

Why 46% of India's Population Working in the Agriculture Sector Contributes to Only 20% of the Country's GDP

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Abstract

India, known as the "Land of Villages," harbors a paradox where nearly 46% of its population is employed in agriculture, yet the sector contributes only about 20% to the nation's GDP. This disparity underscores a structural imbalance within the Indian economy, rooted in historical, socio-economic, and environmental challenges. While agriculture remains central to rural livelihoods and national food security, its growth and productivity have lagged behind those of the industrial and service sectors. Factors such as small and fragmented landholdings, outdated farming practices, poor infrastructure, limited market access, climate vulnerability, and underinvestment in research and development contribute to this disconnect. This study analyzes these multifaceted issues, supported by empirical data and scholarly literature, and proposes a path forward through technological integration, better policy implementation, and investment in sustainable practices.

Keyword: India's population, Agricultural, Indian Economy, GDP, Economic development

1. INTRODUCTION

The Indian economy ranks sixth among the world's largest economies. The predominant segment of the nation's populace relies on agriculture for sustenance. The agricultural industry accounts for around 14% of the nation's overall GDP. This paradox shows how important it is to look into agriculture's current problems, its important role in the economy, and its chances of getting better. As the only source of food for people, agriculture is the world's biggest business and the main use of about 40% of all land. Agriculture is a very important part of a country's economic growth. The goal of this study is to look into the reasons behind this economic mismatch by looking at problems that are basic and systemic in India's farming environment. Agriculture is the main part of the income. Direct use of natural materials is what it does. It is different from the secondary sector, which makes made goods and other processed goods, and the third sector, which makes finished goods. It is more common for this business to be important in new countries than in developed ones. The Indian agricultural sector creates the most jobs, even more than the manufacturing sector. The Indian economy is growing thanks in large part to the work of the agricultural industry.

Table 1: Sector-Wise Share of Employment vs GDP Contribution

Sector	Employment Share (%)	GDP Contribution (%)
Agriculture	46	20
Industry	23	27
Services	31	53

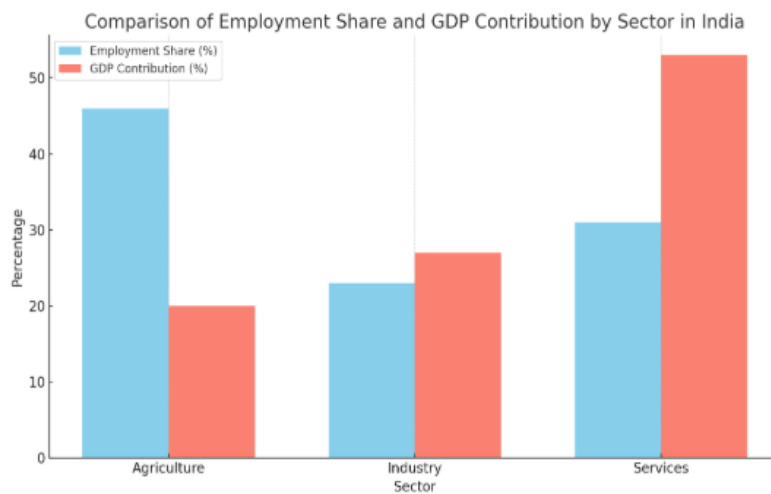


Figure 1: Comparison of employment share and GDP by sectors in India

The graph compares employment share and GDP contribution across India's agriculture, industry, and services sectors, revealing key structural imbalances. Agriculture employs over 45% of the workforce but contributes only about 20% to GDP, indicating low productivity. The industrial sector shows a more balanced pattern, with employment and GDP shares both around 25–27%, suggesting moderate efficiency. In contrast, the services sector contributes over 50% to GDP while employing only about 30% of workers, reflecting high productivity and a shift toward a knowledge-based economy. These disparities highlight the need for economic restructuring, labor reallocation, and targeted investments to boost productivity and inclusivity.

