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The Impact Of W. T.O On Indian Agriculture: Outcomes And Future Prospects

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ABSTRACT

India has followed global trade trends, with some unique features. Over the past two decades, the share of agricultural exports in India's total merchandise exports has steadily declined from their dominant position before independence. However, with self-sufficiency in food grains and key agricultural commodities, which once formed a large part of the import bill, agricultural imports have significantly decreased. The ratio of agricultural import costs to export earnings has improved, resulting in a more favorable trade balance.

The analysis focuses on three key objectives: studying India's agricultural export performance under the WTO regime, assessing the competitiveness of India's top agricultural exports, and suggesting policy measures to boost agricultural exports. The discussion reviews recent global trends in agricultural trade and India's performance in this sector, shaping future strategies to enhance agricultural exports in a more competitive global economy.

INTRODUCTION

India has followed global trade trends with some unique characteristics. Over the last two decades, the share of agricultural exports in India's total merchandise exports has steadily declined from the dominant position they held before independence. In recent years (1991-97), agricultural exports accounted for 15-18% of total merchandise exports. However, as India achieved self-sufficiency in food grains and other key agricultural commodities that once made up a significant portion of the import bill, agricultural imports have sharply decreased. The cost of agricultural imports as a percentage of earnings from agricultural exports has declined, leading to a more favorable trade balance. As economies grow and diversify, the share of agriculture in GDP and in merchandise exports naturally decreases. Non-agricultural products gain prominence in both domestic production and exports. Additionally, the rise in processed agricultural products explains part of the decline in the share of raw agricultural exports. On the import side, while inputs like fertilizers, pesticides, and farm machinery have increased, the overall import intensity of agricultural production remains low.

In agriculture, the majority of emerging nations have a positive trade balance. For a nation like India, which has a persistent balance of payments issue, the impact of exports of agriculture to foreign exchange revenues is crucial. Larger markets and more value for their output are the results of the economy's expansion,

particularly the expansion of industries and other sectors that depend more heavily on imports. However, it is impossible to ignore the impact of export expansion on domestic demand when considering agricultural commodity exports in a developing nation such as India. Naturally, the new trade system must be considered in discussions on these matters since the declared goal is to examine how India's agricultural exports have performed under

WTO REGIME:

I'll give a brief overview of the agricultural trade in the first part of my talk, and then go over current global agricultural export developments and the performance of Indian agriculture in this regard. I'll go over the years and take into consideration the significant elements that have influenced the changes in this policy in the next section. In the last section, I will attempt to outline the components of a plan to increase agricultural exports in the dynamic and increasingly demanding global economy.

OBJECTIVES

1. To research India's agriculture export performance under the WTO.
2. To assess how competitive India's top Agriculture-exports are under the WTO.
3. To make policy recommendations about the specified agricultural sector in India.

METHODOLOGY

Secondary data served as the foundation for this investigation. The whole period from 1991 to 2023 is covered by the annual time series data. Comparing export performance under the WTO regime with that of the pre-WTO era is the goal. Additionally, sub-periods are created for short-term comparison. Longer period time series data are employed as needed. FAO, UNCTAD, IMF, WTO, RBI, Ministry of Agriculture GOI, Ministry of Finance GOI, and Tea Board of India are the sources of the data. Tools such as percentage, ratio, average growth rate, compound annual growth rate, coefficient variance, etc. are used to analyze the performance of agricultural exports.

A review of the literature highlights key arguments regarding the rational allocation of production resources. Nayyar and Sen (1994) argue that aligning domestic prices with international border prices would lead to a more sustainable cropping pattern. This would encourage expanding the cultivation of crops with a comparative advantage while reducing acreage for high-cost crops like oilseeds and sugarcane. Rao and Gulati support this view to bolster their case for food grain exports, emphasizing that India's food balance presents an opportunity, and even a necessity, to export rice and wheat, given the country’s comparative advantage in their production (Rao and Gulati, 1994, p.4).

Desai and Nambodiri (2001) used a multivariate model based on the Nerloian partial adjustment framework to analyze the impact of these factors from 1967-68 to 1990-91/1994-95. Their findings suggest that the net impact on the output and marketed surplus of food grains, which cover two-thirds of India's cropped area, was negative, while for non-food grains and other agricultural products, the impact was positive.

