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## WHEAT PRODUCTIVITY IN SOLAPUR DISTRICT : A GEOGRAPHICAL ANALYSIS



**Padmakar Gone<sup>1</sup>, More Mahesh<sup>2</sup> and Sangmeshwar Bhang<sup>3</sup>**

<sup>1</sup>Research Student , S.R.T.M.U. Nanded.

<sup>2</sup>Research Student , S.H. College, Udgir.

<sup>3</sup>Research Student , S.H. College, Udgir.

### Abstract

The overall growth of the Indian economy has depended much on the performance of agriculture. It is the single largest source of employment in India, even though its contribution. Agriculture is backbone of many developing countries. Most of the population is engaged in primary activity in India. The state of development of a country can be assessed on the basis of development in agriculture.

**KEYWORDS:** Geographical Analysis , Wheat Productivity , Indian economy .

### INTRODUCTION

Agriculture production is influenced by physical, socio-economic, technological and organization factors. Endeavour is made to study wheat productivity in Solapur district of Maharashtra state for the year 2009-10. Wheat crop is dominant food crop in the study region and near about 60 percent people used it. Farmers are growing numerous crops in the field rather than single crops. The distributional pattern of crops in any region is an outcome of predominance of certain crops. Wheat is an important crop in the cropping pattern of the study region. Wheat crop is raised in only rabi season in the study region. It is well adapted to the environment in this region.



### OBJECTIVES :

In the present research paper following main objectives are taken into consideration.

To study the spatial pattern of wheat productivity index in the study region.

### DATA BASE AND METHODOLOGY

The present research study is mainly based on the secondary sources of data. The data regarding agriculture has been derived from socio-economic review, district census hand book, crop

seasons reports. All tahsilwise statistical information calculated with the help of suitable method and find out productivity index.

Productivity index calculated by Prof.Yenedy's formula

**Formula :**

$$\text{Productivity Index (PI)} = \frac{Y}{Y_n} \div \frac{T}{T_n} \times 100$$

Where,

PI=Productivity Index

Y=Production of the selected crop in component arial unit.

Y<sub>n</sub>=Total production of the selected crop in the entire region

T=Area of the selected crop in component arial unit.

T<sub>n</sub>=Total area of the selected crop in the entire region.

**STUDY REGION**

The district Solapur is one of the most important districts of the Maharashtra state both in terms of area and population. It is a part of Bhima basin. Solapur district is selected as a study region for the present investigation. It is lives between 17<sup>0</sup>10' north to 18<sup>0</sup>32' north latitude and 74<sup>0</sup>42' east to 76<sup>0</sup>15' east longitude and comprising by eleven tahsils. The total geographical area of the Solapur district is about 14895 square kilometers with a population 3855383 according to 2001 census. The region under study constitutes 4.88 percent area and 4.51 percent population of the Maharashtra state. Physiographically, the region is divide into three major divisions such as hilly region, the plateau region and low land plain region. The region derived by the river Bhima and its tributaries. The climate of Solapur district is monsoon climate. The district entirely lives in drought prawn area. The annual temperature ranges between 10<sup>0</sup> cg to 44<sup>0</sup> cg. The annual average rainfall is 667.10 mm. Three types of soil of the district are confirmed to the hilly region shalow soil, to plateau region medium black soil and the river valley, deep black soil. The district possesses 2.14 percent forest land of the total geographical area.

**AREA UNDER WHEAT CROP**

In the year of 2009-10 total average area under wheat is 62781 hectors. The highest average area under wheat crop has 21.27 percent (13355 hectors) in Malshiras tahsil and lowest average are under wheat crop is 3.28 lowest average area under wheat crop is 3.28 percentage (2061 hectors) in Magalvedha tahsil. Out of the total wheat average area of the study region. Remaining nine tahsils namely Panadharpur (18.81), Madha (9.33), Mohol (8.64), South Solapur (8.44), Barshi (7.07), Karmala (6.98), North Solapur (6.21), Akkalkot (5.38) and Sangola (4.54) tahsils found in 4.54 to 18.81 percentage average area under wheat crop.

**PRODUCTION OF WHEAT CROP**

In the year 2009-2010 total wheat production is 806819 quintal. In this period highest wheat production out of the district is 18.57 percent (149368 quintal) in Pandharpur tahsil and the lowest wheat production is 7.73 percent (27220 quintal) in Mangalvedha tahsil. Remaining nine tahsils namely Malshiras (17.69), Madha (9.72), Mohol (8.83), South Solapur (8.71), Akkalkot (7.98), Barshi (7.20), Karmala (7.11), North Solapur (6.33) and Sangola (4.50) tahsils are found in moderate wheat production.

**Table No.1  
Productivity Index**

Tahsil	Area in Hect.	Area in Percentage	Production in quintal	Production percentage	Productivity Index
North Solapur	3900	6.21	51074	6.33	101.9
Barshi	4439	7.07	58126	7.20	102.4
Akkalkot	3381	5.38	64388	7.98	148.3
S.Solapur	5304	8.44	70318	8.71	103.1
Mohol	5427	8.64	71290	8.83	102.1
Mangalwedha	2061	3.28	27220	3.73	102.7
Pandharpur	11814	18.81	149368	18.51	98.4
Sangola	2854	4.54	36372	4.50	99.1
Malshiras	13355	21.27	142787	17.69	83.1
Karmala	8385	6.98	57415	7.11	108.8
Madha	5861	9.33	78461	9.72	104.1
District	62781	100	806819	100	

Source : Socio-economic review of Solapur District (2009-2010)

### PRODUCTIVITY INDEX

In the year 2009-2010 out of all tahsils the high productivity index is found in Akkalkot tahsils 148.3 and the lowest productivity index recorded in Malshiras tahsil 83.1

#### High Productivity Index (Above 125)

The above tahsilwise analysis of the productivity index high is observed anyone Akkalkot (148.3) tahsil in this period.

#### Moderate productivity Index (100-125)

The moderate productivity index is observed in seven tahsils i.e. Karmala (108.8), tahsil Madha (104.1), South Solapur (103.1), Mangalvedha (102.7), Barshi (102.4), Mohol (102.1) and North Solapur (101.9) tahsils.

#### Low Productivity Index

Low productivity index are observed in three tahsils i.e. Sangola (99.1), Pandharpur (98.4) and Malshiras (83.1) tahsils.

### CONCLUSION

In the year of 2009-10 total average area under wheat is 62781 hectares. The highest average area under wheat crop has 21.27 percent (13355 hectares) in Malshiras tahsil and lowest average area under wheat crop is 3.28 lowest average area under wheat crop is 3.28 percentage (2061 hectares) in Magalvedha tahsil.

In the year 2009-2010 total wheat production is 806819 quintal. In this period highest wheat production out of the district is 18.57 percent (149368 quintal) in Pandharpur tahsil and the lowest wheat production is 7.73 percent (27220 quintal) in Mangalvedha tahsil.

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