

DAILY CURRENT AFFAIRS (DCA)

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SHIFTS IN INDIA'S PESTICIDE MARKET

Context

- India's pesticide market is undergoing a structural transformation, driven by shifting pest dynamics, labour shortages, and changing cropping practices.

Background

- Pesticides, or crop protection chemicals, include substances used to kill or deter pests that harm crops. These include:
 - Insecticides:** For insect pests (e.g., white-backed plant hopper in paddy).
 - Fungicides:** For fungal diseases (e.g., blast, sheath blight).
 - Herbicides:** For weed control.
- Historically, pesticide use in India was low in the mid-20th century, but has grown with the **Green Revolution**.
- In recent decades, regulatory changes (banning DDT, endosulfan etc.) and rising labour costs have boosted herbicide and biopesticide adoption.

Composition of India's Crop Protection Market

- India's organised domestic crop protection chemicals market** is valued at roughly **Rs 24,500 crore**.
- The largest segment within that is **insecticides (Rs 10,700 crore)**, followed by herbicides (Rs 8,200 crore) and fungicides (Rs 5,600 crore).
 - Herbicides are **growing at >10% annually**, highest among all sub-segments.
- Global scenario:**
 - As per Food and Agriculture Organization (FAO), over **3.7 million tonnes** of pesticides were used globally in **2022**, doubling since **1990**.
 - Asia leads in production and consumption, with **China and India** at the forefront.

INDIA'S CROP PROTECTION CHEMICALS MARKET

	Market Size	Annual Growth
Insecticides	₹10,706 cr	5.3%-5.5%
Fungicides	₹5,571 cr	5.5%-6%
Herbicides	₹8,209 cr	10%-11%

Source: Industry estimates for 2024-25. Growth is for last five years.

Driving Factor for the Growth of Herbicides

- Manual weeding requires 8–10 hours per acre, while the average daily wage for plant protection workers rose to **₹447.6 in Dec 2024** (from ₹326.2 in 2019) according to the Labour Bureau's data.

- Due to migration and rising opportunity costs**, labour availability is erratic, especially during peak agricultural operations.
- Herbicides** now act as **labour substitutes**, like tractors or mechanised harvesters.

Regulatory Framework

- Insecticides Act, 1968:** Governs import, registration, manufacture, sale, transport, and use of pesticides.
- Banned/Restricted Pesticides:** India has banned 46 pesticides; others like Paraquat and Glyphosate remain under scrutiny.
- CIB&RC (Central Insecticide Board & Registration Committee):** Approves new pesticides and ensures safety compliance.
- Anupam Verma Committee:** It was constituted by the Department of Agriculture & Farmers Welfare to **review 66 pesticides** which are banned/restricted in other countries but continued to be registered for use in India.

Schemes Promoting Sustainable Use of Pesticides

- National Mission on Sustainable Agriculture (NMSA):** Encourages Integrated Pest Management (IPM) and climate-resilient farming.
- Paramparagat Krishi Vikas Yojana (PKVY):** Promotes organic farming, including biopesticide usage.
- Kisan Drone Scheme (2022):** Provides subsidies for agricultural drones, enabling precision spraying and reducing health risks.
- Kisan Kavach Protective Kit:** Developed by Department of Biotechnology, it offers safety gear to pesticide applicators.

What are the Concerns?

- Environmental and Health Risks:** Excessive or improper pesticide use leads to soil and water contamination, resistance buildup, and human health hazards.
- Regulatory Oversight:** India lacks a robust regulatory framework like the EPA (USA) or EFSA (EU) for approving or banning hazardous chemicals.
- R&D and Indigenous Capacity:** India is dependent on MNCs for active ingredients and formulations. It needs more investment in domestic R&D and public-private innovation platforms.

Way Ahead

- Promote Bio-pesticides:** Streamline approval and incentivize production of eco-friendly alternatives.

- **Strengthen Regulatory Enforcement:** Improve state-level monitoring to curb the sale of spurious and substandard pesticides.
- **Farmer Awareness & Training:** Expand extension services to educate farmers on judicious, need-based pesticide use.
- **Digital Traceability Systems:** Implement QR-based tracking from manufacturer to farmer to ensure quality and transparency.
- **Increase R&D Funding:** Support innovation in green chemistry, nano-pesticides, and Integrated Pest Management (IPM).
- **Ban Hazardous Chemicals:** Phase out Class I pesticides (highly hazardous) in alignment with FAO-WHO guidelines.

Concluding remarks

- India's pesticide sector is at a crossroads—while it plays a crucial role in ensuring crop protection and food security, it simultaneously raises environmental and health concerns.
- A judicious blend of regulation, innovation, and farmer awareness is essential to transition toward safer, more sustainable agriculture.

Source: IE

BIO-FORTIFIED POTATOES

Context

- **Bio-fortified potatoes**, with added **iron content**, will soon be available in Indian markets, said the Director-General of the **Peru-based International Potato Center (CIP)**.

About

- **Bio-fortified sweet potatoes**, with **vitamin A** added using technology developed by the CIP, are already available in **Karnataka, Assam, West Bengal, and Odisha**.
- **The focus is on iron fortification in potatoes**, the first variety has been released in Peru.
 - ♦ Now it is under the **evaluation of the ICAR**, and it needs to be adapted to the Indian

growing conditions.

