

Growth of Livestock Husbandry and Its Impact on Food Security in Moradabad District

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Abstract - Food is a foremost requirement for the survival of mankind. Those who are socio-economically well equipped have easy access to food but people belonging to poor sections of the society find difficult to get healthy food. Livestock is an easy and reliable source of nutrition, protein and fibre for marginalised and underprivileged people. Present study has been taken into consideration to find out the role of livestock husbandry in food security and proportion of income spent on purchase of food. The study is based on both primary and secondary. Primary data has been collected through field survey at village level. The results of the study show that livestock has increased rapidly in the district, food habits of the people are major determinants in the food security and largest proportion of livestock generated income is spent on food consumption. The socio-economic profile of people, their food habits, level income generation, access to market and technological development are the major factors influencing the food security through livestock.

Keywords: Requirement, well equipped, poor, reliable, marginalised, food security, determinant, nutrients.

I. INTRODUCTION

Food security, as defined by the United Nations' Committee on World Food Security, is the condition in which all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. According to World Bank (2016) 70 percent of the total population living below poverty line resides in rural areas in India. Livestock is playing a vital contribution in providing nutrition and food to these poor and malnourished people through providing directly consumable products and by providing cash income to spend on food items. Livestock generates cash income which is the main source of household expenditure (Khan N and Parashari AK, 2015). Livestock is an important source of food and nutrients and income generation for the poor and backward section of the society (Khan N and Parashari AK, 2015). Role of livestock in ensuring food security becomes more critical because most of poor people living in rural areas and livestock husbandry is a major economic activity of in rural India. Animals contribute significantly in enhancing the nutrient quality of food of rural people (Khan N and Parashari AK, 2016). As the number of unemployed and hungry people is on surge, livestock has become major instrument of eradication of poverty and a major source of food. The growth of livestock has created huge opportunity for employment supplementary source food production (Khan N and Parashari, AK, 2014). Livestock products provide a diversification in the dietary system for those who can not afford nutritious food.

Livestock husbandry contributes significantly in the social, economic and physical development of small and marginal farmers through providing direct food and other multipurpose uses, manure, hides, fibre and fuel. Livestock wealth is more equitably distributed than that of land and the importance of livestock for the poorer households is even more (Kumar A and Singh D.K., 2008). Livestock ownership provides varying degree of sustainable farming and economic stability to resource poor farmers. In North India goat, male buffalo, goat, backyard poultry are major source of meat production while cow is also reared for milk production but it is not used for meat production because government has put ban on cow slaughter. The rapid increase in population has exerted great pressure on land resources for food production but integration of agriculture with livestock husbandry has resulted as a reliable source food production and employment generation.

Hypotheses

- i. Majority of farmers engaged in livestock husbandry are small and marginal.
- ii. Livestock products are directly used by livestock rearers in diet.
- iii. Major share of livestock generated income is spent on purchase of food items.

Objectives

- i. To find out the growth and development of livestock husbandry in the study area.
- ii. To find out the contribution of livestock in food security.

- iii. To find out the proportion of livestock generated income spent on purchase of food items.

II. DATA BASE AND METHODOLOGY

Present study is based on both primary and secondary sources of data. Secondary data has been collected from district statistical magazine of Moradabad district and Census of India. Primary data has been through field survey by direct interview at village level in the year 2019. Four villages Longi Khurd (Thakurdwara block), Harsenpur (Munda Pandey block), Felra Patti (Chajlet block) and Sihari Mala (Bilari block) of Moradabad district have been selected for the detailed study. Data has been collected using stratified random and purposive sampling technique. Using basis of stratified random sampling 30 households from each village, thus total 120 households have been surveyed. Detailed information has been collected regarding livestock, level of livestock husbandry, income,

expenditure, preferences, food habits, diet composition etc. For purpose of data analysis simple percentage method have been used and for representation of data charts, diagrams and maps have used.

Study Area

To study and analyze the dynamics of livestock husbandry and its role in food security, the district Moradabad in Uttar Pradesh has been taken into consideration due to its agricultural economy and status of livestock husbandry. Moradabad district lies between $28^{\circ}21' N$ to $28^{\circ}16' N$ latitude and $78^{\circ}4' E$ to $79^{\circ}00' E$ longitude (figure 1). According to the 2011 census the population of Moradabad district is 4,773,138 persons. The total livestock in district is 944408. For administrative convenience the district is divided into three *tehsils* (Sub divisions) having eight developmental blocks. Moradabad lies in the Gangetic plain and is an agriculturally developed district of Uttar Pradesh.

