



# A STUDY ON GROWTH AND PERFORMANCE OF INDIAN AGRO BASED EXPORTS WITH REFERENCE TO SUGAR

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*Abstract:* Industries that use agricultural merchandise as uncooked substances are called agro-industries. These are consumer-centric industries. Cotton, jute, silk, wool, sugar and edible oil are based on agricultural raw materials. Agro-based industries are those that use agricultural products from plants and animals as raw materials. It also improves agricultural production by processing and manufacturing salable and usable products. Agribusiness offers opportunities to transform agricultural products into value-added products, generate agricultural income and employment, and contribute to overall economic development in both developed and developing countries. Agribusiness is very expensive as India relies heavily on agriculture. According to 2020 statistical data, India's agricultural sector contributes around 18% to India's GDP. Moreover, about 42% of India's population is exclusively engaged in agriculture. The proportion of the population engaged in agriculture is decreasing year by year for various reasons. But it remains the largest sector, employs the majority of the population, and can generally withstand recessions. About 70% of the population also depends on agriculture and agribusiness.

*Index Terms* - Component, formatting, style, styling, insert.

## INTRODUCTION

The sugar industry is an important agro-based industry affecting the rural livelihoods of some 50 million sugar cane farmers and some 5,000 workers directly employed in sugar mills. Employment is also created in various ancillary activities related to transportation, commercial maintenance of machinery, and the supply of agricultural inputs. Today, the annual output of the Indian sugar industry is worth around Rs 80,000. As of July 31, 2017, there are 732 sugar mills in the country, with sufficient crushing capacity to produce approximately 3.39 million tons of sugar. Capacity is split almost evenly between the private and cooperative sectors. India is the world's largest sugar producer after Brazil and the leader in sugarcane production. According to the United Nations Food and Agriculture Organization, 124 countries produce sugar. However, when alternative sweeteners such as kansari (a type of raw sugar) and ghol (jiggery) are included in the pack, while India tops the list for total sugar production, Brazil is the world's largest sugar producer. Accounts for her 42.05 million tonnes and India accounts for 33.76 million tonnes.

Overall, about 1,250 pips have been invested in this industry, providing a livelihood for about 2.86 crore workers and employing 600,000 skilled and semi-skilled workers in the sugar industry and related industries to generate 5,000 pips. We support 10,000 farmers and their families. employment. The industry also benefits from around 2.5 core workers growing sugar cane in India.

The sugar industry is an important agricultural industry in India, employing millions of people and contributing significantly to the country's economy. India is the world's second largest sugar producer after Brazil, with industries concentrated in the northern states of Uttar Pradesh, Maharashtra and Karnataka.

The Indian sugar industry consists mostly of small and medium-sized producers, with about 70% of sugar mills having a production capacity of less than his 5,000 tonnes per day. The industry is heavily regulated by the government, with various policies and regulations governing sugar production, distribution and pricing.

## SUGAR PRODUCTION IN INDIA

In the 2014-2015 crushing season, India's sugar production increased by 11.5%.

According to the Indian Sugar Mills Association (ISMA), as of March 31, India was producing 24.72 million tonnes of her sugar. It is estimated that he will consume 24.8 million tons of sugar in the 2015-16 season.

With production growth over the past year, ISMA forecasts carry-forward stocks of his 8.5 million tonnes.

According to the Indian Sugar Manufacturers Association (ISMA), stocks at the start of the 2021-22 sugar season are expected to be close to 8.7 million tonnes as of October, the lowest in the last four years.

Maharashtra is traditionally the leader in sugar production in India.

According to ISMA, Uttar Pradesh's sugar production is expected to hit 11.9 million tons in 2021-22, Maharashtra's to reach 12.1 million tons, and Karnataka's to reach his 4.87 million tons.

Of these, 35 LMT sugars were diverted to ethanol production and 359 LMTs were produced in sugar mills.

