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Existing livestock service delivery systems availed by livestock owners in Udaipur district of Rajasthan

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Abstract

The study was conducted purposively in Udaipur district of Rajasthan. Out of 15 tehsils, four tehsils viz., Jhadol, Salumbar, Vallabhnagar and Mavli were selected purposely based on higher livestock population and different livestock service delivery systems. In the next stage of sampling, three villages were selected randomly from each of the selected tehsils. Thus, total 12 villages were selected for the study. From each village, 12 livestock owners availing the services of different livestock service providers were selected randomly. Thus, total 144 respondents were selected for the present study. The study was found that with highest weighted mean scores, the public departments were positioned first in providing insurance (294.28), A.I. services (291.43), curative services (290.69), provision of veterinary pharmaceuticals (284.87) and preventive services (283.09) in supplying of mineral mixture and other supplements (272.86) round the year. Further, all the services were rendered by the public departments to the livestock owners either free of cost or charging a minimum cost which made it more effective.

Keywords: Livestock service, curative services, veterinary pharmaceuticals

Introduction

The delivery of livestock services is emerging as an important priority area due to increasing demand of livestock and its products for enhancing and optimizing livestock production. Quality in livestock services forms the basis of sustainable development of farmer. These services make an indispensable contribution to the physical, mental and social welfare of humans (Prabhakaran, 2000) [7]. Effective and efficient delivery of animal health and production services is considered as vital for gainful livestock development and hence, efficient delivery of livestock services has become a subject of rising concern to many national and international organizations including FAO (Kleeman, 1999) [2]. There is a growing demand among producers and consumers for veterinary services to protect the health of animals and the safety of products of animal origin for both domestic and international markets. Since independence in India, the livestock service delivery is under the control of public sector and the major agencies dealing with livestock extension service are Directorate of Extension (Ministry of Agriculture), Indian Council of Agricultural Research, National Dairy Development Board, Krishi Vigyan Kendra, State Agricultural and Veterinary Universities and State Department of Animal Husbandry. In addition, national and regional level extension services are also provided by private agencies, Dairy Cooperatives and NGOs (GOI, 2006). The plethora of studies (Ravikumar *et al.*, 2007; Jagadeeshwary, 2003 and Rajashree, 2000) [10, 3, 8] has indicated that State Department of Animal Husbandry and Veterinary Services are the main and primary provider of livestock services apart from other private and cooperative service providers. The government maintains a large public infrastructure on livestock services, but there are questions about the service utility and reach to the livestock producers (Planning Commission, 2007) [5]. A major challenge for delivery of livestock services in India is the provision of adequate services of an acceptable standard or quality. In this background, it was felt important to know the existing livestock service delivery systems availed by livestock owners.

Research Methodology

The study was conducted purposively in Udaipur district of Rajasthan. Out of 15 tehsils, four tehsils viz., Jhadol, Salumbar, Vallabhnagar and Mavli were selected purposely based on higher livestock population and different livestock service delivery systems like dairy cooperative societies, public and private livestock service delivery systems, private dairies, milk vendors, veterinary public health centers and other agencies.

In the next stage of sampling, three villages were selected randomly from each of the selected tehsils.

Thus, total 12 villages were selected for the study. From each village, 12 livestock owners availing the services of different livestock service providers were selected randomly. Thus, total 144 respondents were selected for the present study. The data were collected through structured interview schedule from the respondents. The collected data were tabulated and analyzed by using appropriate statistical appropriate tools. To identify the existing livestock service delivery system availed by livestock owners.

Results and Discussions

1. Existing livestock service delivery systems availed by livestock owners

This part of the investigation deals with the various existing livestock service delivery systems from which the respondents availed the health and production services on scientific livestock farming. Total eight service delivery systems namely dairy cooperatives, private integrators, public departments, private vets, paravets, educational institutes, pharmacies and others were included for the present investigation. In order to have an insight about the service gaps, it is imperative to examine the present status of livestock services delivery availed by the respondents.

