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Evaluation of the Training Programmes on Live Stock Rearing by Veterinary University Training and Research Centre, Coimbatore in Tamil Nadu State in India

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ABSTRACT: The Veterinary University Training and Research Centres (VUTRCs) are located in most of the district headquarters all over the Tamil Nadu state. The main objectives of the Veterinary University Training and Research Centres are to impart training on the felt needs of the end users, practicing farmers and officers of the line departments. The study was undertaken to analyse the impacts of the training programmes conducted by VUTRC, Coimbatore from 2013 to 2018. The study shows that 30.1, 27.1, 7.5 and 19.55 percentage of training programmes were conducted on dairy farming, goat farming, desi chicken farming and on hygienic meat production and value addition respectively. The impact analysis revealed that 351 dairy farms, 249 goat farms, 11 piggery farms, 4 rabbit farms and 37 desi chicken farms have been newly started / improved after attending the training programmes. About 23 meat retail outlets were started by the individuals who have attended the training programme on hygienic meat production and value addition. The impact evaluation results show that the training programmes conducted regarding livestock farming are augmenting the farm income substantially.

KEYWORDS: Training programmes, Dairy farming, goat farming, desi chicken farming, impacts evaluation.

I. INTRODUCTION

Livestock is an integral part of India's agricultural economy and plays a multifaceted role in providing livelihood to the rural population. Livestock sector apart from contributing to national economy in general and to agricultural economy in particular, also provides employment generation opportunities, asset creation, coping mechanism against crop failure and social and financial security. Livestock is the main source of animal protein for the population. It is estimated that about 70 million rural households own livestock of one species or the other, women constitute about 69% of work force engaged in livestock sector. The resource – poor small and marginal farmers and landless labourers own majority of the livestock resources. Hence sustainable development of the livestock sector would lead to more inclusive development and empowerment of women.

Paper is organized as follows. Section II describes automatic text detection using morphological operations, connected component analysis and set of selection or rejection criteria. The flow diagram represents the step of the algorithm. After detection of text, how text region is filled using an inpainting technique that is given in Section III. Section IV presents experimental results showing results of images tested. Finally, Section V presents conclusion.

II. RELATED WORK

Livestock production systems in India are mostly on traditional knowledge, low cost agricultural residues and agri-byproducts leading to lower productivity. There is an urgent need to adopt modern technologies to ensure faster growth of the livestock sector, increased productivity and creation of employment opportunities in rural areas, leading

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to poverty reduction. India faces the most challenging task of transferring the fast emerging agricultural technologies to sustain the increase in farm productivity and economic viability of farming (kuldeepsingh et al, 2010). This is one of the major contributing factor for making India a food surplus country (Samanta&Gowda, 2003). National agricultural extension systems worldwide, including India, have undergone major changes during the past 2 or more decades (swanson, 2008).

The Veterinary University Training and Research Centres (VUTRC) are the peripheral units of the Tamil Nadu Veterinary and Animal Sciences University situated in Tamil Nadu State, India is the first Veterinary University in Asia. The Veterinary University Training and Research Centres are located in most of the district headquarters all over the Tamil Nadu state. The main objectives of the Veterinary University Training and Research Centres are to impart training on the felt needs of the end users, practicing farmers and officers of the line departments. It acts as a two way channel between the university and the farmers to identify the field based livestock and poultry problems and also to pass on the remedial measures. It motivates and encourages local farmers in establishing livestock and poultry farms for self-employment. These centres regularly conducting on campus and off-campus training programmes on various aspects of livestock and poultry farming to the practicing farmers, members of women self-help groups, landless labourers, rural poor, unemployed youth, economically weaker sections and entrepreneurs. In this paper we have made an attempt to evaluate the training programmes conducted by Veterinary University Training and Research Centre in Coimbatore district in Tamil Nadu.

Tamil Nadu has historically been an agricultural state and is a leading producer of agricultural products in India. Among states in India, Tamil Nadu is the second largest contributor to India's GDP. Tamil Nadu is one of the leaders in livestock, poultry and fisheries production. Tamil Nadu has the second largest number of poultry amongst all the states and accounted for 17.7 percent of the total poultry population in India. Despite these advancements, the people of rural places are unaware of modern technologies available in the field level for augmenting the production of livestock enterprises. Hence the Veterinary University Training and Research Centre at Coimbatore is conducting various training programmes for the benefit of farming community. The Indian parliamentary standing committee on Agriculture (1995) reported that no realistic, technical and economic analysis was ever conducted to evaluate the implementation and adoption. This study therefore, seeks to evaluate the outcome and impact of livestock farming training programmes conducted by the Veterinary University Training and Research Centre, Coimbatore in Tamil Nadu state.