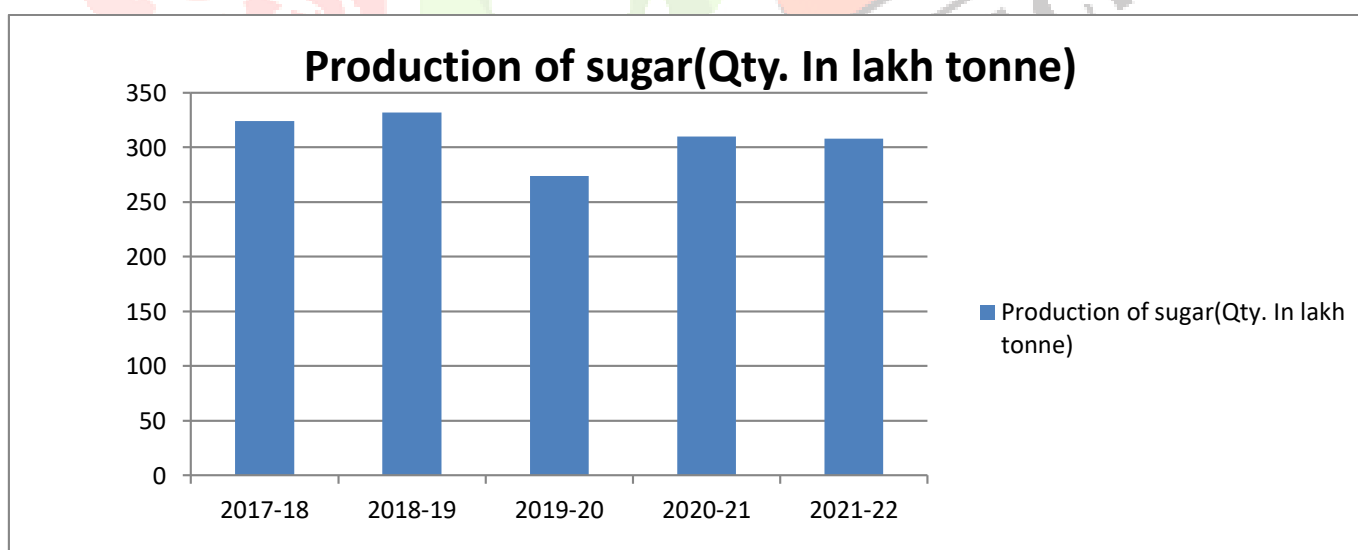
This has made India the world's largest sugar producer and consumer and the world's second largest sugar exporter.

All records for sugar cane production, sugar production, sugar exports, sugar cane sourcing, sugar cane royalties payments and ethanol production were made during the season. The Indian sugar industry is heavily regulated by the government, with various policies and regulations governing sugar production, distribution and pricing.

Through these regulations and support mechanisms, the Indian sugar industry faces several challenges such as sugar price volatility, high production costs and competition from other sweeteners.

Season wise production of sugar from 2017-18 and onwards in given below:-

Sugar Season (October-September)	Production of sugar (Qty. In lakh tonne)
2017-18	323.87
2018-19	332.00
2019-20	274.00
2020-21 (Provisional)	310.00
2021-22 (Estimated)	308.00



## SUGAR PRODUCING STATES IN INDIA

**Uttar Pradesh** :- India's largest sugar cane producer UP is the top sugarcane producer in 2012, with production exceeding 177 million tonnes. The main reason for this is the constant supply of water from the Ganges. Meerut, Bareilly, Saharanpur and Brandshahr are the main sugar cane producing regions in the UP.

**Maharashtra** :- Maharashtra ranks second in the list of the largest sugar cane producing states in India. In 2021-22, the area reserved for sugar cane plantations increased to 12.32 million hectares. As a result, the amount of sugar cane per hectare is estimated at 97 tons. Pune, Satara, Solapur, Ahmednagar and Aurangabad are the main producing areas.

**Karnataka** :- India's third largest sugarcane producer. The climatic conditions here favour the production of high quality sugar cane. In 2019-20, the production volume of more than 38 tons was recorded. Districts such as Shimoga, Mysore, Belgaum and Chitradurga are the largest producers thanks to the Corvery River irrigation project.

**Tamil Nadu** :- Tamil Nadu ranks fourth in the list of major sugar cane producers in India. The state produces an average of 18.5 tonnes of sugar cane annually. However, it is the leader in productivity per hectare. We produce an average of 99 tons/ha.

**Bihar** :-Bihar is one of the top producers of sugar cane and jiggery thanks to its fertile plains. Districts of Patna, Darbanga, Gaya and Champaran make the most significant contributions.

**Gujarat** :- Although Gujarat is an industrial zone, it accounts for more than 3% of the sugar cane produced in the country. The main contributions come from southern districts such as Valsad, Navsari, Surat and Bharuch.

**Haryana** :- Haryana is one of the largest contributors to India's central grain pool. Besides sugarcane, Haryana also produces large amounts of rice, jawar, vajra and maize. We produce over 8 tons of sugar cane on 1.3 hectares of land.

**Andhra Pradesh** :- Andhra Pradesh's black alluvial soils are ideal for growing sugar cane. The Krishna and Godavari districts benefit from these rivers and are able to produce large amounts of sugar cane.

**Punjab** :- Punjab ranks ninth on this list. On average, 0.92 hectares of land produces 7 tons of sugar cane. High productivity is due to the state's ingrained agricultural culture.

