

Research Paper

A GEOGRAPHICAL STUDY OF SHEEP FARMING IN SOLAPUR DISTRICT OF MAHARASHTRA

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ABSTRACT

The sheep is an important economic livestock species contributing greatly to the agrarian Indian economy, especially in arid, semi-arid and hilly areas. They play an important role in the livelihood of a large number of small and marginal farmers and landless labourers engaged in sheep rearing. Sheeps are mostly reared to obtain meat and wool as commercial goods. Sheep skin and wool is used by a number of rural based industries as raw material. Sheep manure is an important source of organic fertilizer for increasing soil fertility. The aim of present paper is to assess growth, distribution and changes in Solapur district of Maharashtra.

The entire investigation is based on field observation and secondary sources of data obtained from Scio-Economic review and District Statistical Abstract and livestock census hand book. The study concludes that from last a decade number of sheep population is decreased in throughout the district. The distribution of sheep population in Solapur district is uneven. Where Dhanagars community is high in number engaged in this occupation, there sheep distribution is also high in number i.e. Malshiras, Sangola and Mangalwedha tahsils. This decrease in sheep population is mostly confined with the tahsils were irrigation, agriculture technology adoption of modern cash crops and fruit crops with modern technology and commercial attitudes has been practiced i.e. Sangola, Pandharpur, Malshiras, Mangalwedha and Karmala tahsils etc.

keywords: Sheep, Urbanization, Agriculture Development, irrigation facilities, fodder, water, Dhanagars.

INTRODUCTION:

In Solapur district 75 percentage of people occupation is farming. In 2001 census 68.17 percentage people were living in villages and they were depended upon the income gained by the farming for their livelihood. But climatically Solapur district is located in rain shadow area or drought prone area. Soil of the district is comparatively of lesser quality, irrigation facilities are less, short and thorny forest patches etc. due to this reasons in the district less development of agriculture is found. So the people in the district engaged in the sheep farming for their livelihood.

In other hand sheep possess a special ability to thrive on nature grasses and, except

during certain physiological stages of life, do not need to be given any supplemental feed. In fact there is no substitute for sheep as a class of livestock for utilising waste land or weeds from the field.

As well as in the study region there are large number of small holder and landless labourers. Out of them many have adopted sheep rearing occupation as a means of life and some are doing this occupation with their family members to get additional income from wool, manure and marketing by sheeps.

Here, I have attempted to take review of sheep population and its present situation in Solapur district.

OBJECTIVES:

Following are the specific objectives of the present investigation.

- To study the geographical determinants of Sheeps in the study region
- To take an account of Sheeps in the study region.
- To study the growth, distribution and changes of Sheeps population in the study region.

DATA SOURCE AND METHODOLOGY:

Present study is based on field observation and secondary source of data. The secondary sources of data obtained from the Socio-Economic review and district Statistical abstract of Solapur district. District census handbook and livestock census hand book. 2007 sheeps 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 form

using statistical techniques, such as the growth and changes of sheep population will be calculated with the help of following formula.

Where,
 GRC = Growth Rate and Changes
 P2 = Second values or Numbers
 P1 = First values or Numbers

The density of sheep population is calculated with own idea, the formula given below.

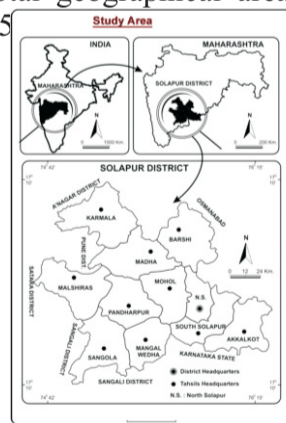
$$D = \frac{T.A.}{\text{Area (F+CE+F+N)}}$$

Where,
 D = Density of sheep population
 T.A. = Triennial average of sheep population in 1997, 2003 and 2007 livestock census.
 F = Forest land
 CE = Cultivable waste exclude fallow.
 F = Fallow land
 N = Net shown area.

To calculate the tahsilwise density of sheep we have considered landuse categories of F, CE, F and N land. Because sheep are reared on these lands or fodder grass etc. are made available as a sheep feeds from these land.

STUDY AREA:

Solapur district is an administrative district in the state of Maharashtra in India. The district headquarter is located at Solapur. The Solapur district is bounded by 17010' to 18032' North latitudes and 74042' to 76015' East longitudes (fig.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 30c to 37c 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 vegetations 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.

RESULT AND DISCUSSION:

Temporal growth of sheep population:

According to 18th livestock census held in the year 2007, sheep is fourth ranking livestock next to the cattle, buffaloes and goat in the study region. Out of the total livestock population sheeps occupys 9.76 percent share in Solapur district. There are 4.19 and 0.16 percent share of sheep population in Maharashtra and India respectively. As compared sheep population of 1961 to that of 2007 livestock census the sheep population is decreased by -36.02 percent in Solapur district. Table no.1 gives temporal picture of sheep population in the study region.

