

Research Paper

A CONCENTRATION ANALYSIS OF BUFFALO FARMING IN SOLAPUR DISTRICT**S.S. MASKE**Assistant proff
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Dist: Solapur**ABSTRACT**

The buffalo is an important economic livestock species, contributes greatly to the agrarian Indian economy. They play an important role in the livelihood of marginal farmers and landless labourers engaged in buffalo rearing. Buffalo is the dairy, drought and meat animal. Buffalo manure is an important source of organic fertilizer for increasing soil fertility. The aim of present paper is to assess the concentration and rank of C.I. of buffalo 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, livestock census etc. It is also observed that the concentration of buffalo high in North Solapur, South Solapur and Pandharpur tahsils. whereas low concentration in Karmala, Madha, Sangola and Malshiras tahsils.

KEY WORDS: Buffalo, concentration Index, Rank of C.I., Gawali, Milk, Dairy, Drought.

INTRODUCTION:

Animals are important Bio-resource for mankind from the ancient days. There has been great impact of animals in human life. For survival of man needs food and this quest of food in mainly quenched by mans efforts at field as farmer and the resource of food provided by live stock. In the beginning face of mankind animals provided food, clothes and shelter essential for mankind. But afterwards the conception of animal husbandry came forth as the major resource useful for human. It developed as a primary occupation along with farm cultivation and recently, the people have accepted it as one of the major commercial venture.

Animal husbandry has been closely associated with agriculture. In the early stages the agriculture and animal husbandry was confined to the centers of origin of agriculture. Out of the total production in agriculture animal husbandry includes 30 percent of the production (India 2003)

In fact buffalo play a major role in rural economy of the Solapur district. The district very famous for its indigenous breed of buffaloes known pandrapuri. In Solapur district the buffalo is a main dairy animal. The district dairy industry of late has come to depend more and more on buffaloes. The buffalo is equally important in providing milk and farm yard manures. Buffalo manure is an important source of organic fertilizer for increasing soil fertility.

Buffalo is the third ranking livestock in the study region. Out of the total livestock population buffalo include 18.78% population in the study region. The current population of buffalo in the study region is 409552 (2007 livestock census). According to 18th livestock census held in 2007, 5.89 and 0.32 percent buffalo population out of the total buffalo population of Maharashtra and India.

OBJECTIVE:

To assess the buffalo concentration region and Rank of C.I. in Solapur district of Maharashtra.

DATABASE AND METHODOLOGY:

Present study is based on secondary data and field observations. The secondary data obtained from socio-economic review and District statistical abstract of Solapur district, 17th livestock census handbook of Maharashtra state in the year 2003 and the 2007 buffalo population data obtained from the Zilla Parishad Pashu Sanvardhan Khate, Z.P. Solapur.

Collected data is processed and presented in the forms of tabular and graphical. Tabular from using statistical techniques such as the concentration index (C.I.) buffalo will be calculated by Bhatiy's (1965) location quotient method as below

$$CI = \frac{pb/tp}{PB/TLP}$$

Where,

CI = Index of concentration

pb = population of buffalo (x) in tahsil

tp = total livestock population in tahsil

PB = population of buffalo in district.

TLP = Total livestock population in district.

STUDY AREA:

Solapur district is an administrative district in the state of Maharashtra in India. The district headquarters are located at Solapur. The Solapur district is bounded by 17010' to 18032' North latitudes and 74042' to 76015' East longitudes (Fig No.1) The total geographical area of Solapur district is 14895 sq.Km. divided into eleven tahsil and total population of 3855383 as per 2001 census.

Climate of Solapur district is dry as daily mean maximum temperature range between 300c to 370c and minimum temperature range between 180c to 210c with the highest temperature of about 450c in the month of May. 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.

RESULTS AND DISCUSSION:

Perfect knowledge of buffalo concentration pattern in a region has been considered to most useful in the judicious animal husbandry planning. 'The term buffalo concentration refers to the variation in the density of buffalo in a given region at a point of time'.

The geographical distribution of buffalo shows that the buffalo population distribution high in west and south-western region of the district. But the distribution shows the large variations in the district. Therefore, the location quotient method in the form of concentration index (C.I.) are calculated for each tahsils of Solapur district and further grouped into five different categories namely very low, low, medium, high and very high. If the CI value is < 0.75 shows the very low concentration. CI values between 0.75 to 1.00 shows the low concentration. While CI values between 1.00 to 1.25 shows the medium concentration. The CI values between 1.25 to 1.50 shows high concentration and CI values > 1.50 shows the very concentration (Fig no 2).