Sr. No.	States / UT	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22*	Average	% to total	Rank
1	Uttar Pradesh	145.39	140.17	177.03	179.71	179.54	177.67	177.43	170.82	45.89	1st
2	Maharashtra	73.68	52.26	82.98	89.77	69.31	101.60	112.37	79.18	21.27	2 <sup>nd</sup>
3	Karnataka	37.83	27.38	31.14	42.41	38.18	42.09	56.45	36.24	9.74	3 <sup>rd</sup>
4	Tamil Nadu	25.49	18.99	17.15	17.14	14.12	12.80	14.53	16.04	4.31	4 <sup>th</sup>
5	Bihar	12.65	13.04	13.83	20.12	13.58	10.71	13.97	14.26	3.83	5 <sup>th</sup>
6	Gujarat	11.12	11.95	12.07	11.33	11.57	15.85	17.44	12.55	3.37	6 <sup>th</sup>
7	Haryana	6.69	8.22	9.63	8.51	7.73	8.53	8.75	8.52	2.29	7 <sup>th</sup>
8	Punjab	6.61	7.15	8.02	7.77	7.30	7.49	7.51	7.55	2.03	8 <sup>th</sup>
9	Andhra Pradesh	9.35	7.83	7.80	8.09	6.72	4.12	3.65	6.91	1.86	9 <sup>th</sup>
10	Uttarakhand	5.89	6.48	6.27	6.33	6.94	6.96	3.52	6.60	1.77	10 <sup>th</sup>
11	Madhya Pradesh	5.28	4.73	5.43	5.28	7.43	5.88	5.45	5.75	1.54	11 <sup>th</sup>
12	Telagana	2.41	2.06	2.60	3.18	2.01	1.36	2.22	2.24	0.60	12 <sup>th</sup>
13	West Bengal	2.08	1.55	1.13	1.34	1.53	1.56	1.52	1.42	0.38	13 <sup>th</sup>
14	Others	3.99	4.26	4.82	4.45	4.53	2.64	4.70	4.14	1.11	
	All India	348.45	306.07	379.90	405.42	370.50	399.26	430.50	372.23	100.00	

**Uttarakhand** :-The hilly state of Uttarakhand ranks 10th on the list with an average annual production of 6.38 tonnes. Dehradun, Haridwar and Udham Singh Nagar are the main contributors to this high figure.

## EXPORTS OF SUGAR FROM INDIA

As a further step to balance domestic sugar price stability with the financial situation of domestic sugar mills, the Government of India has announced that during the 2022-2023 sugar season, up to 60 LMT of Licensed the export of sugar.

The DGFT has already announced that it will extend the inclusion of sugar exports in the 'restricted' category until 31 October 2023. The central government has set aside approximately 275 rack metric tons (LMT) of sugar for domestic consumption, approximately 50 LMT of sugar for diversion to ethanol production, and approximately 60 LMT of final balances as of September 30, 2023.

With initial estimates of sugarcane production at the beginning of the 2022-2023 sugarcane season, it was decided to allow exports of 60 LMT of sugarcane.

Domestic sugar cane production is regularly reviewed, and authorized exports of sugar may be reconsidered based on the latest estimates available. During SS 2021-22, India exported 110 LMT of sugar, making it her second largest sugar exporter in the world and earned around Rs 4 lakh worth of foreign currency.

