respondents had increased from Rs.1825 to Rs.2562.50, mean monthly savings of the respondents had

increased from Rs.3300 to Rs.4637.50 and the mean monthly borrowings of the respondents had decreased from Rs.1093 to Rs.681 after taking up dairy farming. Since the mean values of the above mentioned economic variables except borrowing had increased after the women had taken up dairy farming, the null hypothesis is rejected and the alternative hypothesis of a significant change in the economic condition of the women after taking up dairy farming was framed and accepted.

FACTORS INFLUENCING WOMEN TO TAKE UP DAIRY FARMING

The second objective of the study is to find out the factors influencing women to take up dairy farming. Factor analysis was used to

extract prominent factors, which influenced the opinion of the respondents regarding the motivating factors. The total variance explained is presented in Table No.2.

Table.2. Total Variance Explained

| Component | Initial Eigen values | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|----------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.218 | 16.090 | 16.090 | 3.218 | 16.090 | 16.090 | 2.543 | 12.717 | 12.717 |
| 2 | 2.576 | 12.881 | 28.971 | 2.576 | 12.881 | 28.971 | 2.235 | 11.176 | 23.893 |
| 3 | 2.070 | 10.352 | 39.323 | 2.070 | 10.352 | 39.323 | 2.172 | 10.859 | 34.752 |
| 4 | 2.021 | 10.103 | 49.426 | 2.021 | 10.103 | 49.426 | 2.042 | 10.210 | 44.962 |
| 5 | 1.784 | 8.921 | 58.346 | 1.784 | 8.921 | 58.346 | 2.023 | 10.115 | 55.077 |
| 6 | 1.686 | 8.432 | 66.779 | 1.686 | 8.432 | 66.779 | 1.973 | 9.863 | 64.940 |
| 7 | 1.068 | 5.342 | 72.121 | 1.068 | 5.342 | 72.121 | 1.436 | 7.181 | 72.121 |
| 8 | .921 | 4.607 | 76.728 | | | | | | |
| 9 | .833 | 4.167 | 80.895 | | | | | | |
| 10 | .704 | 3.522 | 84.417 | | | | | | |
| 11 | .545 | 2.724 | 87.141 | | | | | | |
| 12 | .468 | 2.341 | 89.482 | | | | | | |
| 13 | .403 | 2.015 | 91.497 | | | | | | |
| 14 | .359 | 1.796 | 93.293 | | | | | | |
| 15 | .292 | 1.459 | 94.752 | | | | | | |
| 16 | .269 | 1.345 | 96.097 | | | | | | |
| 17 | .240 | 1.200 | 97.297 | | | | | | |
| 18 | .235 | 1.174 | 98.471 | | | | | | |
| 19 | .169 | .846 | 99.316 | | | | | | |
| 20 | .137 | .684 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis

Seven factors, having Eigen values one or more were extracted as found in Table No.3. The cumulative percentage column of the table reveals that the seven factors extracted together

account for 72.21 per cent of the total variance (information contained in the original 20 variables). The rotated component matrix is given in Table No.3

Table No.3 Rotated Component Matrix

| variables | Component | | | | | | |
|---|-----------|-------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Dairy farming provides regular employment | .130 | -.737 | .113 | -.251 | .020 | .155 | .098 |
| Dairy farming is convenient for women | .227 | .704 | .040 | -.060 | -.188 | .020 | .031 |
| Dairy farming gives more income | .707 | .171 | .088 | .299 | -.204 | -.097 | -.172 |
| Women get regular income through dairy farming | .131 | .066 | .058 | .246 | .200 | .268 | -.689 |
| Women can avail benefit from the government | -.685 | .066 | -.179 | .257 | -.179 | .343 | -.188 |
| Women enjoy economic independence through this work | -.204 | .104 | .120 | .363 | .294 | .662 | .273 |
| Women can contribute income family | .300 | .132 | .233 | .073 | .062 | .032 | .640 |
| Dairy farming improves the standard of living | -.213 | .786 | -.010 | -.136 | .096 | .264 | .116 |
| Women can avail utilize their time productively | -.053 | .131 | -.402 | -.111 | -.073 | .700 | -.068 |
| No. of working hours are less and flexible | .865 | -.163 | -.058 | -.055 | .039 | .188 | .145 |
| Marketing of milk is easy | -.062 | .018 | -.051 | -.752 | .086 | .008 | .107 |
| There is no tension in this work | .033 | -.112 | -.128 | .619 | .348 | .076 | .391 |
| Transport charges are less due to sale of milk at the door step | -.136 | .282 | -.103 | .606 | -.434 | .099 | -.195 |
| Self interest encourages women in dairy farming | .007 | -.166 | .027 | -.094 | .788 | .079 | -.109 |
| To earn social status women take up dairy farming | .061 | -.086 | .300 | -.012 | -.076 | .772 | -.318 |
| To while away the time women take up dairy farming | .071 | -.031 | .499 | .000 | -.719 | .227 | -.043 |
| Since women did not get a paid job, they are in dairy farming | -.260 | -.164 | .653 | .481 | -.038 | -.101 | -.120 |
| Women want to be a role model to others | .290 | -.512 | -.634 | .091 | .219 | -.054 | -.060 |
| Government incentives, awareness programme | .269 | -.060 | .773 | -.141 | .029 | .024 | .164 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

