



JAGGERY PRODUCTION IN KARNATAKA: AN ECONOMIC ANALYSIS

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Abstract: *Commercial crops are one of the most essential parts of the agricultural sector in Karnataka. In commercial crops sugarcane crop is an important crop in the state. Sugarcane is used in the manufacturing of sugar, jaggery, khandsari etc. Jaggery is one of the main products that are made out of sugarcane. Karnataka is one of the leading producers of jaggery apart from sugarcane. In Karnataka, jaggery arrival or production is 11.47 lakh quintals and the average price is Rs. 3561.56 per quintal (2020). The objectives of the study are; analyze the growth performance in major jaggery producing districts in Karnataka; to examine the trends of jaggery production and average price in Karnataka. The study is based on secondary data, mostly collected from Krishi Marata Vahini, Government of Karnataka for the period from 2011 - 2020. This study used simple statistical tools such as average, percentage and Compound Annual Growth Rate.*

Key Words: Sugarcane, Jaggery, Production, Average Price.

1. Introduction:

Indian agriculture has been witnessing amazing technological developments for the last thirty years. Adapting technology to production and marketing of agricultural products has made remarkable changes. Though technology supports farmers, marketing system is very difficult to understand. Farmers cannot understand the demand and supply situations of agricultural products easily. Though farmers constantly struggle and gain knowledge about the marketing system, they find it difficult to get remunerative price for the products. Marketing of agriculture commodities is believed to have much importance today. Shifting from sustenance crop to commercial crop promises farmers stable returns. Commercial crops such as groundnut, sunflower, chilly and sugarcane can stabilize the income of the farmers. Processing the commodities in proper way, storing and transporting them within the stipulated time are very important to earn profit. Farmers face several difficulties in the production and marketing of agricultural products such as jaggery. Therefore, it becomes important to study the problems related to production and marketing of agricultural products.

Sugarcane is one of the major commercial crops grown in India. It is an important agro industrial commercial crop which plays a vital role in Indian economy. In Karnataka, sugarcane is cultivated in 4.51 lakh hectares of land. The production of sugarcane was about 406.13 lakh tonnes in 2019-20 (Directorate of Economics and Statistics, Department of Agriculture, Government of Karnataka). Karnataka is in the third place in producing sugarcane after Uttar Pradesh and Maharashtra. Recently, Karnataka has increased its area of cultivation of sugarcane and also increased its production. Some of the important sugarcane growing districts in Karnataka state are Belgavi, Bagalkot, Mandya, Vijayapur, Mysore and Chamarajanagar.

Sugarcane is used in the manufacturing of sugar, jaggery, khandsari etc. Jaggery is one of the main products that is made out of sugarcane. Preparation of jaggery, marketing and consumption has been in practice from ancient time, especially in rural areas and it also plays an important role in rural economy. Jaggery is used in India for many purposes. Mainly, it is used as an article of food in rural and urban areas because it contains fats, proteins, phosphorous which are useful to human body. Jaggery manufacturing is labour intensive and provides employment to millions of sugarcane farmers and others. It utilizes local skill and resources and gives quick returns as it involves less gestation period. Above all, it is one of the mass utilization goods industries. Jaggery making is a rural based agro industry usually located at a convenient place for the farmers and helping them to avoid the harassment they have to undergo in transporting sugarcane to the mills.

The industry of Jaggery is one of the largest agro-based cottage industries, found in the un-organized sector in India. This industry plays a prominent role in Indian economy. It is more profitable to produce jaggery. Production of jaggery is very simple compared to the production of sugar and capital investment is very limited with higher returns. Karnataka is one of the leading states in the production of jaggery. In Karnataka, jaggery arrival or production is 11.47 lakh quintals and the average price is Rs. 3561.56 per quintal. Some of the major jaggery producing districts in Karnataka state are Mandya, Bagalkot, Bangalore city, Shivamogga, Kolar, Belagavi, Chamarajanagar, Hassan, Vijayapura, and Mysore.