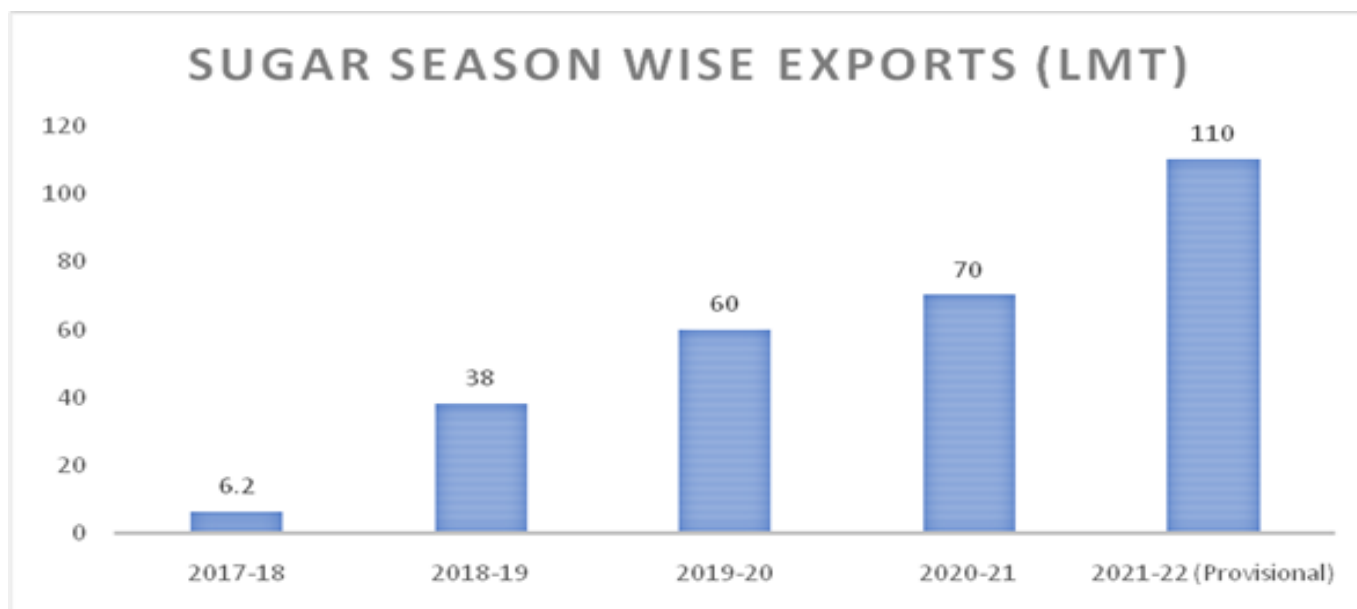
As of 31 October 2022, more than 96% of his SS 2021-22 farmers' cane tariffs have already been settled, despite a record procurement of over Rs 11.8 crore of sugar cane. In the sugar export policy of SS 2022-23, the Government will use an objective system based on the average sugar mill production and the average national sugar production over the past three years to Announced sugar mill related export quotas for sugar mills.

The system of exchange reduces the need to transport sugar from remote areas to ports for export, and reduces the need to transport sugar across the country for domestic consumption.

By the end of the 2022-2023 sugar season, most sugar mills are expected to sell their produce to international markets through domestic markets or exports, and settle farmers' sugar cane fees in a timely manner.

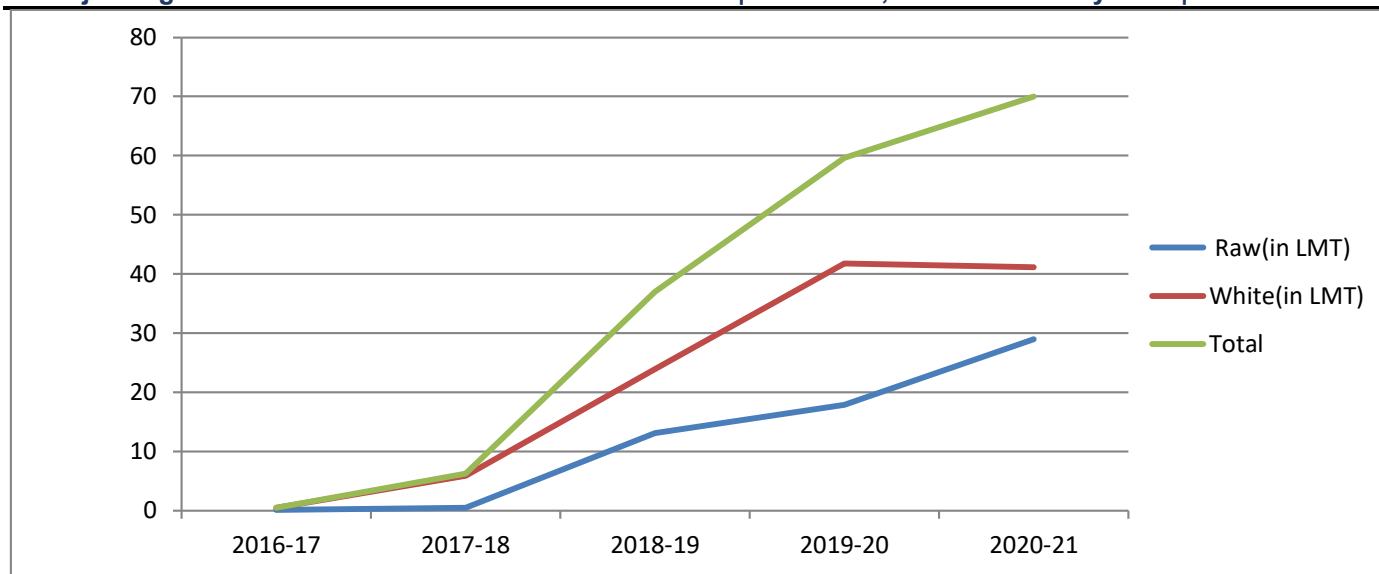
The sugar export policy shows the government's focus on maintaining price stability in the sugar sector for the benefit of domestic consumers.

