

Role of Livestock Husbandry in Livelihood Generation and Sustainability of Small and Marginal Farmers in Moradabad District, Uttra Pradesh, India

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Abstract: Livestock husbandry is an integral part of agriculture. India accounts the highest number of livestock population in the world and major proportion of this livestock is owned by small and marginal farmers. Livestock rearing is done in different ways following various forms of agricultural practices like traditional mixed farming, commercial dairy farming and nomadic herding in distinct agronomic and socio-economic conditions. Livestock husbandry helps in maintaining the sustainable livelihood because if the animals become non productive they are used in meat industry, so it also helps in enhancing the food security. The present study was conducted in five villages of Moradabad District, Uttar Pradesh and entirely based on primary data. The study has been carried out to find out the different mode employment generation through livestock husbandry and influence of caste in employment generation. The results show that 70 percent people are engaged rearing, 9.33 percent in marketing, 12 percent in distribution and 8.67 percent in collection and processing. The most of livestock is owned by small and marginal farmers because they don't of enough resource to generate livelihood so they keep livestock as an extra source of earning. It consumes the unemployed labour force of the households.

Keywords: Integral part, Marginal Farmers, Rearing, Nomadic herding, sustainable livelihood.

I. INTRODUCTION

Livestock husbandry is an integral part of agriculture. India accounts the highest number of livestock population in the world and major proportion of this livestock is owned by small and marginal farmers. It is the most important economic activity after agriculture in rural India. It mostly practiced by the small and marginal farmers because their piece of land is not enough for their livelihood generation so they rear livestock to earn some extra income. Livestock rearing is done in different ways following various forms of agricultural practices like traditional mixed farming, commercial dairy farming and nomadic herding in distinct agronomic and socio-economic conditions (Khan, Iqbal, Rehman, 2011). Crop-livestock is the main farming system which is practiced by the farmers in which livestock products like manure and draft power is used in for enhancing soil productivity while fodder, crop remains and feed grains are used for livestock feeding. The increasing demand for milk and milk products and the employment generation through dairy marketing have provided a better option of income generation to supplement the agricultural inputs and fulfill household expenditures (Khan, N. and Parashari, A.K., 2015). Over the last decade or so, the population of buffalo and goat in most states is increasing more rapidly than other species; they are considered the animals of the future for the country (Khan, Rehman, and Salman, 2012). Moreover, it consumes the unemployed labour of the household and becomes the source of income generation. Milk production is an important operation of livestock husbandry which provides employment and nutrient for millions of livestock rearers (Khan, N. and Parashari, A.K., 2017) Livestock husbandry helps in maintaining the sustainable livelihood because if the animals become nonproductive they are used in meat industry, so it also helps in enhancing the food security. While the global supply of livestock products has more than kept up with the human population expansion, the situation has not been the same in all regions (Livestock in Food Security, FAO, 2011). Livestock is one of the important sources of food and nutrients for the small and marginal farmers. The growth and development of livestock sector has been accentuated by the technological advancements and diffusion of information (Ghosh, B., 2012).It provides permanent as well as temporary employment especially to women during off farm season through investment in various operations i.e. rearing, cleaning, milking, collection, processing and marketing of livestock husbandry process. Income generation is improved as an extra income from selling milk, dung cake, livestock calves for meat purpose.

Significance of the Study

The present study highlights various operations of dairy farming through which income and employment is generated. These operations are carried out differently in different socio-economic background

and in accordance with market demand. Caste is one the most important factor which determines the level and extent of involvement of people in dairy farming, so current study expresses the implication of caste in dairy farming and its influence on growth and development this occupation.

Objectives

- To analyze the different modes of employment generation through dairy farming.
- To find out caste-wise employment in livestock husbandry.

Study Area

The Moradabad district lies between 28°21' N to 28°16'N latitude and 78°4' E to 79°00' E longitude (figure 1). According to the 2011 census the population of Moradabad district is 4,773,138 persons. This gives it a ranking of 26th largest district in terms of population in India. The district has a population density of 1,284 persons per square kilometer. The population growth rate over the last decade was 25.25 per cent. The district possesses sex ratio of 903, and has a literacy rate of 58.67 per cent. For administrative convenience the district is divided into six tehsils (Sub divisions) having thirteen developmental blocks. Moradabad lies in the Gangetic plains and is an agriculturally developed district of Uttar Pradesh. The district possess a large livestock population with 11,78,319 heads comprising of various species. The share of Buffalo is largest (84.92 per cent) followed by Goat (17.54 per cent) and Cattle (17.49 per cent). The presence of sheep is quiet insignificant (0.05 per cent) in the district.

