

AGRI-FOOD INDUSTRIES IN INDIA

Prospects and Challenges

About the **AUTHOR**

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The agri-food industry in India spans the entire value chain – from farm production and harvesting to processing, packaging, storage, transportation, and retailing. As a cornerstone of the Indian economy, agriculture and allied sectors contribute over 15 percent to the nation's GDP and provide employment to nearly half of the workforce. Beyond economic contribution, the sector is central to National Food Security, ensuring affordable and safe food for a population exceeding 1.4 billion people. Food Processing further enhances industrial growth, value addition, and export earnings, strengthening India's position in global agricultural trade.

Rapid urbanization, rising incomes, an expanding middle class, and changing lifestyles have increased demand for processed, packaged, convenience, and ready-to-eat foods. Consumers seek higher standards of quality, safety, hygiene, branding, and product variety. This shift presents substantial opportunities for food manufacturers, retailers, and supply chain operators.

Changing Demand Patterns

Globally, demand for organic and value-added foods is rising. India's diverse agro-climatic conditions and

agricultural heritage give it a comparative advantage in these segments. Traditional exports such as basmati rice and spices continue to perform strongly, while newer categories—including frozen foods, dairy products, snacks, beverages, and processed fruits—are expanding rapidly. Health awareness and sustainability concerns are further shaping demand patterns. India's production of millets, pulses, fruits, vegetables, and horticultural crops positions it well to meet the growing global appetite for nutritious and sustainable food products. Government campaigns promoting millets and balanced diets have stimulated renewed interest in traditional grains and health-focused foods.

GOI has introduced several initiatives to modernize the agri-food sector. The Pradhan Mantri Kisan Sampada Yojana focuses on expanding food processing capacity, improving cold chain infrastructure, and reducing post-harvest losses. Complementary initiatives such as Make in India and Startup India promote investment in food processing technologies, packaging innovations, and supply chain development. Trade diversification efforts through bilateral agreements have also strengthened India's export footprint.

Transformative Role of Technology

Technology is playing a transformative role across the value chain. IoT-based sensors, drone monitoring, satellite imagery, and data analytics enable optimized input use and improved crop productivity. These tools support evidence-based policymaking and enhance supply chain efficiency. Blockchain applications for traceability and food safety are gradually gaining ground, helping build consumer trust and improve global acceptance of Indian products.

The rise of e-commerce and digital agri-marketplaces has further enhanced market access for farmers. Direct farm-to-consumer linkages reduce intermediaries, improve price realization, and increase transparency in transactions.

Our Strengths

India's agri-food ecosystem includes

As processed food consumption increases, ensuring consistent compliance with safety standards becomes essential. Strengthening testing infrastructure and reducing adulteration remain priorities



dairy, sugar, rice, wheat, tea, spices, fisheries, seafood, and processed foods.

The dairy sector is a global leader, with India being the world's largest milk producer. Valued at approximately INR 18.97 trillion in 2024, it contributes nearly 5 percent to the national economy. Growing urban demand for branded and value-added dairy products is expected to drive further expansion. The sector plays a vital role in rural income generation and women's employment, supported by expanding cold chains and processing infrastructure.

India is also one of the largest producers and exporters of rice, particularly basmati varieties. Given India's dominant share in global rice trade, export policy decisions significantly influence global supply and pricing.

The fisheries and seafood sector is another key contributor, with India ranking among the top global fish producers and exporters. Marine and inland fisheries, particularly shrimp aquaculture, have grown rapidly over the past two decades. However, export performance can be influenced by international trade measures and tariff policies.

Despite robust growth potential, the agri-food sector faces persistent structural constraints.

Our Challenges

Multiple intermediaries between farmers and markets result in inefficiencies and high post-harvest losses—estimated at 30–40 percent for perishable goods.

Limited cold storage, inadequate logistics, and uneven infrastructure reduce competitiveness and product quality. Small and marginal farmers, constituting over 80 percent of India's farming population, often lack access to modern technology due to financial constraints, low digital literacy, and poor rural infrastructure. This results in productivity gaps and limited integration with advanced processing systems. Micro and small food processing enterprises often struggle to secure affordable credit for modernization, certification, and expansion. High collateral requirements and procedural hurdles restrict growth and innovation.

Variations in agricultural marketing regulations across states create compliance challenges. Food safety enforcement capacity requires strengthening, particularly among small processors. Periodic export restrictions to control domestic prices may also affect international market confidence.

Agriculture is highly sensitive to climate change. Erratic monsoons, heatwaves, floods, and droughts disrupt crop yields and supply chains. Long-term concerns include soil degradation and water scarcity.

Investment in integrated cold chains, storage facilities, and processing hubs through public-private partnerships can reduce losses and enhance efficiency. Promoting FPOs can improve collective bargaining power and market access for smallholders. Digital Advisory Services and targeted mechanization subsidies can raise productivity and integration.

Strengthening regulatory frameworks and enhancing the capabilities of the Food Safety and Standards Authority of India can improve consumer trust and export competitiveness. Expanding credit guarantees, encouraging venture funding, and supporting market linkages can accelerate the growth of small and medium enterprises.

Climate-smart agriculture—including crop diversification, water-efficient irrigation, renewable energy use, and circular economy practices such as waste-to-energy conversion—will be critical for long-term resilience and sustainability.