

Animal Husbandry Extension Service Delivery: Farmers' Perception in Four Major Indian States

M. A. Kareem¹, S. S. Phand², P. L. Manohari² and M. Borade⁴

Abstract

The present study was conducted to analyze farmers' perception on the effectiveness of animal husbandry extension services delivery in four major Indian states viz., Karnataka, Maharashtra, Odisha and Uttar Pradesh. Purposive sampling technique was used for the sample selection. A questionnaire was used to elicit information from 80 sample respondents. Data were analyzed using descriptive statistics such as mean, frequency counts, percentages, standard deviation and Kruskal-Wallis test. Results showed that majority of the farmers (48.75 per cent) belonged to middle age group with more than 20 years of experience (41.25 per cent) and majority (91.25 per cent) of the interviewed were full-time farmers in the small farmer (35 per cent) category with 1.1 to 2.0 ha land. With regards to extension contact, the cumulative frequency indicates that animal husbandry officer is the most contacted person as he/she is in touch with farmers in the service area. Thirty-nine practices scaled by 20 farmers from each state on a three-point continuum scale reveal that majority of the farmers were moderately satisfied with the services of animal husbandry officers, with farmers in Maharashtra state being more satisfied followed by Karnataka, Uttar Pradesh and Odisha. Based on the study findings it is concluded that for animal husbandry extension to be efficient, effective and visible, there needs to be more integration among the extension personnel of agriculture and allied sectors. The study recommends a review of extension methods perceived to be non-effective or slightly effective and collaboration among the stakeholders for strong extension services. It will be imperative to ensure that methods considered to be effective are mainly used to deliver extension messages.

Keywords: Extension Service Delivery, Animal Husbandry, Farmers' Perception.

Introduction

Agriculture plays a vital role in India's economy. Over 58 per cent of the rural households depend on agriculture as their principal means of livelihood.

¹Deputy Director & Head, Extension in Agri-Allied Sectors (EAAS), MANAGE, Hyderabad.

Email: makareem@manage.gov.in

²Assistant Director, EAAS, MANAGE, Hyderabad.

³Assistant Director, MANAGE, Hyderabad.

⁴Senior Research Fellow, EAAS, MANAGE, Hyderabad.

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Agriculture, along with animal husbandry, fisheries and forestry, is one of the largest contributors to the Gross Domestic Product (GDP). The share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) is expected to be 17.3 per cent of the Gross Value Added (GVA) during 2016-17 at 2011-12 prices (Central Statistics Office). The extension approaches and services followed by the service providers, mainly institutions of State Department of Agriculture, have resulted in wider spread of modern technologies and increase of agricultural production worldwide.

The delivery of allied sector extension services, particularly animal husbandry services is an important emerging area due to increasing demand for livestock and its products for enhancing and optimizing livestock production and management. In 2005, the National Sample Survey Organization (NSSO) revealed that only 5 per cent of farm households access any information on animal husbandry against 40.1 per cent farm households accessing information on crops. Moreover, a plethora of studies (Shweta, 2014; CALPI, 2008; Ravikumar *et al.*, 2007) have indicated that the State Department of Animal Husbandry is the major service provider for livestock farmers, apart from other private agencies, dairy cooperatives and NGOs which function at the regional level. However, it has been repeatedly observed by the researchers that the extension component in animal husbandry is generally found weak.

In this context, it is necessary to explore the reasons for the weakness of extension component in allied sectors. MANAGE, Hyderabad planned an in-depth study for the “Analysis of Extension Approaches in the Allied Sector Departments”. The study has been conducted in four major Indian states *viz.*, Uttar Pradesh, Odisha, Maharashtra and Karnataka. These states as well as the districts in these states wherein all the allied sectors *viz.*, animal husbandry, horticulture, sericulture and fisheries were present and operational were selected purposively. A total of 480 respondents (240 Government Officers and 240 Farmers) were selected from two districts of each state (Table 1). The details of sampling are as follows:

