



Trade Balance and Growth of Indian Agriculture Exports of cashew in India

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ABSTRACT:

Cashew throughout its history, India has been viewed as an agricultural country. The data show that real GDP growth, also known as GDP at constant prices is predicted to reach a level of INR 147.36 trillion (\$1.90 trillion) in FY 2022 as opposed to the First Revised Estimate of INR 135.58 trillion . It is predicted that the GDP will increase by 8.7 percent in FY 2022. It should be remembered that this expansion is occurring from a very low base, as the economy shrank by 6.6 percent in the previous fiscal year as a result of the harsh restrictions and measures put in place in response to the COVID. The Economic Survey 2022 had also predicted the GDP growth for the current fiscal year at the time. The introduction and study goal are presented as parts of the paper. Examine the available research, the methodology, the trading of agricultural commodities.

KEYWORDS:

Import, Agriculture, Export, Trade

INTRODUCTION

India's economy, which is among the fastest-growing in the world, has made it a prominent force in all spheres of society and commerce. Agriculture, industry, and services play a significant role in India's economy. The growth of the service sector has outpaced that of both agriculture and manufacturing. Agriculture still contributes significantly to economic growth, despite the fact that its percentage of national income has decreased. Agriculture and the allied sectors are still crucial to India's long-term growth. In the immediate aftermath of gaining its independence, famine and a scarcity of food afflicted India. Since then, the nation has made achieving self-sufficiency and efficiency in food production a key priority. It is now a significant distributor of a variety of goods, including rice and cotton, both of which it is a top producer thanks to economic expansion and liberalisation. In terms of commerce, China and India both started to liberalise their marketplaces in the 1970s, but China moved more slowly.

Toward the finish of 2018, India's exchange balance was 42.22 percent of GDP contrasted with 15.24 percent in 1990. Figure 1 portrays the improvement of the exchange balance as a level of GDP (index). In 1990-91, India sent out 31.59 billion bucks (USD) and imported 33.49 billion bucks (USD). In 2021-22, India sent out 89.6 billion bucks (USD) and imported 514 billion bucks (USD), separately. 1990 saw an expansion in the level of GDP from 7.13 to 8.55 percent for sends out and an ascent in the level of GDP from 8.55 to 19.94 percent for imports; His pattern persisted in 2018 and 2019. In 2018, India exported 11.3 percent of its total exports to China, 15.2 percent to the United Arab Emirates, and 16.9 percent to the United States as a member of many bilateral trade organisations. The top three nations from which India buys goods are China, Saudi Arabia, and Switzerland. According to estimates, 62 percent of India's imports and 52 percent of its exports go to the EU, making it the nation's biggest trading partner.

India has long been recognised as a global leader in agriculture. 54.6 percent of Indians work in agriculture, which contributed 17.4 percent of the nation's GDP in 2016–17, according to the 2011 census. Prices at the time this article was written. In India, where the "green revolution" began in the middle of the 1960s, there was a lack of agricultural products, which revolutionised the farming business. As a result, India was able to affordably export agricultural products to other nations while still being able to support its population with food and other requirements. India exported \$33.87 billion worth of agricultural goods in 2017, accounting for 10.5 percent of all exports. India's government has put a lot of work into enhancing agriculture and agricultural exports during the previous seven decades, with an average annual growth rate of 2.7 percent over the last 50 years. According to the Financial Study, agriculture would expand at an annual rate of 2.1 percent in 2017. According to the Prime Minister of India, efforts are being made to ensure that farmer incomes quadruple by 2022. Exports of agricultural products are crucial to this effort.

OBJECTIVES

The backbone of the Indian economy is agriculture. Agricultural prosperity is crucial for economic progress. In a report, the following objectives of agricultural trade in India are listed:

Researching the Indian agriculture trade

- Investigating the rates of agricultural commodity trade growth.
- Analyzing India's agricultural trade exports and imports.

- Make recommendations for different ways to enhance India's agricultural trade.
- Examining agricultural trade patterns.