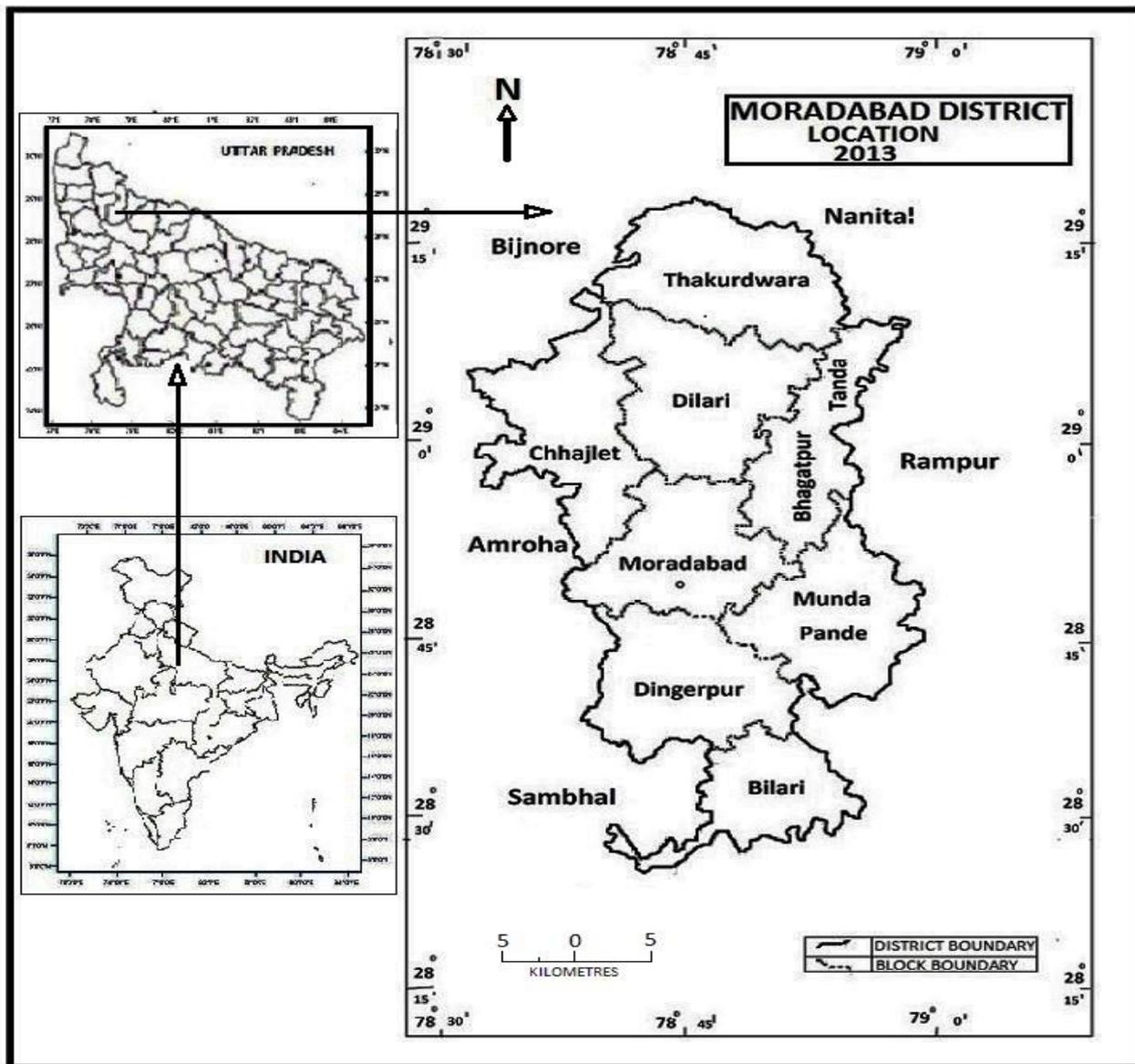


Fig 1. district Moradabad in Uttar Pradesh

III. DISCUSSION

Growth of Livestock Husbandry

The geographical conditions and socio-economic attributes of respondents are the major determinants of rearing and distribution of the livestock resources in the study area. Livestock sector plays an important role in generating income and employment, augmenting income of marginal farmers and landless labourers and in meeting nutritional requirement (Chand R. And Raju S.S., 2008). Livestock husbandry in the study area is growing and has emerged as a reliable source of income generation and nutrition and this growth and development is attributed to agricultural economy. Livestock has increased rapidly due to rise in demand of livestock derived products and integration of agriculture (Sheeren Z., Rehan M. & Parashari A.K. 2016). Livestock is a source of milk and nutrition and has provided employment for the rural masses directly or indirectly and opened a window of opportunity to earn additional income through its various operations. Table 1 shows the block-wise growth in the livestock in where district has recorded total 32.70 percent increase during 2003-2012. At the block level Moradabad recorded highest increase of 83.45 percent while Chajlet recorded the lowest increase 15.81 percent. Moradabad block owes its high growth to nearness of urban market, accessibility from villages, grazing lands provided on the shores of Ramganga River, huge demand milk and meat, transport facilities. On the other hand, Chajlet has recorded lowest growth because of out migration of population in search of employment, low productivity of livestock, scarcity of space, diminishing of grazing grounds, growth in urbanization and growth of opportunities in secondary and sectors.

