



Economic Contribution of Buffalo Farming in Livelihood of Buffalo Owners in Bharatpur District of Rajasthan

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How to cite this paper: Singh, N., Sharma, N., & Rajput, D. (2021). Economic Contribution of Buffalo Farming in Livelihood of Buffalo Owners in Bharatpur District of Rajasthan. *International Journal of Livestock Research*, 11(12), 24-28. <https://dx.doi.org/10.5455/ijlr.20211017042806>

Received : Oct 19, 2021
Accepted : Nov 11, 2021
Published : Dec 31, 2021

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Abstract

Present study was purposively conducted to document economic contribution of buffalo farming in livelihood of buffalo owners in Bharatpur district of Rajasthan. Data were collected from 120 farmer selected which having minimum 2 buffalo through personal interview with the help of open-ended schedule. It was observed that family which had up-to five buffaloes in their herd spent Rs. 4058 annually for purchasing cloth. On the other hand, family which had above five buffaloes in their herd spent Rs. 6902 annually for purchasing cloth which was 70.08 per cent more than family which had up-to five buffaloes in their herd and got rank first. So, that buffalo farming have significant impact and contribution in livelihood of livestock owners.

Keywords: Buffalo Farming, Farmer, Income, Livelihood



Introduction

Livestock sector having an important role in livelihood of rural people in Rajasthan because most of part of agriculture land come in arid and semi-arid zone and monsoon is uncertain (Chand *et al.*, 2021). Livestock provides employment opportunities to a large number of landless labourers and marginal farmers. Also, they are used for milk, wool, manure, draft, transport and sport purposes. When slaughtered, they supply meat and by products viz. horns, hoof, skin and bones, which are used in industries for production of various goods. About 20.5 million people depend upon livestock for their daily livelihood in India. Livestock contributed 16 per cent to the income of small farm households as against an average of 14 per cent for all rural households (Anonymous, 2012). In India, livestock provides livelihood to two-thirds of rural community and employment to 8.8 per cent of the population. India has immense livestock resources which contribute to GDP 4.11 per cent and 25.6 per cent in agriculture GDP (Anonymous, 2015). During COVID-19 pandemic period, it is estimated 50 million migrant labourers are expected to own home from cities after nationwide lockdown from 24 march. They are significant employed in marine fishing, post-harvest activities, managing livestock. According to Rajasthan state livestock policy, in Rajasthan more than 80 per cent of rural population keep livestock in their households. Among all livestock species, buffaloes hold the greatest promise to protein rich raw milk, its production for human consumption and sustainable development in the 21st century, as these animals form an integral part of the typical farming system in India (Manohar *et al.*, 2015). Buffalo rearing having significant impact on livelihood improvement especially farm women and development of this sector, is the potential path to rural prosperity. (Kalash *et al.*, 2009; Sarker *et al.*, 2013). Therefore, considering the livelihood changes of buffalo farmer by buffalo farming, the investigation was undertaken in selected tehsils of Bharatpur district of Rajasthan.

Materials and Methods

Research Design

Research design is the frame work of research methods and technique chosen by researcher. Ex-post facto research design in which investigation start after the fact has occurred without interference from the researcher. Ex-post facto research design was used in this study

Locale of the Study

The study was conducted in the Rajasthan state because it plays important role as an agricultural state in the country with second position in buffalo population state. Rajasthan, located at the North-Western part of India. It is the biggest state of India in term of area and lies between 23°30' and 30°11' North latitude and 69°29' and 78°17' East-longitude. The state shares its North-Western and Western boundary with the Indo-Pakistan international border. It is also bordered by Panjab to the North, Haryana and Uttar Pradesh to the North-East, Madhya Pradesh to the South-East and Gujarat to the South-West.