The economic environment for agricultural trade is undergoing significant changes due to shifts in both domestic policies and international trade arrangements. Many scholars and experts have analyzed the move toward liberalization and globalization and its impact on agriculture in India. Key international developments are shaping this landscape. First, several country groupings are forming unified trade blocs, such as the EEC, ASEAN, NAFTA (North American Free Trade Agreement), and SAFTA (South Asian Free

Trade Area). Second, and perhaps more crucially, various agreements stemming from the Uruguay Round of trade negotiations are influencing agricultural trade policies globally.

I will now focus on the widespread adoption of the Uruguay Round agreements, which have gained near-universal acceptance among participating countries. These agreements are significant because they set the stage for various trade blocs to eventually converge into a global trading system initiated by the Uruguay Round. One key achievement of these agreements is the inclusion of agriculture under the General Agreement on Tariffs and Trade (GATT) discipline for the first time. Prior to this, GATT members had accepted a waiver on agricultural trade, mainly due to pressure from the USA, which advocated for the complete removal of all interventions in agriculture. The move to bring agriculture under GATT's purview resonated with many countries, particularly those concerned about the growing financial burden of agricultural subsidies.

After long and complex negotiations during the Uruguay Round, agreements were reached in several key areas, including:

1. Reduction of farm subsidies,
2. Improved market access,
3. Limits on public stockholding of grains for food security,
4. Restrained use of sanitary and phytosanitary import barriers, and
5. The introduction of intellectual property rights.

The Uruguay Round Agreements mark a significant milestone in the evolution of international agricultural trade, primarily because agriculture has now been brought under international trade regulations. However, the exact impact of these agreements on developing countries is difficult to predict due to the complexity and varied interpretations of their provisions. To help developing countries, including India, benefit from a more liberal global trade regime, several key steps are necessary. These include:

1. Continuing macroeconomic reforms that reduce high tariffs and overvalued exchange rates, which will benefit agricultural trade.

2. Carefully adjusting agriculture to the demands of a more liberal and global economy.

3. Initiating domestic economic reforms, particularly by promoting liberalization, deregulation, and reducing bureaucratic hurdles.

Implicit taxation of agriculture through price discrimination should be avoided. While international prices can serve as a reference, they should not be rigidly adhered to. Additionally, economic reforms must not compromise food security or poverty alleviation efforts. Adjustments in the food sector should be gradual and flexible, rather than rigidly ideological.

India, like many other large countries, is not primarily an export-oriented economy, especially in agriculture. In recent years, the ratio of agricultural exports to agricultural GDP has rarely exceeded 3%. While this might seem low, a high export-to-GDP ratio, as seen in some African countries, is not necessarily beneficial in itself. The importance of exports must be evaluated based on the objectives they serve.

Before the reforms of 1991, India's foreign trade policy was driven by two key goals: promoting import-substituting industrialization and managing scarce foreign exchange resources. The tools used to achieve these goals included quantitative restrictions, high tariffs, import surcharges, export rebates, and periodic easing of these controls. Despite some relaxation, the inward-looking, import-substitution policy remained largely

intact. This approach reflected a broader development philosophy that distrusted the private sector and placed a strong reliance on bureaucracy to achieve national development goals.

Until 1966-67, agricultural trade in India was governed by the same trade policies applied to other sectors, particularly during the severe droughts of the mid-1960s. Agricultural trade, like industrial trade, was subject to quantitative controls and state interventions aimed at conserving foreign exchange. In industry, the import substitution policy had two key objectives: achieving food self-sufficiency and promoting the export of "commercial crops." Similarly, agricultural trade was tightly regulated. The State Trading Corporation (STC) and cooperative federations were key players in facilitating agricultural exports, while public sector agencies played a major role in importing critical inputs like fertilizers and chemicals.

