

RESEARCH ARTICLE

ASSESSING GROWTH PROSPECTS OF AGRICULTURAL EXPORTS IN INDIA

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Abstract : The study aims to assess the trend and growth of India's agricultural export in the post reform period and examine export competitiveness of Indian agricultural products in the post reform period. Balassa's Revealed Comparative Advantage (BRCA) Index is employed to assess the competitiveness of Indian agricultural exports. The results indicate that growth rate of agricultural exports has significant fluctuations during the period of study. The share of agriculture in India's total exports has increased marginally from 14.07% to 14.20% showing high volatility during the study period. India enjoys strong comparative advantage in agricultural exports during the period of study. The competitiveness has declined in cotton and coffee, Tea, mate and spices whereas it increased in rice and tobacco in 2020 than in 2001.

Keywords: *Agricultural Export, Growth Prospect, Export competitiveness, Comparative Advantage*

Article Received: 10 Oct. 2023

Revised: 22 Oct. 2023

Accepted: 28 Oct. 2023

INTRODUCTION

The economic reforms implemented in the 1990s, together with the ratification of the Agreement on Agriculture (AoA) with the WTO, significantly influenced and reshaped agricultural trade both globally and within India. Indian agricultural trade in diverse commodities has recently held a significant position in global agricultural trade. Currently, India plays a significant role in exporting various agricultural goods, including rice, tea, coffee, spices, fresh produce, meat, and seafood, to the global market. Agriculture is a vital component of the Indian economy, employing around 65% of the country's workforce and serving as the foundation for several key businesses.

Agriculture accounts for around 20.2% of the Gross Domestic Product (GDP) and around 14.1% of India's agricultural product exports in the year 2020-21, as reported by the Press Information Bureau in 2023. The increasing global demand for Indian agricultural commodities offers significant prospects. Increasing agricultural exports is crucial for enhancing farmers' earnings and promoting the growth of value-added agricultural exports. The export of agricultural commodities enables producers to capitalize

on a broader global market, thereby stimulating their domestic production. As per available WTO's Trade Statistical Review (2022), India's agricultural exports accounted for 2.4% of global agricultural commerce in 2021, while its agricultural imports accounted for 1.7%. India is ranked among the top 10 worldwide agricultural exporters.

In 2021-22, the proportion of agricultural exports in India's overall merchandise exports stands at 11.90%. India's agricultural and allied commodities are primarily exported to Bangladesh, the United States of America, China, Vietnam, the United Arab Emirates, Indonesia, Saudi Arabia, Malaysia, Nepal, Egypt, Sri Lanka, the Netherlands, Iran, Iraq, the United Kingdom, Japan, and Thailand.

As the international market for value-added products expands, India should accelerate its export of agricultural products. The changing marketplace and market pressures provide a wealth of business options in product differentiation, which is impacted by increased customer demand for health, nutrition, and convenience meals, as well as productivity gains for food processors.

LITERATURE REVIEW

Anjum and Khan [1] conducted an analysis on the shifting trend of agricultural exports in response to the effect of the World Trade Organization (WTO). The study aimed to determine if the WTO has resulted in a convergence or divergence in agricultural exports. The study revealed that the World Trade Organization (WTO) has a varied impact on India's agricultural exports. On one side, it has had a beneficial impact on the exportation of various commodities such as rice, wheat, spices, fruits, and vegetables.

Additionally, it has contributed to the enhancement of India's standing in global agricultural exports. Conversely, it has had a detrimental impact on the export of certain commodities like as tea, coffee, tobacco, cashew, oil meals, and marine products. Additionally, it has not facilitated India in acquiring proficiency in agricultural exports or specializing in the commodity that it has a comparative advantage in.

The proportion of agricultural exports in the overall exports of the country has decreased during the period after the establishment of the WTO, indicating that the WTO has not met its anticipated goal of enhancing the country's agricultural exports. Jagdambe [2] examined the level of competitiveness in India's agricultural trade with ASEAN member-countries during the period of 2001 to 2013. The study utilized the commerce Intensity index to assess the level of intensity with which India and ASEAN countries engage in agricultural commerce, in comparison to the global average.