Sampling Method

Purposive sampling was used for the selection of district and tehsils whereas, random sampling was adopted for selection of villages and respondents. Bharatpur district consists of ten tehsils. Out of which weir and Bayana tehsils were selected purposively on the basis of highest buffalo population. Four villages from each of the selected tehsil were selected randomly and total of eight villages was selected for the purpose of study. Out of these 15 buffalo owners were selected from each village randomly having minimum 2 buffalo. Thus, total sample size was constituted 120 buffalo owners for the study.

Data Collection

Data were collected through pre-tested structured questionnaire, personal interview from the respondents either at the farm or home. Information about various aspects like average expenditure, average income, net income and impact of buffalo farming in livelihood of buffalo owners were collected.

Result and Discussion

Management Cost of Buffaloes per Family Annually

The average cost of feeding, housing and equipment, healthcare and miscellaneous cost of buffaloes were presented in Table 1. The cost (per year) of feeding in both Weir and Bayana tehsils were almost similar. Expenditure of respondents in housing and equipment of buffaloes were more in Bayana (Rs.4350) tehsil as compared to Weir (Rs.330) tehsil. Expenditure of respondents on health care in Weir tehsil was higher as compared Bayana tehsil. Pooled results showed that maximum expenditure was on the feeding of buffaloes followed by health care (Rs.4321), housing and equipment cost (Rs.3308) and miscellaneous cost (Rs.1750), respectively.

Table 1: Expenditure cost of buffalo per family annually (N=120)

S. No.	Category	Weir (Expenditure in Rs.)	Bayana (Expenditure in Rs.)	Pooled (Expenditure in Rs.)
1	Average feed cost	42550	44433	43492
2	Average housing and equipment cost	3308	4350	3829
3	Average health care cost	4441	4200	4321
4	Average miscellaneous cost	1500	2000	1750

Income from Buffalo Rearing per Family Annually

Data presented in Table 2 showed that in Weir average income of respondents from sold milk and its product was Rs. 134029 per year followed whole buffalo sell and its meat (Rs.19850) and buffalo dung (Rs.1280). Whereas, in Bayana average income of respondents from sold milk and its product was Rs. 129746 annually followed by buffalo dung (Rs. 550) and whole buffalo sell and its meat (Rs. 17366). Pooled results showed that average income of respondents from sold milk and its product was Rs. 131888 per year followed by whole and its meat (Rs. 18608) and buffalo dung (Rs. 915), respectively.

Table 2: Income from buffalo rearing per family annually (N=120)

S. No.	Category	Weir (Average income in Rs.)	Bayana (Average income in Rs.)	Pooled (Average income in Rs.)
1	Milk and its product	134029	129746	131888
2	Buffalo dung	1280	550	915
3	Whole buffalo sell and its meat	19850	17366	18608

Net Income from Buffalo Rearing Per Family Annually

Data presented in Table 3 revealed that respondents were got benefit from buffalo rearing. In Weir net average income of respondents were Rs. 103360 annually. Whereas, in Bayana net average income of respondents was Rs. 92679 annually. In pooled data overall net average income was Rs. 98019 per year from buffalo rearing.

Table 3: Net income from buffalo rearing per family annually (N=120)

S. No.	Category	Weir (rupees)	Bayana (rupees)	Pooled (rupees)
1	Total average expenditure	51799	54983	53391
2	Total average income	155159	147662	151410
3	Net average income	103360	92679	98019

Impact on Purchasing Capacity

Average expenditure of family on different categories like food, cloth, house, health care, education, maintain social status and miscellaneous were presented in Table 4. Family which had up-to five buffaloes in their herd spent Rs. 4058 annually for purchasing cloth. On the other hand, family which had above five buffaloes in their herd spent

