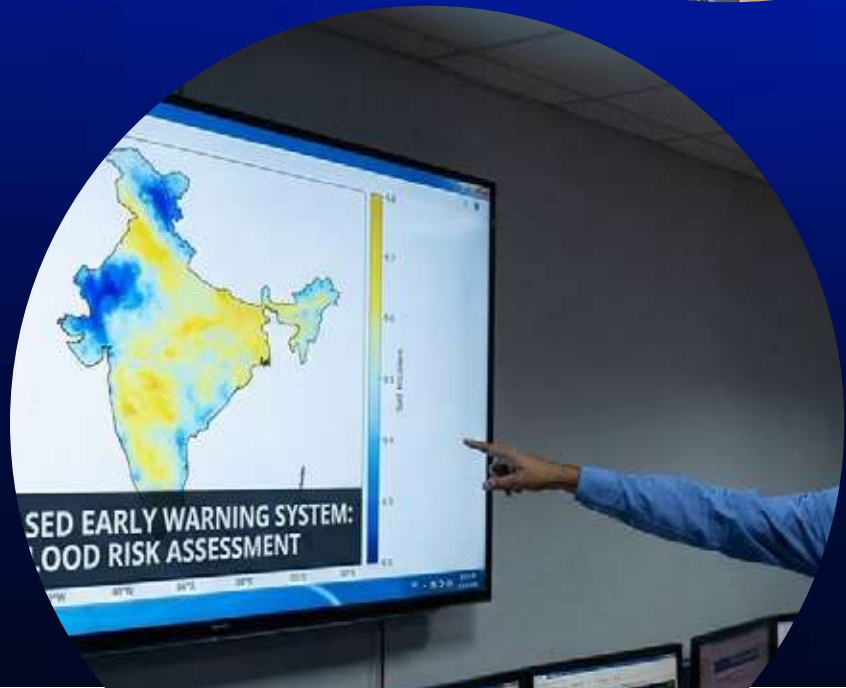
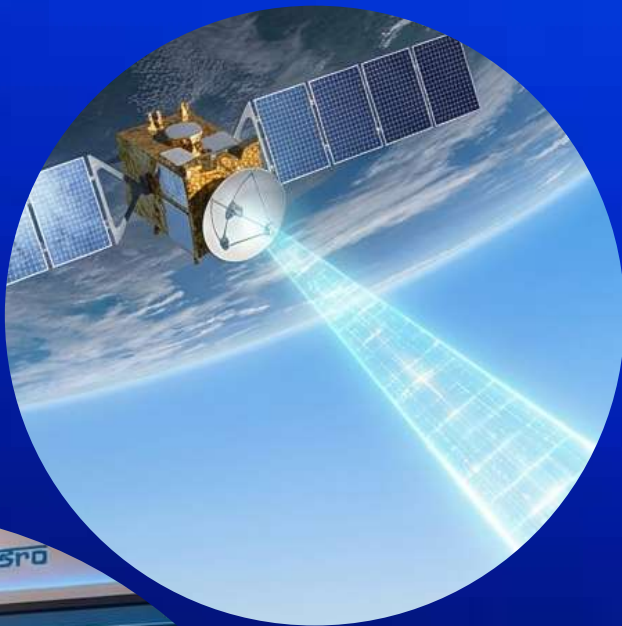




PadhAI

# Kurukshetra

2025 Yearly Edition



# Welcome to PadhAI

## KURUKSHETRA YEARLY COVERAGE

You are here because you understand a fundamental truth of UPSC preparation: ***it's not about reading everything – it's about reading what truly matters, in the right way, at the right time.***

Magazines like Kurukshetra offer deep insights into rural development, governance, social schemes, and grassroots policy implementation. Yet for many aspirants, the challenge lies in separating exam-relevant content from general narratives.

PadhAI's Kurukshetra coverage is designed to do exactly that - ***filter, structure, and align policy discussions with UPSC requirements.***

## Why This Kurukshetra Coverage Matters

At PadhAI, we don't reproduce articles. We ***extract core themes***, map them with the syllabus, and connect them with ***Prelims and Mains PYQs***.

Every topic included here:

- carries relevance for ***GS Papers or Essay***,
- strengthens understanding of ***developmental and governance issues, and***
- builds ***analytical depth*** rather than surface-level knowledge.

Nothing is added for volume.

Everything is added for value.

## Part of the PadhAI Preparation Ecosystem

This Kurukshetra coverage forms part of a larger, integrated learning system that includes:

- early and concise ***monthly magazines***,
- ***daily PIB summaries*** with exam-focused clarity,
- ***monthly compliance tracking***,
- complete ***Prelims & Mains PYQs with structured answers***,
- relevant ***news article summaries***, and
- ***personal tutor chat support*** for continuous guidance.

The aim is simple:

***one trusted ecosystem instead of multiple scattered sources.***

## Our Guiding Philosophy

At PadhAI, everything is built around one belief:

- *Learn only what matters.*
- *Learn it the right way.*
- *Learn it at the right time.*

We don't believe in shortcuts.

We believe in clarity, consistency, and cumulative preparation.

## A Final Note

UPSC preparation is demanding and often overwhelming.

PadhAI exists to ensure you prepare with ***direction, relevance, and confidence*** — never blindly, never alone.

If this **Kurukshetra** coverage helps you save time, connect policy with practice, and strengthen your answers, then it has served its purpose.

**Welcome to PadhAI.**

***A community built to prepare — not to overwhelm.***

## Topic 1: ISRO's Role in Rural Development



**Summary:** The Indian Space Research Organisation (ISRO) acts as a primary enabler for rural transformation by utilizing **remote sensing, Geographic Information Systems (GIS), and satellite-based applications**. These technologies help bridge the rural-urban divide by fostering sustainable development in agriculture, water management, and infrastructure.

**Background:** Rural India supports over **65% of the national population**, yet these areas face significant hurdles such as fragmented agriculture, poor infrastructure, and high vulnerability to natural disasters. ISRO's involvement stems from the necessity to provide technological solutions to these socio-economic challenges.

### Key Points:

- **Agricultural Productivity:** Satellite imagery tracks crop health and acreage, which is vital for the **Public Distribution System (PDS)** and export planning.
- **Soil Health:** The **Soil Health Card Scheme** utilizes satellite data to offer insights into soil fertility and moisture.
- **Government Support:** ISRO's data facilitates the **Pradhan Mantri Fasal Bima Yojana (PMFBY)** by ensuring accurate crop damage assessments for insurance claims.
- **Water Management:** Geospatial tools aid the **Integrated Watershed Management Programme (IWMP)** in soil and water conservation.
- **Rural Connectivity:** ISRO has established **473 Village Resource Centres (VRCs)** to provide telemedicine, tele-education, and agricultural advisories.

### Prelims Facts (One Liners):

1. Rural areas constitute the backbone of India's socioeconomic fabric, housing over 65% of the population.
2. The **Soil Health Card Scheme** relies on satellite data for analyzing nutrient deficiencies.
3. ISRO has established exactly **473 Village Resource Centres** in collaboration with NGOs.

4. The **SVAMITVA Scheme** uses drones and geospatial tech to map rural land parcels.

**MCQ Practice:** Q. Which of the following portals provided by ISRO supports Gram Panchayats in decentralized planning and resource management? A) AgriStack B) Bhuvan Panchayat C) eSanjeevani D) PMGSY

**Answer:** B (The Bhuvan Panchayat portal provides geospatial data for infrastructure planning and monitoring development projects).

## Topic 2: Space Technologies: Bridging the Rural-Urban Gap in India



**Summary:** Space technology has revolutionised communication and environmental monitoring, allowing rural populations to access services previously limited to urban centres. By leveraging **GSAT satellites and remote sensing**, India is fostering a more resilient and inclusive future.

**Background:** The digital divide has historically isolated rural communities from global networks; however, satellite-based services now ensure equitable access to healthcare, education, and governance.

### Key Points:

- **Telemedicine:** Launched in 2001, this program connects rural healthcare facilities with urban specialists via satellite.
- **Weather Prediction:** Satellites like **INSAT-3D and Megha-Tropiques** provide accurate forecasts that help farmers decide on sowing and harvesting times.
- **Disaster Management:** Remote sensing tracks hazards such as cyclones and floods, supporting early warning systems and evacuations.
- **Precision Agriculture:** Satellite data assists in optimizing irrigation and monitoring land degradation.

### Prelims Facts (One Liners):

1. ISRO's Telemedicine Program was launched in the year **2001**.
2. **INSAT-3D** is a key satellite used for weather prediction to assist rural upliftment.
3. Space technologies help track **deforestation and land degradation** to protect ecosystems.

**MCQ Practice:** Q. The primary role of GSAT satellites in rural development is to: A) Map urban property boundaries B) Bridge the digital divide through communication services C) Only monitor underwater resources D) Control insect migrations

**Answer:** B (GSAT satellites facilitate telemedicine, e-learning, and digital governance to ensure equitable access to services).

## Topic 3: Reimagining the Future of Learning: Educating on Space Technology



**Summary:** As India aims for a **\$77 billion space economy by 2030**, integrating space technology into the education system is crucial for preparing a skilled workforce. This includes school curriculum reforms and public-private partnerships to inspire innovation.

**Background:** The UN's **Space4SDGs** initiative highlights how space technology supports Sustainable Development Goals like **Quality Education** and **Decent Work**.

### Key Points:

- **Economic Growth:** The global space economy is projected to reach **\$1.8 trillion by 2035**.
- **YUVIKA:** This Young Scientist Program by ISRO introduces students to mission planning and satellite building.

- **Curriculum Integration:** Proposals include using satellite data for teaching urban planning and renewable energy mapping.
- **EDUSAT:** The world's first dedicated education satellite facilitates distance learning for rural students.

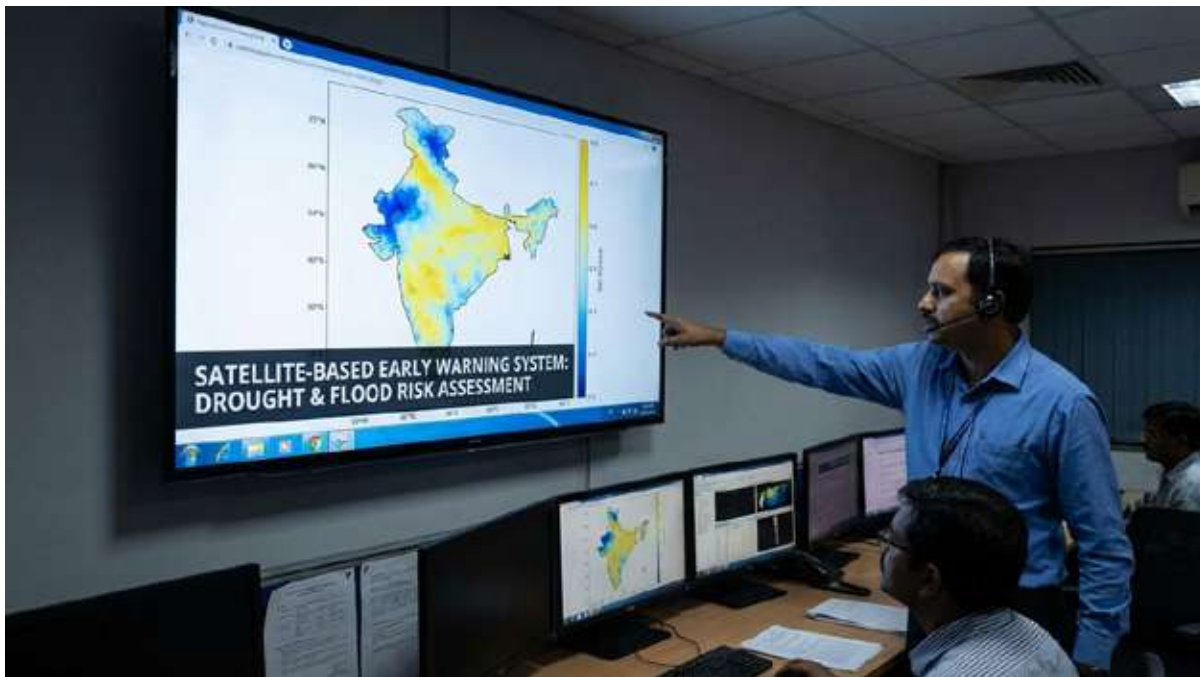
**Prelims Facts (One Liners):**

1. India's space economy is expected to grow at a **CAGR of 26%** to reach \$77 billion by 2030.
2. **YUVIKA** is an ISRO program designed specifically for young scientists.
3. **EDUSAT** was the first satellite in the world dedicated solely to education.