Table 1. Selection of Respondents

State		Uttar Pradesh				Odisha				Maharashtra				Karnataka			
District		Basti		Faizabad		Sonepur		Bargarh		Ahmednagar		Aurangabad		Kolar		Chikkaballapur	
Respondents		O	F	O	F	O	F	O	F	O	F	O	F	O	F	O	F
Department	Animal Husbandry	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Horticulture	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Sericulture	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05
	Fisheries	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05	05
Total		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Gross Total		480															

Note: O=Officers, F=Farmers, Total Sample Size=480(240 Officers + 240 Farmers)

In view of the immenseness of research, it is difficult to discuss all the research findings in a single research paper comprehensively. One of the specific objectives of the research was to determine farmers' perception of delivery of extension services by the allied sector departments *i.e.*, Animal Husbandry, Sericulture, Horticulture and Fisheries in four study states. In the present paper, "perception of farmers of all four states with respect to effectiveness of the animal husbandry extension service delivery" is discussed. The total sample size of the study is 80 farmers who are practising animal husbandry.

Perception of Farmers towards Animal Husbandry Extension Services

Perception is the feeling of individuals towards the services offered by the service provider. In this investigation, perception towards extension services offered by the State department of animal husbandry staff is expressed through 'agreement-disagreement' on item statements of the perception schedule. Understanding of their perceptions helps in strengthening the capacities of staff of the department of animal husbandry through proper training. The farmers' perception is measured in terms of Rank Based Quotient (RBQ) value, which denotes satisfaction level of the farmers towards extension services.

(RBQ) Value computation for satisfaction level of farmers

$$RBQ = \sum_{i=1}^n \frac{fi (n+1-i) \times 100}{N \times n}$$

- i = Concerned rank (1 to 3 ranks of the problem) and rank value is the reverse of the ranks
- N = Total number of farmers (20 farmer respondents)
- n = Number of practices in each enterprise ranks (n =3),
- fi = Number of farmers reporting the satisfaction level on that particular item of the enterprise like animal husbandry, sericulture, fisheries & horticulture as highly satisfied, moderately satisfied and somewhat satisfied.

The problem having the highest RBQ value indicates the perception of summated satisfaction level by respondent farmers.

Objectives

1. To study farmers' perception of usefulness of services offered by the animal husbandry officers;
2. To know farmers' perception of satisfaction with respect to services offered by the animal husbandry officers; and
3. To provide suggestions for improvement of services offered by the animal husbandry officers.

Methodology

The study was conducted in four states, namely, Karnataka, Maharashtra, Odisha and Uttar Pradesh. From each state two neighbouring districts were selected purposively with a simple criterion that all the four allied sector departments *viz.*, animal husbandry, sericulture, horticulture and fisheries were present in the district. Further 10 respondents were selected from each district using purposive and simple random sampling methods. The sample size of each state (from two districts) was 20. Hence, the total sample size from all the four states was 80.

Data Collection Tool

Taking into consideration the scope and objectives of the study, a draft interview schedule was prepared after perusal of available literature and through consultation with experts in the field of extension education and other related fields. After incorporating their suggestions, a well-structured interview schedule was finalized in English and translated into Hindi, Marathi, Kannada and Oriya languages for collecting data from the farmers.

Statistical Analysis

The data collected from the farmers were scored, tabulated and analysed using suitable statistical methods. The statistical analysis was done using SPSS (Statistical Package for Social Sciences). Keeping in view the objectives of the study and amenability, the data were subjected to different statistical tools. These tools included frequency, percentages, mean, standard deviation, and Kruskal-Wallis test. The other statistical tools like correlation coefficient were also used in analysing the data.

Results and Discussion

Socio Economic Profile

Table 2 shows that Odisha state has more number of young farmers (35 per cent) while Karnataka state has more number of old farmers (65 per cent). Nearly half of the farmers (45 per cent) of Maharashtra and Uttar Pradesh have completed high school education. The findings are in line with Nishi *et al.*, (2011). Karnataka state was found with more experienced farmers among the four states. On an average 91 per cent respondents of all four states said that agriculture was their primary occupation. Similar findings were reported by Rathod *et. al* (2014). As far as landholding is concerned, the number of marginal farmers was more in Karnataka state while Maharashtra had the highest number of large farmers.