III. METHODOLOGY AND DISCUSSION

Research and evaluation both are the modes of scientific inquiry (Douglah, 1996). Evaluation research is a form of applied social science. Field of evaluation research is the application of scientific methods to measure the implementation and impacts of a programme for decision – making purpose (Rutman, 1984), commonly, two main types of evaluation, based on the purpose of evaluation, are formative and summative evaluation (Scriven, 1967). Formative evaluation reports to the programme by identifying short comings and their remedies, where as summative evaluation reports about the outcomes / impacts of the programme (Scriven, 1991).

The study was conducted to evaluate the training programmes offered by Veterinary University Training and Research Centre, Coimbatore during the year 2013 to 2018 (Table 1). The particulars pertaining to the participants; name and address of the participant including contact telephone number, land and animal holdings were collected during the start of the training programmes. A total of 32 training programmes on dairy farming were conducted during the study period. A total of 1092 farmers have attended the programmes; about 221 were women among them. Regarding goat farming 36 training programmes have been conducted during the study period. About 1348 farmers have attended the programmes, among them 282 were women farmers. Regarding desi chicken farming, 10 training programmes have been conducted during the study period.

A total of 414 farmers attended the programmes, 52 were women among them. About 26 training programmes on Hygienic meat production and value addition were conducted during the study period. A total of 496 persons attended the training programmes and 269 were women among them. In addition to these programmes self-employment training programmes on goat farming and pig farming and skill development training programmes on

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dairy farm assistant were also conducted to those who were very interested and enthusiastic to establish livestock farms. Moreover green fodder is very essential for livestock farming. With the scarcity of green fodder during shortage of rainfall and lack of water resources, it is very difficult to maintain farming practice. Hence a training programme on fodder production was also conducted to motivate the farmers to cultivate green fodder depending on the availability of resources for increased production. The impact analysis of the training programme was conducted after one year from the date on which the training programme was conducted. The participants were contacted individually through telephone and the details regarding the new farming activity and improvement in the existing farming activities for which the participants underwent the training programmes.

IV. EXPERIMENTAL RESULTS

According to kuldeepsinghet *al.*, (2010) evaluation of the extension activities and especially vocational training programmes contributes to the academic output and also provide value judgement. The trainers from different disciplines having masters and doctoral degrees provide specialized training to the farmers on various field of livestock production. The on campus training programmes are conducted for interested farmers and rural youth for setting up of livestock enterprises. It is evident from the data that the percentage of male farmers attended the training programme compared to female farmers (Table 2). Almost all of the training programmes except in the training programme on hygienic meat production and value addition, male farmers attended more in number and females in the later. Out of the 3977 participants attended about 133 training programmes conducted during the study period, 11.01 percentage of the farmers were from scheduled communities. Among them 5.40 percentage were male participants and 5.61 percentage were female participants.

The percentage of different training programmes conducted during the study period (Table 3) revealed that the percentage of training programmes on dairy farming (30.1%) and goat farming (27.1%) were higher than other training programmes. Since Coimbatore district is situated in the Western Ghats getting good rainfall than other districts of Tamil Nadu. The climatic condition is also conducive for maintaining hybrid dairy animals. Moreover the major percentages of people in this district are from farming community. Hence the trainees from this district are more interested in maintaining dairy and goats. About 7.5% of the training programmes on desi chicken farming were conducted during the study period. With few cents of land and landless people are able to maintain about 50 desichicken as backyard farming for their livelihood. Since desi chicken eggs and meat have higher market demand, they can fetch good prices in the market. About 19.55 percentages of training programmes on hygienic meat production and value addition implies that the trainees having desi chicken farming are able to produce desi chicken meat and value added products on their own in addition to sell live birds to improve their economy.

The impact analysis of the training programme was conducted after one year period from the date on which the training programme was conducted. The impact analysis of the training programmes (Table 4) revealed that totally 351 dairy farms have been newly established / improved. Regarding goat farms about 249 goat farms have been newly started / improved. About 11 piggery farms, 4 rabbit farms and 37 desi chicken farms have been newly started / improved after attending the training programmes. About 23 meat retail outlets were started by the individuals who have attended the training programme on hygienic meat production and value addition. The impact evaluation results show that the training programmes conducted regarding livestock farming are augmenting the farm income substantially. This is similar to the evaluation of the agricultural vocational training programmes conducted by the farm science centre in Punjab by Kuldeepsinghet *al.*, (2010).