**MCQ Practice:** Q. According to the "Space4SDGs" initiative, space technology is relevant to how many Sustainable Development Goals? A) 5 B) 10 C) 17 D) 12

**Answer:** C (The initiative highlights its role in achieving all 17 Sustainable Development Goals).

## Topic 4: Satellite-Based Early Warning Systems for Drought and Flood Management



**Summary:** Satellites provide precise monitoring for droughts and floods, which are major threats to food security and rural livelihoods. Advanced sensors track rainfall, soil moisture, and vegetation health to mitigate these risks.

**Background:** India faces various types of droughts—**meteorological, agricultural, hydrological, and socioeconomic**—necessitating high-resolution monitoring for timely intervention.

**Key Points:**

- **Sensors and Indices:** The **NDVI (Normalized Difference Vegetation Index)** is used to detect crop stress and drought-affected areas.

- **Flood Risk Assessment:** Altimetry tracks river water levels, while mapping identifies high-risk floodplains.
- **Global Collaboration:** Indian efforts are complemented by global programs like **Sentinel (ESA) and Landsat (NASA)**.
- **Mitigation:** Satellite data informs structural measures like embankment design and non-structural measures like afforestation.

**Prelims Facts (One Liners):**

1. **NDVI** stands for Normalized Difference Vegetation Index and measures crop health.
2. **SMAP** is a tool used for real-time soil moisture mapping.
3. Agricultural drought refers specifically to **insufficient soil moisture** for crops.

**MCQ Practice:** Q. Which Indian satellite series is specifically mentioned as providing critical data for weather and disaster monitoring? A) GSAT B) INSAT C) EDUSAT D) Aryabhata

**Answer:** B (INSAT, along with RISAT and Cartosat, provides critical data for disaster-prone areas and weather monitoring).

**Topic 5: Krishi Decision Support System (Krishi-DSS)**



**Summary:** Launched on **August 16, 2024**, Krishi-DSS is a unified geospatial platform that integrates satellite imagery, soil health, and weather data to empower stakeholders in the agricultural sector. It is often described as the **“Gati Shakti” for agriculture**.

**Background:** Part of the **Digital Agriculture Mission**, which has a financial outlay of **₹2,817 crores**, Krishi-DSS aims to centralize agricultural data for better decision-making.

## Key Points:

- **Data Integration:** It combines data from the **RISAT-1A satellite, Bhuvan Geoplatform, and VEDAS.**
- **Field Parcel Segmentation:** This allows for analysis at the level of individual field parcels for targeted interventions.
- **Disaster Preparedness:** Provides early warnings for pests, hailstorms, and heavy rainfall.
- **Agri Stack:** A digital repository included in the mission to revolutionise agricultural services.

## Prelims Facts (One Liners):

1. Krishi-DSS was launched by the **Department of Agriculture and Farmers Welfare** in August 2024.
2. The Digital Agriculture Mission has a total financial outlay of **₹2,817 crores.**
3. **RISAT-1A** is the primary Earth Observation Satellite providing data for the platform.

**MCQ Practice:** Q. Krishi-DSS is designed to provide near-real-time data on which of the following? A) Industrial chemical exports B) Urban traffic congestion C) Soil moisture and crop residue burning D) Deep-sea mining locations

**Answer:** C (The platform tracks crop health, residue burning, soil moisture, and water storage).

## Topic 1: Fruit-Based Farming Systems for Livelihood



**Summary:** Fruit-based farming has emerged as a vital model in India to enhance rural income, ensure nutritional security, and promote environmental sustainability. Contributing approximately 18% to the agricultural Gross Value Added (GVA), this sector offers a high-value alternative to traditional cereal crops.

**Background:** Agriculture employs nearly 50% of India's workforce. Fruit-based systems are increasingly necessary to diversify agricultural income and reduce farmer vulnerability to market fluctuations and climate shocks.

### Key Points:

- **Global Leadership:** India is the top global producer of mangoes, bananas, citrus fruits, and grapes.
- **Production Growth:** Horticulture production reached 112.73 million tonnes in 2023-24, with a Vision 2047 target of 244 million tonnes.
- **Government Support:** The **National Horticulture Mission (NHM)** provides technical support, while the **Pradhan Mantri Kisan Sampada Yojana** focuses on post-harvest infrastructure.
- **Sustainability:** Practices such as mulching, drip irrigation, and carbon sequestration through orchards contribute to climate mitigation.

### Prelims Facts (One Liners):

1. India's mango exports grew by 19% in 2023, reaching \$47.98 million.

2. Horticulture production has surpassed foodgrain production for five consecutive years.
3. The sector expanded its fruit export destinations to 41 different countries.
4. Vision 2047 aims for a fruit production target of 244 million tonnes.

**MCQ Practice:** Q. Which state is noted in the sources for its flourishing grape industry driven by cold storage and export-oriented production? A) Tamil Nadu B) Uttar Pradesh C) Maharashtra D) Bihar

**Answer:** C (Maharashtra's grape industry has flourished due to technological advancements in cold storage and export-oriented production).

---

## Topic 2: Beekeeping and the Sweet Revolution



**Summary:** Beekeeping, or apiculture, is a low-cost, high-reward enterprise that aligns with UN Sustainable Development Goals to boost rural economies and environmental conservation. Through the **Sweet Revolution**, India aims to create 10 lakh jobs by 2030.

**Background:** Launched under Atmanirbhar Bharat in 2020, the **National Beekeeping & Honey Mission (NBHM)** was established to enhance employment and pollination services for rural and tribal communities.

### Key Points:

- **Economic Standing:** India is the 8th largest honey producer globally, with an output of 1.33 lakh metric tonnes in 2022-23.

- **Employment:** The sector supports 15–20 lakh people, with over 3 lakh rural households directly engaged.
- **Pollination Services:** Beekeeping increases crop yields by 15–30%, creating demand for migratory beekeeping services.
- **Infrastructure:** NBHM focuses on distributing modern equipment and establishing honey testing labs and processing units.

### Prelims Facts (One Liners):

1. Honey exports in 2022–23 were valued at ₹1,543 crore.
2. Over 30% of beekeepers in states like Kerala and Uttarakhand are women.
3. The Sundarbans in West Bengal are renowned for niche mangrove honey production.
4. Beekeeping is classified as an agro-based MSME for credit and subsidy access.

**MCQ Practice:** Q. The "Sweet Revolution" in India is primarily associated with which of the following? A) Increased sugar beet production B) Enhancement of the honey and beekeeping sector C) Expansion of fruit juice processing units D) Subsidies for sugarcane farmers

**Answer:** B (The Sweet Revolution refers to government initiatives like the NBHM aimed at enhancing beekeeping and honey production).

## Topic 3: Food Processing of Horticulture Crops



**Summary:** Food processing transforms raw horticultural produce into value-added products to extend shelf life and reduce post-harvest losses, which currently range from 6.7% to 15.8% in fruits. This sector is crucial for making India a global agri-processing hub.

**Background:** Despite being the second-largest global producer of fruits and vegetables, India processes less than 10% of its total agricultural output.

**Key Points:**

- **Economic Impact:** The food processing industry contributes 32% to India's food sector and is expected to reach \$1.27 trillion by 2027.
- **Schemes:** The **PMFME Scheme** (₹10,000 crore) aims to formalize micro-enterprises under "One District One Product".
- **Investment:** India allows 100% FDI under the automatic route for food processing.
- **Technology:** Innovations like High-Pressure Processing (HPP) and AI-based supply chain management are being adopted to improve quality.

**Prelims Facts (One Liners):**

1. India loses approximately ₹1.52 lakh crore annually due to post-harvest horticultural losses.
2. The PLI Scheme for food processing has an outlay of ₹10,900 crore.
3. Over 71% of processed food items are taxed at the 0–5% GST slab.
4. India currently has fewer than 11,000 cold storage units, while 35,000 are needed.

**MCQ Practice:** Q. Which technology mentioned in the sources can reduce energy consumption by 90% in potato processing? A) High-Pressure Processing (HPP) B) Cold Plasma Technology (CPT) C) Pulsed Electric Field (PEF) D) Blockchain Traceability

**Answer:** C (Pulsed Electric Field (PEF) reduces energy consumption by 90% in potato processing).

---

## Topic 4: Nutritional and Health Security through Horticulture



**Summary:** Horticulture plays a vital role in addressing **hidden hunger** and micronutrient deficiencies in India. Fruits and vegetables are "protective foods" rich in vitamins, minerals, and antioxidants that reduce the risk of chronic diseases.

**Background:** India faces a high burden of malnutrition, with 75% of preschool children suffering from iron deficiency anemia and 57% of the population affected by Vitamin A deficiency.

### Key Points:

- **Dietary Needs:** ICMR–NIN recommends a daily consumption of 400g of vegetables and 100g of fruits, though current levels remain low.
- **Nutraceuticals:** Horticultural crops contain phytochemicals and antioxidants like carotene and flavonoids.
- **Fiber and Protein:** Leafy vegetables provide dietary fiber, while peas and beans are essential protein sources in vegetarian diets.
- **Disease Prevention:** Whole fruit and vegetable consumption is more effective at reducing oxidative stress than isolated supplements.

### Prelims Facts (One Liners):

1. One in three children in India is stunted, and 15% of the population is undernourished.
2. Total horticulture production reached 353.19 million tonnes in 2023–24.
3. Iodine deficiency remains endemic in 85% of Indian districts.
4. Micronutrient deficiencies contribute to 22% of India's overall disease burden.

**MCQ Practice:** Q. According to ICMR-NIN (2024) recommendations, what is the suggested daily intake of vegetables for an individual? A) 200 g B) 300 g C) 400 g D) 500 g

**Answer:** C (The dietary recommendation is 400 g of vegetables and 100 g of fruits daily).

## Topic 5: Sustaining Rural Livelihoods



**Summary:** Horticulture serves as a critical component of the rural economy by providing income stability, mitigating urban migration, and offering diversification for small and marginal farmers.

**Background:** Since the 1991 reforms, the sector has expanded significantly, helping to mitigate economic deprivation in rural areas.

### Key Points:

- **Export Value:** Horticulture exports surpassed ₹4 lakh crore in 2023.
- **Rural Tourism:** "Horti-tourism" in ecologically sensitive areas like the Himalayas creates new sustainable economic opportunities.
- **Infrastructure Gaps:** The sector is hindered by insufficient post-harvest infrastructure and limited access to high-quality seeds.
- **Policy Needs:** A national horticulture policy and Public-Private Partnerships (PPPs) are essential to create integrated supply chains.

