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Food Processing
w.r.t Superfoods
Industry

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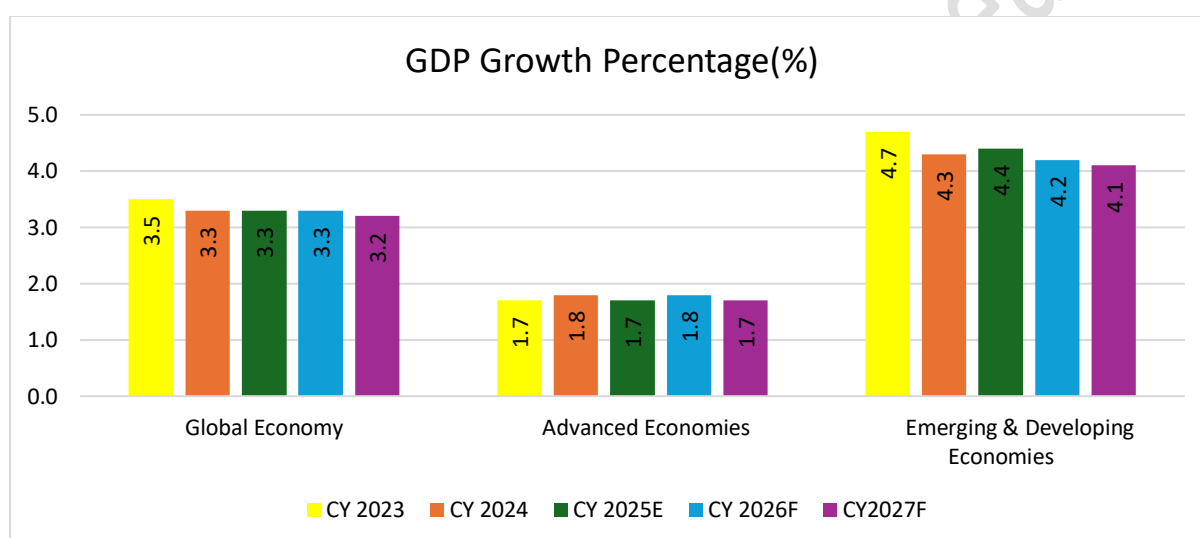
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1. Global Economic Outlook

As per the IMF's World Economic Outlook (WEO) published in January 2026, global growth is projected to remain resilient at 3.3 percent in 2026 and at 3.2 percent in 2027.

Global headline inflation is expected to decline from an estimated 4.1 percent in 2025 to 3.8 percent in 2026 and further to 3.4 percent in 2027. The inflation projections are also broadly unchanged from those in October and envisage inflation returning to target more gradually in the United States than in other large economies.



Note: E = Estimates, F = Forecast

Source: IMF World Economic Outlook January 2026

Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict criteria, economic or otherwise, and it has evolved over time. It comprises of 40 countries under the Advanced Economies including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada) and selected countries from the Euro Zone (Germany, Italy, France etc.). The group of emerging market and developing economies (156) includes all those that are not classified as Advanced Economies (India, China, Brazil, Malaysia etc.)

Growth in advanced economies is projected to be 1.8 percent in 2026 and 1.7 percent in 2027. In the United States, the economy is projected to expand by 2.4 percent in 2026, supported by fiscal policy and a lower policy rate, while the impact of higher trade barriers also gradually wanes. This 0.3 percentage point upward revision from the October forecast reflects a stronger-than expected GDP outturn in the third quarter of 2025, a rebound in activity in the first quarter of 2026 compared with that in the fourth quarter of 2025 following the end of the federal government shutdown, and the associated carryover.

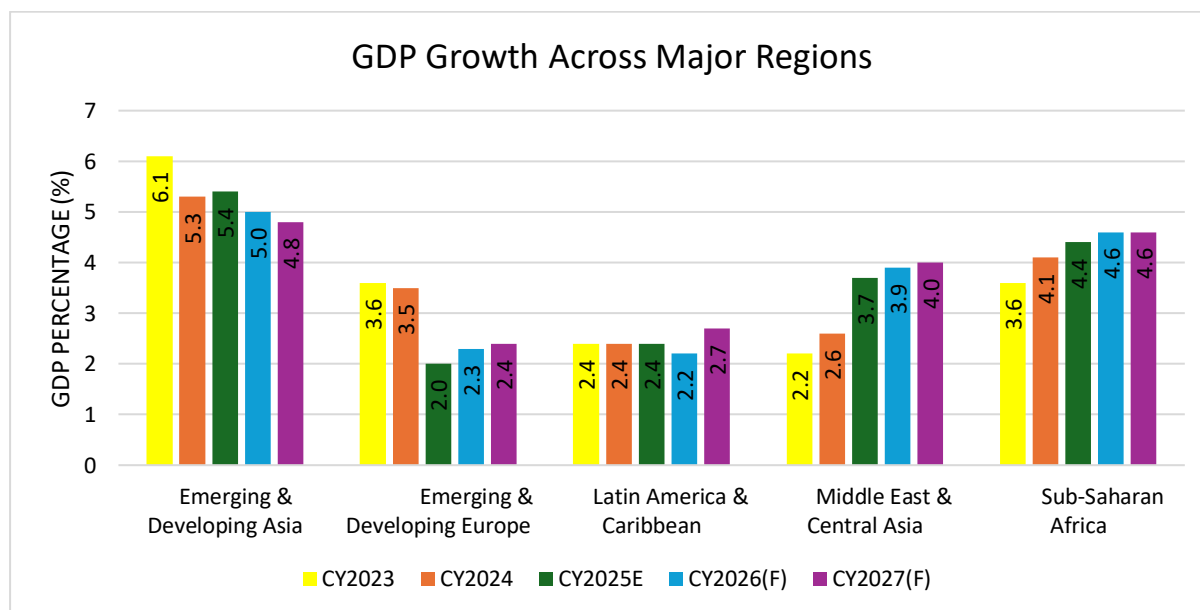
In emerging market and developing economies, growth is expected to continue to hover just above 4.0 percent in 2026 and 2027. Relative to the projection in October, growth in 2025 for China is revised upward by 0.2 percentage point to 5.0 percent. The revision reflects stimulus measures and additional policy bank lending for investment. Growth for 2026 is also revised upward by 0.3 percentage point to 4.5 percent, reflecting the lower US effective tariff rates on Chinese goods due to the yearlong trade truce agreed to in November and stimulus measures that are assumed to be implemented over two years. The economy's growth rate is expected to decelerate to 4.0 percent in 2027 as structural headwinds assert themselves.

In India, growth is revised upward by 0.7 percentage point to 7.3 percent for 2025, reflecting the better-than expected outturn in the third quarter of the year and strong momentum in the fourth quarter. Growth is projected to moderate to 6.4 percent in 2026 and 2027 as cyclical and temporary factors wane.

In the Middle East and Central Asia, growth is projected to accelerate from 3.7 percent in 2025 to 3.9 percent in 2026 and to 4.0 percent in 2027, supported by higher oil output, resilient local demand, and ongoing reforms. Growth is also expected to accelerate in sub-Saharan Africa, from 4.4 percent in 2025 to 4.6 percent in 2026 and 2027, supported by macroeconomic stabilization and reform efforts in key economies. In Latin America and the Caribbean, growth is projected to moderate to 2.2 percent in 2026 and bounce to 2.7 percent in 2027 as countries in the region approach potential from different cyclical positions. In emerging and developing Europe, a sharp slowdown in 2025 to a growth rate of 2.0 percent is expected to reverse, with economies in the region expanding at an average rate of 2.3 percent in 2026 and 2.4 percent in 2027. In most regions, the rebound also reflects the fading effect of shifting trade policies.

1.1 GDP Growth across Major Regions

GDP growth across major global regions—including Europe, Latin America & the Caribbean, Middle East & Central Asia, and Sub-Saharan Africa—continues to display varied trajectories. The global outlook presents a mixed scenario, with emerging economies continuing to outperform advanced economies.



Note: F = Forecast

Source: IMF World Economic Outlook January 2026 update

In Emerging and Developing Asia, growth is projected to moderate from 5.4% in CY 2025 to 5.0% in CY 2026 and further projected at 4.8% during CY 2027. India's expected growth in 2025 has been uplifted at 7.3% in CY 2025, supported by resilient rural consumption and sustained infrastructure investments, up from 6.5% in CY2024. The growth estimate for 2026 and 2027 is kept at 6.4%. In contrast, China's growth is estimated at 5.0% in CY2025, and to further decelerate at 4.5% in 2026 and 4.0% in 2027.

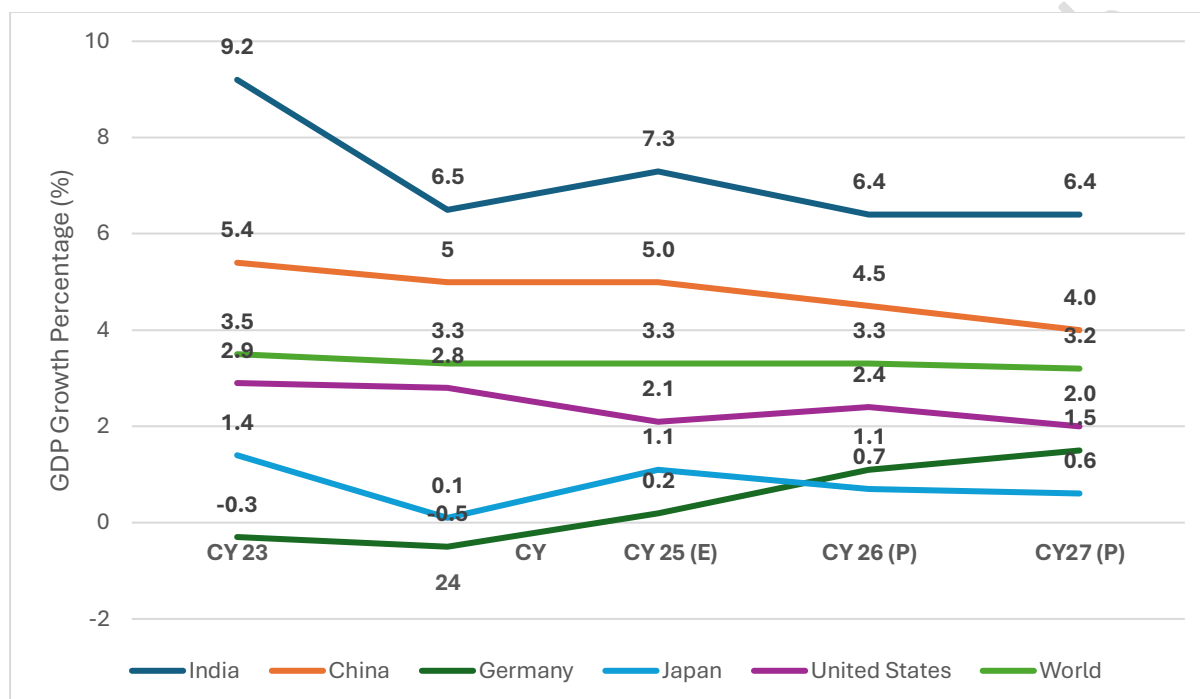
Sub-Saharan Africa is projected to grow at 4.4% in CY 2025, increased from 4.1% in CY 2024, with growth is expected to accelerate further at 4.6% in CY 2026. This gradual improvement is being supported by better weather conditions and more efficient supply chain operations.

In the Middle East and Central Asia, the economy is forecasted to expand from 3.7% in CY 2025 to 3.9% in CY 2026, and further at around 4.0% in CY 2027, driven by stabilization in oil production and ongoing economic reforms.

For Latin America and the Caribbean, the economy is expected to slow from 2.4% in CY 2025, to 2.2% in CY2026, but increase again at 2.7% in CY 2027 reflecting stable yet subdued economic momentum supported by stronger macroeconomic management across key economies.

Emerging and Developing Europe remains subdued, with growth estimated at 2.0% in CY 2025, down from 3.5% in CY 2024, expected to rise modestly to 2.3% in CY 2026 and further at 2.4% in 2027. However, the recent Greenland issue and tariff imposition by the US President has posed fresh challenges for the region. The region continues to face structural manufacturing challenges, particularly in major economies like Germany.

India and Top 4 Global Economies GDP Growth Forecast



Note: E = Estimates, P = Projections

Source: IMF World Economic Outlook January 2026 update

Overall, while global growth is expected to remain steady at 3.3% in CY 2025~CY2026 and at 3.2% in CY2027, regional disparities persist, influenced by a combination of domestic challenges, external geopolitical tensions, and fluctuating commodity prices.

2. India's Macroeconomic Scenario

2.1 Gross Domestic Product (GDP)

Real GDP has been estimated to grow by 7.6% in FY 2025-26. Nominal GDP has witnessed a growth of 8.6%. These growth rates are revised upward from their respective First Advance Estimates computed using previous Base Year (2011-12). Source – MOSPI, Press release – Second advance estimates of Gross domestic product with base year 2022-23 posted on February 27th, 2026

India's Economic Growth Momentum Remains Strong - Surpassed USD 4 Trillion.

In June 2025, India became the fourth-largest economy in the world and retained its position as the fastest-growing major economy. The country is projected to become the world's third largest economy by 2030, with an estimated GDP of USD 7.3 trillion.

Source: PIB, Press Release - India Becoming an Economic Powerhouse posted on June 16, 2025

India achieved a significant milestone by overtaking Japan to become the *third most powerful nation in the Asia-Pacific region*, as per the Asia Power Index 2024. India's overall score rose to 39.1, reflecting a 2.8-point increase from the previous year, driven by growing influence across economic, military, and diplomatic dimensions.

Source: PIB, Press Release - India becomes 3rd Most Powerful Nation in Asia, Surpasses Japan in Asia Power Index posted on September 24, 2024

Key factors behind India's rise include its strong economic performance, expanding and youthful workforce, and increasing strategic engagement across the region. India's Economic Capability improved significantly, supported by its position as the world's third-largest economy in terms of purchasing power parity (PPP). Additionally, a notable increase in its Future Resources score highlights the demographic advantage that is expected to sustain its growth trajectory in the coming years.

2.2 Gross Value Added (GVA)

According to the Second Advance Estimate of GDP for 2025-26 by MOSPI, Govt. of India (GoI), Real GVA is estimated at INR 294.40 lakh crore in the year 2025-26, against INR 273.36 lakh crore in FY 2024-25, registering a growth rate of 7.7% as compared to 7.3% growth rate in 2024-25. Nominal GVA is estimated to attain a level of INR 313.61 lakh crore during FY 2025-26, against INR 288.54 lakh crore in 2024-25, showing a growth rate of 8.7%. (MOSPI, Press Release, 27 February 2026)

Major Highlights:

- Real GDP has been estimated to grow by 7.6% in FY 2025-26. Nominal GDP has witnessed a growth of 8.6%. These growth rates are revised upward from their respective First Advance Estimates computed using previous Base Year (2011-12).
- Overall Economic performance in FY 2025-26 is primarily on account of robust Real growth observed in Second Quarter (8.4%) and Third Quarter (7.8%).
- The Economy has exhibited sustained performance, recording Real GDP growth rates of 7.2% and 7.1% respectively during FY 2023-24 and FY 2024-25.
- Nominal GDP has registered 11.0% and 9.7% growth rates during FY 2023-24 and FY 2024-25 respectively.
- Manufacturing sector has been the major driver in contributing to the resilient performance of the economy in consecutive 3 financial years after rebasing. This sector has attained double digit growth rates in FY 2023-24 and FY 2025-26.
- Secondary and Tertiary sectors have boosted the performance of the economy by registering above 9.0% growth rate in FY 2025-26.
- 'Trade, Repair, Hotels, Transport, Communication & Services related to Broadcasting, Storage' sector has attained a growth rate of 10.1% at Constant Prices in FY 2025-26.
- On the Consumption side, both the Private Final Consumption Expenditure (PFCE) and Gross Fixed Capital Formation (GFCF) have exhibited more than 7.0% growth rate in FY 2025-26.

Source: MOSPI, Press Release, 27 February 2026, Govt. of India (GoI).

2.3 Consumer Price Index (CPI)

The GOI published on 12 Feb'26 the retail inflation data for January 2026 with the new base year of 2024, whereas the Headline inflation has increased for the month of January 2026 over January 2025 is 2.75%.

At the all-India level, the number of weighted items has increased from 299 to 358 in CPI 2024. Within this:

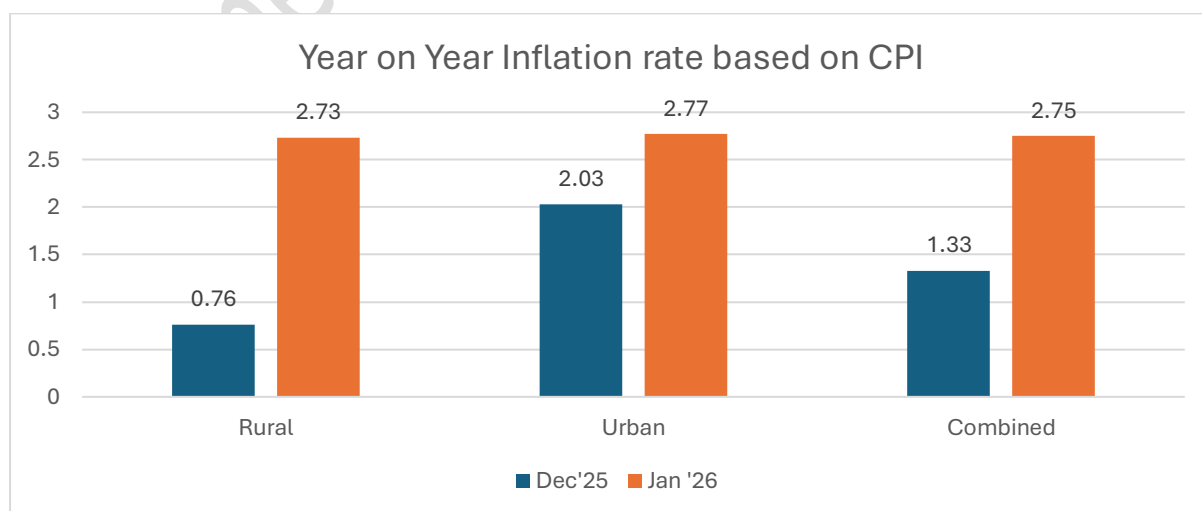
* Goods items are increased from 259 to 308

* Services items are increased from 40 to 50

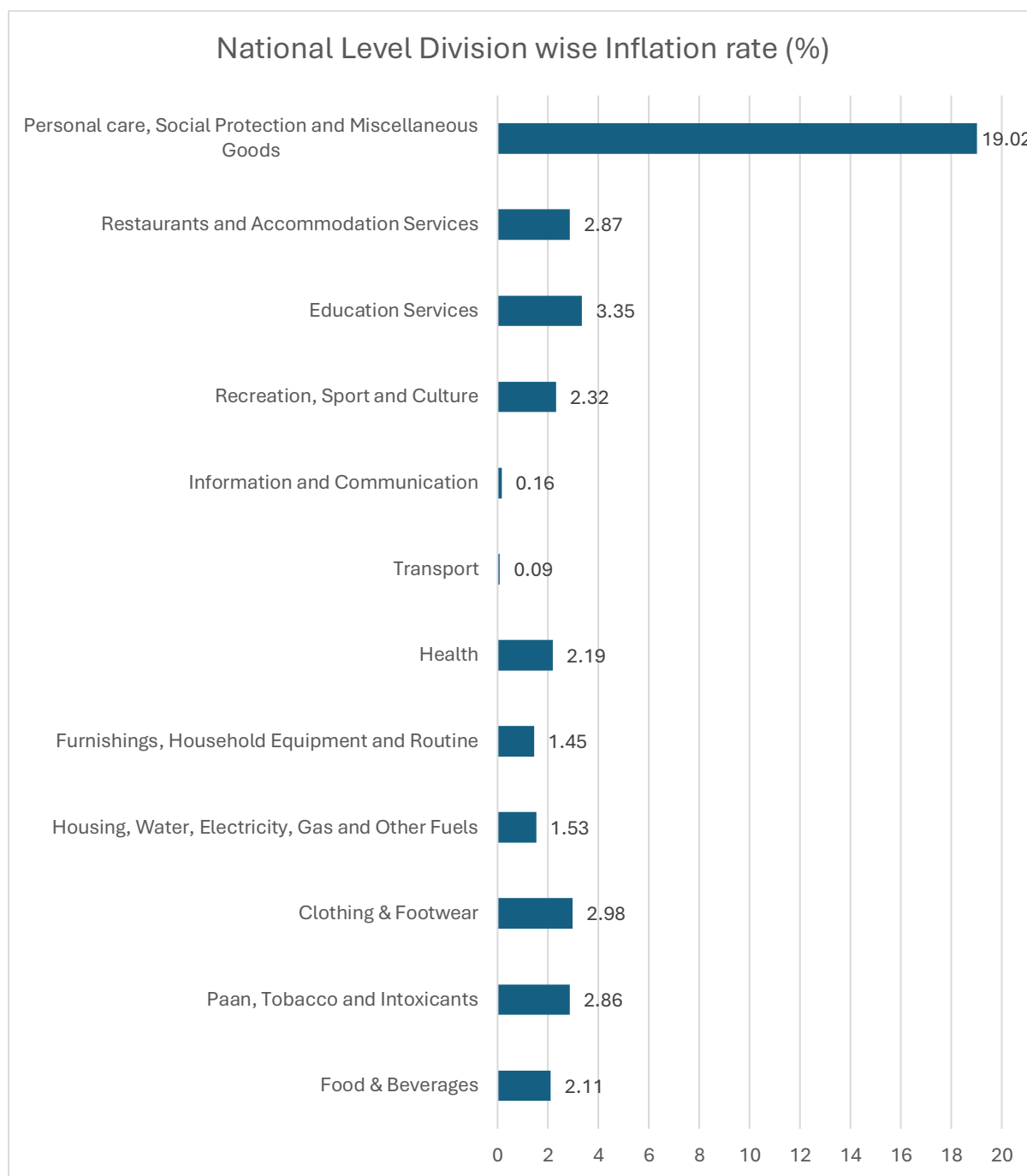
This expansion strengthens the representation of the services sector, which has assumed greater importance in household expenditure over time.

