

THE EFFECT OF EXPORT OF RICE ON THE ECONOMY OF INDIA

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ABSTRACT

This study explores the economic repercussions, and environmental effects of rice exportation, which has had a significant impact on India's economic landscape. India, a country with a strong agricultural heritage, is a major player in the world rice market, which makes the export of this staple a major source of income.. Economic indicator analysis shows that rice exports significantly boost India's GDP in addition to creating jobs and foreign exchange profits.

The study reveals the government's actions and incentives influencing the quantity and value of rice exports through an examination of trade laws and regulations. Emerging prospects in the global rice market are emphasized, while challenges including the effects of climate change and market fluctuations are examined along with solutions.

In order to highlight the necessity of sustainable farming practices, environmental ramifications are examined, including water usage, land degradation, and pesticide use. In summarizing the main conclusions, the report projects the industry's growth potential and provides recommendations for stakeholders and policymakers to maximize the benefits of rice exports while resolving issues.

Keywords: rice exportation, economic repercussions, India, agricultural heritage, GDP, trade laws, global rice market, sustainable farming practices, land degradation, pesticide use.

Hypothesis: The rice export economy is very unstable and will decline in the next 2 decades. Its growth and sustainability is highly dependent on macro-economic factors relating to paddy production, government trade regulations and quotas.

Introduction

In the global rice market, India, known as the "Land of Agriculture," is a major player because rice cultivation is a fundamental part of its cultural, social, and economic legacy. Rice is a staple

item that is essential to meeting the nutritional needs of the large population of the country. This study aims to decipher the complex relationship between India's economic dynamics and rice exports by providing a thorough examination of the historical underpinnings, economic contributions, trade policies, obstacles, and environmental factors.

India has been cultivating rice for centuries, progressing from customary farming methods to the advanced and ever-changing sector that is seen today. This historical viewpoint is essential to comprehending the development of the rice industry and its crucial role in forming the modern economic environment. This study tries to analyze the various facets of India's economic influence from its active engagement in the global rice trade, as the world's largest producer of rice.

Beyond just trade data, the economic effects of rice exportation include its contribution to the GDP, creation of jobs, and foreign exchange profits. Gaining an understanding of these aspects is essential to understanding how rice exports support livelihoods and economic progress. Examining the government programs, subsidies, and incentives that support the trade is crucial because the complex web of laws and rules controlling the export of rice determines the direction of the sector.

Although rice exports provide significant economic advantages, there are drawbacks as well. There are several obstacles, including market volatility, infrastructure limitations, and climate change. .

The study explores the effects of rice exportation and farming on the environment in addition to economic issues. Concerns about pesticide use, soil degradation, and water use are discussed in light of the increasing need for sustainable farming methods. The inclusion of an environmental perspective in the discourse is vital as it highlights the necessity for a balanced and environmentally conscientious approach to the production and export of rice.

This paper sets out to provide a comprehensive understanding of the effect of rice export on the economy of India. By examining economic impacts, trade policies, challenges, and environmental considerations, the research endeavours to offer valuable insights for policymakers, stakeholders, and the broader global community involved in the rice trade.

Economic Impact of Rice Exportation:

