
Research Papers



GEOGRAPHICAL STUDY OF RANKING OF LIVESTOCK IN SOLAPUR DISTRICT

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Abstract

Livestocks are one of most different breeds of animals which are reared together in farms and used either to produce food, fiber or raw material. Livestock farming is the raising of animals for food or raw material. Livestock animals play an important role in rural economic development. Some of these animals include cattle or dairy cows, buffaloes, goats, sheep. Other livestock animals include pigs, horse, camel, donkey and mules. Bees can be raised generally for production of honey. The aim of present paper is to study ranking of livestock in Solapur district of Maharashtra. The entire investigation is based on secondary sources of data. The data obtained from socio-economic review and District statistical abstract of Solapur district, department of animal husbandry zilla parishad Solapur, livestock census etc. It is also observed that the Goat, Cattle, buffalo and sheep are the first, second, third and fourth ranking livestock in the study region respectively.

KEY WORDS: Livestock, First Rank, Second Rank, Third Rank, Fourth Rank.

INTRODUCTION

The term 'livestock' is nebulous and may be defined narrowly or broadly; on a broader view, livestock refers to any breed or population of animal kept by human for a useful and commercial purpose. 'Livestock refers to one or more domesticated animals raised in an agricultural setting to produce commodities such as food, fiber and labor' (Wikipedia). As mentioned in American Heritage Dictionary, 'Domestic animals such as cattle or horses, raised for home use or for profit, especially on a farm'. According to Rastogi, 'Livestock refers to all domestic animals that are used to produce food and other valuable products for human beings. It includes cattle, buffaloes, sheep, goat, pigs, horses, and camels etc'.

There are various types of domestic animals such as cattle, buffaloes, sheep, goat, pigs, camel, donkey and horses etc in Solapur district. In the study region man domesticated cattle and buffaloes for use in agriculture operation and to provide milk. Sheep and goat are used for milk and wool production. Goat and pigs provided meat. He started using bullock, horses and donkeys for tillage and transport.

The main advantage of livestock ranking we can understand the livestock ranking pattern in a region and it is most useful for the planning of judicious animal husbandry. The strength of livestock is determined on the basis of its percentage value represented in terms of total livestock population. Whereas rank order of which has been derived by calculating percentage value of each tahsil.

Farm cultivation is the major business of the people living in the study region. In Solapur district 72 per cent (2001 census) of people are engaged in agricultural activity. The rainfall received to Solapur district is received from south west and retreating monsoons. District is situated in the southern part of Maharashtra and it comes under the rain shadow region of the state. Hence, the rain received in the study

region is irregular because of this reason the farmers of the district relies on animal husbandry as complementary farming. However the Spatio-temporal distribution of livestock in Solapur district is uneven. Therefore to study the ranking pattern of livestock in Solapur district, because to understand the livestock ranking pattern to useful for the planning of judicious animal husbandry in the study region.

