



CHALLENGES AND OPPORTUNITIES IN INDIAN AGRICULTURE: A MARKETING PERSPECTIVE

DR. GOUR GOPAL BANIK

Professor & Dean
School of Management and Commerce
Girijananda Chowdhury University,
Guwahati-781017, Assam.

DR. NEETA LONGJAM

Assistant Professor
Department of Commerce
Dhanamanjuri University
Imphal – 795001, Manipur.

Abstract:

Agriculture is vital to the Indian economy as it supports income, employment, and rural livelihoods. Despite improvements in production and technology, farmers continue to face major marketing problems that reduce income and create uncertainty. Key challenges include poor storage and cold-chain facilities, price fluctuations, weak market access, limited information and long supply chains, which lower bargaining power and increase post-harvest losses. At the same time, market reforms, digital platforms, electronic marketplaces, and contract farming are creating new opportunities by enhancing transparency and enabling better price discovery. The study highlights that a strong agricultural marketing system, supported by better infrastructure, policies and innovative practices, is essential for stable farmer incomes, rural development and sustainable agricultural growth.

Keywords: Indian Agriculture; Agricultural Marketing; Market Challenges; Emerging Opportunities; Rural Development; Agri-business Management.

1. Introduction:

Agriculture is very important for the Indian economy. Apart from ensuring food and supporting rural development, it helps in economic growth and employment generation.



This sector forms the backbone of India's social and economic system and contributes to national development. Agriculture employs more than 45 percent of India's workforce.¹ It contributes nearly 18–20 percent to the Gross Value Added in FY 2024–25.² Government estimates suggest a growth rate of 3–3.5 percent for FY 2026. This growth is supported by record foodgrain production.³ Agriculture has been practiced in India since ancient times. During the Indus Valley Civilization, people grew crops such as wheat and barley. The Green Revolution of the 1960s marked a major turning point. It led to sharp increases in productivity through improved seeds, irrigation and modern inputs. In recent years, the agricultural sector has remained resilient. Horticultural production crossed 367 million tonnes during 2024–25.⁴ Agriculture also holds deep cultural importance in India. Festivals such as Makar Sankranti, Pongal and Baisakhi celebrate harvest and farming traditions. Many cultural and spiritual practices are closely linked to agriculture, reflecting the deep bond between people and the land.

2. Review of Literature

Agriculture is very important for India's economy and rural life. Many people in villages depend on farming for their livelihood. FAO (2018) notes that agriculture helps provide food security and reduces poverty. The Economic Survey of India also emphasizes that farming continues to support jobs and income in rural areas. Marketing is a major challenge for farmers. Acharya and Agarwal (2011) noted that lengthy supply chains and the presence of multiple intermediaries lower the share of income received by farmers.

¹ *Economic Survey 2024–25 – Employment share in agriculture and allied sectors.*

² *India Brand Equity Foundation (IBEF, 2025) – Agriculture & allied activities contributed*

³ *Business Standard / Agriculture Growth (2025) – Farm sector growth and foodgrain harvest trends.*

⁴ *IANS / Horticulture Output Report (2025) – Horticultural crops production ~367.72 million tonnes.*



Kohls and Uhl (2002) also note that poor market links and weak price systems make farming less profitable. Infrastructure problems make marketing worse. Chand (2016) says that lack of storage, poor transport and limited cold-chain facilities lead to losses after harvest. Small and marginal farmers are affected the most. Recent policies and reforms create opportunities. Reports by NITI Aayog (2020) and the Ministry of Agriculture emphasize the role of electronic markets, contract farming, and value chain strengthening. Digital platforms such as e-NAM have improved farmers' access to markets and enabled better price realization. Overall, existing studies indicate that strengthening agricultural marketing systems is crucial, as efficient markets can increase farm incomes, reduce losses, and promote rural development.

3. Objectives of the Study

The objectives of the study are:

1. To examine the role of agriculture in the Indian economy from a marketing perspective.
2. To identify the major marketing challenges faced by the agricultural sector in India.
3. To analyze emerging opportunities and policy initiatives in agricultural marketing.
4. To assess the role of marketing reforms and digital platforms in improving market efficiency.