What's New:

- Base revised from 2012 to 2024 using Household Consumption Expenditure Survey 2023-24.
- 12 Divisions in place of 6 Groups in accordance to Classification of Individual Consumption According to Purpose (COICOP) 2018
- Release of All India and State level Item indices for rural, urban and combined sectors.
- New Additions: Rural housing, Online media service provider/Streaming services, value added dairy products, Barley & its product, Pen-drive & External Hard disk, Attendant, Babysitter and Exercise equipment.
- Items Removed: VCR/VCD/DVD player and hiring charges, Radio, Tape recorder, Clothing second-hand, CD/DVD audio/video cassettes and Coir/rope.



Source: MOSPI, GOI



Source - MOSPI

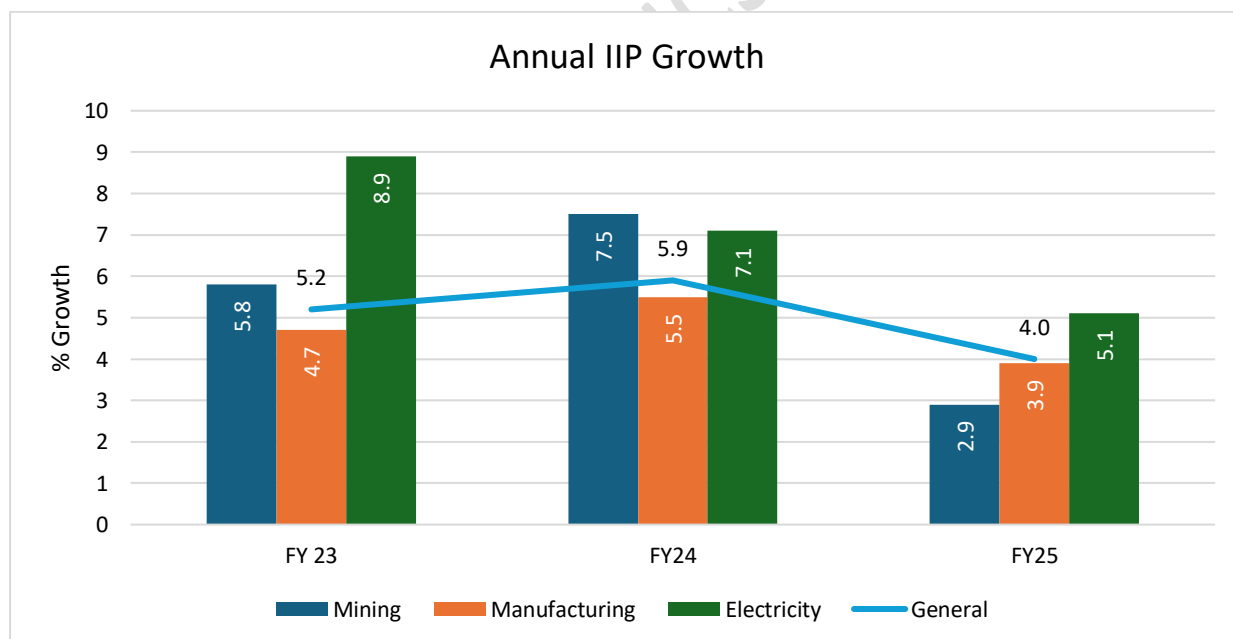
2.4 Index of Industrial Production (IIP) Growth Trends:

As per the Index of Industrial Production (IIP), the industrial sector grew by 4.0% in FY 2025, moderating from 5.9% in FY 2024 and 5.2% in FY 2023. This deceleration in overall IIP growth in FY 2025 reflects a softening of industrial momentum amidst global headwinds and tighter financial conditions.

Among key components:

- **Manufacturing** (which holds a 77.6% weight in IIP) registered a slower growth of 3.9% in FY 2025, compared to 5.5% in FY 2024 and 4.7% in FY 2023.
- **Mining** growth also moderated sharply to 2.9% in FY 2025 from 7.5% in FY 2024 and 5.8% in FY 2023.
- **Electricity** growth remained relatively stable at 5.1% in FY 2025, slightly down from 7.1% in FY 2024 and significantly lower than 8.9% in FY 2023.

This slowdown indicates tightening domestic demand and spillover effects from a weaker global industrial cycle.



Source: Ministry of Statistics & Programme Implementation (MOSPI)

Latest IIP data in Oct'25 remains a tad low amid less activity during festival times

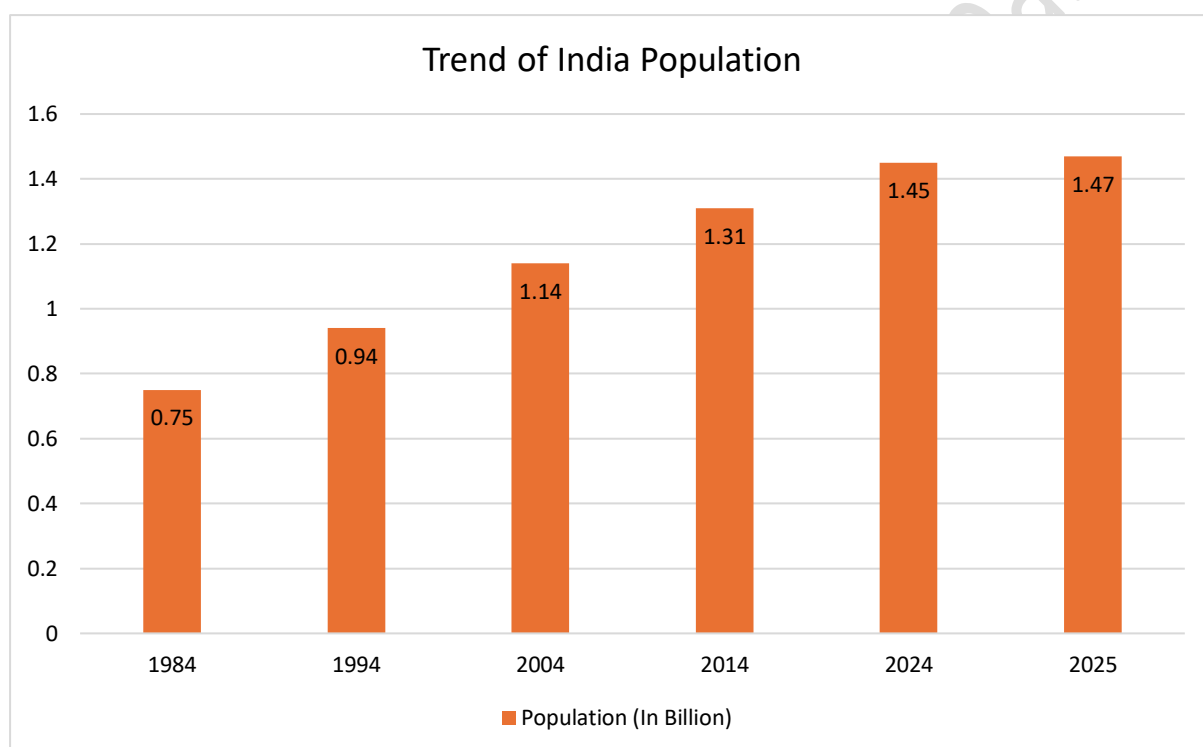
The Index of Industrial Production (IIP) slows a tad at 0.4% during Oct'25 due to less working days available amid festivals. The growth rates of the three sectors, Mining, Manufacturing and Electricity for the month of October 2025 are (-) 1.8 percent, 1.8 percent and (-) 6.9 percent respectively. Lower demand in October 2025 and subsequent decline in electricity generation was driven by extended rainfall season and comfortable ambient temperature across multiple States/UTs.

Source: Quick Estimate of Index of Industrial Production and Use-Based Index for the Month of October 2025, MOSPI, December 01, 2025, Release

2.5 Overview on Key Demographic Parameters

2.5.1 Population growth

India's economic trajectory and consumption dynamics are closely tied to its demographic shifts. India's population expanded from approximately 0.75 billion in 1984 to 1.45 billion in 2024 and is further reached around 1.47 billion in 2025, consolidating its position as the world's most populous nation. This sustained growth underlines the emergence of a vast labour force and consumer base, which is essential for driving long-term economic growth, supporting rising consumption demand, and strengthening the country's overall economic potential.

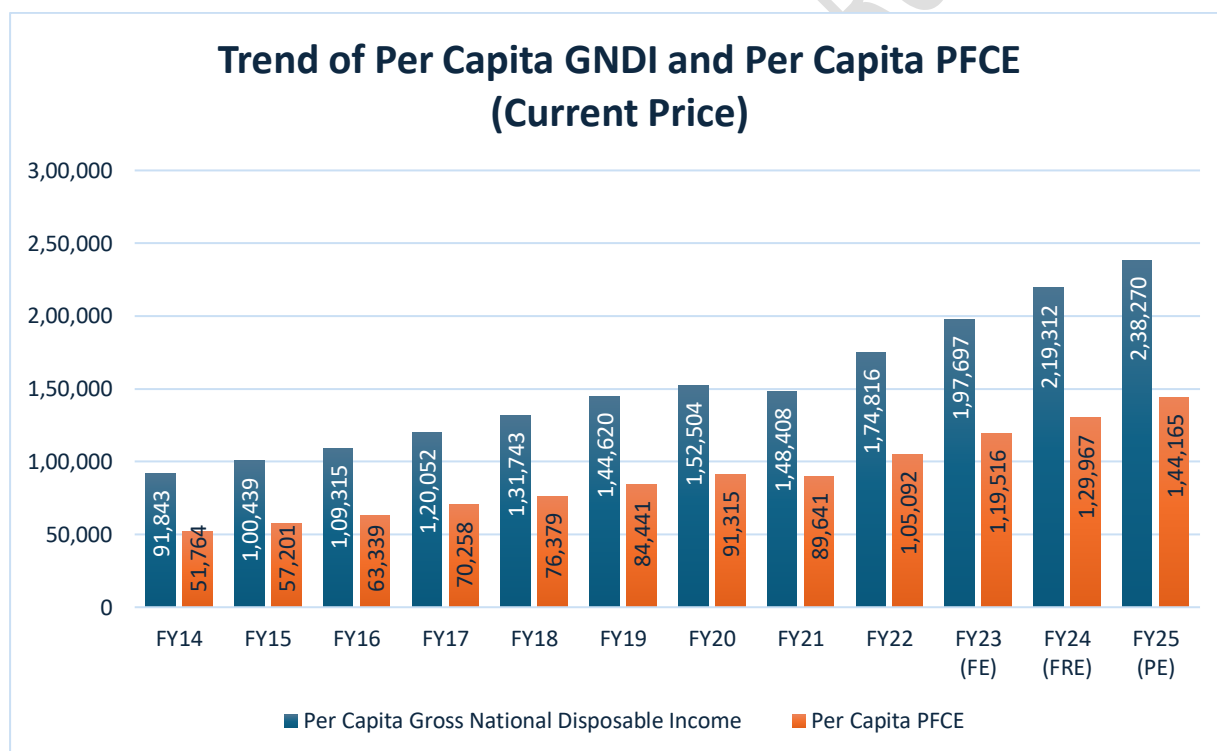


Source: World Bank Database. Population Data 2025 - Worldometer, Infomerics Analytics & Research

2.5.2 Disposable Income and Consumer Spending

Gross National Disposable Income (GNDI) represents the total income available to a nation's residents for consumption and saving after accounting for income transfers with the rest of the world. In FY24, Per capita GNDI grew by 10.9%, followed by a moderate growth of 8.6% in FY25. This steady increase indicates that households and businesses had more income at their disposal, which is critical for supporting both consumption and savings—key components of economic resilience and expansion.

The rise in GNDI has translated into higher consumer spending, as reflected in the growth of Private Final Consumption Expenditure (PFCE), which measures the total value of goods and services consumed by households. Per Capita PFCE grew by 8.7% in FY24 and further accelerated to 10.9% in FY25, highlighting strong consumer confidence and robust domestic demand.



Note: Data mentioned is in INR, FE – Final Estimates, FRE – First Revised Estimates, PE – Provisional Estimate

Source: PIB, *Provisional estimates of GDP 2024-25 released on May 30th, 2025*

2.6 Union Budget FY26-27 Highlights

The Union Budget FY 2026–27, presented by Finance Minister Nirmala Sitharaman, introduces a comprehensive set of measures aimed at stimulating economic growth, enhancing infrastructure, and fostering inclusive development. With a focus on sectors such as agriculture, MSMEs, infrastructure, innovation, and exports, the budget seeks to create a conducive environment for sustained economic expansion.

- **Capital Expenditure and Infrastructure Development**

In FY2026-27, the Union Budget has increased the public capex towards to INR 12.2 lakh crore from the previous INR 11.21 lakh crore (3.1% of GDP) which was earmarked in FY 2025–26. To strengthen the confidence of private developers regarding risks during infrastructure development and construction phase, the budget proposed to set up an Infrastructure Risk Guarantee Fund to provide prudently calibrated partial credit guarantees to lenders.

- **Support for MSMEs**

Recognizing the pivotal role of Micro, Small, and Medium Enterprises (MSMEs) in India's economic landscape, the budget introduced a three-pronged approach to support the sector. The budget introduced a dedicated INR 10,000 crore SME Growth Fund as well as proposed to top up the Self-Reliant India Fund set up in 2021, with INR 2,000 crore to continue support to micro enterprises and maintain their access to risk capital. With TReDS, more than INR 7 lakh crore has been made available to MSMEs. To leverage its full potential, the budget further proposed four measures: (i) mandate TReDS as the transaction settlement platform for all purchases from MSMEs by CPSEs, serving as a benchmark for other corporates; (ii) introduce a credit guarantee support mechanism through CGTMSE for invoice discounting on TReDS platform; (iii) link GeM with TReDS for sharing information with financiers about government purchases from MSMEs, encouraging cheaper and quicker financing; (iv) introduce TReDS receivables as asset-backed securities, helping develop a secondary market, enhancing liquidity and settlement of transactions. Moreover, Government will facilitate Professional Institutions such as ICAI, ICSI, ICMAI to design short-term, modular courses and practical tools to develop a cadre of 'Corporate Mitras', especially in Tier-II and Tier-III towns, which will help MSMEs meet compliance requirements at affordable costs.

- **Establishment of dedicated Rare Earth Corridors**

A Scheme for Rare Earth Permanent Magnets was launched in November 2025. In line with that, the budget proposed to support the mineral-rich States of Odisha, Kerala, Andhra Pradesh and Tamil Nadu to establish dedicated Rare Earth Corridors to promote mining, processing, research and manufacturing.

- **Integrated Programme for the Textile Sector**

The following Schemes have been announced:

- (a) The National Fibre Scheme for self-reliance in natural fibres such as silk, wool and jute, man-made fibres, and new-age fibres.
- (b) Textile Expansion and Employment Scheme to modernise traditional clusters with capital support for machinery, technology upgradation and common testing and certification centres.
- (c) A National Handloom and Handicraft programme to integrate and strengthen existing schemes and ensure targeted support for weavers and artisans.
- (d) Tex-Eco Initiative to promote globally competitive and sustainable textiles and apparels.
- (e) Samarth 2.0 to modernize and upgrade the textile skilling ecosystem through collaboration with industry and academic institutions.

- **Carbon Capture Utilization and Storage (CCUS)**

Aligning with the roadmap launched in December 2025, CCUS technologies at scale will achieve higher readiness levels in end-use applications across five industrial sectors, including, power, steel, cement, refineries and chemicals. An outlay of INR 20,000 crore is proposed over the next 5 years.

- **Municipal Bonds**

To encourage the issuance of municipal bonds of higher value by large cities, the budget proposed an incentive of INR 100 crore for a single bond issuance 10 of more than INR 1000 crore. The current scheme under AMRUT which incentivises issuances up to INR 200 crore, will also continue to support smaller and medium towns.

- **Ease of Doing Business**

Individual Persons Resident Outside India (PROI) will be permitted to invest in equity instruments of listed Indian companies through the Portfolio Investment Scheme. It is also proposed to increase the investment limit for an individual PROI under this scheme from 5% to 10%, with an overall investment limit for all individual PROIs to 24%, from the current 10%.

- **Hubs for Medical Value Tourism**

To promote India as a hub for medical tourism services, the budget proposed to launch a Scheme to support States in establishing five Regional Medical Hubs, in partnership with the private sector. These Hubs will serve as integrated healthcare complexes that combine medical, educational and research facilities. They will have AYUSH Centres, Medical Value Tourism Facilitation Centres and infrastructure for diagnostics, post-care and rehabilitation. These Hubs will provide diverse job opportunities for health professionals including doctors and AHPs.

- **Agriculture Related Schemes**

To diversify farm outputs, increase productivity, enhance farmers' incomes, and create new employment opportunities, the budget announced support schemes related to high value crops such as coconut, sandalwood, cocoa and cashew in coastal areas. Agar trees in Northeast and nuts such as, almonds, walnuts and pine nuts in hilly regions will also be supported. India is the world's largest producer of coconuts. About 30 million people, including nearly 10 million farmers, depend on coconuts for their livelihood. To further enhance competitiveness in coconut production, the Budget proposed a Coconut Promotion Scheme to increase production and enhance productivity through various interventions including replacing old and non-productive trees with new saplings/plants/varieties in major coconut growing States. A dedicated programme is proposed for Indian cashew and cocoa to make India self-reliant in raw cashew and cocoa production and processing, enhance export competitiveness and transform Indian Cashew and Indian Cocoa into premium global brands by 2030. Further, the Central Government will partner with State Governments to promote focused cultivation and post-harvest processing to restore the glory of the Indian Sandalwood ecosystem. To rejuvenate old, low-yielding orchards and expand high-density cultivation of walnuts, almonds and pine nuts, the budget announced to support a dedicated programme to enhance farmer incomes and in bringing value addition by engaging youth.

The Union Budget FY 2026–27 presents a balanced approach to economic growth by addressing immediate consumption needs and laying the foundation for long-term sustainability. Through targeted investments in infrastructure, support for MSMEs, and sector-specific initiatives, the budget aims to foster an inclusive and resilient economy. These measures are expected to create new opportunities for financial institutions, as the growing demand for investment products will provide avenues for expansion and innovation in the financial services sector.

3. Industry Overview – Food Processing Ecosystem with respect to Superfoods

The food processing industry is one of the most important agro-based industries in the world, playing a crucial role in food security, economic development, and improving the availability of safe and nutritious food. At its core, the sector focuses on transforming raw agricultural produce into value-added food products that are suitable for storage, distribution, and consumption across diverse markets. Processed food products form a significant part of daily diets and serve as key inputs for multiple industries, including retail, hospitality, and packaged consumer goods.

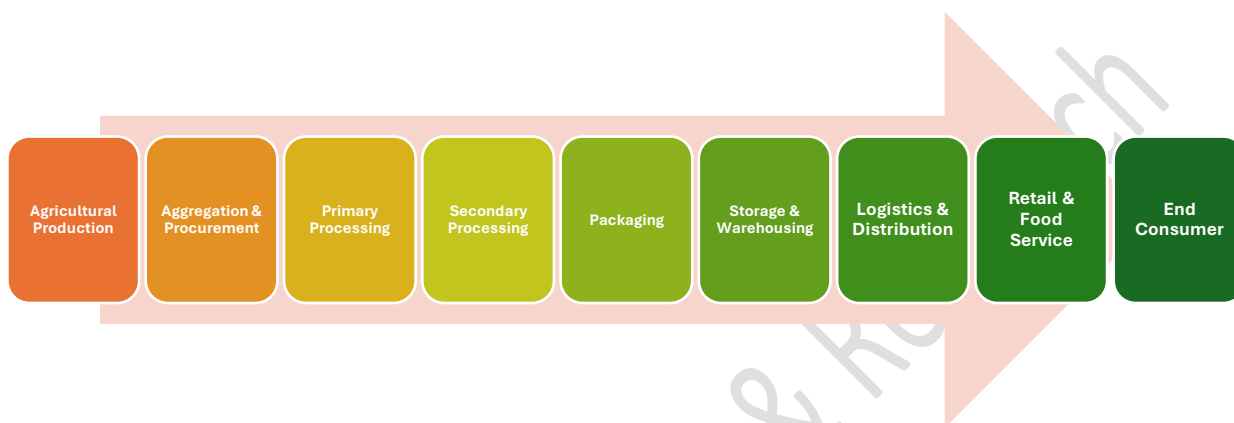
Across the globe, the industry operates as an integrated value chain where farming, processing, packaging, storage, transportation, and distribution are closely interconnected. This structure not only helps reduce post-harvest losses and improve food shelf life but also supports large-scale employment and contributes to industrial growth. The sector provides livelihoods to millions of farmers, workers, traders, and supply chain participants, making it a major driver of rural and urban economic activity.

The industry is shaped by factors such as climatic conditions, raw material availability, government regulations, international trade dynamics, and evolving consumer preferences. Growing urbanization, rising incomes, and changing lifestyles are increasing demand for convenient, safe, and quality food products. At the same time, greater awareness about health, nutrition, and sustainability is influencing product development and processing practices.

As countries aim to strengthen food systems and reduce waste while meeting global demand, the food processing industry continues to evolve through improved technologies, better supply chains, and enhanced quality standards. In this changing environment, the industry stands as a vital link between agriculture and consumers, supporting economic progress while ensuring consistent food supply and value addition worldwide.

Value Chain Analysis

The food processing industry value chain encompasses multiple interconnected stages, beginning from agricultural production and culminating in delivery of finished food products to consumers. Each stage contributes to value addition, quality enhancement and supply chain efficiency.



1. Agricultural Production - Agricultural production includes cultivation of cereals, pulses, fruits, vegetables, oilseeds and rearing of livestock, dairy, poultry and fisheries. This stage forms the foundation of the entire value chain, as the quality, quantity and seasonality of raw materials directly affect processing efficiency, product quality and cost structures. Climatic conditions, irrigation facilities, soil quality, seed selection and farming practices influence yield, which in turn impacts the availability of raw materials for processing units.

2. Aggregation & Procurement - At this stage, agricultural produce from numerous fragmented farms is consolidated through mandis, traders Farmer Producer Organizations (FPOs), cooperatives and contract farming. Aggregation ensures bulk procurement, quality inspection, grading and logistical coordination. Efficient procurement reduces supply risks, stabilizes raw material costs and ensures consistent availability for processing facilities.

3. Primary Processing

Primary processing is the first stage where raw agricultural commodities are prepared for further processing or storage. It focuses on hygiene, quality, and stability of raw materials.

Stages in Primary Processing:

- **Cleaning:** Removal of dirt, dust, stones, and other foreign materials using sieves, magnets, and washing systems to ensure hygiene and prevent equipment damage.
- **Sorting:** Separation of produce based on size, colour, weight, or quality to maintain uniformity in processing.

