

MARKETING AND UTILIZATION PATTERN OF KHILLAR CATTLE OF KARNATAKA

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ABSTRACT

Khillar is an indigenous cattle breed, predominant in Karnataka. Although, milk production of these indigenous breed is low as compared to crossbreds, these animals are reared for their sturdy nature, sustainability to draught, heat tolerance, disease resistance, adaptability to harsh climatic conditions and ability to survive and perform under scarce feed and fodder conditions. But, livestock farmers face lots of issues in management of Khillar Cattle. The present study was conducted to analyse the marketing and utilization pattern of Khillar cattle of Karnataka. A total of 240 Khillar cattle owners from 16 villages comprising 80 small farmers, 80 medium farmers and 80 large farmers were considered for the study and interviewed with the help of structured schedule. The results indicated that that majority of the farmers purchased Khillar cattle from the market (54.59 %) and most of them (58.75 per cent) selected the Khillar cattle based on both the breed characteristics and hair whorls, followed by hair whorls (21.25 per cent). Majority (89.58 per cent) of the farmers responded that negotiation followed by undercover method (10.42 %) was followed in the market. Among the overall farmers, Khillar cattle was majorly used for milking purpose (88.75 %), followed by use of Khillar bullocks for agricultural activities (52.5 %). Hence, there is an urgent need to assess and analyze the contribution of indigenous cattle in the livelihood of resource poor which may help the policy makers to take necessary steps to provide subsidized loan and insurance policies for the draught animals and also to provide basic amenities in the cattle markets.

Keywords: Marketing, Utilization, Livestock Farmers, Khillar.

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INTRODUCTION

Livestock rearing is one of the most important economic activities in the rural areas of India which contributes 4.11 per cent to the national GDP and 25.6 per cent to total agriculture GDP (GOI, Economic Survey of India, 2021) by providing protein rich products such as milk, meat and eggs for human consumption. India has a rich source of cattle and buffalo genetic resources comprising of 50 breeds of cattle and 17 breeds of buffaloes (NBAGR, 2020) which help in creating the livelihood security to the poor farmers. Among different indigenous cattle in Karnataka, Khillar is a predominant indigenous cattle breed in the region. Although, milk production of these indigenous cattle breed is low as compared to crossbreds, these animals are reared for their sturdy nature, sustainability to draught, heat tolerance, disease resistance, adaptability to harsh climatic conditions and ability to survive and perform under scarce feed and fodder conditions (Gokhale *et al.*, 2008 and 2009). The Khillar breed is a member of the *Bos-indicus* sub-species, native to Satara, Kolhapur and Sangli districts in Maharashtra and Bijapur, Dharwad and Belagavi districts of Karnataka in India. There are four subtypes of Khillari breed such as; i) Atapadi Khillar; ii) Mhaswad Khillar; iii) Tapi Khillar and iv) Nakali Khillar. 'Khillari' means a herd of cattle and the herd man is known as 'Khillar' or 'Thillari'. The Khillar breed is well adapted to the tropical/drought-prone conditions and hence preferred by the local farming community. The typical Khillar animal is compact and tight skinned, with

clean cut features. The whole appearance is like a compact cylinder with stout, strongly set limbs (Adgale *et al.*, 2017). The breed population is declining mostly due to low milk yield. Besides their extensive use in their home tracts, they are also distributed in Haveri, Kalaburagi, Gadag, Uttara Kannada and Bagalakote districts of Karnataka. The total population of Khillar breed in Karnataka is 11,02,359 and the highest population of Khillar breed is distributed in Belagavi, Kalaburagi, Vijayapur and Haveri (GOI, Breed survey, 2013). Hence, there is an urgent need to assess and analyze the marketing and utilization pattern of Khillar cattle of Karnataka.

MATERIALS AND METHODS

The present study was carried out in the state of Karnataka as the state has six indigenous cattle breeds in the state, namely; Amritmahal, Deoni, Hallikar, Khillar, Krishna Valley and Malnad Gidda as per National Bureau of Animal Genetics Resources. For the present study Khillar indigenous cattle breed, was selected based on the presence of highest number of Khillar cattle population in its home/breeding tract (GOI-Breed survey, 2013). In the present study, four districts were selected possessing highest Khillar breed population of the state of Karnataka i.e., Belagavi, Kalaburagi, Vijayapur and Haveri. From each district, two taluks were selected based on highest Khillar cattle density, later two villages from each taluk. From each district, 60 farmers possessing Khillar breed of cattle were randomly selected, arriving at

the final sample of 240 farmers with 80 small, 80 medium and 80 large farmers from four districts. From each selected village, five small farmers, five medium farmers and five large farmers were selected for the study comprising a total of 15 respondents. Thus, 15 Khillar cattle owners from each village panchayat, making a total of 240 owners from 16 villages comprising 80 small farmers, 80 medium farmers and 80 large farmers were considered for the study. The descriptive statistics such as frequency and percentage was calculated as per Snedecor and Cochran (1989).