This strategy became considerably stricter starting in the middle of the 1960s, and the main goal of agricultural growth plans became food self-sufficiency. Import substitution policies typically result in high production costs per unit. However, primarily due to the availability of high-yielding technology in cereals, the nation was able to both complete the task of food self-sufficiency and bridge the gap between the supply and demand of food grains without increasing the actual cost of production fact that is typically overlooked. Actually, as yields increased, the cost per unit of producing superior cereals decreased, allowing producers to profit from increased productivity in the form of higher income and consumers to benefit from stable pricing in an equitable manner. The food self-sufficiency strategy faces three significant challenges. First, it is suggested that the economic changes brought about by the Uruguay Round agreements will require developed countries to cut their agricultural subsidies. This could create a level playing field and help eliminate distortions in agricultural trade. Second, there is an emerging consensus that food security should prioritize access to food. If the country can earn foreign exchange, it can import food grains at lower prices and distribute them fairly, benefiting both the overall economy and its poorer citizens.

Third, unlike the 1950s and 1960s, when food grain surpluses were mainly concentrated in the USA and a few developed nations, there is now a more widespread availability of tradable food grains, with no single country monopolizing the market. Agricultural commodities can be generally divided into food and non-food crops, though this distinction is not rigid. Current policies encourage the export of commercial crops, which should continue. Nonetheless, the food self-sufficiency policy remains vital, especially for the poorest third of India's population, who spend over 40% of their income on food. Fluctuations in food grain prices can create significant hardships for this group. Price elasticity estimates show that the very poor in rural areas have a price elasticity of 0.493 for cereals, while the poor have an elasticity of 0.409. It is now commonly known that overseas prices are significantly more volatile than domestic ones, according to corresponding figures for urban areas. Therefore, any significant economic openness to the import of food grains will equate to import price instability, with the poor in both rural and urban regions being the primary casualties.

The impoverished have an interest in increasing the production of food grains not only as consumers but also as producers. The majority of the impoverished live in rural areas. The expansion of agriculture is essential to their way of life. On the supply side, it must be acknowledged that the surpluses of food grains in surplus countries that export food are insufficient to satisfy the demands to a quantifiable degree. It is anticipated that India will require about 210 million metric tons of food by the year 2000. The expected requirements for rice and wheat are 88 million tons and 71 million tons, respectively. The availability of foreign exchange to cover the import of food grains is another important factor.

The exportable surplus of food grains, especially wheat, remains concentrated in five developed countries: the USA, France, Canada, Australia, and Germany, which together accounted for nearly 73% of total wheat exports in the triennium ending in 1995. However, food self-sufficiency should not be viewed as an unquestioned belief. It can be evaluated under the following conditions:

1. When spending on food constitutes a minor portion of consumers' budgets, particularly for the poor.

2. When food production is no longer the primary source of livelihood for small and marginal farmers.

When exports of goods other than food grow sufficiently buoyant to produce a substantial excess of foreign money. When a nation's buffer stocks are sufficient to prevent major price swings from outside sources when there are plenty of reliable sources of supply to cover any significant decline in the output of food grains in the country.

Indian Agriculture and WTO

World Trade Organization was established on January 1, 1995. It replaced GATT. WTO is much wider in scope and coverage.

Table 1.1 Growth rates of area, Production and Yield

Crop	Year	Area	Production	Yield
Rice	1994	42.54	80.30	1888
	1995	42.81	81.81	1911
	1996	42.84	76.98	1797
	2023	47.83	135.75	2838
Wheat	1994	24.1	59.8	2481
	1995	24.4	65.8	2717
	1996	24.5	62.1	2536
	2023	30.46	104	3615
Cotton	1994	7.4	10.9	250
	1995	7.7	11.4	255
	1996	7.5	5.3	121
	2023	12.7	29.5	170
Oilseeds	1994	26.5	21.8	821
	1995	26.6	24.4	916
	1996	26.6	24.4	917
	2023	26.6	41.1	1368
Coarse cereals	1994	36	30	850
	1995	35	35	1500
	1996	35	30	850
	2023	17.8	57.3	322
Pulses	1994	22.25	13.30	598
	1995	23.03	14.04	610
	1996	22.28	12.31	552
	2023	30	275	718