- **Grading:** Classification into quality categories to meet industrial standards and pricing requirements.
- **Dehusking / Dehulling:** Removal of outer shells from grains and pulses (e.g., rice, millets, lentils) to make them edible and suitable for further processing.
- **Peeling / Trimming:** Removal of inedible, damaged or undesirable parts of fruits and vegetables.
- **Milling / Crushing:** Conversion of grains and oilseeds into flour, splits, or crushed forms for further processing.
- **Drying:** Reduction of moisture levels in grains, spices, pulses, and fruits to prevent spoilage and microbial growth.
- **Chilling / Freezing:** Temperature-controlled preservation for perishable items such as meat, dairy, fish, fruits, and vegetables.

Value Addition: Primary processing minimizes post-harvest losses, extends shelf life, improves raw material consistency, and ensures the produce is suitable for secondary processing.

4. Secondary Processing

Secondary processing converts primary processed materials into finished or semi-finished consumer products, generating substantial value addition.

Stages in Secondary Processing:

- **Size Reduction & Mixing:** Grinding, blending, or homogenizing ingredients to achieve uniform texture and formulation.
- **Thermal Processing:** Cooking, baking, roasting, frying, pasteurization, and sterilization to improve taste, nutrition, and safety.
- **Extraction:** Separation of oils, juices, or milk components to produce edible oils, beverages, and dairy products.
- **Fermentation:** Biochemical processing for yogurt, cheese, bread and beverages to enhance flavour, nutrition, and shelf life.
- **Dehydration / Concentration:** Moisture removal from products like milk powder, fruit pulp, or juice concentrate to improve storage and stability.
- **Freezing / Canning:** Preservation techniques for fruits, vegetables, meat, and ready-to-eat meals.
- **Formulation & Fortification:** Addition of flavours, nutrients or functional ingredients to create value-added and market-ready products.

- **Value Addition:** Secondary processing transforms raw materials into consumer-ready products, enhances taste and nutrition, extends shelf life, and generates higher economic value.

5. Packaging - Processed products are packed in protective materials such as pouches, cartons, bottles, tins, and vacuum packs to ensure hygiene, shelf life, and market appeal. Packaging also facilitates branding, labelling, and regulatory compliance.

6. Storage & Warehousing - Storage and warehousing include cold storage for perishables and silos or warehouses for dry goods. Proper storage maintains product quality, reduces losses, and balances seasonal supply-demand fluctuations.

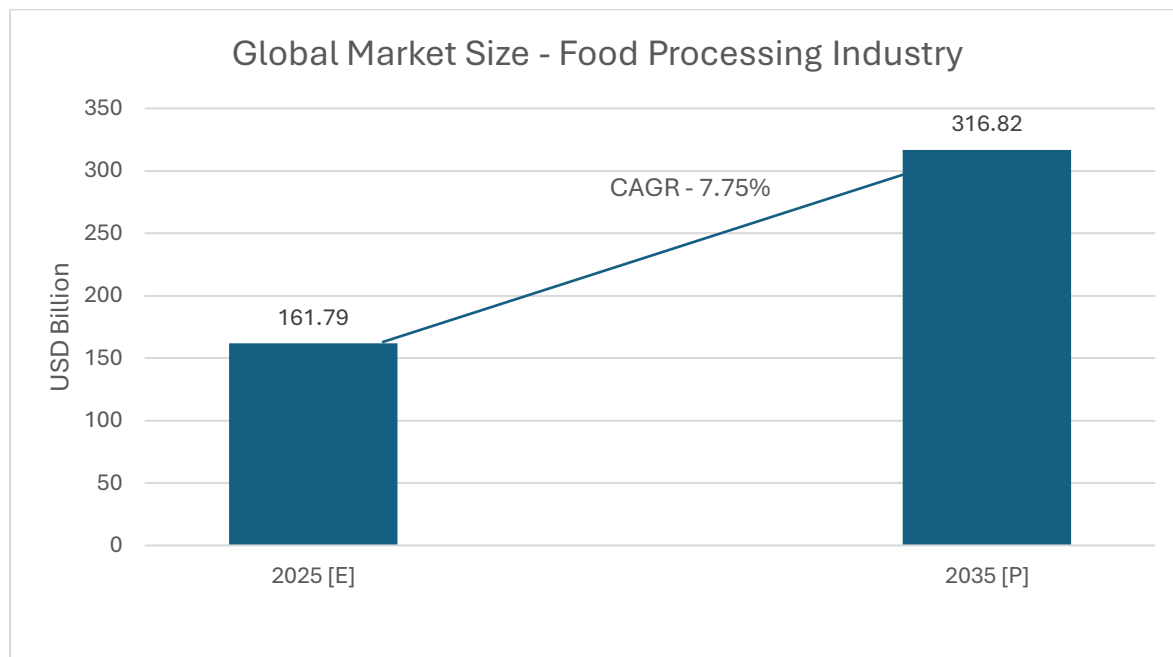
7. Logistics & Distribution - Transportation via cold chain and dry logistics networks ensures timely delivery to distributors, wholesalers, retailers, and institutional buyers. Efficient logistics reduce spoilage, handling losses, and maintain product freshness.

8. Retail & Food Service - Products reach consumers through modern retail outlets, traditional Kirana stores, e-commerce platforms, and HoReCa channels (Hotels, Restaurants, Catering). Retail channels determine product visibility and accessibility.

9. End Consumer - The value chain culminates with the end consumer, whose preferences, income, health awareness, and lifestyle choices drive demand patterns, product innovation, and overall industry growth.

3.1 Global Food Processing Industry

The Global Food Processing Industry is estimated at USD 161.79 Billion in 2025 and is projected to reach USD 316.82 Billion in 2035, registering a CAGR of 7.75% over the period indicating a healthy and sustained growth trajectory over the next decade.



Source – Infomerics Analytics & Research

This healthy growth is supported by long-term structural factors such as rising global population and changing consumer lifestyles, which are driving demand for packaged, ready-to-eat, and convenience food products. Additionally, the growing preference for value-added food products, functional foods, and health-oriented diets is encouraging food manufacturers to expand their processing capabilities and product offerings.

Further, advancements in food processing technologies, improvements in cold chain infrastructure, expansion of organized retail and e-commerce distribution channels, and increasing investments in food processing facilities are strengthening the global food processing ecosystem. Government initiatives across several countries to reduce post-harvest losses, improve food security, and promote agro-processing industries are also supporting sector growth. Collectively, these factors indicate that the industry is experiencing stable, healthy, and structurally driven expansion, rather than short-term cyclical growth.

Overview on Superfoods Industry

The superfoods industry has emerged as a significant and rapidly expanding segment within the broader health and wellness, functional foods, and nutraceuticals markets, reflecting a fundamental shift in consumer preferences toward nutrition-centric and preventive healthcare-driven consumption. While the term “superfoods” is relatively recent, the concept is deeply rooted in traditional dietary practices across cultures, where natural ingredients such as turmeric, ginger, millets, and seeds have long been valued for their medicinal and nutritional properties, particularly within systems such as Ayurveda. The modern articulation of superfoods gained prominence in the early 20th century, supported by advancements in nutritional science that highlighted the critical role of micronutrients, antioxidants, and bioactive compounds in disease prevention and overall well-being. Over time, the category was further shaped and popularized by the food and marketing industries, positioning certain foods as nutrient-dense with superior health benefits.

With globalization and increasing exposure to international food cultures, the superfoods category has significantly diversified, incorporating globally recognized ingredients such as quinoa, chia seeds, flaxseeds, and moringa. This evolution has transformed the industry from a niche health-focused segment into a mainstream market supported by continuous product innovation, expanding retail infrastructure, and increasing consumer accessibility. The versatility of superfoods has enabled their integration across a wide array of product categories, including functional beverages, breakfast cereals, protein bars, dietary supplements, baked goods, and ready-to-eat snacks, thereby embedding them into everyday consumption patterns.

The growth of the superfoods industry is closely linked to evolving dietary patterns and increasing awareness of balanced nutrition, particularly protein intake as a key indicator of dietary adequacy. In India, average daily protein consumption remains moderate at approximately 66.6 grams in rural areas and 69.9 grams in urban areas, with notable regional disparities—states such as Sikkim, Goa, Himachal Pradesh, Kerala, and Punjab exhibit relatively higher intake due to more diversified diets, while several regions continue to rely on cereal-based consumption, highlighting structural nutritional gaps. This has created strong demand for nutrient-dense foods such as seeds, millets, and plant-based superfoods to improve overall dietary quality. The industry’s expansion is further supported by rising health awareness, increasing prevalence of lifestyle-related diseases, and a shift toward preventive healthcare, driving consumer preference for natural, clean-label, and minimally processed foods alongside the adoption of plant-based and flexitarian diets. Consequently, superfoods are increasingly positioned as functional, health-enhancing ingredients, with traditional Indian staples such as millets and turmeric gaining renewed relevance in both domestic and global markets.

In addition to demand-side drivers, improvements in supply chains, the expansion of organized retail, and the rapid growth of e-commerce platforms have played a critical role in enhancing product availability and market penetration. Digital platforms and social media have further contributed to increased consumer awareness, enabling informed purchasing decisions and driving the adoption of superfood-based products across urban as well as semi-urban markets.

The superfoods industry also holds significant importance from an agricultural and economic perspective. The growing demand for high-value crops such as millets, quinoa, flaxseeds, and sesame seeds is creating new income opportunities for farmers and encouraging diversification in agricultural practices. In India, traditional crops like millets and oilseeds are witnessing renewed policy and market focus, supported by initiatives aimed at improving nutritional security and promoting sustainable agriculture. This not only strengthens domestic value chains but also enhances India's positioning in the global superfoods market.

Furthermore, the industry aligns with broader global trends around sustainability and responsible consumption. There is increasing emphasis on environmentally sustainable farming practices, ethical sourcing, and eco-friendly packaging solutions. The revival and commercialization of traditional ingredients such as millets also highlight the convergence of cultural heritage with modern nutritional science, reinforcing the long-term relevance of the category.

Overall, the superfoods industry is poised for continued growth, supported by rising health awareness, evolving consumer preferences, increasing demand for plant-based nutrition, and ongoing product innovation. The presence of nutritional disparities, particularly in protein intake across regions, further reinforces the importance of integrating nutrient-dense foods into regular diets. As the industry continues to mature, backed by supportive policy frameworks, technological advancements, and expanding consumer acceptance, it is well-positioned to contribute meaningfully to improved public health outcomes and sustainable growth within the global food ecosystem.

3.2 Market Segmentation

Segmentation Category	Segment	Description
By Product Type	Grains and Seeds-based Superfoods	Includes chia seeds, Millets, quinoa, flaxseeds, amaranth, and similar grains and seeds rich in protein, omega-3 fatty acids, fibre, and micronutrients.
	Fruits-based Superfoods	Includes nutrient-dense fruits such as berries (acai, blueberry, goji), avocado, pomegranate and others known for high antioxidant, vitamin, and fibre content.
	Vegetables-based Superfoods	Includes vegetables such as kale, spinach, broccoli, beetroot, and similar products recognized for their high mineral, vitamin, and phytonutrient content.
	Others	Includes Algae based superfoods such as chlorella and others. Also nuts, herbs, roots, and other emerging superfoods such as turmeric, moringa, cacao, and similar products.
By Nature,	Conventional	Includes superfoods produced using conventional agricultural practices and widely available at relatively lower prices.
	Organic	Includes superfoods grown without synthetic fertilisers, pesticides, or genetically modified organisms, gaining popularity due to clean-label and health trends.
By Distribution Channel	Offline Channels	Includes supermarkets and hypermarkets, which offer a wide range of superfood products with strong consumer accessibility and brand visibility. Also includes convenience stores, providing limited but easily accessible products for quick purchases, and specialty stores such as health food stores and organic outlets, which focus on premium, organic, and specialised superfood products. Additionally, other offline channels include pharmacies, general trade stores, and direct retail outlets, supporting widespread physical availability across urban and semi-urban market
	Online Channels	E-commerce platforms enabling wider reach, product comparison, and convenience, driving rapid growth in superfood sales globally.

Overview of High-Value Nutri-Cereals, Oilseeds

Millets – Steady Revival in Nutri - Cereal Production



Millets are a group of small-seeded cereals widely cultivated in semi-arid and rain-fed regions due to their resilience, low water requirements, and adaptability to diverse climatic conditions. They are increasingly recognized as Nutri-cereals due to their high nutritional value and health benefits. Growing consumer awareness regarding healthy diets, coupled with increasing demand for functional and gluten-free foods, is driving the revival of millet production and consumption across global and domestic markets.

Categories of Millets

- **Sorghum (Jowar):** A widely cultivated millet rich in fibre, protein, and antioxidants; commonly used in flatbreads, cereals, and processed food products.
- **Pearl Millet (Bajra):** Highly drought-resistant millet rich in iron and magnesium; widely consumed in traditional foods such as roti and porridge.
- **Finger Millet (Ragi):** Known for its high calcium content and nutritional value; widely used in health foods, baby foods, and malted beverages.
- **Foxtail Millet:** A nutrient-rich millet with a low glycaemic index, commonly used in health foods and ready-to-cook products.
- **Little Millet:** A fibre-rich millet often used as a rice substitute in traditional and health-oriented dishes.
- **Kodo Millet:** Rich in antioxidants and dietary fibre; used in traditional foods and health-focused diets.

Sesame Seeds



Sesame seeds are among the oldest oilseed crops cultivated globally and are valued for their high oil content, nutritional benefits, and diverse food applications. They are widely used in edible oil production, bakery and confectionery products, and health foods. Growing demand for plant-based nutrition and healthy edible oils is supporting the expansion of the sesame seed market.

Categories of Sesame Seeds

- **White Sesame Seeds:** White sesame seeds are widely used in the food industry due to their mild flavour and high oil content. They are commonly used in bakery products, confectionery, snacks, and edible oil extraction.
- **Black Sesame Seeds:** Black sesame seeds have a stronger flavour and higher antioxidant content compared to other varieties. They are widely used in Asian cuisines, traditional medicines, and health foods.
- **Brown Sesame Seeds:** Brown sesame seeds are commonly used for oil extraction due to their high oil yield and are widely processed into edible sesame oil.
- **Hulled Sesame Seeds:** Hulled sesame seeds have their outer husk removed, improving taste, colour, and digestibility. They are widely used in bakery products, tahini, snacks, and premium food products.
- **Natural (Unhulled) Sesame Seeds:** These seeds retain their outer husk, providing higher fibre and mineral content. They are widely used for oil extraction, traditional food preparations, and export markets.

- **Barnyard Millet:** Low glycaemic index millet suitable for diabetic diets and health-conscious consumers.
- **Proso Millet:** Short-duration crop with low water requirements; used in cereals, porridges, and grain-based foods.

Flaxseed (Linseed)



Flaxseed, also known as linseed, is a widely cultivated oilseed crop valued for its high nutritional content and functional health benefits. It is rich in omega-3 fatty acids, dietary fibre, lignans, and plant-based protein, making it an important ingredient in functional foods, nutraceuticals, and dietary supplements. Flaxseed is used in various forms such as whole seeds, ground flaxseed, and flaxseed oil, supporting applications in bakery products, cereals, and health food products.

Categories of Flaxseed

- **Brown Flaxseed:** Brown flaxseed is the most cultivated variety and is widely used in food products and oil extraction. It contains high levels of omega-3 fatty acids, fibre, and lignans, and is commonly used in bakery products, cereals, nutrition bars, and dietary supplements. It is also processed to produce flaxseed oil for food and industrial applications.
- **Golden (Yellow) Flaxseed:** Golden flaxseed is a premium variety known for its milder flavour and lighter colour, making it suitable for bakery products, cereals, smoothies, and health foods.

Chia Seeds



Chia seeds are nutrient-dense edible seeds widely recognized as a superfood due to their high content of omega-3 fatty acids, dietary fibre, protein, minerals, and antioxidants. They are increasingly used in functional foods, beverages, and health products due to their ability to absorb water and form a gel-like texture. Rising consumer demand for plant-based nutrition, clean-label foods and health-oriented diets is driving the growing consumption of chia seeds across global markets.

Categories of Chia Seeds

- **Black Chia Seeds:** Black chia seeds are the most widely available variety and are commonly used in breakfast cereals, energy bars, smoothies, nutrition drinks, and bakery products due to their high nutrient content and versatility.
- **White Chia Seeds:** White chia seeds have a similar nutritional composition to black chia seeds but are less common. They are often preferred in premium health foods and bakery products due to their lighter colour and visual appeal.

Quinoa



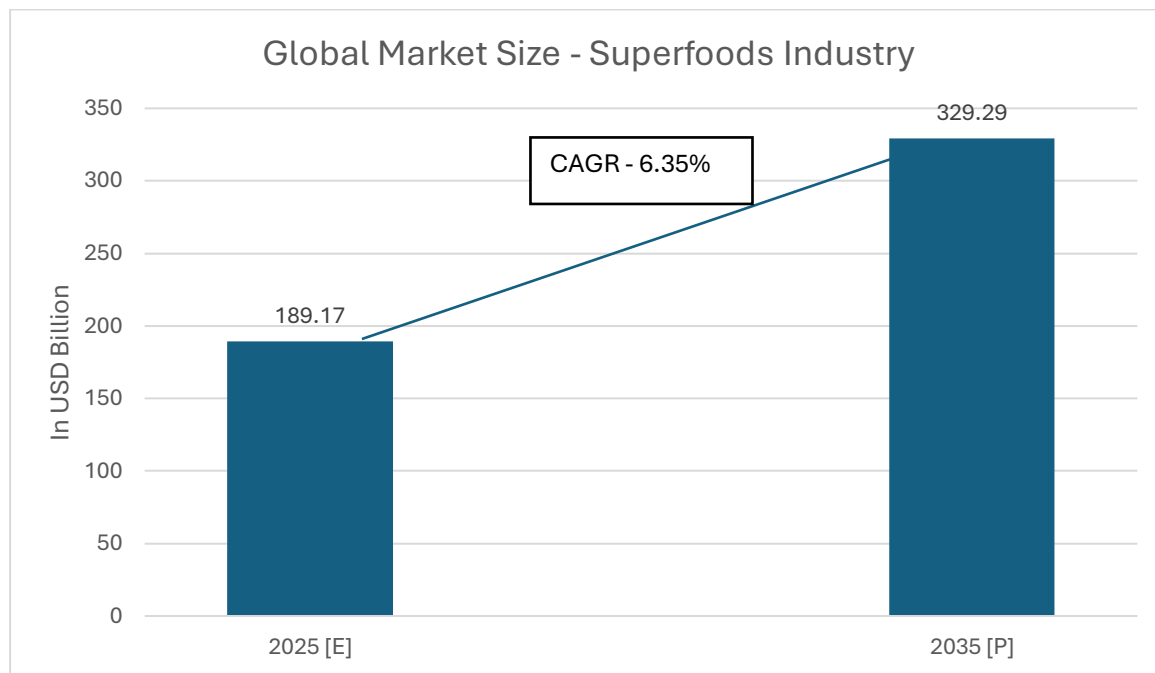
Quinoa is a nutrient-dense pseudo-cereal that has gained global recognition as a high-value health food ingredient due to its exceptional nutritional profile. It is a complete plant-based protein source, containing all essential amino acids, and is naturally gluten-free, making it suitable for health-conscious and gluten-intolerant consumers. Quinoa is widely used in functional foods, health products, and processed food applications, supported by growing consumer awareness regarding balanced nutrition and plant-based diets.

Categories of Quinoa

- **White Quinoa:** The most consumed variety with a mild flavour and soft texture, widely used in salads, cereals, and ready-to-cook foods
- **Red Quinoa:** Red quinoa has a slightly stronger flavour and firmer texture compared to white quinoa. It holds its shape well after cooking and is widely used in salads, grain bowls, and processed food products.
- **Black Quinoa:** Black quinoa has a slightly sweeter taste and firmer texture. It is often used in premium food products, salads, and specialty health foods due to its unique flavour and appearance.
- **Tri-Colour Quinoa:** A blend of white, red, and black quinoa, commonly used in packaged health foods and ready-to-cook mixes.

3.3 Global Market Size – Superfoods Industry

The global superfoods market is projected to grow from USD 189.17 billion in 2025 to USD 329.29 billion by 2035, reflecting steady and structural expansion driven by rising health consciousness and increasing demand for nutrient-dense foods.

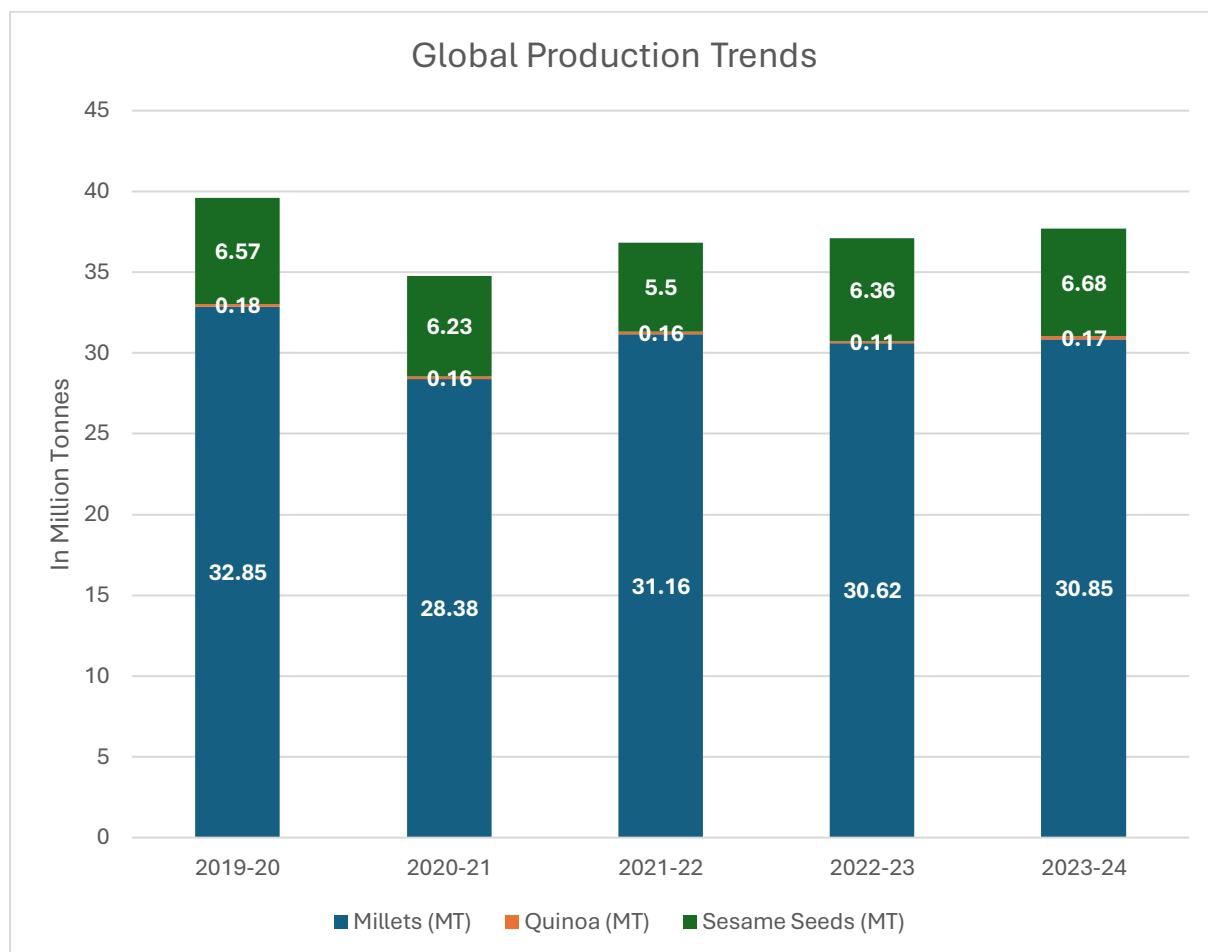


Source – Infomerics Analytics & Research

This growth is supported by increasing consumer preference for functional and nutrient-rich foods, along with the gradual adoption of plant-based diets across developed and emerging markets. Additionally, the expansion of organized retail channels, improving availability of value-added superfood products, and sustained demand for ingredients such as millets, quinoa, and chia seeds are contributing to market expansion. The projected growth indicates a stable long-term outlook for the global superfoods industry, supported by evolving dietary patterns and increasing consumer focus on preventive healthcare.