The RCA index was utilized to assess the export competitiveness of agricultural products between India and ASEAN countries. The findings revealed that India's export intensity in overall agricultural commerce has been rising in relation to ASEAN, as opposed to the rest of the world (ROW). The Import Intensity had a decline over the duration of the study.

The study also observed that India's trade intensity in agricultural trade exhibited variation among different countries. The study determined that there are additional opportunities to expand the distribution of Indian agricultural products in ASEAN

markets, including in Vietnam, Thailand, Brunei, Cambodia, and Lao PDR.

Kumar V. (2021) examined the patterns and outcomes of India's agricultural trade. An analysis of the growth trends in agricultural imports and exports indicates that nearly all commodities exhibited a positive trend from 2009-10 to 2020-21 [3].

The study also found that agricultural exports had a significant increase of 20.75% in 2020-21 and 35.76% in the first quarter of 2021-21, despite the COVID-19 pandemic, when compared to the corresponding time in the previous year. The study determined that India's agricultural trade exhibits significant volatility.

Tantri (2021) conducted an analysis of the patterns and attributes of agricultural exports in India. The study provides a critical assessment of the paths taken in formulating agricultural policies in India. The study additionally delineated the patterns and prominent attributes of agricultural exports in India [4].

The results of the study indicate that agricultural trade experienced an increase of over 15 percent in the initial decade, specifically between 1994 and 1995. However, it subsequently declined significantly, reaching negative growth rates until 1999. From 2000 to 2010, there was a significant revival in the agricultural sector, with an average annual growth rate of over 10% in agricultural exports.

However, this growth was interrupted by the financial crisis of 2008, resulting in a decline of 12% in 2009. Since 2012, the rate of growth in exports has been varying between single digits, with the most recent figure being four percent in 2018. The Agriculture Export Policy 2018 aims to enhance India's standing in agricultural exports without a doubt. However, during the creation of the agricultural policy, several important aspects are overlooked, potentially undermining the effectiveness of the policy and hindering our ability to achieve the stated targets.

MATERIALS AND METHODS

The study assessing the growth prospects of agricultural exports in India is based on time series data ranging from 2001 to 2020.

The data of agricultural export is extracted from DGCIS (Director General of Commercial Intelligence and Statistics), UN Comtrade Database, APEDA by Ministry of Commerce and Industry. The Competitiveness of Indian agricultural exports is assessed using Balassa's RCA index.

The statistic proposed by Balassa (1965) was designed to assess the relative export performance of countries across various industries and commodities. The calculation of this measure involves the division of a nation's share of worldwide exports for a particular item by its share of total global exports. The calculation of the index for commodity j in country i is as follows:

$$RCA_{ij} = (X_{ij}/X_{wj}) / (X_i/X_w) \dots\dots\dots (1)$$

where,

X_{ij} = ith country's export of commodity j

X_{wj} = world exports of commodity j

X_i = total exports of country i

X_w = total world exports

If the RCA index exhibits a value exceeding one, it indicates that the country possesses a revealed comparative advantage in the respective product.

RESULTS AND DISCUSSION

From 2000 to 2020, the growth rate of agricultural exports saw notable variations,

as depicted in figure 1. In 2011-12, India experienced a significant increase in its agricultural exports, achieving the highest growth rate compared to the previous year. It experienced a decline in growth rate over the years 2001-02, 2008-09, 2014-15, 2015-16, and 2019-20.

The reasons can be ascribed to the prolonged drought that has occurred in recent years. India's agricultural exports had a decrease starting from 2011, characterized by the United Nations as weak growth throughout 2012-2014, followed by a dip in 2015 and 2016, and ultimately a significant recovery in 2017 and 2018 (UNCTAD, 2019).

The anaemic growth period persisted after the 2009 crisis, but the decline in 2015 and 2016 happened during a period of overall positive global real GDP growth. This pattern emerged due to a combination of circumstances, such as decreasing prices of commodities, sluggish demand in major economies, and the strengthening of the United States dollar.