1.1 Dairy cooperatives

On account of the livestock health services, the outcome in the Table 1 demonstrates that among the aggregate respondents, 88.89 per cent, 74.60 per cent and 69.84 per cent of the livestock owners received the preventive services, curative services and veterinary pharmaceutical services, respectively from the dairy cooperatives. Despite of this, the respondents reported that the health services offered by the dairy cooperatives were not accessible on everyday as the doctor visit on the schedule once in a week and respond to the emergency cases as and when required on-call basis. Additionally, among the production services, 88.89 per cent and 80.95 per cent of livestock owners reported that they received the services like supply of concentrate feed and mineral mixture and other supplements, respectively from the dairy cooperatives. In a few regions, the cooperatives were providing concentrate feed for their members produced from their feed plants while in other places it was organized from the local merchants, but it is reported that such facilities are not available to all the respondents. A notable percentage (57.14% and 55.56%) of the livestock owners received the A.I. services and the training and extension services from the dairy cooperatives, respectively. The A.I. services were provided by the trained inseminators or secretary of dairy cooperatives who have been trained for this purpose. It was observed that the training and extension programme is arranged once in a week and the members reported that communication regarding organization of such programmes was not conveyed properly by the co-operative officials. A sizeable percentage of the respondents received the supply of fodder seeds and slips (38.09%) and insurance services (33.34%) offered by the co-operatives. The insurance facility is arranged by the dairy cooperative and the premium charge was deducted from the milk price paid weekly by the cooperative society. But this practice is followed only to a limited extent in all the dairy cooperatives in the study area. Besides of this, the livestock owners were given hands-on training regarding scientific cattle management, fodder

cultivation and clean milk production by the officials in the milk union. Only a small percentage of the livestock owners were getting the advantages of marketing services (23.81%) credit facilities (20.63%) from the dairy cooperatives. The present findings are in line with the findings of Singodia *et al.* (2019) [11].

1.2 Private integrators

From the table 1, it is apparent that a greater majority (80%, 77.14% and 65.71%) of the respondents availed the health services namely provision of veterinary pharmaceuticals, curative services and preventive services offered by the private integrators in the study area. As communicated by the respondents, adequate veterinary officers were not accessible with the integrators to attend the consistent cases and henceforth they have a tendency to go to the emergency cases only. Subsequently the owners need to depend on others sources like private vets and para-vets for their health service needs. A moderate number (65.71%) and an extensive number (51.43%) of the livestock owners received the A.I. services and concentrate feed supplied by the private integrators, respectively. However, it was accounted that integrators had selected trained inseminated to take care of the A.I. services, their service was minimum utilized because of poor response and their non-availability at the required time. A sizeable number of the livestock owners (31.43%) in the study area received the benefits of training and extension services provided by the private integrators. The extension activities were conducted to educate the livestock owners regarding the scientific management and rearing of animals. A lesser number of the livestock owners received the supply of fodder seeds and slips and marketing services (22.86% each), supply of mineral mixture and other supplements (17.14%) and the services of livestock insurance (11.43%) from the private integrators. A very small number of the livestock owners (5.71%) received the credit facilities from the private integrators. The present findings of the study are similar to those of Rathod *et al.* (2014) [9].

1.3 Public departments

With respect to various livestock health and production services delivered by the public departments as presented in Table 1, it was noted that a fairly good number of livestock owners 72.92 per cent and 55.56 per cent availed the preventive and curative services from the public departments, respectively and slightly higher than half (52.78%) of the respondents received the veterinary pharmaceutical services from the public departments. Public departments were providing the health services through veterinary hospitals, veterinary dispensaries and sub-centres situated in almost all areas which works consistently for 8 a.m. to 12 p.m. and 3 p.m. to 5 p.m. Further, 40.97 per cent of the respondents availed the A.I. services and 36.81 per cent of the respondents benefitted the training and extension services on scientific livestock farming by the public departments. While, a concise proportion of the livestock owners (15.97%) benefited the livestock insurance services by the public departments. It was followed by the livestock services *viz.*, supply of mineral mixture and other supplements (9.72%), marketing services (4.82%) and supply of fodder seed and slips (2.78%) received to livestock owners by the public departments in the study area, respectively. The public departments organize health camps in all the villages which are funded by the state government, covers treatment of animals for health and