Trend in Production of Millets, Quinoa and Sesame Seeds

The production trends of millets, quinoa, and sesame seeds, highlighting the relative scale and movement of these crops over the past five years. Together, these trends illustrate the diverse structure of grain and oilseed production, spanning mass-consumption staples to premium, value-added crops.



Source – Food & Agriculture Organization of United Nations

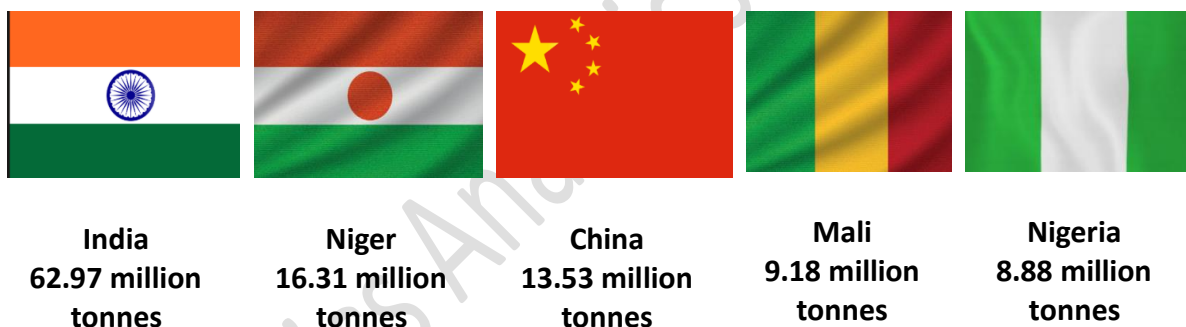
The table below presents the global production trends of millets, quinoa and sesame seeds for the period from 2019-20 to 2023-24, highlighting the relative scale, stability and market positioning of these crops within the international grain and oilseed landscape. Millets constitute a high-volume staple category globally, with production largely stable in the range of 28–33 million tonnes during the period under review. Despite temporary fluctuations, output has remained resilient, reflecting millets’ importance as climate-resilient cereals cultivated widely across Asia and Africa. Their stable production base supports the global food processing industry, particularly in traditional foods, ready-to-eat products, and the growing health-grain segment.

Sesame seeds represent a mid-scale global oilseed segment, with production fluctuating between approximately 5.5 and 6.7 million tonnes over the same period. These movements are influenced by acreage decisions, weather conditions in key producing regions, and international trade demand. Sesame's role as both an edible oil source and a value-added ingredient in bakery, confectionery, and processed foods positions it as an important crop within global Agri-processing and export value chains.

Quinoa production remains comparatively small at the global level, consistently below 0.2 million tonnes between 2019-20 and 2023-24, underscoring its status as a niche, high-value specialty grain. Unlike millets and sesame, quinoa's market is driven primarily by health and wellness consumption trends rather than staple demand. Its production variability reflects evolving cultivation expansion beyond traditional producing regions, while its use in gluten-free, protein-rich, and functional food products supports growth in premium food processing segments.

Top Producers

Millet



Source – Food & Agriculture Organization of United Nations

In global millet production, India emerged as a dominant producer at approximately 62.97 million tonnes, significantly ahead of other countries. India's output is nearly four times that of Niger (16.31 million tonnes) and substantially higher than China (13.53 million tonnes), underscoring its central role in the global millet supply chain.

African nations such as Niger, Mali (9.18 million tonnes), and Nigeria (8.88 million tonnes) also feature prominently, reflecting the crop's importance in semi-arid and drought-prone regions where millets serve as staple food grains. The presence of these countries among top producers indicates that millet cultivation is closely linked to climate resilience, food security and low-input farming systems.

Overall, the production landscape shows that millet is primarily concentrated in Asia and Sub-Saharan Africa, positioning these regions as critical suppliers for both domestic consumption and the growing global demand for millet-based processed and health foods.

Quinoa



Peru
0.508 million tonnes



Bolivia
0.256 million tonnes



Ecuador
0.009 million tonnes



Bhutan
0.0002 million tonnes

Global quinoa production is heavily concentrated in South America, with Peru (~0.51 million tonnes) and Bolivia (~0.26 million tonnes) accounting for most of the output. These two countries benefit from traditional cultivation practices, suitable agro-climatic conditions, and established export markets, positioning them as dominant global suppliers. In contrast, other producers such as Ecuador (~0.009 million tonnes) and Bhutan (~0.0002 million tonnes) contribute only marginal volumes. This sharp production gap highlights limited geographic diversification in quinoa supply, making the global market largely dependent on Andean countries, while also creating opportunities for emerging producers to expand cultivation amid rising global demand for superfoods.

Sesame Seeds



Sudan
4.65 million tonnes



India
3.67 million tonnes



Myanmar
3.55 million tonnes



Ethiopia
2.22 million tonnes



China
2.18 million tonnes

Global sesame seed production is led by Sudan (4.65 MT), highlighting Africa's strong position in the oilseed segment, supported by large cultivation areas and export orientation. India (3.67 MT) and Myanmar (3.55 MT) follow closely, reflecting Asia's dual role as both a major producer and consumer, with sesame widely used in edible oils, traditional foods, and value-added health products. Ethiopia (2.22 MT) further strengthens Africa's contribution, while China (2.18 MT), despite being a significant producer, is also a large importer due to strong domestic demand. Overall, production is geographically diversified across Africa and Asia, which supports global supply stability, but weather dependency and smallholder farming structures in key regions can still create output volatility and price fluctuations.

Chia Seeds



Paraguay
72,000 million tonnes



Bolivia
20,000 million tonnes



Argentina
17,500 million tonnes

Source – Tradelink International Crop report 2025

The data indicates that global chia seed production remains highly concentrated in South America, with Paraguay emerging as the dominant producer at an estimated output of 72,000 MT, significantly ahead of Bolivia (20,000 MT) and Argentina (17,500 MT). Paraguay alone accounts for more than half of the production among the listed countries, highlighting its strong agro-climatic suitability, established cultivation practices, and scale advantages in chia farming.

Bolivia and Argentina continue to play important supporting roles in global supply, contributing stable volumes and helping diversify sourcing within the region. The concentration of production in a limited number of countries underscores both supply security advantages (specialised growing regions) and potential risks related to weather variability, crop disease, or regional trade disruptions.

Overall, the data reflects a geographically concentrated but commercially organized supply base, with South America maintaining its position as the core global production hub for chia seeds.

Linseed/Flaxseed



Russia
6.26 million tonnes



Kazakhstan
3.80 million tonnes



Canada
1.92 million tonnes



China
1.48 million tonnes



India
0.64 million tonnes

Source – Food & Agriculture Organization of United Nations

Global linseed production is highly concentrated among a few countries with Russia emerging as the largest producer at approximately 6.26 million tonnes, followed by Kazakhstan at around 3.80 million tonnes. Together, these two countries account for a substantial share of

global output, reflecting the favourable agro-climatic conditions and large cultivation areas in the Eurasian region. Canada and China also represent significant producers, supported by established oilseed processing industries and export demand. In comparison, India produces about 0.64 million tonnes, indicating a relatively smaller share in global production. The dominance of these countries highlights the geographic concentration of linseed supply, which plays an important role in determining global trade flows and price dynamics in the linseed and flaxseed markets.

3.4 Major Trends

- **Mainstreaming of Superfoods:** Superfoods such as chia, flaxseed, quinoa, amaranth, moringa, and berries are increasingly integrated into processed foods like cereals, snack bars, beverages, and dairy alternatives due to their high nutrient density. Food processing enables their large-scale use, longer shelf life, and consistent quality, allowing companies to offer premium, health-positioned products that align with growing consumer focus on immunity, heart health, and overall wellness.
- **Millets & Ancient Grain Innovation:** Millets and ancient grains are being transformed through modern processing methods into ready-to-eat cereals, snacks, noodles, and bakery products. These technologies improve taste, texture, and convenience, making traditional grains suitable for urban consumers while supporting demand for gluten-free, high-fibre, and nutrient-rich food options.
- **Spices as Functional Ingredients:** Spices such as turmeric, ginger, cinnamon, and black pepper are now used for their health benefits beyond flavour. Food processors incorporate spice extracts and blends into beverages, ready meals, and health snacks to support immunity, digestion, and metabolism, thereby increasing value addition and expanding the functional food segment.
- **Traditional Nutrition in Convenient Formats:** Processed food companies are converting traditional recipes and ingredients into instant mixes, ready meals, and pre-cooked grain products. This allows consumers to access familiar, nutritious foods with minimal preparation time, meeting the needs of busy urban lifestyles while preserving cultural dietary patterns.
- **Premiumization of Staples:** Grains and spices are moving from commodity products to branded, premium offerings such as organic millets, specialty flours, and single-origin spices. Improved packaging, certification, and traceability enable higher pricing, transforming basic staples into value-added, high margin processed products.
- **Clean Label & Natural Ingredients:** Consumers increasingly prefer foods made with natural and recognizable ingredients. Whole grains, seeds, and spices are being used as natural sources of nutrition, flavour, and preservation, reducing reliance on synthetic additives and strengthening brand trust in the processed food sector. Plant-Based Protein Expansion Millets, grains, and seeds are gaining importance as plant-based protein sources in processed foods such as protein snacks, dairy alternatives, and meat substitutes. Processing enhances their digestibility and functionality, supporting the growth of vegetarian, vegan, and fitness-oriented diets.
- **Globalization of Traditional Ingredients:** Traditional grains and spices are entering global markets through processed formats like spice blends, ready meals, and grain-based snacks. Standardized processing and packaging enable compliance with international quality standards, supporting export growth and global brand development.

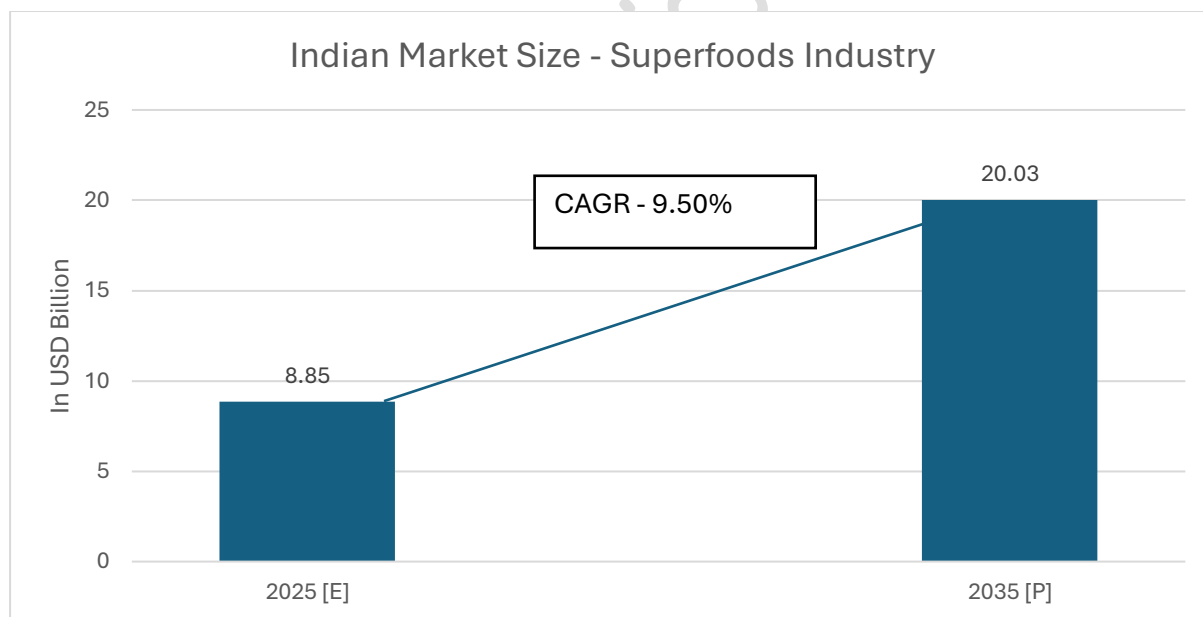
- **Sustainability & Climate-Resilient Crops:** Millets and several spices require less water and are suited to harsh growing conditions, making them sustainable raw materials. Their increased use in processed foods supports environmental goals and aligns with consumer preference for eco-friendly and responsible food production.
- **Technology-Driven Value Addition:** Advanced processing technologies such as extrusion, drying, and micronization are improving product quality, shelf life, and versatility of grain- and spice-based foods. These technologies enable large-scale production of diverse, value-added food products tailored to modern consumption patterns.

3.5 Indian Superfoods Industry

The superfoods industry has emerged as a rapidly growing segment within the broader food and nutrition market, driven by increasing consumer focus on health, wellness, and preventive nutrition. Superfoods such as millets, quinoa, and chia seeds are gaining significant importance due to their superior nutritional profile, including high protein, dietary fibre, essential minerals, and antioxidants. These ingredients are increasingly being incorporated into processed foods, breakfast cereals, health mixes, snacks, and functional food products. Rising health awareness, growing demand for plant-based and gluten-free foods and expanding food processing activities are supporting the increased consumption and commercialisation of these superfoods, positioning them as key growth drivers in the health food and nutrition industry.

Indian Market Size – Superfoods Industry

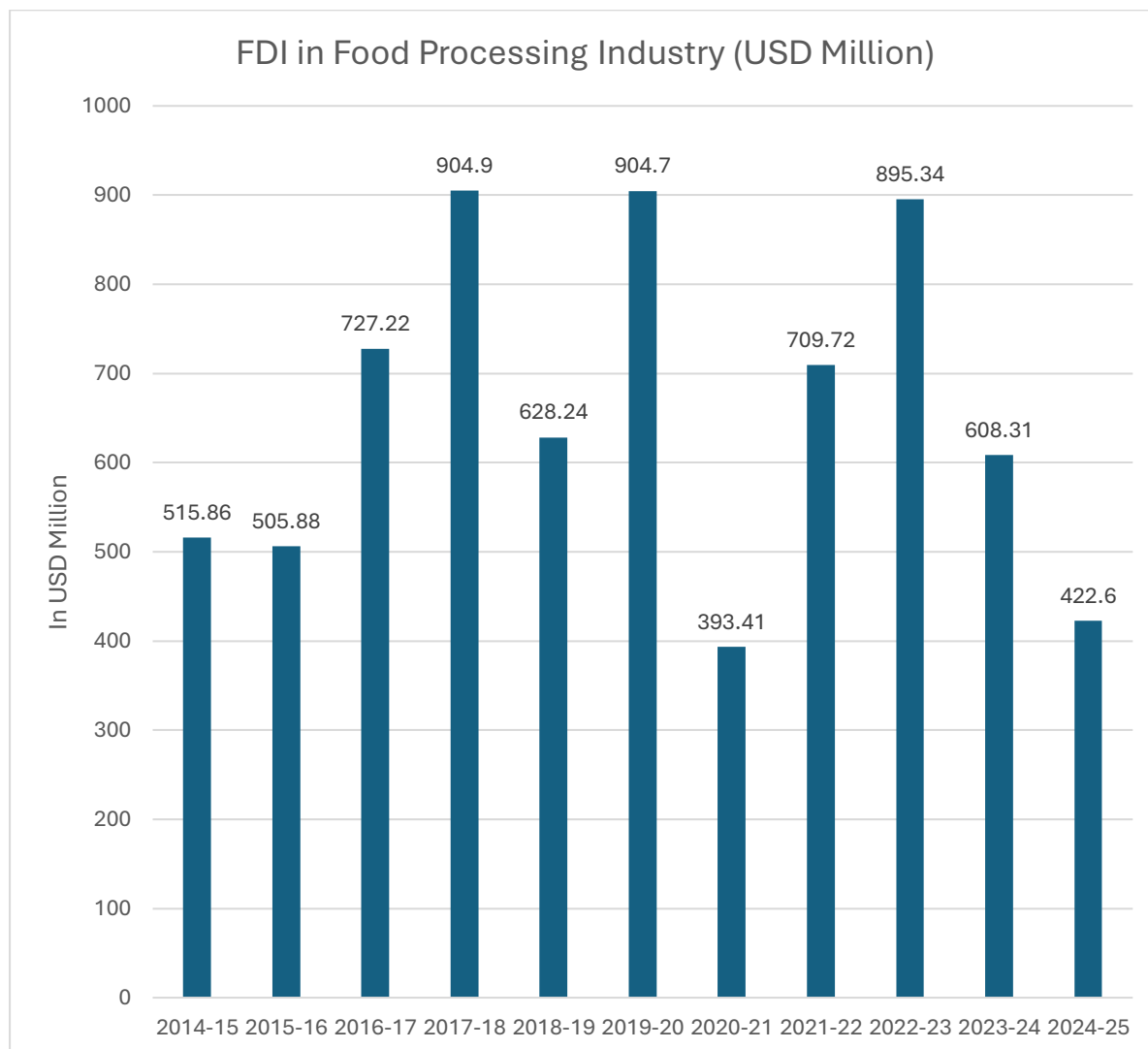
The Indian superfoods market is projected to grow significantly from USD 8.85 billion in 2025 to USD 20.03 billion by 2035, reflecting strong expansion at a CAGR of around 9.50% during the forecast period.



Source – Infomerics Analytics & Research

The increase highlights India's emergence as a high-growth market for superfoods, driven by rising health awareness, increasing adoption of traditional nutrient-rich foods such as millets, and growing demand for functional and preventive nutrition. Additionally, government initiatives promoting millets, expansion of organized retail and e-commerce, and increasing availability of packaged superfood products are supporting market growth. This robust growth rate, which is higher than the global average, indicates substantial untapped potential and strong outlook for the Indian superfoods industry.

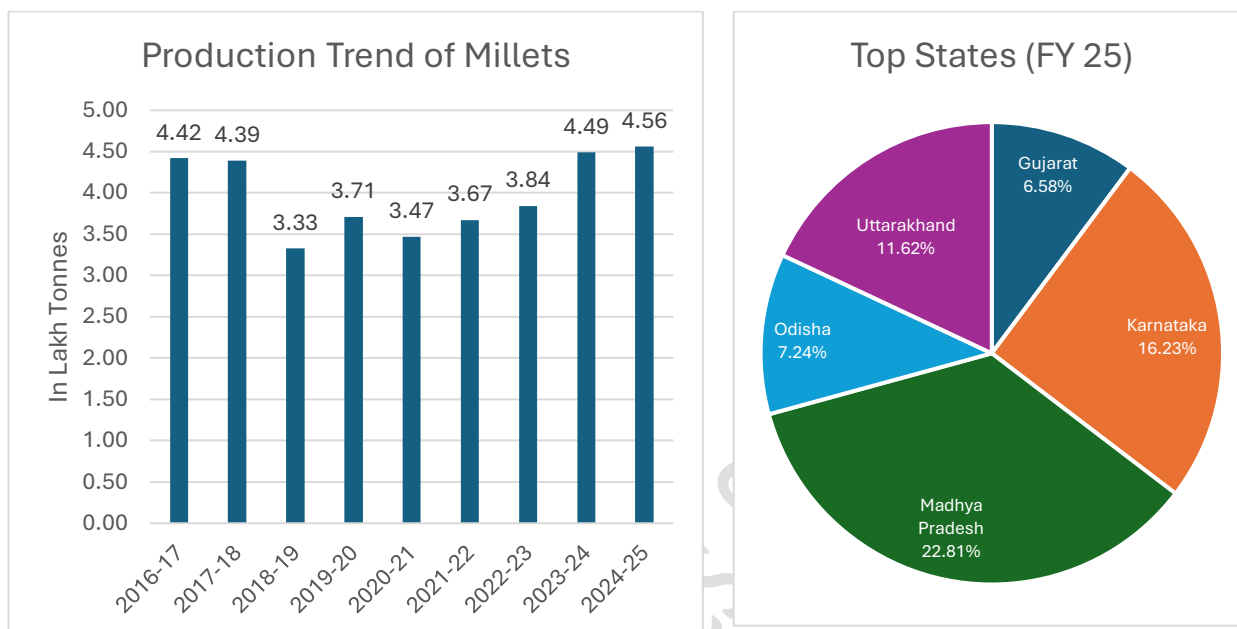
Foreign Direct Investments in Food Processing Industry



Source: Ministry of Food Processing Industries (MOFPI) Annual Report 2024-25, Infomerics Analytics & Research

Rising Production Trends of Key Crops: Millets, Sesame Seeds, Flaxseed & Spices (FY2017-25)

1. Millets



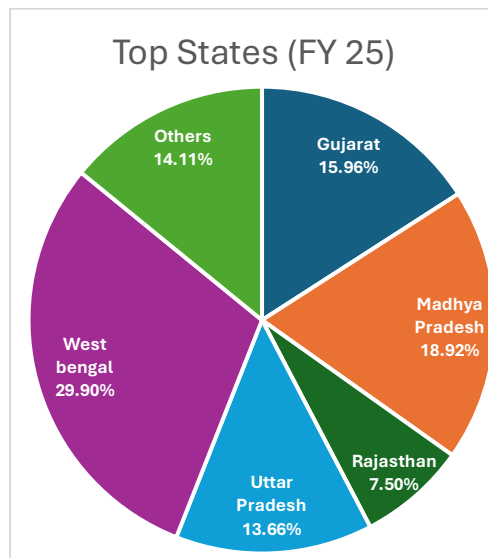
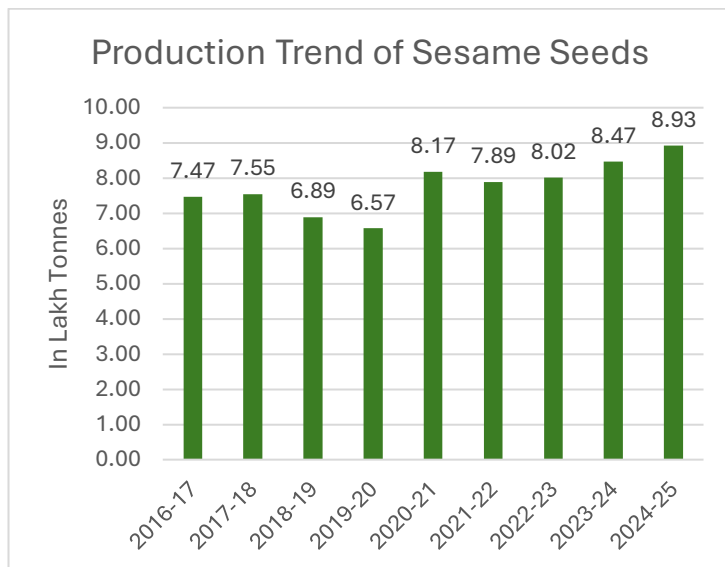
Source: Department of Agriculture & Farmers Welfare

The production of small millets in India has demonstrated a moderately stable yet fluctuating trend over the observed period, followed by a clear recovery in recent years.