Source: trade year book various issues

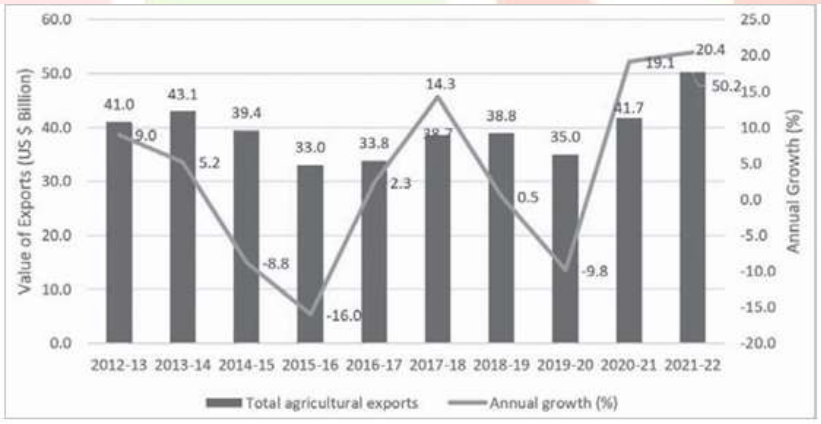
Table 1.2. India share in world exports in million ton

Commodities	1994	1995	1996	2023
Milled paddy rice	4150	3700	2100	23000
Wheat	100	1500	2000	1000
Barley	0	0	0	5
walnut, shelled	15450	16540	13780	4000
Corn	17	42	8	3600
Buffalo meat	177	196	204	1475
Centrifugal sugar	40	940	422	7000
Coffee green	2088	3562	2465	6336
Cotton lint	104	567	1187	2400
Cottonseed meal	15	20	15	25
Sorghum	1	36	0	50
Peanut meal	315	260	300	35
Dairy butter	1	1	1	55
Millet	5	5	20	0

Source: Calculated from FAO, Trade Year Book Various Issues

While agricultural imports rose by 8.7% yearly between 1995 and 2005, agricultural exports fell by 5.7% annually over that same period. During this time, dry beans, sesame seeds, milled paddy rice, rubber, livestock, and maize were the primary agricultural exports. The EU, the US, Brazil, China, and Canada are the top five agricultural exporters in the world. The nation is one of the top 10 exporters of agricultural goods worldwide. From 1.1% in 2000 to 2.2% in 2017, the nation's contribution of global agricultural exports grew to a value of US$39 billion. However, in 2019, India's participation dropped to 2.1%, or US$37 billion. And increased once more to 2.2% in 2020, worth US$39 billion, with increased by 4% over the year before.

Figure 1.1: India's Exports of Agriculture and Allied Products



India's agriculture exports experienced fluctuations during the 10 year period from 2012-13 to 2021-22, due to an uncertain and unstable agriculture trade regime. The 10-year Compound Annual Growth Rate (CAGR) was 1.0 per cent (Figure 1.1). During the first 5-year period from 2012-13 to 2016-17, agriculture exports declined significantly from US$ 43.1 billion (2013-14) to US$ 33.0 billion (2015-16), at a CAGR of -6.3 per cent (Figure 1.1). The second 5-year period from 2017-18 to 2021-22, witnessed a strong CAGR of 6.1 per cent. During this period, agri-exports decreased from US$ 38.7 billion (2017-18) to US$ 35.0 billion (2019-20), followed by a sharp increase to US$ 41.7 billion (2020-21), and a record US$ 50.2 billion achieved in 2021-22 (Figure 1.1) . India's agriculture exports grew by a robust 20.4 per cent in 2021-22, to touch US$ 50.2 billion (Figure 1.1), which is certainly a commendable achievement by farmers and exporters, especially in a year affected by the second and third waves of the pandemic. To catch up with Brazil and China, India needs to bring about comprehensive structural reforms in the agriculture sector, with a focus on agriculture

and food exports. India's agricultural exports in 2023-24 were valued at $48.9 billion, which is a decline from the previous year's $53.2 billion.

AGREEMENT OF AGRICULTURE (AOA)

The WTO's AOA acknowledges a free and market-oriented agricultural trading system that possesses the following key characteristics.