Table 2. Socio-personal Variables of Animal Husbandry Farmers (n=80)

S. No.	Socio-personal variable	Maharashtra	Odisha	Karnataka	Uttar Pradesh
		f / %	f / %	f / %	f / %
A		Age			
1	Young (up to 35 years)	6 (30)	7 (35)	2 (10)	4 (20)
2	Middle (36-45 years)	7 (35)	4 (20)	5 (25)	6 (30)
3	Old (> 45 years)	7 (35)	9 (45)	13 (65)	10 (50)
B Education					
1	Illiterate	0 (0)	4 (20)	3 (15)	3 (15)
2	Primary school	3 (15)	1 (5)	6 (30)	1 (5)
3	Middle school	3 (15)	0 (0)	8 (40)	2 (10)
4	High school	9 (45)	5 (25)	3 (15)	9 (45)
5	12 th	1 (5)	7 (35)	0 (0)	1 (5)
6	College	4 (20)	3 (15)	0 (0)	4 (20)
C Experience					
1	0-10 years	7 (35)	8 (40)	3 (15)	5 (25)
2	11-20 years	7 (35)	4 (20)	6 (30)	7 (35)
3	> 20 years	6 (30)	8 (40)	11 (55)	8 (40)

D Occupation

1	Full-time farmer	18 (90)	17 (85)	20 (100)	18 (90)
2	Farming +other	2 (10)	3 (15)	0 (0)	2 (10)

E Size of landholding

1	Landless	0 (0)	1 (5)	0 (0)	0 (0)
2	Marginal (0.1-1.0 ha)	0 (0)	2 (10)	13 (65)	9 (45)
3	Small (1.1-2.0 ha)	6 (30)	7 (35)	6 (30)	9 (45)
4	Semi-medium (2.1-4.0 ha)	8 (40)	6 (30)	1 (5)	1 (5)
5	Medium (4.1-10.0 ha)	2 (10)	4 (20)	0 (0)	1 (5)
6	Large (>10 ha)	4 (20)	0 (0)	0 (0)	0 (0)

Utilization of Information Sources by Livestock Farmers

With regard to utilization of information sources, the cumulative frequency indicates that farmers contacted the animal husbandry officer ‘Occasionally’ (Figure 1). National Sample Survey Organization (NSSO) in 2005 revealed that progressive farmers were the most used information source by the farmers.

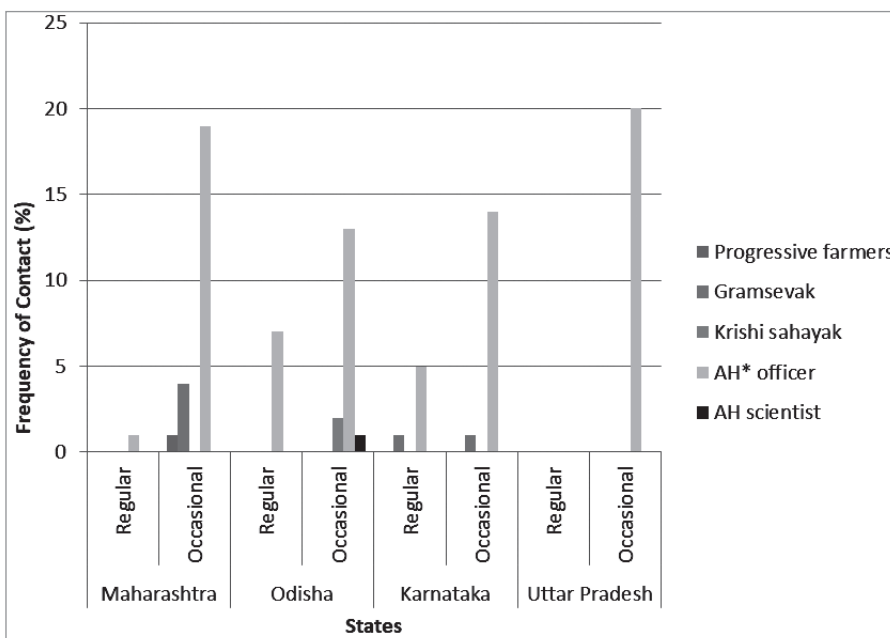


Figure 1 : Utilization of Information Sources by Livestock Farmers

Farmers’ perception of satisfaction with reference to services offered

The farmers’ perception with reference to the services offered viz., breeding, feeding, healthcare, management and extension activities by animal husbandry officers is presented in Table 3.

