

Livestock Health Management by Displaced Tribal Farm Women in Hill Districts of Assam

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ABSTRACT

A study was conducted among the displaced tribal farm women in two hill districts of Assam, in such areas which were generally regarded as the remote, difficult and disturbed. Total 200 farm women were selected and information about the status of livestock health management was collected with the help of a pre-tested, reliable and valid interview schedule consisting of a specially designed check list. The study revealed that the average livestock health management score was 36.34 out of the total maximum obtainable score of 60. There was a significant difference between the two districts in case of livestock health management. For animal health “Only kitchen wastes were provided to animals once in the evening”, “No feed supplement is given to animals”, “Animals go out and come in at their own free choice regularly”, “Separation of sick animals”, “Weaning of animals” and “Animals in sick are identified whenever they behave differently from the flock” were practised with priority. Degree of displacement of farm women had significant association with the difficulties in their daily life.

Keywords: Displaced; Tribal farm women; Livestock; Health management; Difficulty;

Livestock farming is one of the most important means livelihood and nutritional security to the vast majority of rural masses, especially the poor (Saharia, 2017; Srivastava 2011). It can also play a major role in providing self-employment to the tribal people who form the highest proportion of the poor in India that too in remote and difficult terrains (Agrahar and Pal., 2005; Anonymous 2011). Management is an art of judiciously using all the factors of production. Efficient management reduces the cost of production thereby increasing profitability (Bohra et. al. 2012). However, degree of displacement in distance brings change to the spontaneity of the life system of the tribal rural farm women (Ghatak and Mookherjee, 2014). Keeping these points in view the study was undertaken to know the status of animal health management practices followed by displaced tribal farm women in hill districts of Assam

METHODOLOGY

The study was carried out in both the two hill

districts of Assam namely, the Karbi Anglong and the Dima Hasao district where the migration of farm families is more frequent than in all other districts of the state. The study revolved around the women engaged in livestock farming, especially in the generally categorized remote, difficult and disturbed areas. Data were collected by personally interviewing the selected respondents with a pre-tested, reliable and valid interview schedule during the period from January 2016 to July 2016 after obtaining prior permission from them. Data such collected from about 200 animal husbandry farm women from proportionate different ethnic (tribal) groups were authenticated with the help of the peer groups and statutory village administrators, analyzed to find out the results, conclusions and recommendations. For obtaining response on different component areas of health practices by the respondents were offered twenty statements and they were asked to respond in either of the three degrees ranging from “mostly,” “frequently” and “occasionally” with their corresponding

values of 3, 2 and 1 respectively. As such the minimum and maximum obtainable scores for a respondent were 20 and 60 respectively. Further, the tribal farm women were also asked to place their perceived degree of difficulties in daily life on a check list of 12 items in three degrees with minimum and maximum obtainable scores being 0 to 36. Pre-testing of the interview schedule was done in the nearby simulating hilly areas of Cachar district to see the reliability. The reliability worked out was found to be $r = 0.89$. For validity of the interview schedule, each item in the check list was critically examined, totally scrutinized after collection, put into the check list in an orderly and sensitive manner and was shown and endorsed by the experts in the University. The obtained data were put to standard tests like mean, standard deviation, 't' test and zero order correlation.

RESULTS AND DISCUSSION

A perusal of the data presented in Table 1 indicated that the average animal health scores were 32.48, 40.20 and 36.34 in Dima Hasao, Karbi Anglong and pooled sample with their standard deviations as 9.18, 5.00 and 8.30 and ranges as 17-49, 17-50 and 17-50 respectively. Based on mean and standard deviation, the respondents were categorized into low, medium and high groups. Their distribution were 22.00 per cent, 66.00 per cent and 12.00 per cent in Dima Hasao, 13.00 per cent, 79.00 per cent and 8.00 per cent in Karbi Anglong and 19.50 per cent, 70.50 per cent and 10.00 per cent in pooled sample respectively. Livestock farmers falling in the medium groups of categorization was also recorded by *Das and Tripathi (2013)*

From the findings, it was clear that majority of the respondents had medium animal health care scores. The reason might be that displaced women were partially dependent on livestock for their livelihood, so they did not spend their full time looking after livestock as they had to give their time in other day to day activities including jhum cultivation and important domestic schedule of activities also. Similar findings were also

recorded by *Das and Tripathi (2013)*

After comparison of the mean scores of respondents' animal health, it was found that the mean scores of the Karbi Anglong were significantly higher than that of the Dima Hasao ($t=2.69^{**}$, $P<0.01$). The reason might be that displaced women of Karbi Anglong were more exposed, well connected to nearby townships and experienced due to frequent direct access to experts which lead to better management practices of livestock than such women of Dima Hasao. Similar situations were earlier experienced by *Haque (2015)* in different districts of Assam.

According to *Meena, et. al. (2007)* it was observed that considerable lag existed between the availability of scientific technology and adoption by the farmers, especially in the high altitude places. In some instances, recommended practices were not adopted or simply rejected by the farmers. For the proper implementation of such technologies there was a need for strengthening the research and extension linkages. Such efforts were made in the past but some gaps and overlapping remained even in the technically sound states with regard to animal husbandry. An effective extension setup, well equipped with know-how and solid infrastructural back up was required to cater the local needs of the farmers of high altitude.