### **Prelims Facts (One Liners):**

1. India is the second-largest global producer of both fruits and vegetables.
2. Horticulture production has surpassed foodgrain production for the fifth consecutive year.
3. The Warehouse Infrastructure Fund under NABARD facilitates the development of cold storage.
4. Post-harvest losses in fruits can reach as high as 15.8%.

**MCQ Practice:** Q. Which of the following is identified as a primary challenge to maximizing profits for horticultural farmers? A) Lack of export potential B) Over-mechanization C) Inefficient supply chains and lack of cold storage D) Decreasing global demand for organic honey

**Answer:** C (Insufficient post-harvest infrastructure, such as cold storage and inefficient supply chains, leads to high losses and affects farmer profits).

## Topic I: Union Budget 2025-26: Development Dimensions



**Summary:** The **Union Budget 2025-26** serves as a strategic blueprint to achieve the vision of **Viksit Bharat by 2047**. It prioritizes **resilient growth** through substantial increases in capital expenditure and targeted sectoral allocations for infrastructure, social welfare, and economic reforms.

**Background:** The budget aligns with the **Economic Survey 2024-25**, which highlighted India's steady growth despite global manufacturing slowdowns and supply chain disruptions. It addresses citizens' expectations for income growth, employment, and an enabling business environment.

### Key Points:

- **Total Expenditure:** The budget sets a total expenditure of **Rs. 50.65 lakh crore** for 2025-26.
- **Capital Expenditure:** Effective capital expenditure is significantly increased to **Rs. 15.48 lakh crore**.
- **Skill Development:** This sector leads priorities with a massive **35% increase** in allocation.
- **Subsidies:** A total of **Rs. 3.83 lakh crore** is earmarked for food and fertilizer subsidies alongside rural development and employment programs.

### Prelims Facts (One Liners):

1. The target year for achieving a developed India (Viksit Bharat) is **2047**.
2. The total expenditure for 2025-26 is budgeted at **Rs. 50.65 lakh crore**.

3. The allocation for **Skill Development and Entrepreneurship** saw the highest percentage increase at **35%**.
4. Rural Development allocation has increased by **5.75%** from the previous year.

**MCQ Practice:** Q. What is the total effective capital expenditure (CapEx) allocated in the Union Budget 2025-26? A) Rs. 10.18 lakh crore B) Rs. 15.48 lakh crore C) Rs. 47.16 lakh crore D) Rs. 50.65 lakh crore

**Answer: B** (The budget allocates Rs. 15.48 lakh crore for effective capital expenditure to drive infrastructure growth.)

## Topic 2: Government Initiatives to Boost Rural Economy



**Summary:** The government aims to strengthen the **rural economy** by enhancing infrastructure, increasing consumption, and empowering farmers through expanded credit access and productivity schemes. These initiatives target **inclusive growth** to reduce the rural-urban divide and support India's **\$5 trillion economy vision**.

**Background:** The rural economy is a cornerstone of India's GDP and employment, yet it faces challenges like **declining demand** and slow growth in the MSME and informal sectors.

### Key Points:

- **Kisan Credit Card (KCC):** The loan limit has been raised from **Rs. 3 lakh to Rs. 5 lakh**, benefiting **7.75 crore farmers**.

- **PM Dhan-Dhaanya Krishi Yojana:** This scheme targets **100 low-yield districts** to improve productivity for **1.7 crore farmers**.
- **Pulses Mission:** A 6-year mission aims for self-sufficiency with a **100% procurement guarantee** through NAFED and NCCF.
- **Fisheries:** Introduction of **Special Economic Zones (SEZs)** for fisheries to boost exports and rural employment.

#### Prelims Facts (One Liners):

1. The KCC loan limit has been enhanced to **Rs. 5 lakh**.
2. **Rs. 2.66 lakh crore** has been allocated for agriculture and allied sectors in 2025-26.
3. The Cotton Technology Mission is designed for a duration of **5 years**.
4. The ambitious revenue collection target for FY 2025-26 is **Rs. 42.70 lakh crore**.

**MCQ Practice:** Q. Under the 6-year Pulses Mission, which organizations ensure a 100% procurement guarantee for price stability? A) RBI and NABARD B) NAFED and NCCF C) NSO and NITI Aayog D) SEZ and MSME

**Answer: B** (NAFED and NCCF provide a 100% procurement guarantee to ensure price stability for pulses like tur and urad.)

### Topic 3: Budgetary Initiatives for Women Empowerment



**Summary: Gender-responsive budgeting (GRB)** is utilized as an analytical tool to address gender disparities by planning and auditing public expenditure for women's development. The

2025-26 budget continues to prioritize women's welfare to ensure their equal role in socio-economic progress.

**Background:** Gender Budgeting was first introduced in India in **2005-06** to assess the impact of budgets on women and ensure equity.

**Key Points:**

- **DAY-NRLM:** Allocation increased by **26.3% (Rs. 19,005 crore)** to support women's entrepreneurship and skill development.
- **PMMVY:** A conditional cash transfer scheme supporting the health and nutrition of **pregnant and lactating women**.
- **Mahila Shakti Kendra (MSK):** Provides grassroots-level digital literacy, skill development, and employment opportunities.
- **One Stop Centres (OSCs):** Offers integrated support, including legal aid and counseling, for women facing violence.

**Prelims Facts (One Liners):**

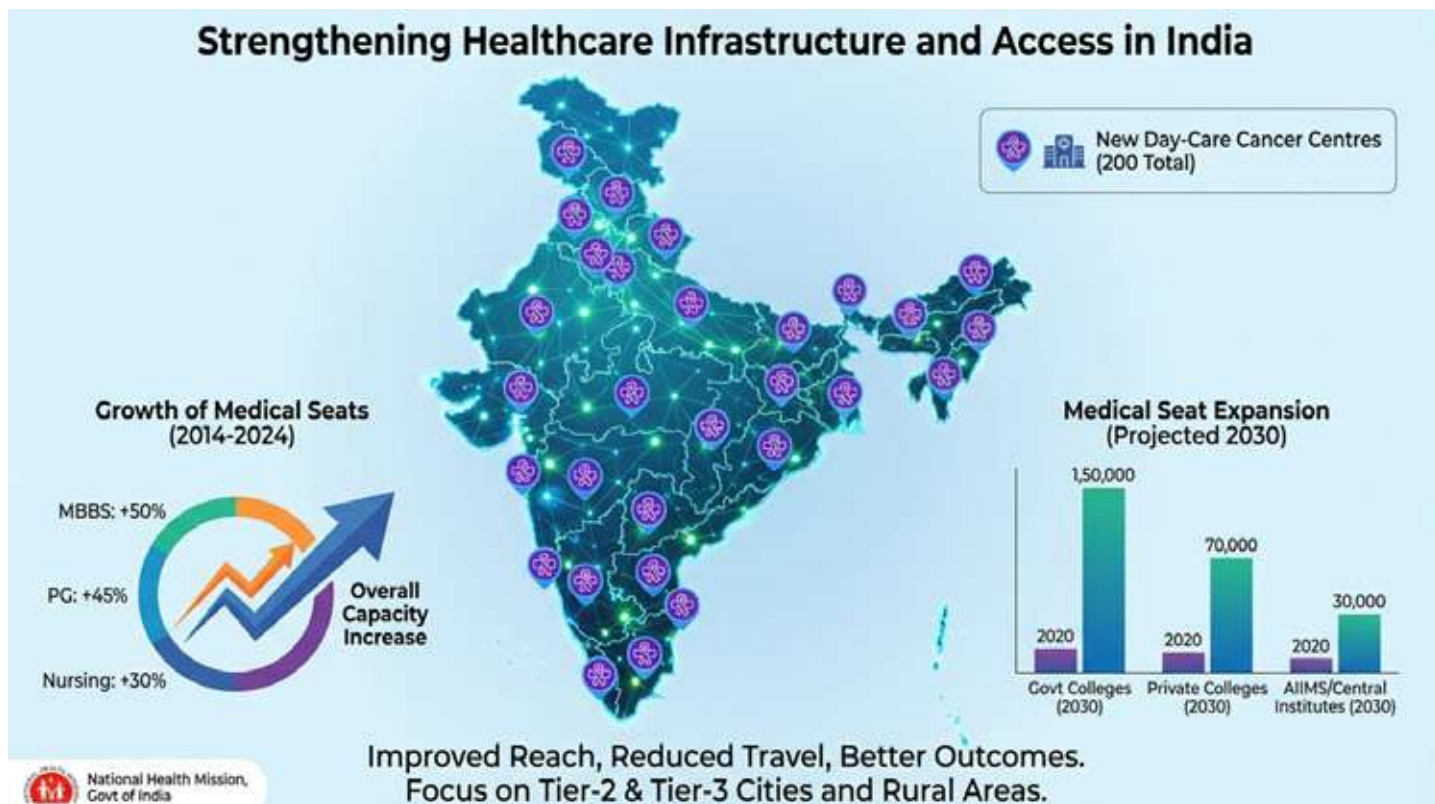
1. Gender Budgeting was introduced in India in the financial year **2005-06**.
2. The **Beti Bachao Beti Padhao** scheme was launched in **2015**.
3. The DAY-NRLM allocation saw a significant rise of **26.3%** in the current budget.
4. The National Creche Scheme is designed to facilitate **workforce participation** for working mothers.

**MCQ Practice:** Q. What is the primary objective of the Pradhan Mantri Matru Vandana Yojana (PMMVY)? A) Establishing safe hostels for working women B) Providing cash transfers for health and nutrition of pregnant women C) Offering 100% procurement guarantee for agricultural products D) Training women in high-yielding seed varieties

**Answer: B** (PMMVY is a conditional cash transfer scheme specifically for improved health and nutrition of pregnant and lactating women.)

---

## Topic 4: Strengthening Healthcare Infrastructure and Access



**Summary:** The 2025-26 budget prioritizes a **holistic healthcare approach** by integrating infrastructure expansion, medical education, and digital transformation. Significant investments aim to reduce the burden on metro hospitals and ensure financial protection for vulnerable groups.

**Background:** Strengthening healthcare is vital to address doctor shortages and achieve **universal health coverage** goals.

### Key Points:

- **Budget Increase:** The Ministry of Health and Family Welfare received **Rs. 99,858.56 crore**, an **11% increase**.
- **Medical Seats:** Target to add **75,000 new medical seats** over five years, with 10,000 added in the coming year.
- **Cancer Care:** Setting up **200 district-level day-care cancer centres** within three years.
- **Drug Affordability:** **36 life-saving medicines** are fully exempted from basic customs duty to make them affordable.

### Prelims Facts (One Liners):

1. The Health Ministry budget has been increased by **11%** this year.
2. A total of **75,000 new medical seats** are targeted over the next five years.
3. **200 district-level day-care cancer centres** will be established within three years.
4. **36 life-saving drugs** are now fully exempt from basic customs duty.

**MCQ Practice:** Q. Under the Union Budget 2025-26, how many district-level day-care cancer centres are planned to be set up within three years? A) 50 B) 100 C) 200 D) 500

**Answer: C** (The budget proposes setting up 200 district-level day-care cancer centres to decentralize treatment access.)

## Topic 5: Swachh Bharat and Jal Jeevan Missions

### TOPIC 5: SWACHH BHARAT AND JAL JEEVAN MISSIONS



**Summary:** The budget underscores a commitment to **sanitation and water security** through flagship missions. Increased funding focuses on achieving **universal sanitation coverage** and sustainable potable water access through technology and community participation.