Rs. 6902 annually for purchasing cloth which was 70.08 per cent more than earlier one and got ranked first. Family (up- to 5 buffaloes) which spent Rs. 37782, Rs. 2486, Rs. 4449, Rs. 8536, Rs. 2000 and Rs.1355 for food purchasing, housing, health care, education, maintain social status and miscellaneous cost. On the other hand, family (above 5 buffaloes) which spent Rs. 49843, Rs.3843, Rs.3673, Rs.12765 and Rs.3216 for food purchasing, housing, health care, education, maintain social status and miscellaneous cost which was 31.92, 54.58, 43.24, 49.54, 60.80 and 43.24 per cent, respectively more than family which had up-to five buffaloes in their herd. The result clearly indicated that livelihood increased dramatically through buffalo rearing in the in the studied areas. Amin *et al.* (2015) found 58 per cent increased in annual food purchasing capacity of the buffalo farmers. Social status, health care, educational and housing cost of the respondents were also increased by buffalo rearing.

Table 4: Impact on purchasing capacity of buffalo owners family annually (N=120)

S. No.	Category	Family average expenditure in rupees (up-to to five buffaloes)	Family average expenditure in rupees (above five buffaloes)	Percent	Rank
1	Food purchasing cost	37782	49843	31.92	VI
2	Cloth purchasing cost	4058	6902	70.08	I
3	Housing cost	2486	3843	54.58	III
4	Health care cost	4449	6373	43.24	V
5	Education cost	8536	12765	49.54	IV
6	Maintain social status cost	2000	3216	60.8	II
7	Miscellaneous cost	1355	1941	43.24	V

Conclusion

It concluded from findings that buffalo production system have significant impact and contribution in livelihood of livestock owners but their moderate income from buffalo husbandry due to small holding and poor marketing structure at rural area. Thus, emphasis should be given to provide credit facility to increase herd strength and improve marketing channel, that would be helpful for sustainable buffalo production and improve livelihood of buffalo owners as well.

Acknowledgement

Author wish to convey deep gratitude to the farmer of Bharatpur district for their valuable co-operation in documentation. Authors convey sincerely thanks to all researcher, scientist and professionals.

Conflict of Interests

There is no conflict of interest.

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References

1. Amin, M., Siddiki, M., Kabir, A., Faruque, M. and Khandaker, Z. (2015). Status of buffalo farmer and buffalo at Subornochar upozila of Noakhali district in Bangladesh. *Progressive Agriculture*, 26, 71- 78.
2. Anonymous (2012). 19th Livestock Population. Department of Animal Husbandry and Dairy, Ministry of Agriculture. Govt. of India.
3. Anonymous (2015). National Accounts Statistics, Central Statistical Organisation, Govt. of India.
4. Chand, S., Meena, B.S., Yadav, S., Yadav, M., Baidha, A. and Sharma, N.K. (2021). Ethano-Veterinary Practices Followed by Farmer for Treatment of Reproduction Disorder in Dairy Animal. *International Journal of Livestock Research*, 11(6), 65-70.
5. Kalash, P., Rathore, R. and Kumar, M. (2009). Livelihood Improvement of Farm Women through Cattle and

- Buffalo Rearing in Jhunjhunu District of Rajasthan. *International Journal of Rural Studies*, 16, 1-3.
6. Minhaj, S., Khandi, S., Bafanda, R., Bhushan, B., Choudhary, F., and Khateeb, A. (2018). Constraints Perceived by Dairy Farmers in the Adoption of Improved Animal Husbandry Practices in Doda District. *International Journal of Livestock Research*, 9(2), 319-326.
 7. Manohar, D. C., Manohar M. S., Choudhary, D. and Rathore, V.S. (2015). Constraints perceived in adoption of recommended management practices by buffalo owners in the Jaipur district of Rajasthan. *Journal of Dairy Veterinary and Animal Research*, 2(1), 13-14.
 8. Sarker, S., Hossain, M. M. and Amin, M.R. (2013). Socio-economic status of buffalo farmers and the management practices of buffaloes in selected areas of Bagerhat district of Bangladesh. *Bangladesh Journal of Animal Science*, 42 (2),158- 164.