REVIEW LITERATURE

The current study looked at a variety of literature evaluations of earlier investigations into the agricultural trade in India. In order to comprehend the present level of research and spot any gaps in these studies, researchers must carefully evaluate earlier findings. All forms of research require this. Furthermore, these investigations will help the researcher choose the appropriate strategy for the study. Although there is a dearth of research on agricultural commerce in India, the following literature study served as a starting point.

Shinoj P and V.C. Mathurb (2008) Over the years, Indian agricultural products have risen to the top of the worldwide market. Currently, India is a significant exporter of a number of agricultural items to the global market, including tea, coffee, rice, spices, cashews, oil meals, fresh fruits, fresh vegetables, meat and its preparations, and marine products. According to the study, India's exports of key agricultural commodities have reacted differently in terms of comparative advantage during the course of the post-reform period. India enjoys a comparative edge in tea exports, but over time, has shown a deteriorating tendency.

A SURESH1 and V C MATHUR2 (2016) Policymakers have always been interested in the performance of the agricultural export sector since it is a key driver of improved farm income, crop diversification, and foreign exchange earnings. The World Trade Organization's (WTO) entry into effect brought about a fundamental shift in the discussions around the issue. The current study has investigated the opportunities for increasing agricultural exports from India during the past ten years and has analysed the trajectory in those exports. The study concludes that exports of agricultural goods significantly improved, although this was accompanied by a change in the mix of the exported goods.

O.P. Singh*, M. Anoop and P.K. Singh** (2020)** India's agriculture sector has contributed significantly to the nation's economic growth. At current exchange rates, the agriculture sector's gross value added was Rs. 27559.92 billion, or 14.46% of the GDP at market prices (Government of India, 2019). Despite the limitations imposed by the WTO framework and other trade agreements, the Indian government has been providing a number of export incentives to promote agricultural exports. Price and non-price measures are included in this.

Mukhopadhyay and Sen (2010) employed a linear trend equation to pinpoint the structural relationships between GDP, exports, and imports as a result of the liberalisation process from 2006–2007 to 2008–2009. The results show that India's export volume increased during the liberalisation era.

Bhattacharyya looked at India's agricultural exports (2013a). In order to better comprehend the structural changes that have occurred, his study concentrated on India's agricultural trade after the year 2000. He also looked carefully at the development of agricultural trade policy.

METHODOLOGY

The current study, "An assessment of India's agricultural commerce export and import," analyses the nation's agricultural exports and imports based on secondary data from multiple sources. We examined secondary trade data for ten different commodities using Pearson's correlation coefficient, statistical methods like the average, etc (export and import).

AGRICULTURAL COMMODITY TRADE

The growth of the agricultural commodities industry in India was examined using an exponential model of the form $Y_t = abte^u$. Given that growth rates are easier to anticipate than absolute changes, governments prefer exponential growth versus other models.

$$Y_t = abte^u$$

Where,

Y_t indicates the dependant variable to be used in the calculation of the growth rate (trade value).

b- Naperian Base

u- Naperian Base

e- Time Variable

t- Intercept

a- Regression Coefficient

The above equation's linearly converted estimating form is

$$\ln Y_t = \ln a + t \ln b + u$$

Then,

The regression coefficient is used to figure out the average annual percentage rate of growth over time for the trade series. Multiply the regression factor ($\ln b$) over time ratio (t), minus one (1), by 100, to

Find the growth rate for each product and dependent variables.

$$\text{Growth rate (G), } (e^{[\ln b]-1}) \times 100$$

Separate progress rates for the first and second quarters as well as overall growth were derived. The 1990s to 1998 period is known as the pre-WTO era. It was during the post-WTO period, which lasted from 2005-06 to 2013-14, that the country implemented numerous measures aimed at strengthening its agricultural commodities trading sector. We used Chow testing to see if the predicted growth rates of two periods differed significantly, indicating that the connection is shifting between samples. An F^* test is the format of the exam. The formula is as follows:

$$F^* = \frac{\sum e_{p2} - (\sum e_{12} + \sum e_{22})/k}{(\sum e_{12} + \sum e_{22})/(n_1 + n_2 - 2k)}$$

The F table value at may be compared to the formula above ($K, (n_1 + n_2 - 2K)$ freedom of degrees.