2. LITERATURE REVIEW

Deveshwar, Aarti & Panwar, Saloni. (2024). Agriculture plays a crucial role in India's economic development as it provides livelihoods for approximately 58% of the population and ensures the nation's food security, employs more than 1.4 billion people, and contributes 19–20% of GDP. The government spends more money on agriculture each year. After spending Rs. 1,22,836 crores in 2022, they have spent Rs. 1,25,036 crores in 2023. The state gives direct and secondary support to agriculture in a number of different ways to encourage growth in the field. But it remains unclear how effectively these supports are achieving the desired results. This essay looks at how money is given out under different plans to give an outline of farming aid in India.

Pujari, duragesh. (2022).In the Indian economy, the agriculture sector serves as a precursor to economic development by contributing in four distinct ways. India accounts for about 25% of the world's total production, 27% of global consumption, and 14% of global imports of pulses (FAO). The economies of China, India, and the United States are all worth more than \$3 trillion. An important contributor to India's economic growth is the service sector, which accounts for around 54.27% of the nation's GDP. Second is the industrial sector with 29.34%, and last is the agriculture sector with 16.38% by FY 2020-21. In India, 41.49% of all jobs are in the agriculture sector in 2020 (World Bank). It makes up almost 14% of the country's GDP, about 13% of its exports, and the main source of income for 58% of its workers, which is more than half of the population.

Chand, Ramesh. (2022).The historical experience of almost all economies shows that the share of the agriculture and allied sectors in total employment as well as in their national income falls with progress in economic development. This decline does not, however, diminish the need to address various challenges confronting the agriculture sector, which is a core concern in both developed and developing countries. Agriculture, after all, provides food for the very survival of human life. More importantly, this dependence goes beyond just staying alive and includes getting enough food to live a full and healthy life. Also, gardening helps people in rural areas make a living too. Agroecological balance, wildlife, and adoption of safe farming that is done have an impact on how land, water, and other natural resources are used. Farming has an impact on social security as well. Additionally, agriculture supplies the raw resources required for a variety of commercial endeavors, from making things in factories to trade and business.

Mubashir, Mohammad & Bhat, Arshad. (2021).India's agriculture sector, which is also called the basic sector, is very important for the country's economic growth. Since freedom, it has become the fastest-growing part of the world economy. It was seen that the middling category had the most households (75.41%) and the most land (297.5%). It was followed by the small category at the bottom. Less than 0.24% of households own land, and 5.81% of those in the big group do. According to the US Department of Agriculture's Foreign Agricultural Service, the higher return of the chosen crops like rice, wheat, corn, coarse grain, and soybean was found in India. Rice had the highest yield, followed by wheat and corn.

Nayak, Akshata & Huchaiah, Loksha. (2019).Since the beginning of the Green Revolution, there have been significant changes in India's agriculture study and development. The size and breadth of agricultural study have greatly increased, and it is now more diverse, more open, and more integrated. India's low output is mostly due to the fact that not enough money is spent on agricultural studies. A business poll highlighted that research and development (R&D) in agriculture is a key driver of innovation necessary to sustain long-term growth in farm productivity. According to the survey, direct expenditures for the Department of Agricultural Research and Education and the Indian Council of Agricultural Research (ICAR) rose from ₹5,393 crore in 2010–11 to ₹6,800 crore in 2017–18. This reflects an average annual growth rate of 4.2%, with a noticeable increase in spending in recent years compared to earlier trends.

3. HOW AGRICULTURE HAS GROWN IN THE PAST

Since India gained its independence sixty years ago, the growth trajectory of its economy has varied significantly. Farming in India is mostly for survival and heavily depends on rainfall and other weather factors, making the changes especially noticeable. While planned development was just getting started, the green revolution technologies were the ones that really accelerated growth in the sector for almost 30 years. As the 20th century came to a close, the effects of the green movement slowly faded. The farming industry was significantly impacted by the economic shifts that started in the early 1990s. This was mostly because the economy became more open to competition from other countries, trade became less regulated, and inputs and other subsectors were not as controlled.

