



Through Analysis on Regional Agricultural Process Affected Due to Various Weather in Solapur District of Maharashtra

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Abstract: Drought is one of the burning issues in the world. Droughts occur when the rainfall is below the normal range. Drought is ubiquitous, but most prevalent in semi-arid-region. Rainfall is most crucial climatic parameter which is effect on development society. In this present study focus on rainfall variability trend of Solapur district of Maharashtra state. The study of rainfall is shows trend of rainfall, water scarcity and drought prone condition in Solapur district.

Present research paper an intend to analyse the agricultural productivity pattern in Solapur District during the year of 2008-2009. This study is based on secondary data collected from secondary records. Agriculture production is influenced by physical, climatologically, socio-economic, technological and organization factors, and farmer's attitude etc. An Endeavour is made here to study why the agricultural productivity various in different tahsil. The study is based on view point of productivity of Solapur District for year 2008-2009. The data regarding area under different crops has been computed with the help of Kendall's ranking co-efficient technique of agricultural productivity. Solapur district occupies South-Eastern part of Maharashtra state. It occupies an area of 14,895sq.km. and supports 38.55 and 43.16 lack of population in 2001 and 2011 census respectively. Administratively the district is divided in to eleven tahsils. There are several factors such as Physiographic, temperature, rainfall, soil, drainage, etc influenced on the agricultural productivity in this district. Some part of this district is located in drought prone area. Rainfall varies between 20 and 60 centimeter. Ten crops have been considered for calculating the agricultural productivity. Among these, jawar, wheat, bajara, sugarcane, gram, maize, safflower, cotton, etc. are the major crops. By computing agricultural productivity, ranks according to there how much area under different crops in Solapur district has identified ten crops. Present study gives an idea of real situation of agricultural productivity and helps to minimize the regional inequalities in Solapur district and also helps to planners, agricultural scientists and research scholars.

Keywords: Agriculture, Climate, Temperature, Rainfall

Introduction:

Water is play vital role in development of various sectors. To meet the various water demand of agriculture, industry, irrigation, hydroelectric power generation and human activities. Agriculture is one of the prime and crucial activity in India. Near about 70% Indian population is engaged in this sector. Agriculture is the backbone of India economy. The growth and production of crops in any year is closely related to uncertainty of monsoon. Indian continent have receive 90 to 95% rainfall from South-west monsoon. The Solapur district comes under rain shadow zone in Maharashtra. This area has frequently experience erratic movement of monsoon, water scarcity and drought condition, because the trend of rainfall is changed in this area. The government of India and Maharashtra declare these five tehsil are drought regions. Drought is a period of time with below normal rainfall. It is also designates as deficiency of precipitation over an extended period of time.

Agricultural productivity is becoming increasingly important issue as the world population continues to grow. India, one of the world's most populous countries, has taken steps in the past decades to increase its land productivity. Agriculture still forms the backbone of Indian economy, inspite concerned efforts towards industrialization in last three decades. Agriculture contributes a high share of net domestic product by sectors in India. Farmers are growing numerous of crops in the field rather than single crop. Agriculture production is influenced by physical, climatological, socio-economic, and technological and organization factors, farmer's attitude etc. An Endeavour is made here to study why the agricultural productivity various in different tahsil. This study is based view point of productivity of Solapur district for year 2003-04 and 2007- 2008. The data regarding area under different crops has been computed with the help of Kendall's ranking co-efficient technique of agricultural productivity.

Study Area:

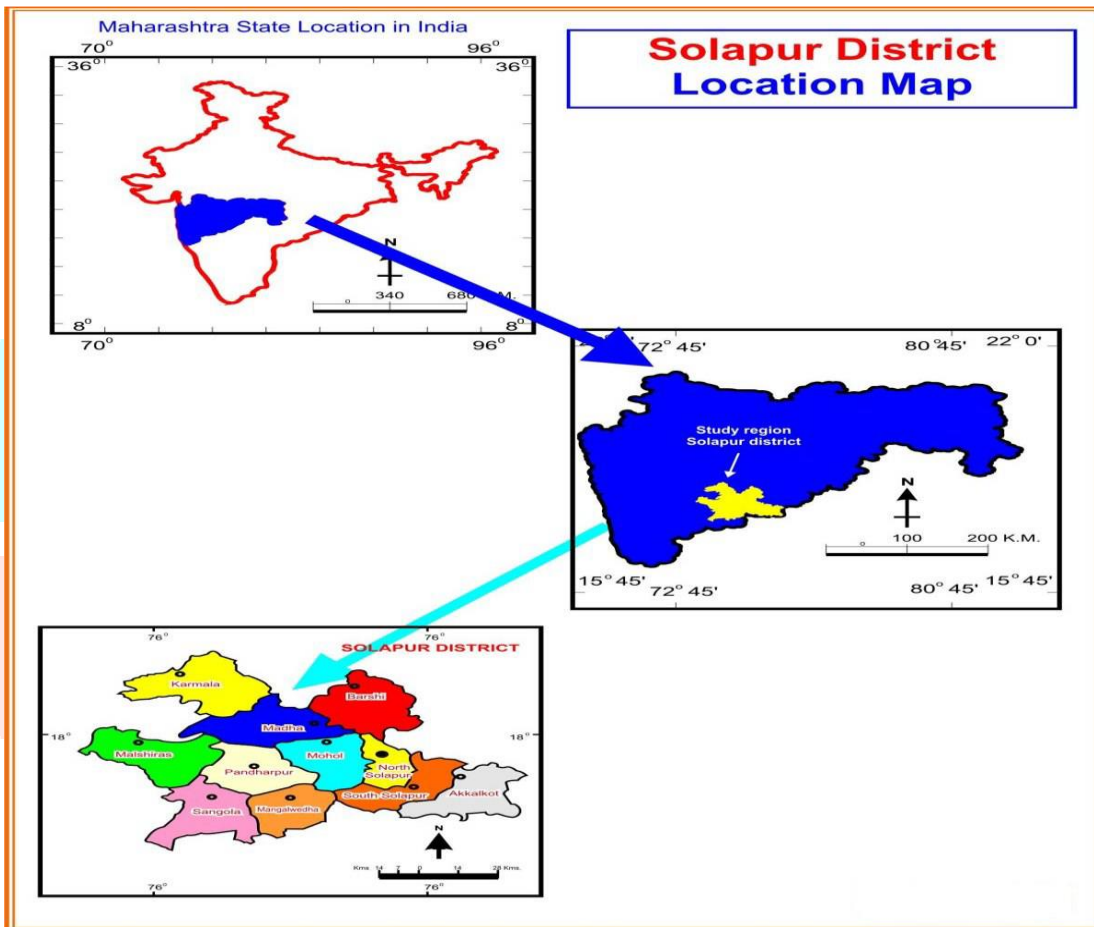
Solapur district is an administrative district in the State of Maharashtra in India. The district lies in the central plateau and some part was covered by Balaghat spurs. The Solapur district is situated in western part of Maharashtra. The Solapur district is extended between 17° 10' N and 18° 32' N latitudes and 74° 42' E and 76° 15' E longitudes. The total geographical area covered by Solapur district is 14895sq.km. with eleven tahsils, Solapur district occupies 4.83% area of Maharashtra State. According to Census of 2001 the total population of Solapur district is 38.55 lakh and contains 4.10 % population of Maharashtra State. This district comes under Pune Administrative Division along with Pune, Sangli, Satara and Kolhapur districts. The district of Ahmednagar bounds it to the north, Satara and Sangli bounds it to the West, Sangli and Karanataka state to the south, and Osmanabad to the east. The underline basalt on disintegration and decomposition brought varieties agencies had yielded three kinds of soil viz. deep black, medium deep & shallow soils. The district is provided with Bhima River right bank canal and Neera and Man Rivers left

bank canals. Similarly Sina and Bhogawati are two seasonal rivers at north side of the district. Average rainfall of the district is less than 750 mm. and is always uncertain with bimodal situation. The rains

Objective:

- To study the rainfall variability trend by using agricultural production
- To asses agriculture production as grain equivalent
- Carrying capacity of land in term of production
- To asses a agriculture productivity

Location map of Study area



Solapur Climate

Broadly, the climate of the Solapur district is monsoonal in nature. The year can be divided in to four seasons:

- 1) The cold weather season : (December to February)
- 2) The hot weather season : (March to May)
- 3) The southwest Monsoon season : (June to August)
- 4) The post Monsoon season : (September to November)

In order to understand, the chief characteristics of climatic conditions, it is necessary to discuss in detail each season of the Solapur district.