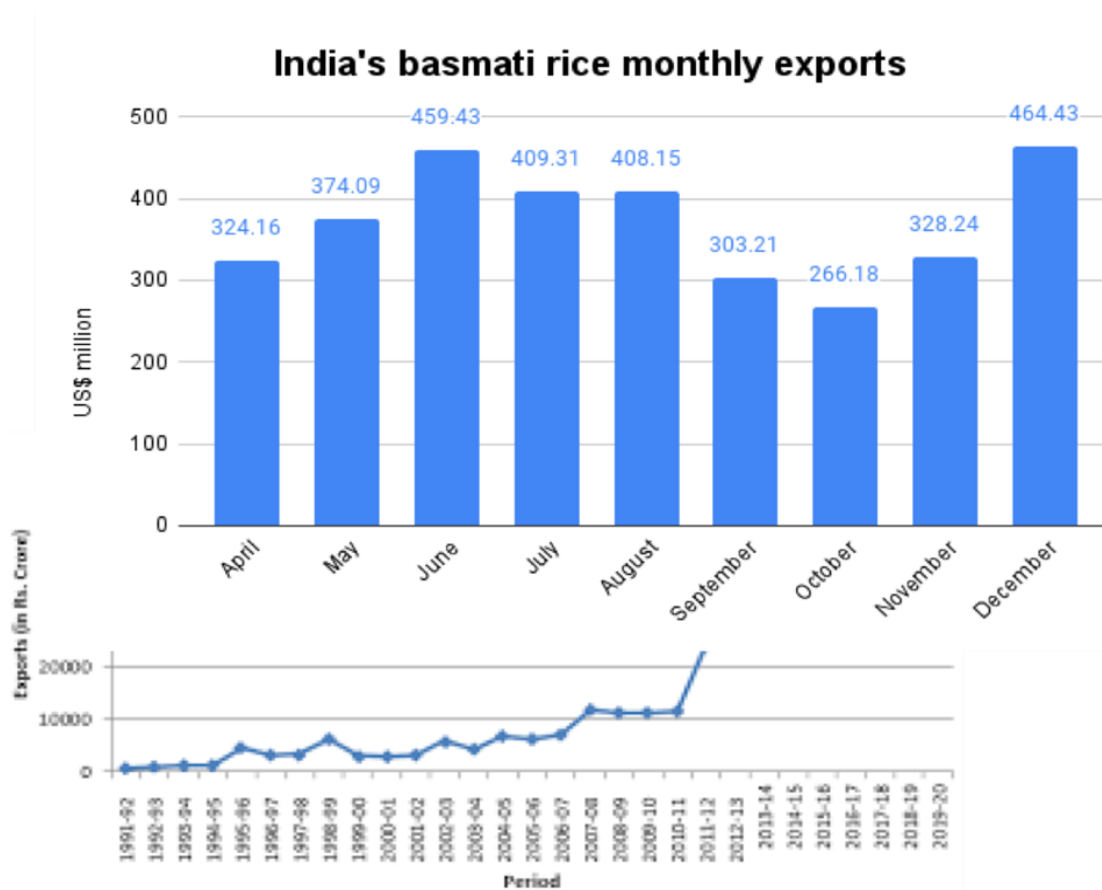
The export of rice has lead to-

- a) an increase in the GDP,
- b) lots of employment generation,

c) an increase in the foreign exchange earnings.

1. Contribution to GDP:

The export of rice has increased significantly in the past two decades from 1991 to 2020 and had reached more than 50,000 crores in 2018. Rice export contributes to about 11% of the agricultural GDP in India.



2. Employment generation:

The production of rice has generated about 3.5 billion days of employment. Its export has led to even more employment opportunities in India in recent years.

3. Foreign exchange earnings:

The export of rice was the top forex earner at USD 5937 million during April-November 2021-22, growing 11 per cent over the corresponding period in 2020-21 when it touched USD 5,341 million.

Trade policies and Regulations:

- **Export Policy:** The export of rice in India is governed by the Export Policy, which outlines the conditions, restrictions, and incentives for rice exports. The government periodically revises this policy based on domestic demand, global market conditions, and strategic considerations.
- **Minimum Export Price (MEP):**The government has set a Minimum Export Price (USD 950 per Metric Ton) for rice exports, defining the minimum price at which rice can be exported. This is a mechanism to ensure stability in domestic prices and to prevent the excessive outflow of essential commodities.
- **Quantitative Restrictions:** There are quantitative restrictions imposed on the volume of rice exports.India has banned non-basmati and broken white rice in July 2023 and allowed shipments of only parboiled rice with a 20 per cent duty. These restrictions can be adjusted based on factors such as domestic availability, food security concerns, and global market conditions.
- **Quality Standards and Certification:** To meet international quality standards and adhere to the sanitary and phytosanitary measures, rice intended for export must comply with specific quality parameters. Certification processes are in place to ensure that exported rice meets the prescribed standards.
- **Government Initiatives:** The government may introduce various initiatives to promote rice exports. This could include financial incentives, subsidies, and support programs for farmers and exporters. Such initiatives aim to enhance competitiveness in the global market.
- **Bilateral and Multilateral Agreements:** India, being an active participant in international trade, may engage in bilateral and multilateral agreements that influence rice exports. Free trade agreements, preferential trade arrangements, and collaborations with other nations play a role in shaping export policies.

