

ISBN : 978-81-977759-2-5

INDIA

A \$5 TRILLION ECONOMY:

Challenges and Gateways

EDITOR

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THE GROWTH OF INDIAN AGRICULTURE AND ALLIED SECTORS

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INTRODUCTION

Indian agriculture and its allied sectors have been crucial to the nation's economic and social progress, significantly contributing to employment, food security, and the sustenance of rural communities. Over the years, these sectors have undergone significant transformation, driven by technological advancements, policy reforms, and changing consumer preferences. This introduction provides an overview of the growth trajectory of Indian agriculture and its allied sectors, highlights key drivers, challenges, and opportunities.

India has a rich agricultural heritage, with farming practices dating back thousands of years. The Green Revolution of the 1960s and 1970s was a pivotal moment for Indian agriculture, enhancing productivity by introducing high-yield crop varieties, advanced irrigation methods, and the use of chemical fertilizers. This period saw a significant increase in food grain production, making India self-sufficient in food grains.

In recent years, Indian agriculture has witnessed several notable trends and developments. Farmers have gradually moved towards commercialization by diversifying into high-value crops like fruits, vegetables, and spices. The adoption of technology, such as precision, has also been on the rise, enhancing productivity and efficiency.

Despite these improvements, Indian agriculture still grapples with issues like fragmented landholdings, water shortages, and the impacts of climate change. The sector also grapples with issues related to market access, price volatility, and income security for farmers. Nevertheless, these challenges also offer opportunities for innovation and development, especially in Agri-tech, food processing, and agricultural exports.

In summary, the expansion of Indian agriculture and its allied sectors is vital for maintaining food security, promoting rural development, and achieving sustainable economic growth. By addressing key challenges and leveraging emerging opportunities, India can further strengthen its position as a global agricultural powerhouse.

REVIEW OF LITERATURE

Agriculture and its allied sectors in India have played a pivotal role in the economy, offering livelihoods to a large segment of the population. Over the years, these sectors have witnessed various challenges and transformations. This review seeks to examine the main factors driving the growth of Indian agriculture and its allied sectors, emphasizing the impact of research and policy interventions.

In his research paper, Dholakia (1993) analyzed the agricultural growth rate by categorizing it into three distinct periods based on secondary data: (1) the Pre-Green Revolution phase (1950-51 to 1966-67), (2) the initial phase of the Green Revolution (1966-67 to 1980-81), and (3) the Modernization phase (1980-81 to 1988-89). The researcher concluded that Total Factor Productivity Growth (TFPG) has been instrumental in driving agricultural growth, thereby facilitating the reallocation of scarce resources from agriculture to other sectors of the economy. Hence, the increase in total factor productivity growth (TFPG) within agriculture has been a significant driver of overall economic growth in India during the 1980s.

Historically, Indian agriculture has experienced fluctuations influenced by factors such as monsoon variability, land reforms, and technological advancements. Studies like Gulati and Saini (2020) have highlighted the role of policy reforms in the post-liberalization era, leading to increased agricultural productivity and market orientation.

Advancements in technology have been essential in boosting agricultural productivity. The green revolution of the 1960s and 1970s, driven by high-yielding variety seeds, fertilizers, and irrigation, significantly boosted crop yields. Subsequent initiatives like the National Food Security Mission and the Rashtriya Krishi Vikas Yojana have continued to focus on technological interventions (Singh et al., 2018).

The allied sectors, including livestock, fisheries and forestry, have emerged as significant contributions to rural livelihoods and economic growth. Diversification into these sectors has been driven by factors such as changing consumer preferences, increasing demand for protein-rich diets and rising incomes in rural areas (Mittal and Tripathi, 2017). Despite advancements, Indian agriculture contends with issues like land degradation, water shortages, and climate change. Tackling these challenges necessitates sustainable farming practices, effective resource management, and supportive policies. Future growth will also depend on leveraging digital technologies, enhancing market linkages, and promoting agribusiness entrepreneurship (Gupta and Pathak, 2019).

In Conclusion, the growth of Indian agriculture and its allied sectors is a complex interplay of historical, technological, and policy factors. While significant progress has been made, sustainable growth will require continued innovation, investment and policy support.