In spite of the notable progress in 2017-18 and 2018-19, India experienced a decline in its agricultural exports with a negative growth rate of -8.51% in 2019-20. India's agricultural exports experienced a significant increase, with a growth rate of 15.67% in the fiscal year 2020-21.

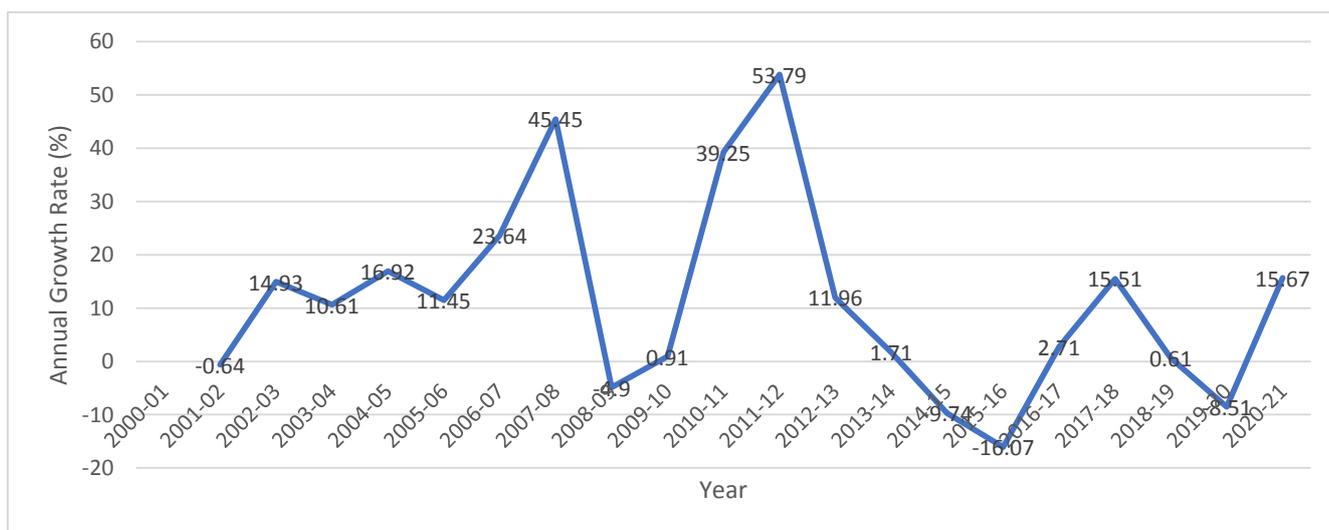


Fig. 1: Trend of growth rate of Indian agricultural exports

Table 1 presents the proportion of agriculture in India's overall exports. In the fiscal year 2000-01, the proportion of agricultural exports in the overall exports amounted to

14.07%. The percentage first rose to 14.21% in 2001-02. Subsequently, there has been a consistent decrease in the share until 2005-

06, when the share plummeted to 10.01%. Subsequently, there were fluctuations in the performance, with the share in 2020-21 amounting to 14.20%. In India, the

proportion of agricultural exports in the country's total exports experienced a little increase from 14.07% in 2000-01 to 14.20% in 2020-21.

Table 1: Percentage share of agriculture in India's total exports from 2000-01 to 2020-21

Year	Agricultural Exports (US \$ Billion)	Total Exports (US \$ Billion)	Share in Total Exports (%)
2000-01	6.27	44.56	14.07
2001-02	6.23	43.83	14.21
2002-03	7.16	52.72	13.58
2003-04	7.92	63.84	12.41
2004-05	9.26	83.54	11.08
2005-06	10.32	103.09	10.01
2006-07	12.76	126.26	10.11
2007-08	18.56	162.98	11.39
2008-09	17.65	183.1	9.64
2009-10	17.81	178.32	9.99
2010-11	24.8	249.46	9.94
2011-12	38.14	305.9	12.47
2012-13	42.7	307.14	13.90
2013-14	43.43	314.87	13.79
2014-15	39.2	310.15	12.64
2015-16	32.9	262.17	12.55
2016-17	33.79	275.74	12.25
2017-18	39.03	303.55	12.86
2018-19	39.27	330.04	11.90
2019-20	35.93	315.32	11.39
2020-21	41.56	292.76	14.20

Source: DGCI & S, 2020-21

Table 2 displays the computation of Balassa's Revealed Comparative Advantage Index

(RCAI) for India's agricultural exports spanning from 2001 to 2020.

