



Cropping Pattern In Sina River Basin: Maharashtra (India) A Case Study of North Solapur

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Abstract:

Cropping pattern is a reflection of the interplay of the complex physical, social and economic factors which are with the exception of the component of the physical factors, dynamic in nature. Cropping pattern means most efficient use of land and other resources and no cropping pattern can be good for all time to come. Cropping pattern indicates the extent to which the usable land under different agricultural activities can be put to use. P.V. Jones states that, “The term cropping pattern indicates that the product mix or the crop mix that the cultivator get from its land.” For the present case study, block has been taken as an areal unit. Block wise data under different crops for the year 2015-16 has been collected by hand through the visits to Tahsil Agricultural Office of North Solapur tahsil. The collected data analyzed block-wise and crop-wise per cent values calculated and the results are shown in tables and figures.

Keywords: Cropping pattern, Cereals, Pulses, Oilseeds.

Introduction

Cropping pattern means the proportion of area under various crops at a point of time. Cropping pattern is a dynamic concept as it changes over space and time. Cropping pattern indicates the extent to which the usable land under different agricultural activities can be put to use. P.V. Jones states that, “The term cropping pattern indicates that the product mix or the crop mix that the cultivator get from its land.” The cropping pattern means both the time and space sequence of crops. The cropping pattern of a region or areal unit may be determined on the basis of areal strength of individual crop. Depending on the topography, slope, temperature, amount of rainfall, soil and its fertility and irrigation, the cropping pattern vary from region to region. Agriculture is the major activity of/in Sina river basin. River Sina is linked through tunnel with Bhima river in its lower basin and that’s why in Sina basin, especially within Solapur district, there was tremendous changes occurred in cropping pattern.

Objective: The main objective of the present study is to analyze the cropping pattern in North Solapur tahsil for the year 2015-16.

Study Area:

The total geographical basin of Sina river is 12300 sq. km. The region is bounded by Ahmednagar district to north and north west; Beed and Osmanabad district to the east; Karnataka state to the south and Malshiras and Pandharpur tahsils of Solapur district to the west. Sina river basin lies between 17⁰20' N to 19⁰06' N latitude and 74⁰34' E to 76⁰05' E longitude. The basin cover the parts of Ahmednagar, Pathardi, Parner, Srigonda, Karjat and Jamkhed tahsils of Ahmednagar district; Ashti tahsil of Beed district; Paranda, Bhum, Osmanabad and Tuljapur tahsils of Osmanabad district and Karmala, Madha, Barshi, North Solapur and South Solapur tahsils of Solapur districts. Geographically this tahsil hundred per cent area occur in Sina river basin. GCA of this tahsil in 2015-16 was 67644 hectares. Sina River flows through western boundary between Mohol and South Solapur tahsil of Solapur district. Administratively this tahsil is located in the eastern part of Solapur district. Tahsil is divided into two blocks namely North Solapur and Nannaj.

Data Source and Methodology:

For the present research work revenue block has been taken as an aerial unit. Block wise data under different crops for the year 2015-16 has been collected through the visit to tahsil agricultural office. The collected data has been analyzed, block-wise and crop-wise per cent values are calculated and the results are shown in tables and figures. Total cropped area of tahsil was 67644 hectares. Out of it, North Solapur block constitutes 59.68 per cent and Nannaj 40.32 per cent area to the total gross cropped area in tahsil. Table No.1 and Figure No.1 shows block wise cropping pattern in North Solapur tahsil for the year 2015-16.