OBJECTIVES

Enhancing agricultural productivity, promoting sustainable practices, ensuring food security, fostering rural development, and boosting the economy through allied sectors' growth.

RESEARCH METHODOLOGY

This research paper relies on secondary data, which was gathered from various annual reports published by the RBI over the years. To calculate the growth rate, subtract the previous value from the current value. Then, divide this difference by the previous value and multiply by 100.

DATA ANALYSIS

The development of Indian agriculture and its allied sectors is vital to the nation's economy, influencing livelihoods and ensuring food security. Analyzing this growth involves examining various factor such as productions trend, technological advancements, government policies and market dynamics.

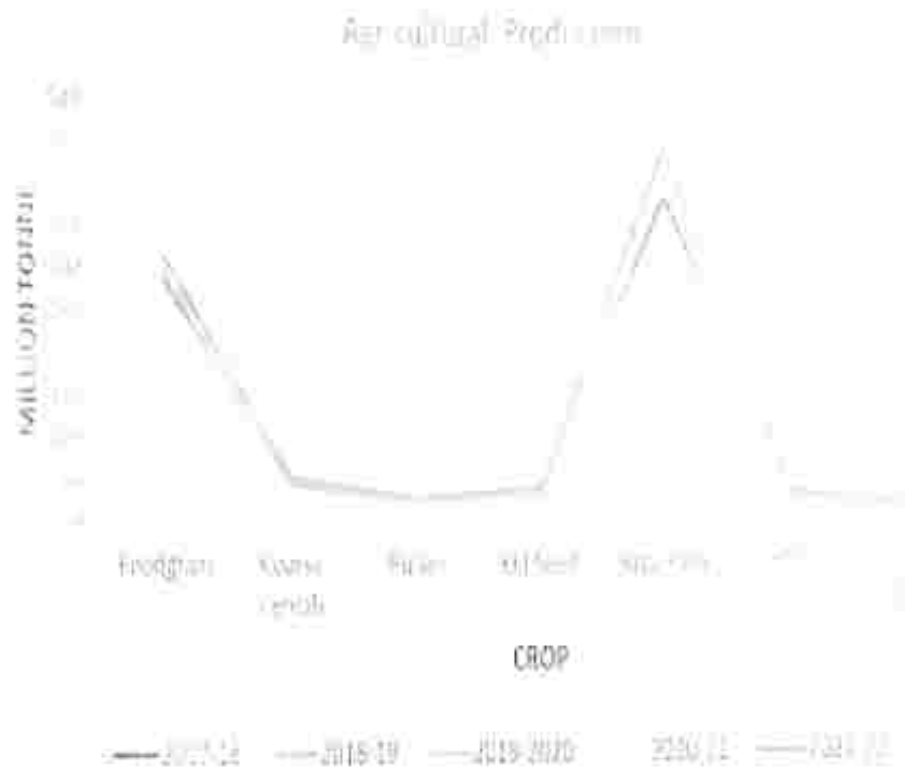
Over the years India has shown significant growth in agriculture production. As reported in the Reserve Bank of India Annual Reports, the country's food-grain production rose from 285 million tonnes in 2017-18 to 315.62 million tonnes in 2021-22 (Table 1).

Table: 1 Annual Agricultural Production (Million tonne)

Crop	2017-18	2018-19	2019-2020	2020-21	2021-22
Foodgrain	285.0	285.21	297.50	310.74	315.62
Coarse Cereals	47.0	43.06	47.75	51.32	50.70
Pulses	25.4	22.08	23.03	25.46	27.30
Oil Seed	31.5	31.52	33.22	35.95	37.96
Sugarcane	379.9	405.52	370.5	405.50	439.30
Cotton#	32.8	28.04	36.07	35.25	31.12
Jute and Mesta##	10.0	9.82	9.88	9.35	10.15

Source: Various RBI Annual Reports, #: Lakh bales of 170 kg each, ##: Lakh bales of 180 kg each.

