
Role and Support of Animal Husbandry Programmes for the Promotion of Farmers in Kerala: A Study from Kasaragod

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Abstract: *The study examined the role and developmental support of animal husbandry programmes for the promotion of farmers in the rural areas of Kerala and revealed the dependence on their livelihood. Livestock includes cow, sheep, goat, buffalo and poultry. Majority of the farmers have only primary level education. Climate change, low availability of fodder and feed, disease and lack of veterinary services are the major problems. Absence of good access to market and unavailability of various incentives for improving the care and breeding of animals create lot of problems to farmers.*

Key Words: *Animal Husbandry, Role and Support, Programmes, Farmers, Kerala.*

Introduction

Animal husbandry is a branch of agriculture concerned with the care and management of livestock and deals with the feeding, breeding, housing and health care of them for getting maximum benefits. It includes day to day care, selective breeding and rising of livestock. The livestock sector has emerged as a vital sector ensuring a more inclusive and sustainable agriculture system.

Animal husbandry and agriculture are the backbone of Indian rural economy. The progress is linked with the advancement in these two sectors and scientific education of farmers and rural people (Karunakaran N, 2017). India occupies third position in the global production of eggs and sixth position in the global production of poultry. About 20.5 million people depend on livestock for their livelihood. Livestock contributed 16 percent to the income of small farm households as against an average of 14 percent for all rural

households. This sector contributed 4.11 percent GDP and 25.6 percent of total agricultural GDP.

India ranks first among the world's milk production since 1998, and has the largest cattle population. Milk production in India during 1950-51 to 2017-18 has increased from 17 million tonnes to 176.4 million tonnes as compared to 165.4 million tonnes during 2016-17 recording a growth of 6.65 percent. FAO reported 1.46 percent increase in world milk production from 800.2 million tonnes in 2016 to 811.9 million tonne in 2017. The per capita availability of milk in the country during 1950-51 was 130 gram per day increased to 371 gram per day in 2017-18 as against the world estimated average consumption of 294 grams per day during 2016-17. This represents sustained growth in the availability of milk and milk products.

Department of Animal Husbandry in Kerala came into existence in 1956. The major activities of the department includes veterinary services and animal health care, disease eradication programmes, cattle, goat, pig and poultry development programme, control of diseases, extension and training programme to farmers and veterinarians production of biological. At present, about 2638 institutions are functioning in the Animal Husbandry Department. Majority of livestock population in the state is concentrated in villages and agricultural labourers are engaged mostly in cattle rearing and allied activities (Avinash Kishore, 2016).

Livestock related interventions are found to be a successful strategy for poverty alleviation all over the world and large percentage of rural population depend on livestock rearing to earn their livelihood (Jaya Jumrani and BIRTHAL P S, 2015). Around 600 million poor small holders in the world keep nearly one billion heads of livestock and livestock contribute 40 percent of the global value of agricultural output and support the livelihoods and food security of almost a billion people. Dairy farming is a major livestock enterprise in India and Kerala where small and marginal farmers are engaged to earn their livelihood. Animal husbandry programmes ensures proper guidance and encouragement to the farmers in each panchayat. It plays an important role in generating employment and income to the weaker sections of the population and its facilities are available in all panchayat and municipalities. In this

context, the role and developmental support of animal husbandry programmes, the awareness and effectiveness of these programmes were attempted in this study.

Review of Literature

Chauhan A K, et al. (2004) attempted the variability in milk production among sixteen major states in India. Jain, et al. (2004) assessed the technical efficiency of dairy farms in developing countries. Sarbjeet Singh (2007) analyzed the distribution pattern of land and livestock among different socio-economic groups in the rural areas of Himachal Pradesh. Dikshit A K and Birtha P S (2013) analyzed positive environmental externalities of livestock in mixed farming systems of India. Anjani Kumar (2013) studied the structural transformation in dairy sector of India. Bardhan D K, et al. (2015), Ranjith Kumar E G (2015) and Prem Chand and Smita Sirohi (2015) evaluated sustainable livestock development. Prajapati P M (2016) studied the major economic constraints faced by dairy farm women. Harmeet Singh (2017) revealed a holistic approach for rural development dairy farming. Dinesh Kumar M and Singh O P (2017) evaluated the economics of Dairy Farming and pointed out the view of identifying interventions for improving the economics of dairy farming and understanding its importance in nutritional security of rural households. Marcella Guarino (2019) analyzed the environmental impact of livestock farming and precision livestock farming as a mitigation strategy.

