Livelihood Improvement of Farm Women through Cattle and Buffalo Rearing in Jhunjhunu District of Rajasthan

Poonam Kalash, PhD scholar, RAU, Bikaner, Rajasthan
Rajendra Rathore, Asst. Prof., RAU, Bikaner, Rajasthan
Manoj Kumar, Subject Matter Specialist, KVK, BudBud, Burwan, West Bengal

Rajasthan has 108.53 lakhs cattle and 104.46 lakhs buffaloes, out of which Jhunjhunu district had 122,858 cattle and 378,942 buffaloes in 2003 (District website). Cattle and buffalo rearing play an important role in improving the socio-economic condition of the rural masses by providing additional income as well as complementing agriculture. The rearing of these animals is highly women-oriented as over 60% of all labour is done by women (Mishra 2008). The present investigation was conducted in Jhunjhunu. The results showed that net annual income was Rs. 14,720 per cross breed cow and Rs. 16,064 per buffalo. Thus, the total net annual income of a family rearing two milch animals (1 cross breed cow + 1 buffalo) was Rs. 30,784 which would clearly improve the livelihood of farm women.

INTRODUCTION

Animal husbandry is making a significant contribution to India's national economy and socio-economic development. In rural India where over 15-20% families are landless and about 80% of land holders are small farmers, livestock is the main source of livelihood (Handbook of Animal Husbandry). Rajasthan has 6.06% cattle and 11.20% buffalo of the whole country and produces about 8.05 million tons of milk per year, which is approximately 10% of total milk production of India. Animal husbandry is an adjunct to crop agriculture and cattle and buffalo are kept for milk production, power for various farm operations, village transport, irrigation and production of manure.

Cattle and buffalo rearing is extremely livelihood intensive for farm women and development of this sector is the potential path to rural prosperity. The present study was conducted to assess the extent of improvement of livelihood of farm women by cattle and buffalo rearing in the study area.

METHODOLOGY

There are six tehsils in Jhunjhunu district, out of which two, Udaipurwati and Nawalgarh, and four villages (2 from each tehsil) were selected randomly. For the selection of respondents, a list of rural households from these four villages was prepared of those rearing one cross breed cow and one buffalo with the women of the family mainly engaged in this activity for the last few years. 100 farm women were selected randomly and constituted the study sample. An interview schedule was developed to know the adoption behaviour of farm women for cattle and buffalo rearing practices and additional income generated by rearing these animals which had improved their livelihood. The mean percent score of each major practice was calculated, then a rank assigned for each practice and data on additional income collected from each selected respondent

RESULTS AND DISCUSSION

To get an overview of the respondents with respect to their level of adoption of improved cattle and buffalo rearing practices, they were grouped into three strata *viz.* low, medium and high adoption group. This was based on the calculated mean value and standard deviation of the score obtained by the respondents.

Table 1: Distribution of respondents on the basis of their level of adoption of improved cattle and buffalo rearing practices.

N = 100

Sl. No.	Level of Adoption	Number of farmers	Percent
1.	Low (<45)	12	12
2.	Medium (45-62)	58	58
3.	High (> 62)	30	30
	Total	**100**	**100**

From the data given in Table 1, it can be concluded that the majority of farm women had a medium level of adoption about improved cattle and buffalo rearing practices.

Data in Table 2 indicated that the highest adoption was observed in the practice of 'Chopping of crop residues' which ranked first. The mean percent score of this practice was 80.42. This was followed by practices like 'Drinking water supply', 'Component of mixed farming system', 'Housing system', 'Improved forage production', 'Balanced feeding', 'Kid management' , 'Health and disease management 'and 'Proper storage of cow dung for manuring'.

Further analysis clearly showed that the adoption of practices, 'Use of cow dung for Gobar gas plant', Supplementation of minerals and vitamins ', and 'Improved breeding methods' was very low among the farm women.

Table 2: Extent of adoption and adoption gap among the farm women about improved cattle and buffalo rearing practices (n=100)

Sl. No.	Improved Rearing Practices	Adoption level MPS	Rank	Adoption gap (%)
1.	Improved breeding methods	35.55	10	64.45
2.	Housing system	67.56	4	32.44
3.	Chopping of crop residues	80.42	1	19.58
4.	Drinking water supply	75.50	2	24.50
5.	Improved forage production	65.25	5	34.75
6.	Balanced feeding	60.25	6	39.75
7.	Health and disease management	45.75	8	54.25
8.	Kid management	58.60	7	41.40
9.	Proper storage of Cow dung for manuring	37.20	9	62.80
10.	Component of mixed farming system	70.00	3	30.00
11.	Use of cow dung for Gobar gas plant	12. 54	12	87.46
12.	Supplementation of minerals and vitamins	32.29	11	67.71
	Over all	**53.40**		**46.60**

The low adoption may be due to lack of awareness about the use of cow dung as cooking gas through Gobar gas plants, artificial insemination and the importance of minerals and vitamins for proper growth. The poor socio-economic condition of rural farm women could be responsible for non adoption of these practices because they could not purchase mineral and vitamin mixtures and other costly feed ingredients. .

The maximum adoption gap occurs in 'Use of cow dung for Gobar gas plant', 'Supplementation of minerals and vitamins', 'Improved breeding methods' and 'Proper storage of Cow dung for manuring '. The minimum gap in adoption of improved cattle and buffalo rearing practices was recorded 'Chopping of crop residues' and 'Drinking water supply'. The findings shown in Table 2 are in line with those of Taneja (1998).

To know the extent of improvement of livelihood of the farm women through cattle and buffalo rearing, data about the cost of rearing one cross breed cow and one buffalo and additional income generated were collected from each selected family / farm women and results presented in Table 3.

Table 3: Average income generation by cattle and buffalo rearing

Sl.No.	Type of Animal	No. of Animals	Gross Return (Rs./Yr)	Total Cost (Rs./Yr)	Net Income/farm women (Rs./ Yr)
1.	Cross breed cow	1	44,606	29,886	14,720
2.	Buffalo	1	48,678	32,614	16,064
	Total	**2**	**93,284**	**62,500**	**30,784**

The gross return from rearing one cross breed cow and one buffalo was Rs. 93,284 and total cost incurred was Rs. 62,500. Thus the net income from rearing these two animals was Rs.30,784 per year. The additional income of Rs. 30,784 would definitely improve women's livelihood.

Conclusion

58% farm women were from medium adoption level group, whereas 12 and 30% were from the low and high adoption level group. The study further revealed that the extent of adoption of 'Chopping of crop residues' 'Drinking water supply', 'Component of mixed farming system' and 'Housing system' was high whereas low adoption existed for l'Use of cow dung for Gobar gas plant', 'Supplementation of minerals and vitamins' and 'Improved breeding methods'. The study showed that the net annual income from rearing one cross breed cow and one buffalo was Rs. 30,784 per year. Thus the additional income generated through cattle and buffalo rearing by farm women would improve their livelihood.

References

Anonymous, 2002. *Handbook of Animal Husbandry*, Indian Council of Agricultural Research, New Delhi.

Mishra, 2008. Empowerment of women through appropriate livestock production technologies. Compendium, Animal Nutrition for Better Productivity,Feb.13-March 04 2008.

Taneja, V.K. 1998. Women in livestock production and economics. *Indian Farming* – 48:55-

External Links: www.Jhunjhunu nic.in