Where,

$\sum e_{p2}$ = Residual square of sum for (Whole period) whole sample.

$\sum e_{12}$ = Residual square of sum for the set first data

$\sum e_{22}$ = Residual square of sum for the set second data

K = Number of parameters estimated (constant term including)

n_1 = Observations of number of the first period

n_2 = Observations of number of the second period

AGRICULTURE TRADE IN INDIA

In recent years, some agricultural products, including cotton, rice, cashew nuts, sugarcane, and groundnuts, have helped India become a significant worldwide agro-exporter. According to the Commerce Data of the World Trade Organization, India's agricultural exports and imports made up 2.26 percent and 1.74 percent of the world's agricultural trade in 2015, respectively. Agricultural exports made up 13.56 percent of agricultural GDP in 2012–13; in 2015–16, they made up 9.90 percent. Comparing agricultural GDP to agricultural GDP, agricultural imports increased from 5.71 to 6.45 percent.

EXPORTS AND IMPORTS OF AGRICULTURAL PRODUCE

Exporting agricultural products has allowed farmers to access a bigger global market, increasing local output. The quantity of land that cotton, rice, and maize take up and the rate at which they are produced have all increased significantly.

India's agricultural exports exceeded USD 50 billion in the years 2021–2022, despite logistical difficulties brought on by the COVID–19 epidemic, including as high freight costs and container shortages. By exporting agricultural and processed food products worth USD 25.6 billion, or 51% of India's total agriculture exports of USD 50 billion, the Agricultural and Processed Food Products Export Development Authority (APEDA), which falls under the Ministry of Commerce and Industry, has written a new chapter in history. India's agricultural exports exceeded USD 50 billion in the years 2021–2022, despite logistical difficulties brought on by the COVID–19 epidemic, including as high freight costs and container shortages. By exporting agricultural and processed food products worth USD 25.6 billion, or 51% of India's total agriculture exports of USD 50 billion, the Agricultural and Processed Food Products Export Development Authority (APEDA), which falls under the Ministry of Commerce and Industry, has written a new chapter in history.

Table I: Agricultural and processed food products exports comparison

Products	2021-22 USD million	2020-21 USD million
Rice	9654	8829
Dairy Products	634	323
Pulses	358	265
Other Cereals	1083	705
Cashew	452	420
Wheat	2118	567
Fruits & Vegetables	1789	1617
Processed Products	1202	1120
Floriculture products	103	77
Sheep/goat meat	60	34
Buffalo meat	3303	3171
Poultry	71	58
Miscellaneous processed items	4753	4844
Total	25580	22030

Source: DGCIS, based on Trade Alert for March 2022 and subject to change

INTERPRETATION

The above table Agricultural and Processed food products export comparison all agricultural product including: Rice, Dairy products, Pulser, Other cereals, **Cashew**, Wheat, Fruits and Vegetables, Processed Product, Floriculture Product, Sheep/goat meat, Buffalo meat, Poultry, Miscellaneous processed items is import and export agricultural products. Researcher consist rated specific product is the Cashew in export and import of the table in 2020-2021 and 2021-2022.

The DGCIs report faced is the cashew export in the 2020-2021 USD million 420 and 2021-2022 USD million 452. So, two year compared in the cashew export high value expected in 2021-2022. The cashew export degrees fluctuated becomes of Covid – 19. All transaction been blocked is the marketing especially degrees of the cashew. Due to the pandemic situation.