**Background:** These missions are essential for improving public health indicators and achieving **environmental sustainability**.

#### Key Points:

- **Jal Jeevan Mission (JJM):** Aims to provide **pipled water to every rural household by 2026**.
- **Smart Water Monitoring:** Funds are earmarked for **sensor-based monitoring** to ensure real-time data transparency in water supply.
- **ODF Plus:** Villages are being transitioned to **ODF Plus status**, emphasizing greywater and faecal sludge management.
- **Waste Management:** Urban drives include incentives for **waste-to-energy projects** and source segregation.

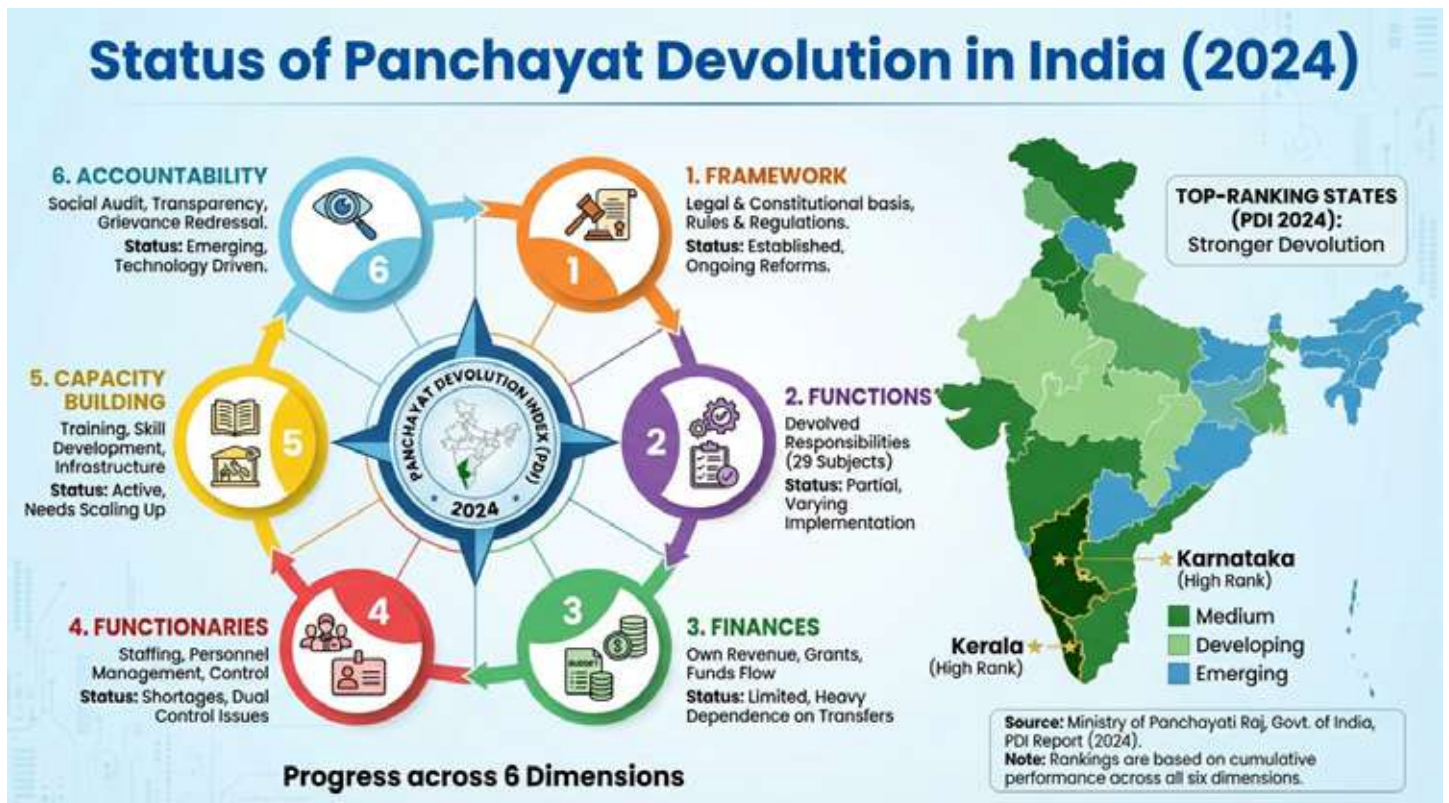
### **Prelims Facts (One Liners):**

1. The Jal Jeevan Mission target for providing piped water to every rural home is **2026**.
2. The Swachh Bharat Mission now emphasizes making villages **ODF Plus**.
3. Technology integration in JJM includes **sensor-based monitoring** for efficiency.
4. The budget dedicates significant portions to **climate-resilient water infrastructure**.

**MCQ Practice:** Q. What is the target year for the Jal Jeevan Mission to provide piped water to every rural household? A) 2024 B) 2025 C) 2026 D) 2030

**Answer: C** (The Jal Jeevan Mission aims to provide piped water to every rural household by the year 2026.)

## Topic I: Status of Panchayat Devolution in India (2024)



**Summary:** The **Ministry of Panchayati Raj** recently released the "**Status of Devolution to Panchayats in States 2024**" report, which uses an evidence-based ranking system to assess how well states have empowered their local governments. The report indicates a moderate increase in the overall **Devolution Index from 39.9% in 2013-14 to 43.9% in 2021-22**, showing incremental progress in grassroots governance.

**Background:** The 73rd Constitutional Amendment Act of 1992 institutionalised Panchayati Raj as the **third tier of governance** to ensure democratic decentralisation. This reform was necessary to move from top-down administration to **bottom-up planning**, empowering rural populations to manage their own socio-economic development.

### Key Points:

- **State Rankings:** **Karnataka** ranked first overall, excelling in finances and accountability, followed by Kerala and Tamil Nadu.
- **Dimensional Gains:** The most significant improvement was seen in the "**Functionaries**" index, which rose from 39.6% to 50.9%, reflecting better staffing and digital tool adoption.
- **11th Schedule Implementation:** While the Constitution lists **29 subjects** for devolution, many states are hesitant to transfer full control over these areas, leading to inconsistent functional empowerment.
- **Institutional Hurdles:** Problems such as the **frequent rotation of reserved seats** and non-functional District Planning Committees (DPCs) continue to disrupt leadership continuity and integrated planning.

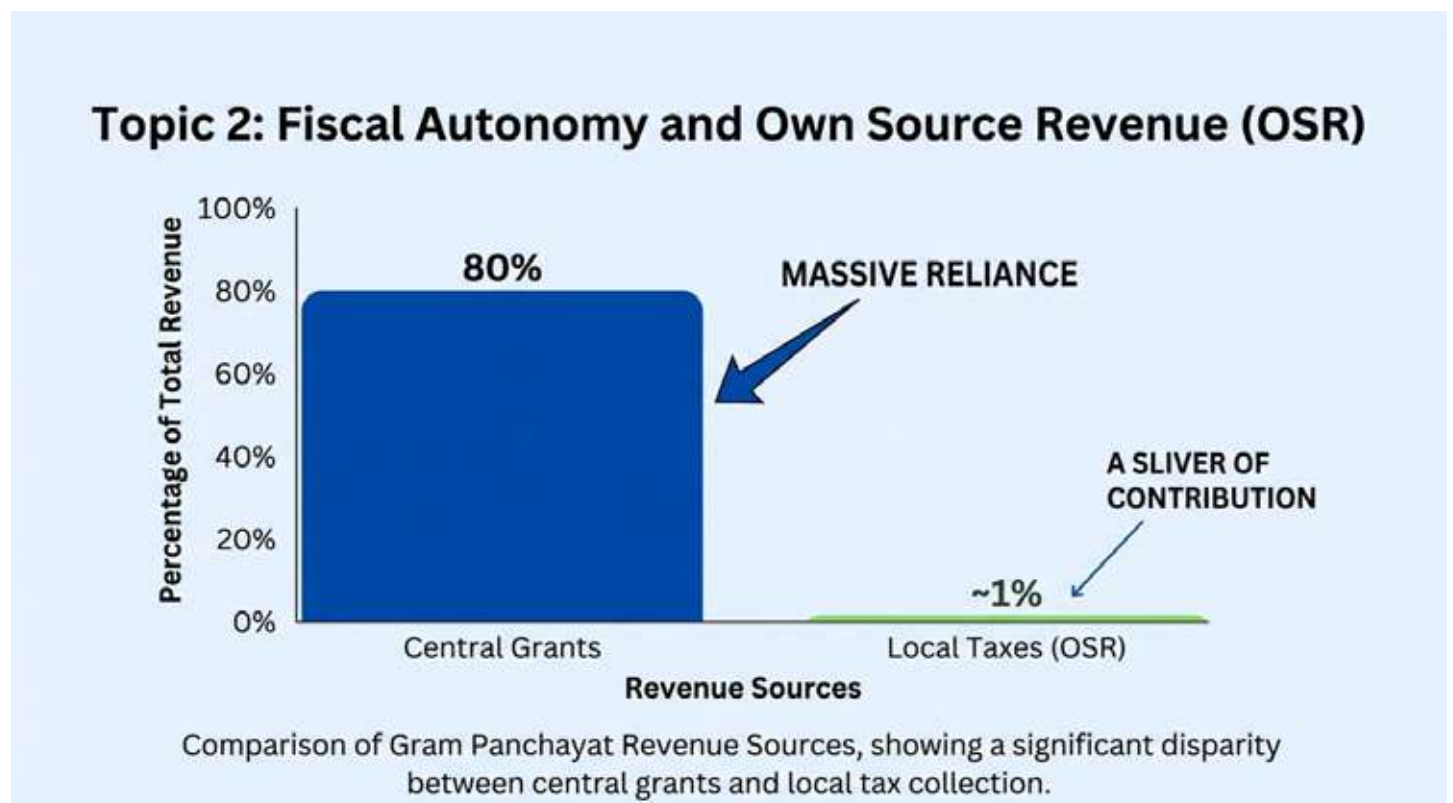
## Prelims Facts (One Liners):

1. **Article 243G** empowers State Legislatures to devolve powers and responsibilities to Panchayati Raj Institutions (PRIs).
2. The **Panchayat Devolution Index 2024** ranks states across **six specific dimensions**.
3. **Article 243-I** mandates the constitution of a **State Finance Commission (SFC)** every five years.
4. **Karnataka** holds the top rank in the 2024 Devolution Index, while regions like **Ladakh and Puducherry** show the lowest progress.

**MCQ Practice:** Q. According to the "Status of Devolution to Panchayats 2024" report, which state achieved the highest ranking due to its strengths in finance and accountability? A) Kerala B) Tamil Nadu C) Karnataka D) Maharashtra

**Answer: C** (Karnataka secured the top position by demonstrating robust performance in the key dimensions of local finances and institutional accountability.)

## Topic 2: Fiscal Autonomy and Own Source Revenue (OSR)



**Summary:** Despite constitutional mandates for fiscal autonomy, Indian Panchayats remain heavily dependent on external funding, with **Own Source Revenue (OSR) contributing only 6.31%** of their total receipts. This financial over-reliance on Central and State grants transforms PRIs into mere "scheme implementers" rather than self-governing entities.

**Background:** The 73rd Amendment provided the legal framework for Panchayats to levy taxes under **Article 243H**, but institutional and political bottlenecks have prevented effective revenue mobilisation. True decentralisation is impossible without the financial capacity to address local priorities independently of higher-level government dictates.