Temperature:

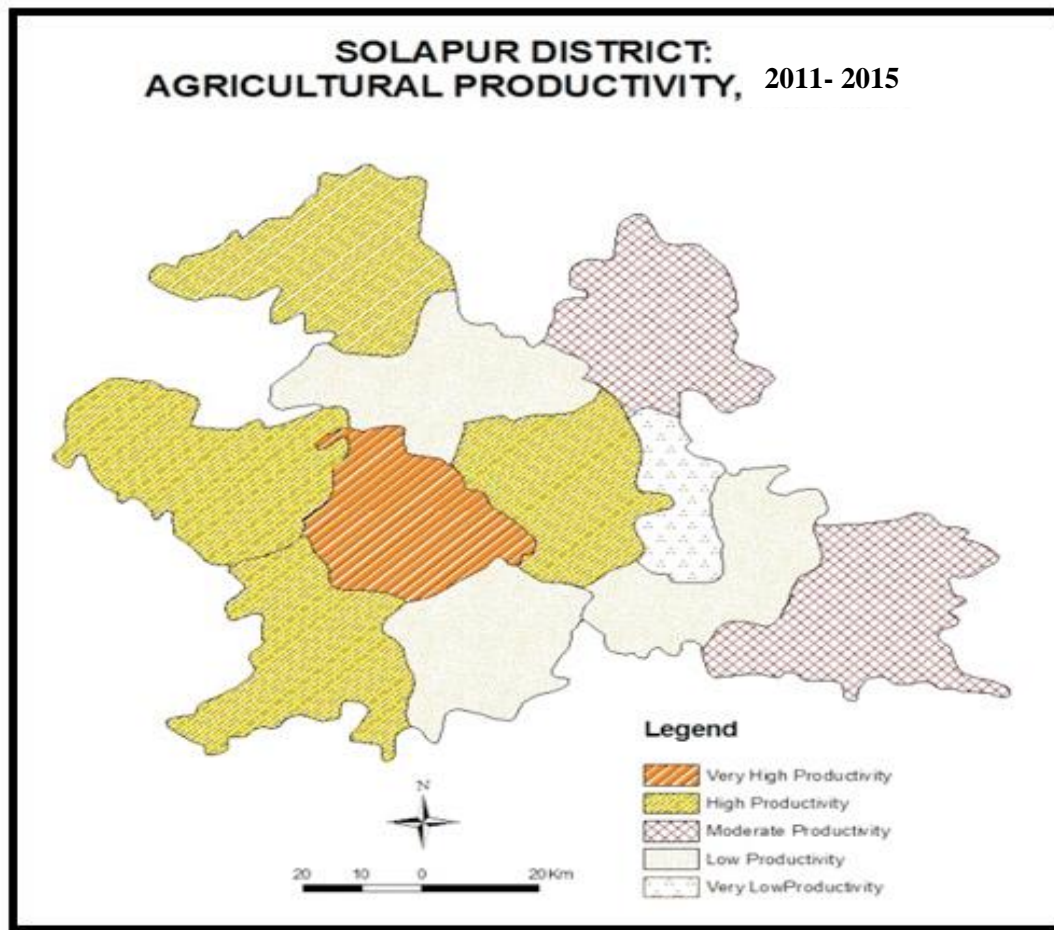
The climate here is tropical. The summers here have a good deal of rainfall, while the winters have very little. This location is classified as Aw by Köppen and Geiger. In Solapur, the average annual temperature is 27.3 °C | 81.2 °F. About 835 mm | 32.9 inch of precipitation falls annually.