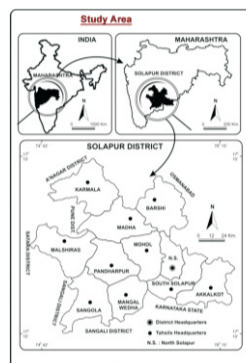


Table No.1 Concentration index of buffalo in Solapur District.(1997, 2003 & 2007)

| Tahsils | 1997 C.I. | 2003 C.I. | 2007 C.I. |
|---------------|-----------|-----------|-----------|
| North Solapur | 1.57 | 1.48 | 1.37 |
| Pandharpur | 1.50 | 1.35 | 1.43 |
| South Solapur | 1.49 | 1.37 | 1.33 |
| Akkalkot | 1.34 | 1.12 | 1.08 |
| Barshi | 1.15 | 1.07 | 1.11 |
| Mangalwedha | 1.03 | 0.98 | 1.05 |
| Mohol | 0.93 | 0.95 | 1.03 |
| Sangola | 0.82 | 0.85 | 0.48 |
| Malshiras | 0.72 | 0.78 | 0.75 |
| Madha | 0.70 | 0.78 | 0.72 |
| Karmala | 0.52 | 0.74 | 0.72 |

Source: Compiled by the researcher.

From table no 1 buffalo registered very low degree of concentration in Karmala, Madha and Malshiras tahsils. While low degree of concentration was observed in Sangola and Mohol tahsils. Medium degree of concentration was found in Mangalwedha Barshi tahsil. Whereas high degree of concentration was found in Akkalkot, South Solapur and Pandhar tahsils during 1997.

During the year 2003, five tahsils have changed the degree of concentration. Two tahsils namely Madha and Malshiras have changed the degree of concentration in higher level. Another three tahsils namely Mangalwedha, Akkalkot and North Solapur have shifted in degree of concentration in lower level.

However, in the year 2007, again five tahsils have changed the degree of concentration. Two tahsils namely Mohol and Mangalwedha have changed the degree of concentration in higher level. Another three tahsils namely Sangola, Madha and Malshiras have shifted in the degree of concentration in lower level (Fig.No.2).

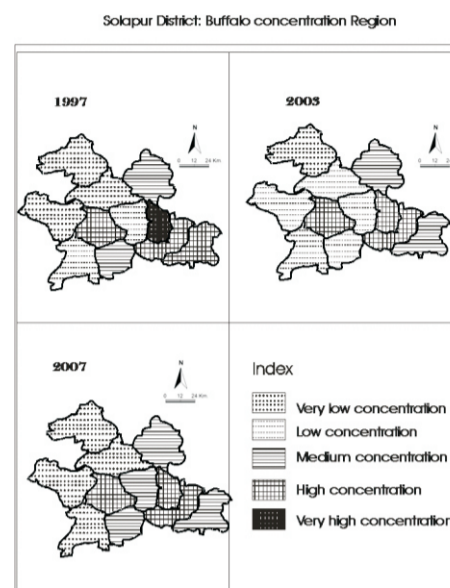


Fig No.5.6

It is observed that the livestock census 1997, 2003 and 2007 the high degree of concentration in North Solapur, South Solapur and Pandharpur tahsils. Because in the demand for supplement of the milk has been increased day by day in Solapur city. For the supplement of this increasing demand the number of buffaloes is increase in the near by area of Solapur city. As a result the population of buffaloes has been increased in North Solapur and South Solapur tahsils.

In Pandharpur tahsils the GAVALI people's population is high and these people traditional occupation is buffalo rearing. On the other hand Pandharpur is a pilgrim center. So there is more demand of pedha. For this reason pedha making more amount of milk are used. So the buffalo's population increased in Pandharpur tahsil day by day.

CONCLUSION:

Buffalo is an important economic livestock in Solapur District. It contributes greatly to the agrarian district economy. They play an important role in the livelihood of marginal farmers and landless labourers engaged in buffalo farming. Buffaloes are mostly reared for dairy purposes. So buffalo the main dairy animal in the study region. 18th livestock census during the year 2007, High degree of buffalo concentration in North Solapur, South Solapur and Pandharpur tahsils. While medium degree of concentration in Mohol, Akkalkot, Mangalwedha and Barshi tahsils. Whereas low degree of concentration observed in Karmala, Sangola, Madha and Malshiras tahsils.

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