**Table No: II India's top ten agricultural exports from 2020 to 2021 and 2021-2022 and 2022-2023
(Value in Rs. Crore)**

India Export of Principal Commodities: All Agri

Country Name/Region Name:-All

QtyIn MT; Value in Rs. Crore

Product Name	2020-21		2021-22		2022-23 (April-June)	
	Qty	Rs. Crore	Qty	Rs. Crore	Qty	Rs. Crore
Non-Basmati Rice	13087941	35448.24	17260688	45649.74	4348448	12094.57
Basmati Rice	4631531	29849.4	3947973	26415.2	1125308	8943.47
Wheat	2086372	4033.81	7234677	15829.05	3332231	8271.8
Fresh Fruits	956961	5647.55	1164603	6560.78	258366	1657.01
Pulses	276863	1977.88	388403	2679.9	275090	1568.84
Fresh Vegetables	2326538	5371.85	2384845	5979.79	672419	1490.38
Dairy Products	117587.7	2382.93	191896.2	4742.76	50244.5	1471.47
Groundnut	638551	5381.45	514180	4697.1	117067	1132.69
Cashew	70088	3112.22	75450	3377.4	10734	641.08
Fruits / Vegetable Seeds	32248.55	929.51	21052.36	843.27	3910.81	242.16
Total		94,134.84		1,16,774.99		37,513.47

Source: DGCIS

INTERPRETATION

The above table India export of principal commodities: all agri including ten agri product only including Basmati Rice, Non-Basmati Rice, Wheat, Fresh Fruits, Pulses, Fresh Vegetables, Dairy Products, Groundnut, **Cashew**, Fruits / Vegetable Seeds is export in the year 2020-2021,2021-2022 and 2022-2023(April – June). Three year product quantity and Rs. core value in the ten products. Researcher considered specific agriculture product in the cashew. Cashew value and quantity in 2020-2021(**70088**) qty and Rs. Crore (**3112.22**) in the year 2020-2021. The next year cashew quantity value (**75450**) and Rs. Crore (**3377.4**) in the year 2021-2022. The highest value of cashew qty and crore in the year 2021-2022. Cashew increasing expected after qty (**10734**) and crore (**641.08**) in the cashew expected in highest export in the month and year (April and June) 2022-2023.

Pearson's Coefficient of Correlation Test

For the years 2020-2021 to 2021-2022, Pearson's correlation coefficient test was used to examine India's top ten agricultural products exported.

Inference

The inference yields a value of R of 0.6872. It's possible that significant x and flexible scores are related to significant y variable values, based on this correlation (and viceverse).

Because of this EXPORTS OF AGRICULTURAL PRODUCTS such as Basmati Rice, Non-Basmati Rice, Wheat, Fresh Fruits, Pulses, Fresh Vegetables, Dairy Products, Groundnut, **Cashew**, Fruits / Vegetable Seeds, other than researcher considered in (**Cashew**) increased between 2021-2022.

**Table III: India's top ten agricultural Imports from 2020 to 2021 and 2021-2022 and 2022-2023
(Value in Rs. Crore)**

India Import Statistics: APEDA Products

Country/Region Name: All

Product Group : Fruits & Vegetables Seeds, Other Fresh Vegetables, Other Fresh Fruits, Pulses, Other Meat, Dairy Products, Groundnuts, Basmati Rice, NonBasmati Rice, Wheat, Cashew Kernels

Qty in MT; Value in Rs. Crore

Product	2019-20		2020-21		2021-22	
	Qty	Rs. Crore	Qty	Rs. Crore	Qty	Rs. Crore
Pulses	2975366.81	10527.35	2505038.19	12153.74	2771574.34	17105.31
Cashew Kernels	941416.2	9026.34	834399.66	7491.21	939198.52	9338.37
Other Fresh Fruits	716428.98	4824.07	868379.5	5495.22	1206053.65	7505.3
Fruits & Vegetables Seeds	17776.85	851.79	24925.8	1035.94	19744.95	1002.55
Dairy Products	17827.81	245.04	16183.26	233.64	11873.52	202.16
NonBasmati Rice	5638.47	78.75	4763.09	24.67	10582.29	49.8
Other Meat	948.26	32.82	499.56	17.5	909.14	34.58
Other Fresh Vegetables	11139.46	30.64	14019.58	46.99	15929.57	33.41
Groundnuts	1952.05	11.47	1036.15	7.95	748.25	9.37
Wheat	1884.51	4.63	2.66	0.01	54.06	0.18
Total	46,90,379.40	25,632.90	42,69,247.45	26,506.87	49,76,668.29	35,281.03