Rainfall pattern

Meteorological data from 1969 to 2009 is available for Solapur city. The annual average rainfall for Solapur city is 800 mm. It has received a maximum rainfall of 1400 mm in 1998 and driest year with rainfall of 300 mm in 1972. Most of the rainfall it received during the monsoon. August and September are the month in which it receives maximum rainfall. The rainfall pattern is more like uniformly distributed. Though it receives most of the rainfall in monsoon periods, it does receive some rainfall in the non-monsoon period too.

Agricultural Process:

Agricultural Process an increase in their welfare while farmers who are not productive enough will exit the market to seek success elsewhere. As a region or area of farms become more productive, its comparative advantage in agricultural products increases, which means that it can produce these products at a lower opportunity cost than can other regions. Therefore, the region becomes more competitive on the world market, which means that it can attract more consumers since they are able to buy more of the products offered for the same amount of money. Increases in agricultural productivity lead also to agricultural growth and can help to alleviate poverty in poor and developing countries, where agriculture often employs the greatest portion of the population. As farms become more productive, the wages earned increased by those who work in agriculture. At the same time, food prices decrease and food supplies become more stable. Labourers therefore have more money to spend on food as well as other products. This also leads to agricultural growth, people see that there is a greater opportunity to earn their living by farming and are attracted to agriculture either as owners of farms themselves or as labourers. However, it is not only the people employed in agriculture who benefit from increases in agricultural productivity. Those employed in other sectors also enjoy lower food prices and a more stable food supply. Their wages may also increase. The method adopted to determine the agricultural productivity of Solapur district, first calculate the determination of ranking of crop production of each tahsil. In terms of discrete variables and second the integration of values obtained to give a rank co-efficient of agricultural productivity. The co-efficient of agricultural productivity of a tahsil in terms of a single variable is calculated by equation using of Kendall's Ranking Co-efficient method.



Study of Agriculture affected to Climate:

In recent years the concept of agriculture had engaged the attention of geographers and agricultural land use planner affected due to various weather. The distribution maps of individual crops are interesting and useful for planners. To understand the cropping pattern in the collected data from the case studies in the selected villages with selected farmers in that villages. The agriculture are influence by climate implementing crop combination crop concentration and crop diversification techniques.

With the help of gathering information to the irrigation facilities and cropping pattern in the selected sample villages, the condition of each village may differ from other rather it is different due to mainly the irrigation parameters. We are analysed the micro level analysis depicts the condition better way hence the village level condition of Pandharpur and Sangola tehsils are discussed in below section.

Conclusion:

The farmers in Solapur district are using much less fertilizer per unit cropped area; fertilizer consumption is low, resulting in poor productivity. Transfer or adoption of improved production technology in uneven rainfall, ecosystem has not picked up its desired momentum. Therefore, productivity of in this eco-system is considerably poor. The complex ecological situation of rainfall eco-system consisting of upland, shallow low land, semi-deep water and deep water conditions is one of prime reasons

for low productivity. It also socio-economic, organizational and technological constraints resulting in low productivity.

In the present study is an attempt to evaluate the spatial and temporal rainfall variability of two decades in Solapur District of Maharashtra. The Solapur District has eleven tehsils belongn these five tehsils comes under drought prone and experience water scarcity problem.

References:

1. Amin, S. (1984) Sugarcane and Sugar in Gorakhpur: An inquiry into peasant Production for Capitalist enterprises in Colonial India, Delhi, Oxford University Press.Pp.336
2. Das, M.M. (1990) Agricultural Landuse and Cropping Pattern in Assam, Land Utilization and Management in India. Pp.120-130.
3. Gupta N.L. and Hiran S.L. (1973) Agricultural Regions of
4. <https://www.kvksolapur.org/district-profile.php>
5. <https://solapur.gov.in/en/>
6. Mazjid, Hussain (2004): Systematic Agricultural Geography. Pp.217-244.
7. Singh, Jasbir and Dhillon S.S. (1976): Agricultural Geography. Tata McGraw Hill Publishing Co. Ltd. New Delhi.