Census year	Sheep population	Population Growth in %
1961	192139	--
1966	266268	+38.58
1972	230075	-13.59
1978	276914	+20.35
1982	267529	-3.38
1987	280570	+4.87
1992	301646	+7.51
1997	335655	+11.21
2003	252621	-24.73
2007	122926	-51.33

Source: 1) Socio-economic review and district statistical abstract of Solapur district in 1961 to 2009.
 2) Z.P.Pashu Sanvardhan Khate Solapur 2007.

tage of water, fodder and feeds in the district. In the district according to the above census population of sheep have been decreased in 1972, 1982, 2003 and 2007 census year. Because in the district was badly suffered by serve drought in the year 1972, 2002 to 2005 and

its effect which last for further years. This resulted in great shor

In other hand 1966, 1978, 1987 and 1997 livestock census the sheep population is increased. Because in this year there was easily available of water, fodder and feeds in the study region. (fig.no.2)

Distribution of sheep population:

The sheep population distribution is uneven in the district because it has been affected by geographical (i.e. physiography, climate, soil, natural vegetation, water etc.) and Socio-economic factor (i.e. population, landuse pattern, cropping pattern, mode of transportation, capital, market etc.). The sheep population distribution is given in the table no.2.

Sr. No.	Taluka	Density of sheeps
1	Karmala	08
2	Barshi	05
3	Madha	07
4	Malshiras	66
5	Pandharpur	10
6	Mohol	16
7	N.Solapur	05
8	S.Solapur	04
9	Sangola	59
10	Mangalwedha	23
11	Akkalkot	06
	District	17

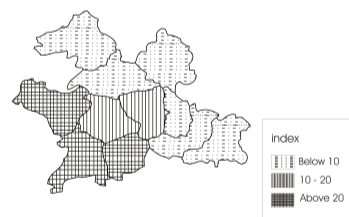
Source: 1) Socio-economic review and district statistical abstract of Solapur district in 2005 - 2006 & 2009.
2) Z.P.Pashu Sanvadhan Khate Solapur 2007.

The low category was registered in North Solapur and South Solapur tahsils. Because sheep farming has been affected by urbanisation and industrialization. So in these tahsils the people diverted in secondary activity. Karmala, Barshi, Madha and Akkalkot tahsils the agriculture is medium developed and in this tahsils the Dhangars or Shepherds population is few. So the density of sheeps is low in these tahsils.(Fig.No.3)

There is particular development of sheep farming in Malshiras, Sangola and Mangalwedha tahsils. Because in these tahsils with their dry murum and barren grazing plains are specially suited for rearing sheep. In these southern grazing lands number of DHANAGARS or SHEPHERDS community is living and doing this traditional occupation from long past with these other nomadic tribes are also engaged in this occupation i.e. Ramoshi. So the sheep population density high in these tahsils.

In other hand Malshiras and Sangola tahsils southern and western part is hilly region known as phalthan range and Mahadevache dongar, short and thorny forest patches are there, poor and shallow soil and there is very low

Distribution of Sheep population in Solapur District



rainfall. Due to these reasons agriculture and other activities are not developed in these tahsils part. So the people in this part engaged in sheep rearing for their livelihood. As well as in Sangola tahsil is facing the problem of water scarcity, people have adopted this occupation for their survival.

Spatio-Temporal changes of sheep population:

It has been observed that there is a remarkable change due to spatial and temporal elements. Because they have been affected by the geographical and socio-economic elements. The total number of sheep population is increased

where the above said factor is conducive and on the other hand we find decrease in number of sheep where such factors are inconducive. Table no.3 shows the spatio-temporal change of sheep population in 5 years in Solapur district.

Sr. No.	Taluka	Sheep population in 2003	Sheep population in 2007	Change in %
1	Karmala	12129	73901	-39
2	Barshi	4706	6165	+31
3	Madha	8181	7370	-10
4	Malshiras	78608	74371	-5
5	Pandharpur	12108	5521	-54
6	Mohol	17402	12178	-30
7	N.Solapur	3310	3982	+20
8	S.Solapur	4765	5570	+17
9	Sangola	72535	62025	-14
10	Mangalwedha	28298	20690	-27
11	Akkalkot	11663	7664	-34
	District	253705	212926	-16

Source: 1) Socio-economic review and district statistical abstract of Solapur district in 2009.
2) Z.P.Pashu Sanvadhan Khate Solapur 2007.

From the table no.3 it is observed that there is effect of constant drought conditions from the year 2002 to 2005 resulted in decrease in the sheep population throughout the district as a whole. However while when we take regional review, it has been found that except Barshi, North Solapur and south Solapur there is decrease in sheep population in all the tahsils of the district. Through in depth field work it is found that shepherds have shifted their interest from sheep rearing to fruit farming with innovation and adoptions of new technology. Tahsils like Malshiras, Karmala, Pandharpur, Mohol, Madha are well benefited from Ujani irrigation project resulted in noteworthy increase in irrigated area and remarkable growth in area in under cash crops like sugarcane and fruit farming like grapes pomegranate, banana etc.(fig.no.4)

CONCLUSION:

- Sheep rearing occupation is mostly confined with arid, semiarid and hilly areas of the district, wherever there is less development of irrigation facilities.
- Where Dhangars community is high in number engaged in this occupation, there sheep distribution is also high in number.
- From last a decade number of sheep population is decreased in throughout the district.
- This decrease in sheep population is mostly confined with the tahsils where irrigation, agriculture technology adoption technology adoption of modern cash crops and fruit crops with modern technology and commercial attitudes has been practiced i.e. Sangola, Pandharpur, Malshiras, Mangalwedha and Karamala. etc.

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