Impact on Volume and Value:

- **Incentives for Exporters:** Government initiatives such as export subsidies, financial assistance, or tax benefits can incentivise rice exporters. These incentives may encourage increased production and export activities, contributing to higher volumes.

- **Market Access:** Trade policies that facilitate market access by reducing trade barriers can positively impact both the volume and value of rice exports. Access to new markets or the easing of existing trade restrictions can lead to expanded export opportunities.
- **Price Mechanisms:** The Minimum Export Price mechanism influences the value of rice exports by setting a floor price. This can impact the profitability of exports and influence the perceived value of Indian rice in the global market.
- **Regulatory Compliance:** Adherence to quality standards and certification requirements enhances the reputation of Indian rice in international markets. This can contribute to sustaining or increasing the value of rice exports over time.

Literature Review

1. The price of basmati exports has fluctuated greatly over the past 20 years, and from 2013 or 2014, it has been steadily falling. Because of policy level interventions, the demand for basmati on the global market is also erratic. Risk and uncertainty are increased by variations in basmati's price and demand. It is noteworthy, therefore, that the proportion of basmati rice produced in India is over 5%, and that the country's huge farming community has very little direct connection with the export of basmati rice, which is mostly centered in two states. Ninety-seven percent of the basmati produced in India is grown in Western Uttar Pradesh, Punjab, and Haryana. Due to their bigger percentage of marketable excess, larger landholding groups comparatively dominate the basmati producing areas.

With the exception of a few states, non-basmati paddy is grown throughout the nation, and that's only for agro-ecological reasons. The majority of Indian paddy farmers are selling their crop for less than what it costs to produce. The marginal and small landholder farmers have poorer forward linkages. In comparison to the large and middle-sized group of farmers, the small and marginal farmers receive a lesser price for their paddy. Eighty-three percent of India's paddy growers obtained a price below the MSP in 2012–2013; as a result, small and marginal farmers suffer greater deprivation than larger farmers. Farmers typically choose the government procurement organizations because of their minimal coverage and assured MSP. Regarding PVNs export sector, it has been noted that farmers receive a lesser portion of the surplus—even at the MSP—than the entire market value of their rice, and occasionally even less—and those who receive less than the MSP are undoubtedly responsible for the deficit.

The export unit price of rice is lower than its EC; in recent years, the export unit pricing of non-basmati rice has not been able to cover the costs associated with production, including milling, transporting, storing, and other basic expenses. Other expenses (such those related to the environment and farmer subsidies) are not factored into this estimate, nor is profit. Therefore, in

the years under consideration, exporting non-basmati rice does not provide a positive surplus for the nation, even in the strictest economic sense.

Apart from the above mentioned aspects, open commerce necessitates variable export prices. Consequently, a decline in price leads to a greater disparity between the actual and prospective realization of rice exports. The latest export prices are a further worry in a scenario where farmers are already struggling to make ends meet and are unable to pay for inputs. Since no country's exporters can independently alter the global price, the only places where exporters may make a profit—even at a reduced margin—are through backward connections in general and farmers in particular.

2. Since the Indian government removed the restriction on rice exports in 2011, the country's rice exports have increased dramatically. Because India's non-basmati rice is more affordable than that of other non-basmati rice exporting nations, there is a huge demand for it on the global market. The majority of the countries to whom India exports non-basmati rice are developing or less developed nations. In the global market, Vietnam and Thailand are India's main rivals for non-basmati rice. The competition comes from these nations' higher-quality rice, which is given in contrast to non-basmati rice from India. Higher productivity than other exporting nations and competitive export prices are the main causes of India's non-basmati rice export boom.