TARIFFICATION

It entails turning all non-tariff trade restrictions, such import quotas, into tariffs. This agreement aims to eliminate tariff bindings. Over the course of six years (1995-2000), developed nations were to lower their tariff obligations. Over a ten-year period (1995-2004), developing nations are expected to decrease their obligations. Tariff reductions do not apply to the least developed nations. The Agriculture Export Policy (AEP) 2018 of the Government of India (GoI), aims at achieving an export target of US$ 60 billion by 2022 and US$ 100 billion within a few years, thereafter. This is indeed a humongous task, even under normal circumstances, and more so in the aftermath of the Covid-19 pandemic. Therefore, there needs to be a realistic resetting of the timeline to achieve the target. Achieving the target should also involve a paradigm shift from a 'business-as-usual' approach to a well-calibrated, comprehensive, strategic, and result-oriented agri-export policy and action plan, as an essential component of comprehensive policy reforms in the agriculture sector. It is imperative to achieve the vision of the AEP, especially in the context of the COVID-19 pandemic, to make India a global power in agriculture while raising farmers' income by harnessing the export potential of Indian agriculture, through suitable policy interventions.

WTO member countries are required to adhere to certain obligations regarding domestic support for agriculture. However, several aspects of the Agreement on Agriculture (AoA) are seen as detrimental to the interests of developing nations like India.

Firstly, the minimum import access for primary goods undermines the core principle of promoting free trade under WTO rules. Secondly, there is inequity in domestic subsidy regulations due to differing baseline positions. Developed countries, which are highly subsidized, are allowed to maintain up to 80% of their subsidies, while developing countries can only subsidize their farmers up to 10% of the total value of agricultural production. As a result, domestic support in developed countries needs to be significantly reduced in absolute terms.

Thirdly, India has argued that for low-income countries, market access and domestic support rules should ensure that food requirements are met from domestic sources. The volatility of international markets can negatively impact domestic prices and threaten food security for the poor. Lastly, developing nations face the highest tariff rates on key agricultural staples, including cereals, meat, sugar, dairy products, tobacco, and cotton.

The majority of developing nations as well as several industrialized nations have positively viewed and supported the Indian suggestions. Nonetheless, it is crucial to take action to benefit from a liberalized trade policy by increasing efficiency as a result of sanitary and phytosanitary measures. Land reforms and more investment would significantly increase efficiency. Exports from this industry may also rise if agricultural production is diversified into agro-foods, horticultural and floricultural goods, and farm products that meet international quality requirements.

i) **Green Box Support:** This type of support is exempt and is provided for products that have little bearing on commerce, such as market information and pest and disease control.

ii) **Blue box support:** This subsidy, which primarily affects industrialized nations, limits the number of products that can be purchased. According to the WTO, it is exempt from the reduction commitment.

iii) **Support for unique and differentiated treatment boxes**: This includes financial assistance for farm development projects like shallow wells and land leveling.

EXPORT COMPETITION

Members of the World Trade Organization are required to reduce their own direct export subsidies. Within six years, developed nations are expected to cut the amount of supported agricultural exports by 21% and the value of subsidies by 36% of the average base year of 1986–88. Within ten years, developing nations are expected to cut the same by 14% and 24%, respectively. Growth area, output, and yield are displayed in the table for two time periods: 1967–1968 to 1980–1981 (which might be referred to as the first green revolution decade) and 1980–1981 to 1991–1992, or the 1980s. In the case of oilseeds, the growth rates of area, production, and yield increased significantly throughout the 1980s in comparison to the previous era.

As mentioned earlier, this crop group benefited from favorable market conditions, but an even more significant factor in the performance of oilseeds since the mid-1980s has been the impact of the Technology Mission and market intervention operations by public agencies. A positive aspect of the growth in oilseeds production is that it occurred in agriculturally underdeveloped regions of various states.

In contrast, the performance of pulses, which received minimal policy focus, has been modest. However, there was some improvement in pulses during the 1980s, possibly in response to market signals, following a decline in production and yield in the preceding period due to the surge in wheat production. For cotton, the area under cultivation decreased in the 1980s, but there was a notable increase in the growth rate of both yield and production compared to the 'green revolution' decade. Like oilseeds, cotton benefited from policy measures aimed at boosting both production and marketing. However, given the decline in cultivated area, the interaction between policy support and favorable market conditions appears to have been more effective in selected regions, rather than uniformly across all cotton-growing areas.

