

Original Research Article

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## Bargur Cattle: An Indigenous Germplasm from the Erode District of Tamil Nadu

K. Jaisuriyan, A. Nisha\* and J. Paul Mansingh

VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore, India

\*Corresponding author

### ABSTRACT

#### Keywords

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The breeding policy of nation as well as different states started giving emphasis to the conservation of the indigenous breeds. So, it is the need of the hour to understand the significance of these breeds. Hence, this study was purposively conducted in the Erode district of the Tamil Nadu, which is the home tract of Bargur, an indigenous breed. The area was selected purposively and the data was collected by direct interview with the field professionals and indigenous people using a semistructured interview schedule. The study also relies on secondary sources including a wider range of literature given at various levels for its completeness and comprehensiveness. The study revealed different characteristics, management practices and conservation strategies adopted for the Bargur breed. The study helps to understand the role of the breed in eco system stability and thus the importance of the breed conservation.

### Introduction

The civilization, history, and growth of a developing nation like India truly reveal the significance of agriculture in it. Agriculture adds to 17.76 % of the country's GDP, where the contribution of the animal husbandry sector is 4.11% and 25.6% of total Agriculture GDP (Statistics, GOI, Ali 2007). India is one among the 12 mega diversity countries in the world with a total Livestock population is 535.78 million showing an increase of 4.6% over 19<sup>th</sup> Livestock Census (GoI, 2019, Srivastava, 2019 and Islam, 2016). One of the salient findings of the

census report is that the sharp increasing trends of crossbred cattle and the decline of the indigenous cattle population due to the existed breeding policy.

Tamil Nadu contributes 4.56% to the country's total livestock population, 4.39% of the country's milk production, and 7.88% to meat production (Animal Husbandry Policy Note-2020). According to the latest livestock census, the livestock population of Tamil Nadu is 24,500,621 in which total female cattle population is 92, 224, 59. And the indigenous cattle population is 1609360 (GoI, 2019).

In recent times, drastic changes have happened in livestock management due to the increased specialization and mechanization. Due to the strong focus and high demands on high yielders with catering ecosystem services, there happened a tail off in the indigenous breeds. The genetic diversity and the cultural significance of the local breeds to its indigenous people have not been taken into account (Marsoner *et al.*, 2018). India has 43 registered indigenous native cattle breeds which are well adapted to the agro-climatic scenario of the country (Srivastava, 2019).

In this background, this literature reviews the significant role and importance of the Bargur cattle, indigenous germplasm of Tamil Nadu.

## **Materials and Methods**

The method of data collection includes a direct interview with the field professionals, indigenous people using a semistructured interview schedule. The study relies on secondary sources including a wider range of literature given at various levels for its completeness and comprehensiveness. For this purpose, the relevant information from the available credible sources was organized.

## **Results and Discussion**

### **Breed and characteristics**

Tamil Nadu has its own identity in rearing cattle and praising them through festivals like Jallikattu. Many Sangam Literatures of Tamil language describe the value and status of cattle in the society. Likewise, the Bargur cattle breed is one of the indigenous Draught breeds of Tamil Nadu. A traditional tribal village named Bargur is the origin of this cattle breed which is famous for sandalwood. It is an old, drought and hill breed cattle which is reared by an old Tribal community of Bargur (Ganapathi *et al.*, 2009).

### **Geographical location**

A gorgeous village in the hill ranges of the Eastern Ghats in the north corner of Erode district called Bargur is the native (origin) of this breed, 70kms from Erode and 68 km from Kollegal of Karnataka. These areas receive a considerable amount of rainfall during both the south-west and north-east monsoon and the dry season is from February to June. Bargur comes under the forest division of Anthiyur taluk includes nearly 33 tribal villages such as Bargur, Thurusanampalayam, Oosimalai, Thattakarai, Thamaraiikkarai, Eeratti, Devarmalai, Madam, Onthanai, Thamratti, Thalakkarai, Maniyachi, osoor, Sengulam, Kongadai, Bejjilipalayam, Bejjilitty, Kargegandi, etc. (P. Ganapathi *et al.*, 2009) (Fig. 1 and 3)

### **Uniqueness of the breed**

It is a hill breed with compact, strong and stumpy body. Adult male weighs 300kgs and female of 250kgs. These cattle are red or black (rare) in color with white patches concentrated in the whole body. It has compact body which enhances walking for long distances (Vivekanandan and Alaguma, 2013).

The main difference from other breeds is it has a well-developed sharp horn, mobbing power to find ways in dense forests and timid in nature. It is too alert while grazing in forests as it performs free grazing in forests areas. It is highly resistance to diseases as it feeds on green in forests.

It usually travels in herds for a long distance even for a whole day. It is mainly concentrated in the areas of Bargur forests, some villages of Anthiyur, some rural areas of Chamrajnagar district of Karnataka and Kolathur region of Salem district which is suitable for all climates (Fig. 2).