Production declined marginally from 4.42 lakh tonnes in 2016-17 to 4.39 lakh tonnes in 2017-18, followed by a sharper decrease to 3.33 lakh tonnes in 2018-19, primarily due to unfavourable weather conditions and crop shifting towards more remunerative alternatives. Production subsequently recovered to 3.71 lakh tonnes in 2019-20, before moderating slightly to 3.47 lakh tonnes in 2020-21, and thereafter increased steadily to 3.67 lakh tonnes in 2021-22 and 3.84 lakh tonnes in 2022-23. The recovery strengthened significantly in the last two years, with production rising to 4.49 lakh tonnes in 2023-24 and further to 4.56 lakh tonnes in 2024-25, the highest level during the period under review, supported by increased policy focus and growing demand for Nutri-cereals.

Production remains concentrated in key states with Madhya Pradesh emerging as the largest producer (22.81%), followed by Karnataka (16.23%), while Uttarakhand and Odisha contributed 11.62% and 7.24%, respectively, reflecting the crop's suitability in hill and tribal regions; Gujarat also accounted for 6.58%, highlighting that small millet production is largely concentrated in central, southern, and dryland regions of India, which continue to support the overall recovery and growth in production.

2. Sesame Seeds

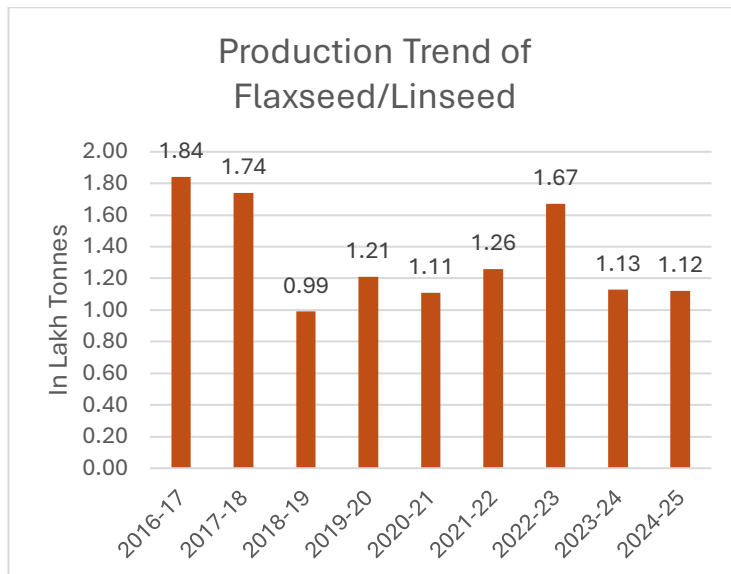


Source: Department of Agriculture & Farmers Welfare

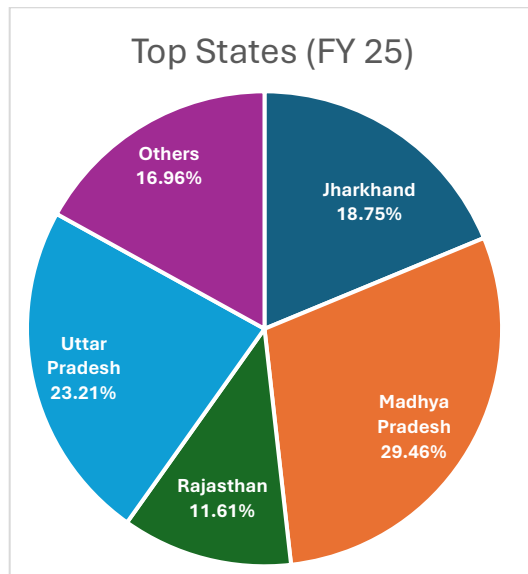
Sesame production in India has shown a fluctuating but overall increasing trend between 2016-17 and 2024-25, reflecting variations in monsoon conditions, acreage, and market dynamics. Production increased marginally from 7.47 lakh tonnes in 2016-17 to 7.55 lakh tonnes in 2017-18, before declining to 6.89 lakh tonnes in 2018-19 and further to 6.57 lakh tonnes in 2019-20, primarily due to unfavourable weather conditions and lower sowing area. Thereafter, production rebounded significantly to 8.17 lakh tonnes in 2020-21, followed by a slight moderation to 7.89 lakh tonnes in 2021-22. Production subsequently increased steadily to 8.02 lakh tonnes in 2022-23, 8.47 lakh tonnes in 2023-24, and further to 8.93 lakh tonnes in 2024-25, the highest level during the period under review, indicating strengthening demand and improved productivity.

State-wise, sesame production remains concentrated in a few key states, with West Bengal accounting for the largest share of 29.90%, followed by Madhya Pradesh with 18.92%, Gujarat with 15.90%, Uttar Pradesh with 13.66%, and Rajasthan contributing 7.50%, while the remaining 14.11% was accounted for by other states, highlighting the concentration of production in eastern, central, and northern regions of India.

3. Flaxseed



Source: Department of Agriculture & Farmers Welfare



Flaxseed (linseed) production in India has exhibited a declining trend followed by partial recovery and subsequent stabilisation between 2016-17 and 2024-25, reflecting fluctuations in acreage, farmer preference, and climatic conditions. Production declined from 1.84 lakh tonnes in 2016-17 to 1.74 lakh tonnes in 2017-18, followed by a sharp drop to 0.99 lakh tonnes in 2018-19, primarily due to reduced sowing area and shifting of farmers towards more remunerative crops. Production subsequently recovered to 1.21 lakh tonnes in 2019-20, before moderating slightly to 1.11 lakh tonnes in 2020-21, and further improving to 1.26 lakh tonnes in 2021-22 and 1.67 lakh tonnes in 2022-23, supported by improved market demand and favourable growing conditions. However, production declined again to 1.13 lakh tonnes in 2023-24 and remained largely stable at 1.12 lakh tonnes in 2024-25, indicating relatively stagnant production levels in recent years.

State-wise, flaxseed production remains concentrated in central and northern regions with Madhya Pradesh accounting for the largest share of 29.46%, followed by Uttar Pradesh with 23.21%, and Jharkhand contributing 18.75%, while Rajasthan accounted for 11.61%, and the remaining 16.96% was contributed by other states. This concentration highlights the crop's dependence on a few key producing regions, with overall production showing limited growth momentum during the period under review.

Chia Seeds

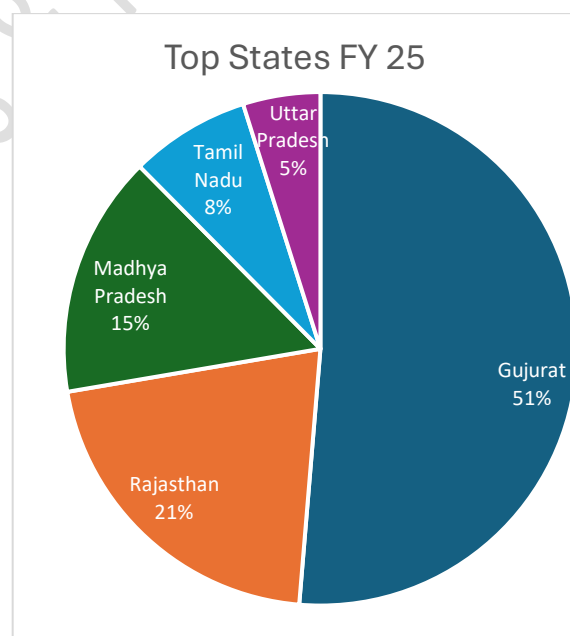
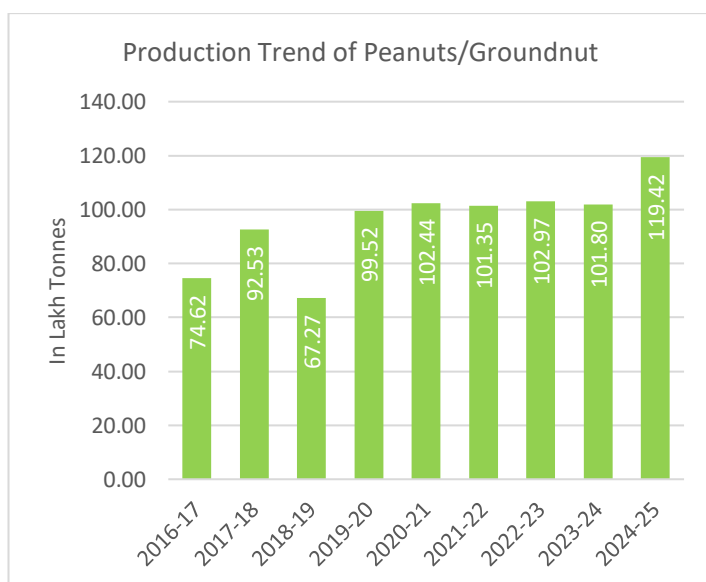
Chia seeds, obtained from the *Salvia hispanica* plant native to Central America, have emerged as a globally recognized superfood owing to their exceptional nutritional density and functional benefits. Despite their small size, chia seeds are a rich source of omega-3 fatty acids, dietary fibre, plant-based protein, antioxidants, and essential minerals such as calcium, magnesium, and phosphorus. Their unique ability to absorb water and form a gel-like consistency enhances satiety, supports digestive health, and aids hydration. Due to their neutral taste and versatility, chia seeds are widely incorporated into smoothies, yogurt, breakfast cereals, bakery products, energy bars, and puddings, making them a convenient addition to modern health-focused diets. As consumers increasingly shift toward functional and clean-label foods, chia seeds are gaining traction as a key ingredient in nutraceuticals, health foods, and fortified product categories.

The production landscape for chia seeds in India is witnessing strong momentum, particularly in the organic segment. During fiscal 2024, India's organic chia seed production reached approximately 804 metric tons, reflecting a compound annual growth rate (CAGR) of about 47% during fiscal 2020–2024. This rapid growth highlights expanding farmer participation, improved awareness regarding high-value crops, and the increasing suitability of chia cultivation in select Agro-climatic regions of the country. Rising production is aligned with both domestic consumption trends and export demand, as global markets continue to seek organically certified, nutrient-rich ingredients for health and wellness products.

The strong growth trajectory of organic chia cultivation, combined with rising global demand for plant-based, gluten-free, and nutrient-dense foods, underscores the crop's long-term commercial potential. Chia seeds offer farmers an opportunity to diversify beyond traditional crops into higher-margin segments, while processors benefit from expanding applications in value-added food products. Overall, the convergence of health awareness, dietary shifts, and export opportunities positions chia seeds as a strategically important superfood within India's evolving food processing ecosystem.

Peanuts / Groundnut

Groundnut, commonly known as peanut and scientifically referred to as *Arachis hypogaea*, is one of the major oilseed crops cultivated in India and plays an important role in the country's agricultural and edible oil economy. India is among the leading global producers of groundnuts, with cultivation concentrated in states such as Gujarat, Rajasthan, Madhya Pradesh, Tamil Nadu and others. The crop is primarily grown during the Kharif season and is valued for its high oil and protein content, making it an important raw material for edible oil extraction, snack products, peanut butter, and animal feed. Groundnuts also contribute to India's agricultural exports, with shipments facilitated by institutions such as the Agricultural and Processed Food Products Export Development Authority. Supported by strong domestic consumption and export demand, the groundnut sector remains an integral component of India's oilseed and food processing value chain.



Source – Department of Agriculture & Farmers Welfare

Peanut (groundnut) production in India has exhibited a fluctuating yet overall upward trend between 2016-17 and 2024-25, reflecting variations in climatic conditions, acreage under cultivation, and market dynamics. Production increased from 74.62 lakh tonnes in 2016-17 to 92.53 lakh tonnes in 2017-18, followed by a decline to 67.27 lakh tonnes in 2018-19, largely due to adverse weather conditions and lower sowing in key producing states. Production subsequently recovered to 99.52 lakh tonnes in 2019-20 and further increased to 102.44 lakh tonnes in 2020-21, supported by favourable monsoon conditions and improved crop productivity. However, production moderated slightly to 101.35 lakh tonnes in 2021-22, before increasing again to 102.97 lakh tonnes in 2022-23. In 2023-24, output declined

marginally to 101.80 lakh tonnes, while 2024-25 recorded a notable increase to 119.42 lakh tonnes, reflecting improved acreage, favourable climatic conditions, and stronger market demand. Overall, the trend indicates gradual recovery and stabilisation in peanut production in recent years despite periodic fluctuations.

State-wise, peanut production in FY25 remains highly concentrated among a few major producing states, with Gujarat accounting for the largest share at 51%, followed by Rajasthan with 21% and Madhya Pradesh contributing 15%. Other key producing states include Tamil Nadu with 8% and Uttar Pradesh with 5% of total production. This distribution highlights the strong dominance of western and central regions in India's peanut production landscape, with a significant portion of output concentrated in Gujarat, making the crop heavily reliant on production conditions in a limited number of key states.

Advantages of Peanuts/Groundnut

- **High Nutritional Value** - Peanuts are rich in essential nutrients including protein, healthy fats, vitamins and minerals. They contain significant amounts of vitamin E, magnesium, potassium and folate which support overall health and nutrition. Due to their high protein and energy content, peanuts are widely used in human consumption as well as in animal feed formulations.
- **Good Source of Plant-Based Protein** - Peanuts provide a substantial amount of plant-based protein, making them an important ingredient in both food products and animal feed. The protein content supports muscle development and growth in animals and contributes to improved productivity in livestock and poultry when used in feed formulations such as groundnut cake.
- **Versatile Applications Across Industries** - Peanuts have a wide range of applications across multiple industries. They are used in food processing for products such as peanut butter, snacks, confectionery, and edible oils. Additionally, by-products such as groundnut cake are used in the animal feed industry, while peanut shells are sometimes used for fuel, fertilizer, or industrial applications.
- **Oil Extraction and By-Product Utilization** - Peanuts are a major oilseed crop and are widely used for the extraction of edible oil. Groundnut oil is commonly used for cooking due to its flavour and nutritional benefits. The residual by-product, known as groundnut cake or meal, is a valuable protein-rich ingredient used in livestock, poultry, and aquafeed.
- **Strong Demand in Domestic and Export Markets** - Peanuts are widely consumed globally and are an important export commodity for several producing countries. The growing demand for peanut-based food products, edible oil and animal feed ingredients contributes to stable market demand and supports the expansion of peanut processing industries.

- **Suitable for Multiple Agro-Climatic Conditions** - Peanuts can be cultivated across a wide range of agro-climatic conditions, particularly in tropical and subtropical regions. Their adaptability to different soil types and climatic conditions allows for large-scale cultivation across multiple regions, supporting consistent supply.
- **Contribution to Soil Health** - Peanuts are a leguminous crop and have the natural ability to fix nitrogen in the soil through symbiotic bacteria in their roots. This improves soil fertility and reduces the need for nitrogen-based fertilizers, making peanuts beneficial for crop rotation systems and sustainable agriculture.

Overview on Spices

The spices industry represents a vital segment of the agricultural and food processing ecosystem, driven by its extensive use in culinary applications, food processing, pharmaceuticals, nutraceuticals, and cosmetics. India holds a dominant position in the global spices landscape, supported by favourable agro-climatic diversity, large agricultural land availability, and strong domestic demand. The country produces a wide variety of spices including chilli, turmeric, cumin, coriander, pepper, cardamom, and ginger, catering to both domestic consumption and international markets. Spices are a staple ingredient in household cooking and are also widely used by packaged food manufacturers, hotels, restaurants, and catering services, making them an essential raw material for the broader food processing industry.

The industry has witnessed steady growth due to rising consumer preference for natural flavours, increasing consumption of processed and packaged foods, and growing global demand for ethnic cuisines. In addition, increasing health awareness has contributed to higher consumption of spices, as many spices possess medicinal and functional properties such as antioxidant, anti-inflammatory, and immunity-boosting benefits. The sector also benefits from strong export demand, as Indian spices are widely recognized for their quality, aroma, and flavour, contributing significantly to agricultural export earnings.

Advantages of the Spices Industry

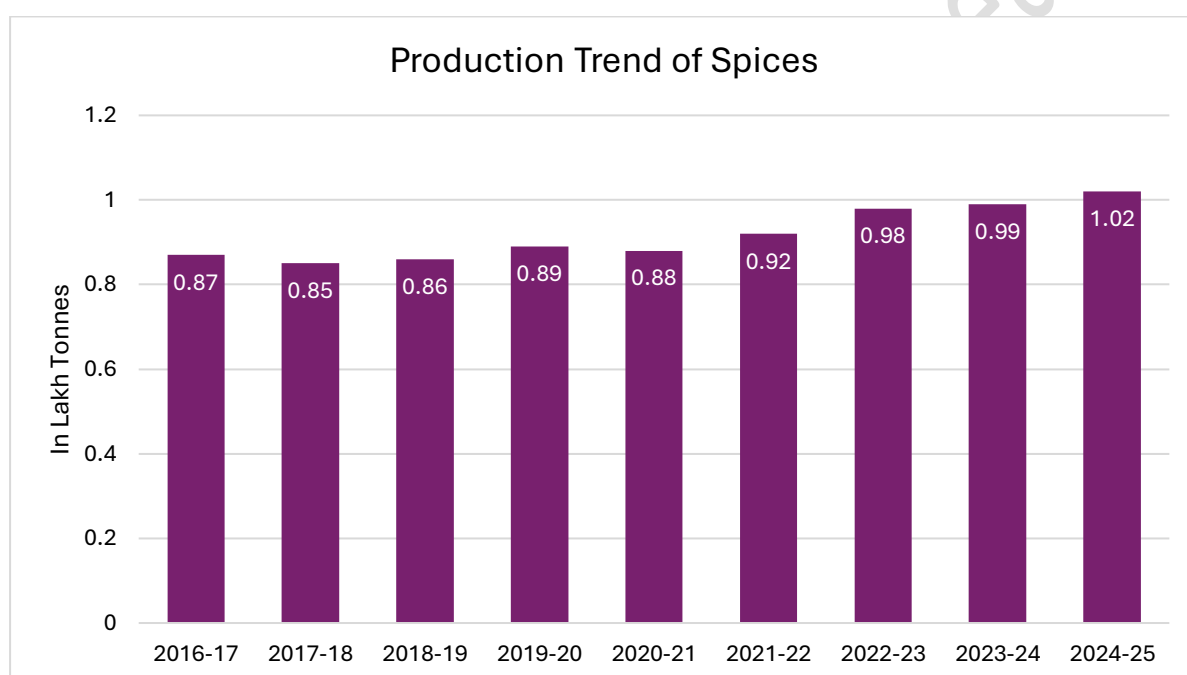
- 1. Strong Domestic Demand Base** - Spices are an essential component of daily diets, ensuring consistent and stable demand across rural and urban households. The growth of hotels, restaurants, and packaged food companies further supports sustained consumption.
- 2. Favourable Agro-Climatic Conditions** - India's diverse climate allows cultivation of a wide range of spices across different regions, ensuring large-scale production and supply stability.
- 3. Export Potential and Foreign Exchange Earnings** - Indian spices have strong global demand due to their superior quality and variety. This supports export growth and contributes to foreign exchange earnings.
- 4. Value Addition Opportunities** - The industry offers significant opportunities in processing, including cleaning, grading, grinding, blending, and packaging. Value-added products such as spice mixes, ready-to-cook blends, and seasonings offer higher margins compared to raw spices.
- 5. Linkages with Food Processing Industry** - Spices serve as a key raw material for packaged foods, snacks, ready-to-eat meals, and processed food products, supporting the expansion of the food processing sector.

6. Health and Functional Benefits Driving Demand - Increasing awareness regarding the health benefits of spices, including immunity enhancement and medicinal properties, is driving higher consumption globally.

7. Employment Generation - The spices industry supports employment across farming, processing, logistics, packaging, and export operations, particularly in rural areas.

8. Government Support and Export Promotion - Various government initiatives promote spice cultivation, processing infrastructure, and exports, supporting long-term industry growth.

Production Trend



Source - Department of Agriculture & Farmers Welfare

Spices production in India has shown a gradual and consistent increase between 2016-17 and 2024-25, indicating steady growth in the sector supported by strong domestic and export demand. Production remained relatively stable at 0.87 lakh tonnes in 2016-17, 0.85 lakh tonnes in 2017-18, and 0.86 lakh tonnes in 2018-19, before increasing to 0.89 lakh tonnes in 2019-20. Although production moderated slightly to 0.88 lakh tonnes in 2020-21, it recovered thereafter and increased steadily to 0.92 lakh tonnes in 2021-22, 0.98 lakh tonnes in 2022-23, and 0.99 lakh tonnes in 2023-24, reaching 1.02 lakh tonnes in 2024-25, the highest level during the period under review. This overall upward trend reflects growing global demand for Indian spices, improved cultivation practices, and increased focus on high-value spice exports, supporting long-term growth in the spices sector.