The CIP-South Asia Regional Centre (CSARC)

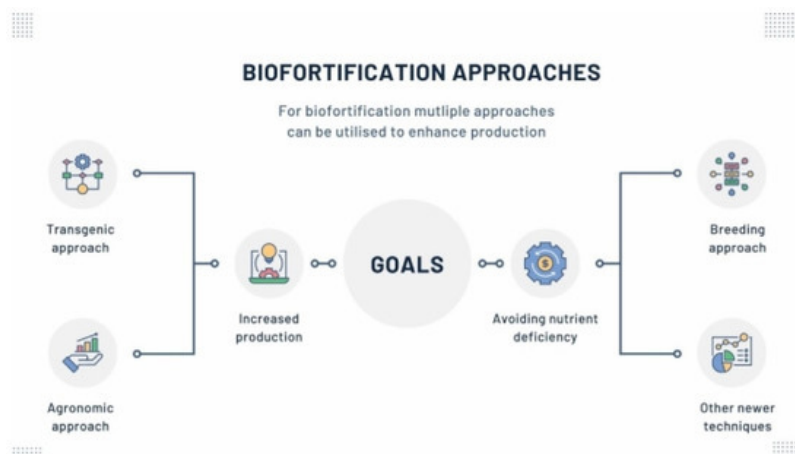
- **The CIP-South Asia Regional Centre (CSARC)** is established in **Agra, Uttar Pradesh**.
- It will not only serve farmers in **potato-belt states like UP, Bihar and West Bengal** but also cater to **South Asian countries**.
- **Objective:** To increase food and nutrition security, farmers income, and job creation by improving potato and sweetpotato productivity, post-harvest management and value-addition.
- **Governance:** By a coordination committee that comprises the Secretaries of Agriculture of India, Nepal, Bhutan, and Bangladesh.

The International Potato Center (CIP)

- The CIP was founded in **1971** as a research-for-development organization with a focus on potato, sweetpotato and Andean roots and tubers.
- **It delivers innovative science-based solutions** to enhance access to affordable nutritious food, foster inclusive sustainable business and employment growth, and drive the climate resilience of root and tuber agri-food systems.
- **Headquartered:** Lima, Peru.
- CIP has a research presence in **more than 20 countries** in Africa, Asia and Latin America.

Biofortified Crops

- **Biofortified crops** are those that have been specially bred to have **higher levels of essential nutrients**, such as vitamins, minerals, or amino acids, than their conventional counterparts.
 - ♦ This is done through traditional breeding techniques, genetic modification, or modern biotechnological methods.

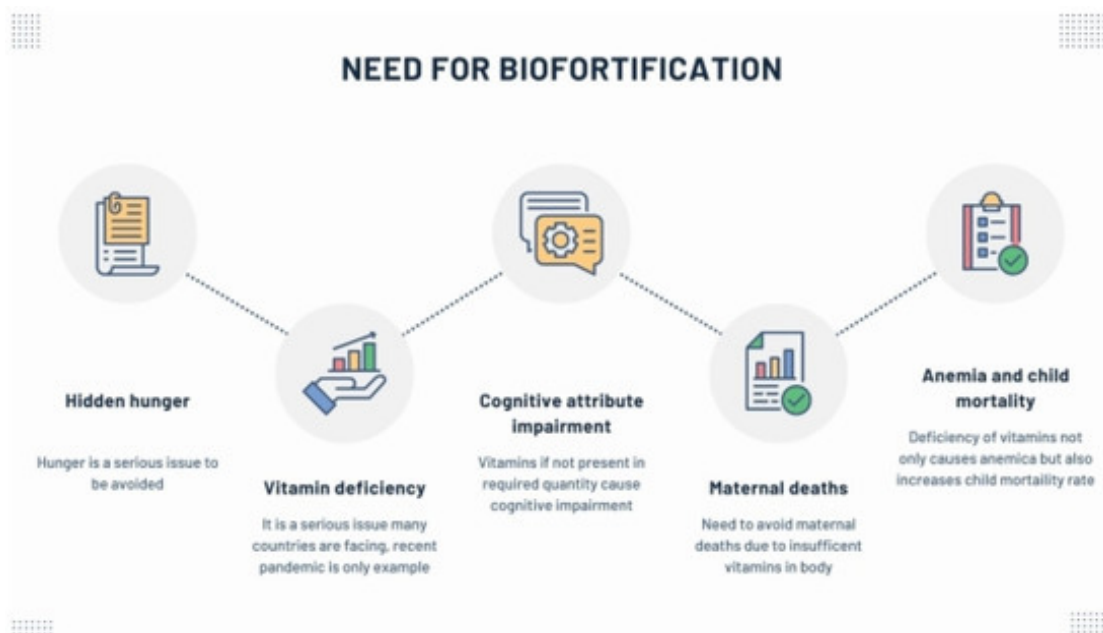


- **Aim:** To improve the nutritional value of crops, especially in regions where deficiencies in essential nutrients are widespread.
- **Golden Rice** has been genetically modified to produce higher levels of provitamin A (beta-carotene), aiming to reduce vitamin A deficiency.

The biofortified varieties have been licensed to various private seed companies and Farmers Producer Organizations (FPOs)

Sr. No.	Crop	Name of cultivar	No. of licenses
1.	Wheat	DBW 187	229
		DBW 303	204
		DBW 173	54
2.	Rice	DRR Dhan 45	4
		CR Dhan 310	2
3.	Maize	LQMH 1	2
4.	Pearl millet	HHB 299	5
		HHB 311	4
5.	Mustard	Pusa Mustard 30	6
		Pusa Double Zero Mustard 31	3
		Pusa Mustard 32	1
6.	Soybean	NRC 127	4
7.	Potato	Kufri Neekanth	5
		Kufri Manic	1
8.	Pomegrante	Sholapur Lal	7
Total			531

Need for Biofortification:



Significance of biofortification:

- It is regarded as the **most sustainable approach** to alleviate malnutrition.
- It provides **nutrients in natural form**.

- **Biofortified food is affordable** as it does not involve any additional price.
- 'Biofortified varieties' are as **high yielding** as 'traditional varieties', thus no loss is incurred to the farmers.
- It does **not require elaborate infrastructure** facilities as required in 'food fortification'.
 - ♦ **Food fortification** involves improving the nutritional content of food crops during the processing stage.
- It does not involve **additional cost** on preparing the enriched food grains.

Challenges

- **Agonomic and Climatic Constraints:** Biofortified varieties may not perform uniformly across different agro-climatic zones.
- **Lack of Market incentives:** Farmers may not get better prices for nutrient-rich crops, reducing motivation.
- **Lack of demand:** Without public awareness campaigns, market demand remains low.
- **Weak integration with national nutrition schemes:** Mid-Day Meal, ICDS, and PDS rarely include biofortified grains.
- **Limited R&D investment:** Compared to GM crops or hybrid seeds, biofortification receives less funding.