4. Research Methodology:

The present study is conceptual and follows a descriptive as well as analytical research framework. It relies solely on secondary sources of information drawn from academic articles, books, government publications, policy papers, and reports of national and international institutions. Key sources include documents from the Ministry of Agriculture and Farmers' Welfare, NITI Aayog, the Economic Survey of India, FAO, along with other relevant literature on agricultural marketing.

The gathered literature was carefully reviewed to highlight the main marketing challenges and emerging opportunities in Indian agriculture. Content analysis was applied to



assess policy measures, marketing reforms, and the impact of digital platforms on market efficiency. This study is based entirely on secondary sources and does not involve primary data, using existing research to draw conclusions and recommend ways to strengthen agricultural marketing systems.

5. Largest Agricultural Products in India:

India produces a diverse range of agricultural products, with rice, milk, wheat, sugarcane and cotton leading the production (see **Figure 1**). Some of the major products are:

a) Rice – Rice is the main food for a large population in India. It is widely cultivated in the eastern and southern regions of the country. Both white and brown varieties are produced, and India ranks among the leading rice-producing nations in the world.

b) Milk – India has a very high level of milk production from cows, buffaloes, and other livestock. After the White Revolution, the country emerged as the largest producer of milk globally. Uttar Pradesh, Andhra Pradesh, and Rajasthan are major milk-producing states.

c) Wheat – Wheat is an important food crop in India and is mainly grown in the northern parts of the country. States such as Punjab, Uttar Pradesh, Haryana, and Madhya Pradesh are the major producers of wheat.

d) Sugarcane – Sugarcane is a major commercial crop in India, placing the country among the top producers globally. It has been an important source of income for farmers for many years. The main sugarcane-growing states are Uttar Pradesh, Maharashtra, Tamil Nadu, Gujarat, and Andhra Pradesh.

e) Cotton – India ranks among the top countries in the world for cotton cultivation, after China and the United States. Cotton is a major fibre crop and a key raw material for the textile industry.

Figure 1: Top 5 Agricultural Products of India



Source: Conceptual diagram created by the authors, based on published literature and official reports on Indian agriculture (Acharya & Agarwal, 2011; Chand, 2016; Economic Survey of India, 2024–25; NITI Aayog, 2020).

Figure 1. Top 5 Agricultural Products of India with Key Producing States and Global Ranking. Source: Authors' conceptual diagram based on Economic Survey of India (2024–25), Chand (2016), and Acharya & Agarwal (2011).

6. Types of Agricultural Methods in India

India uses a variety of farming methods due to its diverse geography, soils and climate. These methods aim to increase yield, save resources and support sustainable farming. Some common types are:

a) Subsistence Farming

This form of farming is mainly practiced by small farmers in rural regions. Crops are produced mostly for household use, and only a small portion is sold in the market. Traditional farming techniques are followed with very limited use of modern inputs. As a result, output remains low, and the main objective is to fulfill basic family needs rather than to generate profit.

b) Commercial Farming

Commercial farming aims at producing crops for the market. It uses modern tools, improved seeds, fertilizers and pesticides to increase output. Crops such as wheat, cotton, sugarcane and maize are common. It is widely practiced in states like Punjab, Haryana, Gujarat and Maharashtra.

c) Intensive and Extensive Farming

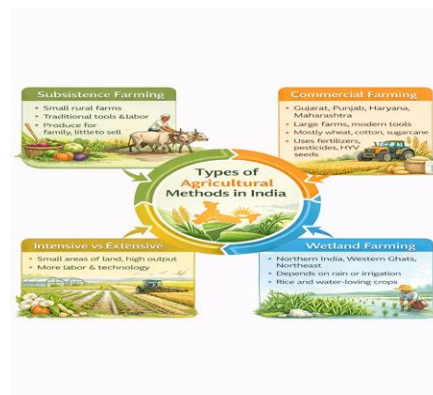
Intensive farming involves high use of labour, capital and technology on small landholdings to achieve higher yields.

Extensive farming is practiced over large areas using machinery, usually with one major crop and lower labour input.

d) Wetland Farming

Wetland farming depends on heavy rainfall or assured irrigation. It is common in the Western Ghats, northeastern India and parts of northern India, especially during the monsoon season.

Figure 2. Types of Agricultural Methods in India.



Source: Conceptual diagram created by the authors, based on Acharya & Agarwal (2011), Chand (2016), Economic Survey of India (2024–25), and NITI Aayog (2020).