**Key Points:**

- **Dependency Ratio:** On average, **80% of PRI revenue** comes from Central Government grants, while state grants provide another 15%.
- **Asymmetric Tax Powers:** There is high inter-state disparity; for instance, **Uttar Pradesh** GPs levy none of the six taxes they are legally permitted to collect, whereas states like **Kerala** have fully empowered their local bodies.
- **Administrative Bottlenecks:** Many Panchayats lack the **technical skills** for scientific property valuation or the political will to collect user charges for water and sanitation.
- **Parallel Structures:** State agencies often bypass PRIs in service delivery, such as rural water supply, which further undermines local resource control.

**Prelims Facts (One Liners):**

1. The average per capita **Own Source Revenue (OSR)** for Panchayats in India is only **₹59**.
2. **Article 243H** is the specific constitutional provision that authorises PRIs to levy and collect taxes.
3. PRIs spend less than **0.6% of GSDP** in all Indian states, highlighting low local expenditure capacity.
4. In **Maharashtra**, rural water supply schemes were handed over to GPs to enhance their autonomy and OSR potential.

**MCQ Practice:** Q. Which constitutional article directs the Central Finance Commission to recommend measures to supplement the resources of Panchayats in a state? A) Article 243G B) Article 243-I C) Article 280(3)(bb) D) Article 243H

**Answer: C** (Article 280(3)(bb) specifically mandates the Central Finance Commission to recommend augmentations to the Consolidated Fund of a State to supplement Panchayat resources.)

---

## Topic 3: Water Management through PRIs



**Summary:** PRIs serve as critical agents for **decentralised water governance**, managing **62.4% of publicly owned water bodies** in rural areas. Through initiatives like the **Jal Jeevan Mission (JJM)** and **Atal Bhujal Yojana**, Panchayats are transitioning from passive observers to active planners of sustainable water security.

**Background:** With the 2023 Water Body Census revealing that **97.1% of India's water bodies** are in rural areas, the role of local government is paramount. PRIs were granted authority over water resources, minor irrigation, and watershed development under **Schedule XI** of the Constitution.

### Key Points:

- **Village Action Plans (VAPs):** Under JJM, Panchayats prepare VAPs and form **Village Water & Sanitation Committees (VWSCs)** to ensure 100% household tap connectivity.
- **Groundwater Management:** Through **Atal Bhujal Yojana**, PRIs in water-stressed regions prepare **Water Security Plans** to balance local demand with available supply.
- **Natural Resource Management:** Approximately **60% of MGNREGS funds** are earmarked for water conservation works like check dams and pond restoration, all implemented at the Panchayat level.
- **XV Finance Commission Grants:** Out of ₹2.36 lakh crore allocated to PRIs for 2021-26, **60% is "tied"** specifically to water supply and sanitation projects.

### Prelims Facts (One Liners):

1. According to the 2023 Water Body Census, there are **24.24 lakh water bodies** in India, with 97.1% located in rural regions.

2. **Schedule XI** of the Constitution delegates 29 subjects to PRIs, including drinking water and minor irrigation.
3. The **"Catch the Rain"** mantra is a key guiding principle for PRI-led water conservation initiatives.
4. **Jal Jeevan Mission** targets providing **Functional Household Tap Connections (FHTCs)** to every rural home.

**MCQ Practice:** Q. What percentage of the XV Finance Commission grants (2021-26) for Panchayats is "tied" to water supply, rainwater harvesting, and sanitation? A) 33% B) 46% C) 60% D) 80%

**Answer: C** (60% of the XV Finance Commission grants are tied to these essential water and sanitation services to strengthen local implementation capacity.)

## Topic 4: Technological Empowerment and Land Rights (SVAMITVA)



**Summary:** The last decade has seen a **technological revolution** in rural governance, most notably through the **SVAMITVA Scheme**, which uses drones to survey village inhabited areas. This digital mapping provides villagers with **property cards**, enabling asset monetisation and enhancing the tax-collection capacity of Panchayats.

**Background:** Lack of clear property titles has historically limited rural residents' access to formal credit and hindered local government revenue. Technological integration aims to bridge the **urban-rural divide** by bringing modern land records and digital transparency to the grassroots.

[Click here to access Monthly Magazine](#)

[Click here to access Yojana Magazine](#)

[Click here to access Current Affairs](#)

[Click here to access PIB Summaries](#)

## Key Points:

- **Scale of Survey:** Drones have surveyed over **3.2 lakh villages**, leading to the issuance of **2.41 crore property cards**.
- **e-Gram SWARAJ:** This portal simplifies Panchayat accounting and has processed over **₹2.4 lakh crore** in transactions, ensuring fiscal transparency.
- **Bhashini Integration:** The e-Gram SWARAJ portal now supports **20 regional languages**, making digital governance more accessible to diverse local populations.
- **Audit Online:** Over **2.1 lakh digital audits** were conducted between 2023 and 2024 to maintain high levels of fiscal accountability in rural spending.

## Prelims Facts (One Liners):

1. The **SVAMITVA Scheme** uses drone technology to establish clear ownership of property in rural abadi (inhabited) areas.
2. **Audit Online** is the digital tool used to ensure the fiscal accountability of Panchayat expenditures.
3. The **Meri Panchayat app** provides farmers with localised, Panchayat-level weather forecasting in collaboration with the IMD.
4. Over **46% of India's 31.5 lakh elected representatives** in Panchayats are now women.

**MCQ Practice:** Q. Which initiative is specifically credited with issuing 2.41 crore property cards in rural India by using drone surveys? A) e-Gram SWARAJ B) SVAMITVA Scheme C) PESA Act D) RGSA

**Answer: B** (The SVAMITVA Scheme leverages drone technology to map rural land and provide official property cards to owners.)

## Topic 5: Capacity Building and Localising SDGs



**Summary:** Real empowerment of PRIs requires more than just legal status; it necessitates **capacity building** to ensure elected representatives can manage complex governance tasks. Through the **Rashtriya Gram Swaraj Abhiyan (RGSA)**, millions of representatives are being trained to align their **Gram Panchayat Development Plans (GPDP)** with the UN Sustainable Development Goals (SDGs).

**Background:** Despite their constitutional status, many local leaders—especially women and first-time representatives—face a **capacity deficit** in areas like budgeting, digital tools, and public service delivery. The **National Capacity Building Framework (NCBF) 2022** was introduced to standardise this training across the country.

### Key Points:

- **RGSA Achievements:** The program has trained **111 lakh representatives** between 2022 and 2025, with collaborations including premier institutes like IIMs and IRMA.
- **Thematic GPDP:** Approximately **2.54 lakh Gram Panchayats** have now aligned their development plans with **9 specific SDG themes**, such as "Poverty-Free Villages" and "Gender Equality".
- **Women's Leadership:** Targeted initiatives like the **Sashakt Panchayat-Netri Abhiyan** focus specifically on providing decision-making training to women representatives.
- **Digital Divide:** A primary challenge remains the lack of digital infrastructure and skills in remote regions, which the **e-Panchayat Mission Mode Project** seeks to address.

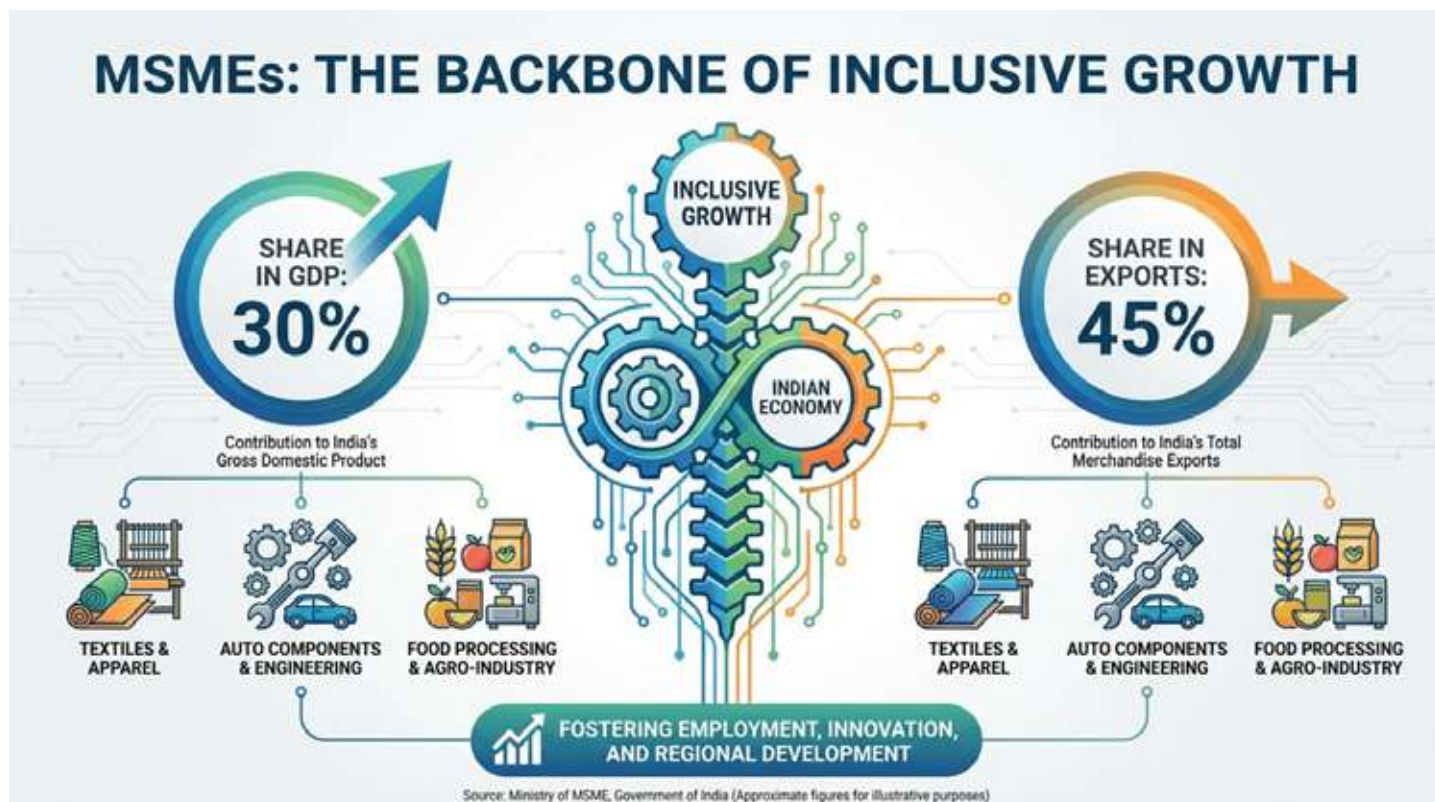
### Prelims Facts (One Liners):

1. The **Rashtriya Gram Swaraj Abhiyan (RGSA)** is the primary scheme for strengthening the governance capabilities of PRIs.
2. **Thematic GPDP** allows Panchayats to focus their local planning on **nine specific SDG themes**.
3. The **NCBF 2022** provides the guiding framework to standardise training for local governance in India.
4. **Antyodaya** (serving the last person) and **Sabka Saath, Sabka Vikas** are the twin spirits guiding modern capacity-building efforts.

**MCQ Practice:** Q. Which program focuses on empowering women representatives in Panchayats through specialized decision-making training? A) SVAMITVA B) RGSA C) Sashakt Panchayat-Netri Abhiyan D) e-Gram SWARAJ

**Answer: C** (The Sashakt Panchayat-Netri Abhiyan is the initiative dedicated to training and empowering women leaders in local government.)