Way Ahead

- Strengthen seed distribution and farmer outreach.
- Integrate biofortified crops into government food schemes.
- Improve consumer awareness and market linkages.
- Invest in region-specific R&D and nutritional impact studies.

Source: TH

POSH AND POLITICAL PARTIES

Context

- The Supreme Court allowed a petitioner to withdraw her plea challenging the **exclusion of women political workers** from the ambit of protection under the **POSH Act**.

About

- The plea mentioned that the definitions of '**workplace**' and '**employer**' under the 2013 Act **must be expanded to include the political spectrum**.
 - ♦ It sought a declaration from the court that "political parties are bound to follow the

procedure for protection of women in the workplace under the POSH Act".

- The court suggested the petitioner to get some women Parliamentarians on board and **present a private member bill**, as this falls **within the domain of Parliament**.

The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

- **Definition of Sexual Harassment** includes physical contact, demands for sexual favors, making sexually colored remarks, showing pornography, and any other unwelcome physical, verbal or non-verbal conduct.
- **Applies to all workplaces in India**, including the private sector, government offices, NGOs, educational institutions, and the unorganized sector.
- **Employee:** All women employees, whether employed regularly, temporarily, contractually, on an ad hoc or daily wage basis, as apprentices or interns or even employed without the knowledge of the principal employer, can seek redressal to sexual harassment in the workplace.
- **Constitution of Internal Complaints Committee (ICC):** Employers are required to constitute an ICC at each office or branch with **10 or more employees**.
 - ♦ It has to be **headed by a woman**, have at least two women employees, another employee, and a third party such as an NGO worker with five years of experience.
- **Local Committee (LC):** It mandates every district in the country to create a local committee (LC) to receive complaints from women working in firms **with less than 10 employees**.
- **Procedure for Filing Complaints:** Woman can file a written complaint **within three to six months** of the sexual harassment incident.
 - ♦ There are two ways to resolve the issue by the committee- **through conciliation** between the complainant and the respondent (which cannot be a financial settlement), or committees could **initiate an inquiry**, taking appropriate action based on what it finds.
- **Time-bound inquiry and action:** Complaints must be resolved within **90 days**.
- **Annual Audit Report:** The employer has to file an annual audit report with the district officer about the number of sexual harassment complaints filed and actions taken at the end of the year.
- **Penalty for non-compliance** includes a fine up to ₹50,000 and potential cancellation of business licenses for repeated violations.

Challenges in Implementing POSH in Political Parties

- **Absence of Employer-Employee Relationship:** Political parties do not establish a formal employment relationship with their party workers.
 - ♦ They are volunteers who have pledged their loyalty to a party without aspirations of any employment benefits.
- **Definition of Workplace:** Political parties are registered entities but not governed by labour or employment laws.
- **Informality of Work and Membership:** Many party workers, volunteers, and grassroots cadres operate in informal, unpaid roles, making it difficult to define their status under the POSH framework.
- **Non-Transparency and Lack of Accountability:** Parties function with opaque internal systems and rarely make information on complaints or redressal mechanisms public.

Way Forward

- Encourage the Election Commission of India to issue directives for internal accountability mechanisms on sexual harassment within parties.
- Additionally, political parties can take the proactive step of including provision for sexual harassment prevention in their party's Constitution and Rules.
- Such an action will reflect their true commitment to women's safety more than the speeches spoken in their rallies.

Source: TH

NON-COMMUNICABLE DISEASES IN INDIA

Context

- Three decades ago, **non-communicable diseases (NCDs)** were rare in the villages; however, today, low- and middle-income countries confront an NCD burden that has spread from cities to villages.

Non-communicable Diseases (NCDs)

- NCDs also known as **chronic diseases**, tend to be of **long duration** and are the result of a combination of genetic, physiological, environmental and behavioural factors.
- **The main types of NCDs are** cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.
- **The major NCDs share four behavioral risk factors:** unhealthy diet, lack of physical activity, and use of tobacco and alcohol.

- NCDs including heart disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for **74% of all deaths worldwide**.
 - ♦ They disproportionately affect people in **low- and middle-income countries**, where nearly three quarters of global NCD deaths occur.

NCDs in India

- **NCDs account for 60% of all deaths in India.**
- **Cardiovascular diseases** (coronary heart disease, stroke, and hypertension) contribute to **45% of all NCD** deaths followed by chronic respiratory disease (22 %), cancers (12 %) and diabetes (3%).
- **Tobacco use** has been identified as the **single largest risk factor** attributable to NCDs.
- Approximately **one in four Indians faces** the risk of dying from an NCD before reaching the age of 70.

Why NCDs Are Rising in India?

- **Unhealthy Diets:** Shift towards processed, high-fat, high-sugar, and low-fibre foods.
- **Physical Inactivity:** Sedentary lifestyle due to urbanisation and digitalisation.
- **Substance Use:** Increased tobacco and alcohol consumption, especially among youth.
- **Environmental Factors:** Air pollution is a major contributor to chronic respiratory and cardiovascular diseases.
- **Lack of Preventive Healthcare:** Weak emphasis on preventive care in public health system.
 - ♦ Low levels of awareness, screening, and early detection of NCDs.
- **Double Burden of Disease:** India faces both communicable diseases and NCDs, stretching already limited health infrastructure.
- **Socioeconomic Inequality:** Poor and marginalised populations have limited access to quality healthcare, healthy food, and education.
 - ♦ NCDs are rising even among the low-income groups due to nutrition transition and lack of awareness.

Concern of High NCDs Burden:

- **Epidemiological Transition:** India is witnessing a shift from communicable to non-communicable diseases, even in rural areas.
 - ♦ Many regions face both infectious diseases and rising NCDs.
- **Economic and Social Impact:** High out-of-pocket expenditure (OOPE) for long-term treatment.
 - ♦ Affects productivity, especially among the working-age population.