Table 1 Growth of Livestock Husbandry in Moradabad District (2003-2012)

Block	Total Livestock 2003	Total Livestock 2012	% Change
Thakurdwara	49218	68667	39.52
Moradabad	32242	59148	83.45
Dingarpur	184911	226525	22.50
Bilari	77535	103523	33.52

Table 2 Proportion of Livestock Products Consumed by Respondents In Moradabad District (2019)

Villages	Households	Milk	Butter	Curd	Sweets	Meat
Longi Khurd	30	30 (100.00)	27 (90.00)	14 (46.67)	8 (26.67)	11 (36.67)
Harsenpur	30	30 (100.00)	25 (83.33)	17 (56.67)	6 (20.00)	7 (23.33)
Felra Patti	30	30 (100.00)	23 (76.67)	13 (43.33)	5 (16.67)	16 (53.33)
Sihari Mala	30	30 (100.00)	28 (93.33)	15 (50.00)	9 (20.00)	9 (30.00)
Total	120	120 (100.00)	103 (85.83)	59 (49.17)	28 (23.33)	43 (35.83)

Source: Field Survey, 2019

Dilari	46164	68850	49.14
Bhagatpur Tanda	32811	58932	79.61
MundaPandy	55793	79773	42.98
Chajlet	178924	207207	15.81
Total	657598	872625	32.70

Source: District Statistical Magazine, 2019

Proportion of Livestock Products Used in Diet

Livestock products constitute significant part of diet of people especially of those who are engaged in this enterprise. It saves lot of money of those people who are engaged in livestock husbandry while others purchase livestock products from market. Livestock has become a constant source of food security through the supply protein and nutrients (Ahmad, M.D. & Parashari, A.K., 2017). Livestock husbandry is an important source of nutrients, protein, fibre, fat and other products for the poor and marginal sections of the society who can not afford to purchase them from the market. Table 2 shows the proportion of livestock products in the diet of the respondents in the study area. Milk is used by all the households for different purposes like tea, coffee and direct consumption while butter is used by 85.83 percent households. The highest consumption of butter in diet is found in Sihari Mala (93.33 percent) while lowest consumption is Felra Patti (76.67 percent). Curd is used by 49.17 percent households in the district but at village level highest proportion of 56.67 percent is found in Harsenpur and lowest percentage of 43.33 is found in Felra Patti. 23.33 percents people consume sweets in their diet in the district and Longi Khurd has highest (26.67 percent) consumption while Felra Patti has lowest consumption (16.67 percent). 35.83 percent people consume meat in their diet but at village level Felra Patti has highest percentage of 53.33 while Harsenpur has lowest percentage of 23.33 of meat consuming people. Food habits of the people depend on their socio-economic and cultural background. The higher castes do not use meat products but lower castes in Hindus and Muslims consume meat.

Proportion of Expenditure of Livestock Generated Income

Livestock is one the important source of income and employment generation for small and marginal famers and rural masses. In last few decades livestock has become a reliable source of revenue generation. The livestock is monetary assistance for the daily household expenditure of poor. The livestock generated income is spent on various household needs like food, education medical, and clothing and on some other needs also. Livestock husbandry has become a boon for the daily household expenditure and sustainable livelihood (Ahmad, M.D. & Parashari, A.K., 2017). Table 3 shows the proportion of income monthly spent on various operations of household. Average income generated per month is Rs. 164750 out which 58.34 percent is spent on food, 24.87 percent on agricultural production, 3.46 on medical, 7.51 on education, 3.47 on clothing and 2.34 percent on miscellaneous needs. Highest expenditure on food is found Felra Patti (64.00 Percent) while lowest in Harsenpur (55.00 Percent). Second highest expenditure is incurred on agriculture which highest in Harsenpur (28.97 Percent) and lowest in Sihari Mala (22.98 Percent). Other households needs are also fulfilled by livestock income, education fee is also paid form it, medicines are also purchased, clothing and other expenditure are also paid form this income. It is backbone of household economy in the rural areas.

Table 3 Proportion Expenditure on Different Household Needs in Moradabad District (2019)

Livestock Products	Households	Total Income	Food	Agriculture	Medical	Education	Clothing	Miscellaneous
Longi Khurd	30	163000	57.98	26.99	1.96	6.99	3.93	2.15
Harsenpur	30	156000	55.00	28.97	5.00	5.96	2.95	2.12
Felra Patti	30	172000	64.00	20.99	2.97	8.95	1.98	1.12
Sihari Mala	30	168000	56.00	22.98	3.99	7.98	5.06	4.00
Average		164750	58.34	24.87	3.46	7.51	3.47	2.34

IV. CONCLUSION

Animal husbandry plays a pivotal role in the overall agricultural economy of the country because of its production potential through raising socio-economic status of the rural people. Livestock sector occupies an important place in terms of growth rate and thus in terms of national economy. Among the livestock population goats make an important contribution to the sustenance of small and marginal landholders and landless rural people by their contribution towards marketable commodities such as meat, milk, fibre and skin. It also plays a leading role in eradication of poverty in small farmers and landless labourers by self-employment. So the first hypothesis is true. All the livestock rearer keep some proportion of livestock products for their own consumption which proves second hypothesis is true. 58.34 percent of income is spent on food by the livestock rearers which is highest and it proves third hypothesis is valid.

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