



A Geographical Study of Performance of Sugar Factories in Jalna District (MS)

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Introduction:

The sugar industry is the largest among the agro-based industries in the country next only to cotton textiles and its importance as an agro-industry cannot be under estimated. It is generally observed that, sugar industry being situated mostly in rural areas, has to play a vital role in upliftment of rural economy. It occupies a prominent position in the industrial sector of the country. Sugar industry has acquired even more important position in our national economy as a sizeable foreign exchange earner by sugar exports. Thus sugar being an important and essential commodity of the food pattern of the country, adds substantially to the growth of national economy.

Study Area:

For the study Jalna district has been selected. The district is located in the central part of Marathwada region in Maharashtra State. It is located between $19^{\circ}15'$ and $20^{\circ}32'$ North latitudes and $75^{\circ}36'$ to $76^{\circ}45'$ east longitudes. The north-south extension of Jalna district is 150 Kms and east-west stretch of the district is 110 kilometers. Jalna district has a significant location on Deccan plateau. Except Ajanta and Satamala range and river basins, majority part of the district comes under plateau region. The region has major portion under flat topography, hence it supports high concentration of population. Jalna district comprising 8 tahsils, 4 sub-divisions and eight panchayat samities. The geographical area of Jalna district is 7727 Sq. KM. According to Census-2011, there are 4 cities, 970 villages and 781 grampanchayats Jalna district.



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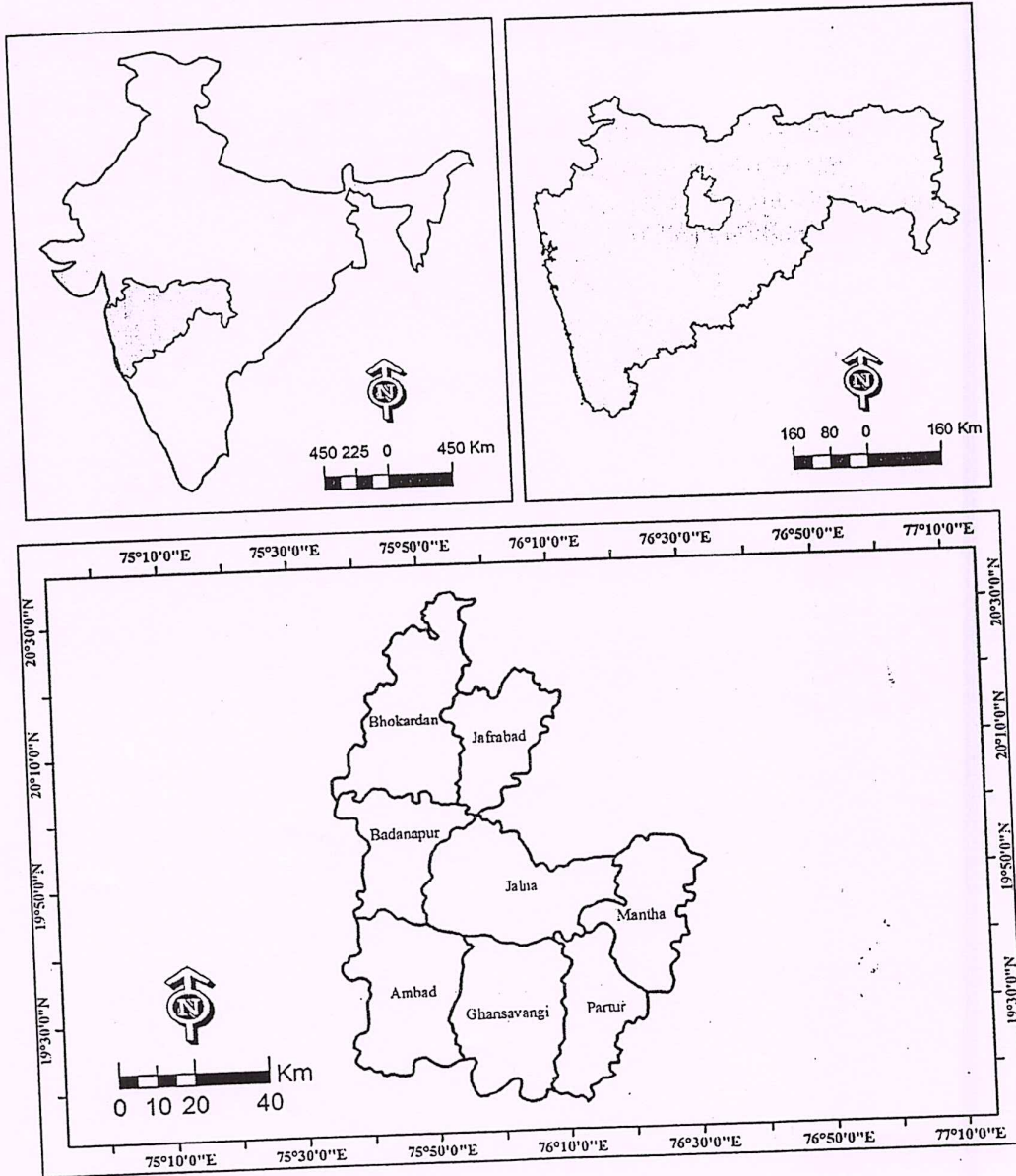
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Jalna District - Location Map



According to 2011 census, the total population of Jalna district has 19,59,046. Out of this total population, the men population were 10,11,473, whereas women population were 9,47,573. Sex ratio in district is 937. About 80.73% population lives in rural area on the other hand only 19.26% population lives in urban area. The 2011 census shows about 71.09% literacy rate in the district.

