

AGRICULTURE EXPORTS – ECONOMY

NEWS: India's agriculture exports have risen 6.5%, from \$35.2 billion in April-December 2023 to \$37.5 billion in April-December 2024.

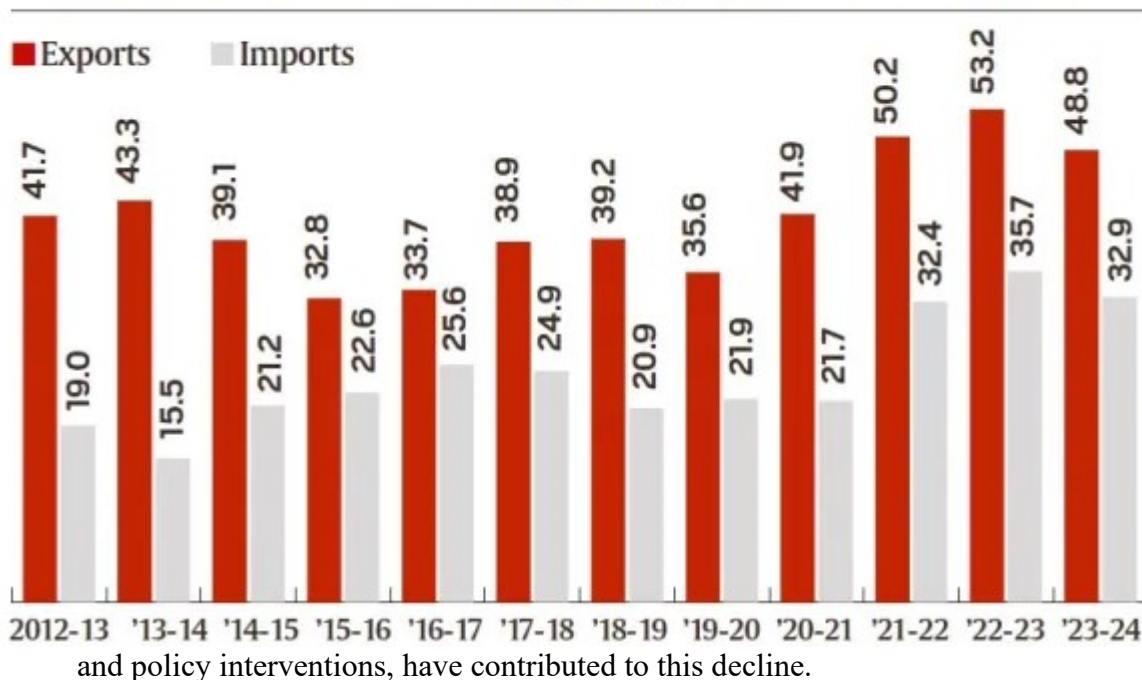
WHAT'S IN THE NEWS?

Narrowing Agricultural Surplus of India

India has traditionally been a net exporter of agricultural commodities, with the value of its exports consistently exceeding its imports. However, the agricultural trade surplus has witnessed a significant decline over the years.

- The trade surplus, which peaked at **\$27.7 billion in 2013-14**, shrunk to **\$16 billion in 2023-24**, reflecting a major contraction.
- Several factors, including falling global food prices, domestic production constraints,