RESULTS AND DISCUSSION

The marketing and utilizing pattern of Khillar cattle is depicted in Table I and II.

MARKETING PATTERN OF KHILLAR CATTLE

In the present study, the majority of the small farmers purchased Khillar cattle from the neighbours (43.75 %) and among the medium (63.75 %) and large farmers (57.50 %), majority purchased Khillar cattle from the market. This clearly indicated that small farmers faced financial constraints and hence farmers purchased Khillar cattle on credit basis or on instalment basis with negotiation. Majority of the medium and large farmers purchased Khillar bullocks from the market. This could be due to wide range of availability of Khillar bullocks with different range of prizes. Only few per cent of farmers purchased from middle man which might be due to trust related aspects with the brokers. These findings are in agreement with findings of

Akila and Chander (2010) and Sudeep Kumar *et al.* (2015).

In the present study, equal per cent of the small, medium and large farmers (65.00 %) had expressed that *shandy* was the place of marketing and equal percentage of small, medium and large farmers (15.00 %) expressed that cattle fair was the place of marketing structure in their village. In a similar study, Sudeep Kumar *et al.* (2015) also opined that draught cattle were marketed mainly in *shandies*, cattle fairs and at home directly to buyers / farmers or with the help of brokers / commission agents. Out of the 16 villages in the present study area, only Horti village of Indi taluk had cattle fair every year in the month of December for 7 days. The findings are in agreement with the findings of Sharma and Singh (1998), who reported that cattle fairs were organized for one to three weeks in a year in their study area, whereas remaining villages had *shandy* as their cattle market.

In the present study, among the overall farmers it could be observed that, 58.75 per cent of the farmers were selecting the Khillar animal based on both the breed characteristics and hair whorls, followed by hair whorls (21.25 %) and breed characteristics (13.33 %). This indicated that Khillar cattle which have both breed characteristics and hair whorls priced high in the market. In certain conditions like securing bank loans for purchase of Khillar cattle, farmers sought advice of the veterinary officer. In a similar study, Mahesh (2013) reported that prize won in the competition, presence or absence of undesirable marks,

Table 1: Distribution of respondents based on marketing pattern of Khillar Breed

Sl. No.	Category	Small (N=80)		Medium (N=80)		Large (N=80)		Total (N=240)	
		F	%	F	%	F	%	F	%
1.	Khillar breed procurement								
	i. From market	33	41.25	51	63.75	46	57.50	130	54.59
	ii. From neighbours	35	43.75	12	15.00	17	21.25	64	26.66
	iii. From middleman	12	15.00	16	20.00	17	21.25	45	18.75
2.	Market structure								
	i. Shandy	65	81.25	65	81.25	65	81.25	195	81.25
	ii. Cattle fair	15	18.75	15	18.75	15	18.75	45	18.75
3.	Selection of good Khillar cattle								
	i. Breed characteristics	8	10.00	11	13.75	13	16.25	32	13.33
	ii. Hair whorls	21	26.25	17	21.25	13	16.25	51	21.25
	iii. Both	50	62.50	47	58.75	44	55.00	141	58.75
	iv. By the advice of veterinary officer	1	1.25	5	6.25	10	12.50	16	6.67
4.	Livestock marketing pattern in cattle fair/ market								
	i. Open auction	-	-	-	-	-	-	-	-
	ii. Negotiation	67	83.75	71	88.75	76	95.00	215	89.58
	iii. Undercover method	13	16.25	9	11.25	4	5.00	26	10.42

Note: F= Frequency

Table 2: Distribution of respondents based on utilization pattern of Khillar breed

SI. No.	Category	Small (N=80)		Medium (N=80)		Large (N=80)		Total (N=240)	
		F	%	F	%	F	%	F	%
1.	Own use								
	i. Milking	77	96.25	71	88.75	65	81.25	213	88.75
	ii. Agricultural activities	51	63.75	42	52.50	38	47.50	131	54.58
	iii. Manure	45	56.25	60	75.00	78	97.50	183	76.25
	iv. Carting	32	40.00	42	52.50	31	38.75	105	43.75
	vi. Breeding purpose	7	8.75	8	10.00	3	3.75	18	7.50
	vii. Prestige/show purpose	—	—	—	—	3	3.75	3	1.25
2.	Hiring out								
	i. Agricultural activities	67	83.75	45	56.25	14	17.50	126	52.5
	ii. Transportation	19	23.75	12	15.00	12	15.00	43	17.91

Note: F= Frequency

breed characteristics, general appearance and age (number of front teeth and horn rings) had significant impact on price of bullock. Further, Akila and Chander (2010) also reported that the majority of the farmers selected animals based on their physical characteristics like body dimensions, conformation and presence and position of hair whorls.