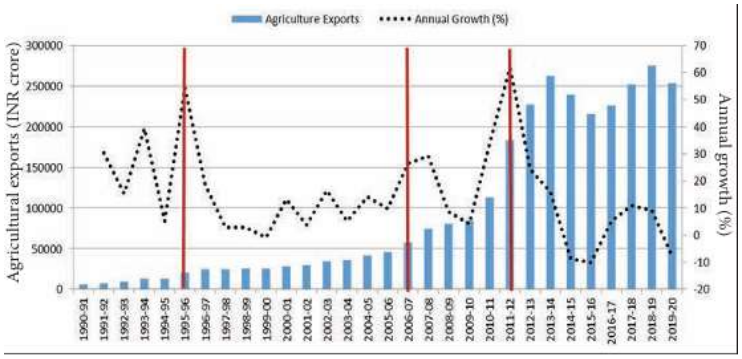
There is a common misconception that India is reducing import duties on agricultural products due to WTO pressures. In reality, the actual import duties on various agricultural products are often lower than the tariff limits set by the WTO, as shown in the accompanying table.

From this analysis, it can be inferred that liberal trade policies have contributed to the increase in exports in absolute terms during the post-WTO period, while also raising India’s share in global exports in both quantity and value. This leads to the question of the economic benefits of such exports, which will be discussed in the following section. When a country’s share of global exports in terms of quantity is higher than its share in terms of value, it indicates that the average export unit value is lower compared to the global average, suggesting that the country is exporting at lower prices in the international market.

Regarding concerns that import liberalization could lead to a surge in agricultural imports and harm Indian farmers, the Economic Survey 2001-02 noted that India retains considerable flexibility to prevent the flooding of its market with cheap agricultural products, thus ensuring a reasonable level of protection. In the 2001-02

Budget, the government increased import tariffs on several agricultural products, including tea, coffee, pulses, and edible oils. Additionally, countervailing duties can be imposed to address import surges, with the option to invoke safeguard provisions if necessary.

Figure 1.2: Delineation of Phases in Agricultural Exports



Source: Based on the data from Directorate of Economics and Statistic

When a country's export share in quantity rises faster than its export share in value, it results in unfavorable terms of trade for the exporting nation. To assess this for India's agricultural exports from 1991 to 2005, a simple analysis was conducted, calculating the ratio of export share in terms of value to quantity in global exports and multiplying it by 100 (share in value/share in quantity 100).

Contrary to India's expectations under the WTO Agreement on Agriculture (AoA), the situation deteriorated between 1997 and 2002. The growth momentum in India's agricultural exports could not be maintained after 1996, with a decline in exports during the 1997-2002 period. However, starting in 2002, India's agricultural exports began to recover.

HYPOTHESIS: India's competitive strength in the global agricultural market has been declining over the years.

CONCLUSION

To improve the performance of Indian agricultural products, there is a need to push for reduced tariffs and subsidies in developed countries. Achieving higher growth in agriculture requires a comprehensive overhaul of agricultural policy, with a focus on rapid diversification of the sector. It is crucial to make progressive adjustments to the incentive structure so that excessively high minimum support prices do not continue to distort resource allocation in agriculture.

India has a difficult challenge ahead of it: increasing its agricultural exports to $100 billion by 2026–2027. The requirement for reaching the agriculture export goals would be a thorough, strategic, well-calculated, and action strategy and policy for agri-export that is focused on results, as well as overall changes in the agricultural and related fields. The export strategy for agriculture should strive to include value-added agricultural products into the worldwide value chain, by implementing the most effective farming methods and achieving increases in farmers' revenue, cost competitiveness, and productivity.

Our analysis shows that initiatives like the Technology Mission and market intervention by public agencies have played a positive role, particularly in boosting oilseeds production in agriculturally backward areas. This indicates that there is potential to increase agricultural output by enhancing technical efficiency, even without the introduction of new technologies. Such improvements will enable farmers to diversify into high-value segments of agriculture, responding effectively to the changing demand patterns.

It's also imperative that the problems with SPS, TBT, and traceability are resolved. Investments in AEZs/agri-export clusters, agro-processing clusters/zones, marketing infrastructure, cold storage facilities, and highways, railroads, logistics, chains, and warehouses along the export-focused agri-value networks, linking ports and airports via public, commercial, On the modalities of Public Private Partnership (PPP). Additionally, R&D investments and technology, such as blockchain-based technologies, IoT, and AI, by providing pre- and post-harvest support through a clearly defined startup environment Agri-export-related operations require concentrated attention.

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