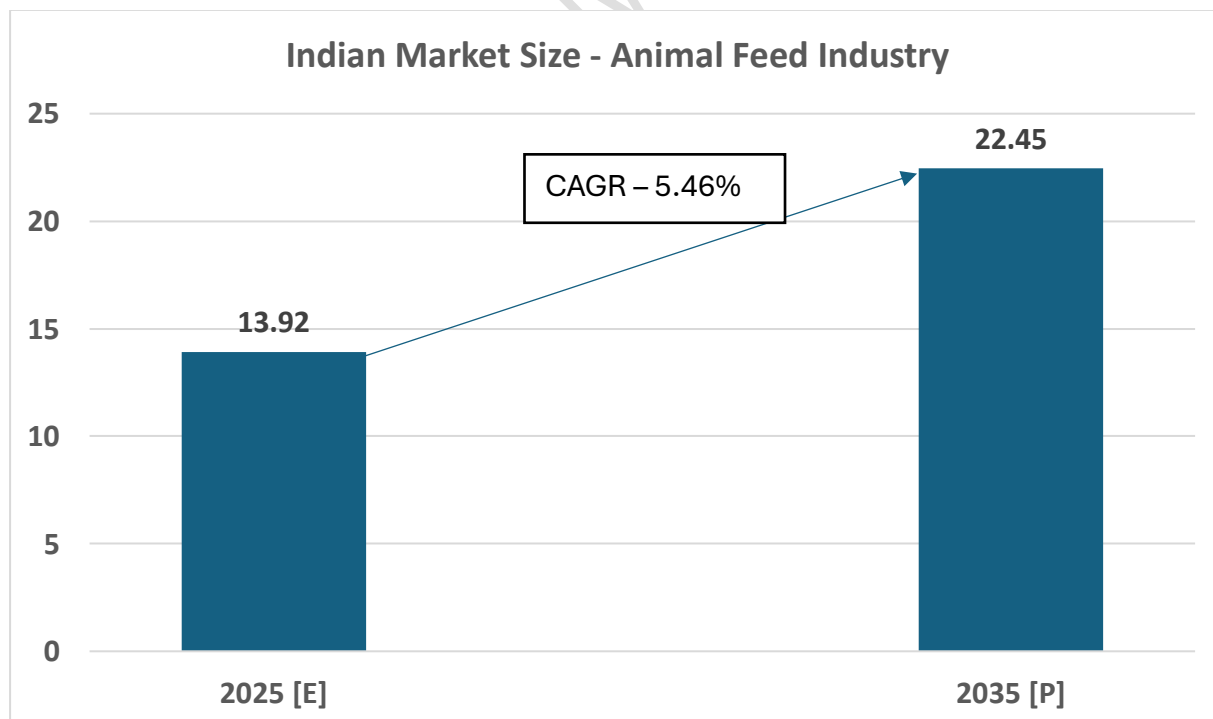
Animal Feed Industry

The animal feed industry plays a critical role in supporting the livestock, poultry, aquaculture, and companion animal sectors by providing nutritionally balanced feed formulations that enhance animal health, growth, and productivity. Animal feed typically consists of a combination of raw materials such as maize, soybean meal, oilseed cakes, grains, vitamins, minerals, and nutritional additives that are processed to meet the dietary requirements of different animal species. Various feeds include poultry feed, sheep feed, cat food, pet food, pig feed, cattle feed, equine feed and bird food.

In India, the animal feed industry has witnessed steady growth over the past decade, driven by the expansion of livestock and poultry farming, rising demand for protein-rich food products such as milk, eggs, meat, and fish, and increasing adoption of scientific feeding practices. Urbanization, rising disposable income levels, and changing dietary preferences have further supported the demand for animal-based products, thereby contributing to the growth of the feed industry.

Market Size

The Indian Animal Feeds market is estimated at USD 13.92 billion in 2025 and is projected to grow to USD 22.45 billion by 2035 at a CAGR of 5.46% during the period.



Source – Infomerics Analytics & Research

This moderate growth is primarily driven by increasing consumption of poultry meat, eggs, dairy products, and seafood, which has led to higher demand for nutritionally balanced

compound feed. Additionally, the gradual shift from traditional feeding practices to scientifically formulated feed, expansion of commercial livestock farming, and rising awareness regarding animal nutrition are expected to support market expansion. However, fluctuations in raw material prices such as maize and soybean meal and dependence on agricultural output may continue to influence the pace of growth in the industry.

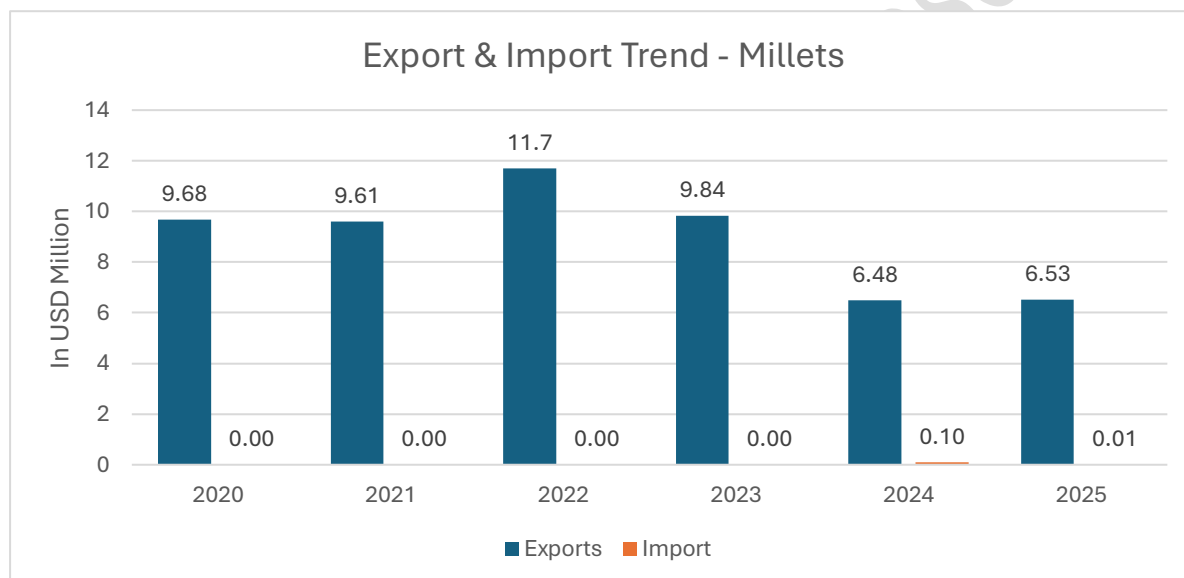
Major Growth Drivers

- **Rising Demand for Animal-Based Protein Products** - Growing consumption of dairy products, poultry meat, eggs, and aquaculture products has led to increased demand for livestock production. This in turn drives the need for high-quality animal feed that supports improved productivity and animal health.
- **Expansion of Commercial Livestock and Poultry Farming** - The increasing shift from traditional livestock farming practices to organized and commercial farming operations has resulted in higher adoption of scientifically formulated feed products. Commercial farms require consistent and high-quality feed to enhance growth rates, feed conversion efficiency, and overall productivity.
- **Increasing Awareness Regarding Animal Nutrition** - Farmers are increasingly adopting balanced feed formulations to improve animal performance, milk yield, and weight gain. This growing awareness regarding the benefits of nutritionally balanced feed is expected to support the demand for processed animal and bird feed.
- **Growth in the Pet and Ornamental Bird Segment** - Rising pet ownership and increasing interest in keeping ornamental birds are contributing to higher demand for specialised bird feed products. Urban households and hobby bird breeders are increasingly adopting premium and nutritionally enriched bird feed.
- **Technological Advancements in Feed Processing** - Advancements in feed processing technologies, including improved formulation techniques and the use of feed additives, vitamins, and minerals, have enhanced the quality and efficiency of animal feed products, supporting industry growth.
- **Government Support for Livestock and Poultry Development** - Government initiatives aimed at improving livestock productivity, strengthening the dairy sector, and supporting poultry farming have contributed to increased adoption of compound feed and improved feeding practices.
- **Rising Demand for High-Quality and Nutritionally Balanced Feed** - Livestock and poultry producers are increasingly focusing on feed quality to enhance productivity and reduce disease risks. This trend is expected to drive demand for processed and scientifically formulated feed products offered by established feed processors.

4. Trade Dynamics

The trade analysis of millets, quinoa, sesame, flaxseeds & Peanuts presents an overview of their export and import trends over the period. Export and import movements are influenced by production, changing dietary preferences, quality standards, and government policies, reflecting India's growing integration into the superfoods and oilseeds market. The assessment highlights overall trade balance, reflecting the demand-supply scenario and global market positioning of these crops.

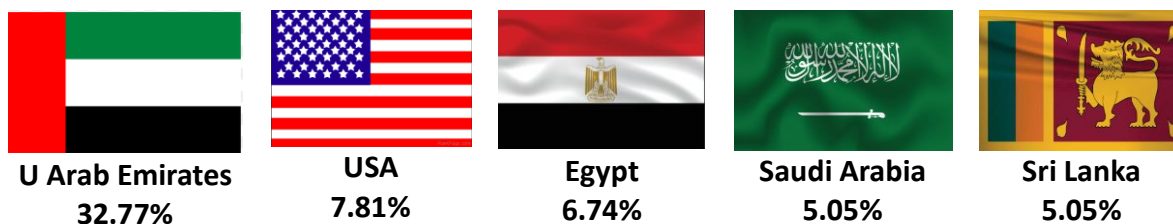
1. Millet Seeds



Source – MEIDB

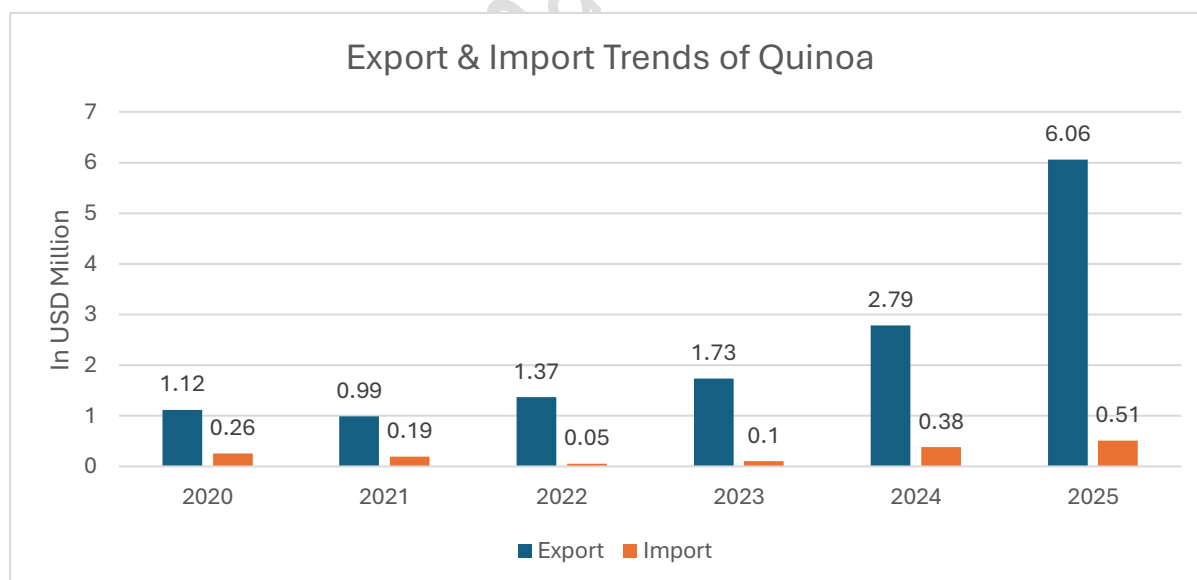
India's millet trade trend indicates a strong export-oriented position with minimal dependence on imports. Exports remained stable at USD 9.68 Million and USD 9.61 Million in 2020 and 2021, respectively, before increasing to a peak of USD 11.7 Million in 2022, driven by rising global demand for millets as a health food and growing international recognition of Nutri-cereals. However, exports declined to USD 9.84 Million in 2023 and further to USD 6.48 Million and USD 6.53 Million in 2024 and 2025, respectively, which may reflect fluctuations in domestic production, higher domestic consumption, and increased focus on internal supply following government promotion of millets. Imports were negligible, recorded at only USD 0.10 Million in 2024 and USD 0.01 Million in 2025, highlighting India's strong self-sufficiency. Overall, the trend underscores India's position as a net exporter of millets, while the recent moderation in exports reflects strengthening domestic demand and consumption.

Export Destinations (FY 2025)



India's millet seed exports are currently concentrated, with the UAE accounting for 32.77%, followed by the USA (7.81%), Egypt (6.74%), and Saudi Arabia and Sri Lanka (5.05% each). While the UAE remains the dominant market, this concentration exposes exports to demand and regulatory risks in a single region. The recent India–EU Free Trade Agreement is expected to enhance India's competitiveness in European markets by reducing or eliminating tariffs on agricultural exports, potentially enabling market diversification beyond the UAE. Similarly, a future India–USA trade deal could lower existing tariffs on Indian Agri-exports, improving price competitiveness in one of the key markets, though benefits are contingent on formal tariff reductions. These developments, coupled with government initiatives such as APEDA support and DGFT export frameworks, provide opportunities to expand India's millet seed footprint globally and reduce reliance on a few markets.

2. Quinoa (Chenopodium Quinoa)

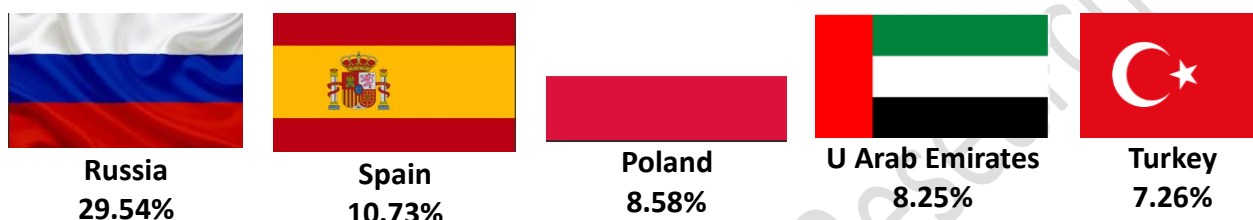


Source – MEIDB

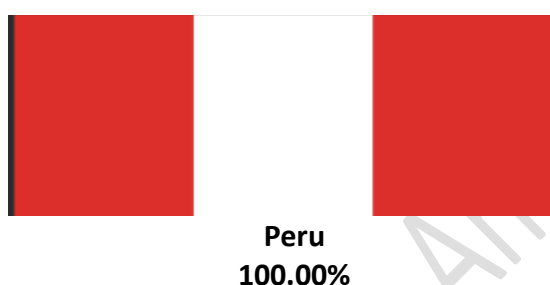
India's quinoa trade shows a strong and widening export surplus between 2020 and 2025, reflecting its emergence as a growing supplier in the global superfoods market. Exports increased sharply from USD 1.12 Million in 2020 to USD 6.06 Million in 2025, with particularly rapid growth after 2023, driven by rising international demand for plant-based, protein-rich

grains and expanding domestic production. Imports remained comparatively low, declining to USD 0.05 Million in 2022 before rising to USD 0.51 Million in 2025, indicating limited dependence on foreign supply and some increase in specialised or premium demand. Overall, the trend highlights India's strengthening position as a net exporter of quinoa, supported by improving cultivation, export opportunities, and increasing global acceptance of quinoa as a health food.

Export Destinations FY 25



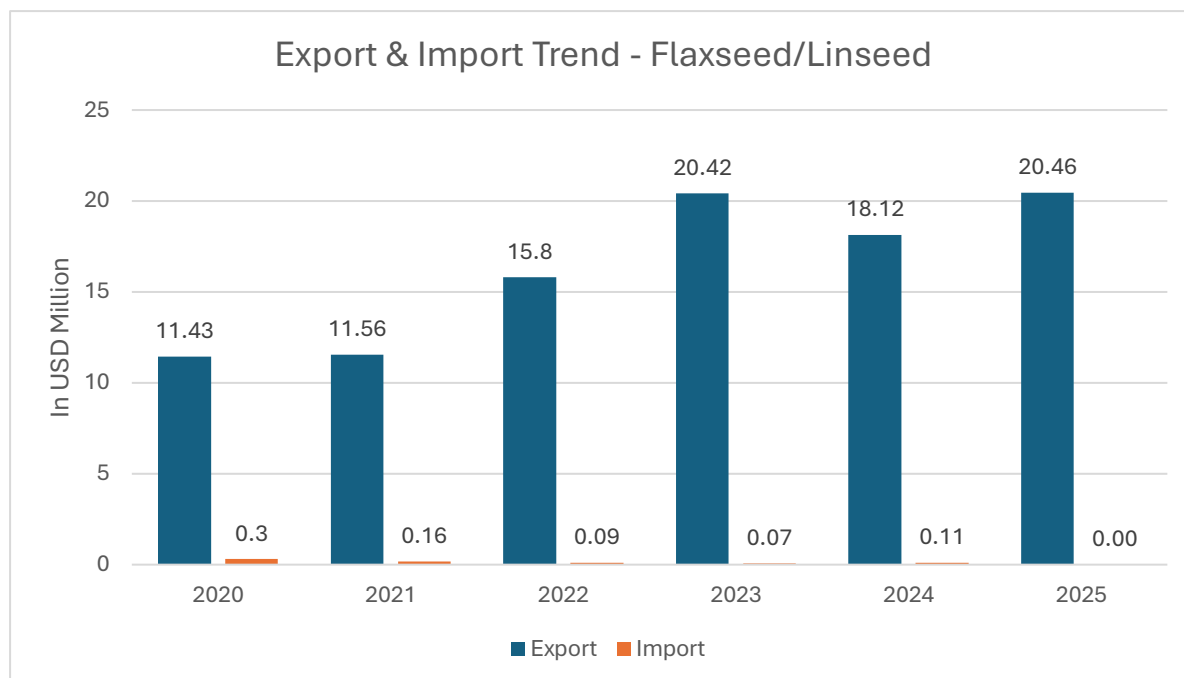
Import Destinations FY25



India's quinoa trade profile indicates a significantly stronger export orientation compared to imports, alongside concentration in import sourcing and diversification in export markets. During the period under review, Peru accounted for 100.00% of total quinoa imports, highlighting heavy reliance on a single source, likely for specific varieties or seed-grade material not widely available domestically.

In contrast, the export market is substantially larger and more diversified, with total exports far exceeding imports. Russia (29.54%) emerged as the leading destination, followed by Spain (10.73%), Poland (8.58%), UAE (8.25%), and Turkey (7.26%). The spread across European, Middle Eastern, and Eurasian markets reflects growing global acceptance of Indian quinoa and reduces dependence on any single export geography. Overall, the data underscores India's position as a net exporter with a broader and stronger export market presence, while also indicating scope to strengthen domestic seed production and diversify import sources to mitigate concentration risks.

3. Flaxseed / Linseed

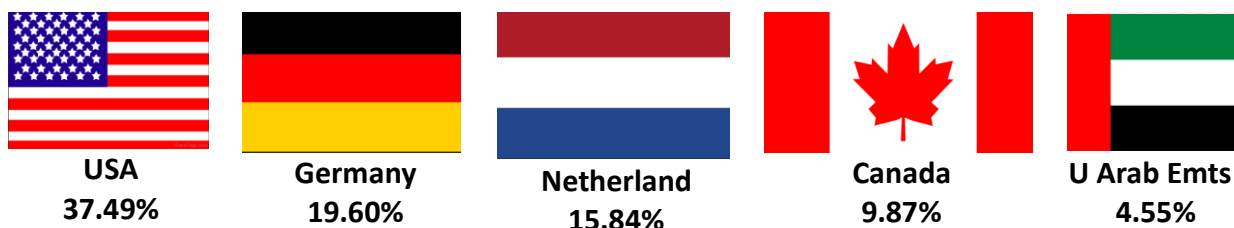


Source – MEIDB

India's trade performance for this superfood category reflects a consistently strong export surplus and negligible reliance on imports. Exports increased steadily from USD 11.43 Million in 2020 to USD 20.46 Million in 2025, registering overall growth of nearly 79%, highlighting robust global demand and strengthening India's position as a key supplier in international markets. The growth was particularly strong between 2021 and 2023, when exports rose from USD 11.56 Million to USD 20.42 Million, driven by increasing global consumer preference for plant-based, nutrient-rich foods and expansion of health food markets. Although exports moderated slightly to USD 18.12 Million in 2024, they recovered to their highest level in 2025, indicating sustained long-term demand.

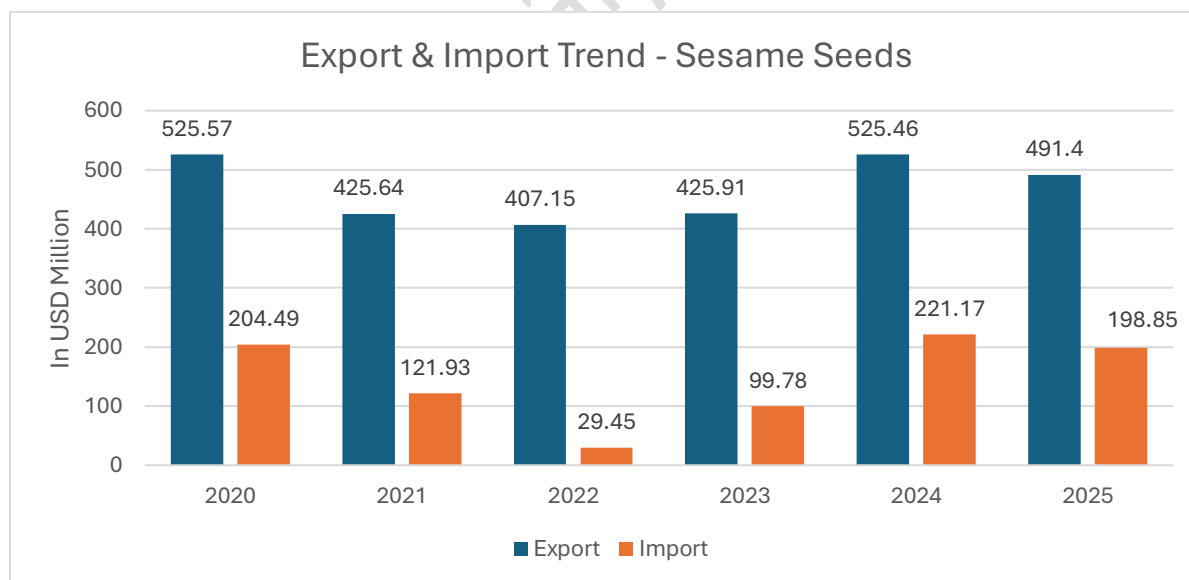
In contrast, imports declined sharply from USD 0.30 Million in 2020 to almost negligible levels by 2025, reflecting strong domestic production capacity and self-sufficiency. Overall, the widening gap between exports and imports highlights India's strengthening export competitiveness, stable domestic supply base, and significant potential for further growth driven by rising global health consciousness and expanding international market access.