In the present study, none of the respondents among the small, medium and large farmers opined about open auction in

the cattle fair or cattle market. Majority of the respondents among small farmers (83.75 %), medium farmers (88.75 %) and large farmers (95.00 %) mentioned negotiation as the main marketing pattern in the cattle fair or cattle market. Respondents among small farmers (16.25 %), medium farmers (11.25 %) and large farmers (5.00 %) mentioned that the undercover method was the marketing pattern in the cattle fair or cattle market. Among the overall farmers it could be observed that, 89.58 per cent of the farmers expressed about

negotiation and 10.83 per cent opined about undercover method as the livestock marketing pattern in cattle fair/ market.

In a similar study, Sudeep Kumar *et al.* (2015) opined that draught cattle were marketed mainly in *shandies*, cattle fairs and at home directly to buyers / farmers and valuation of the animals was not fixed on scientific basis but through traditional method “Hatha” where the process of negotiation on pricing the animals was hidden.

UTILIZATION PATTERN OF KHILLAR CATTLE

It could be observed from the Table II that utilization pattern varies among different categories of farmers. Among the small farmers who were using Khillar cattle for own use, used Khillar cattle mainly for milking purpose (96.25 %) followed by agricultural activities (63.75 %), manure (56.25 %), carting (40.00 %) and breeding purpose (8.75 %). None of the small farmer’s used Khillar cattle for prestige/show purpose. Among the medium farmers who were using Khillar cattle for own use, used Khillar cattle for milking purpose (88.75 %) followed by agricultural activities (52.50 %), manure (75.00 %), carting (52.50 %) and breeding purpose (10.00 %). None of the medium farmers used Khillar cattle for prestige/show purpose. Majority of the large farmers used Khillar cattle for manure purpose (97.50 %) followed by milking purpose (81.25 %), agricultural activities (47.50 %), carting (38.75 %) and equal percentage of farmers used Khillar cattle for

breeding and prestigious/show purpose (3.75 %). Among the overall farmers, who were using Khillar cattle for own use, Khillar cattle was used mainly for milking purpose (88.75 %), followed by manure purpose (76.25 %), agricultural activities (54.58 %), carting purpose (43.75 %), breeding purpose (7.50 %) and for prestige/show purpose (1.25 %).

Gokhale *et al.* (2008) observed the performance of Khillar cattle under rural management condition in Western Maharashtra as the following. Overall milk production of Khillar breed was 2.42 ± 0.02 litres per day with average fat percentage as 4.22 ± 0.04 for an average lactation length 189.26 ± 0.88 days. On an average 7.18 ± 0.02 hrs, work was taken by farmers per day in breeding tract (ranging from 6.24 ± 0.05 hrs in Solapur district to 7.89 ± 0.04 h in Satara). For ploughing of oneacre of land, an average time of 9.72 ± 0.03 h were required by Khillar bullocks. Khillar bulcks travel a distance up to 18.33 ± 0.15 km in a day with average 1304.24 ± 15.33 kg loads in a cart.

It could be observed from the Table II that, the small farmers (83.75 %), followed by medium farmers (56.25 %) and large farmers (17.20 %) were using their Khillar bullocks for hiring out for agricultural activities and 23.75 per cent of small farmers followed by same per cent of medium and large farmers (15.00 %) were hiring out their Khillar bullocks for transportation. Among the overall farmers, 52.50 per cent farmers were hiring out their Khillar bullocks for agricultural activities and 17.91 per cent for the transportation. None

of the small, medium and large farmers were using their Khillar cattle either for edible oil extraction or for electricity generation and it was found the same with the overall respondents also.

CONCLUSION

The present study was conducted to analyse the marketing and utilization pattern of Khillar cattle which revealed that majority of the farmers purchased Khillar cattle from the market (54.59 %) and most of them (58.75 per cent) were selecting the Khillar cattle based on both the breed characteristics and hair whorls, followed by hair whorls (21.25 %). Majority (89.58 per cent) of the farmers responded that negotiation followed by undercover method (10.42 %) was followed in the market. Among the overall farmers, who were using Khillar cattle for own use, used Khillar cattle for milking purpose (88.75 %), whereas 52.50 per cent farmers hired out their Khillar bullocks for agricultural activities. The findings would also help the policy makers to take necessary steps to provide subsidized loan and insurance policies for the draught animals. The findings would help the policy makers to provide basic amenities in the cattle markets. Hence, there is an urgent need to further assess and analyze the contribution of indigenous cattle in the livelihood of resource poor which may help the policy makers and different planning agencies to design relevant development programs targeted for indigenous cattle rearing farmers.

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