## Topic I: MSMEs: The Backbone of Inclusive Growth



**Summary:** MSMEs (Micro, Small, and Medium Enterprises) are regarded as the **engine of inclusive growth** in India, playing a vital role in economic development, rural upliftment, and equitable income distribution. They act as a catalyst for industrialisation in backward regions and are the nation's **second-largest employment generator** after agriculture.

**Background:** Recognized as one of the four critical pillars of national development in the **Union Budget 2025–26**, MSMEs are central to decentralized industrialisation. Their contribution to the national Gross Value Added (GVA) has shown resilience, rising from 27.3% in 2020–21 to **30.1% in 2022–23**.

### Key Points:

- **Scale of Impact:** As of April 2025, there are **6.23 crore registered MSMEs** in India, providing employment to 26.66 crore people.
- **Economic Contribution:** The sector contributes approximately **one-third of India's GDP** and more than **45% of total exports**.
- **Sectoral Diversity:** While spanning various industries like textiles and hospitality, roughly **70% of MSMEs operate in the services sector**, with micro-enterprises being the dominant group.
- **Formalisation:** The introduction of the **Udyam Registration Portal (URP)** and **Udyam Assist Platform (UAP)** has streamlined formalisation, increasing registrations from 1.65 crore in 2023 to 6.23 crore in 2025.

## Prelims Facts (One Liners):

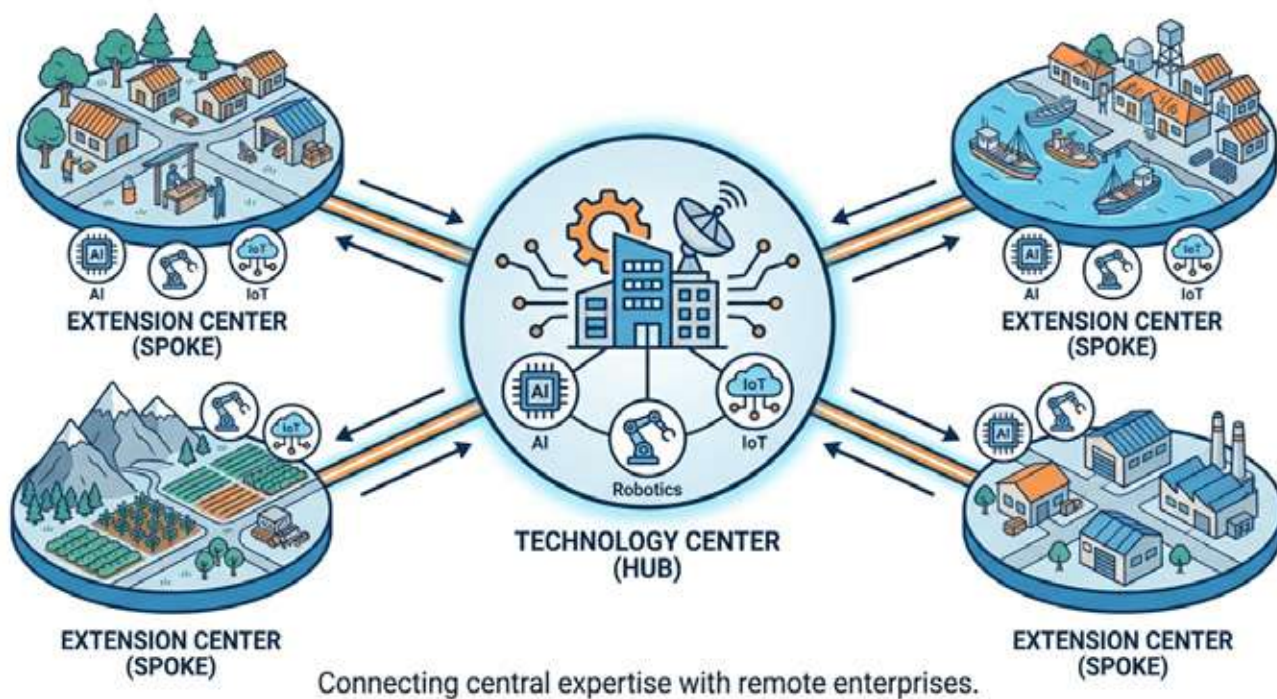
1. MSMEs contribute approximately **45.73% to India's total exports** as of FY 2023–24.
2. **Maharashtra, Uttar Pradesh, and Tamil Nadu** are the top three states with the highest number of MSME registrations.
3. MSMEs constitute about **90% of businesses globally** and generate up to 70% of global employment.
4. The sector's exports surged significantly from ₹3.95 lakh crore in 2020–21 to **₹12.39 lakh crore in 2024–25**.

**MCQ Practice:** Q. According to the Kurukshetra May 2025 excerpts, what was the approximate number of registered MSMEs in India as of April 2025? A) 1.65 Crore B) 4 Crore C) 6.23 Crore D) 10 Crore

**Answer: C** (Formalisation efforts through Udyam portals led to an increase in registrations to 6.23 crore by April 2025.)

## Topic 2: Science and Technological Empowerment of MSMEs

### HUB-AND-SPOKE MODEL: MSME TECHNOLOGY EMPOWERMENT



**Summary:** Integrating MSMEs with **scientific and technological advancements** is essential to convert publicly funded R&D into commercially viable products. Government interventions focus on fostering an innovation ecosystem to enhance the global competitiveness of MSMEs in emerging fields like **cleantech, drone technology, and healthcare devices**.

**Background:** The government has established structured linkages between industry and academia through hubs like the **Common Research and Technology Development Hub (CRTDH)**, launched in 2014-15 to facilitate innovation in MSME clusters.

**Key Points:**

- **CRTDH Network:** Currently, **18 hubs** operate across sectors such as renewable energy and affordable healthcare, providing R&D facilities and pilot plants.
- **CSIR Mega Innovation Complex:** Established in **Mumbai in January 2025**, this complex offers world-class incubation labs and technical support for deep-tech firms and MSMEs.
- **NIDHI Programme:** Supports high-potential tech startups through **Technology Business Incubators (TBI)** and promotes social inclusion through **Inclusive TBI (ITBI)** in Tier-2 and Tier-3 cities.
- **Extension Centers:** A planned network of **100 Extension Centers** aims to bring advanced technologies like **AI, AR/VR, and Robotics** to grassroots levels.
- **CREATE:** The Centre for Rural Enterprise Acceleration through Technology in **Leh** focuses on local products like **pashmina wool and bio-processing** to boost livelihoods in remote terrains.

**Prelims Facts (One Liners):**

1. The **CRTDH** was launched by the Department of Scientific and Industrial Research (DSIR) in 2014-15.
2. The **Ministry of MSME** operates **33 Technology Development Centers** aiding in manufacturing and skill development.
3. Over **72,000 trainees** have already been trained through the recently commissioned 25 Extension Centers.
4. The **Build-Operate-Transfer (BOT) PPP model** is being used to develop new Technology Centers to expand their reach.

**MCQ Practice:** Q. Where was the CSIR Mega Innovation Complex for MSMEs established in January 2025? A) New Delhi B) Bangalore C) Mumbai D) Hyderabad

**Answer: C** (The complex was established in Mumbai to facilitate collaboration between MSMEs, startups, and research institutions.)

---

### Topic 3: Revolutionizing MSME Finance and Credit Access



**Visual Element:** A photograph of a solar panel manufacturing unit, with a caption highlighting MSME involvement in clean energy and space components for missions like Chandrayaan.

**Summary:** Access to **affordable and collateral-free finance** is critical for MSME survival and growth. Recent policy reforms, including upcoming RBI guidelines on credit flexibility and the expansion of the **Credit Guarantee Scheme**, aim to ease financing constraints significantly.

**Background:** MSMEs are a core segment of **Priority Sector Lending (PSL)**, requiring banks to allocate 40% of their Adjusted Net Bank Credit to the priority sector, with **7.5% specifically reserved for Micro Enterprises**.

#### Key Points:

- **Revised Classification:** From April 1, 2025, thresholds were expanded to allow enterprises to scale without losing benefits; for example, **Small Enterprises** can now have a turnover of up to **₹100 crore**.
- **Credit Guarantee (CGTMSE):** The guarantee limit was doubled from ₹5 crore to **₹10 crore** in April 2025, with coverage up to **90% for women-owned enterprises**.
- **MSME Credit Card:** A new scheme for Udyam-registered units offers up to **₹5 lakh in collateral-free working capital**, with 10 lakh cards to be issued in the first year.
- **Self Reliant India Fund:** A ₹10,000 crore fund providing **equity support** to growth-oriented MSMEs through venture capital.
- **Support for Artisans:** The **PM Vishwakarma Scheme** provides traditional artisans with concessional loans at **5% interest** and skill upgradation.

## Prelims Facts (One Liners):

1. Loans to Micro and Small Enterprises (MSEs) up to **₹10 lakh are collateral-free**.
2. The **CGTMSE** has provided 44 lakh guarantees worth ₹5.02 lakh crore between 2023 and 2025.
3. The **Pradhan Mantri Mudra Yojana (PMMY)** has disbursed over 51.67 crore loans worth ₹32.61 lakh crore since 2015.
4. The **PMEGP** has assisted over 10 lakh enterprises, generating 83 lakh jobs.

**MCQ Practice:** Q. What is the new turnover limit for an enterprise to be classified as a "Medium Enterprise" under the revised April 2025 criteria? A) ₹100 Crore B) ₹250 Crore C) ₹500 Crore D) ₹1000 Crore

**Answer: C** (Medium Enterprises can now have an investment of up to ₹125 crore and a turnover of up to ₹500 crore.)

## Topic 4: Technology Adoption: Challenges and the Way Forward



**Summary:** While technology adoption is a necessity for survival, many Indian MSMEs suffer from **technological backwardness** and a fragmented ecosystem. Addressing financial constraints and skill gaps is vital to unlocking the full potential of the sector in the digital era.

**Background:** Many MSMEs operate with outdated machinery and lack in-house R&D capabilities, resulting in poor absorption of new technologies even when government-supported programs exist.

## Key Points:

- **Core Challenges:** High capital costs, **low digital literacy**, unreliable infrastructure (power/internet), and the lack of tailored technological solutions.
- **Digital MSME Scheme:** Encourages the adoption of **cloud computing and ICT tools** to improve digital readiness.
- **ZED Certification:** Promotes "**Zero Defect Zero Effect**" manufacturing, focusing on high quality with minimal environmental impact.
- **Impact of AI & Automation:** Potential to boost efficiency and streamline operations, though it faces challenges like **skill mismatches**.
- **Champions Portal:** A one-stop digital platform for MSMEs providing **grievance redressal** and real-time advisory support.

## Prelims Facts (One Liners):

1. MSMEs contribute around **30% to India's GDP** but struggle with low productivity due to obsolete equipment.
2. The **PRISM Scheme** supports grassroots innovation and helps individuals and startups commercialize ideas.
3. Nearly **50% of MSME owners** lack adequate market intelligence on global consumer trends.
4. The **World Bank-aided TCSP** helped establish 15 new Technology Centres to support product development.

**MCQ Practice:** Q. Which government intervention specifically promotes manufacturing with "Zero Defect" and "Zero Effect" on the environment? A) PRISM Scheme B) ZED Certification Scheme C) Digital MSME Scheme D) PMEGP

**Answer: B** (The ZED scheme encourages MSMEs to produce high-quality goods with minimal environmental impact.)

---

## Topic 5: Revitalizing MSMEs: Strategic Sectors and Clean Tech



**Summary:** The **National Manufacturing Mission** and specific sectoral schemes are repositioning MSMEs as key players in high-growth areas like **clean technology and aerospace**. These interventions aim to reduce import dependency and enhance long-term industrial resilience.