OBJECTIVE

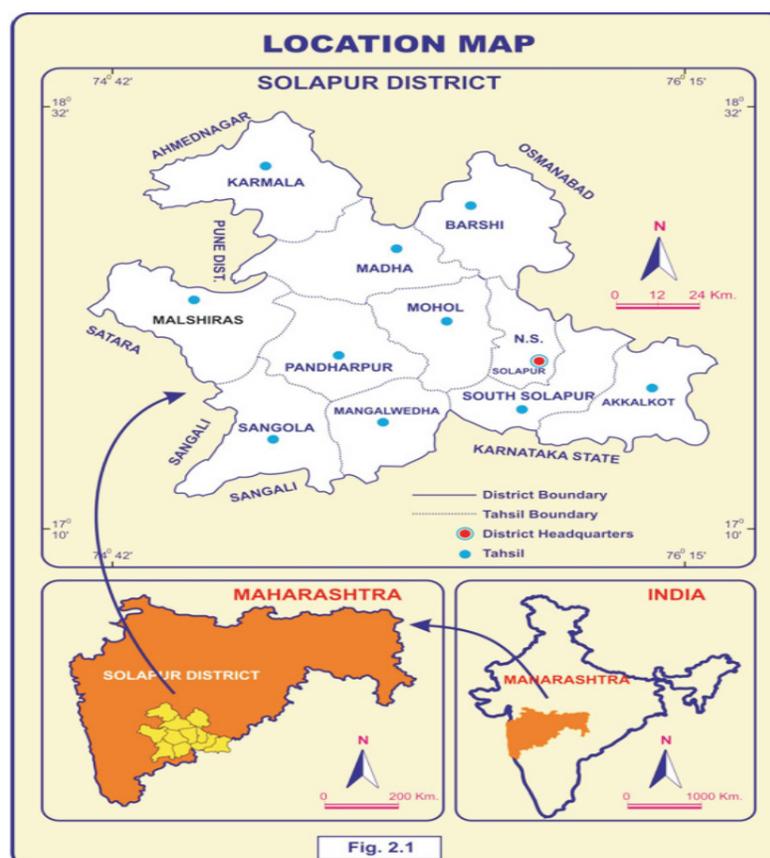
The aim of present paper is to study ranking of livestock in Solapur district of Maharashtra.

DATABASE AND METHODOLOGY

Present study is based on secondary data. The secondary data obtained from socio-economic review and District statistical abstract of Solapur district, District statistical department of Solapur, Department of animal husbandry, Z. P. Solapur. Collected data is processed and presented in the forms of tabular and graphical.

STUDY AREA

Solapur district is an administrative district in the state of Maharashtra in India. The Solapur district is bounded by 17° 10' to 18° 32' North latitudes and 74° 42' to 76° 15' East longitudes (Fig. 1). The total geographical area of Solapur district is 14895 Sq. Km. divided into eleven tahsil and total population of 4315527 as per 2011 census. Climate of Solapur district is dry as daily mean maximum temperature range between 30° C to 37° C and minimum temperature range 18° C to 21° C. The annual average rainfall is 678 mm in Solapur district. In



this district vegetation are scattered, short thorny trees, bushes grow along with tree. These trees have long system and few small leaves, short grasses grow during rainy season. According to Livestock Census of 2007, Solapur district rank third position next to Ahamadnagar and Nashik in Maharashtra, its contribution is 4.53 per cent in Maharashtra and 0.32 per cent of the total livestock in India.

DISCUSSION AND RESULTS

Relative strength of livestock is determined on the basis of its percentage value represented in terms of total livestock population. Whereas rank order of which has been derived by calculating percentage value of each tahsil. Regarding the percentage value of each livestock in terms of total livestock population same in the study region, Goat rank at the top. It shares 38.97 percent of the total livestock population in the study region, followed by cattle, which is also rearing with high ranking. It shares 31.49 percent to the total livestock population. Both the livestock have been well survived and sustained in the study region. Buffalo rank third sharing 18.78 percent, whereas sheep is on fourth position sharing 9.76 percent of total livestock population. However some tahsils being traditionally dominant in rearing of sheep have put this animal in upper ranking order. These are four major livestock's in the study region which all together share 99 per cent of the total livestock population. Physical as well as socio-economic conditions have played dominant role in determining the spatial distributional and ranking patterns of livestock in the study region. This is responsible for tahsilwise variation in distribution and ranking which is analyzed further (Table 1).

First Ranking Livestock

Fig. 2 A, Shows that goat ranks first in nine tahsils namely Madha, Malshiras, Pandharpur, Mohol, North Solapur, South Solapur, Sangola, Mangalwedha and Akkalkot. In an average the climate of the study region is dry and comparatively extreme. In the study region rainfall is scanty and unassured. Short and thorny forests are there. In such climatic condition goat has survived and proved to be suitable. On the other hand goat is a surviving in all kinds of climate. However, in Karmala and Barshi are having cattle as first ranking livestock.