Source: DGCIS

INTERPRETATION

The above table India imports of principal commodities: All agri including ten agri products only Pulses, **Cashew Kernels**, Other Fresh Fruits, Fruits & Vegetables Seeds, Dairy Products, NonBasmati Rice, Other Meat, Other Fresh Vegetables, Groundnuts, Wheat. Products imports in the India. In the year 2019-2020, 2020-2021 and 2021-2022. Three year imports products quantity and crore values in the ten products. Researcher considered specific agriculture products is imports in cashew kernels only. Cashew kernels qty value and Rs.crore value is (**941416.2**) qty and Rs. Crore value is (**9026.34**) in the year 2019-2020. The next year cashew kernels

qty value is (834399.66) and Rs. Crore value is (7491.21) in the year 2020-2021. And finalised cashew kernels qty value (939198.52) and Rs. Crore value is (9338.37) in the year 2021-2022. Researcher understood in high level imports in cashew kernels in the year 2021-2022. And find out imports expected cashew kernels import after that in 2022-2023.

Inference

The inference yields a value of R of 0.6872. It's possible that significant \times and flexible scores are related to significant y variable values, based on this correlation (and viceverse).

Because of this IMPORTS OF AGRICULTURAL PRODUCTS such as Basmati Rice, Non-Basmati Rice, Wheat, Fresh Fruits, Pulses, Fresh Vegetables, Dairy Products, Groundnut, **Cashew**, Fruits / Vegetable Seeds, other than researcher considered in (**Cashew**) increased between 2021-2022.

$$S_{T} = \frac{E-I}{E+I}$$

Where

ST : Agricultural trade of specialisation.

E : Amount of agricultural exports.

I : Amount of agricultural imports.

Agriculture export totalled Rs.37, 513.47 in 2022-2023. While imports totalled Rs.35, 281.03 agriculture commerce can be specialised because the difference in Rs.2, 232.44.

CONCLUSION

The current study focused on examining the trade in a few agricultural items in India. As one of the most significant economic sectors in India, agricultural output is essential to the country's development and prosperity. The economic health of the country is significantly influenced by agriculture. The researcher's analysis and interpretation of the data have satisfied the study's goals. Exporting a wide range of agro-based products from India can generate foreign money. The difference between exports and imports makes it easier to focus on the farming industry. The highest value of cashew qty and crore in the year 2021-2022. Cashew increasing expected after qty (10734) and crore (641.08) in the cashew expected in highest export in the month and year (April and June) 2022-2023. And finalised cashew kernels qty value (939198.52) and Rs. Crore value is (9338.37) in the year 2021-2022. Researcher understood in high level imports in cashew kernels in the year 2021-2022. And find out imports expected cashew kernels import after that in 2022-2023. The growth of the agricultural commodities industry in India was examined using an exponential model of the form $Y_t = abteu$. Given that growth rates are easier to anticipate than absolute changes, governments prefer exponential growth versus other models. $Y_t = abteu$ The inference yields a value of R of 0.6872. It's possible that significant \times and flexible scores are related to significant y variable values, based on this correlation (and viceverse). The inference yields a value of R of 0.6872. It's possible that significant \times and flexible scores are related to significant y variable values, based on this correlation (and viceverse). Agriculture export totalled Rs.37, 513.47 in 2022-2023. While imports totalled Rs.35, 281.03 agriculture commerce can be specialised because the difference in Rs.2, 232.44. Despite the fact that India is a village-based society, the country's agricultural trade dominance would allow it to show the rest of the

world its strength. Trade policies and incentives that favour India's agricultural sector can generate foreign currency while also helping the country maintain its global leadership position

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