Table No.1
Block-wise Cropping Pattern in North Solapur Taluka-2015-16

Sr. No.	Crops	Name of Block (Figures in %)	
		North Solapur	Nannaj
1	Cereals	60.91	74.92
2	Pulses	9.73	8.49
3	Oilseeds	0.41	0.43
4	Sugarcane	7.47	9.13
5	Cotton	0.3	0.33
6	Fruits &Vegetables	16.11	5.93
7	Fodder crops	5.07	1.1
	Total	100	100

Source: Tahsil Agricultural Office, North Solapur

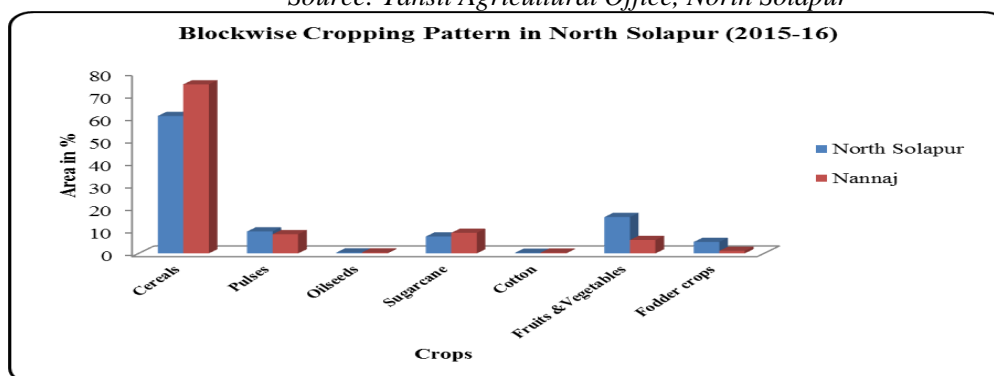


Figure 1

A) North Solapur Block:

Total gross cropped area in this block was 40368 hectares i.e.59.68 per cent area to the GCA in tahsil. Out of it 60.91 per cent area was under cereal crops. Jowar crop dominated the cropping pattern with 49.30 per cent area to the total gross cropped area of the block. Wheat (7.73 per cent), Maize (3.86 per cent), and bajra (0.02 per cent) are another cereal crops taken in this block.

Pulses covered 9.73 per cent area to the GCA of block. It includes Gram (7.06 per cent), Tur (2.45 per cent), mung (0.11 per cent) and udid (0.09 per cent).

Sugarcane is the principal cash crop covering 7.47 per cent area. Cotton crop also contributed 0.3 per cent area in the block.

All oilseeds covered only 0.41 per cent area to the GCA in this block. It includes Soyabean, groundnut and sunflower.

It is important to note here that 16.11 per cent area was under fruits and vegetables. Fodder crops covered 5.07 per cent area to the GCA in the block.

B) Nannaj Block:

Gross cropped area in this block was 27276 hectares area to the GCA in tahsil. Out of it 74.92 per cent area was under cereal crops. Jowar is the principal crop with 61.34 per cent area to the total gross cropped area of the block. Wheat (9.08 per cent), maize (4.49 per cent) and bajra (0.01 per cent) are other cereals grown in this block. Cereals are followed by Pulses with 8.49 per cent area to the gross cropped area of block Major pulses includes Gram (6.09 per cent), Tur (2.21 per cent), mung (0.11 per cent) and udid (0.07 per cent). Sugarcane and cotton are the principal cash crops which covered 7.47 per cent and 0.3 per cent area respectively. Soyabean, groundnut and sunflower as oilseeds covered only 0.41 per cent area to the GCA in this block. Fruits and vegetables covered 16.11 per cent area whereas fodder crops occupied only 1.1 per cent area to the GCA in the block.

Conclusion:

Cropping pattern plays an important role in determining the level of agricultural production and it also reflects the economy of a region. Any change in cropping pattern implies a change in the proportion of area under different crops. It has been found that cereal crops dominated the cropping pattern in both the blocks of North Solapur district and Jowar was the main crop taken in the tehsil. As far as North Solapur block is concerned significant area covered by fruits and vegetable crops whereas sugarcane has covered remarkable area in Nannaj block followed by cereal crops. It is also observed that in both the blocks pulses

group of crops is important in terms of area covered. Cotton and oilseeds covered below one percent area to the gross cropped area in the tehsil. Fodder crops are also taken to some extent in North Solapur and Nannaj block.

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