In order to know more details about the animal health, the results were put in Table 2. It showed that the highest number of 99.00 per cent followed by 91.00 per cent, 79.00 per cent, 76.00 per cent and 53.00 per cent of the respondents attached their "mostly degree" of association with "Only kitchen wastes are provided to animals once in the evening", "No feed supplement is given to animals", "Animals go out and come in at their own free choice regularly", "Separation of sick animals", "Weaning of animals" and "Animals in sick are identified whenever they behave differently from the flock" respectively in Dima Hasao district whereas in Karbi Anglong the corresponding figures were 98.00 per cent, 93.00 per cent, 18.00 per cent, 95.00 per cent,

Table 1. Profile of the respondents on the basis of their status of livestock health management

Variables	District	Mean	SD	Range	Low	Medium	High	't' value
Livestock Health Management	DH	32.48	9.18	17-49	22(22.00)	66(66.00)	12(12.00)	2.69**
	KA	40.20	5.00	17-50	13(13.00)	79(79.00)	8(8.00)	
	Pooled	36.34	8.30	17-50	39(19.50)	141(70.50)	20(10.00)	

Figures in parenthesis indicate percentage;

^{NS} Non significant, **, Significant at 0.01 level of probability; DH=Dima Hasao, KA= Karbi Anglong

Table 2. Distribution of respondents on different areas of livestock health management

Areas	District	Degrees of Information		
		Mostly	Frequently	Occasionally
Clean water for the purpose of drinking	DH	41(41.00)	0(0.00)	60(60.00)
	KA	26(26.00)	21(21.00)	54(54.00)
	POOLED	67(33.50)	21(10.50)	114(57.00)
Castration/spaying of animals	DH	40(40.00)	17(17.00)	3(3.00)
	KA	94(94.00)	1(1.00)	0(0.00)
	POOLED	134(67.00)	18(9.00)	3(1.50)
De-worming	DH	4(4.00)	0(0.00)	28(28.00)
	KA	20(20.00)	25(25.00)	9(9.00)
	POOLED	24(12.00)	25(12.50)	37(18.50)
Weaning of animals	DH	53(53.00)	0(0.00)	3(3.00)
	KA	89(89.00)	0(0.00)	0(0.00)
	POOLED	142(71.00)	0(0.00)	3(1.50)
Timely vaccination	DH	0(0.00)	0(0.00)	14(14.00)
	KA	2(2.00)	10(10.00)	18(18.00)
	POOLED	2(1.00)	10(5.00)	32(16.00)
Care during emergency	DH	51(51.00)	38(38.00)	0(0.00)
	KA	90(90.00)	9(9.00)	1(1.00)
	POOLED	141(70.50)	47(23.50)	1(0.50)
Separation of sick animals	DH	76(76.00)	4(4.00)	0(0.00)
	KA	95(95.00)	0(0.00)	1(1.00)
	POOLED	171(85.50)	4(2.00)	1(0.50)
Person approached for treatment of sick animals	DH	0(0.00)	0(0.00)	0(0.00)
	KA	0(0.00)	0(0.00)	0(0.00)
	POOLED	0(0.00)	0(0.00)	0(0.00)
VAS	DH	11(11.00)	19(19.00)	4(4.00)
	KA	2(2.00)	72(72.00)	1(1.00)
	POOLED	13(6.50)	91(45.50)	5(2.50)
VFA	DH	28(28.00)	31(31.00)	2(2.00)
	KA	23(23.00)	0(0.00)	0(0.00)
	POOLED	51(25.50)	31(15.50)	2(1.00)
Fellow farmer	DH	10(10.00)	0(0.00)	0(0.00)
	KA	0(0.00)	0(0.00)	0(0.00)
	POOLED	10(5.00)	0(0.00)	0(0.00)
Local traditional herbalists/ quack	DH	44(44.00)	23(23.00)	3(3.00)
	KA	43(43.00)	52(52.00)	0(0.00)
	POOLED	87(43.50)	75(37.50)	3(1.50)
ITK treatment by the farmer	DH	32(32.00)	1(1.00)	64(64.00)
	KA	3(3.00)	11(11.00)	64(64.00)
	POOLED	35(17.50)	12(6.00)	128(64.00)
Before fresh supply of feed mangers and water troughs are cleaned everytime	DH	14(14.00)	59(59.00)	9(9.00)
	KA	87(87.00)	5(5.00)	5(5.00)
	POOLED	101(50.50)	64(32.00)	14(7.00)
Animals are kept under observation whenever required	DH	2(2.00)	0(0.00)	0(0.00)
	KA	1(1.00)	0(0.00)	7(7.00)
	POOLED	3(1.50)	0(0.00)	7(3.50)
Animals are let loose and brought home only when family members are free	DH	13(13.00)	0(0.00)	0(0.00)
	KA	52(52.00)	0(0.00)	0(0.00)
	POOLED	65(32.50)	0(0.00)	0(0.00)
Animals are tied/kept in enclosure in the evening and let loose in the morning	DH	79(79.00)	0(0.00)	0(0.00)
	KA	18(18.00)	0(0.00)	0(0.00)
Animals go out and come in at their own free choice regularly	DH	0(0.00)	0(0.00)	0(0.00)
	KA	0(0.00)	0(0.00)	0(0.00)