- ♦ Pushes many households into poverty due to prolonged healthcare costs.
- **Health System Challenges:** Primary healthcare is traditionally focused on maternal-child and infectious diseases.
- ♦ There is inadequate screening, poor awareness, and lack of trained workforce for chronic disease management.

Steps Taken by Government of India to Prevent NCDs

- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) 2010:** Government of India provides **technical and financial support** to the States/UTs under the programme as part of **National Health Mission (NHM)**.
- **Screening under NHM:** A **population-based initiative** for prevention, control and screening for common NCDs.
 - ♦ Persons more than **30 years of age** are targeted for their screening for the **three common cancers i.e oral, breast and cervical**.
 - ♦ Screening of these **common cancers** is an integral part of service delivery under **Ayushman Bharat – Health and Wellness Centres**.
- **Awareness Programmes:** Other initiatives for increasing public awareness about Cancer and for promotion of healthy lifestyle includes observation of **National Cancer Awareness Day & World Cancer Day**.
- **Fit India Movement:** It is implemented by the **Ministry of Youth Affairs and Sports**, and various Yoga related activities are carried out by the **Ministry of AYUSH**.
- **Eat Right India Movement:** Led by the Food Safety and Standards Authority of India (FSSAI).
 - ♦ Promotes healthy eating habits, reduction in trans fats, salt, and sugar intake.
- **Regulatory Measures:** Ban on e-cigarettes (2019).
 - ♦ Front-of-pack labelling and restrictions on junk food near schools under FSSAI guidelines.

Way Forward

- **Strengthen primary healthcare** for early screening and continuous management.
- **Promote lifestyle interventions:** Physical activity, healthy diet, anti-tobacco campaigns.
- Increase public financing for NCDs.
- **Use digital health tools** and telemedicine to expand reach.
- **Multi-sectoral approach** involving urban planning, food systems, education, and environment.

Source: DTE

HEALTH IMPACTS OF LAND DEGRADATION & DROUGHT: UNCCD

Context

- Recently, the United Nations Convention to Combat Desertification (UNCCD) released a policy brief detailing the severe health impacts of land degradation and drought.

Health Risks of Land Degradation and Drought

- **Rise in Communicable and Non-Communicable Diseases:** The policy brief highlights the wide-ranging health consequences associated with environmental stress:
 - ♦ **Waterborne diseases:** Cholera, trachoma, scabies, conjunctivitis.
 - ♦ **Vector-borne diseases:** Malaria and other mosquito-borne infections.
 - ♦ **Respiratory diseases:** Triggered by dust storms and wildfires.
 - ♦ **Cardiovascular ailments:** Hypertension, heart attacks, stroke.
 - ♦ **Nutritional disorders:** Malnutrition and stunting due to food insecurity.
- **Mental Health Consequences:** Droughts often result in displacement, resource scarcity, and financial hardship, leading to increased **mental health disorders such as anxiety and depression**.
 - ♦ Prolonged **drought in Australia** estimating mental health-related costs to reach **\$198 billion by 2050**.

Case Studies: India, Africa, and Beyond

Impact of drought, land degradation on children and women

<p>One in four children globally (27 per cent) lives in severe child food poverty in early childhood (181 million children under 5 years)</p>	<p>Land degradation and drought associated with increasing rates of morbidity and mortality among children and women</p>
<p>Girls found to be more vulnerable to malnutrition than boys in drought settings</p>	<p>Water-carrying role in some societies exposed women and girls to physical load, causing musculoskeletal disorders</p>
<p>Rise in HIV infection rates, likely because of drought-induced economic impoverishment, pushing women into sexual risk behaviors</p>	<p>Women experienced higher rates of respiratory-related mortality compared to men during drought events in the Upper Midwestern US</p>

- **India and Sub-Saharan Africa:** The policy brief compares spatial data on **Aridity Index (1991–2020)** with malnutrition rates among **children under five (2016–2018)**, showing clear overlap in regions facing both drought and child stunting.
 - ♦ In Zambia, a drought-induced spike in maize prices led to inadequate maternal nutrition, causing stunting in infants between **6 to 16 weeks** old.

India's Vulnerability

- India lost over 30 million hectares of healthy land between 2015 and 2019.
- Nearly 854 million Indians were exposed to drought during this period.
- The spatial overlap between drought intensity and child stunting highlights the direct link between land degradation and public health.

Environmental Drivers of Disease

- **Deterioration of soil health** can lead to outbreaks of anthrax and other soil-transmitted diseases.
- **Biodiversity loss and land use change** raise the risk of zoonotic diseases like **Ebola and Covid-19**.
- **Changing habitats of disease vectors** (e.g., mosquitoes) increase the spread of vector-borne illnesses.

Policy Innovation: India's Farmers' Distress Index (FDI)

- India has introduced a **Farmers' Distress Index (FDI)**, aimed at early identification and intervention. The tool is expected to provide **three-month advance alerts** to stakeholders. The FDI evaluates indicators such as:
 - ♦ Exposure to extreme weather;
 - ♦ Financial strain;
 - ♦ Mental health indicators like loneliness and depression;

UN Recommendations and the 'One Health' Approach

- The policy brief promotes the **One Health Approach**, emphasizing the interdependence of **ecosystem health, animal health, and human health**, as recognized by the **UN Convention to Combat Desertification (UNCCD)**. It includes:
 - ♦ **Integrated Policy and Planning:** Harmonize efforts across environmental and health sectors.
 - Promote **gender equity** and **community resilience**.
 - ♦ **Research and Capacity Building:** Expand research on the health impact of land degradation.

- Strengthen local capacities for mitigation and adaptation.
- ♦ **Financial Mechanisms:** Mobilize **targeted funding** for land and health system restoration.
 - Support **innovative financial tools** to promote healthy land use.
- ♦ **Sustainable Solutions:** Invest in **land restoration, sustainable agriculture, early warning systems, and water management**.