Figure 2 shows the main agricultural methods in India. It highlights subsistence farming for family use, commercial farming for profit, intensive and extensive methods based on land and labour, and wetland farming in rain-fed or irrigated areas.

7. Role of Agriculture in the Indian Economy:

a) GDP Contribution of Agriculture:

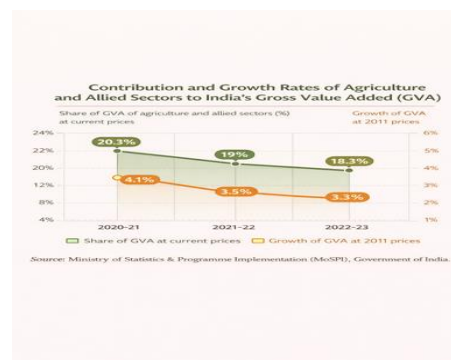
Agriculture continues to play a vital role in India's economy, providing employment to a large portion of the population. In 1950–51, agriculture and allied sectors contributed 59% of India's total GDP. Although this share has decreased over time, agriculture remains a key sector. The table below presents the contribution of agriculture and allied activities to India's Gross Value Added (GVA) from 2020 to 2023.

Table 1. Contribution of Agriculture and Allied Sectors to India's Gross Value Added (GVA) and Growth Rates (2020–2023).

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 prices
2020-21	20.3	4.1
2021-22	19	3.5
2022-23	18.3	3.3

(Source: Ministry of Statistics & Programme Implementation (MoSPI), Government of India)

Figure 3. GVA Share and Growth Rate of Agriculture and Allied Sectors (2020–2023)



Source: Conceptual chart based on Ministry of Statistics & Programme Implementation (MoSPI), Government of India.

Figure 3 shows that the share of agriculture and allied sectors in GVA fell from 20.3% in 2020–21 to 18.3% in 2022–23. The GVA growth rate also slowed from 4.1% to 3.3%. This suggests that while agriculture continues to be an important sector, its relative contribution and growth are gradually declining compared to other sectors of the economy.

b) Employment Generation

Over half of India's population is employed in agriculture, making it one of the country's largest employment sectors. Farmers, labourers, artisans, and other workers make up a significant portion of the workforce. The table below presents the percentage of people employed in agriculture, industry, and services in recent years.

Table 2. Workforce Distribution by Sector in India (2011–12 to 2023–24)

Year	Agriculture (%)	Industry (%)	Services (%)	Total (%)
2011–12	48.9	24.3	26.8	100
2017–18	45.8	24.6	29.6	100
2018–19	45.8	24.3	29.9	100
2019–20	46.1	23.9	30.0	100
2020–21	46.2	24.2	29.6	100
2021–22	45.8	24.6	29.6	100
2022–23	46.1	23.9	30.0	100
2023–24	46.3	23.9	29.8	100

Source: NSSO (2011–12, 68th Round) and PLFS Annual Reports (2017–18 to 2023–24)

Interpretation:

Agriculture continues to employ around **45–46% of the workforce**. Industry employs about **24%**, while services employ **29–30%**. This shows that agriculture remains the largest employer in India, even though its share has slightly decreased over the years.



c) Rural Development

Agriculture plays a crucial role in the development of rural India. It helps reduce regional imbalances and improves the living conditions of rural people. Since a large section of the population depends on farming for income, agriculture remains central to rural life.

Beyond supplying food and raw materials, agriculture supports various economic activities that generate employment, raise incomes, and improve rural infrastructure. These activities contribute to a better standard of living in rural areas.

Many rural families depend on farming and related activities such as livestock rearing, poultry, fisheries, and forestry for their livelihood. For small and marginal farmers, agriculture is often the primary means of survival. It also helps limit large-scale migration to urban areas and promotes balanced regional development.

Agriculture is closely linked to downstream activities like storage, transport, processing, packaging and marketing of products. These create additional jobs in rural areas. For example, building cold storage units, food processing facilities, and rural markets generates employment for skilled and unskilled workers. It also encourages small-scale and cottage industries.

This diversification strengthens the rural economy. It reduces overdependence on farming while boosting income and opportunities across the countryside.

