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Attitude of Vechur Cattle farmers towards the conservation of native cattle

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Abstract
The study was conducted in Thrissur, Kottayam and Palakkad districts of Kerala state among Vechur cattle farmers to assess the attitude of the farmers towards conservation of native cattle. By employing chain referral sampling, a total of 60 farmers were selected as respondents and data were collected through personal interview method using a structured pretested interview schedule. The results of the study revealed that attitudinal disposition of nearly three-fourth of the Vechur cattle farmers towards conservation of native cattle ranged from medium to high. However, it was also observed that about one-third of the respondents shown an unfavourable attitude towards conservation of native cattle.

Keywords: Attitude, Native cattle, Conservation, Vechur cattle

Introduction
Indigenous cattle are integral part of the Indian ecological heritage. As per the 20th livestock census, 2019 the cattle population in the country is 192.49 million, and so far India has 43 identified indigenous cattle breeds (NBAGR, 2018) [6]. The Vechur cattle is the only recognised native cattle breed of Kerala. It was once popular and known for its higher milk yield when compared to the other dwarf varieties of the state. Vechur cow rearing is ideal for a low-input, "eco-friendly" system as it requires only very low quantities of grass and other feed materials besides the fact that it can also be fed on by-products of agriculture. The different indigenous breeds of farm animals are essentially the result of evolutionary processes, they have adapted to the harsh climatic conditions with low management inputs in terms of feeds, fodder and health care, capable to convert low quality feeds and fodder more efficiently into animal products and better adapted to withstand tropical diseases (Srivastava *et al.* 2019) [10]. Over the time, implementation of dairy development programmes such as Intensive Cattle Development Programme (ICDP) and Operation Flood (OF) enabled the artificial insemination of indigenous cattle with exotic breeds such as Jersey, Brown Swiss etc. in order to increase the milk productivity and milk production in the country. To improve the genetic base legislations were enacted for carrying out castration of the indigenous scrub bulls causing erosion of local breeds. Due to these reasons a considerable proportion of indigenous cattle become poor genetic quality animals nowadays and these breeds lost their uniqueness.
Twentieth livestock census (2019) [1] have shown that when compared to the previous census there is a slight (0.8%) increase in the total number of cattle population in the country. The combined population of the exotic and crossbred cattle have shown a huge growth of 26.9 per cent at the same time the number of total indigenous (both descript and non-descript) cattle population shown a decline of 6 per cent. Indigenous cattle resources have been an integral part of the livelihoods and traditions of several communities over years and loss of a defined breed is a loss of cultural identity and heritage of that community (Belew *et al*. 2016) [2] hence it points to undertake conservation efforts with the active support of livestock farmers.
Conservation of indigenous animal resources has been projected as a suitable method for slowing down the loss of livestock breed diversity through extinction (Srivastava *et al.* 2019) [10]. In situ conservation of breeds is the most preferred method of conservation, by involving livestock keepers in the production system. The maintenance of a breed in its tract also satisfies the requirements of article 8 of the Convention of Biological Diversity, which gives first priority to in situ conservation (Niranjan *et al.* 2018) [7]. For achieving this the researcher must understand the attitude of the livestock keepers or dairy farmers towards conservation of native breeds. The theory of planned behaviour suggests that the most important determinant of a person's behaviour is his/her intention to engage in that behaviour which is in turn

influenced by attitudes, subjective norms and perceived behavioural control (Fishbein and Ajzen, 2010) [3]. Jayakumar *et al.* (2013) stated the acceptance of a practice or technology among the farmers are affected by the attitude of the farmers towards it. Keeping in mind the aforesaid facts, the present study was undertaken with the objective of analysing the attitude of Vechur cattle farmers towards the conservation of native cattle.

Materials and Methods

Koshy and Kumar (2016) [5] reported that attitude is the negative or positive feeling related to some psychological object and the attitude towards a particular item depends upon the knowledge, information and emotional perception an individual towards it. An *ex post facto* research was conducted among the Vechur cattle farmers in Kerala state to understand the attitude of farmers towards conservation of native cattle. By employing chain referral sampling technique, a total of 60 Vechur cattle farmers from three districts of the state namely Kottayam, Palakkad and Thrissur were selected. The data were collected using a pre-tested structured interview schedule. Attitude towards conservation of native cattle was assessed with the help of the scale developed by Sreelakshmi (2013) [9]. The scale was comprised of 20 statements and it was measured by assigning scores of 3, 2 and 1 for agree, undecided and disagree respectively for the positive statements and the scores were reversed for the negative statements. Depending on score of attitude the respondents were then grouped into three classes of equal size; high, medium, and low. The first class boundary is determined by the values of attitude for which cumulative frequency nearly equal to 20. Second class boundary is determined as the value of the attitude for which cumulative frequency is nearly equal to 40 and third class more than 40.