Second Ranking Livestock

Fig. 2 B, Depicts that southern, Eastern and Western tahsils is having cattle as a second ranking livestock. Such as Madha, Malshiras, Pandharpur, Mohol, North Solapur, South Solapur, Sangola, Mangalwedha and Akkalkot tahsils. Northern tahsils namely Karmala and Barshi which are leading in Goat have put it on second rank.

Table 1**Solapur District: Ranking of livestock (livestock census 2007)**

Sr. No	Tahsil	First Rank	Second Rank	Third Rank	Fourth Rank
1	Karmala	Cattle (44.34)	Goat (37.28)	Buffalo (13.55)	Sheep (4.32)
2	Barshi	Cattle (39.42)	Goat (35.29)	Buffalo (20.89)	Sheep (3.79)
3	Madha	Goat (45.28)	Cattle (35.81)	Buffalo (13.68)	Sheep (3.90)
4	Malshiras	Goat (36.58)	Cattle (27.88)	Sheep (20.04)	Buffalo (14.26)
5	Pandharpur	Goat (40.86)	Cattle (29.41)	Buffalo (26.93)	Sheep (2.16)
6	Mohol	Goat (39.08)	Cattle (34.21)	Buffalo (19.47)	Sheep (6.47)
7	North Solapur	Goat (39.00)	Cattle (30.86)	Buffalo (25.76)	Sheep (3.55)
8	South Solapur	Goat (37.83)	Cattle (30.93)	Buffalo (25.06)	Sheep (4.75)
9	Sangola	Goat (39.61)	Cattle (24.83)	Sheep (19.59)	Buffalo (15.82)
10	Mangalwedha	Goat (39.68)	Cattle (26.25)	Buffalo (19.86)	Sheep (13.56)
11	Akkalkot	Goat (38.29)	Cattle (32.13)	Buffalo (20.37)	Sheep (5.23)
	District	Goat (38.97)	Cattle (31.49)	Buffalo (18.78)	Sheep (9.76)

Source: Compiled by the researcher based on livestock census 2007.

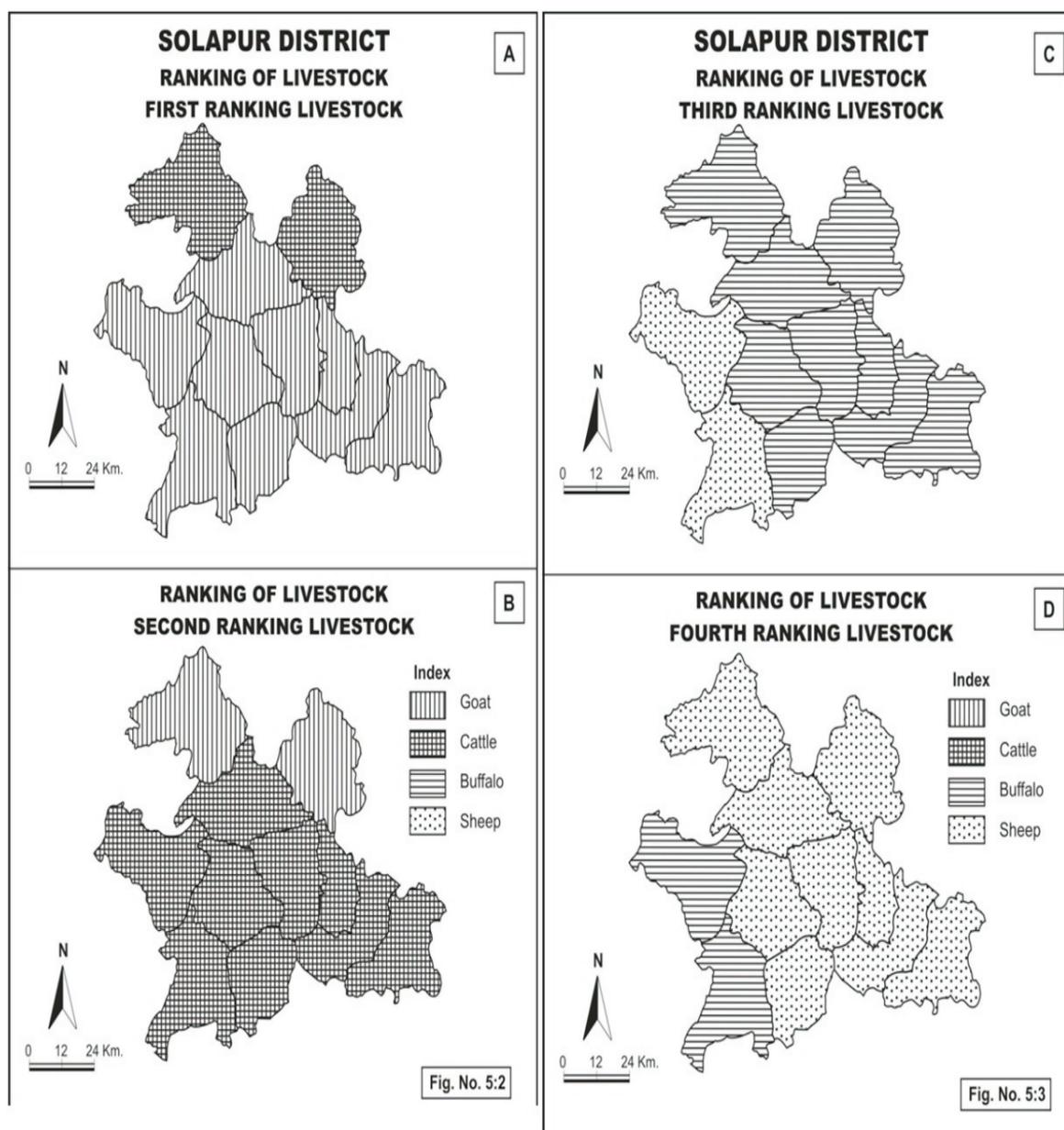
Note: Figures in the bracket show percentage share of animal in total livestock.