AGRI EXPORTS & IMPORTS (\$ MN), 2012-13 TO 2023-24

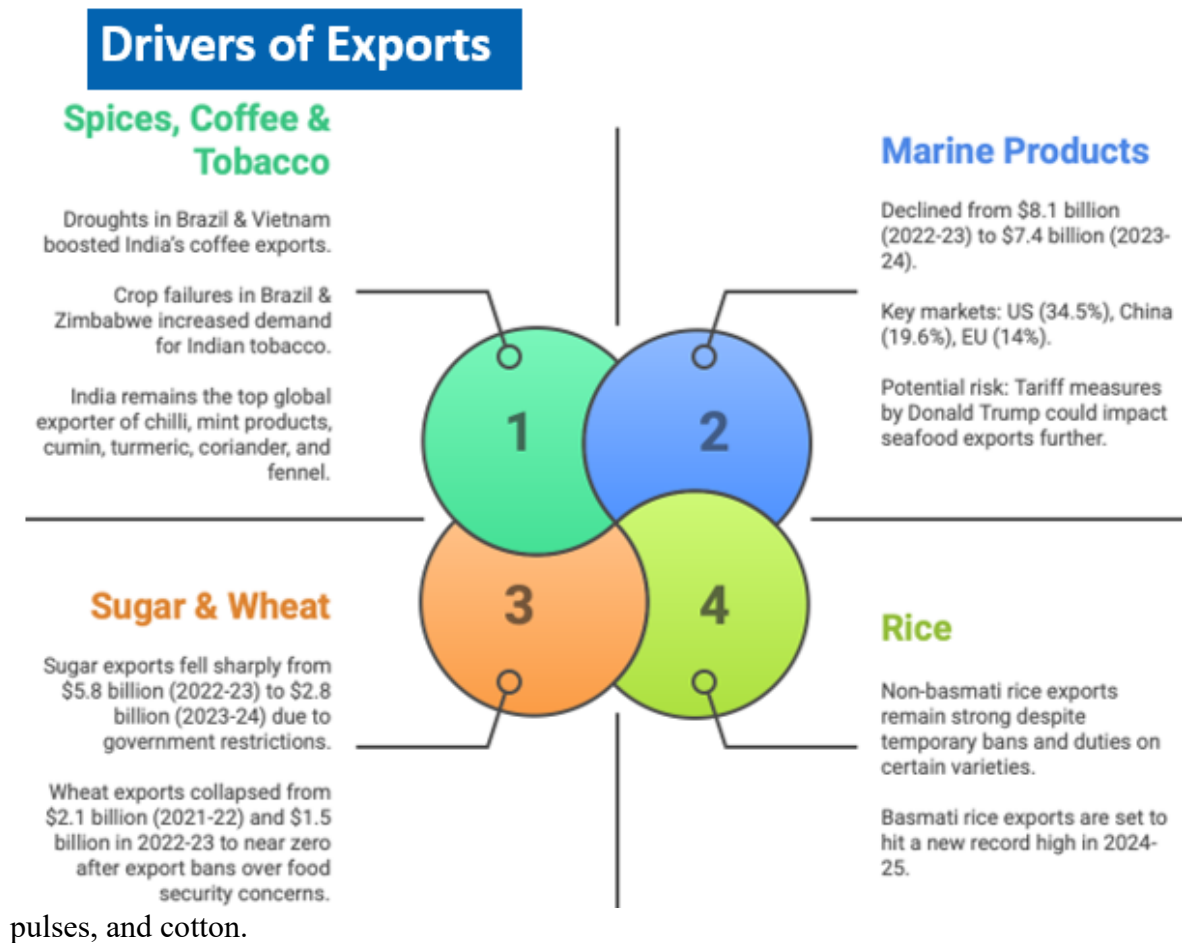


Impact of Global Food Prices on Indian Agricultural Trade

- The UN Food and Agriculture Organization's (FAO) Food Price Index (2014-16 = 100) dropped from **119.1 points in 2013-14** to **96.4 points in 2019-20**.
- The decline in global food prices made India's agricultural exports **less cost-competitive** in international markets.
- Simultaneously, Indian farmers became **more vulnerable to cheaper imports**, leading to increased reliance on foreign commodities.

India's Agricultural Imports: Key Commodities

India's agricultural imports are primarily dominated by three major commodities: edible oils,



1. Pulses

- Imports of pulses declined from **\$4.2 billion in 2016-17** to an average of **\$1.7 billion between 2018 and 2023**, due to higher domestic production.
- However, due to a poor domestic crop, pulse imports surged to **over \$5 billion in 2023-24**, reversing the declining trend.

2. Edible Oils

- India is heavily dependent on edible oil imports to meet domestic demand.
- In 2024-25, spending on edible oil imports is projected to be the highest after **2021-22 (\$19 billion) and 2022-23 (\$20.8 billion)**, which saw price hikes due to the Russia-Ukraine war.

3. Cotton

- India, once a major exporter of cotton, became a **net importer in 2024**.
- Cotton exports stood at **\$575.7 million (April-Dec 2023)**, marking an **8.1% decline**, whereas imports surged by **84.2% to \$918.7 million** during the same period.

Reasons for the Narrowing Agricultural Surplus

1. Trade & Export Policies

- Frequent **export restrictions** (such as bans on rice and sugar exports) have reduced India's reliability in global markets.
 - Such restrictions discourage long-term trade agreements and negatively impact the demand for Indian agricultural commodities.
2. **Supply Chain Disruptions**
 - The **COVID-19 pandemic** and the **Russia-Ukraine war** led to severe disruptions in global trade, affecting both supply and demand.
 - Fluctuations in transportation, logistical constraints, and rising fuel prices further escalated trade costs.
 3. **High Input Costs**
 - Rising costs of essential agricultural inputs, such as **fertilizers, fuel, and logistics**, have significantly reduced profit margins for Indian exporters.
 - This has led to increased production costs, making Indian farm products **less competitive** in international markets.
 4. **Climate Variability & Production Challenges**
 - Pulses are mostly grown in **rainfed areas**, making them highly susceptible to climate fluctuations.
 - The **El Niño-induced erratic monsoon and poor winter rains in 2023-24** resulted in lower domestic pulses production, leading to increased imports.
 - Similar climate-induced yield variations in other crops have contributed to supply shortages and trade imbalances.