Results and Discussion

Table 1: Item wise analysis of attitude of respondents towards conservation of native cattle

Sl. No.	Item Statement	Agree (%)	Undecided (%)	Disagree (%)
1	Native cattle are a valuable part of our heritage	100.00	0.00	0.00
2	The good temperament of native cattle makes it worth keeping	73.33	11.67	15.00
3	I will quit keeping native cattle if given an opportunity to rear crossbred cattle	1.67	11.67	86.67
4	I feel that the Government should withdraw the blanket policy of cattle breeding	93.33	3.33	3.33
5	We must ensure the availability of native cattle to the future generations	95.00	5.00	0.00
6	I feel that conservation of native cattle can succeed only if local people play more active role	50.00	36.67	13.33
7	I feel that Government must promote native cattle shows	98.33	1.67	0.00
8	Native cattle do not require special care since they are climatically adapted	76.67	18.33	5.00
9	Local self- government bodies should initiate more programmes that promote the conservation of native cattle	93.33	0.00	6.67
10	I do not plan to keep native cattle as it will not be profitable	0.00	1.67	98.33
11	Native cattle conservation is a way to preserve traditional values.	85.00	5.00	10.00
12	I prefer keeping native cattle since their products fetch more price.	15.00	45.00	40.00
13	I like to keep native cattle in spite of my inconveniences	41.67	10.00	48.33
14	Native cattle keeping is profitable due to increased consumer demand for the products of native cattle	33.33	36.67	30.00
15	I believe native cattle farming is more a way of life rather than a business	86.67	5.00	8.33
16	Conserving native cattle will not improve my living standard	33.33	18.33	48.33
17	Native cattle keeping can be taken up as a commercial venture	15.00	45.00	40.00
18	I feel that there should be policies to promote native cattle rearing	95.00	5.00	0.00
19	Keeping native cattle can be an advantageous subsidiary occupation	35.00	43.33	21.67
20	Breeding facilities exclusively for native cattle must be introduced	100.00	0.00	0.00

All the Vechur cattle farmers agreed that native cattle are a valuable part of our heritage and majority (85.00%) of them reported that native cattle conservation is a way to preserve traditional values. A near total proportion (95.00%) of the farmers agreed that we must ensure the availability of native cattle to the future generations. Nearly three-fourth of the respondents reported that the good temperament of native cattle makes it worth keeping but 15.00 per cent of the farmers didn't agree with this and the reason might be due to the vicious nature of Vechur cattle. More than nine out of ten respondents surveyed agreed that Government should withdraw the blanket policy of cattle breeding and the local self- government bodies should initiate more programmes that promote the conservation of native cattle. Tesfa *et al.* (2017) [13] reported that lack of community participation and absence of supportive policy and lack of budget was the major challenges in the previous conservation strategies of Fogera breed. Half of the surveyed respondents perceived that conservation of native cattle can succeed only if local people play more active role, they opined that people should be aware of the importance of native cattle. This is in agreement with the findings of Sekhar (2003) [14] who reported that lack of local peoples' participation was a major problem in conservation and wildlife tourism around Sariska Tiger Reserve, India. Zander (2011) [12] suggested that the selection of species and breeds for animal production depended not only on livestock-keepers' attitudes and perceptions but also on available inputs and their knowledge of breeds/species. Majority of the farmers completely disagreed to the statements like 'I will quit keeping native cattle if given an opportunity to rear crossbred cattle' (86.67%) and 'I do not plan to keep native cattle as it will not be profitable' (93.33%) the reason they said that they are not keeping Vechur cattle because of the monetary benefit and nearly ninety per cent of them reported that, for them, native cattle farming is more a way of life rather than a business. About one third (36.67%) of the respondents showed an undecided attitude towards the statement 'native cattle keeping is profitable due to increased consumer demand for the products of native cattle, one third of them didn't agree with this statement and they reported that the market facilities of native cattle products were very less. Approximately half of the respondents undecided of taking up

native cattle keeping as a commercial venture, 40 per cent completely against this but 35 per cent agreed that keeping native cattle can be an advantageous subsidiary occupation. All the respondents agreed that breeding facilities exclusively for native cattle must be introduced.

Table 2: Distribution of respondents based on attitude of respondents towards conservation of native cattle

Sl. No.	Category	Frequency (f)	Percentage (%)
1	Low	18	30.00
2	Medium	23	38.33
3	High	19	31.67

It is also evident from the Table 2 that more than one-third of the Vechur cattle farmers had shown a medium level of favourableness towards the conservation of native cattle, nearly one-third had highly favorable attitude and an unfavourable attitude towards conservation of native cattle. Similar findings reported by Verma and Lal (2010) that the farmers shown a positive attitude towards conservation of Kherigarh cattle, they were rearing Kherigarh cattle despite low milk productivity of animals and utilizing natural service (86.66%) to conceive their animal which is necessary for preventing dilution of the breed as perceived by them. Schreiner (2018) [8] revealed that 90 per cent of the respondents always chose a conservation program.

Conclusion

The present study provided a useful view on Vechur cattle farmers' attitude towards the conservation of native cattle. Even though they are low milk producers the farmers were rearing Vechur cattle because they believe that Vechur cattle are valuable part of Kerala's heritage. They also reported that Vechur cattle is suitable for low input management system to meet family requirement of milk. The study revealed that the dairy farmers were showing positive attitude towards conservation of native breeds. For the introduction of successful conservation programmes the farmers should be educated about the value of the indigenous cattle genetic resources, should be given training on indigenous cattle production, access to markets and to encourage them the government may incentivise the farmers.

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