The Indian sugar market has already seen a very slight price increase, coinciding with his FRP increase in sugar cane for farmers. Another area of focus is domestic ethanol production.



#### Sugar season- wise export of sugar

SUGAR EXPORT			
Sugar Season	Raw (in LMT)	White (in LMT)	Total
2016-17	0.07	0.41	0.48
2017-18	0.46	5.84	6.2
2018-19	13.12	23.88	37.00
2019-20	17.88	41.72	59.60
2020-21	28.91	41.09	70.00



## GLOBAL MARKET OUTLOOK FOR SUGAR

The outlook for the global sugar market is influenced by many factors, including supply and demand dynamics, weather conditions, trade policies, and consumer preferences. In terms of supply, the world's largest sugar producers are Brazil, India, the European Union, Thailand and China.

Weather conditions in these countries can have a significant impact on sugar yields and, in turn, global sugar prices. On the demand side, sugar is widely used in many industries such as food and beverages, pharmaceuticals and cosmetics.

As a result, there is great uncertainty about the future direction of sugar prices, as these policy changes could have a significant impact on global supply and demand dynamics. Another factor that could affect the global sugar market is the increasing use of alternative sweeteners such as stevia and monk fruit, which are considered healthier and more natural than conventional sugar.

Overall, the outlook for the global sugar market is complex and subject to many factors, including changing supply and demand dynamics, weather conditions, trade policies, and consumer preferences. This is an overview of the global sugar market outlook by country Brazil. Brazil is the world's largest sugar producer and exporter, accounting for about 20% of the world's sugar production.

The Brazilian government is also considering increasing the use of ethanol as a biofuel, which could reduce sugar supplies India. India is the world's second largest sugar producer and, like Brazil, its production is highly dependent on weather conditions.

India's sugar exports are likely to remain competitive due to lower production costs, although government measures such as export restrictions and subsidies may affect the market outlook European union. The European Union is a major sugar producer, with France and Germany being the largest producers.

The EU has a quota system that limits the amount of sugar that can be produced and exported, which could affect the sugar market prospects in the region sea bream. Thailand is another of her major sugar producers whose production is highly dependent on weather conditions.

A country's domestic sugar policies, including quotas and tariffs on imported sugar, can affect the outlook for the US sugar market Australia. Australia is a major sugar producer and exporter and most of its sugar is made from sugar cane.

Weather conditions, particularly hurricanes and droughts, can affect sugar production, and a country's market outlook can also be affected by policies such as subsidies and trade agreements. Overall, the global market outlook for sugar is shaped.

## LITERATURE REVIEW

GAWARE UTKARSHA PRAMOD, R.R MISHRA AND NASIM AHMAD (2022)

Says that the growth of sugar production had a positive growth. Export had a negative trend in sugar but import of sugar had positive growth. There is need to increase to production of sugar be encouraging policies and subsidies to sugar millers. The import of sugar in all terms was highly unstable. Whereas the unit price of export found to be stable during the study period.

P. SEKAE AND MATHANRAJ. T (2022)

It says that the export of a country's horticultural product play a vital role in the growth of an economy. Agriculture is perhaps the biggest supporter of the Gross Domestic Product (GDP). Agrarian commodities of India has come to possess a crown position in the worldwide market. The study brings into light the growth performance of India's export to the Commodity-wise direction of agricultural exports. It would be helpful for the policymaker to enact suitable policies for international trade

India's total sugar export was 2763 million US dollars. After USA and Brazil, India is the third most significant exporter of cotton in the world market. Textiles industry contributes 5% to the country's gross domestic product, 14% to industrial production, and 11% to total export earnings. India should focus on the countries of Indian Ocean to enhance its sugar. Major competitors for Indian sugar exports are Brazil, Thailand, Germany, Australia, China, and USA. India registered high growth in sugar imports because Indian sugar mills import Brazilian raw sugar, refine, and sell it.

Vishnu Priya I and M. Vidya (2022)

54.6 percent of India's population is employed in agriculture and related sectors, which accounted for 17.4 percent of the country's GDP in 2016-17. Agriculture accounted for 10.5% of India's total exports in 2017 with a value of \$33.87 billion. In 1990-91, India exported 31.59 billion dollars and imported 33.49 billion dollars; in 2015-16, respectively, the two sides exchanged 514 billion dollars (USD) worth of goods. India has been considered an agricultural powerhouse for a long time. According to 2011 census, agriculture employs 54.6 percent of India's population and accounts for 17.4 percent of the country's GDP. In 2017, agricultural exports from India amounted to \$33.87 billion, or 10.5% of total exports.