Table 2: Indian GDP growth rates over time for different areas from 1950–50 to 2010–11, based on prices in 1999–00

Phase	All sectors	Agriculture and allied	Agriculture	Non- Agriculture
Pre-Green Revolution	3.71	2.00	1.97	5.42
Green Revolution	3.72	2.38	2.63	4.62
Period of Wider Dissemination	5.52	3.57	3.58	6.40
Post-Reforms	6.01	2.08	2.04	7.23
Recovery	8.24	2.62	2.55	9.47

4. CONTRIBUTION OF AGRICULTURE TO INDIA'S GDP

Agriculture remains a cornerstone of India's economy. In 2022–2023, 18.3% of the nation's Gross Value Added (GVA) came from agriculture, according to the Ministry of Agriculture and Farmers' Welfare. Although its percentage has decreased from 35% in 1990–91 to around 15% now, it remains one of the most significant sectors of the Indian economy. supporting livelihoods and food security.

In wealthy countries like the UK and USA, on the other hand, farmland only makes up about 3% of their total GDP. This reflects a shift towards industrial and service sectors. This comparison underscores the unique role agriculture plays in sustaining India's rural economy and its overall economic structure.

- **Share in GDP:** Agriculture's declining share in GDP reflects the rapid growth of industrial and service sectors. Yet, its substantial contribution to rural incomes highlights its enduring importance in India's economic landscape.
- **Employment:** With over 45% of India's workers involved in farming and related jobs, the sector remains a critical source of livelihoods, especially in rural areas.
- **Export Earnings: Agriculture** significantly supports India's foreign trade, contributing \$50 billion to exports in 2022-23, or approximately 13% of the country's total exports.
- **Value Addition:** The sector supports the cultivation of high-value crops like fruits, vegetables, and spices, which enhance food security, improve nutrition levels, and provide opportunities for income diversification.
- **Raw materials for industries:** The cloth, food preparation, and other businesses need agricultural products as raw materials for pharmaceuticals.

- **Government:** The Second Advance Estimates of National Income were published by the Ministry of Statistics and Program Implementation (MoSPI) for 2022–23. It shows that agriculture and related sectors will contribute the following amounts to the total economy and grow these amounts over the next three years: 2020–21, 2021–22, and 2022–23.

Table 3: The agricultural sector's GDP contribution

Year	Share of GVA of agriculture and allied sectors in total economy (%) at current prices	Growth of GVA of agriculture and allied sectors (%) (at 2011-12 prices)
2020-2021	20.3	4.1
2021-2022	19.0	3.5
2022-2023	18.3	3.3

Source: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1909213>

5. FACTORS CONTRIBUTING TO THE DECLINE IN AGRICULTURE'S GDP SHARE

- **Shift to Other Sectors:** The rapid growth of the industrial and service sectors has reduced agriculture's share in GDP, as these sectors contribute higher value addition and attract more investment.
- **Stagnant Productivity Growth:** Despite some advancements, agriculture in India has struggled to achieve significant productivity improvements due to limited adoption of advanced technologies and scientific farming practices.
- **Fragmentation of Landholdings:** With rising population and inheritance laws, agricultural lands are increasingly fragmented, making it difficult to implement large-scale farming techniques and mechanization.
- **Climate Vulnerability:** The sector is highly susceptible to climate change, with erratic rainfall, prolonged droughts, and extreme weather events frequently disrupting agricultural productivity and incomes.
- **Water Scarcity and Outdated Practices:** Increasing water scarcity and reliance on traditional farming methods further constrain productivity.

6. CHALLENGES FACED BY THE AGRICULTURE SECTOR

No, appropriate irrigation management: India's Roughly speaking, irrigation may be divided into two categories, each with unique issues. There are several serious issues when watering from the top. Effective control over the amount of water stored, the amount utilized for irrigation, and the potential value addition of this water is impossible. because the watering facilities are not up to par. So, farmers count on rain, especially during the monsoon season. If the monsoon is good, the economy as a whole grows quickly. If the monsoon is bad, growth is slow. When it comes to groundwater, the main issue is fairness.

Dependence on the Weather: Many developing nations, like India, depend on the rainfall for their farming because they don't have fully developed irrigation systems. If the rainfall doesn't happen or if it rains a lot or at the wrong time, it destroys crops. Agricultural work is also risky when it comes to warmth. Too high of a temperature makes it harder for plants to grow. In India, the current insurance system doesn't cover crop losses that are caused by bad weather or pest outbreaks that can't be stopped. When this happens, small farmers who borrowed money to grow crops end up with a lot of debt. If this keeps up, the poor farmer may go hungry or even kill themselves, as happened in Maharashtra and Andhra Pradesh.