Almost 75 per cent farmers from Maharashtra were moderately satisfied with the breeding services like heat detection and AI (Artificial Insemination). In case of pregnancy diagnosis 65 per cent of the farmers and in treatment of reproductive disorders 55 per cent of the farmers were somewhat satisfied. It is observed that the animal husbandry officers in Maharashtra are not doing follow-up after providing AI services to the farmers. In Odisha, animal husbandry officers fare very poor in providing breeding services, as indicated by the farmers' perception wherein the majority are somewhat satisfied with heat detection (50 per cent), AI (60 per cent), pregnancy diagnosis (80 per cent) and treatment of reproductive disorders (70 per cent). Farmers in Karnataka show almost the same trend like Maharashtra farmers, wherein the majority are moderately satisfied with heat detection and AI, while with pregnancy diagnosis (55 per cent) and treatment and diagnosis of reproductive disorders (50 per cent) they are somewhat satisfied. Uttar Pradesh farmers show similar trend like Maharashtra and Karnataka farmers.

Table 3. Satisfaction Level of Farmers with Respect to Services Offered by the Animal Husbandry Officers

S. No.	Particulars	Maharashtra			Odisha			Karnataka			Uttar Pradesh		
		HS <i>f</i> (%)	MS <i>f</i> (%)	SS <i>f</i> (%)	HS <i>f</i> (%)	MS <i>f</i> (%)	SS <i>f</i> (%)	HS <i>f</i> (%)	MS <i>f</i> (%)	SS <i>f</i> (%)	HS <i>f</i> (%)	MS <i>f</i> (%)	SS <i>f</i> (%)
I Breeding													
1	Heat detection	0 (0)	15 (75)	3 (15)	0 (0)	2 (10)	10 (50)	0 (0)	13 (65)	2 (10)	0 (0)	8 (40)	4 (20)
2	Artificial Insemination (AI)	0 (0)	15 (75)	5 (25)	2 (10)	2 (10)	12 (60)	0 (0)	17 (85)	3 (15)	0 (0)	14 (70)	6 (30)
3	Pregnancy diagnosis	2 (10)	5 (25)	13 (65)	1 (5)	3 (15)	16 (80)	0 (0)	6 (30)	11 (55)	1 (5)	5 (25)	14 (70)
4	Diagnosis and treatment of reproductive disorders	1 (5)	8 (40)	11 (55)	0 (0)	2 (10)	14 (70)	2 (10)	5 (25)	10 (50)	6 (30)	3 (15)	3 (15)

Note: HS=Highly Satisfied, MS=Moderately Satisfied, SS=Somewhat Satisfied

In all the four states none of the livestock farmers go for pasture rotation, conservation of grazing land or growing of legume crops. Twenty per cent of farmers in Maharashtra, 75 per cent in Karnataka and 25 per cent in Uttar Pradesh were somewhat satisfied with the balanced feed/concentrates while 60 per cent of Odisha farmers were moderately satisfied.

II Feeding

S. No.	Particulars	Maharashtra			Odisha			Karnataka			Uttar Pradesh		
		HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)
5	Pasture rotation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
6	Conservation of grazing lands	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
7	Recommended fodder material	0 (0)	1 (5)	1 (5)	1 (5)	1 (5)	5 (25)	0 (0)	1 (5)	2 (10)	0 (0)	2 (10)	1 (5)
8	Recommended growing of legume crops along with fodder crops	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
9	Balanced feed /concentrates	0 (0)	1 (5)	4 (20)	4 (20)	12 (60)	4 (20)	0 (0)	3 (15)	15 (75)	0 (0)	1 (5)	5 (25)
10	Storage of fodder	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)	2 (10)
11	Feed and fodder management to ruminants	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	7 (35)	0 (0)	0 (0)	2 (10)

None of the farmers were aware of the control measures for diseases and skills for controlling an outbreak in all the four states. Majority of farmers from Maharashtra (65 per cent), Karnataka (50 per cent) and Uttar Pradesh (50 per cent) were somewhat satisfied with vaccination, while 75 per cent of Odisha farmers were moderately satisfied.