Figure: 1 Agricultural Production



In 2017-18, the production of coarse cereals was 47 million tonnes, which rose to 50.70 million tonnes in 2021-22. However, examining the table reveals that the increase in pulse production has been modest, rising from 25.4 million tonnes in 2017-18 to 27.30 million tonnes in 2021-22. The production of oilseeds rose from 31.5 million tonnes in 2017-18 to 37.96 million tonnes in 2021-22. Sugarcane production increased from 379.9 million tonnes in 2017-18 to 439.30 million tonnes in 2021-22. From the perusal of the table it is clear that there has been a decline in cotton production. It has come down from 32.8 lakh bales in 2017-18 to 31.12 lakh bales in 2021-22. At same time, a slight increase is visible in the production of Jute and Mesta.

Table: 2 Annual Agricultural Growth Rate (Percentage)

Crop	2018-19	2019-2020	2020-21	2021-22
Foodgrain	0.07	4.30	4.45	1.57
Coarse Cereals	-8.38	10.89	7.48	-1.21
Pulses	-13.07	4.30	10.55	7.23
Oil Seed	0.06	5.39	8.22	5.59
Sugarcane	6.74	-8.64	9.45	8.34
Cotton	-14.51	28.64	-2.27	-11.71
Jute and Mesta	-1.8	0.61	-5.36	8.56

Source: Growth rate calculated for various RBI reports.

Figure: 2 Agricultural Growth Rate



POLICY OF AGRICULTURE

India's agriculture and allied sectors policy landscapes is diverse, reflecting the country's vast agricultural practices and challenges. Policies range from promoting sustainable farming practices to ensuring food security and enhancing farmer's income. The government has introduced several schemes such as the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) to offer direct income support to farmers, and schemes like the Pradhan Mantri Fasal Bima Yojana (PMFBY) to address agricultural risks. Moreover, efforts such as the National Mission for Sustainable Agriculture (NMSA) and the National Mission on Oilseeds and Oil Palm (NMOOP) strive to enhance productivity and lessen dependence on imports. These policies collectively aim to transform Indian agriculture, making it more resilient, sustainable, and profitable.

The agricultural and allied sectors play a crucial role in the Indian economy, making substantial contributions to GDP, employment, and rural livelihoods. With the majority of the population still dependent on agriculture, its growth is crucial for overall economic development and food security. Here's why it's important and some suggestions for its growth.

IMPORTANCE

1. **Economic Contribution:** Agriculture contributes around 15 percentage of India's GDP and provides employment to nearly half of the population, directly or indirectly.
2. **Food Security:** Promoting growth in agriculture is vital for securing food supplies as the need for food increases alongside population growth.
3. **Rural Development:** Agriculture is the backbone of rural India, and its growth is crucial for uplifting rural livelihoods and reducing poverty.
4. **Export Potential:** India has significant potential to export agricultural products, contributing to foreign exchange earnings.
5. **Environmental Sustainability:** Sustainable agriculture practices can mitigate environmental degradation and contribute to climate change mitigation efforts.

SUGGESTION FOR GROWTH:

1. **Technology Adoption:** Encourage farmers to adopt modern agricultural practices, machinery, and technologies for higher productivity and efficiency.

2. **Infrastructure Development:** Upgrading facilities such as roads, storage, and market connections is essential to diminish post-harvest losses and to facilitate better market reach for agricultural producers.
3. **Crop Diversification:** Promote crop diversification to reduce the risk of crop failure, enhance soil fertility and meet changing consumer demands.
4. **Credit Availability:** Ensure quick and accessible credit provision for all farmers, especially those with small and marginal land holdings, empowering them to invest in agricultural inputs and technologies.
5. **Skill Development:** Provide training and capacity building to farmers on modern agricultural practices, technology usage and market trends.
6. **Water Resource Management:** Encourage the adoption of efficient water management techniques such as drip irrigation and rainwater harvesting to tackle water scarcity challenges.
7. **Marketing Assistance:** Develop market connections to enable farmers to obtain equitable prices for their produce and diminish reliance on intermediaries.
8. **Research and Development:** Invest in agriculture research to develop high-yielding varieties, pest-resistant crops, and sustainable farming practices tailored to Indian conditions.

By focusing on these aspects, India can achieve sustainable growth in its agriculture and allied sectors, ensuring food security, rural development and economic prosperity.

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