DR. M. GURUPANDI, MR. S. ESWARAN (2022)

India can make a solid and healthy relationship with other BRICS countries by exporting and importing its products. The highest export of agricultural products to Brazil 56111.77 (2020-21) in the year from India. This study explores how export performance of the agricultural products in India – with special reference to BRAZIL countries

#### PROBLEM STATEMENT OF STUDY

India is one of the largest producers and exporters of sugar in the world. The growth and performance of the Indian sugar industry have been facing several challenges in recent years, including declining export competitiveness, low productivity, high costs of production, outdated technology, and lack of infrastructure. These challenges have resulted in a decline in the export of Indian sugar in the global market, affecting the overall growth and performance of the Indian agro-based export sector. Therefore, the problem statement of the study would be to analyze the factors affecting the growth and performance of Indian sugar exports and identify potential solutions to enhance its export competitiveness and overall growth of the agro-based export sector in India.

#### OBJECTIVES OF THE STUDY

To analyse the trends in India's agricultural exports  
To study India's export growth and performance of sugar  
To analyses the role of Exports of sugar in India

#### RESEARCH METHODOLOGY

##### 1. Research design

The study is quantitative in nature and secondary data is used. The study is based on production of sugar in India, export of sugar from India, growth and performance of sugar in India. The time series of data collected is from 2014 to current year

##### 2. Sources of data

The study is based on secondary data. Data regarding production of sugar and export of sugar from India was collected from various government websites, various publication of government of India, journals and articles.