Source: DTE

INDIA'S ECONOMY GAINS MOMENTUM AS INFLATION EASES AND EXPORTS SURGE

Context

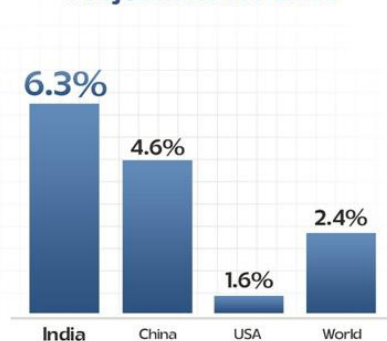
- India's economy is witnessing strong growth momentum, marked by easing inflation and record-high exports, offering relief to households and strengthening the nation's global trade position.

Present status

- India's economy is the fastest growing major economy, with real GDP growth estimated at 6.5% in 2024-25 and expected to continue at the same rate in 2025-26.
- Despite global uncertainties, strong domestic demand, easing inflation, rising exports, and robust capital markets support this growth.
- Key indicators like record foreign exchange reserves, a manageable current account deficit, and increasing foreign investment highlight India's economic resilience and global confidence in its long-term prospects.

GDP Growth

Global Economic Growth Projections for 2025



Source: World Economic Situation and Prospects 2025 (Mid Year Update)

- India's real GDP grew by 6.5% in 2024-25, with the Reserve Bank of India expecting similar growth in 2025-26.

- The United Nations forecasts 6.3% growth this year and 6.4% next year, while the Confederation of Indian Industry estimates growth between 6.4% and 6.7%, reflecting strong and consistent economic performance.

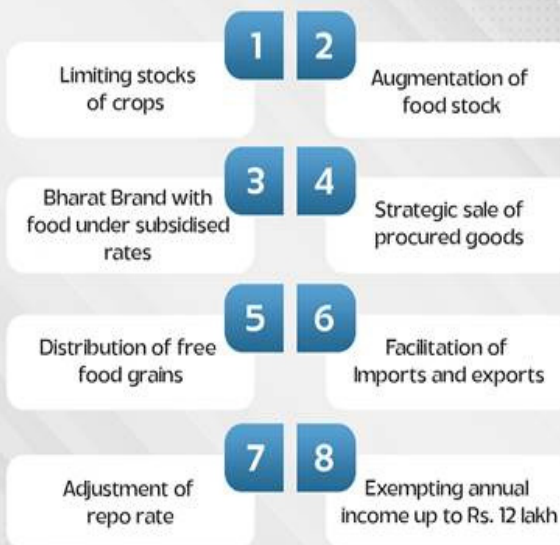
Inflation Trends in India

- The Consumer Price Index (CPI)** inflation dropped to **2.10%** in June 2025, the lowest since January 2019, well within the Reserve Bank of India's target range of **4%** with a tolerance of **±2%**.
- The Wholesale Price Index (WPI)** inflation also saw a marginal decline to **-0.13%** in June 2025.
 - The WPI Food Index inflation fell to **-0.26%**, signaling softer food prices over the year.

Indicators for measuring the Inflation in India

- Wholesale Price Index (WPI)** which measures the average change in prices of goods before reaching the consumer.
 - WPI is calculated on the basis of wholesale price of Primary articles, fuel & power and manufactured products.
 - However, this drop is mainly because of lower prices in food items, mineral oils, manufacture of basic metals, crude oil and natural gas.
- Consumer Price Index (CPI)** measures change in price of goods that people buy for daily use such as food and beverages, clothing and footwear, housing, fuel and light and others.

Initiatives to Curb Inflation



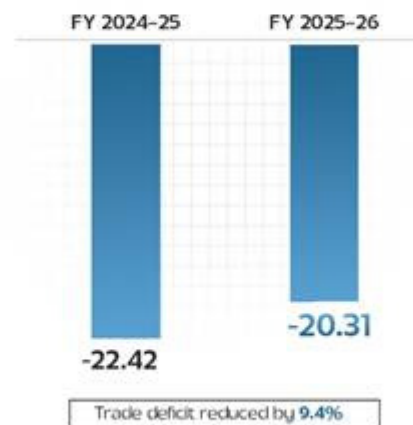
Source: Ministry of Finance

India's Export Growth

- According to the **Ministry of Commerce & Industry**, for the first quarter of FY 2025–26 (April–June 2025), total exports stood at **US\$ 210.31 billion**, registering a **5.94% increase** over the previous year, while imports increased by only **4.38%**.
- This led to a **9.4% reduction** in the trade deficit, which improved to **– US\$ 20.31 billion** from **– US\$ 22.42 billion** during the same period last year.
 - Services exports** emerged as a major growth driver, rising to **US\$ 98.13 billion**, a **10.93%** increase over the previous year.
 - Non-petroleum exports** grew by **5.98%** and **non-Gem & Jewellery** exports also showed visible growth of **7.23%** in April–June 2025 compared to last year.

India's Trade Balance

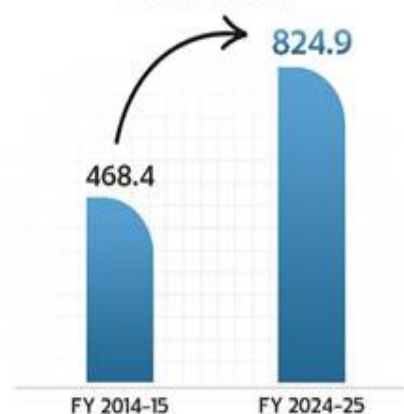
April–June YoY Comparison
(In US Billion Dollar)



Source: Ministry of Commerce & Industry

India's Total Exports: A Decade of Growth

(In US Billion Dollar)