India is the world's top exporter of basmati rice, with Pakistan coming in second. The Middle East region of the world is the market for basmati rice from India. India's main importers of basmati rice are Saudi Arabia, Iran, and the United Arab Emirates. Even though India is the world's largest exporter of basmati rice, for the past three to four years, the value of Indian exports of basmati rice has decreased. The increase in non-basmati rice exports as well as the deterioration of India's basmati rice's quality and scent, which has been a key selling point throughout the years, are the causes of the drop in basmati rice exports.

In the global rice trade, Asian nations account for both the majority of imports and exports. Due to their ideal geographic location for paddy farming, Southern Asian nations are important producers of rice. Asian nations are not only significant producers of rice but also significant consumers of the grain. Due to the fact that rice is a staple food throughout Asia, there is a significant demand for rice there. Approximately 75% of the world's rice imports are made by Asian countries, while 85% of rice exports come from Asia. India holds a nearly 40% share in the global rice trade among Asian nations, surpassing the combined proportion of the next three main rice exporters, i.e., Thailand, Vietnam and Pakistan.

Challenges and Opportunities

A. Challenges:

Impacts of Climate Change: India's rice export sector faces significant challenges as a result of climate change. Traditional growing seasons can be disrupted by increasing temperatures, unusual weather events, or altered precipitation patterns, which can have an impact on crop production and quality.

Market Fluctuations: The dynamics of global supply and demand might have an impact on rice market prices. Exporters may find it difficult to maintain price competitiveness and steady revenue streams under unpredictable market conditions.

Infrastructure: Inadequate networks of storage, transportation, and processing facilities might make it more difficult to get rice from rice farmers to export centers efficiently. This presents logistical difficulties and could lower the exported product's overall quality.

Regulatory Compliance: It can be difficult for rice exporters to meet the strict international quality and safety standards. It takes coordinated effort to navigate complicated regulatory environments and guarantee compliance with various standards across target nations.

Exchange rates: The competitiveness of Indian rice on the international market may be impacted by fluctuations in exchange rates. Unexpected changes in exchange rates can have an effect on export pricing and profitability.

B. Strategies employed by Government and Stakeholders:

Climate-Resilient Agriculture: Climate-resilient agricultural methods may be put into effect and supported by the government. This entails promoting sustainable farming methods, better water management, and the use of rice types resistant to drought.

Infrastructure Development: Investing in infrastructure projects helps alleviate infrastructural limitations and optimize the supply chain. Examples of these projects include updating processing units, renovating storage facilities, and improving transportation networks.

Trade Facilitation Measures: To encourage a more responsive and effective export environment, governments may implement trade facilitation measures that streamline export processes, lower administrative barriers, and speed up customs clearance.

Quality Assurance Programs : Implementing and upholding quality assurance processes guarantees that rice exported satisfies international requirements. This calls for rigorous quality control procedures, certification procedures, and ongoing observation.

Risk Mitigation Strategies: To manage market swings and currency risks and maintain pricing and income stability, stakeholders in the rice export sector may employ risk mitigation techniques, such as hedging.

C. Opportunities:

Market diversification: There are chances to increase the export of Indian rice by looking into new and interesting markets. Increased market share can be attained by identifying areas with rising demand and making necessary adjustments to marketing plans.

Value Addition: By enhancing rice goods' value through innovative processing and packaging, businesses can become more competitive. Specialty or ready-to-cook rice types provide prospects for increased profit margins while also meeting changing consumer demands.

Promotion of Organic and Specialty Rice: Opportunities for the export of organic and specialty rice types are created by the global movement toward healthier and more sustainable food choices. By presenting Indian rice as an upscale, superior product, one can reach specialised markets.

Digital Integration: Effective operations are facilitated by embracing digital technologies for supply chain management, e-commerce platforms, and market information. The export of rice can benefit from increased responsiveness and transparency as a result of this digital integration.

Government Support Programs: The rice export sector can flourish in a climate that is favourable to government activities including export promotion programs, subsidies, and funding for research and development.

