

AREA AND PRODUCTION OF SUGARCANE CROP IN INDIA

Mr. Rohit Dinkar Barisng, Research Student, Dept of Economics Shivaji University, Kolhapur.

Dr. K. Yuvaraj, Associate Professor, Dept of Economics, Willingdon College, Sangli.

.....
Abstract : The cropping pattern in India has changed significantly during the last 65 years. The farmers were mostly cultivating those crops which are requires less water. The production and productivity of these crops were mostly dependence on monsoon. With the progress of irrigation the cropping pattern has also changed. With the enhancing irrigation facility farmers were preferred commercial or sugarcane crop instead of some traditional crops. With the development of agro based industries and agro processing industries, there is increase in an area under the cultivation of sugarcane crop.

Keywords: - Sugarcane, Area, Production, India. Maharashtra and Sangli.

Introduction : Agriculture plays a key role in the rural economy of India. It contributes nearly 17 percent in the total gross domestic product. Around two-third of the total work force is being engaged in agriculture sector and they are directly and indirectly depend on agriculture for livelihood. The planners did not realise the targeted growth rate of agriculture, it was varied only between 2 percent to 5 percent during last fifty years of planning. During the planning period agriculture production was highly influenced by natural calamities. After independence, the government has introduced several schemes and policies for the development of agriculture sector. A huge public investment has been taken place in the field of agriculture and irrigation during last 65 year. The 1970 decade was a transmission phase of Indian agriculture, in which there was use of new technology and High Yield Varieties (HYV), famously known as green revolution has increased notably, and as a result of that India becomes exporter of foodgrain. Since the beginning of the 1990s, Indian economy has entered in a new phase, of deregulation, liberalization, privatization and globalization. These policy changes have important implications for agriculture. There are three important directions in which reforms in agricultural sector have been initiated. In the first place, restriction on the movement of food grains from one region to other has been removed. An all-India market in agriculture products has emerged. Secondly, agricultural trade policy is liberalized, and exports are being encouraged. Indian agriculture is slowly but progressively getting integrated with global economy. Thirdly, far-reaching reforms have been introduced in the credit delivery system. At the same time important productive and supportive measures e.g. rural poverty alleviation programmes, agricultural price support policies etc. have continued.

The cropping pattern in India has changed significantly during the last 65 years. The farmers were mostly cultivating those crops which are requires less water. The production and productivity of these crops were mostly dependence on monsoon. These crops are known as kharip crop. The proportion of these crops is more in total agriculture production at the time of independence and the initial few years of independence. With the progress of irrigation the cropping pattern has also changed. With the enhancing irrigation facility farmers were preferred commercial or cash crops instead of some traditional crops. With the development of agro based industries and agro processing industries, there is increase in an area under the cultivation of cash crops. The adequate production of food grain is essential for the fulfillment of food requirement of the raising population. However the contribution of food grain in economic cycle is less than that of cash crops. Because cash crops provides large number of employment opportunities to the unemployed youth of the country. The higher level cash crop production leads into the development and expansion of agro based industries and agro-processing units which contributes income and employment generation in the country. In fact it also helps in improving the condition of balance of trade in particular and balance of payment in general. It means that production of cash crop is essential for economic development in general and economic empowerment of the farmers in particular. However, it does not mean that food grain

crops are not contributing in economic development but the contribution of food grain in economic development is invisible or it is slightly less than that of cash crop.

Research Problem of The Study

Sugar is agro based product and it is almost 98 per cent of its total production, used in food factories and sweet factories. The only 2 per cent of total sugar production is used in domestic purpose. That's why production of sugarcane crops in India and increase in production is fivefold.

Objective of The Study

1. Sugarcane cropping pattern in India.
2. To study the change of Sugarcane Crop between the period from 2000 to 2015.
3. To suggest measures for improvement if necessary.

Research Methodology

Only secondary data has been collected from Books, Journals, Gazetteer, Agricultural epitomes, RBI Report, Crop reports published by the department of agriculture (2000 to 2015).

Limitation Of The Study

The major limitation of this research is that the present research is related to only Area and Production of Sugarcane crop in India and conclusion of this research may not be applicable to other area.

Data Analysis And Interpretation

Table 1 : Area and Production of Sugarcane Crop in India

(Area in million hectares; Production in million tons)

Year	Sugarcane		Year	Sugarcane	
	Area	Prod		Area	Prod
2000-01	4.32	295.96	2010-11	4.88	342.38
2001-02	4.41	297.21	2011-12	5.04	361.04
2002-03	4.52	287.38	2012-13	5.00	341.2
2003-04	3.93	233.86	2013-14	5.01	350.02
2004-05	3.66	237.09	Total	63.77	4308.35
2005-06	4.2	281.17	Average	4.55	307.73
2006-07	5.15	355.52	Std	0.473	42.46
2007-08	5.06	348.19	CV	10.39	13.79
2008-09	4.42	285.03	Maximum	5.15	361.04
2009-10	4.17	292.3	Minimum	3.66	233.86

Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation 2013-14.