Materials and Methods

The study was conducted among the farmers of Kasaragod district and two panchayats, Balal and Kinanoor Karinthalam were selected for primary data. For primary data sixty samples were taken. Information related to services provided was directly collected from officials. Secondary data were collected from reports, journals, magazines and websites. Opinion of farmers was used to analyze the effectiveness of service provided and is classified into highly effective, moderately effective and low effective.

Results, Analysis and Discussion

Table 1 show that 55 percent of farmers have only primary education and 20 percent have upper primary.

Table 1: Educational Status of Livestock Farmers

Sl. No.	Category	Total	Percent
1	Illiterate	5	8
2	Primary	33	55
3	Upperprimary	12	20
4	Highschool	6	10
5	Highersecondary	2	4
6	AboveHighersecondary	2	4
Total		60	100

Source: Primary data

Among the farmers, 48 percent are engaged in livestock farming and the rest 23 percent in agriculture and 29 percent in other activities. Majority of farmers have more than ten years of farming experience (Table 2).

Table 2: Occupational Status of Farmers and Farming Experience.

Sl. No.	Occupational status			Farming experience		
	Category	Total	Percent	Category	Total	Percent
1	Livestock	29	48	Less than 10 year	15	25
2	Agriculture	14	23	10 to 20 year	20	34
3	Others	17	29	More than 20 year	25	41
Total		60	100	Total	60	100

Source: Primary data

Animal husbandry and dairy development play a vital role in rural economy to increase their income. In table 3, out of 60 farmers, 8 percent of farmers possess below 25000 rupees annual income from livestock and 42 percent was the highest and the income group between 25,000 to 5,000 rupees. 24 percent of farmers possess income between 50,000 to 75,000 rupees. 18 percent have income between 75,000 to 10,000 rupees. 5 farmers have more than 100000 rupees income from livestock.

Table 3: Annual Income from Livestock Farming

Sl. No.	Annual income from livestock	Total	Percent
1	Below 25000	5	8
2	25000 - 50000	25	42
3	50000 - 75000	14	24
4	75000 - 100000	11	18
5	Above 100000	5	8
Total		60	100

Source: Primary data

Animal husbandry generated gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women. Livestock farmers engaged mainly in poultry, cow, goat, buffalo, rabbit, and pig and so on (table 4).

Table 4 shows different livestock rearing engaged by farmers in Balal and Kinanoor-Karinthalam Grama panchayat of Kasaragod. In Balal 39 percent farmers engaged in poultry birds where as 41 percent in Kinanoor-Karinthalam Grama panchayat. In both the panchayat, another major livestock farming engagement is cow, consisting 28 percent and 32 percent respectively. Farmers engaged in goat rearing consists 20 percent and 22 percent in respective panchayats.

Table 4: Livestock Rearing Engaged by Farmers

Sl. No.	Livestock	Different livestock rearing				Total
		Balal panchayat		Kinanoor-Karinthalam panchayat		
		Livestock in numbers	Percentage	Livestock in numbers	Percentage	
1	Poultry	35	39	38	41	73
2	Cow	25	28	29	32	54
3	Goat	18	20	20	22	38
4	Buffalo	5	6	3	3	8
5	Pig	4	5	1	1	5
6	Rabbit	2	2	1	1	3

Source: Primary data

Animal husbandry is one of the most important occupations of farmers. Various factors adversely affected their production which includes problem like diseases, higher cost of feed, marketing difficulties, lack of irrigation facility, inefficient veterinary services, climate change, lack of patent drugs, lack of vaccination and lack of knowledge about animal husbandry management.

Table 5: Major Problems Faced by Livestock Farmers

Sl. No.	Problems	Total numbers of farmers	Percent
1	Diseases	25	21
2	Higher cost of feed	9	8
3	Marketing difficulties	2	2
4	Lack of irrigation	3	3
5	Insufficient veterinary services	8	7
6	Climate change	11	9
7	Lack of patent drugs	13	11
8	Lack of vaccination	9	8
9	Lower price	19	16
10	Lack of knowledge about management of livestock	18	15

Source: Primary data

Table 5 shows the major problems faced by livestock farmers in Kasaragod district. The most serious challenge faced by the farmers is the disease of livestock; 21 percent of the farmers are facing this problem. 8 percent of farmers facing feeding cost, 2 percent marketing difficulties and 3 percent of farmers faced lack of irrigation facilities. Another important problem faced by farmers is insufficient veterinary services. 9 percent farmers faced climate change and 11 percent faced the problem of lack of patent drugs. 8 percent faced the challenges of lack of vaccination services and 15 percent faced lack of knowledge about livestock management. Awareness regarding the functioning of panchayat is essential for the farmers to get its advantage. Table 6 revealed the source of information through which the farmers get information about the activities of animal husbandry programme. 40 percent of the farmers know the information through other farmers and the rest through other sources.

