

Livestock Service Delivery in Andhra Pradesh- Status and Perspectives

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ABSTRACT

A study was undertaken to analyze the institutional network and qualified human resource availability to assess the extent of knowledge and perception of dairy farmers on service delivery systems in purposively selected Vizianagaram, Krishna and Chittoor districts of Andhra Pradesh state. Four villages from each district and 10 dairy farmers from each village were selected through simple random sampling technique, thus to form a sample size of 120. The data collected from respondents revealed that there was surplus number of veterinary institutes viz., 21.66, 41.36 and 1.24 per cent in Vizianagaram, Krishna and Chittoor districts respectively. The farmers had medium level (40.84%) of knowledge and majority (65.83%) of the dairy farmers had perceived that the service delivery systems were appropriate. Sufficient measures may be taken to improve the knowledge of dairy farmers about service delivery systems as well as to improve the quality and accessibility of services to livestock farmers.

Key words: Service delivery systems; Institutional network; Human resource availability; Perception; Dairy farmers;

In India, livestock sector holds not only a significant position in catering the nutritional needs of people but also acts as a major livelihood option for rural households. It could be further cemented by the fact that its contribution is nearly 4.11%, which is about 21.58% of agriculture-GDP (Livestock Census, 2012) and dairy sector is a major contributor of this drive. Quality in livestock services forms the basis for sustainable development of dairy sector. In addition to increasing needs of dairy farmers, the influx of educated and entrepreneurially sensitive youth into the sector has revived the sublimed issue of timely and qualitative services. As a result, livestock service delivery has continuously undergone transformation to assume the current form after going through several transformations. Changes have been the result of larger development related to national food security, economy and changed human needs; mechanization of agriculture; shift in rearing patterns towards commercial operations; increased rearing of companion animals and changing animal protein consumption pattern etc.

Over a period of time, many new stakeholders entered this sector to serve the service needs of farmers. Though every Indian state has a number of organizations for the development of livestock sector (Rao *et.al.*, 2015), the Animal Husbandry Department (AHD) at the state level with its huge infrastructure and clear mandate of treatment of animals is the major stake holder (Chander *et.al.*, 2010) as far as livestock development is concerned. The livestock service delivery by dairy cooperatives in developing countries is getting attention during the past decade since they are very helpful in overcoming access barriers to assets, information, services and the markets for small-holders (Rathod *et.al.*, 2011; Nishi *et.al.*, 2011). Though private veterinary practice is slowly making predominant entry, it is mainly limited to commercial holdings and pet animals in metropolitan cities and not made its strides into rural area.

Andhra Pradesh state has built a strong and well structured network of institutes under AHD (Animal Husbandry Department) and APLDA (Andhra Pradesh

Livestock Development Agency) for livestock services. AHD has 3130 institutes comprising of 2 Super Speciality Veterinary Hospitals (SSVHs), 13 Veterinary Polyclinics (VPCs), 179 Veterinary Hospitals (VHs), 1428 Veterinary Dispensaries (VDs) and 1508 Rural Livestock Units (RLUs) whereas APLDA mandated to provide the quality breeding services, had a network of 2603 centers for artificial insemination services. So, in the present context of growing importance for the livestock sector and increasing demand for quality in livestock services under public sector, budgetary constraints have warranted the in-depth evaluation of farmers' perception regarding service delivery. Hence, this particular study was carried out in Andhra Pradesh to analyze the institutional network and qualified human resource availability under AHD and to assess dairy farmers' knowledge and perception regarding present livestock services.

METHODOLOGY

Ex-post-facto and exploratory research designs were adopted to analyze the institutional network as well as qualified human resource availability under AHD and to assess the farmers knowledge and perception regarding the present livestock services. Vizianagaram, Krishna and Chittoor districts of Andhra Pradesh state were purposively selected. Four villages from each

district and 10 dairy farmers from each village were selected through simple random sampling technique, thus to form a sample size of 120. The secondary data for analysis of institutional framework and qualified human resource availability for livestock service delivery in the study area was collected from AHD reports. The indices to measure knowledge and perception were prepared by consulting subject experts and accordingly statements were incorporated in interview schedule and to carry out analysis, useful statistical tools were employed.