Third Ranking Livestock

Fig. 2 C, Clearly indicated that Eastern, Southern, Middle and Northern tahsils are dominant in the rearing of buffalo as third ranking livestock. Such as Karmala, Barshi, Madha, Pandharpur, Mohol, North Solapur, South Solapur, Mangalwedha and Akkalkot tahsils. However, western and south western tahsils (Malshiras and Sangola) are rearing sheep as third ranking livestock.

Fourth Ranking Livestock

It is evident from Fig. 2 D that sheep is reared as fourth ranking livestock in the tahsils situated in Eastern, Southern, Middle and Northern part of the study region such as Karmala, Barshi, Madha, Pandharpur, Mohol, North Solapur, South Solapur, Mangalwedha and Akkalkot tahsils. However, western and south western tahsils such as Malshiras and Sangola are rearing Buffalo as fourth ranking livestock



CONCLUSION

Goat, Cattle, buffalo and sheep are the first, second, third and fourth ranking livestock in the study region respectively. Goat is the first ranking livestock in the district as well as in the nine tahsils namely Madha, Malshiras, Pandharpur, Mohol, North Solapur, South Solapur, Sangola, Mangalwedha and

Akkalkot. In other hand cattle is the first ranking livestock in Karmala and Barshi tahsils. Cattle are the second ranking livestock in nine tahsils namely Madha, Malshiras, Pandharpur, Mohol, North Solapur, South Solapur, Sangola, Mangalwedha and Akkalkot. However goat is the second ranking livestock in Karmala and Barshi tahsils. Buffalo is the third ranking in nine tahsils namely Karmala, Barshi, Madha, Pandharpur, Mohol, North Solapur, South Solapur, Mangalwedha and Akkalkot. However sheep is the third ranking in two tahsils namely Malshiras and Sangola. As well as sheep is the fourth ranking livestock in nine tahsils Karmala, Barshi, Madha, Pandharpur, Mohol, North Solapur, South Solapur, Mangalwedha and Akkalkot. However buffalo is the fourth ranking livestock in Malshiras and Sangola tahsils.

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