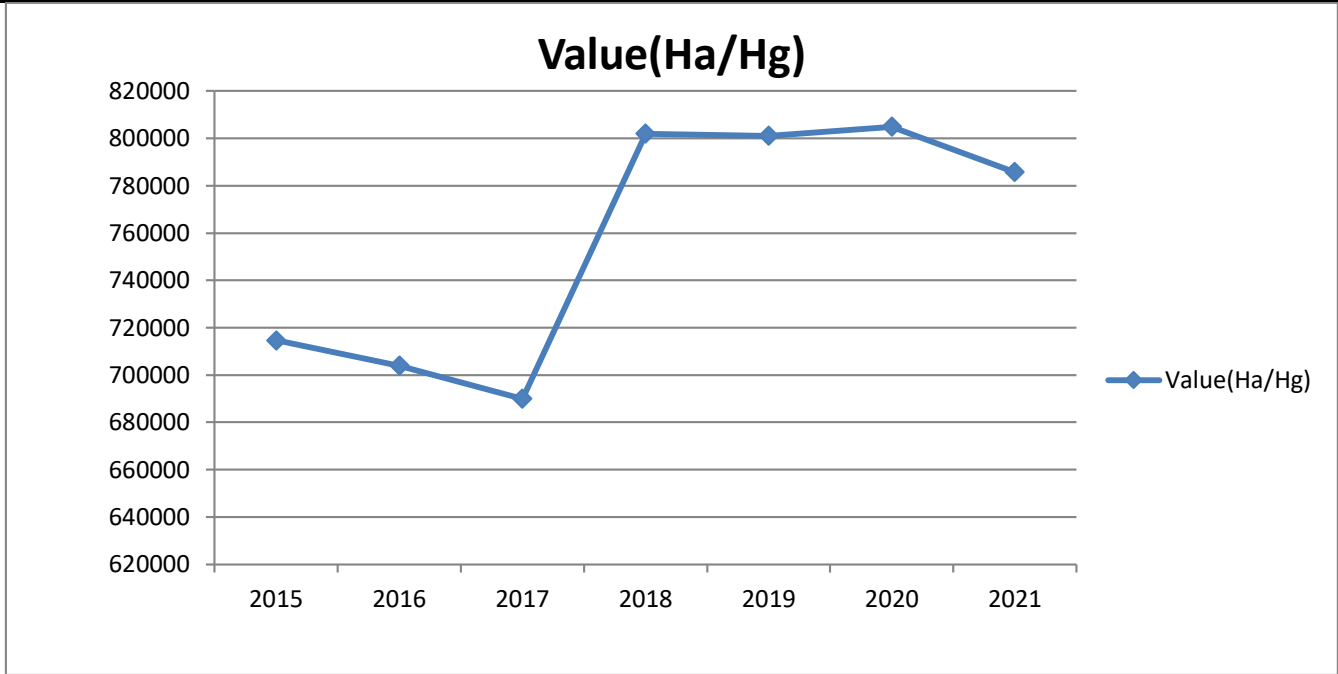
##### 3. Data collection method

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#### DATA ANALYSIS

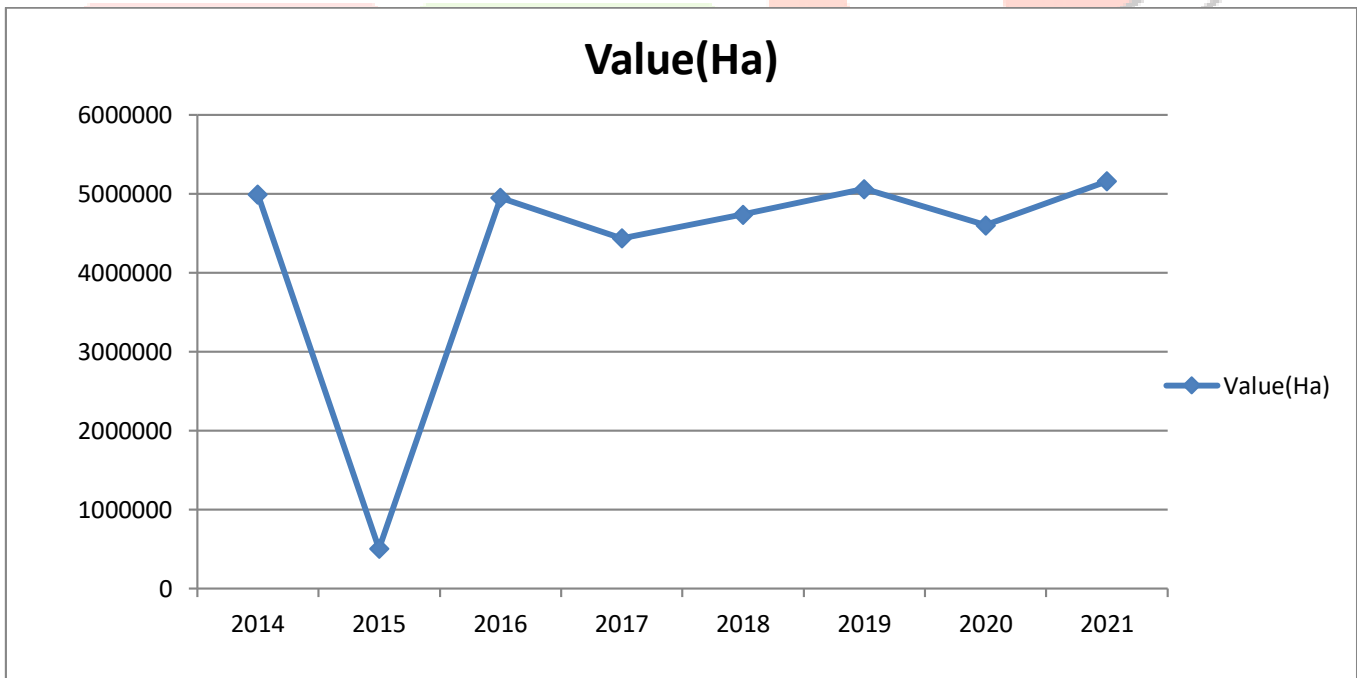
##### INDIA'S SUGAR CANE YIELD

Sr. No.	Year	Value (Ha/Hg)
1	2015	714661
2	2016	703935
3	2017	690014
4	2018	801984
5	2019	801045
6	2020	804966
7	2021	785776