III Health

Sl. No.	Particulars	Maharashtra			Odisha			Karnataka			Uttar Pradesh		
		HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)	HS f (%)	MS f (%)	SS f (%)
12	Control measures for diseases	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
13	Vaccination	2 (10)	5 (25)	13 (65)	0 (0)	15 (75)	5 (25)	5 (25)	5 (25)	10 (50)	5 (25)	5 (25)	10 (50)
14	Recommend skills in case of outbreak of diseases	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
15	Maintenance of hygiene conditions	0 (0)	9 (45)	1 (5)	0 (0)	2 (10)	5 (25)	0 (0)	4 (20)	9 (45)	0 (0)	4 (20)	4 (20)
16	Information on disinfectants	0 (0)	4 (20)	0 (0)	0 (0)	0 (0)	4 (20)	0 (0)	3 (15)	6 (30)	0 (0)	4 (20)	1 (5)
17	First aid	0 (0)	13 (65)	3 (15)	0 (0)	2 (10)	3 (15)	0 (0)	9 (45)	8 (40)	0 (0)	7 (35)	9 (45)
18	Information on deworming	1 (5)	18 (90)	1 (5)	2 (10)	8 (40)	10 (50)	0 (0)	15 (75)	5 (25)	0 (0)	8 (40)	12 (60)
19	Organize health camps	1 (5)	15 (75)	4 (20)	0 (0)	3 (15)	6 (30)	5 (25)	7 (35)	8 (40)	1 (5)	3 (15)	16 (80)

Almost none of the farmers from all the four states were aware about the construction of shelter house, information on sale and purchase of animals and information related to marketing, value addition and safe disposal of dead animals. Majority of farmers in Maharashtra (65 per cent), Odisha (70 per cent), Karnataka (80 per cent) and Uttar Pradesh (40 per cent) were somewhat satisfied with clean milking techniques.

IV Management

S. No.	Particulars	Maharashtra			Odisha			Karnataka			Uttar Pradesh		
		HS	MS	SS	HS	MS	SS	HS	MS	SS	HS	MS	SS
		f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)
20	Construction of shelter house	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
21	Clean milking techniques	0 (0)	0 (0)	13 (65)	0 (0)	2 (10)	14 (70)	0 (0)	0 (0)	16 (80)	0 (0)	0 (0)	8 (40)
22	Provide information on sale of animals	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
23	Provide information on purchase of an animal	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
24	Information related to marketing	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
25	Value addition	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
26	Safe disposal of dead animals	0 (0)	0 (0)	1 (5)	0 (0)	0 (0)	2 (10)	0 (0)	0 (0)	4 (20)	0 (0)	0 (0)	0 (0)

Majority (80 per cent) of farmers from Odisha were somewhat satisfied with the training programs while majority of farmers from the four states were somewhat satisfied with exposure visits and conduct of exhibitions by the animal husbandry department. Dissemination of information through literature and help in getting program benefits were the parameters that majority of farmers were somewhat satisfied with in the four sample states.

V Extension activities

Sl. No.	Particulars	Maharashtra			Odisha			Karnataka			Uttar Pradesh		
		HS	MS	SS	HS	MS	SS	HS	MS	SS	HS	MS	SS
		f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)
27	Training programs	0 (0)	1 (5)	0 (0)	2 (10)	2 (10)	16 (80)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (10)
28	Exposure visits	0 (0)	0 (0)	1 (5)	0 (0)	4 (20)	10 (50)	0 (0)	0 (0)	4 (20)	0 (0)	0 (0)	2 (10)
29	Conduct of Exhibitions	0 (0)	0 (0)	12 (60)	0 (0)	2 (10)	5 (25)	0 (0)	0 (0)	8 (40)	0 (0)	0 (0)	4 (20)

