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A GEOGRAPHICAL STUDY OF RICE PRODUCTION IN KALAMB AND OSMANABAD TEHSIL OF OSMANABAD DISTRICT

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Abstract

Present research paper attempt to analyze the rice production of Kalamb and Osmanabad Tahsil of Osmanabad district during the period 1991-2011. The welfare of large populations around the world depends upon access, stability and availability of food. Similarly, it is a source of food, trade and raw materials for industrial development. Likewise, it supports livelihoods of the majority rural dwellers in most developing countries. However, climate change impacts have adversely affected the sector in the region. This situation has subjected a large percentage of the Bhum and Lohara population to live in extreme poverty.

Keywords:- Rice, production, soil fertility, irrigation potential, agricultural productivity, climate change etc.

Introduction

Agriculture is the backbone of Indian economy, contributes to the overall economic growth of the country and determines the standard of life for more than 50% of the Indian population. Agriculture contributes only about 14% to the overall GDP but its impact is felt in the manufacturing sector as well as the services sector as the rural population has become a significant consumer of goods and services in the last couple of decades. India is a country of villages out of total population and its development is synonymous with the development of the people living in rural areas. India is a vast and second most populous country of the world. (According to the 2011 census, 74.28 per cent populations of our country reside in the countryside). But a big part of this population has been leading an uncertain economic life due to non-synchronization of employment opportunities in agriculture sector because of the fast growing population.

Significance of the Study Area

The importance of population Geography as well as agricultural Geography is increasing steadily. Over the world, population from the last century is increasing in a tremendous manner. Increasing population is creating number of problems. Most of the problems of man are concentrated with population. Due to over population, developing and under-developing countries are facing problems regarding health, residence, unemployment, education, and other basic facilities. The standard of living in these countries is low. The strategies and planning related to politics, economy, commerce, industries, agriculture, science and technology is incomplete without the consideration of population. Population is the resource of any country, when it is

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qualitative, not quantitative. Development of any country is based on the population structure, characteristics and its distribution. Almost population in the developed countries is situated in urban areas and they are literate.

The pressure of population over agriculture is constantly increasing. The ratio of Rice crops production and population has always remain the issue of discuss. Considering all these aspects, research students has selected the topic "A Geographical Study of Rice Production in Kalamb and Osmanabad Tehsil of Osmanabad District" for study.

Objectives of the Research

Main objectives of the study are as follows:

1. To study the existing socio-economic characteristics of population growth and its relationship with rice production.
2. To identify factors responsible encouraging as well as restraining the population growth process and rice production.
3. To analyse the shifts in the population growth and rice production linkages in agricultural production, employment generation, income earnings, consumption and investment pattern, etc.
4. To suggest the measures for strengthening Rice crops production and suggest suitable remedies for population problems.

❖ **Methodology**

Methodology refers to set of principles and processes by which aims and objectives are perceived. It is a technique, which is followed to prove hypotheses. For the present study, the census data of 1991-2011 has used. The information regarding census will be also used from the internet from the websites of Census of India. The General and Geographical information of Kalamb Tahsil will be collected from Govt. Gazetteer and Govt. Website of the district. The help of Tahsil Statistical Office and Tahsil Agriculture office will be taken in order to collect the data. To include the tahsil data regarding literacy, area under different crops, annual tahsil statistic book were used. The data collected through Govt. Of Maharashtra website especially data provided to Osmanabad district Govt. Website.

On the collected data, tables under various heading were prepared. In the preparation of tables, tahsil data has used to notice the variation in district. With the help of table, volume of change during the study period has noticed and analyzed. Graphs, maps and diagrams were added wherever necessary in the work to show the variation and for quick understanding.

Tools & Techniques of Data Analysis

1. **Ratio Analysis:** Ratio analysis is regarded as one of the best tools in analyzing and comparing the time series account data of different firms. It has been extensively used in the present study. The purpose of ratio analysis was three-fold: size analysis, composition analysis and

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circulation,

efficiency analysis. Various ratios computed in order to analyze the size, composition and circulation of working capital and its various components (inventory, receivables, cash and current liabilities) have been explained at the relevant places in different chapters. To make the analysis and interpretation more precise and accurate the values of mean and C.V. have been computed from the ratios.

2. **Compound Annual Growth Rate (CAGR):** The compound annual growth rate (CAGR) is a useful measure of growth over multiple time periods. For estimating the projected level of output at given period of time (for 5 years) compound growth rates (CGR) are used. i.e. 4% for agriculture, and 6% for allied activities'.'-The following formula is used.

$$A=-P \quad \left(\frac{1+r}{100}\right)^{n} \ldots\ldots\ldots\ldots\ldots (1)$$

Where, A = Amount of final output,
P = initial output,
R = growth rate,
N = number of years.