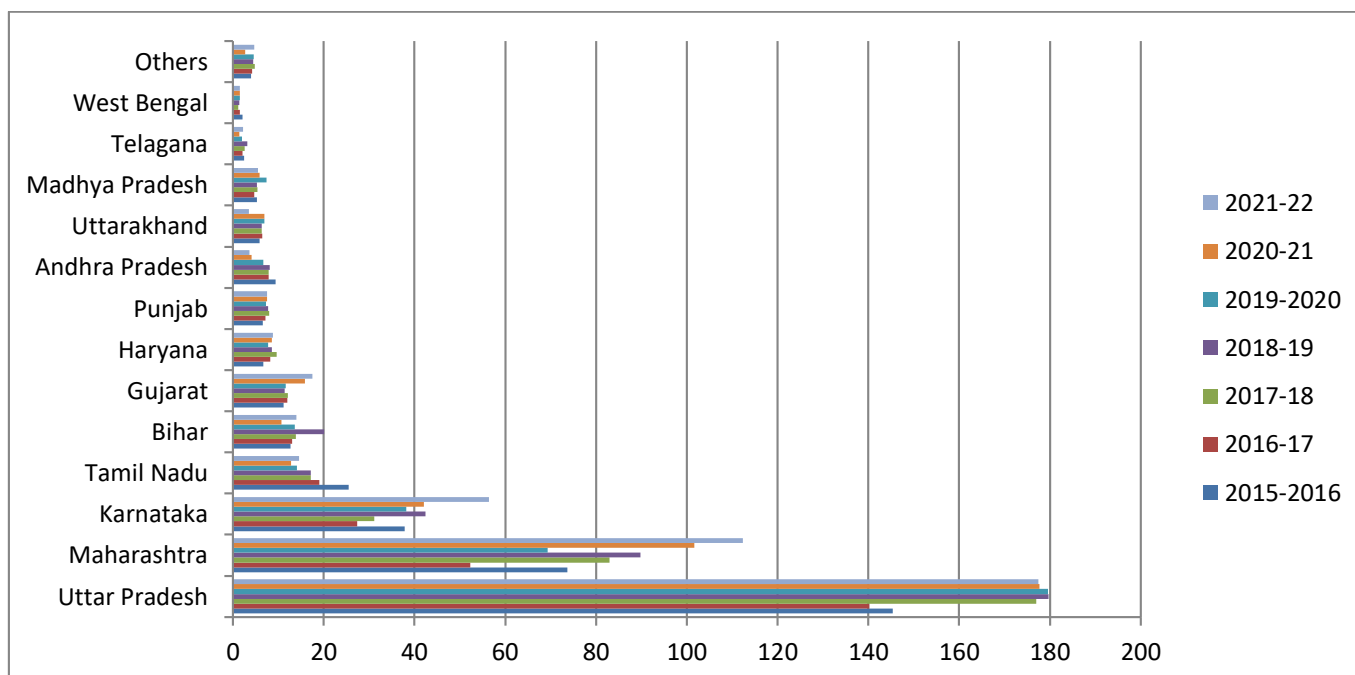
**INDIAN AREA HARVESTED OF SUGAR**

Sr.No.	Year	Value (Ha)
1	2014	4990000
2	2015	507000
3	2016	4950000
4	2017	4435690
5	2018	4737060
6	2019	5061090
7	2020	4602680
8	2021	5159219



## INDIAN PRODUCTION OF SUGAR- STATE WISE

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It is observed that, Uttar Pradesh is the largest sugar producers and Maharashtra is second largest sugar producers where in south India, it is Karnataka, and Tamil Nadu are the leading state in sugar production in India. Bihar, Gujarat, Haryana, and Punjab are also leading state but as compare to Karnataka and Tamil Nadu. It observed that Bihar, Gujarat, Haryana, and Punjab are at average in sugar production.

## RESULTS

The results of the study show that the production of sugar in India has been growing steadily over the past five years, with a Compound Annual Growth Rate (CAGR) of 2.5%. However, the export of sugar has been declining, with a negative CAGR of -6.2%. The declining export competitiveness of Indian sugar can be attributed to several factors, such as high costs of production, low productivity, outdated technology, and lack of infrastructure. The study also found that market diversification is crucial for enhancing the export competitiveness of Indian sugar, as the majority of sugar exports are concentrated in a few countries.

## CONCLUSION

The Indian sugar industry plays a significant role in the growth and performance of the agro-based export sector in India. However, the industry is facing several challenges that are affecting its export competitiveness. To enhance the export competitiveness of Indian sugar, it is crucial to adopt modern technology, improve infrastructure, and diversify the export market. The study recommends that policymakers, sugar industry stakeholders, and exporters should collaborate to address these challenges and enhance the growth and performance of the agro-based export sector in India.

The Indian sugar industry has significant potential, and its growth and performance have a direct impact on the Indian economy. By addressing the challenges faced by the industry and implementing the recommendations of the study, the Indian sugar industry can enhance its competitiveness and contribute to the growth and performance of the agro-based export sector in India.



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<https://sugarcane.dac.gov.in/pdf/StatisticsAPY.pdf>

[https://scholar.google.com/scholar?cites=1325773245296360809&as\\_sdt=2005&scioldt=0,5&hl=en#d=gs\\_qabs&t=1664520989674&u=%23p%3DLDu180m6v3IJ](https://scholar.google.com/scholar?cites=1325773245296360809&as_sdt=2005&scioldt=0,5&hl=en#d=gs_qabs&t=1664520989674&u=%23p%3DLDu180m6v3IJ)

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<https://cajotas.centralasianstudies.org/index.php/CAJOTAS/article/view/601/673>

<https://economicaffairs.co.in/Journal/abstract/id/NTE1Nw==>