30	Demonstrations	0	0	1	0	0	3	0	0	0	0	0
		(0)	(0)	(5)	(0)	(0)	(15)	(0)	(0)	(0)	(0)	(0)
31	Campaigns	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
32	Organize farmer-scientific interaction	0	0	0	0	0	0	0	0	0	0	1
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(5)
33	Formation of groups	0	0	0	0	0	0	0	0	0	0	0
		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
34	Help in getting programme benefits	0	1	1	0	3	4	0	1	6	2	0
		(0)	(5)	(5)	(0)	(15)	(20)	(0)	(5)	(30)	(10)	(0)
35	Disseminate information through literature	0	0	3	0	3	8	0	0	9	0	0
		(0)	(0)	(15)	(0)	(15)	(40)	(0)	(0)	(45)	(0)	(0)
36	Getting loans from banks	0	0	0	0	1	2	0	0	0	0	0
		(0)	(0)	(0)	(0)	(5)	(10)	(0)	(0)	(0)	(0)	(0)
37	Insurance coverage	0	0	0	0	0	3	0	0	1	0	0
		(0)	(0)	(0)	(0)	(0)	(15)	(0)	(0)	(5)	(0)	(0)
38	Take feedback	0	2	14	1	3	9	0	2	16	0	0
		(0)	(10)	(70)	(5)	(15)	(45)	(0)	(10)	(80)	(0)	(0)
39	Maintain continuous communication contact	0	1	9	4	3	11	1	3	4	0	0
		(0)	(5)	(45)	(20)	(15)	(55)	(5)	(15)	(20)	(0)	(0)
	Overall satisfaction level (frequency) for all 39 services/ activities	7	114	103	17	72	196	13	95	164	10	66
	RBQ value		45.1			50.1			50.4			38.2
	% satisfaction level over 39 services/ activities and over 20 farmers	15	13	2	9	25	2	12	21	1	8	17

The RBQ values indicate Odisha and Karnataka, followed by Maharashtra and Uttar Pradesh. There is a lot of scope for Uttar Pradesh to improve its animal husbandry services.

Majority of the farmers believe that production is affected by the lack of animal husbandry services of the department and the standard of living of animal husbandry farmers has not improved significantly across the four states even after the intervention of the animal husbandry department.

VI Others

Particulars	Maharashtra		Odisha		Karnataka		Uttar Pradesh	
	Yes	No	Yes	No	Yes	No	Yes	No
1. Standard of living is improved with the services of department officials	2	18	5	15	4	16	3	17
2. Production is affected if the extension services are withdrawn	14	6	13	7	19	0	15	0
Total	16	24	18	22	23	16	18	17

Note: Not all the respondents have expressed their opinion on the services offered by the animal husbandry officers in four states. Therefore, the 'n' value is not consistent in different parameters like breeding, feeding, health, management and extension activities. This might be due to irrelevance of a particular service to the farmer or he/she might be unaware of the services.

Thirty-nine practices scaled by 20 farmers on a three-point continuum reveal that majority of the farmers were moderately satisfied with the services/ activities of animal husbandry officers with Maharashtra state being more satisfied followed by Karnataka, Uttar Pradesh and Odisha. The reason could be Maharashtra farmers are progressive and respond better to extension interventions.

Majority of the farmers in Maharashtra have expressed their opinion about moderate usefulness of animal husbandry department, while other states have given 'good' to 'very good' response (Fig.2). This indicates that there is scope in Maharashtra for its animal husbandry sector to cater to the higher expectations of the progressive farmers who look forward to higher returns and services and also have higher aspirations. It is therefore a challenge to satisfy the farmers of Maharashtra in the animal husbandry sector. Operative strategies and approaches are needed for effective implementation. The same challenge is true for other states as well and it does not call for complacency of services, rather positioning the services at a higher level of an aspiration is the need for the departments through convergence and other approaches of extension.