Source: Ministry of Commerce & Industry

Government Initiatives Strengthening India's Export Landscape

- **Foreign Trade & Export Promotion:**
 - ♦ **New Foreign Trade Policy (FTP) 2023:** Focuses on export incentives, ease of doing business, and emerging sectors like e-commerce and high-tech products. Introduced a **one-time Amnesty Scheme** to help exporters clear pending authorizations.
 - ♦ **RoDTEP & RoSCTL Schemes:** Provide tax and duty reimbursements to exporters, benefiting sectors like pharmaceuticals, chemicals, and steel.
 - ♦ **Districts as Export Hubs:** Identifies high-potential products in each district and provides infrastructure and market linkages.
 - ♦ **Trade Infrastructure for Export Scheme (TIES) & Market Access Initiative (MAI):** Support infrastructure development and marketing efforts for export growth.
- **Infrastructure & Logistics:**
 - ♦ **National Logistics Policy (NLP) & PM GatiShakti:** Aim to reduce logistics costs and enhance multimodal connectivity through GIS-based planning.
 - ♦ **Production-Linked Incentive (PLI) Schemes:** Government has significantly increased budget allocations for key sectors under the PLI Scheme in **2025-26**, reaffirming its commitment to strengthening domestic manufacturing.
- **Ease of Doing Business & Digital Initiatives:**
 - ♦ **Compliance & Decriminalization Reforms:** In March 2025, the government had over 42,000 compliances removed, and over 3700 legal provisions have been decriminalized since 2014. In the Jan Vishwas act 2023, more than 180 legal provisions were decriminalized.
 - ♦ **National Single Window System (NSWS):** Streamlines approvals, allowing businesses to apply for 670 Central approvals and 6880 state approvals.
 - ♦ **Trade Connect e-Platform:** Links over 17 lakh registered users with Indian missions and export councils for seamless trade facilitation.
 - ♦ **Support to MSME exporters:** In April, 2025 Ministry of MSME has set up a dedicated support system for export promotion by setting up 65 **Export Facilitation Centres (EFCs)**.

Concluding remarks

- Easing prices and rising exports show that India's economy is on a steady growth path while bringing relief to households.

- With strong demand, and continued reforms, India is moving confidently towards becoming the world's third-largest economy, ensuring stability and new opportunities for its people.

Source: DD News/ PIB

NEWS IN SHORT

OPEC+ COUNTRIES TO BOOST OIL PRODUCTION

Context

- Recently, the OPEC+ alliance announced that it will increase oil production by 547,000 barrels per day (bpd) starting in September, 2025.

About OPEC+

- OPEC+ is an extended alliance of OPEC, having 22 members, made up of **10 major, non-OPEC oil producing countries** (*Russia, Kazakhstan, Azerbaijan, Brunei, Bahrain, Mexico, Oman, South Sudan, Sudan and Malaysia*), **along with the 12 OPEC members**.
- It was formed in 2016 after the adoption of the '**Algiers Accord**' by OPEC countries and signing of the '**Vienna Agreement**' between OPEC and other major oil exporting countries.
- OPEC+ was created **to counterbalance US shale oil growth** and stabilize prices amid global volatility.

Market Influence and Production Strategy

- OPEC+ controls nearly 48% of global oil output, making it a dominant force in energy pricing.
- The group has shifted from price defense to market share strategy, ramping up production to pressure US shale producers.

About OPEC

- It was established in **1960 at the Baghdad Conference** by Saudi Arabia, Iran, Venezuela, Kuwait and Iraq.
- It has **12 members**, viz. Algeria, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates and Venezuela.
 - ♦ Angola withdrew its membership effective 1 January 2024.
- It is headquartered in Vienna, Austria.
- It aims to coordinate and unify petroleum policies among member countries and ensure stable oil markets.

Impact of recent move

- Brent crude fell to around \$69.27 per barrel, while WTI crude dropped to \$66.96.
- Analysts from Goldman Sachs and BNP Paribas predict prices could dip further to \$55–\$59 per barrel by late 2025.

Source: BS

“JOINT SEA-2025” DRILLS**In News**

China and Russia began “Joint Sea-2025” naval drills in the Sea of Japan

“Joint Sea-2025” Drills

- The three-day exercises near Vladivostok involve operations like submarine rescue, anti-submarine warfare, air defence, and maritime combat, with four Chinese warships participating.
- These annual drills, started in 2012, reflect growing military cooperation between the two nations, especially after Russia’s invasion of Ukraine in 2022.
- Following the drills, joint patrols will be conducted in the Pacific.
- It aims to strengthen their strategic partnership and counter the U.S.-led global order.

Source :TH

PINGALI VENKAYYA**In News**

The Prime Minister, Shri Narendra Modi paid tribute to Shri Pingali Venkayya ji on his birth anniversary.

Pingali Venkayya

- He was born on 2 August 1876, in Krishna district, Andhra Pradesh
- He was a freedom fighter and the designer of the Indian national flag, which later evolved into the present-day Tricolour.

Flag Design

- In 1921, he presented a flag design to Mahatma Gandhi at a Congress session in Vijayawada.
 - ♦ His original design featured three stripes representing India’s major communities and a spinning wheel (charkha) symbolizing self-reliance.
- In **1947**, the design was modified to include the **Ashoka Chakra, symbolizing law and progress.**

Legacy

- His work laid the foundation for the official adoption of the national flag by the Constituent Assembly on 22 July 1947.

- He is remembered as a symbol of unity and patriotism, and his efforts are commemorated annually during Azadi Ka Amrit Mahotsav and Har Ghar Tiranga campaigns.

Recognition

- The Government of India has issued postage stamps in his honor and organized events like Tiranga Utsav to celebrate his legacy.

Source :PIB

1ST-EVER BIMSTEC TRADITIONAL MUSIC FESTIVAL**In News**

The first-ever BIMSTEC Traditional Music Festival, titled ‘SaptaSur: Seven Nations, One Melody’ was held at Bharat Mandapam, New Delhi

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)

- It is a grouping of seven Member States lying in the **littoral and adjacent areas of the Bay of Bengal.**
- It is a unique link connecting South Asia with South-East Asia - five Members from South Asia (Bangladesh, Bhutan, India, Nepal and Sri Lanka) and two from South-East Asia (Myanmar and Thailand).
- The BIMSTEC region brings together 1.7 billion people - **22% of world population with a combined GDP of US\$ 5 trillion.**

Focus

- BIMSTEC had initially focused on six sectors in 1997 (trade, technology, energy, transport, tourism, and fisheries) and expanded in 2008 to incorporate agriculture, public health, poverty alleviation, counter-terrorism, environment, culture, people-to-people contact, and climate change.