Export Destinations FY 2025



India's flaxseed export profile in FY2025 highlights its strong position as a net exporter, with imports reported at zero, indicating adequate domestic production and no dependence on overseas supply. The USA emerged as the largest export destination, accounting for 37.49% of total exports, driven by high demand for flaxseed in functional foods, plant-based nutrition, and omega-3 supplements. Germany (19.60%) and the Netherlands (15.84%) together represented key European markets, supported by strong consumption of organic and health-focused food products. Canada accounted for 9.87%, reflecting steady demand in nutraceutical and bakery applications, while the United Arab Emirates held a 4.55% share, highlighting growing demand in import-dependent regions. The absence of imports combined with diversified export markets indicates India's strengthening global competitiveness and surplus production in flaxseed.

4. Sesame Seeds



Source – MEIDB

India's sesame seed trade reflects its position as a major global exporter while continuing to import specific varieties to meet domestic and processing requirements. Exports declined from USD 525.57 Million in 2020 to USD 407.15 Million in 2022, reflecting global demand moderation and supply-side fluctuations, before recovering strongly to USD 525.46 Million in 2024, supported by improved production and rising international demand. In FY2025, exports

moderated slightly to USD 491.40 Million but remained at historically strong levels, indicating sustained global competitiveness.

Imports, on the other hand, declined sharply from USD 204.49 Million in 2020 to USD 29.45 Million in 2022, suggesting improved domestic availability during that period. However, imports increased again to USD 221.17 Million in 2024 and remained elevated at USD 198.85 Million in 2025, reflecting demand for specific imported sesame varieties, particularly for oil extraction, export re-processing, and premium consumption segments.

Overall, despite fluctuations, India continues to maintain a significant trade surplus in sesame seeds, highlighting its strong production base, established export markets, and critical role in the global sesame supply chain.

Export Destinations FY 25



USA
9.03%



Korea
8.70%



Russia
7.41%



Vietnam
5.44%



Iraq
4.70%

Import Destinations FY 25



Brazil
71.03%



Nigeria
10.47%



Somalia
6.56%



Korea
3.07%



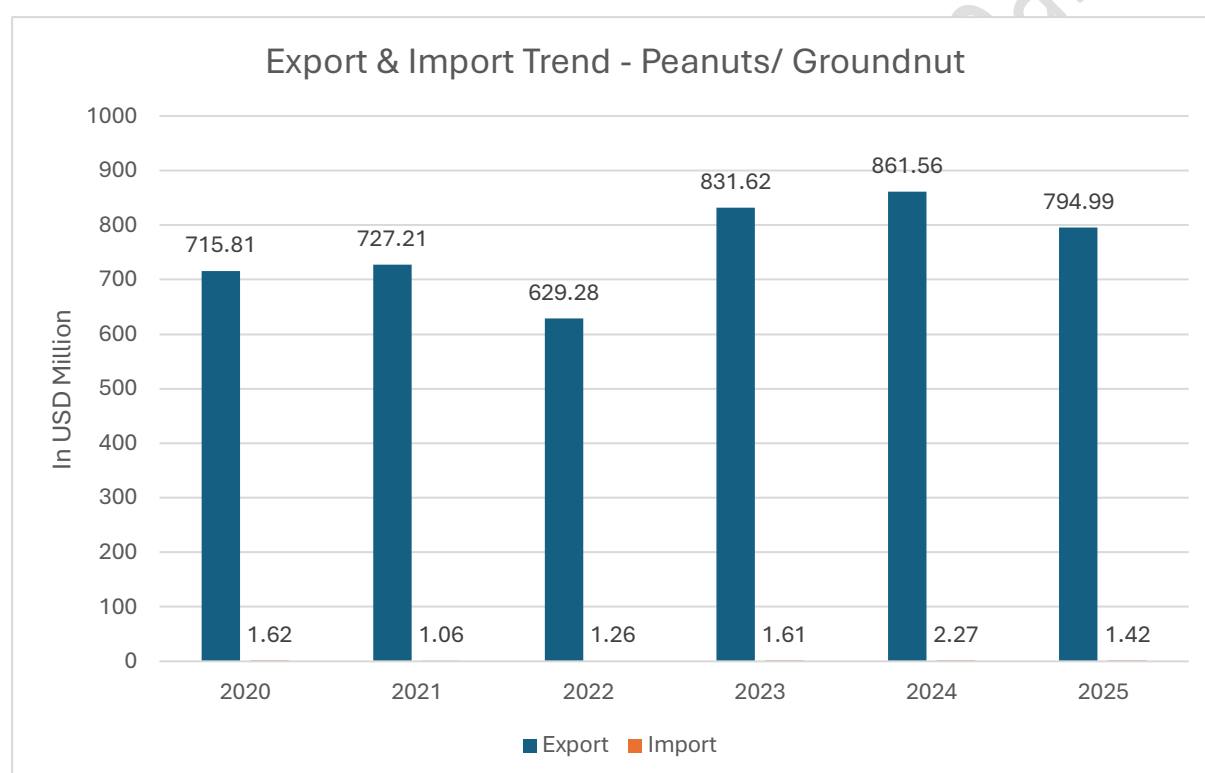
Sudan
1.79%

India's sesame seed export market in FY2025 is well diversified across multiple countries, reducing dependence on any single geography and supporting export stability. The United States emerged as the largest export destination, accounting for 9.03% of total exports, followed closely by Korea (8.70%) and Russia (7.41%), reflecting strong demand from developed and emerging markets for food-grade sesame and bakery applications. Vietnam (5.44%) and Iraq (4.70%) also represent important markets, driven by their large food processing sectors. Notably, a significant 64.71% share is distributed among other countries, highlighting India's broad global presence and reinforcing its position as a key international supplier.

On the import side, India's sesame seed imports are highly concentrated, with Brazil accounting for a dominant 71.03% share, followed by Nigeria (10.47%) and Somalia (6.56%).

Smaller shares are sourced from Korea (3.07%) and Sudan (1.79%). This concentration indicates India imports specific sesame varieties—particularly for oil extraction, blending, and re-export purposes—where certain African and Latin American origins offer price or quality advantages. Overall, the trade structure reflects India's dual role as a leading global exporter while selectively importing to meet quality-specific industrial and export-oriented processing requirements, ensuring supply chain continuity and export competitiveness.

5. Peanuts/ Groundnuts



Source – MEIDB

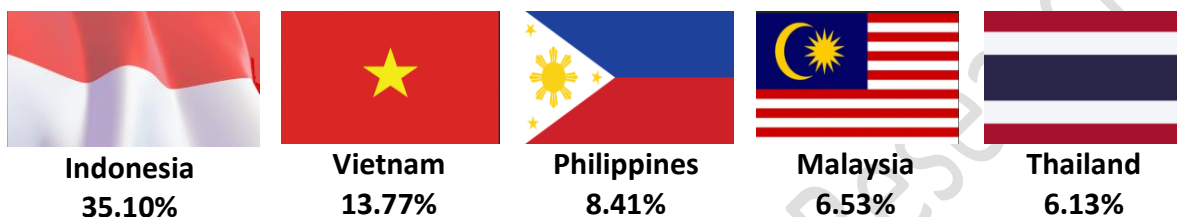
It indicates a strong and consistent export surplus over the period 2020–2025, reflecting India's position as a major global supplier of groundnuts. Peanut exports increased slightly from USD 715.81 million in 2020 to USD 727.21 million in 2021, before declining to USD 629.28 million in 2022, likely due to fluctuations in global demand and price movements. Exports recovered significantly thereafter, rising to USD 831.62 million in 2023 and further to USD 861.56 million in 2024, indicating stronger international demand for Indian groundnuts. In 2025, exports moderated slightly to USD 794.99 million, although they remained substantially higher than earlier levels in the period.

In contrast, peanut imports into India remained negligible, ranging between USD 1.06 million and USD 2.27 million during the period. Imports declined from USD 1.62 million in 2020 to

USD 1.06 million in 2021, increased gradually to USD 1.26 million in 2022 and USD 1.61 million in 2023, peaked at USD 2.27 million in 2024, and subsequently declined to USD 1.42 million in 2025.

Overall, the data highlights India's strong export-oriented peanut trade, with exports consistently and significantly exceeding imports, reinforcing the country's role as a net exporter in the global groundnut market.

Export Destinations FY 25



Import Destinations FY 25



India's peanut/groundnut export market in 2025 is primarily concentrated in Asian countries, reflecting strong regional demand from food processing and edible oil industries. Indonesia emerged as the largest export destination, accounting for 35.10% of total exports, followed by Vietnam (13.77%) and Philippines (8.41%), indicating strong demand from Southeast Asian markets for edible and processed groundnuts. Other key destinations include Malaysia (6.53%) and Thailand (6.13%), both of which have well-established food processing and snack industries that rely on imported raw materials.

On the import side, India's peanut imports remain minimal, indicating strong domestic production and export competitiveness. Tanzania accounted for the largest share of imports at 33.10%, followed by Russia (12.68%) and Malaysia (11.97%). Smaller shares were sourced from United Arab Emirates (9.86%) and Hong Kong (8.45%), while 23.94% of imports were distributed among other countries. The limited import volumes suggest that India primarily imports specific varieties or small quantities to meet niche demand or processing requirements, while maintaining a strong position as a net exporter in the global groundnut trade.

5. Market Dynamics

5.1 Key Growth Drivers

The superfoods industry, including chia seeds, quinoa, and millets, is growing due to rising health awareness, increasing prevalence lifestyle diseases, and higher demand for plant-based and gluten-free foods. Government support for nutri-cereals, expanding export opportunities, rising incomes, and the growth of organized retail and e-commerce are further supporting demand, while ongoing product innovation and improved processing technologies continue to drive industry expansion.

Driver	Impact		
	1–2 Years	3–4 Years	5–7 Years
1. Rising Health & Nutrition Awareness Among Consumers	High	High	High
2. Government Promotion of Nutri-Cereals (Millets) and Oilseed Production	High	High	Medium
3. Growing Demand for Functional & Fortified Foods	Medium	High	High
4. Rising Adoption of Plant-Based & Vegan Diets	Medium	High	High
5. Product Innovation in Nutritional Ingredients, Flours, and Health Blends	Medium	High	High
6. Expansion of Organized Retail and E-commerce Distribution for Health Foods	High	High	High
7. Advancements in Food Processing Technologies	Medium	High	High
8. Rising Disposable Income and Urbanization	High	High	High

Source – Infomerics Analytics & Research

Detailed Overview

- 1. Rising Health Awareness & Lifestyle Diseases** – Increasing awareness of preventive healthcare, along with rising cases of diabetes, obesity, and cardiovascular diseases, is shifting consumer preference toward nutrient-rich, low-glycaemic, and functional foods, driving sustained demand for superfoods.
- 2. Government Support for Nutri-Cereals & Oilseeds** – Government initiatives through subsidies, awareness programs, and improved procurement systems are boosting production, strengthening supply chains, and supporting long-term demand for millets and oilseeds.
- 3. Growing Demand for Functional & Clean-Label Foods** – Consumers are increasingly opting for fortified, organic, and clean-label products that offer added health benefits, encouraging manufacturers to focus on natural ingredients and transparent sourcing.
- 4. Rising Adoption of Plant-Based & Gluten-Free Diets** – Growing preference for vegan, plant-based, and gluten-free diets, particularly among urban consumers, is expanding both domestic consumption and global export opportunities.
- 5. Product Innovation in Nutritional Ingredients, Flours, and Health Blends** – Continuous innovation in multigrain products, health blends, and ready-to-cook formats is improving product differentiation, enhancing margins, and broadening the consumer base.
- 6. Expansion of Retail & E-commerce** – Rapid growth of organized retail and e-commerce platforms is improving product accessibility, enabling niche health brands to scale and reach a wider audience.
- 7. Advancements in Food Processing Technologies** – Technological improvements in processing, grading, and packaging are enhancing product quality, shelf life, and compliance with international standards, boosting competitiveness.
- 8. Rising Disposable Income & Urbanization** – Increasing disposable incomes and urban lifestyles are driving higher spending on premium, convenient, and health-oriented food products, supporting long-term industry growth.

5.2 Market Restraints and Impact Assessment

Despite strong demand fundamentals, the superfood segment (chia, quinoa, millets, and oilseeds) faces several structural and operational challenges that may influence profitability, supply stability, and long-term scalability. These constraints arise from raw material dependence, price volatility, global competition, and quality compliance requirements. Below are a detailed assessment of the key restraints and their expected impact over different time horizons:

Restraint	Impact (1–2 Years)	Impact (3–4 Years)	Impact (5–7 Years)
1. Agricultural Raw Material Price Volatility and Dependence on Monsoon/Climatic Conditions	High	High	Medium
2. Supply Chain Fragmentation and Inefficient Procurement Systems	High	Medium	Medium
3. Rising Input Costs (Energy, Packaging, Labour, Logistics) and global currency fluctuations.	High	High	Medium
4. Stringent Food Safety, Quality, and Export Compliance Norms	Medium	High	High
5. Infrastructure Gaps in Cold Storage and Transportation	High	High	Medium
6. Competition from Unorganized and Informal Sector	High	Medium	Medium

Source – Infomerics Analytics & Research

Detailed Overview:

- 1. Agricultural Raw Material Price Volatility and Dependence on Monsoon/Climatic Conditions** - The industry is highly dependent on agricultural inputs, making it vulnerable to fluctuations in crop yields driven by monsoon patterns and climatic conditions. Adverse weather events can disrupt supply, leading to price volatility and impacting cost predictability and margins.
- 2. Supply Chain Fragmentation and Infrastructure Gaps** - A fragmented supply chain, along with inadequate procurement systems and limited cold storage and transportation

infrastructure, can lead to inefficiencies, higher wastage, and inconsistent product quality, thereby affecting overall operational efficiency.

3. **Rising Input Costs and Global Commodity/Currency Fluctuations** - Increasing costs of energy, packaging, labour, and logistics, coupled with volatility in global commodity prices and exchange rates, can elevate production costs. This creates margin pressures, particularly in a price-sensitive market where cost pass-through is limited.
4. **Stringent Food Safety, Quality, and Export Compliance Norms** - The need to comply with strict food safety, quality, and export regulations requires ongoing investment in certifications and quality control systems. Non-compliance may result in penalties, product recalls, or restricted market access.
5. **Infrastructure Gaps in Cold Storage and Transportation** - Limited cold storage and inefficient transport infrastructure lead to higher wastage, quality deterioration, and supply inconsistencies, while also increasing logistics costs and reducing overall supply chain efficiency.
6. **Competition from Unorganized Sector and Consumer Price Sensitivity** - The presence of unorganized players with lower cost structures creates pricing pressure, while high consumer price sensitivity limits the ability to pass on increased costs, thereby impacting profitability.

6. Government Initiatives and Policy Support

The Government of India has introduced several initiatives to promote the production, processing, value addition, and export of superfoods, particularly millets and other nutrient-rich crops. These initiatives support farmers, food processors, exporters, and the broader food processing ecosystem.

The notable achievements over the past year are as follows: -

- Share of processed food exports in agri-food exports increased substantially from 13.7% in 2014-15 to 20.4% in 2024-25.
- Food processing sector is one of the largest employment providers in the organized manufacturing sector with 12.83% employment in the total registered/organized sector as per the report of Annual Survey of Industries (ASI), 2023-24.
- Since Jan 2025, a total of 56,542 loans have been sanctioned under the credit linked subsidy component of the PMFME scheme.

1. Increased Budgetary Allocation to MoFPI - The government has increased budgetary allocation to the Ministry of Food Processing Industries to INR 4,064 crore for FY 2026–27, reflecting continued policy focus on the sector. This enhanced funding supports infrastructure development, modernization of value chains, and promotion of micro and small enterprises, thereby facilitating private investment and reducing post-harvest losses.

2. Pradhan Mantri Kisan Sampada Yojana (PMKSY) - PMKSY focuses on developing modern infrastructure and efficient farm-to-retail supply chains through investments in cold chains, agro-processing clusters, and food safety systems. The scheme has significantly enhanced processing capacity, reduced post-harvest losses, improved farmer income realization, and strengthened export readiness through improved quality infrastructure.

3. Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) - PMFME aims to strengthen micro food processing units through credit-linked subsidies, seed capital support, and the One District One Product (ODOP) approach. The scheme has promoted formalization, improved access to finance and technology, and supported branding and market access, thereby boosting rural entrepreneurship and employment generation.

4. Production Linked Incentive Scheme for Food Processing Industries (PLISFPI) - PLISFPI is designed to enhance large-scale manufacturing, promote value-added food products, and create globally competitive Indian food brands. The scheme incentivizes investment across key segments, supports innovation and exports, and has contributed to increased production scale, employment generation, and global market presence.

5. Infrastructure and Food Safety Enhancement Measures - Government initiatives to expand cold chain infrastructure, food irradiation facilities, and NABL-accredited testing laboratories have strengthened supply chain efficiency and quality assurance. These measures help reduce wastage, improve shelf life, and ensure compliance with domestic and international food safety standards.

6. Export Promotion and Global Investment Facilitation (World Food India 2025) - World Food India 2025 has acted as a key platform for attracting global investments and promoting exports by facilitating partnerships between international buyers, investors, and domestic stakeholders. The initiative has strengthened India's positioning as a global food processing hub and supported large-scale investment commitments.

7. Overall Sectoral Impact of Government Initiatives - Government interventions have led to significant improvements in sector performance, including higher processed food exports, increased gross value addition, rising foreign investments, and strong employment generation. The sector continues to play a vital role in rural industrialization and economic growth.

8. PLI Scheme for Millet-Based Products - Targeted incentives for millet-based products under the PLI framework have boosted value addition, processing capacity, and market access for nutri-cereals. Support for entrepreneurs, branding, and domestic and export sales has strengthened the millet ecosystem and encouraged industry participation.

9. International Year of Millets and Promotion Initiatives - India's leadership in declaring 2023 as the International Year of Millets has significantly enhanced global and domestic awareness of nutri-cereals. Government-led campaigns, rebranding efforts, and regulatory standardization have driven consumption, encouraged investments, and expanded market opportunities for millet-based products.

7. Technology & Digital Transformation

Technology adoption is significantly enhancing productivity, quality control, traceability, and supply chain efficiency across the superfoods industry. Advanced digital solutions are enabling stakeholders to improve operational efficiency, ensure compliance with global standards, and respond effectively to evolving consumer demand.

IoT & Smart Sensors - IoT-enabled sensors monitor critical parameters such as temperature, humidity, and equipment performance in real time, ensuring product quality and cold chain integrity. This enables early detection of deviations, reduces spoilage, and supports predictive maintenance, improving operational efficiency.

2. Automation & Robotics - Automation in processing, sorting, packaging, and quality control enhances production efficiency, consistency, and hygiene. It reduces reliance on manual labour, minimizes errors, and ensures compliance with stringent food safety standards.

3. AI & Machine Learning - AI and ML are increasingly used for demand forecasting, quality inspection, and predictive maintenance. These technologies help optimize production planning, reduce wastage, and enable data-driven decision-making across operations and supply chains.

4. Blockchain for Traceability - Blockchain technology provides end-to-end traceability by recording every stage of the supply chain in a secure and tamper-proof manner. This enhances transparency, strengthens food safety, and supports certification and export compliance.

5. Digital Twins & Simulation - Digital twins create virtual replicas of production systems, allowing companies to simulate operations, identify inefficiencies, and optimize processes without disrupting actual production, thereby improving planning and resource utilization.

6. Advanced Data Analytics - Integration of data across operations enables advanced analytics to identify inefficiencies, optimize supply chains, reduce costs, and provide insights into consumer preferences, supporting better strategic decision-making.

7. 3D Food Printing & Advanced Manufacturing - Emerging technologies such as 3D food printing enable product customization and innovation, particularly in niche and high-value segments, though adoption remains at an early stage.

8. Genomics & Biotechnology - Biotechnology supports the development of functional ingredients, plant-based products, and improved shelf life through enzyme and fermentation technologies, enhancing product quality and nutritional value.

9. AR & VR Applications - Augmented and virtual reality tools are used for workforce training, maintenance support, and process visualization, improving operational accuracy, safety, and efficiency.

8. PESTEL Analysis of the Industry

Factor	Key Insights
Political Factors	- Strong government push through schemes like PMKSY, PMFME, PLI for Food Processing, and cold chain infrastructure development. - Policies promoting value addition, reduction of post-harvest losses, and Agri-food exports strengthen sector growth. - Trade agreements, export incentives, and food security policies influence raw material availability and international competitiveness.
Economic Factors	- Rising disposable incomes, urbanization, and organized retail expansion drive demand for processed and value-added foods. - Volatility in agricultural commodity prices impacts input costs and margins. - Growing contribution of value-added segments such as nutraceuticals, superfoods (millets, chia, quinoa), and edible oils supports revenue diversification.
Social Factors	- Changing lifestyles, nuclear families, and working populations increase demand for packaged and convenient food products. - Rising health awareness is shifting consumption toward functional foods, organic products, and superfoods. - Sector is a major employment generator across farming, processing, logistics, and retail, supporting rural and semi-urban livelihoods.
Technological Factors	- Adoption of automation, IoT-based monitoring, AI-driven quality control, and digital traceability enhances efficiency and food safety. - Growth of cold chain technologies reduces wastage of perishables. - Food innovation in plant-based proteins, fortified foods, and clean-label processing supports premiumization.
Environmental Factors	- Climate variability affects availability and quality of agricultural raw materials. - Increasing focus on sustainable sourcing, energy-efficient processing, water management, and waste valorisation (bioenergy, by-products). - Pressure to reduce packaging waste and carbon footprint is shaping operational strategies.
Legal Factors	- Strict compliance with FSSAI regulations, labelling norms, quality standards, and traceability requirements. - Food safety laws, environmental clearances, and labour regulations influence operational practices.