D. Forward Looking Perspective:

A comprehensive strategy that integrates innovative technology, strategic market positioning, and sustainable agriculture practices is required for a forward-looking viewpoint. India can establish itself as a resilient and competitive player in the global rice market by embracing advances in precision agriculture, making research and development investments, and promoting international cooperation. In order to overcome anticipated challenges and seize new opportunities, the sector must also cultivate a culture of resilience and adaptation.

Environmental Implications:

1. Water Usage:

Rice farming is famously water-intensive, frequently requiring vast amounts of water for flooded paddy fields. Overuse of water can put a strain on the region's water supplies, causing

them to run out and possibly causing disputes over their distribution. Traditional flood irrigation techniques further exacerbate environmental issues by wasting water and perhaps causing soil salinisation.

Strategies for Mitigation:

- a) Adoption of water-efficient irrigation techniques such as drip or sprinkler irrigation.
- b) Implementation of water management practices to optimise water usage.
- c) Research into drought-resistant rice varieties to reduce water dependency.

2. Degradation of Land:

Land degradation can result from the modification of natural habitats for rice farming, which can also cause biodiversity loss and soil erosion. The destruction of habitats and disturbance of ecological balances are caused by deforestation and land clearing for the expansion of rice crops. Furthermore, the regular flooding and draining of paddy fields can hasten soil erosion, which would reduce the land's resilience and fertility.

Strategies for Mitigation:

- a) encouraging the use of agroforestry techniques to stop deforestation and preserve biodiversity.
- b) Implementation of conservation tillage techniques to reduce soil disturbance.
- c) Afforestation programs to offset land-use changes associated with rice cultivation.

3. Use of Pesticides:

There is a significant environmental danger associated with the use of agrochemicals and pesticides in rice farming. Field runoff has the potential to contaminate water sources, resulting in pollution and damaging impacts on aquatic ecosystems. Furthermore, the widespread use of pesticides raises questions about the long-term ecological effects on non-target organisms, degrades soil, and disrupts beneficial insect populations.

Strategies for Mitigation:

- a) implementing integrated pest management (IPM) techniques to reduce the need for chemical pesticides.
- b) investigation and creation of rice cultivars resistant to pests.

c) encouraging the use of organic farming methods to lessen the need for artificial pesticides.

Conclusion

This research has revealed a complex story that encompasses economic dynamics, trade policies, obstacles, and environmental repercussions as it navigates the complex terrain of India's rice export sector. A vital component of India's agricultural tapestry, rice exports are deeply ingrained in the country's economy and cultural legacy. Being a major participant in the world rice market, India's economic performance is closely correlated with the achievements and difficulties faced by its rice export sector.

From an economic standpoint, exporting rice makes a substantial contribution to India's GDP, creation of jobs, and foreign exchange profits. This economic prosperity is not without its complexities, though. Trade laws and restrictions encourage expansion, but they also necessitate constant adjustment to changing international conditions.

The challenges, which include the effects of climate change, market volatility, and infrastructure limitations, need for calculated and coordinated actions. The government and stakeholders have implemented measures that demonstrate resilience and innovation, placing significant emphasis on sustainable farming methods, infrastructure development, and quality assurance.

Environmental ramifications add an urgent dimension to the discourse. The use of pesticides, water consumption, and land degradation highlight the need for a careful balance between ecological sustainability and agricultural output. There is a resounding cry for technological advances and sustainable methods that promote a peaceful coexistence between environmental preservation and agricultural progress.

As we navigate the intricate path forward, there is a critical need for a forward-looking perspective. The global rice market is full of potential that demand stakeholders to embrace digital integration, value addition, and diversification. To fully realise the potential of the industry, governments, farmers, and the corporate sector must work together.

In conclusion, the export of rice from India is a complicated process involving the interaction of various factors, including regulatory frameworks, economic challenges, historical legacies, environmental restrictions, and future opportunities. The industry is at a crossroads where its future direction will be determined by combining breakthrough technologies, sustainable practices, and strategic foresight. India's rice export sector promises steady expansion, economic reliability, and a lasting legacy for coming generations despite its challenges and opportunities.

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