Historical Linkages

- The organization came into existence on 6 June 1997 through the **‘Bangkok Declaration’.**
- It was originally formed with four Member States with the acronym ‘BIST-EC’ (Bangladesh, India, Sri Lanka and Thailand Economic Cooperation).
 - ♦ Following the inclusion of Myanmar in December 1997, it was renamed ‘BIMST-EC’ (Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation). With the inclusion of Nepal and Bhutan in 2004, the name of the grouping was changed to BIMSTEC.

Source :Air

THE INDIA UN GLOBAL SOUTH CAPACITY BUILDING

In News

India launched the first tranche of four projects under the India-UN Global Capacity Building Initiative.

India-UN Global Capacity Building Initiative

- It is aimed at supporting the Global South in achieving SDG goals through specialized training.
- The initiative, announced in September 2023, is a collaboration between India's Ministry of External Affairs (MEA) and UN agencies.
- It builds on India's longstanding ITEC programme, which offers over 12,000 training slots annually to nearly 160 countries.
 - ♦ Under this initiative, UN agencies help identify projects, while training is conducted via ITEC.

Progress

- In the first phase of the India-UN Global Capacity Building Initiative, four projects have been launched:
 - ♦ Rice Fortification in Nepal (with WFP),
 - ♦ Digital Health Platforms for Zambia and Lao PDR (with UNDP),
 - ♦ Census Preparedness in Caribbean nations (with UNFPA),
 - ♦ Vocational Training in South Sudan (with UNESCO).

Source :Air

STABLECOINS

Context

- Hong Kong is set to enforce the Stablecoins Ordinance from August 1, 2025, marking a significant regulatory intervention in the global cryptocurrency ecosystem.

What are stablecoins?

- Stablecoins are **cryptocurrencies designed to maintain price stability** by pegging their value to underlying assets such as:
 - ♦ Fiat currencies (e.g., USD, Euro),
 - ♦ Commodities (e.g., gold),
 - ♦ Other cryptocurrencies, or
 - ♦ Algorithm-based systems.
- Stablecoins are **different from CBDCs, or Central Bank Digital Currencies**, which are digital currencies officially issued and controlled by a government's central bank.
 - ♦ Meanwhile, stablecoins can be privately issued and can also be pegged to foreign currencies.

Global Scenario in stablecoins

- **USA:** The GENIUS Act mandates 100% reserve backing for stablecoins and monthly public disclosures.
- **Japan & Singapore:** Have introduced targeted regulations for stablecoins.
- **China:** Bans crypto domestically but is exploring Hong Kong as a stablecoin hub via its tech firms.

Source: TH

BAIRABI-SAIRANG RAILWAY LINE IN NORTHEAST INDIA

Context

- The Indian Railways has commissioned a new **51.38 km broad gauge** railway line from Bairabi to Sairang in Mizoram, just **18 km** short of the State capital, Aizawl.

About the

- Bairabi in Kolasib district, near the border with Assam, has so far been the only railhead in Mizoram.
 - ♦ Sairang is a satellite town of Aizawl, around 20 km from the city.
- The project was part of the Indian Railways' plan in the early 2010s to connect all the northeastern State capitals to the country's rail network.
- The Bairabi-Sairang section has **48 tunnels** with a total length of **12.85 km** and **142 bridges**.

What is the Act East Policy?

- The Act East Policy, announced in **2014**, was a more ambitious version of the Look East Policy initiated in **1991** with the key objective of transforming the northeastern region into India's gateway to the ASEAN bloc.
- **Related Rail & Road Projects:**
 - ♦ **Dimapur–Zubza Railway (Nagaland):** Progressing steadily
 - ♦ **Imphal–Moreh Railway (Manipur):** Delayed due to ethnic unrest
 - ♦ **Asian Highway-1:** From Assam to Moreh via Kohima and Imphal
 - ♦ **Agartala–Akhaura Line (Tripura–Bangladesh)**

Challenges to Transnational Connectivity

- The implementation of the **Act East Policy** has encountered geopolitical setbacks, including the ongoing civil conflict in Myanmar following the **military coup** in **February 2021**, and political instability in **Bangladesh** after the change in government in **August 2024**.

- **The Agartala-Akhaura railway project**, which would have provided Tripura faster access to Kolkata through Bangladesh and connectivity to the Chittagong Port, has been stalled.
- **Kaladan Multi-Modal Transit Transport Project**
Delay: ₹2,904 crore project would reduce Mizoram-Kolkata distance by 1,000 km but is stalled due to instability in Myanmar.

Source: TH

ICRISAT'S AI ADVISORY FOR SMALL FARMERS

Context

- ICRISAT, in collaboration with ICAR and others, has launched an AI-powered climate advisory initiative to boost farming.

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

- ICRISAT is an international organisation that conducts agricultural research for development in Asia & sub-Saharan Africa.
- It helps farmers by providing improved crop varieties and hybrids and also helps smallholder farmers in the drylands fight climate change.
- It was established under a Memorandum of Agreement between the Government of India and the CGIAR on 28 March 1972.

Recent Advisory

- It is Supported under the Union Government's **Monsoon Mission III**, the project is titled AI-powered Context-Specific Agromet Advisory Services for Climate-Resilient Agriculture at Scale.
- It aims to equip smallholder farmers with hyper-local, actionable weather and climate insights.
- By integrating real-time weather forecasts, crop models, and machine learning analytics, the initiative will offer precise recommendations on **sowing, irrigation, and pest management**.
- Advisories will be delivered through **user-friendly digital channels**, including an AI-powered WhatsApp bot, ensuring accessibility even in remote areas.
- The project will first be implemented in **Maharashtra**, through ICAR's **Agro-Meteorological Field Units (AMFUs)** to reach smallholder farmers. Insights from this phase will inform a national rollout and serve as a model for South-South expansion.

Source: AIR

CALLS GROW TO SET UP PERMANENT NATIONAL COMMISSION FOR DNTS

Context

- Calls are growing for the establishment of a **permanent national commission for Denotified, Nomadic, and Semi-Nomadic Tribes** at the national conference of Denotified Tribes (DNTs).