9. Competitive Landscape

The superfoods industry is evolving rapidly, driven by rising health awareness, product innovation, and sustainability trends. Competition is increasingly shifting from scale and cost efficiency to factors such as quality assurance, traceability, branding, and value-added product offerings. Players are leveraging advanced processing technologies, certifications, and digital distribution channels to strengthen market positioning, making the sector more innovation-driven and quality-focused.

9.1 Key Factors shaping competition

1. Raw Material Sourcing & Supply Security - Superfoods such as chia, quinoa, millets, and specialty oilseeds often depend on specific agro-climatic zones and smallholder farming. Companies that build direct farmer linkages, contract farming models, or FPO partnerships gain a major edge in quality consistency and price stability. Import dependence (e.g., chia, quinoa) also exposes firms to currency risks and global supply disruptions, making sourcing strategy a key competitive differentiator.

2. Quality Standards & Certifications - Competition is strongly influenced by the ability to meet global quality benchmarks such as organic certification, non-GMO, gluten-free, HACCP, ISO, BRC, and export compliance standards. Buyers in export and premium domestic markets prioritize certified suppliers, making quality assurance systems and traceability infrastructure a barrier to entry.

3. Processing Technology & Value Addition - Firms using advanced cleaning, grading, cold milling, oil extraction, roasting, puffing, or extrusion technologies can offer higher-value, ready-to-use ingredients rather than raw grains/seeds. Value-added formats (protein powders, flakes, oils, fortified blends) command better margins and differentiate brands.

4. Branding & Consumer Positioning - Unlike commodity foods, superfoods are consumer perception-driven. Brands compete on health positioning — high protein, fiber-rich, omega-3, gluten-free, plant-based, or functional nutrition. Strong branding, storytelling (origin, sustainability), and digital marketing significantly influence market share.

5. Distribution Reach & Channel Access - Access to modern retail, e-commerce, nutraceutical stores, and export channels shapes competitive strength. Players with omni-channel presence and global distribution networks scale faster than regional processors.

6. Innovation & Product Development - Frequent product innovation is critical. Companies that develop ready-to-mix blends, fortified foods, plant-based protein products, snack formats, and functional ingredients stay ahead of commodity-focused competitors.

7. Cost Efficiency & Scale - Processing efficiency, energy use, and yield optimization determine pricing competitiveness. Larger processors benefit from economies of scale, while smaller niche players compete through premium positioning.

8. Sustainability & Ethical Sourcing - Consumers in this segment are highly sustainability-conscious. Firms adopting organic farming support, water-efficient processing, recyclable packaging, and fair-trade sourcing gain reputational advantage.

9. R&D and Nutritional Science Capabilities - Scientific backing for health claims, formulation expertise, and collaborations with food research institutions enable companies to create clinically relevant, functional superfood products, which is a major competitive moat.

10. Global Competition & Import Substitution - The market includes both domestic processors and international brands, especially in chia and quinoa. Companies that localize processing, reduce imports, or offer better pricing with similar quality gain competitive ground.

11. Government Support & Scheme Participation - Access to benefits under PMKSY, PMFME, and PLI schemes for food processing and millet-based products helps companies invest in technology, branding, and capacity expansion — influencing long-term competitiveness.

9.2 Competitive Strategies

The food processing industry is becoming increasingly competitive, with success driven by innovation, quality, operational efficiency, and market diversification rather than just scale or pricing. Companies are adopting strategic approaches across product development, sourcing, supply chains, and market expansion to enhance profitability and resilience.

- **Portfolio Premiumization & Product Innovation:** Expansion into high-margin, health-oriented and value-added products such as functional, fortified, and organic foods to improve margins and reduce commodity dependence.
- **Speed-to-Market & Agile Operations:** Faster product development and flexible manufacturing enable companies to capture emerging consumer trends and gain early market advantage.
- **Private Label & Institutional Partnerships:** Collaboration with retailers, food service providers, and industrial buyers ensures stable demand and better capacity utilization.
- **Geographic Diversification:** Expansion across domestic and international markets reduces revenue concentration risk and enhances growth opportunities.
- **Supply Chain & Logistics Optimization:** Efficient warehousing, cold chain, and transportation systems help reduce losses, maintain quality, and lower distribution costs.
- **Data-Driven Operations:** Use of analytics for demand forecasting, inventory management, and production planning improves efficiency and responsiveness.
- **Commodity Risk Management:** Diversified sourcing and procurement strategies help mitigate input price volatility and supply disruptions.
- **Quality, Compliance & Packaging Innovation:** Strong food safety standards, traceability, and advanced/sustainable packaging enhance product quality, shelf life, and consumer trust.

9.3 Barriers to Entry

The food processing industry has high entry barriers due to capital intensity, regulatory requirements, supply chain complexities, and the need for technical expertise, limiting entry to well-capitalized and capable players.

- **High Capital & Working Capital Requirements:** Significant investment in infrastructure, machinery, and inventory, along with ongoing working capital needs, creates financial barriers.
- **Stringent Regulatory & Quality Compliance:** Compliance with FSSAI norms, global certifications, and quality standards involves continuous audits, testing, and documentation.
- **Raw Material Sourcing Constraints:** Dependence on seasonal agricultural inputs and the need for strong procurement networks make consistent sourcing challenging.
- **Technology & Process Expertise:** Specialized knowledge in processing, preservation, and quality control is essential for efficiency and product consistency.
- **Established Brands & Distribution Networks:** Strong brand loyalty and well-developed distribution channels of existing players make market penetration difficult.
- **Economies of Scale:** Larger players benefit from lower costs and better bargaining power, making it hard for new entrants to compete on pricing.
- **Supply Chain & Infrastructure Limitations:** Inadequate cold chain, logistics, and storage capabilities increase risks of spoilage and inefficiencies.
- **Licensing & Export Barriers:** Multiple approvals and stringent export requirements create procedural and operational challenges for new entrants.

9.4 Key Industry Players

India's food processing industry comprises diversified agribusiness players, large-scale processors, and emerging value-added manufacturers operating across domestic and export markets. While large players leverage integrated sourcing, scale, and diversified portfolios, specialised players focus on niche segments through quality certifications, innovation, and efficient supply chains. Increasing emphasis on traceability, product quality, and global compliance is driving competition and positioning efficient, innovation-led companies for growth.

Gujarat Ambuja Exports Limited (GAEL) - Gujarat Ambuja Exports Limited is a diversified agro-processing company based in Ahmedabad, specialising in starch derivatives, soya derivatives, edible oils, and feed ingredients. The company's official profile highlights its manufacturing leadership in products such as corn starch, refined soybean oil, maltodextrin, liquid glucose, sorbitol solutions, and soya products that serve food, industrial, and nutritional markets. GAEL emphasises quality processing and wide product availability for both domestic and export customers.

Core Offerings

- **Corn Starch & Derivatives:** High-purity starch and syrup products for food and industrial use.
- **Soya Derivatives:** Full-fat and defatted soya product lines including lecithin and soya granules.
- **Edible Oils & Feed:** Refined & specialty oils and animal feed components

KN Agri Resources Limited - KN Agri Resources Limited, incorporated in 1987, is an integrated agro-processing company primarily engaged in soybean processing, edible oil refining, and Agri-commodity trading. The company operates solvent extraction plants, oil refineries, and a flour mill in Madhya Pradesh, producing soya de-oiled cake, hipro soya meal, refined edible oils, soya lecithin, and soya flour under brands such as "Classic" and "Khanpan." In addition to manufacturing, KN Agri trades in commodities including maize, gram, pulses, sugar, soybean, and wheat. Its operations span domestic and export markets, supported by processing infrastructure and renewable energy installations, positioning it as a significant player in India's edible oil and Agri-processing sector.

Shree Oswal Seeds and Chemicals Limited - Shree Oswal Seeds & Chemicals Limited, incorporated in 2017 and headquartered in Neemuch, Madhya Pradesh, is engaged in the production, processing, and marketing of agricultural seeds. The company offers a diversified portfolio including wheat, soybean, mustard, maize, black gram, mung bean, and psyllium seeds under brands such as Oswal Gold and Oswal Seeds. It operates modern seed processing facilities with quality control systems to ensure purity and germination standards.

9.5 Financials Performance Analysis

The financial performance analysis of Quessentials Private Limited presents an overview of its operational and profitability trends over FY 2023 to FY 2025. The assessment highlights key indicators such as revenue from operations, total income, EBITDA, and profitability margins, reflecting the company's operational efficiency and financial stability.

Figures are in INR lakhs (Except for ratios and percentages)

Key Indicators (in INR Lakhs)	Quessentials Private Limited		
	FY 2023	FY 2024	FY 2025
Total Operating Income	5321.70	8987.50	7798.40
Total Income	5325.89	9018.58	7822.63
EBITDA	499.86	168.54	342.85
EBITDA Margin (%)	9.39%	1.88%	4.40%
PAT	338.22	59.21	214.29
PAT Margin (%)	6.35%	0.66%	2.74%
Current Ratio (in times)	3.05	3.92	2.95
Tangible Net worth	760.01	816.33	1028.88
Total Debt	0.00	13.80	134.15
Debt Equity Ratio (in times)	0.00	0.02	0.13
ROCE (%)	65.34%	8.25%	19.69%
Return on Net Worth (%)	89.00%	7.51%	23.23%

Source – Audited Financials as provided by the Company

Formula Used:

- EBITDA: Total Operating Income - Operating Expenses (excluding Depreciation & Amortisation, Interest, and Taxes)
- EBITDA Margin: (EBITDA/Total Operating Income) *100
- PAT Margin: (Profit after Tax/Total Income) *100
- Current Ratio: Current Assets /Current Liabilities
- Tangible Net Worth: Share Capital + Reserve & Surplus – Intangible Assets -Deferred Tax Assets – Misc Expenditure not written off – Revaluation Reserves
- Return on Net Worth (RONW): (Profit After Tax /Average Tangible Net Worth) *100
- Total Capital Employed: Fixed Assets + Intangible Assets +Net Working Capital
- Return on Capital Employed (ROCE): (Earnings before Interest & Taxes/Average Capital Employed) *100

The Company's financial performance during FY23–FY25 reflects a phase of expansion, strategic transition, and subsequent stabilization. Total Operating Income increased significantly from INR 5,321.70 lakh in FY23 to INR 8,987.50 lakh in FY24, primarily driven by a rise in export sales, which expanded the Company's revenue base. Thereafter, revenue moderated to INR 7,798.40 lakh in FY25 as the Company shifted its strategic focus from spices to superfoods, resulting in a change in product mix and a transitional impact on overall sales volumes. Total Income followed a similar trend, rising from INR 5,325.89 lakh in FY23 to INR 9,018.58 lakh in FY24 before declining to INR 7,822.63 lakh in FY25.

Profitability was impacted in FY24, with EBITDA declining from INR 499.86 lakh in FY23 to INR 168.54 lakh in FY24, resulting in EBITDA margin compressing from 9.39% to 1.88%. PAT decreased from INR 338.22 lakh to INR 59.21 lakh, and PAT margin reduced from 6.35% to 0.66%. The decline in margins during FY24 was primarily due to a sharp rise in other operating expenses, particularly customs clearance charges, duties and taxes, and related logistics and compliance costs. Further, finance costs increased in FY24 with the introduction of borrowings, which affected net profitability despite exchange gains recorded under other income. In FY25, the Company demonstrated recovery and operational stabilization. EBITDA improved to INR 342.85 lakh and EBITDA margin recovered to 4.40%, while PAT increased to INR 214.29 lakh with PAT margin improving to 2.74%, supported by better cost absorption, normalization of operating expenses, and a reduction in finance costs.

Liquidity remained comfortable, with the Current Ratio at 3.05 times in FY23, improving to 3.92 times in FY24 and moderating to 2.95 times in FY25, indicating adequate short-term solvency.

The Company's Tangible Net Worth strengthened from INR 760.01 lakh in FY23 to INR 816.33 lakh in FY24 and INR 1,028.88 lakh in FY25 due to profit retention. The capital structure evolved during the period, with Total Debt increasing from nil in FY23 to INR 13.80 lakh in FY24 and INR 134.15 lakh in FY25, resulting in a Debt–Equity Ratio of 0.00 times, 0.02 times, and 0.13 times, respectively, which remains at a comfortable level.

Return ratios were impacted in FY24 but improved in FY25, with ROCE declining from 65.34% in FY23 to 8.25% in FY24 and recovering to 19.69% in FY25, while Return on Net Worth reduced from 89.00% to 7.51% and improved to 23.23% over the same period.

Overall, FY24 represents a transition year marked by cost pressures and strategic realignment, whereas FY25 reflects early signs of margin recovery, improved operational efficiency, and stabilization of financial performance.

9.6 Peer Benchmarking Analysis

The peer benchmarking analysis assesses the financial performance of Quessentials Private Limited in comparison with relevant players in the Food Processing Industry. For this analysis, it has been benchmarked against Gujarat Ambuja Exports Limited, KN Agri Resources Limited & Shree Oswal Seeds & Chemicals Limited.

Figures in INR Lakhs (Except for ratios and percentages)

Key Indicators	Quessentials Private Limited	KN Agri Resources Limited	Shree Oswal Seeds & Chemicals Limited	Gujarat Ambuja Exports Limited
Total Operating Income	7798.40	1724.85	24591.28	461258.00
Total Income	7822.63	1728.70	24620.98	469628.00
EBITDA	342.85	60.59	957.67	40117.00
EBITDA Margin	4.40%	3.51%	3.89%	8.70%
PAT	214.29	36.91	352.89	25082.00
PAT Margin	2.74%	2.14%	1.43%	5.34%
Current Ratio	2.95	9.56	1.56	4.38
Tangible Net worth	1028.88	401.49	4166.91	300324.00
Total Debt	134.15	28.64	4314.28	25096.00
Debt Equity Ratio	0.13	0.07	1.04	0.08
ROCE (%)	19.69%	26.53%	21.20%	16.31%
Return on Net Worth (%)	23.23%	18.39%	16.94%	16.70%

Source - FY2025 financials for peer comparison are based on audited figures for Quessentials Private limited (as provided by the company), KN Agri Resources Limited & Shree Oswal Seeds & Chemicals Limited (as filed on NSE).

In comparison with its peers, Quessentials Private Limited demonstrates a strong and balanced financial profile, particularly in terms of profitability, return ratios, and prudent leverage management. In FY25, the Company reported a Total Operating Income of INR 7,798.40 lakh and Total Income of INR 7,822.63 lakh, generating an EBITDA of INR 342.85 lakh, translating into an EBITDA margin of 4.40%, which is higher than KN Agri Resources Limited (3.51%) and Shree Oswal Seeds & Chemicals Limited (3.89%), though lower than the large-scale diversified player Gujarat Ambuja Exports Limited (8.70%).

At the net level, Quessentials reported a PAT of INR 214.29 lakh with a PAT margin of 2.74%, outperforming KN Agri (2.14%) and significantly exceeding Shree Oswal (1.43%), reflecting

stronger cost management and operational efficiency within its scale segment. The Company also recorded the highest Return on Net Worth (23.23%) among peers, compared to KN Agri (18.39%), Shree Oswal (16.94%), and Gujarat Ambuja (16.70%), demonstrating superior shareholder value creation.

From a capital structure perspective, Quessentials maintains a conservative Debt–Equity Ratio of 0.13, which is substantially lower than Shree Oswal (1.04) and remains within prudent levels relative to its asset base, while supporting growth. Its Current Ratio of 2.95 times indicates comfortable liquidity, higher than Shree Oswal (1.56) and adequate for operational stability. The Company’s ROCE of 19.69% reflects efficient capital utilization, remaining competitive within the peer group.

Overall, while operating at a smaller scale compared to Gujarat Ambuja Exports Limited, Quessentials distinguishes itself through strong return ratios, healthier net margins relative to similarly sized peers, disciplined leverage, and efficient capital deployment, positioning it favourably within the emerging superfoods and agro-processing segment.

9.7 Company Positioning – Quessentials Private Limited

Quessentials Private Limited, incorporated in 2019 and headquartered in Delhi, has positioned itself as a player in the superfoods and specialty food ingredients segment, catering to both domestic and export markets. Founded to tap into the growing demand for nutrient-rich and clean-label food products, the company has built its business around processing and distributing a range of superfoods including chia seeds, quinoa, millets, flaxseeds and specialty oilseeds, targeting health-conscious consumers, modern retailers and food manufacturers. Since its inception, Quessentials has emphasized premium quality, traceability, and value addition as core differentiators in a competitive market.

Quessentials operates an expansive 25,000 square feet manufacturing facility equipped with cutting-edge technology that supports efficient inventory management, streamlined production, and prompt customer service. With a daily production capacity of 50 metric tons, the company prioritizes timely delivery to maintain product freshness and nutritional quality. Advanced cleaning techniques achieve a 99.99% purity level, ensuring high-quality, contaminant-free products. The facility also adheres to strict quality control protocols, and the company has obtained multiple certifications reflecting compliance with international food safety and quality regulations.

The company's business model is anchored on strategic sourcing partnerships with farmers and suppliers across key producing regions such as Punjab, Haryana, Rajasthan, and parts of South India, ensuring consistent raw material quality and supply reliability. Finished products are distributed through a mix of modern retail, health-food chains and B2B ingredient supply channels to maximize reach and accessibility.

Quessentials serves a diverse target customer base that includes health-conscious consumers purchasing branded superfood packs, small and mid-sized food manufacturers using high-quality ingredients for value-added products, and institutional buyers such as nutraceutical and wellness brands. Within these segments, the company focuses on partners and consumers who value nutritional integrity, product consistency, and clean-label claims.

The company's product portfolio addresses both consumer and industrial needs, emphasizing nutritional value. Offerings include certified superfood seeds and grains, millet-based flours and mixes, value-added processed inputs such as roasted and powdered formats, and specialty ingredients for bakery, beverage, and health food applications. This multi-tiered portfolio allows Quessentials to balance core nutritional staples with emerging health-driven categories, strengthening its presence in the rapidly growing superfoods segment.

9.8 SWOT Analysis

Strengths	Weaknesses
✓ Advanced Manufacturing Facility: 25,000 sq. ft. facility with modern technology supports high production efficiency (50 MT/day) and inventory management, ensuring timely delivery. ✓ High Quality Standards: Advanced cleaning processes achieve 99.99% product purity, complemented by multiple international food safety and quality certifications. ✓ Diverse Product Portfolio: Offers chia, quinoa, millets, flaxseeds and specialty oilseeds in both consumer-ready and industrial formats, catering to multiple market segments ✓ Traceability and Sourcing: Strategic sourcing partnerships with farmers across key producing regions in India ensure consistent quality and supply reliability. ✓ The Company hold various certifications including FSSAI, HACCP, BRC, USFDA, SPICE BOARD, APEDA, ISO 22000:2018, and ORGANIC NPOP. These certifications reflect the commitment to adhering to international food safety and quality regulations, ensuring that the customers receive products of the highest standard.	✗ Limited Brand Recognition: Being relatively new in the market (established 2019), brand awareness is lower compared to established FMCG or superfood players. ✗ Dependence on Key Raw Materials: Reliance on specific regions for sourcing chia, quinoa, and millets exposes the company to climatic risks and supply disruptions. ✗ High Operational Costs: Maintaining advanced cleaning, quality certifications, and modern processing infrastructure increases operating expenses.

Opportunities	Threats
 Rising Health Awareness: Increasing consumer focus on nutritional foods, superfoods, and functional ingredients provides a growing market for chia, quinoa, millets, and oilseeds.  Export Market Growth: Global demand for Indian superfoods is expanding, offering opportunities for international expansion, especially in the USA, Europe, Middle East, and Australia.  Product Innovation: Opportunity to launch ready-to-eat or fortified products, blends, and functional mixes for retail and foodservice segments.  Digital Commerce & Marketing: Expansion via e-commerce, quick-commerce, and health-focused online platforms can increase reach and consumer engagement.  Government Support: Schemes like PMFME, PMKSY, and PLI for Millet-Based Products offer incentives for processing, branding, and infrastructure development.	 Intense Competition: Facing competition from both domestic superfood processors and global imported products like quinoa and chia.  Price Volatility: Fluctuating prices of raw superfoods can affect profitability and cost competitiveness.  Regulatory Risks: Compliance with FSSAI, export standards, organic certifications, and international food regulations requires ongoing investment.  Supply Chain Vulnerabilities: Dependence on smallholder farmers and seasonal crops may lead to inconsistent raw material availability.  Changing Consumer Preferences: Rapid shifts in health trends or diet preferences could require continuous adaptation of products and marketing strategies.

10. Future Outlook

The Indian superfoods industry is expected to witness robust growth over the next decade, supported by increasing health awareness, rising disposable incomes, and a gradual shift toward preventive healthcare and nutrient-rich diets. Consumers are increasingly incorporating traditional superfoods such as millets, quinoa, chia seeds, flaxseeds, and other functional foods into their daily consumption due to their proven health benefits, including improved digestion, better immunity, and management of lifestyle diseases such as diabetes and obesity. This shift is particularly strong among urban populations, millennials, and fitness-conscious consumers, and is expected to expand further into Tier II and Tier III cities as awareness and product availability increase.

Government support is expected to remain a key growth driver for the industry. Initiatives by the Ministry of Food Processing Industries, including Production Linked Incentive (PLI) schemes for food processing and support for value-added food products, are encouraging investments in processing infrastructure and product innovation. Additionally, the promotion of millets under national nutrition programmes and export promotion efforts by the Agricultural and Processed Food Products Export Development Authority are expected to improve both domestic consumption and global competitiveness of Indian superfoods. Research and development support provided by the Indian Institute of Millets Research is further helping improve millet productivity, processing technologies, and product diversification.

The industry is also expected to benefit significantly from the rapid expansion of organized retail and e-commerce platforms, which are improving accessibility and availability of superfood products across the country. Online platforms such as direct-to-consumer brands, health-focused startups, and large FMCG companies are expanding their product portfolios to include ready-to-eat millet foods, breakfast cereals, snack bars, and functional beverages. This is helping accelerate consumer adoption and increasing penetration across different income groups.

Furthermore, India is expected to emerge as a major global hub for superfood production and exports due to its favourable Agro-climatic conditions, large agricultural base, and position as one of the largest producers of millets globally. Increasing investments in food processing, branding, and export-oriented production are expected to enhance India's global market share. Overall, the Indian superfoods industry is expected to experience strong double-digit growth in the long term, driven by rising domestic demand, favourable government support, expanding distribution networks, and increasing global recognition of traditional Indian superfoods.

Yours Faithfully,



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