**Background:** The focus has shifted toward modernization and globalization of labour-intensive sectors to boost both employment and exports.

### Key Points:

- **Clean Tech Focus:** Incentives are provided for MSMEs to manufacture **solar PV cells, EV batteries, and wind turbines**.
- **Labour-Intensive Sectors:** The **Focus Product Scheme** for the footwear and leather industry is expected to create **22 lakh jobs**.
- **Aerospace & Space:** MSMEs have successfully contributed components for national missions like **Chandrayaan**.
- **Startup Ecosystem:** A **₹10,000 crore Fund of Funds** has been proposed to nurture startups in Tier-2 and Tier-3 cities.
- **Inclusive Entrepreneurship:** A dedicated scheme aims to support **5 lakh first-time entrepreneurs** from SC/ST communities, women, and rural youth.

### Prelims Facts (One Liners):

1. The **Ministry of MSME** was allocated **₹23,168.15 crore** in the Union Budget 2025–26.
2. The **National Institute of Food Technology** will be established in **Bihar** to boost food processing in eastern India.
3. The number of **exporting MSMEs** rose from roughly 52,000 to over **1.73 lakh** between 2021 and 2025.
4. MSMEs in the toy sector are being supported through dedicated **cluster development** and skill-building initiatives.

**MCQ Practice:** Q. Which mission aims to integrate MSMEs into broader industrial value chains and provides sector-specific strategies for domestic production? A) National Green Hydrogen Mission B) National Manufacturing Mission C) Stand-Up India D) Skill India Mission

**Answer: B** (The National Manufacturing Mission offers policy support to MSMEs to integrate them into industrial value chains.)

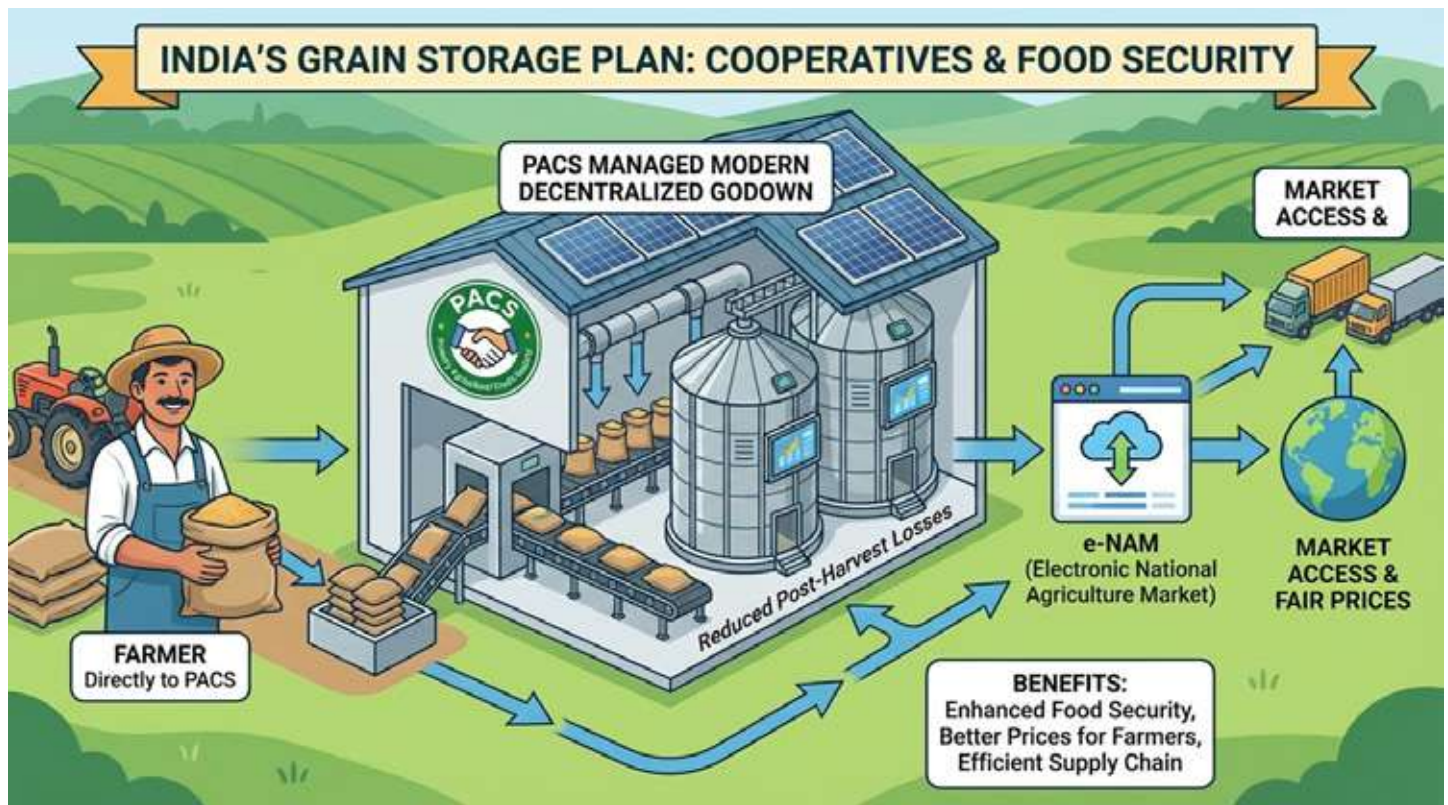
[Click here to access  
Monthly Magazine](#)

[Click here to access  
Yojana Magazine](#)

[Click here to access  
Current Affairs](#)

[Click here to access  
PIB Summaries](#)

## Topic I: Cooperatives and Food Security: The World's Largest Grain Storage Plan



**Summary:** Food security in India is fundamentally tied to the efficiency of its storage and supply chain infrastructure. Despite being a top global producer of food grains, India faces a significant **storage shortfall of 166 Million Metric Tonnes (MMT)**, leading to high post-harvest losses and distress sales. To solve this "Storage Paradox," the government launched the **World's Largest Grain Storage Plan in the Cooperative Sector** in 2023 to decentralize storage and empower local farmers through **Primary Agricultural Credit Societies (PACS)**.

**Background:** Food security, as defined by the FAO, involves physical and economic access to safe and nutritious food, aligning with **Sustainable Development Goal 2 (Zero Hunger)**. In 2021, India produced 311 MMT of grain but only had a storage capacity of 145 MMT, resulting in an annual economic loss of roughly **₹90,000 crore**. The Ministry of Cooperation initiated this plan on May 31, 2023, to build 700 lakh tonnes of capacity over five years.

### Key Points:

- **Decentralized Storage:** The plan aims to build local godowns at the PACS level, reducing transportation costs and helping farmers avoid selling produce at low prices immediately after harvest.
- **PACS Computerization:** As of 2025, **computerization has been completed in 67,930 PACS** to enable real-time tracking, AI-integrated inventory management, and transparent procurement.

- **Convergence of Schemes:** The plan leverages multiple government initiatives, including the **Agriculture Infrastructure Fund (AIF)**, which provides a 3% interest subvention, and the **Sub-Mission on Agricultural Mechanization (SMAM)**.
- **Grassroots Role of PACS:** With over 1.1 lakh societies and 130 million farmer members, PACS serve as the primary contact point for credit, agri-inputs, and direct procurement at MSP.

### Prelims Facts (One Liners):

1. India holds **11% of global cultivable land** but supports 18% of the global population.
2. The storage gap in India is currently estimated at **47%** compared to production.
3. Post-harvest losses in India range between **10–15% annually**.
4. The proposed investment for the grain storage plan is **₹1.25 lakh crore**.
5. NAFED is responsible for maintaining national buffer stocks for commodities like pulses and onions.

**MCQ Practice:** Q. Under the "World's Largest Grain Storage Plan," which grassroots institutions are being utilized as the primary implementation partners for building decentralized godowns? A) Gram Panchayats B) Primary Agricultural Credit Societies (PACS) C) District Cooperative Banks D) Farmer Producer Organizations (FPOs)

**Answer: B** (The plan specifically utilizes 67,000 functional PACS to build local storage facilities and promote community-level food security,.)

## Topic 2: Building a Resilient Cooperative Sector through Skilling



**Summary:** India's cooperative sector, comprising **8.5 lakh societies and 29 crore members**, is a pillar of the rural economy. However, it faces challenges such as a **skill mismatch**, digital backwardness, and a lack of youth participation. To build resilience, the government is prioritizing professional education and vocational training, exemplified by the establishment of India's first national cooperative university,.

**Background:** Globally, cooperatives employ 10% of the workforce and market over 50% of agricultural output. In India, the **2025 Budget** announced the creation of five **National Centres of Excellence for Skilling** to address the dual mandate of cooperatives: protecting member interests while remaining business-viable.

### Key Points:

- **Sahkari University:** The **Tribhuvan Sahkari University Act, 2025**, transformed IRMA into a national university to provide multidisciplinary education and set global standards for the sector.
- **Institutional Innovations:** New reforms like the **National Cooperative Export Limited (NCEL)** and **Multi-State Primary Agricultural Credit Societies (M-PACS)** aim to improve export readiness and agri-innovation.
- **Digital Transformation:** Digital dashboards and AI tools are being integrated to improve transparency and allow cooperatives to participate in formal markets via platforms like **e-NAM**,.
- **Focus on Youth and Women:** Incubation and focused skill programs are being developed to boost entrepreneurship in sectors like dairy, crafts, and food processing.

### Prelims Facts (One Liners):

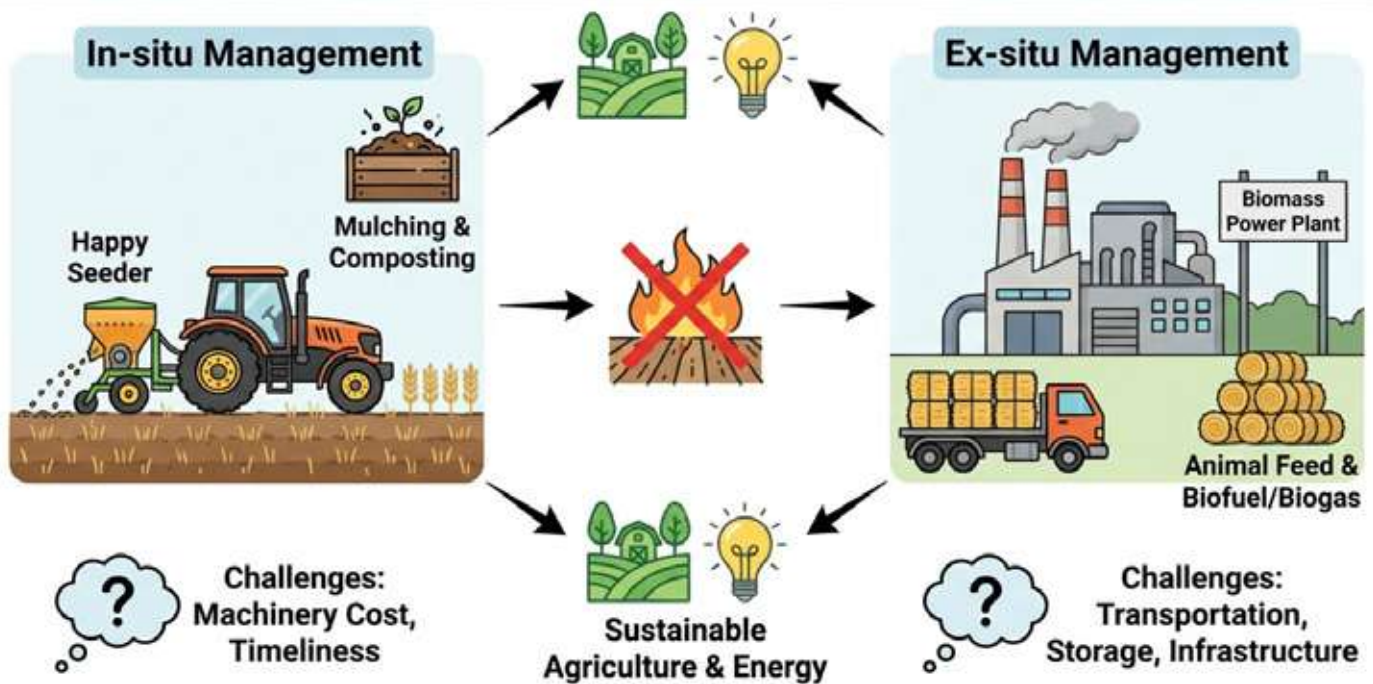
1. Cooperatives represent over **12% of the global population**.
2. The top 300 cooperatives worldwide generate a combined turnover of **\$2,409 billion**.
3. Most of India's low-skilled workforce is found in sectors like trade, transport, and storage.
4. The **SANKALP and STRIVE** schemes are being tailored to meet cooperative-specific training needs,.