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Objectives:

- 1) To study the performance of sugarcane industry in Jalna district.
- 2) To find out ratio of between Sugarcane Crushed & Sugar Production by Sugar Factories in Jalna district.

Database & Methodology:

For the present study secondary data has been considered. The data from 1991 to 2011 has been used. The information regarding area under sugarcane has been collected from the district census handbook, socio economic analysis yearly book, statistics from the office of Deputy director of Sugar, Aurangabad region and offices of sugar factories in Jalna district. The statistical information has been organized in the table starting from 1991 to 2011 and the variation has been calculated which has been analysed further by calculating

Analysis:

Sugarcane Crushed & Sugar Production by Sugar Factories in Jalna District (Year 1991 to 2011):

Sugarcane crushed by sugar factories in the Jalna district and its output for the year 1991 to 2011 has been shown in the table 1.

**Table 1
Sugarcane Crushed and Output Details (1991 to 2011)**

Year	Sugarcane Crushed (MT)	Sugar Production (Quintal)	Recovery Ratio (%)
1991	829465	913489	10.13
1992	911500	1016960	11.57
1993	876442	975024	11.25
1994	850914	944839	11.04
1995	924907	1021005	10.39
1996	915750	1012361	10.55
1997	897794	990985	10.38
1998	955100	1055634	10.53
1999	927281	1022142	10.23
2000	976086	1088140	11.48
2001	956947	1055571	10.31
2002	1063274	1173323	10.35
2003	1003089	1107030	10.36

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Year	Sugarcane Crushed (MT)	Sugar Production (Quintal)	Recovery Ratio (%)
2004	1139873	1273125	11.69
2005	1280757	1412655	10.30
2006	1423063	1563662	9.88
2007	1222317	1351027	10.53
2008	507360	564692	11.30
2009	953543	1058796	11.04
2010	1249956	1379701	10.38
2011	1414976	1568458	10.85
	Correlation	0.99	
	'F' Test	0.68	

Source: Computed by researcher

The review of sugarcane crushed, production and its ratio has been taken in table 1. It shows the ups and downs in the production. At the starting means for the year 1991, 829465 MT sugarcane was crushed, which was increased upto 1414976 MT in the year 2011. Highest sugarcane crushed (1423063 MT) was observed in the year 2006 whereas lowest (507360 MT) was noticed in the year 2008.

In the Jalna district, sugarcane crushed more than 10 Lakh MT has been noted from the year of 2010, 2006, 2011, 2005, 2007, 2004, 2003 and 2002 whereas below 10 Lakh MT sugarcane crushed has been noted from the remaining year. In regard with preceding year, the year like 2009, 2010, 2011, 2006, 2005, 2004, 2002, 1992, 1995, 1998 & 2000 has shown increase in sugarcane crushed whereas decrease in sugarcane crushed has noted from the year of 1996, 1997, 2001, 1994, 1999, 1993, 2003, 2007 & 2008. In concern with sugar production, the year 1991 has 913489 quintals which increased upto 1568458 quintals in the year 2011. Highest sugar production (1568458 quintals) of sugarcane has been noted from the year of 2011 whereas lowest production of sugar has been noticed from the year of 564692 quintals from the year of 2008. Below 10 Lakh quintal production of sugar has been noted from the year of 1997, 1993, 1994, 1991 and 2008 whereas remaining year has shown above 10 Lakh quintals sugar production has been received.

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Ratio of sugarcane crushed to sugar production is an important indicator for any sugar factory. More ratio is assumed as more efficiency of the sugar factory. After examination of this ratio regarding sugar factories in the Jalna district, it reveals that, in the year 1991, the ratio was 10.13% which increased upto 10.85% in the year of 2011. Highest ratio (11.69%) of sugarcane crushed to sugar production has been received from the year 2004 whereas lowest ratio (9.88%) of sugarcane crushed to sugar production has been noted from the year of 2006. In regard with preceding year, the year like 1991, 1994, 2000, 2008, 2007, 2011, 1996, 1998, 2003 & 2011 has shown increase in ratio of sugarcane crushed to sugar production whereas all remaining year has shown decrease.

Correlation between sugarcane crushed to sugar production shows positive correlation of 0.99 which is strong in relation. F value of sugarcane crushed and sugar production is 0.68. Table value of this test to 0.05 significance level is 2.3879. The calculated value is less than the table value. So, the both category have the same variance. In Jalna district sugar factories are shutting down due to many factors. Irrigation is playing a crucial role in the area and probably the production of the sugarcane in the study region.

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