reproductive problems, vaccination and deworming and furthermore. Cattle and craft shows are also organized and the best animal are awarded with first rank to motivate the livestock owners to adopt the best management practices of livestock farming. Additionally, the department was giving insurance facilities to the selected respondents and subsidy was given on their premium charges which are funded by the government. The livestock owners were additionally furnished with smaller than normal unit for the advancement and seeds and slips for high yielding assortments by the department officials. The present findings are similar to the results of Joshi (2017) [4].

1.4 Private vets

It is visualized clearly from the table 1, that a larger section (11.81%, 10.42% and 9.03% of the livestock owners were availing the curative, preventive and veterinary pharmaceutical services from the private vets in the study area, respectively. A little mass of the livestock owners (7.64%) was getting the supply of mineral mixture and other supplements from the private vets and merely 1.39 per cent of respondents were receiving the A.I. services by the private vets in the region. It was because to the factor that the livestock owners were not able to take the animals to the nearest hospital during illness and the health services of both the cooperative and integrators were not available at the appropriate time, so they need to depend on the services of private vets even though the services are more expensive than other agencies. Apart from health services, the private vets were giving A.I. services to the respondents however, it was accounted that their service was not accessible all through the study area uniformly. A portion of the private vets used to give the supplement to the respondents required for their

animals either free of cost and cost ground. The present results are in line with the results of Singodia *et al.* (2019) [11].

1.5 Para vets

With respect to various livestock services rendered by the para vets as presented in Table 1, it was found that a significantly good number of livestock owners in the study area availed A.I. services (84.03%) and preventive services (71.53%) by the para vets. It was followed by the curative services (50%) and veterinary pharmaceutical services (48.61%) as profited by the livestock owners in the research area. The service of the para-vets was favoured alongside the private vets due to the way that they were quickly accessible to the customers when required and the greater part of them were neighborhood people thus they had the validity among their clients and expenses charged by them was less as compared to that of private vets. Interestingly, 84.03 per cent of the livestock owners utilized the A.I. services from the para-vets which is the noteworthy for any agency from which the A.I. service was profited. Further, only a little percentage of livestock owners (3.47%) received the supply of mineral mixture and other supplements. The present findings are in accordance with the findings of Deekshit *et al.* (2017) [1].

1.6 Educational Institutes

The veterinary college, livestock research station and Krishi Vigyan Kendra situated in the study area were providing the needs of the livestock owners in term of providing the owners necessary vital information on fodder seed and slips, mineral mixture, mineral blocks and furthermore, they were giving training and extension services both on the campus and off the campus by means of organising veterinary health camps, animal fairs, field and farm visits, etc.

Table 1: Livestock services availed from different livestock service delivery systems