There are a large number of jaggery production units in Karnataka. These units have a great prospect of resolving unemployment. There is a vast scope for the development of this industry thereby improving employment opportunities in rural areas. Thousands of jaggery manufacturing units, situated in Karnataka are catering to the demand for jaggery.

2. Objectives:

1. To analyze the growth performance in major jaggery producing districts in Karnataka
2. To examine the trends of jaggery production and average price in Karnataka

3. Methodology of the study:

The study is based on secondary data. The data has been collected from Krishi Marata Vahini, Government of Karnataka. The data has been taken for the period 2011 to 2020. The data has been analyzed by using simple statistical tools namely, average, percentage, Compound Annual Growth Rate.

4. Results and Discussion:

1. The growth performance in major jaggery producing districts in Karnataka

Table 1 represents the district-wise production of jaggery in Karnataka in 2020. In Karnataka, Mandya district (54.82 per cent) holds the first place and Mysore district (0.52 per cent) holds the last place in jaggery production among the major districts. In the case of average price of jaggery Bangalore city has the highest average price of Rs. 4498 per quintal and Hassan district has the lowest average price of Rs. 3013 per quintal.

Table-1: Major Jaggery Producing Districts in Karnataka (2020)

Districts	Production/Arrival (In Per cent)	Average Price per Quintal (In rupees)
Mandya	54.82	3260
Bagalkot	21.13	3396
Bangalore City	10.02	4498
Shivamogga	4.35	3458
Kolar	3.20	3940
Belagavi	1.97	3235
Chamarajanagar	0.99	3951
Hassan	0.82	3013
Vijayapura	0.62	3334
Mysore	0.52	3822
Others	1.56	-
Overall Karnataka	11,47,267 (100)	3561.56

Source: Krishi Marata Vahini, Government of Karnataka

2. The Trends of Jaggery Production and Average Price in Karnataka

Table 2 shows that high fluctuations were observed in the arrival of jaggery production in Karnataka during 2011 to 2020. The arrival of jaggery in the state decreased from 20.60 lakh quintals in 2011 to 11.47 lakh quintals in 2020. The decline in arrival of jaggery was mainly due to high cost of production and lower prices. Fluctuation of jaggery price and competition from sugar factories in high which may hinder the growth of jaggery production. Eliminating the problems between production and supply link will increase benefits of jaggery production. The study also indicates that the lack of market price information resulted in low price to the farmers. Therefore, many of jaggery producers have stopped the production of jaggery and have started selling the sugarcane to sugar factories. The compound annual growth rate (CAGR) is negative (-0.06 per cent) in arrival of jaggery in the study period.

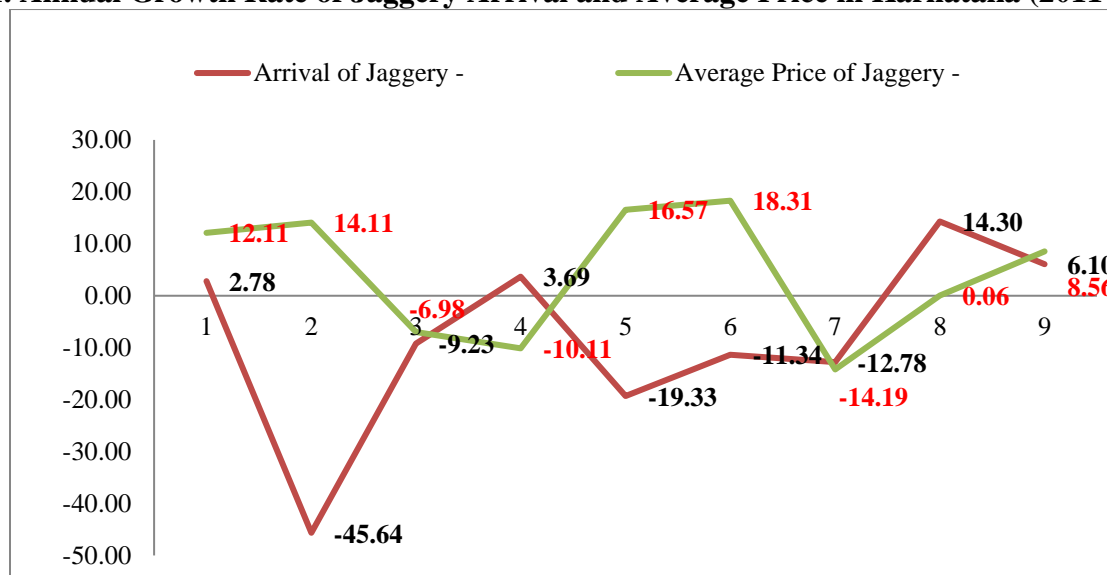
The average price of jaggery in Karnataka has increased from Rs. 2252.36 per quintal in 2011 to Rs. 3561.56 per quintal in 2020. The results indicate yearly prices are fluctuating the study period. The fluctuations in weekly prices and increase in wagon supply had a direct bearing on jaggery prices except the average jaggery price with the total quantity of jaggery received in the market in a season. Area under sugarcane cultivation of the reference year was affected by the market rate of jaggery received during the preceding year. The compound annual growth rate (CAGR) is positive (0.05 per cent) in average price of jaggery.