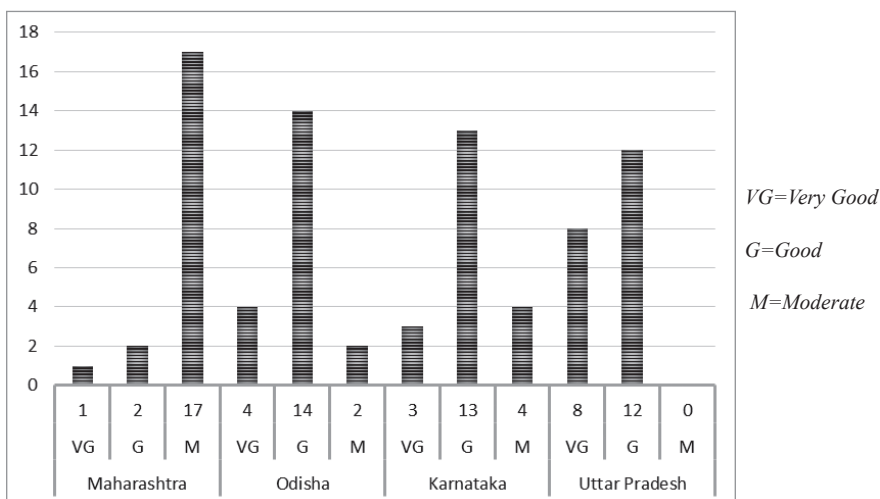


Figure 2. Perception of Farmers Regarding Overall Quality of Extension Services Offered by the Department

Suggestions for Improvement

Farmers from all the four states put forward their suggestions for improvement of the services provided by the respective animal husbandry department. Inadequate funds for infrastructure, programmes and schemes of the department were given first rank followed by intensive monitoring (2nd), flexibility to the implementing authority (3rd) and frequent and effective field visits (4th) as suggestions for improvement (Fig.3). Similar findings were reported by Mahesh Chander and Prakashkumar Rathod (2013) and Patil A.P *et al.* (2009).

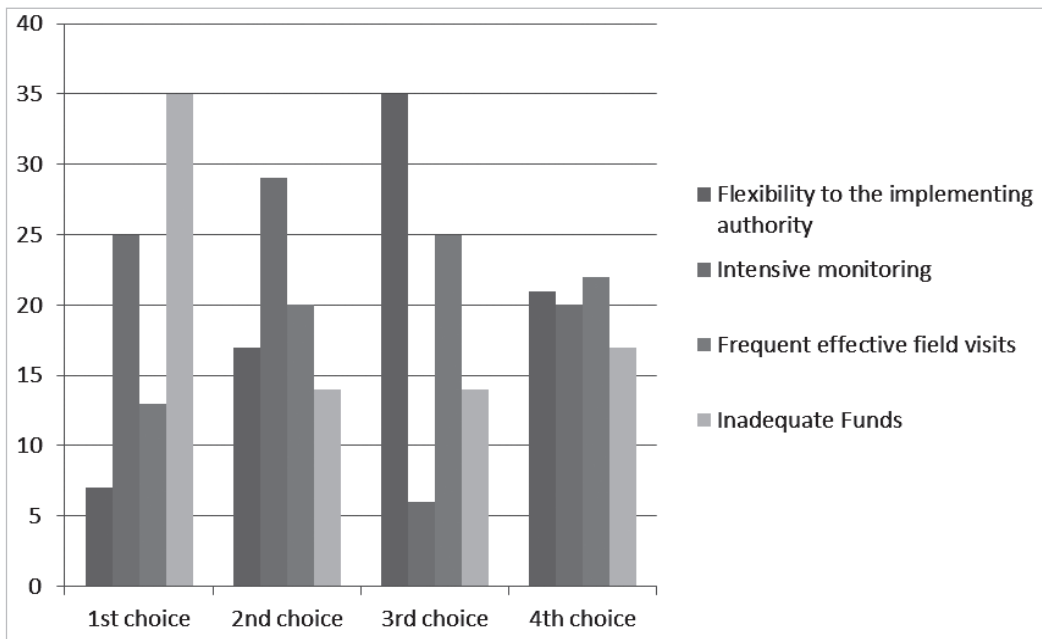


Figure 3. Suggestions for Improvement

Policy Implications and Conclusion

The study concludes that the state department of animal husbandry should pay adequate attention and streamline its animal husbandry extension service delivery with programmes, funds, infrastructure and human resources development initiatives in order to train the manpower and deliver the extension services to the farmers effectively. Providing adequate funds and intensive monitoring of the programmes and schemes will assure improvement in animal husbandry sector across states. Intensive monitoring and frequent and effective field visits will provide suggestions for improvement of extension service delivery in the animal husbandry sector.

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