8. Challenges in Indian Agricultural Marketing

Indian agriculture faces several marketing challenges that affect farmers' income and market efficiency, even with improvements in production and technology.

a) Inadequate Storage and Cold-Chain Facilities: Many farmers lack access to warehouses and cold storage. As a result, produce is sold immediately after harvest at low prices. Poor cold-chain facilities cause high post-harvest losses, especially for fruits and vegetables (Chand, 2016).

- b) **Price Volatility and Market Uncertainty:** Agricultural prices fluctuate due to seasonal output, weather and demand. Weak price support and limited market information increase income instability for farmers (Acharya & Agarwal, 2011).
- c) **Long Supply Chains and Intermediaries:** Multiple intermediaries reduce farmers' share in the final price. Long supply chains increase transaction costs and reduce marketing efficiency (Kohls & Uhl, 2002).
- d) **Information Asymmetry:** Limited access to price, demand and quality information weakens farmers' bargaining power and leads to distress sales (Acharya & Agarwal, 2011).
- e) **Limited Access to Organized Markets:** Small farmers face barriers in accessing regulated and digital markets due to poor connectivity, low digital literacy, and regional disparities (NITI Aayog, 2020).

Overall, these challenges call for better infrastructure, policy support and market reforms to strengthen agricultural marketing in India.

Figure 4: Challenges in Indian Agricultural Marketing



Source: Authors' conceptual framework based on Acharya and Agarwal (2011), Chand (2016), Kohls and Uhl (2002), and NITI Aayog (2020).

Figure 4 presents the major marketing challenges faced by Indian agriculture, including infrastructure gaps, price instability, supply chain inefficiencies, information asymmetry, and limited market access.

9. Emerging Opportunities and Policy Initiatives in Agricultural Marketing

Agricultural marketing in India is undergoing significant changes due to policy reforms and the adoption of modern technologies. These developments have opened new opportunities for farmers and improved the overall efficiency of markets. The growth of electronic platforms such as e-NAM has enabled farmers to connect with buyers across different regions and has improved price discovery through transparent bidding processes (NITI Aayog, 2020). Farmer Producer Organizations (FPOs) have also gained importance by supporting small farmers in reducing costs, strengthening bargaining power, and promoting collective marketing efforts (Chand, 2016).

Increased government investment in cold storage, warehousing, and logistics has helped reduce post-harvest losses and distress selling (Economic Survey of India, 2024–25). In addition, digital tools such as mobile applications and agri-startups now offer timely market information, price trends, and quality standards, thereby narrowing information gaps among farmers (FAO, 2018).

Overall, policy initiatives and digital innovations are modernizing agricultural marketing in India and improving farmers' income prospects.

Figure 5: Emerging Opportunities and Policy Initiatives in Agricultural Marketing





Source: Authors' conceptual framework based on Chand (2016), NITI Aayog (2020), FAO (2018), and Economic Survey of India (2024–25).

Figure 5. Presents Wheel Model of Emerging Opportunities and Policy Initiatives in Agricultural Marketing in India

10. Findings and Discussion:

The study shows that agriculture is very important to India's economy. It provides jobs to a large part of the population. It also supports rural development. However, farmers face many marketing problems. These include poor storage and cold-chain facilities. Prices often fluctuate. Supply chains are long and involve many middlemen. Access to organized markets is limited. Farmers also lack timely information. These problems lower earnings and reduce efficiency. Meanwhile, new opportunities are beginning to develop.

Government reforms, e-NAM, digital platforms and contract farming are improving market access. Farmers are getting better prices. Improved transport, storage, and processing facilities are reducing post-harvest losses.

Indian agriculture follows different farming practices. Subsistence farming meets family needs with low output. Commercial farming uses modern inputs and is common in Punjab, Haryana, Gujarat and Maharashtra. Intensive farming uses high inputs on small land areas. Extensive farming uses large land areas and machinery. Wetland farming depends on rainfall or irrigation and is common in the Western Ghats, northeastern India and parts of northern India.

11. Conclusion

Agriculture remains central to India's economy, employment and rural development. While production has improved, farmers continue to face challenges such as weak marketing systems, price instability and inadequate infrastructure. Strengthening market access, rural infrastructure, allied activities and farmer awareness - supported by policy initiatives and digital



platforms - can raise farm incomes, reduce inefficiencies and promote inclusive and balanced rural growth.

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