Way Ahead: Strategies to Improve Agricultural Trade Balance

1. **Diversifying Export Markets**
 - Reduce dependence on **traditional markets like the US and China** by exploring new destinations for Indian farm products.
 - Focus on **expanding exports of marine products, processed foods, and high-value agricultural commodities**.
2. **Building Climate Resilience**
 - Strengthen **irrigation infrastructure** to minimize reliance on erratic monsoons.
 - Promote **climate-resilient farming techniques** to enhance crop yields and reduce production volatility.
3. **Enhancing Export Competitiveness**
 - Increased investment in **agricultural research and development (R&D)** to improve productivity and lower costs.
 - Strengthen **value-added processing industries** to make Indian agricultural exports more attractive in global markets.
4. **Reforming Trade Policies**
 - Leverage **trade agreements** to secure better market access for Indian farm products.
 - Reduce **frequent policy interventions** (such as export bans) to ensure consistency and credibility in global agricultural trade.

What is the Current Status of the Indian Agriculture Sector?

- **Status:**
 - **Economic Contribution:** Agriculture and allied sectors contributed **18.8% to India's Gross Value Added (GVA) in 2021-22.**
 - The sector grew by **3.9% in 2021-22**, up from 3.6% in 2020-21, showing resilience during the pandemic.
 - **Employment:** Agriculture employs about 42% of India's workforce.
 - However, the sector's share in employment has been gradually declining, down from **81% in 1983.**
 - **Production:** India's foodgrains production touched a record **315.7 million tonnes** in 2021-22 despite climate change challenges. (**Economic Survey 2022-23**)
 - **Exports:** Agricultural exports grew by 19.92% in 2021-22, reaching **USD 50.21 billion.**
 - Major export items include **rice, wheat, cotton, and spices.**
 - **Organic farming:** The total area under organic certification process (registered under **National Programme for Organic Production**) is 7.3 mha (2023-24)
- **Recent Government Initiatives:**
 - **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)**
 - **Pradhan Mantri Fasal Bima Yojana (PMFBY)**
 - **Soil Health Card Scheme**
 - **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**
 - **e-National Agriculture Market (e-NAM)**
 - **National Mission on Sustainable Agriculture**
 - **Paramparagat Krishi Vikas Yojana (PKVY)**
 - **Digital Agriculture Mission**
 - **Unified Farmer Service Platform (UFSP)**
 - **National e-Governance Plan in Agriculture (NeGP-A)**
 - **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**
- **Recent Technological Developments:**
 - **Drone Technology:** In 2021, the government approved subsidies up to 100% of the cost of agriculture drones for drone purchase by farm machinery training institutes.
 - The **Namo Drone Didi scheme** aims to provide drones to **15,000** selected women SHGs during the period **2023-24 to 2025-2026.**
 - **Satellite Imaging and Remote Sensing:** ISRO's **RISAT-1A satellite**, launched in 2022, is being used for agricultural assessment and improvement.

- **Happy Seeder Technology:** Designed to address stubble burning in **rice-wheat systems**, it enables wheat sowing without removing paddy straw, reducing air pollution and improving soil health.
- **PUSA Decomposer:** Developed by the **Indian Agricultural Research Institute (IARI)**, this microbial solution rapidly decomposes crop residues when sprayed on stubble.
- **Nano Urea:** Introduced by **IFFCO in 2021**, this liquid fertilizer with nanoscale nitrogen particles boosts nutrient use efficiency and reduces environmental pollution.

Why is Indian Agriculture Underperforming Despite Employing the Majority?