Table 6: Source of Information about Animal Husbandry Programme

Sl. No.	Source of information	Numbers of farmers		Total	Percent
		Balal	Kinanoor-Karinthalam		
1	News paper	3	6	9	15
2	TV/Radio	4	4	8	14
3	Other farmers	14	10	24	40
4	Panchayat members	4	5	9	15
5	Not aware	5	5	10	16

Source: Primary data

Every farmer receives various services to promote production, processing and marketing of livestock and poultry and their products through augmentation of production of milk, meat, egg and wool. Animal health care service and prevention of animal diseases is a priority for maintenance of a healthy stock for optimum production. Infrastructure for breeding, feeding and management of livestock and poultry, processing of milk, meat and egg and marketing of livestock products is also given due importance. Besides, required training and extension support to livestock producers is also provided.

Table 7: Support and Assistance to Livestock Farmers

Sl. No.	Various services	Numbers of farmers		Total	Percent
		Balal	Kinanoor-Karinthalam		
1	Subsidy	25	27	52	20
2	Treatment to livestock	20	21	41	16
3	Vaccination	19	20	39	15
4	Feed	22	21	43	17
5	Poultry-yard	23	24	47	18
6	Insurance	5	6	11	6
7	Training	9	10	19	7
8	Loan	1	1	2	1

Source: Primary data

The support and assistance to livestock farmers include various subsidies to farmers, treatment for livestock, vaccination of livestock, feeding, and insurance protection, training to the farmers, poultry-yard, and loans. Table 7 shows that 20 percent got support in the form of subsidies and 16 percent got treatment for livestock; 15 percent got vaccination facility, 17 percent got benefit for feed and 18 percent got poultry yard. 6 percent have received insurance and other 7 percent of the farmers were trained in this field.

Animal husbandry and poultry farming are expected to play an important role in supplementing the limited income and employment opportunities particularly for the small and marginal holding. Every panchayat provide various services to farming community to help the farmers through, subsidy, veterinary services, feeding, poultry-yard, insurance, loans, training and so on. The effectiveness of each service is discussed in table 8 and is revealed that many of the services do not reach to farmers. Subsidy is effectively provided in Karinthalam Grama panchayat compared to Balal. Veterinary services like treatment and vaccination for livestock is more effective in Kinanoor-Karinthalam than in Balal. For feeding service, 53 percent is effective in Balal and 50 percent in Kinanoor-Karinthalam. Insurance is less effective in both the panchayat where as training programmes is more effective and provision of loans are less effective.

Table 8: Effectiveness of the Services Provided to Livestock Farmers

Services	Balal			Kinanoor-Karinthalam		
	Effectiveness			Effectiveness		
	High	Moderate	Less	High	Moderate	Less
Subsidy	17 (57)	7 (23)	6 (20)	18 (60)	8 (27)	4 (13)
Treatment	14 (47)	9 (30)	7 (23)	15 (50)	9 (30)	6 (20)
Vaccination for livestock	13(43)	8(27)	9(30)	14(47)	5(17)	11(36)
Feed	16(53)	10(33)	4(14)	15(50)	13(43)	2(7)
Poultry- yard	18(60)	9(30)	3(10)	21(70)	7(23)	2(7)
Insurance	3(10)	2(7)	25(83)	2(7)	1(3)	27(90)
Training	12(40)	9(30)	9(30)	13(43)	13(43)	4(14)
Loan	2(7)	2(7)	26(86)	2(7)	1(3)	27(90)

Note: Figures in Bracket shows the percentage to total for each

Source: Primary data

Conclusion

Animal husbandry has a specific role in human civilization and livestock is an integral component of India's agricultural and rural economy. The livestock sector has been growing faster than crop sector in recent years. Animal husbandry is the main occupation of the rural people and a large number of farmers depend on it for their livelihood in supplying milk, meat, egg, wool and hides. It is the management and care of farm animals by humans for profit, in which genetic qualities and behavior, considered to be advantageous. After agriculture it is the most important source of livelihoods for rural households. It provides meaningful employment and supplements income from agriculture. Moreover, the importance of natural manure as a by-product of animal husbandry to maintain soil vitality is being realized across the world. Also, livestock is a useful asset for the rural household in times of financial distress, drought and crops failures. Therefore, efforts should be made to make animal husbandry a more rewarding source of livelihoods for the rural households.

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