Geographical Location of Study Area

Osmanabad district formed part of the former Nizam's Rule, till 1948. It is one of the historical towns of the Marathwada Region. It is located in the southern part of Marathwada, between 17^0 37' to 18^0 42' North latitude and 75^0 16' to 76^0 47' East longitudes. It is located about 600 meters above the sea-level. It is bounded by Solapur district to the South-West, by Osmanabad district to North-West; by Beed district to the North, and by Latur district to East. The total Geographical area of Osmanabad district is 7512.4 sq. kms of the total geographical area 241.4 sq. kms area is urban and 7271.00 sq. kms. area is rural, indicating the dominance of the rural sector (i.e. 97%).

Map 1.1 Location Map of Study Area in India, Maharashtra and District

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Tahsil-wise Production of Rice Crops in Osmanabad District

The decline in the share of agriculture in total production and employment is taking place of different speeds and poses different challenges across regions. Although agricultural investments and innovations are boosting productivity, growth of yields has slowed to rates that are low to comfort. Food losses and waste claim a significant proportion of agricultural output, and reducing them would lessen the need for production increases. Agriculture of Osmanabad district has undergone a drastic change in recent years due to and since the introduction of the high-yielding varieties (HYV) in 1966-67, rapid increase in irrigated area and use of modern inputs. The latter encompasses application of improved agronomic practices, use of improved farm implements, control of diseases and pests by timely spraying, grow more food campaigns, use of chemical fertilizers and improved irrigational facilities, which have resulted in this technological trend. The yield of almost all crops has gone up. growth however, has not been consistent spatially due to deficiencies in the application of technology itself and the problems inherent in farms and regions, and has consequently resulted in sectoral shortages and imbalances in production on the one hand and economic disparities between farms and regions on the other. A study of tahsilwise production of food crops in Osmanabad district shows a significant contribution of the development and spread of HYV-led technology in boosting production.

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Table 1.1 Tahsilwise and Year wise Average yield of Rice (kg/ha) in Osmanabad District (1991-2011)

Tahsils	Crop	**1991-92**	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Osmanabad	**Rice**	**494**	**369**	**563**	**319**	**230**	**700**	**182**	**231**	**288**	**371**
Tuljapur	Rice	419	227	461	167	241	524	131	229	283	443
Paranda	Rice	--	543	421	80	396	564	135	347	370	445
Bhum	Rice	409	904	609	219	459	698	166	528	278	393
Washi	Rice	--	--	--	--	--	--	--	--	--	--
Kalamb	**Rice**	**162**	**293**	**440**	**356**	**292**	**624**	**134**	**290**	**310**	**359**
Umarga	Rice	205	300	328	210	206	749	275	232	292	495
Lohara	Rice	--	--	--	--	--	--	--	--	--	--

Tahsils	Crop	**2001-02**	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	**2010-11**
Osmanabad	**Rice**	**177**	**245**	**211**	**363**	**412**	**415**	**274**	**152**	**214**	**191**
Tuljapur	Rice	161	279	68	363	262	346	400	499	326	390
Paranda	Rice	74	229	7	138	154		414	145	566	454
Bhum	Rice	186	389	80	236	331	305	248	144	87	259
Washi	Rice		295	198	189	259	322	107	223	163	339
Kalamb	**Rice**	**165**	**382**	**120**	**369**	**336**	**351**	**286**	**260**	**140**	**247**
Umarga	Rice	273	286	123	338	489	281	528	278	449	273
Lohara	Rice		522	380	502	440	500	668	205	300	379

Source:-Compiled by Researcher on the basis of District Socio-Economic Review & Statistical Abstract of Osmanabad and Statistical officer, Divisional Joint Director Office of Agriculture, Latur Division, Latur.

Note:- Sign --- indicates data not available .