Table 2: Revealed comparative advantage index (RCAI) for indian agricultural exports

Year	Share of Agricultural Exports in Total Exports of India	Share of Agricultural Export in Total World Exports	RCA
2001	0.142	0.052	2.73
2002	0.136	0.052	2.62
2003	0.124	0.051	2.43
2004	0.111	0.048	2.31
2005	0.100	0.045	2.22
2006	0.101	0.044	2.30
2007	0.114	0.047	2.43
2008	0.096	0.050	1.92
2009	0.099	0.057	1.74
2010	0.099	0.054	1.83
2011	0.125	0.056	2.23
2012	0.139	0.058	2.40
2013	0.137	0.058	2.36
2014	0.126	0.059	2.14
2015	0.125	0.062	2.02
2016	0.123	0.064	1.92
2017	0.129	0.063	2.05
2018	0.119	0.059	2.02
2019	0.114	0.061	1.87
2020	0.142	0.068	2.09

Source: Author's calculations based on secondary data

India demonstrates a robust competitive advantage in the production of agricultural products, as indicated by the RCA index. The RCA value exhibited a reduction from 2.73 in 2001 to 2.09 in 2020, with notable volatility

observed during the duration of the study. This indicates a decrease in the competitiveness of India's agricultural exports, demonstrating inconsistency during the duration of the study.

Table 3: Revealed comparative advantage index (RCAI) for selected agricultural products of India

HS code	Commodity	RCA	
		2001	2020
09	Coffee, Tea, Mate and Spices	8.17	4.18
1006	Rice	13.5	18.2
24	Tobacco	1.15	1.21
52	Cotton	8.87	7.23

Table 3 presents the calculation of Balassa's Revealed Comparative Advantage Index (RCAI) for India's four agricultural products, namely Coffee, Tea, Mate and Spices, Rice, Tobacco and Cotton. The RCAI values are provided for the years 2001 and 2020. The findings indicate that India demonstrated a robust comparative advantage in producing Coffee, Tea, Mate and Spices, Rice and Cotton in both the years.

A more average comparative advantage was found in Tobacco. The RCA value has declined for Cotton and Coffee, Tea, Mate and Spices whereas it increased for Rice and Tobacco in 2020 than in 2001. It shows that the competitiveness has declined in Cotton and Coffee, Tea, Mate and Spices whereas it increased in Rice and Tobacco in 2020 than in 2001 [5-10].

CONCLUSION

The aforementioned discussion yielded several significant findings, which are outlined below: Growth rate of India's agricultural exports is found fluctuating during the period of study. India's agricultural exports have marked highest growth rate in 2011-12 as compared to previous year. It witnessed negative growth rate in 2008-09, 2014-15, 2015-16 and 2019-20.

The share of agricultural exports in India's total exports has increased marginally from 14.07% to 14.20% showing high volatility during the study period. India enjoys strong comparative advantage in agricultural exports during the period of study. The competitiveness has declined in cotton and coffee, Tea, mate and spices whereas it increased in rice and tobacco in 2020 than in 2001.

Therefore, India must modify its agricultural policy in order to increase the competitiveness of its agricultural exports on the international market. Promoting agriculture commercialization, processing, and diversification should be a top priority for the government. By diversifying its exports, India can raise its ranking for agricultural exports. India ought to vary the places to which it exports goods.

Stable trade policy is the nation's top priority, especially when it comes to goods with higher trade potential. Furthermore, it is imperative to strictly adhere to international standards when taking care of Sanitary and Phytosanitary (SPS) procedures. Export-oriented production through the development of clusters and dedicated supply chains will help to strengthen the worldwide image of Indian products. Supply chains that are focused on exporting should be effectively managed to lower costs and boost export competitiveness.

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