Table-2: Jaggery Production and Average Price in Karnataka (2011-20)

Year	Arrival (In lakh quintals)	Average Price (In rupees)
2011	20.60	2252.36
2012	21.19	2562.71
2013	14.55	2983.84
2014	13.32	2789.14
2015	13.83	2533.07
2016	11.59	3036.20
2017	10.41	3716.57
2018	9.23	3254.72
2019	10.77	3256.75
2020	11.47	3561.56
CAGR	-0.06	0.05

Source: Krishi Marata Vahini, Government of Karnataka

Figure: 1. Annual Growth Rate of Jaggery Arrival and Average Price in Karnataka (2011-20)



Source: Krishi Marata Vahini, Government of Karnataka

5. Major Findings:

- Mandya district has the highest production of jaggery at 54.82 per cent among the major jaggery producing districts in Karnataka.
- Mysore district has the lowest production of jaggery at 0.42 per cent among the major jaggery producing districts in Karnataka.
- Bangalore City has the highest average price of jaggery at Rs. 4498 quintal among the major jaggery producing districts in Karnataka.
- Hassan district has the lowest average price of jaggery at Rs. 3013 quintal among the major jaggery producing district in Karnataka.
- Production of jaggery is continuously decreasing in Karnataka state except in 2012.
- The compound annual growth rate (CAGR) is negative (-0.06 per cent) in arrival of jaggery in the study period.
- Average price of jaggery has increased in Karnataka over the study period.
- The compound annual growth rate (CAGR) is positive (0.05 per cent) in average price of jaggery.

6. Policy Suggestions:

The prime policy implications and suggestions which could be instrumental in improving the performance of jaggery production in Karnataka are as follows:

- Market information was hardly given any importance since majority of the producers supplied jaggery to commission agents due to debt obligation. Hence, an area that needs attention is communication of information on market conditions.
- While fixing price for jaggery, the cost of raw material, labour and production cost to be taken into consideration.
- The minimum support price scheme should be extended to jaggery product so as to protect the interest of producer against excessive fall in price during bumper production period.
- The study recommends creation of separate market for jaggery. Further there is a need to provide premium price for produce in order to motivate the producers.

7. Conclusion:

Jaggery industry is the largest unorganized sector which has been one of the most ancient and important rural-based cottage industries. This industry plays a major role Indian economy. Karnataka is one

of the leading states in the production of jaggery. In Karnataka, Mandya, Bagalkot, Bangalore city, Shivamogga, Chamarajanagara etc are major producing district of jaggery production. There are a large number of jaggery production units in Karnataka, but in recent years jaggery units are declining due to low demand for jaggery. In the study period the trend shows that arrival of jaggery has declined. The decline in arrival of jaggery was mainly due to high cost of production and lower prices, hence many of jaggery producers has stopped the production of jaggery and has started selling the sugarcane to sugar factories. Measures are to be taken to solve the problems faced by the jaggery producers and make jaggery production more remunerative.

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