| S. No. | Type of Services | Dairy Cooperatives | | Private Integrators | | Public Departments | | Private Vets | | Para vets | | Educational Institutes | | Pharmacies | | Other Sources | |
|--------|-------------------------------------------------|--------------------|-------|---------------------|-------|--------------------|-------|--------------|-------|-----------|-------|------------------------|-------|------------|-------|---------------|-------|
| | | n = 63 | | n = 35 | | n = 144 | | n = 144 | | n = 144 | | n = 144 | | n = 144 | | n = 144 | |
| | | f | % | f | % | f | % | f | % | f | % | F | % | f | % | f | % |
| 1. | Curative Services | 47 | 74.60 | 27 | 77.14 | 80 | 55.56 | 17 | 11.81 | 72 | 50.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 2. | Preventive Services | 56 | 88.89 | 23 | 65.71 | 105 | 72.92 | 15 | 10.42 | 103 | 71.53 | 5 | 3.47 | 14 | 9.72 | 0 | 0.00 |
| 3. | Provision of Veterinary Pharmaceuticals | 44 | 69.84 | 28 | 80.00 | 76 | 52.78 | 13 | 9.03 | 70 | 48.61 | 2 | 1.39 | 126 | 87.50 | 0 | 0.00 |
| 4. | Supply of Fodder Seeds and Slips | 24 | 38.09 | 8 | 22.86 | 4 | 2.78 | 0 | 0.00 | 0 | 0.00 | 21 | 14.58 | 0 | 0.00 | 55 | 38.19 |
| 5. | Supply of Concentrate Feed | 56 | 88.89 | 18 | 51.43 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 83 | 57.64 |
| 6. | Supply of Mineral Mixture and Other Supplements | 51 | 80.95 | 6 | 17.14 | 14 | 9.72 | 11 | 7.64 | 5 | 3.47 | 09 | 6.25 | 77 | 53.47 | 0 | 0.00 |
| 7. | Credit Facilities | 13 | 20.63 | 2 | 5.71 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 29 | 20.14 |
| 8. | Insurance | 21 | 33.34 | 4 | 11.43 | 23 | 15.97 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 9. | A.I. Services | 36 | 57.14 | 23 | 65.71 | 59 | 40.97 | 2 | 1.39 | 121 | 84.03 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| 10. | Training and Extension Services | 35 | 55.56 | 11 | 31.43 | 53 | 36.81 | 0 | 0.00 | 0 | 0.00 | 15 | 10.42 | 0 | 0.00 | 0 | 0.00 |
| 11. | Marketing Services | 15 | 23.81 | 08 | 22.86 | 07 | 4.86 | 0 | 0.00 | 0 | 0.00 | 11 | 7.64 | 0 | 0.00 | 21 | 14.59 |

It can be summarised from the Table 1 that a compact percentage of the livestock owners interviewed (14.58% and 10.42%) had benefited the services 'supply of fodder seeds and slips' and 'training and extension services' by the educational institutions, respectively. It was followed by the marketing services (7.64%) and the supply of mineral mixture and other supplements services (6.25%) as benefited by the livestock owners in the research area. Only a pitiful level of the respondents (3.47%) availed the preventive services and the lesser percentage of the livestock owners (1.39%) received the veterinary pharmaceutical services from the

educational institutes located in the Udaipur region. This may be because of the absence of vicinity of the study area to the institutes. The similar findings were reported by Deekshit *et al.* (2017) [1].

1.7 Pharmacies

A great majority of the livestock owners (87.50%) have benefited the service of pharmacies for the provision of veterinary pharmaceutical. More than half of the respondents (53.47%) received the mineral mixture and other supplement provided by the pharmacies while a little number of the

livestock owners (9.72%) profited the preventive services from the nearby veterinary pharmacies in the study area. This may be because of the way that pharmacies are the fundamental source in the study area to give the needed veterinary medicines as and when required. The study findings are in agreement with the findings of Deekshit *et al.* (2017) [1].

1.8 Other sources

With respect to the livestock services delivered by the other than the aforementioned sources as presented in Table 1, it was noted that the greater part of the livestock owners (57.64%) availed the supply of concentrate cattle feed from the commercial cattle feed agencies in the local area. A sizeable number (38.19%) of the livestock owners benefited the supply of fodder seeds and slips from the neighboring owners. This may be because of the common advantage offered and picked up by the fellow owners. A lesser proportion of the respondents (20.14% and 14.59%) received the credit facilities and marketing services from various commercial and cooperative banks and local merchants situated in the territory of the livestock owners. The present findings are similar with the findings of Deekshit *et al.* (2017) [1].

Summery and Conclusion

The study was found that with highest weighted mean scores, the public departments were positioned first in providing insurance (294.28), A.I. services (291.43), curative services (290.69), provision of veterinary pharmaceuticals (284.87) and preventive services (283.09) in supplying of mineral mixture and other supplements (272.86) round the year. Further, all the services were rendered by the public departments to the livestock owners either free of cost or charging a minimum cost which made it more effective.

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