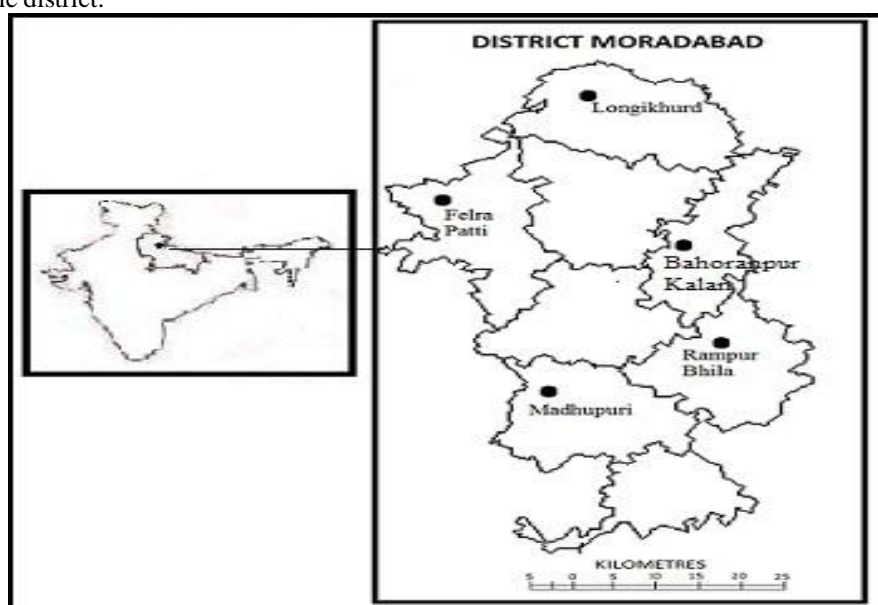


Figure 1

II. DATABASE AND METHODOLOGY

The study is entirely based on primary sources of data collected through field survey by direct questionnaire in the year 2016-17. Five village spread all over the study-area were selected for detail study. Data were collected using stratified random and purposive sampling technique. These villages were selected on the basis of their population size as well as accessibility to urban areas and market centres. On the basis of stratified random sampling 150 livestock rearers were interviewed regarding the modes of employment generation through livestock husbandry, type species reared by them and their land holding. For purpose of data analysis simple statistical methods have been used.

Employment Generation

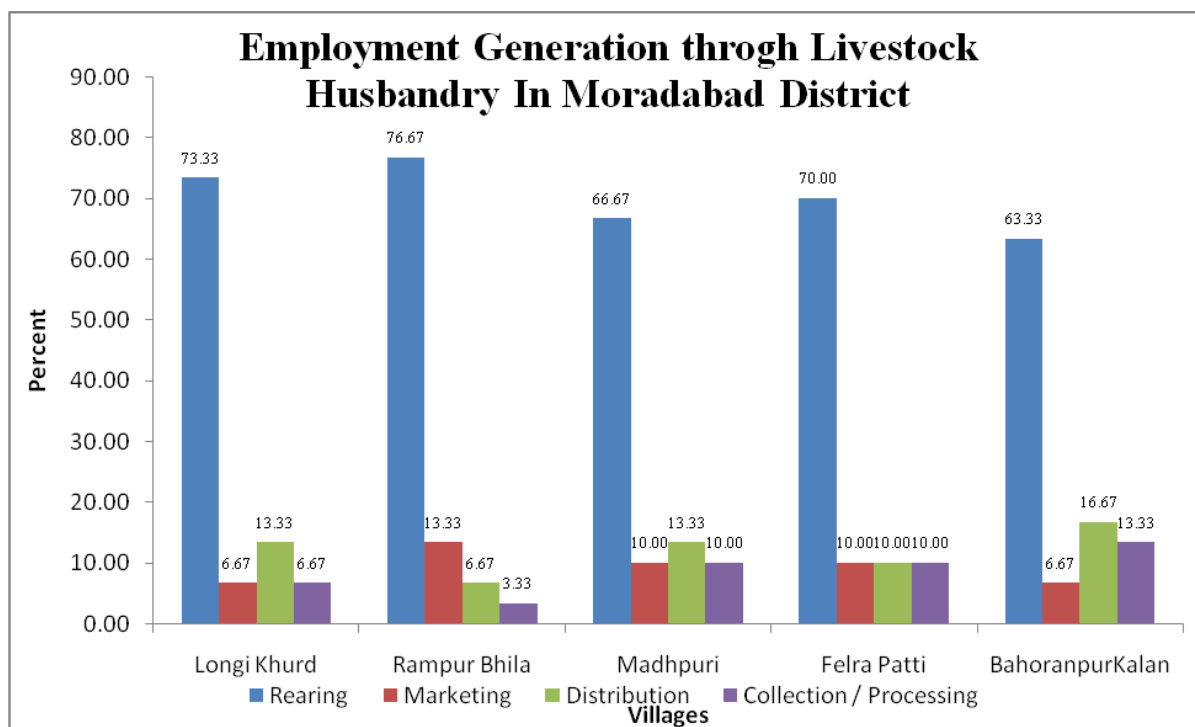
Livestock husbandry and allied activities have appeared as major source of employment generation for the people in rural areas. The increasing demand for livestock products and the employment generation through dairy marketing have provided a better option of income generation to supplement the agricultural inputs and fulfill household expenditures. Table 1 and fig. 2 illustrates that a large proportion of population is engaged in different operations of dairy farming like rearing, marketing, distribution, collection/processing of livestock and derived products as part time as well as full time workers. The analysis of data reveals that 70 per cent workers, involved in livestock husbandry, are engaged in rearing in five selected villages of Moradabad district. Rearing is the main operation of livestock because most of people prefer to rear dairy animals to supplement their main income. Distribution ranks second with a share of 12 percent and the marketing is on third position with 9.33 per cent in terms of proportion of people engaged in various operations of livestock husbandry. People engaged in distribution of milk and livestock husbandry derived products to the nearby towns and cities on daily basis because dairy products are perishable and it constitutes important part of meal. Marketing of animals is an