	POOLED	97(48.50)	0(0.00)	0(0.00)
No feed supplement is given to animals	DH	91(91.00)	0(0.00)	0(0.00)
	KA	93(93.00)	5(5.00)	0(0.00)
	POOLED	184(92.00)	5(2.50)	0(0.00)
Only kitchen wastes are provided to animals once in the evening	DH	99(99.00)	0(0.00)	0(0.00)
	KA	98(98.00)	0(0.00)	1(1.00)
	POOLED	197(98.50)	0(0.00)	1(0.50)
Animals are regularly provided with feed supplement.	DH	0(0.00)	7(7.00)	57(57.00)
	KA	0(0.00)	0(0.00)	90(90.00)
	POOLED	0(0.00)	7(3.50)	147(73.50)
Pregnant animals are taken care of by women with full efficiency	DH	51(51.00)	0(0.00)	24(24.00)
	KA	86(86.00)	5(5.00)	0(0.00)
	POOLED	137(68.50)	5(2.50)	24(12.00)
Separate arrangement and feeding are given to pregnant and sick animals	DH	44(44.00)	0(0.00)	32(32.00)
	KA	84(84.00)	14(14.00)	1(1.00)
	POOLED	128(64.00)	14(7.00)	33(16.50)
Animals in sick are identified whenever they behave differently from the flock	DH	53(53.00)	22(22.00)	21(21.00)
	KA	96(96.00)	4(4.00)	0(0.00)
	POOLED	149(74.50)	26(13.00)	21(10.50)

Figures in the parenthesis indicate percentage; DH=Dima Hasao, KA= Karbi Anglong

89.00 per cent, 96.00 per cent respectively. In the pooled sample 98.50 per cent, 92.00 per cent, 48.50 per cent, 85.50 per cent, 71.00 per cent and 74.50 per cent were the corresponding scores. The findings overall emphasized few very revealing facts like, livestock were reared traditionally, on zero inputs, with no special care unless diseased and women were the sole activists in livestock rearing. The application of advanced measures in livestock rearing was simply missing. This finding again gave rise to the necessity to correlate the findings with *Meena et al. (2007)*. Similar results were also reported by Malsawmdawngliana and *Rahman (2014)* in Mizoram and in the backward villages of Kamrup district of Assam by *Payeng (2011)* and *Shyam (2011)*. The result was conflicting with that finding of *Kumar (2015)*, *Patel et al. (2014)* and *Singh et al. (2015)* where majority of the respondents had vaccinated and dewormed there animals.

Table 3 showed that the migration of farmers in case of Dima Hasao district was lesser (1 to 55 Km)

than those in Karbi Anglong district (39-120 Km). This might have been affected by the density of population and the difficulty in the terrains of the hill districts. In this regard the findings of *Piotrowski et al (2013)* could be mentioned who said that, focusing on different dimensions of migration, including distance and duration, a wide array of agricultural determinants, each with its own potential effect on migration were recorded. From the table it was further recorded that, there was a highly significant positive relation between the distance of displacement of the rural farm women from their original place of settlement and the difficulties in the daily life. This might have been due to larger size of occupational land holding, larger number of livestock and other facilities which were of enlarged size. Actually, these were the reasons for which they settled down in a new place quite distant from their original place of belongingness. So, with enlarged responsibilities the farm women had to handle more quantum of activities in daily life which caused more difficulties to them similar

Table 3. Features of distance of displacement and difficulties of tribal farm women

Variable	Features	Dima Hasao	Karbi Anglong	Pooled	Coef. of corr. (r)
Distance from earlier place	Mean (in Km)	27.33	79.99	53.66	0.73**
	SD	28.10	40.82	43.80	
	Range	1-55	39-120	1-120	
Difficulties in daily life	Mean (in degree)	19.96	18.17	19.06	
	SD	19.77	5.28	14.46	
	Range	0-39	12-13	0.39	

** Significant at 0.01 level of probability

findings were also reported by *Piotrowski et. al (2013)* and *Sainath (2013)*

CONCLUSION

It was found that the average animal health management score for displaced tribal farm women was 36.34 out of the total maximum obtainable score of 60. For animal health “Only kitchen wastes were provided to animals once in the evening”, “No feed supplement is given to animals”, “Animals go out and come in at their own free choice regularly”, “Separation of sick

animals”, “Weaning of animals” and “Animals in sick are identified whenever they behave differently from the flock”; thus making it clear that livestock rearing was quite traditional by the displaced farm women for the health of animal. Their degree of displacement was significantly and positively related to the difficulties in their daily life. Therefore, these findings suggested that there was need to put an end to the process of displacement and strengthen extension wings to cover these women with regards to scientific livestock health management practices.

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