RESULTS AND DISCUSSION

Institutional framework for livestock service delivery and qualified human resource availability in the study area: Table 1 shows the institutional framework with a total of 157, 324 and 324 veterinary institutes and human resource availability with 61, 99 and 134 Veterinary Assistant Surgeons in the selected Vizianagaram, Krishna and Chittoor districts respectively. An in depth analysis indicates that on an average 3906, 2960 and 4925 cattle units were covered by institutes in the 3 districts and thus, the number of institutes in access compared to the NCA recommendations of 5000 cattle units/veterinarian (NCA, 1976). It also revealed that there was 21.66%, 41.36% and 1.24% surplus number of veterinary institutes in the respective districts.

On the other hand, qualified veterinarians meant

Table 1: Institutional network and Qualified Human resource availability in study area and distribution of cattle units among them

Particulars	Vizianagam District	Krishna District	Chittoor District
Super Speciality Veterinary Hospitals	0	1	0
Veterinary Polyclinics	1	1	1
Veterinary Hospitals	11	17	15
Veterinary Dispensaries	69	114	135
Rural Livestock Units	74	190	171
Mobile Veterinary clinics	2	1	2
Total	157	324	324
Livestock population (Cattle units)	613241.7	958977.7	1595535
Cattle units/Institute	3906	2960	4925
Required number of Institutes	123	192	320
Surplus	+34 (21.66%)	+132 (41.36%)	+4 (1.24%)
<i>Qualified Human resource availability</i>			
Veterinary Assistant Surgeons	61	99	134
Cattle units/VAS	10053.1	9686.6	11906.9
Required number of VAS	123	192	320
Gap/Shortage of VAS	62	93	186

for delivering effective services were in shortage. It was found to be 62, 93 and 186 veterinarians less than requirement respectively in the Vizianagaram, Krishna and Chittoor districts. However, it also indicated the presence of nearly 50% institutes as rural livestock units headed by para-veterinarians warranting the immediate up gradation of rural livestock units to veterinary dispensaries headed by veterinarians for quality services. *Extent of Knowledge of dairy farmers regarding service delivery systems* : The extent of knowledge of dairy farmers on service delivery systems would stand as an important requisite to understand the perception for appraisal. In this context, Table 2 indicates the extent of knowledge of dairy farmers on service delivery systems in Andhra Pradesh as such majority (40.84%) having medium level of knowledge followed by high (30.83%) and low (28.33%) levels on various services provided.

Table 2: Distribution of respondents according to Extent of Knowledge on Service delivery systems

Category	No.	%
Low	34	28.33
Medium	49	40.84
High	37	30.83

Table 3: Distribution of respondents according to Perception on Service delivery systems

Category	No.	%
Low	24	20.00
Medium	79	65.83
High	17	14.17

Farmers' perception on service delivery systems and its relationship with independent variables: From Table 3, it can be observed that majority of the respondents have medium level of perception on service delivery systems (65.83%) followed by low (20.00%) and high (14.17%) levels respectively. This trend might be revealing the fact that farmers were inclined towards the services provided by various veterinary institutes rather than the individuals who were bound to specified

Table 4: Relationship between perception of the respondents and independent variables on Service delivery systems

Independent variable	Correlation coefficient (r)
Age	0.055 ^{NS}
Gender	-0.085 ^{NS}
Social status	-0.133 ^{NS}
Education	-0.007 ^{NS}
Land holding	-0.082 ^{NS}
Herd size	-0.010 ^{NS}
Experience in dairy farming	-0.119 ^{NS}
Material possession	0.031 ^{NS}
Mass media exposure	0.071 ^{NS}
Information seeking behaviour	0.480 ^{**}
Extension contact	0.047 ^{NS}
Extent of knowledge	0.463 ^{**}
Innovativeness	0.506 ^{**}
Economic orientation	0.073 ^{NS}
Scientific orientation	0.104 ^{NS}
Management orientation	-0.297 ^{**}
Risk orientation	0.443 ^{**}

service mandate. Medium level of perception about present services indicate the vast scope available for improvement as pointed out similarly by Channappagouda (2009).

From Table 4, it could be depicted that information seeking behavior, extent of knowledge, innovativeness and risk orientation had a positive and significant relationship with farmers' which were not in line with Rathod *et.al.*, (2014).

CONCLUSION

The correlation of farmers' perception towards service delivery systems with information seeking behavior, extension contact, extent of knowledge and innovativeness had suggested that sufficient measures must be taken to improve the knowledge of dairy farmers regarding the services provided and at the same time, steps should be taken to improve the quality and accessibility of services through man-power recruitment and other cost validation measures.

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