emerging operation for the people in the rural areas as the selling and purchasing of livestock is increasing rapidly. The impact of globalization has also been experienced by this sector which has augmented livestock production and consumption of livestock derived production. While the global supply of livestock products has more than kept up with the human population expansion, the situation has not been the same in all regions (Livestock in Food Security, FAO, 2011).

Table1: Different Modes of Employment Generation through Livestock Husbandry, 2016-17.

Village Name	Rearing	Marketing	Distribution	Collection / Processing	Total
Longi Khurd	22 (73.33)	2 (6.67)	4 (13.33)	2 (6.67)	30 (100)
Rampur Bhila	23 (76.67)	4 (13.33)	2 (6.67)	1 (3.33)	30 (100)
Madhpuri	20 (66.67)	3 (10.00)	4 (13.33)	3 (10.0)	30 (100)
Felra Patti	21 (70.0)	3 (10.00)	3 (10.0)	3 (10.0)	30 (100)
Bahoranpur Kalan	19 (63.33)	2 (6.67)	5 (16.67)	4 (13.33)	30 (100)
Total	105 (70.00)	14 (9.33)	18 (12.0)	13 (8.67)	150 (100)

Source: Field Survey, 2016-17. Figures in Bracket Indicate Percentage.



Caste-wise Proportion of People in Livestock Husbandry

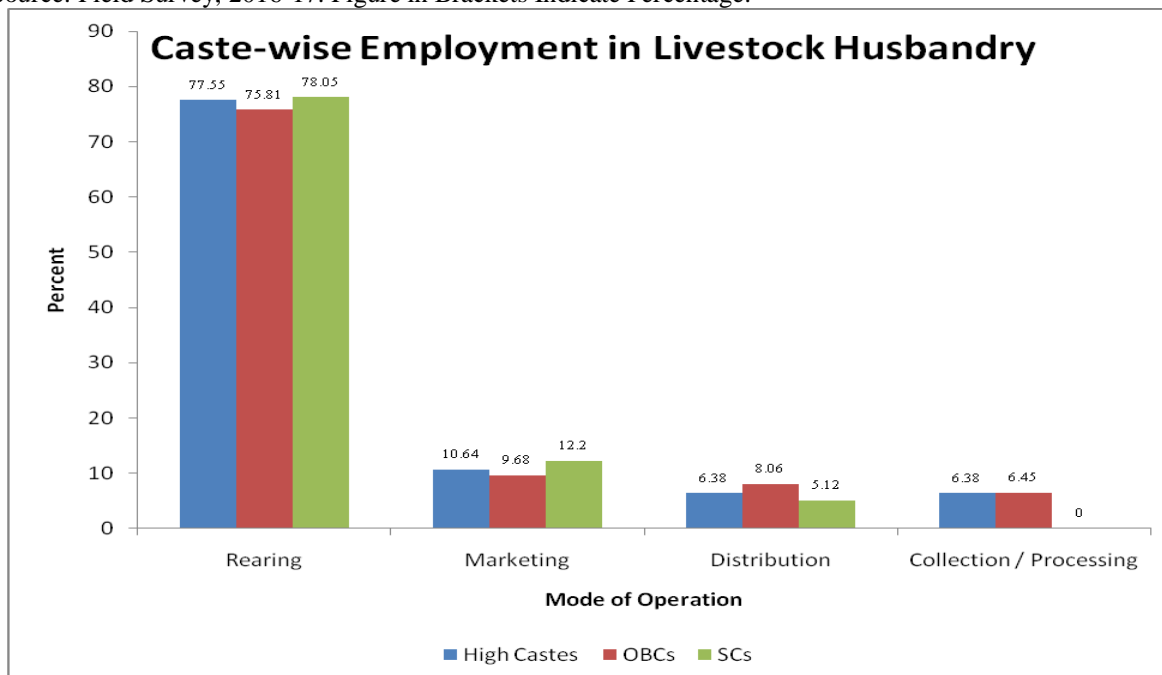
The socio-economic profile of farmers as well consumers is major controlling factor in the level of employment generation through livestock husbandry because social stratification is a major social characteristic of Indian society. Table 2 and Fig 3 presents a wide view of cast-wise involvement of people in livestock husbandry and it reveals that other backward castes (OBCs) have highest share of 41.33 per cent followed by high castes with a proportion of 32.66 percent and scheduled castes (SCs) have least proportion of 27.33 percent in total people involved in livestock husbandry. In the OBCs 75.81 percent people involved in rearing while 9.68 percent people engaged in marketing and 8.06 percent people engaged in distribution and collection/processing has least share of 6.45 percent to the total OBCs dairy farmers. Among the OBCs Jat has highest proportion of livestock rearers (14.67%) followed by Jatavs (11.33), Yadav (9.33), and Kumhar (3.33). In the high castes 77.55 percent people engaged in rearing , 10.64 percent involved in marketing while 6.38 percent people involved in distribution and 3 percent people engage in collection/ processing. Among the high castes Thakur has the highest proportion of 15.33 percent followed by Brahmin with 8.67 percent while Elite Muslims