Nomadic, Semi Nomadic, and Denotified Tribes (NTs, SNTs, and DNTs)

- **Nomadic communities:** Communities that move frequently instead of settling in one place. They are often engaged in traditional occupations like herding, trading, or crafts.
- **Semi-nomadic Tribes:** Partially nomadic and partially settled, migrating seasonally but also establishing temporary settlements.
- **Denotified tribes (DNTs):** Formerly classified as "**criminal tribes**" under the **Criminal Tribes Act, 1871** during British rule. The Act was repealed in 1952, and these communities were "**de-notified**."
 - ♦ While most DNTs are spread across the Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Classes (OBC) categories, **some DNTs are not covered in any of the SC, ST or OBC categories.**
- **Status: The Idade Commission** had concluded there were a total of 1,526 DNT, NT, and SNT communities across the country, of which **269 were not yet categorised as either SC, ST, or OBC.**
 - ♦ There are a total of **425 Denotified Tribes, 810 Nomadic Tribes and 27 Semi Nomadic Tribes in India.**
- Of DNT communities, **Lambadas (STs)** are the most vocal and visible, followed by Vadderas (BCs) in government sector and political spheres.

Committees Linked to DNTs

- **Ayyangar Committee (1949-50):** It was set up to review the Criminal Tribes Act, it recommended its repeal and emphasized the need for welfare and rehabilitation of these communities.
 - ♦ The Act was repealed in 1952.
- **Kalelkar Committee (1953):** It was The first Backward Class Commission which was appointed on 29 January 1953 under the Chairmanship of Mr. Kakasaheb Kalelkar.
 - ♦ It suggested dropping the term "Criminal Tribes" and instead using "Denotified Communities."
 - ♦ It also recommended their integration into mainstream society through dispersed settlement.

- **Idate Commission (2014-2017):** It was Tasked with identifying and listing Denotified, Nomadic, and Semi-Nomadic Tribes (DNT/NT/SNT), assessing their development, and recommending systematic welfare measures.
 - ♦ Based on its report, the Development and Welfare Board for DNTs (DWBDNC) was established in 2019.

Source: TH

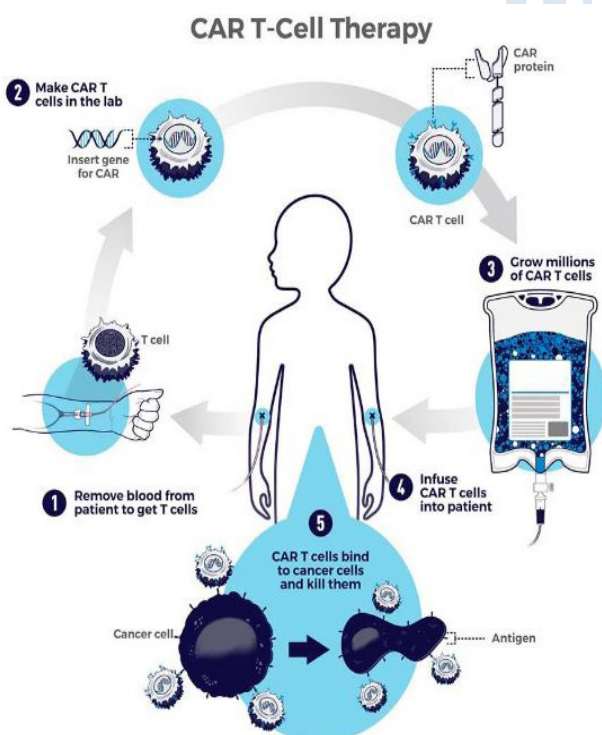
T CELL

Context

- A team of Harvard scientists has used artificial intelligence (AI), in the form of **AI-designed proteins**, to generate large numbers of immune cells and enhance immunity against diseases ranging from cancer to viral infections.

About

- **Significance of the Discovery:**
 - ♦ Enabled large-scale T cell production in lab bioreactors, important for **CAR T-cell immunotherapies**.
 - ♦ In mice, injections of these agonists enhanced immune responses and boosted memory T cell production, improving the effectiveness of vaccines.



- **Potential Applications:**
 - ♦ Immunotherapy.
 - ♦ Vaccine development.
 - ♦ Immune cell regeneration.

What are B and T-Cells?

- **B-cells and T-cells** are a specific type of white blood cell called **lymphocytes**.
- They **help the immune system** to fight germs and protect from disease.
- **Types of T cells:**
 - ♦ **Cytotoxic T-cells:** They kill cells infected with viruses and bacteria, and they also destroy tumor cells.
 - ♦ **Helper T-cells:** They send signals that direct other immune cells to fight infection.
 - ♦ **Regulatory T-cells (Tregs):** These cells suppress excessive immune responses to prevent autoimmune reactions and maintain immune tolerance.
 - They play a crucial role in preventing the immune system from attacking the body's own cells and tissues.
- T-cells start in **bone marrow, mature in thymus and eventually relocate to lymph tissue or bloodstream**.
- **B-cells** make antibodies in response to antigens (antibody generators).
 - ♦ **There are two main types of B-cells:** plasma cells and memory cells. Both types help to protect from infection and disease.

Source: TH

OPERATION MUSKAAN-XI

Context

- Telangana Police rescued over 7,600 children during the last month as part of the nationwide **Operation Muskaan-XI** initiative.

About the Initiative

- Objective: To **rescue children** involved in **child labour, begging, or living in unsafe conditions**.
- High-risk areas targeted: Railway and bus stations, brick kilns, mechanic shops, construction sites, tea stalls, and religious places.
- Conducted in coordination with: Women Development and Child Welfare Department, Labour and Health Departments, Child Welfare Committees (CWCs), District Child Protection Units (DCPUs), and NGOs.

Did You Know?

- **Operation Muskaan**, also known as Operation Smile, is a **Ministry of Home Affairs (MHA)** initiative.
- It is a **month-long campaign** led by **State Police forces** that aims to trace, **rescue, rehabilitate**, and **reunite** missing or trafficked children with their families.

Source: TH