Looking at Table No.3, it is noticed that the dairy farming gives more income, number of working hours are less and flexible and women get benefit from the government have high loadings of 0.865, 0.707, 0.685 respectively on factor 1. The three variables together can be called as “**Prospective Business**”.

For factor 2, it is seen that dairy farming provides regular employment, improves the standard of living, and dairy farming is convenient for women have high loadings of 0.786, 0.737 and 0.705 respectively on factor 2. These three variables are combined together and named as “**Job Security**”

To interpret factor 3, it is found that Government gives incentives and awareness programs, women did not have a paid job and women want to be a role model to others have high loadings of 0.773, 0.653, and 0.634

respectively. These three variables are combined together and named as “**State Promotional Measures.**”

As for factor 4, it is evident that marketing of milk is easy, no tension in this work, and transport charges are less due to sale of milk at the doorstep has high loadings of 0.752, 0.619 and 0.606. These three variables are combined together and named as “**Easy Marketing.**”

Now for factor 5, it is observed that self-interest encourages women in dairy farming, to while away the time women take up dairy farming have high loadings of 0.788 and 0.719. Therefore the two variables can be clubbed together into a single factor called “**Self Esteem.**” For factor 6, it is seen that to earn social status women take up dairy farming, women can utilize their time productively and women enjoy economic independence through this work have”

high loadings of 0.772, 0.700 and 0.662. These three variables are combined together and named as “Women Empowerment.”

To interpret factor 7, it is found that women get regular income through dairy farming and women can contribute income to their family

have high loadings of 0.689 and 0.640 respectively. These two variables together are called “Financial Independence.”

The factors which had overall influencing the women dairy farmers is presented in Table No.4.

Table No.4 Factors Influencing Women to Take Up Dairy Farming

| Factors | Variable/Loadings | Percentage of variance | Name of the factor |
|---------|--|------------------------|----------------------------|
| 1. | v 10 = 0.865, v1 = 0.707, v5 = 0.685 | 12.717 | Prospective Business |
| 2. | V8 = 0.786, v2 = 0.737, v3 = 0.704 | 11.176 | Job Security |
| 3. | V20 = 0.773, v18 = 0.653, v 19 = 0.634 | 10.859 | State Promotional Measures |
| 4. | V11 = 0.752, v12 = 0.619, v13 = 0.606 | 10.210 | Easy Marketing |
| 5. | V14 = 0.788, v17 = 0.719 | 10.115 | Self Esteem |
| 6. | V15 = 0.772, v9 = 0.700, v6 = 0.662 | 9.863 | Women Empowerment. |
| 7. | V4 = 0.689, v7 = 0.640 | 7.181 | Financial Independence |

Total Percentage of Variance explained 72.121

Table No.4 reveals that Prospective Business, Job Security, State Promotional Measures, Easy Marketing, Self Esteem, Women Empowerment, Financial Independence had influenced the respondents to take up dairy farming.

PROBLEM S FACED BY WOMEN DAIRY FARMERS

The third objective of the study was to study the problems faced by the women dairy

farmers and to suggest suitable measures to improve their participation. Although there is a remarkable improvement of dairy enterprise in recent years, the dairy farmers faced some problems in developing their dairy enterprise. The problems faced by the women dairy farmers were analyzed through Garrett ranking technique. Garrett ranking result is given in Table No.5

Table No.5 Problems faced by Women Dairy Farmers

| SL. NO. | Problems | Total score | Mean score | Rank |
|---------|-------------------------------|-------------|------------|------------|
| 1. | Shortage of food for cattles. | 7223.3 | 72.23 | I |
| 2. | Late payment by purchasers. | 4765.1 | 47.35 | III |
| 3. | Lack of veterinary Services. | 6215.4 | 62.15 | II |
| 4. | Sickness of dairy animals. | 3398.1 | 33.98 | IV |
| 5. | Lack of Proper management. | 3097.3 | 30.97 | V |

Source: Primary Data.