- **Fragmented Land Holdings:** India's agricultural land is highly fragmented, with the average farm size decreasing from **2.3 hectares in 1970-71 to 1.08 hectares in 2015-16**.
 - As per **India's Agriculture Census 2015-16**, **86.1%** of Indian farmers are small and marginal (SMF) i.e., have a landholding size smaller than **2 hectares**
 - More than half of these live in five Indian states of **Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra and Andhra Pradesh**.
 - This fragmentation limits economies of scale, mechanization, and access to credit.
 - Such small plots make it challenging to implement modern farming techniques or invest in technology, leading to lower productivity and income for farmers.
- **Irrigation Challenges in a Changing Climate:** Despite having 18% of the world's population, India has only **4% of global water resources**.
 - Over Reliance on **monsoon rains**, coupled with inefficient irrigation practices, hampers agricultural productivity.
 - As of 2022-23, only **52% of cultivated land** has access to irrigation.
 - The **Economic Survey 2017-18** estimated that climate change could reduce annual agricultural incomes by **15-18% on average**, and up to **25% in unirrigated areas**.
 - The **recent heat waves in 2022 and 2023**, which damaged wheat crops in several states, exemplify the vulnerability of Indian agriculture to climate variability.
- **Technological Lag, Innovation Gap:** While the Green Revolution significantly boosted productivity in the 1960s and 70s, Indian agriculture has since **struggled to keep pace with technological advancements**.
 - The adoption of **precision farming, drone technology, and AI-driven solutions** remains low.
 - This technological lag contributes to lower yields compared to global standards - **India's rice yield is less compared to China's**.

- **Market Inefficiencies:** The **Agricultural Produce Market Committee (APMC)** system, while intended to protect farmers, has often led to exploitation by intermediaries.
 - Farmers typically receive only **15-20% of the retail price of their produce.**
 - The **recent farm laws of 2020 (now repealed)** attempted to address this issue but faced significant opposition.
 - **E-NAM (Electronic National Agriculture Market)** launched in 2016 aims to create a unified national market, but as of **February 2024**, only about **1.77 crore** farmers were registered on the platform.
- **Credit Crunch- The Debt Trap:** Limited access to formal credit forces many farmers to rely on informal lenders who charge exorbitant interest rates.
 - According to NABARD's **All India Rural Financial Inclusion Survey 2017**, only **30.3%** of agricultural households availed credit from institutional sources.
 - According to the latest '**Situation Assessment of Agricultural Households and Land Holdings of Households in Rural India, 2019**', over half of India's agricultural households were in debt, with an average outstanding amount of **₹74,121**.
 - This debt burden often leads to a cycle of poverty and, **in extreme cases, farmer suicides.**
- **Policy Paralysis-The Subsidy Conundrum:** India's agricultural policy has long been dominated by subsidies, which often distort market dynamics and resource allocation.
 - The Government recently estimated that total subsidy on fertilizer could touch **₹2.25-lakh crore during FY24.**
 - While these subsidies aim to support farmers, they often lead to **overuse of inputs like water and fertilizers**, causing environmental degradation.
 - The **Minimum Support Price (MSP) system**, while providing a safety net, has led to overproduction of certain crops like wheat and rice at the expense of more nutritious and environmentally suitable alternatives.
 - This policy-induced cropping pattern **mismatch affects both agricultural sustainability and farmers' incomes.**
- **Post-Harvest Losses:** India loses a significant portion of its agricultural produce due to inadequate storage and transportation infrastructure.
 - According to the **ICAR-Central Institute of Post-Harvest Engineering and Technology**, annual post-harvest losses are estimated at **₹92,651 crore.**
 - The cold storage capacity in India can **only accommodate about 11% of the country's total produce.**
 - This leads to distress sales by farmers during harvest seasons, further reducing their income potential.
- **The Knowledge Deficit:** Despite employing a large workforce, Indian agriculture suffers from a significant skill gap.
 - This lack of formal training hampers the adoption of modern agricultural practices and technologies.

- For example, the **improper use of pesticides** not only reduces crop yields but also poses health risks.
- The **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** has tried to address this, but its impact on the agricultural sector remains limited.
- **Diversification Dilemma:** Indian agriculture remains heavily focused on staple crops like rice and wheat. This lack of diversification not only affects soil health but also limits farmers' income potential.
 - High-value crops like **fruits and vegetables**, which can potentially increase farmers' incomes. However, **only 17% of arable land** is being utilized for the cultivation of horticultural crops
 - The recent push for **millet** (**2023 being the International Year of Millets**) is a step towards diversification, but widespread adoption remains a challenge.
- **Gender Disparity-The Invisible Female Farmer: Women constitute 42% of the agricultural labor force in India**, yet they own only 14% of agricultural land.
 - This gender disparity in land ownership affects access to credit, inputs, and decision-making power.
 - According to an **FAO report of 2011-12**, women farmers could increase farm yield by **20-30%** , which could raise agricultural output in developing countries by 2.5-4% and reduce hunger by **12-17%** if they had the same access to productive resources and training as men.
 - Initiatives like the **Mahila Kisan Sashaktikaran Pariyojana** aim to empower women farmers, but progress has been slow.

Source: <https://indianexpress.com/article/explained/explained-economics/india-agriculture-exports-farm-produce-9866930/>