has the lowest share of 4.67 percent to total livestock rearers. Rearing has the largest proportion of 78.05 percent in the SCs followed by marketing with 12.2 percent while distribution has 5.12 percent.

Table2: Caste-wise Proportion and Structure of Workforce Involved in Livestock Husbandry in Moradabad District, 2016-17.

Social Groups	Percent Share	Percent of People in Different Operations of Dairy Farming				
		Rearing	Marketing	Distribution	Collection/ Processing	Total
High Castes						
Thakur	15.33	17 (73.91)	3 (13.04)	2 (8.70)	1 (4.35)	23 (100)
Brahmin	8.67	10 (76.92)	1 (7.69)	1 (7.69)	1 (7.69)	13 (100)
Elite Muslims	4.67	7 (77.77)	1 (11.11)	-	1 (11.11)	9 (100)
Others	2.67	4 (100.0)	-	-	-	4 (100)
Total	32.66	38 (77.55)	5 (10.64)	3 (6.38)	3 (6.38)	49 (100)
OBCs						
Jat	14.67	17 (77.27)	2 (9.09)	1 (4.55)	2 (9.09)	22 (100)
Jatav	11.33	12 (70.59)	3 (17.65)	1 (5.88)	1 (5.88)	17 (100)
Yadav	9.33	10 (71.43)	1 (7.14)	2 (14.29)	1 (7.14)	14 (100)
Kumhar	3.33	4 (80.0)	-	1 (20.0)	-	5 (100)
Others	2.67	4 (100.0)	-	-	-	4 (100)
Total	41.33	47 (75.81)	6 (9.68)	5 (8.06)	4 (6.45)	62 (100)
SCs	27.33	32 (78.05)	5 (12.20)	2 (5.12)	-	39 (100)
Grand Total	100	117 (78.0)	16 (10.67)	10 (6.66)	7 (4.66)	150 (100)

Source: Field Survey, 2016-17. Figure in Brackets Indicate Percentage.



III. CONCLUSION

Livestock husbandry contributes percent of GDP and 27 percent of agricultural GDP. National income and balance of payment is also improved through export of livestock products. Living standards and quality of life of farmers especially in rural areas is also upgraded. Thus, a composite form of rural and agricultural development could take place after proper management of livestock husbandry in the light of existing socio-economic and agro-climatic conditions. Some agro based industries like milk processing, meat production and processing, feed grain processing as well as food processing industries might have developed which indirectly provides employment to non-farm communities too. The present highlights the importance of dairy farming in shaping the socio-economic aspects of people but lack of marketing facilities, lack of accessibility and connectivity, absence of standard pricing system and dominance of milkmen are the major problems faced by the dairy farmers. The current research can be carried out further by keeping in view the level and extent of dairy development, its role in women empowerment and change in purchasing power.

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