Rules make it clear farming growth: Show that farming growth is a problem because most people in India rely on jobs in the countryside to make a living. India's returns for many agricultural goods are low, and the way farming is done now is neither sustainable economically nor environmentally. Some of the reasons for this are watering systems that aren't well taken care of and a lack of good marketing service. Poor roads, basic market facilities, and too many rules make it hard for farmers to get to markets.

Farmers are in bad social and economic shape: Farmers' bad social and economic conditions are caused by not being able to read or write, which should be strongly addressed. The government is trying to fight poverty with policies like free education for all, but these efforts are limited by a highly centralized system that is not accountable to anyone and wastes public funds inefficiently. Low production is also caused by not having enough professional knowledge and understanding, which makes it harder for farms to get out of poverty.

Minimal investment and insufficient infrastructure: India's minimal investment has resulted in insufficient infrastructure and services. Infrastructure and farming equipment are limited outside of Punjab and Haryana provinces. The tiny size of many farms prevents farmers from affording irrigation systems that would boost output. The majority of large farms are family-run and do not benefit from economies of scale, which states that as production quantities rise, the cost per unit decreases because the big farms have a problem with land absence, which makes it harder for the land to grow and produce more because tenants who cultivate the land often lack ownership; they may have little incentive to invest in its long-term productivity or improvement.

Disasters that cause poverty in rural areas: There are two types of rural poverty: poverty among rural people and poverty in rural places that are prone to bad weather. Natural resources may be lost because of global warming-related droughts or floods or because of new growing methods that hurt the land and make people in rural areas poor. In the first one, the land is left empty, and in the second one, big economies are built, even though it costs a lot. Farmers are drawn by the high returns, but they don't think about how it will hurt them. That way, poor people who can't afford it get stuck in poverty even more because they can't compete with wealthy farms, and casual workers lose their jobs when machines take over.

GOVERNMENT INITIATIVES BOOSTING AGRICULTURE

- **The Pradhan Mantri Fasal Bima Yojana**

A program for crop insurance that is meant to help farmers financially in case their crops don't do well.

- **As part of the Krishi Sinchayee Yojana Pradhan Mantri**

A plan aimed at making watering better infrastructure and promoting efficient water management practices to ensure “Har Khet Ko Pani” (Water for Every Field).

- **NMSA, or the National Mission for Sustainable Agriculture**

The program focuses on promoting techniques that are good for the environment in farming, such as managing soil health and organic farming, while also improving farmer livelihoods.

- **PM-KISAN Scheme (PM-KISAN Scheme)**

It directly assists small and weak farmers in generating income, which in turn boosts rural spending and enhances economic stability in agricultural communities.

- **Digital Agriculture Mission**

The policy encourages the adoption of digital technologies like AI, IoT, and blockchain to increase productivity, reduce costs, and modernize Indian agriculture.

- **Agri Fund for Infrastructure**

There are plans to enhance farming infrastructure by constructing sheds, cold storage facilities, and supply chain systems, which will improve farmers' access to markets.

7. CONCLUSION

Although agriculture continues to employ a significant proportion of India's workforce and serves as a cornerstone for rural sustenance, its declining contribution to the national GDP signals a systemic issue. The disparity stems from low agricultural productivity, structural inefficiencies, climatic unpredictability, insufficient irrigation infrastructure, and socioeconomic problems that farmers have to deal with. Despite governmental efforts in terms of subsidies and rural development schemes, the benefits often fail to reach the intended beneficiaries due to mismanagement and inadequate targeting. The evolution of India's economy toward industrialization and service-led growth further widens the gap between agricultural employment and economic output. Yet, agriculture remains essential for the supply of raw materials to industry, export revenue, and food security. We cannot overstate its role in rural development and poverty alleviation. To reconcile this imbalance, there is an urgent need for transformative reforms. These include enhancing agricultural research and development, promoting sustainable farming practices, increasing investment in rural infrastructure, ensuring better market linkages, and improving access to credit and technology. Only through a multifaceted and inclusive approach can India elevate its agricultural sector to be both economically viable and globally competitive—ultimately aligning its employment share more closely with its GDP contribution and securing a prosperous future for its agrarian communities.

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