As given in table no.5, shortage of food for cattle was ranked first, followed by lack of veterinary services, late payment by purchasers, sickness of dairy animals and lack of proper management. Shortage of food for cattle was felt as the main problem since in the study area the agricultural lands are converted into real estate in a phased manner which has affected the cultivation of fodder for the cattle. Second rank was given to lack of veterinary services. Only one veterinary hospital is available in the study areas there is no sub-centers to cattle to the needs of

the cattle rearers. Doctors are available only during the official hours in from 9 a.m to 12 noon and the compounders only available till 5 p.m occasionally. So the respondents couldn’t avail the services in times of emergency. Third problem was identified as the late payment by the purchasers of milk. The customers didn’t make the payment on which affects the purchase of feed for the cattle. Sickness of the animals and lack of proper management due to lack of awareness regarding the maintenance of animals were ranked fourth and fifth by the respondents.

SUMMARY OF FINDINGS

The findings of the study are presented under the following headings.

- ★ Socio-economic profile of the women dairy farmers.
- ★ Factors influencing women to take up dairy farming.
- ★ Problems faced by women dairy farmers.

FACTORS INFLUENCING WOMEN TO TAKE UP DAIRY FARMING

The outcome of factor analysis reveals that profitable activity, job security, promotional measures of the Government, easy marketing, self esteem, financial independence etc. had influenced the opinion of the women dairy farmers about the benefit of dairy farming.

PROBLEMS FACED BY WOMEN DAIRY FARMERS

The women dairy farmers in the study area had experienced many problems in their business. The Garrett ranking result showed that shortage of food for cattles was ranked first followed by lack of veterinary services, late payment by purchasers, sickness of dairy animals and lack of proper management.

SUGGESTIONS

Women dairy farming assumes a great importance, as it remains one of the allied activities of agriculture and it is a reliable source of income, too. Hence, awareness should be created among dairy farmers about the scientific techniques of dairy farming.

- ✍ All the unused porampokku land should be brought under fodder cultivation. The produced fodder should be kept in good climate to avoid contamination. The awareness to keep the fodder in good condition should be imparted to the dairy farmers by the Animal Husbandry Department.

- ✍ The success of dairy farming depends on purchasers. The women dairy farmers can make money by selling milk. Delayed payment beyond reasonable time, will affect the progress of dairy farming. If the women identify prompt purchasers, they can promote dairy farming successfully.
- ✍ Opening of more veterinary dispensaries and sub-centers are necessary for the timely assistance. The Government has to concentrate on this to increase the level of milk production.
- ✍ The women dairy farmers should improve their skills and competence, to be successful in their business. The officials of the Animal Husbandry Department can visit the villages and orient the women dairy farmers to do their business effectively.

CONCLUSION

In the fast moving world particularly in a country like India, one forgets or does not care to stop for a while and have a look at rural women dairy farmers who are poor in their personal as well as social life. They are very low in their economic status and their opinions and views are not given much importance. It is a common understanding that people in the rural areas are engaged in agriculture. Dairy farming is an allied activity of agriculture, which gives an added income to those involved in agriculture. In order to learn the part played by women in dairy farming, the present study was taken up. Women dairy farmers are able to get more income and were happy with these benefits which are reflected in higher intake of quality food, improved health conditions, better clothing, enhanced savings and finally leading to increased status.

SELECTED REFERENCES

JOURNALS

1. John Smith-Sreen (2001), "Benefits of Women Dairy Farmers", *Social action*, Vol.41, No.6 October, PP.416-420.
2. Misra(2009), "Labour Use Pattern in Animal Husbandry Practices", *Agricultural Extension Review*, Vol-12, No.6, PP.18-21.
3. Mitra (2000), "Profiles of Women Dairy Producers in Andhra Pradesh", *Institutions and Strategies Operation Flood and Indian Dairying*, New Delhi sage publications, January, PP.300-315.
4. Rizwana (2003), "All Women Dairy Cooperatives", *Asian Economic Review*, Vol.45, No.3, December, PP.570-580.
5. Saravanan and Parvathi (2010), "Empowerment of Women in Dairy Farm", *Southern Economist*, Vol.49, No.3, August, PP.15-20.
6. Someswar Das and Pankaj (2010), "Role of Women in Livestock Farming", *Kissan world*, Vol.8, No.2, May, P.25.