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TABLE - 1
**TRAINING PROGRAMMES CONDUCTED DURING THE YEAR 2013 – 2018 AT VETERINARY
UNIVERSITY TRAINING AND RESEARCH CENTRE, COIMBATORE**

S. No.	Name of the Training	No. of Prog.	No of Persons Benefited				
			Male	Female	SC/ST Male	SC/ST Female	Total
1.	Dairy farming	32	871	221	54	52	1092
2.	Commercial dairy farming	4	164	42	10	15	206
3.	Application of modern Technologies in Livestock farming	3	48	07	05	02	55
4.	Goat farming	36	1066	282	60	94	1348
5.	Piggery farming	5	42	04	07	-	46
6.	Rabbit farming	3	50	06	04	-	56
7.	Desi chicken farming	10	362	52	23	07	414
8.	AI training	3	20	-	2	-	20
9.	Clean milk production	1	06	-	-	-	06
10.	Prevention of mastitis in dairy animals	1	31	-	-	-	31
11.	Prevention of kids mortality in goat farming	1	29	01	-	-	30
12.	Awareness on Livestock farming	1	38	21	05	-	59
13.	Hygienic meat production and value addition	26	227	269	42	53	496
14.	Breeding management in dairy animals	1	28	02	-	-	30
15.	Fodder Production	2	58	05	-	-	63
16.	Dairy farm assistant	4	24	01	03	-	25
TOTAL		133	3064	913	215	223	3977

TABLE - 2
PERCENTAGE OF MALE AND FEMALE PARTICIPANTS IN THE TRAINING PROGRAMMES

S.No.	Training Programme	% Males	% Females
1.	Dairy Farming	79.76	20.24
2.	Commercial dairy farming	79.61	20.39
3.	Application of modern Technologies in Livestock farming	87.27	12.73
4.	Goat farming	79.08	20.92
5.	Piggery farming	91.31	8.69
6.	Rabbit farming	89.29	10.71
7.	Desi Chicken farming	87.44	12.54
8.	AI training	100.00	-
9.	Clean milk production	100.00	-
10.	Prevention of mastitis in dairy animals	100.00	-
11.	Prevention of kids mortality in goat farming	96.67	3.33
12.	Awareness on Livestock farming	64.41	35.59
13.	Hygienic meat production and value addition	45.77	54.23
14.	Breeding management in dairy animals	93.33	6.67
15.	Fodder production	92.06	7.94
16.	Dairy farm assistant	96.00	4.0

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Percentage of SC/ST participants in the Training programmes: out of the 133 training programmes, and out of 3977 participants, 438 were SC/ST.

- Percentage of SC/ST participants – 11.01%
- Percentage of SC/ST male participants – 5.40%
- Percentage of SC/ST female participants – 5.61%

TABLE - 3
PERCENTAGE OF DIFFERENT TRAINING PROGRAMMES CONDUCTED DURING THE YEAR 2013-2018

S.No.	Training Programme	Percentage (%)
1.	Dairy Farming (40 programmes) (including commercial Dairy farming and Dairy farm Assistant)	30.1
2.	Goat farming (36 programmes)	27.1
3.	Desi chicken farming (10 programmes)	7.5
4.	Piggery farming (5 programmes)	3.76
5.	Rabbit farming (3 programmes)	2.26
6.	Application of modern Technologies in Livestock farming (3 programmes)	2.26
7.	AI training (3 programmes)	2.26
8.	Clean milk production (1 programme)	0.75
9.	Prevention of mastitis in dairy animals (1 programme)	0.75
10.	Prevention of kids mortality in goat farming (1 programme)	0.75
11.	Awareness on Livestock farming (1 programme)	0.75
12.	Hygienic meat production and value addition (26 programmes)	19.55
13.	Breeding management in dairy animal (1 programme)	0.75
14.	Fodder production (2 programmes)	1.5
	TOTAL	100.0

TABLE - 4
FARMS STARTED / IMPROVED / MEAT RETAIL OUTLETS ESTABLISHED

Sl.No.	Details	2013-14	2014-15	2015-16	2016-17	2017-18	Total
1.	Dairy farms	58	128	80	54	31	351
2.	Goat farms	46	76	60	53	14	249
3.	Pig farms	05	03	02	01	-	11
4.	Rabbit farms	02	-	02	-	-	04
5.	Desi Chicken farms	-	-	23	12	02	37
6.	Meat retails outlets	-	-	-	-	23	23
	Total	111	207	167	120	70	675

V. CONCLUSION

The above findings clearly indicate that the Veterinary University Training and Research Centre, Coimbatore is realizing the objectives of the training programmes on livestock farming in terms of achieving desired outcomes and impacts. Evaluation should be part and parcel of extension programmes, and should be under taken on scientific lines

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to ensure the internal and external validity of the findings. Hence this study implies a periodic scientific evaluation of the extension programmes must be made mandatory.

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