**Fig.1** Geographical location of the breed



**Fig.2** Bargur breed



**Fig.3** Bargur Cattle Research Station



### **Breeding peculiarities and Management practices**

The life span is approximately 20 years which includes 8-12 calvings. It gives 700-800kgs of milk per calving as other indigenous breeds give. It has a normal gestation period of 9 months (270+/-5) with a calving interval of 1-

2 years. It gives 1.5-3lts of milk per day. As it grazes in free ranges, cattle are let in dense forests from morning and allowed for grazing until sunset. As it is highly resistance to disease, no major diseases are seen among these cattle. Drought is the major problem in the Bargur region as it not receives monsoon rains timely. Because of that, cattle death was

recorded during 2012-2015. In addition to grazing, Dry fodders are provided. Rather than that, Green fodder (15-20kgs), dry(2-3kgs), concentrated feed(1kg) per day, per a single cow is recommended. These cattle are adopted for Forest ecosystem and not stall feeds. This performs Zero input grazing means no cost is involved in feeding cattle, which states that the management practices of this breed are easier than other (Kavitha *et al.*, 2019).

### **Marketing**

Marketing facilities and transportation are poor because the Bargur area is away from all the main cities. Lack of awareness among the people and poor storage facilities reduce the marketing capacity of yield products. Surabi, an NGO working at Thamarakkurai (headquarters- Gobichettipalayam), buys milk from the local breeders and paying the way for a better marketing facility.

### **Reproduction**

By the Tamil Nadu Bovine Breeding Act 2019, crossbreeding of native and indigenous cattle breeds is prohibited. So, no crossbreeding is performed. Natural service is allowed in the ratio of 1:20. The healthy, active bulls with good bone density and legs are selected for mating. (Kavitha *et al.*, 2019). Rather than that, artificial insemination (AI) is also practiced at the veterinary centers using the semen of same breed.

### **Utility**

Rather than milking, cattle are used for various agricultural practices like ploughing etc. The dung and urine is mainly used for manuring as most of the local people perform organic farming. The main crops raised in these hamlets are Ragi, Cumbu, Pulses like Black gram, Green gram etc.

### **Farming community**

The region is at the Tamil Nadu-Karnataka Border. Kannada speaking Lingayat Community (Lingaayathar) is dominant over the Bargur society which is the major community division of Chamrajnagar District of Karnataka. These people worship lord Madheswara located at Mala Madheswara Hills of Kollegaljilla of Chamrajnagar District. They used to donate their yield-prose millet called 'Baragu' (varagu in Tamil). It is believed that Lord Madheswara protect their belongings and the nature resources of their surroundings. So, their locality is named as Bargur. They are pure vegetarians and practices tradition way of living, doing agricultural practices and rearing of cattle at all (Kavitha *et al.*, 2019).

### **Traditional practices**

Bargur cattle is the recognized native draught breed next to Kangayam Cattle. It is locally called as Semmarai. It is said to be a semi-wild breed remain penned in forest. Grazing is scheduled according to the cultivation times of the locality. The cattle are let in dense forests for grazing in the month of August when the southwest monsoon reaches its peak. Then during the month of January/February, they are used for manuring in the agriculture fields as summer onsets. Streams and springs are the main source of water. 'Boli' a planned artificial water resource constructed and permitted by the British Government annually but later restricted by the Forest Department of Tamil Nadu. (Kavitha *et al.*, 2019) also acts as source of water.

Culling is performed and they are sold during the Saturday cattle fair at Anthiyur or during the Gurunathaswamy Festival. Horse and Cattle Fair organized every year during the month of August since the period of Tippu

Sultan- King of Mysuru in onset of Gurunathaswamy Temple Festival called as AadiNombi by the locals traditionally.

### Conservation

Different conservations strategies have adopted which includes the Bargur Cattle Research Station- Bargur established by Tamil Nadu Veterinary and Animal Sciences University. The main reasons for declining population are introduction of mechanization in agriculture and drought. Most of the areas fall under rainfed condition, so inadequate water for feeding animals was the major problem in late 2010 to 2014 which was the reason for declining population. The total population was merely 1 lakh during 1970's but it reduced to just six thousand approximately during the 19<sup>th</sup> cattle census. The enumeration revealed that totally 2529 animals are present includes 1109 females and found to be an endangered (Ganapathi *et al.*, 2009) which led to the establishment of a research station called Bargur Cattle Research Station (BCRS) under the veterinary department of Tamil Nadu. By the effort of BCRS, the population is doubled during the 20<sup>th</sup> cattle census (12 thousand cattle). The main aspect and motto of BCRS is conservation of the Bargur breed.

In conclusions even though the breed is well known for its survival and adaptation in local climatic regions, the survivability of the breed for the farmer's financial constraints need to be studied in depth. There should be participatory approach programs from local people, breeders, NGO's, local body institutions, research organisations with government support to conserve them in their original tracts. A holistic approach need to be initiated to cover up the trending declines of indigenous breed population, in which the central Government implemented Rashtriya Gokul Mission for setting up of 21 Gokul

Grams as Integrated Cattle Development Centres is notable and are the needs of the hour.

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