The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2013-14 was 4.55 million hectare and 307.73 million tons respectively. It means that production of Sugarcane is increasing at more rate than the area under Sugarcane crops in India. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 10.39 and 13.79 percent correspondingly. It means that, production of Sugarcane is more unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 5.15 million hectare and 361.04 million tons respectively. On the contrary the minimum area under Sugarcane crops and Sugarcane production were 3.66 million hectare and 233.86 million tons respectively during the period 2000-01 to 2013-14. It means that the production of Sugarcane crops is increasing more rapidly than the area under Sugarcane crops in India and increase in production is fivefold. In fact cultivation of sugarcane is depends on the

availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also affects on the production of sugarcane in India.

Table 2 Area and Production of Sugarcane Crop in Maharashtra and Sangli District
(Area in “00” Ha. Production in “00” Tons)

Year	Sugarcane Crop in Maharashtra		Sugarcane Crop in Sangli District	
	Area	Production	Area	Production
2001	5953	495687	452	43448
2002	5782	451398	449	44724
2003	5731	426170	474	42060
2004	4425	256684	351	27955
2005	3269	239137	316	26515
2006	5007	388137	368	29964
2007	8488	662774	534	49730
2008	10928	884372	647	65500
2009	7684	606483	554	50371
2010	7559	641594	632	54197
2011	9645	856914	763	78513
2012	10220	894561	705	71634
2013	9381	753350	607	70661
2014	9371	839542	626	74667
2015	10296	915380	745	81071
Total	113739	9312183	8223	811010
Average	7582.6	620812	548.2	54067
SD	2413.71	234425	142.89	18640
CV	31.83	37.76	26.06	34.47
CAGR	0.03	0.04	0.036	0.04
Maximum	10928	915380	763	81071
Minimum	3269	239137	316	26515

Source:-Department of Agricultural, Government of Maharashtra 2015-16.

The average area under Sugarcane and production of Sugarcane during the period 2001 to 2015 was 7582.6 thousand hectare and 620812 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.03 and 0.04 percent respectively. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 31.83 and 37.76 percent respectively. It means that production of Sugarcane is unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 10928 thousand hectare and 915380 thousand tons respectively. Likewise the minimum area under Sugarcane crops and Sugarcane production were 3269 thousand hectare and 239137 thousand tons respectively during the study period.

The average area under Sugarcane and production of Sugarcane during the period 2001 to 2015 was 548.2 thousand hectare and 54067 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.036 and 0.04 percent correspondingly. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 26.06 and 34.37 percent respectively. It means that production of Sugarcane is

unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 763 thousand hectare and 81071 thousand tons respectively. On the contrary lowest area under Sugarcane crops and Sugarcane production were 316 thousand hectare and 26515 thousand tons respectively during the study period.

Conclusions :

After having overall discussion on the area and production of sugarcane analysis in the study region, researcher is now in position to draw appropriate conclusions of the study which are classified as per the objectives of the study and it is presented as below.

1. The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2013-14 was 4.55 million hectare and 307.73 million tons respectively. It means that the production of Sugarcane crops is increasing more rapidly than the area under Sugarcane crops in India and increase in production is fivefold. In fact cultivation of sugarcane is depends on the availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also affects on the production of sugarcane in India.
2. The average area under Sugarcane and production of Sugarcane during the period 2001 to 2015 was 7582.6 thousand hectare and 620812 thousand tons respectively. It means that the area and production of sugarcane crops is increasing in Maharashtra.
3. The average area under Sugarcane and production of Sugarcane during the period 2001 to 2015 was 548.2 thousand hectare and 54067 thousand tons respectively. It means that the area and production of sugarcane crops is increasing in Maharashtra.

Suggestions :

1. The crop loan should be made available easily, timely and at the affordable cost to the farmers especially during the harvesting period.
2. The transportation system especially agricultural roads are needed to be developed from farm to sugarcane factory. The agricultural roads are not well developed in the study region, so it has been suggested that agro roads should be developed in India.
3. The agricultural cost of production is seems more compare with state and national level figures in study region, hence it has been suggested that farmers should promotes to use cost effective farm techniques.
4. The average land holding size is very small in the study region, hence it has been suggested that to think about cooperative farming or joint farming so as cost of production may reduce and increase in productivity of the land.
5. The Government has no control over the market prices of agriculture commodities, hence more frequently the market price during pick period is observed lower than that of minimum support price. The government should control market prices through redefining agriculture pricing policy.

Referances

1. (2012-13). Maharashtrachi Aarthik Pahani . Mumbai: Arth V Sankhiki Sanchalomalay, Niyojan Vibhag, Maharashtra Shashan.
2. Jain, G. L. (2010). Indian Agricultural Development . Jaipur : Shree Nivas Publication.
3. Datt, R., & Sundharam, K. (2009). Indian Economy . New Delhi : S. Chand and Company Ltd. Ramnagar.
4. Patil, V. J. (2003). Geographical Perspective on Some Aspects of Agriculture in Jalgaon District (MH) . Unpublished Ph. D. Thesis, Submitted North Maharashtra University , (p. 218 to 221). Jalgaon.
5. Annual Reports of District Agriculture office, Sangli. 2015-16.
6. Directorate of Economics and Statistics, Department of Agriculture and Cooperation. 2015-16.
7. Department of Agricultural, Government of Maharashtra 2015-16.