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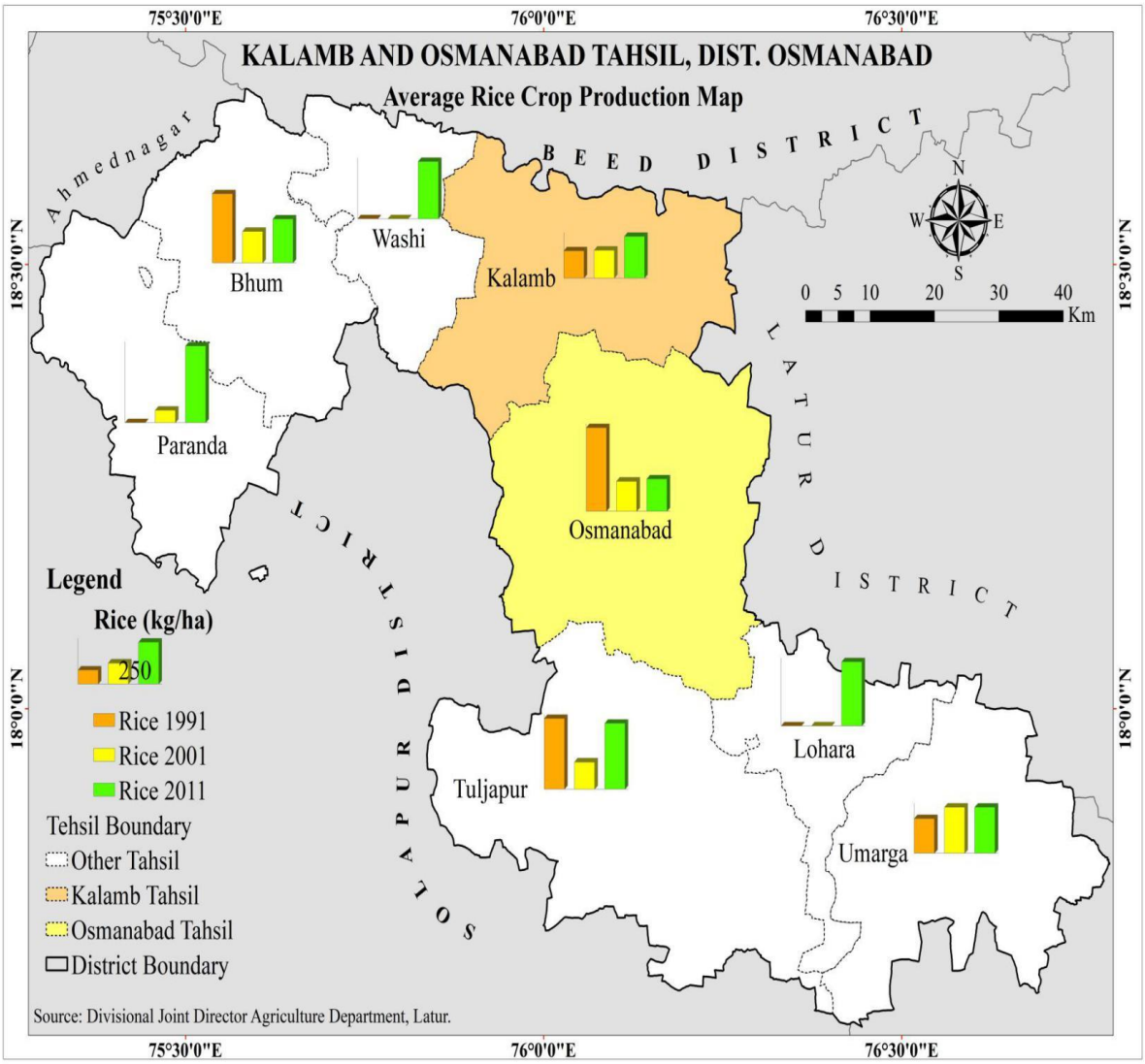
Table no.1.1 shows that food crops formed a major part of agricultural production. Per hectare yield of rice was 494 kg in 1991 and it was 74 kg per hectare in 2001-02. Per hectare yield was highest in 1991 and it was lowest in 2011. Per hectare yield of jowar goes down from 751 kg to 124 kg. during the period 1991-2011. Per hectare yield of bajri has tremendously increased from 494 kg to 682 during the study period under study. The output or production of rice has increased in the first decade and it was decreased in the second decade 1999-92 to 2001-02. The highest increase of rice production 494 kg has been notice in Osmanabad tahsil in 1990-91 and the lowest 111 metric tons increase was found in 1995-96.

Map 1.2 Average Rice Crop Productions of Osmanabad and Kalamb Tahsil



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Conclusions

The performance of agricultural development in Osmanabad and Kalamb has always been determined by prevailing rainfall systems and fluctuation in food grains production is highly associated with time and amount of rainfall. Apart from weather associated phenomena, changes in socio-economic conditions also bound to have some impact on food-population balance.

Table 1.1 shows that the Average per hectare yield of rice crops in different tahsils of Osmanabad district from 1991-2011. Per hectare yield of rice crops is not uniform; the yield of rice crops production shows the ups and down during the period under study.

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