**MCQ Practice:** Q. Which 2025 legislative act established India's first national cooperative university to provide skilled manpower for the sector? A) The Cooperative Societies Amendment Act, 2025 B) The Skill India Mission Act, 2025 C) The Tribhuvan Sahkari University Act, 2025 D) The National Cooperative Education Act, 2025

**Answer: C** (The Tribhuvan Sahkari University Act, 2025, transformed IRMA into the nation's first cooperative university.)

## Topic 3: Crop Residue Burning: Challenges and Management

### Crop Residue Burning: Challenges and Management



**Summary:** Crop residue burning is a critical environmental issue in North India, primarily triggered by the **short sowing window** between the rice and wheat crops. Every year, India generates approximately **686 million tonnes** of residue, which, when burned, leads to massive soil nutrient loss and severe air pollution in the Delhi-NCR region. Sustainable management requires a mix of financial incentives, technological support, and infrastructure for industrial use.

**Background:** The practice became prevalent after 1986 with the introduction of **mechanized harvesting**, which left stubble that was difficult to remove manually. Burning rice straw emits significant amounts of **CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O**, and carcinogenic particulates like PM2.5.

#### Key Points:

- **In-situ Management:** Involves using machinery like **Happy Seeders, Super Seeders, and Rotavators** to incorporate stubble back into the soil, which helps conserve moisture.
- **Ex-situ Utilization:** Residues can be converted into **biomass energy**, composting, or industrial products like paper and packaging boards.
- **Nutrient Loss:** Burning leads to the loss of **80% of key soil nutrients** (N, P, K, S) and organic carbon, deteriorating soil health and fertility.
- **Fodder Potential:** Compressing surplus straw into bales can address the national **fodder deficit**, which peaks at 43.5% in western India.

#### Prelims Facts (One Liners):

1. Rice alone contributes **34% of India's total crop residue**.
2. Straw burning emits roughly **70% of its carbon as CO<sub>2</sub>**.

3. Crop residue burning can cost India approximately **₹90,000 crore annually** in economic losses.
4. Using residue as mulch can increase soil organic carbon from **0.3% to 0.5%**.

**MCQ Practice:** Q. Which of the following is considered an "In-situ" management technique for crop residue? A) Converting straw into biomass for power plants B) Using the Happy Seeder for stubble incorporation in the field C) Converting residue into bio-ethanol and biodiesel D) Transporting straw to deficit regions for use as fodder

**Answer: B** (Using a Happy Seeder is a primary method for managing residue in-situ by incorporating it back into the soil.)

## Topic 4: Inclusive Rural Growth through Cooperatives

### National Cooperative Food Network



**Summary:** Cooperatives are transformative models for rural development because they offer **economies of scale** and improve the bargaining power of small farmers. By moving toward a decentralized, multifunctional model, cooperatives can lead the "Sahkar se Samridhi" vision, ensuring food security and employment while preserving social harmony in villages.

**Background:** The creation of the **Ministry of Cooperation in 2021** signaled a move away from the traditional "top-down" supply-leading models toward farmer-controlled institutions. The goal is for every village to have a cooperative managing all local economic activities.

#### Key Points:

- **Collective Strength:** Cooperatives enable small and marginal farmers to gain better access to credit, infrastructure, and markets.
- **Economic Impact:** Direct procurement by cooperatives eliminates food wastage and ensures **fair prices** for both producers and consumers.
- **Social Capital:** Beyond economics, cooperatives foster **trust, shared responsibility, and communal peace**.
- **Vertical Integration:** Future growth depends on shifting from fragmented, horizontal models to integrated systems that manage the entire value chain from storage to retail.

### Prelims Facts (One Liners):

1. Agriculture remains the primary employer in rural India but is constrained by **fragmented land holdings**.
2. There are approximately **8 lakh cooperative units** in India.
3. Cooperatives manage **94% of Fair Price Shops in Tamil Nadu**.
4. The **Amul model** is the premier example of a cooperative revolutionizing the dairy sector.

**MCQ Practice:** Q. What is the primary social benefit of the cooperative model in rural areas according to the vision of "Sahkar se Samridhhi"? A) Centralization of political power in villages B) Elimination of all private sector competition C) Fostering of social capital and shared responsibility among community members D) Mandatory conversion of all private land into collective farms

**Answer: C** (Cooperatives are instruments of collective empowerment that foster social capital and communal resilience,,)

## Topic I: Rising in Unison: Realizing Sahkar Se Samridhhi



**Summary:** The vision of "Sahkar Se Samridhhi" (Prosperity through Cooperation) aims to reposition cooperatives as democratic, multi-sectoral business entities to drive inclusive socio-economic growth. With India targeting a **\$5 trillion economy**, cooperatives are seen as a critical pillar for grassroots entrepreneurship and self-reliance.

**Background:** Cooperative values are deeply rooted in ancient Indian texts like the **Rigveda, Manusmriti, and Arthashastra**, which emphasize collective trusteeship. The movement was formally institutionalized with the **Cooperative Credit Societies Act of 1904**, and later championed by **Mahatma Gandhi**, who linked the Charkha to voluntary cooperation and rural empowerment.

### Key Points:

- **Scale and Reach:** India hosts **814,575 cooperatives** with **29 crore members**, covering **98% of villages**.
- **Core Principles:** The movement operates on **7 global principles**, including democratic control, economic participation, and community focus.
- **Aatmanirbhar Bharat:** Initiatives like the **e-Samyukti (NCCF)** and **e-Samridhhi (NAFED)** portals ensure MSP procurement and reduce dependence on imports for pulses and maize.
- **Diversification:** Primary Agricultural Credit Societies (PACS) are being expanded into **25+ business activities**, including fisheries, dairy, and renewable energy.
- **Institutional Learning:** The establishment of **Tribhuvan Sahkari University** aims to professionalize the sector through specialized leadership training.

### Prelims Facts (One Liners):

[Click here to access Monthly Magazine](#)

[Click here to access Yojana Magazine](#)

[Click here to access Current Affairs](#)

[Click here to access PIB Summaries](#)

1. The Ministry of Cooperation was established on **6th July 2021** to provide a dedicated policy framework.
2. India has **19 national-level cooperative federations** serving as the apex of the movement.
3. Over **7.43 lakh RuPay Kisan Credit Cards (KCCs)** were distributed under a specific pilot project in Gujarat.
4. There are over **810,000 primary cooperatives** currently active in India.

**MCQ Practice:** Q. Which of the following portals was launched specifically to facilitate MSP procurement for farmers through the National Agricultural Cooperative Marketing Federation of India (NAFED)? A) e-Samyukti B) e-Samridhi C) JanSamarth D) e-Gopala **Answer: B** (The e-Samridhi portal by NAFED ensures income security and MSP procurement for registered farmers.)

## Topic 2: PACS as Common Service Centers (CSCs)



**Summary:** In a major policy shift, **Primary Agricultural Credit Societies (PACS)** are being integrated into the **Common Service Centers (CSC)** framework. This transformation turns traditional credit societies into **one-stop digital service hubs**, delivering over **300 e-services** to remote rural populations.

**Background:** Traditionally, PACS were the lowest tier of the short-term cooperative credit structure, limited primarily to providing seeds, fertilizers, and credit. To address rural India's growing need for digital inclusion and e-governance, an **MoU was signed on 2nd February 2023** to merge their reach with the CSC Digital Seva Portal.

## Key Points:

- **Service Delivery:** PACS–CSCs now offer services ranging from **Aadhaar updates and passport applications** to **telemedicine and online education**.
- **Credit Structure:** PACS form the base of a **3-tier system** (StCB → DCCB → PACS) catering to **13 crore farmer members**.
- **Digital Modernization:** Adoption of **ERP systems and cloud storage** ensures financial transparency, accountability, and disaster resilience.
- **Livelihood Integration:** PACS are now eligible to function as **PM Bhartiya Janaushadhi Kendras** and retail outlets for petrol, diesel, and LPG.
- **Scale of Integration:** As of the latest reports, **42,080 PACS** have already been integrated into the CSC framework.

## Prelims Facts (One Liners):

1. PACS are the **lowest tier** in the short-term cooperative credit structure.
2. The **Kharsai Vividha Karyakari Society** in Maharashtra is a lead case study for successful ERP adoption in cooperatives.
3. Cloud-based data access allowed **Arakandanallur PACS** in Tamil Nadu to maintain services despite severe flood damage.
4. **36,193 PACS** have already been converted into **Kisan Samridhhi Kendras** to serve as fertilizer retail hubs.

**MCQ Practice:** Q. The integration of PACS into the Common Service Centers (CSC) framework was formalized through an MoU between the Ministry of Cooperation and which other Ministry? A) Ministry of Agriculture and Farmers Welfare B) Ministry of Electronics & IT C) Ministry of Rural Development D) Ministry of Finance **Answer: B** (The MoU was signed between the Ministry of Cooperation, Ministry of Electronics & IT, NABARD, and CSC e-Governance Services India Ltd.)

---

## Topic 3: NCDC: Powering the Cooperative Revolution



**Summary:** The **National Cooperative Development Corporation (NCDC)** is a statutory body that serves as the financial and technical engine for India's cooperative sector. It focuses on empowering cooperatives in **agriculture, dairy, fisheries, and handloom**, particularly targeting marginalized groups like SCs, STs, and women.

**Background:** Established in **1963 under the NCDC Act, 1962**, the corporation was created specifically to promote and finance cooperative-led rural economic development.

### Key Points:

- **Financial Performance:** In FY 2024–25, NCDC disbursed **₹95,175.71 crore**, maintaining a **loan recovery rate of 99.76%** and zero NPAs.
- **Ethanol and Sugar:** NCDC released **₹10,000 crore to 56 cooperative sugar mills** for ethanol production and cogeneration units to enhance operational viability.
- **FPO Promotion:** Under the national scheme for 10,000 FPOs, NCDC has successfully formed **1,863 Farmer Producer Organizations**.
- **Blue Economy:** The corporation is transforming **2,348 fisheries cooperatives** into FFPOs under the PM Matsya Kisan Samridhi Sah-Yojana.
- **Marine Infrastructure:** NCDC has sanctioned significant funds for **deep-sea trawlers** and seafood processing units in states like Maharashtra, Gujarat, and Kerala.

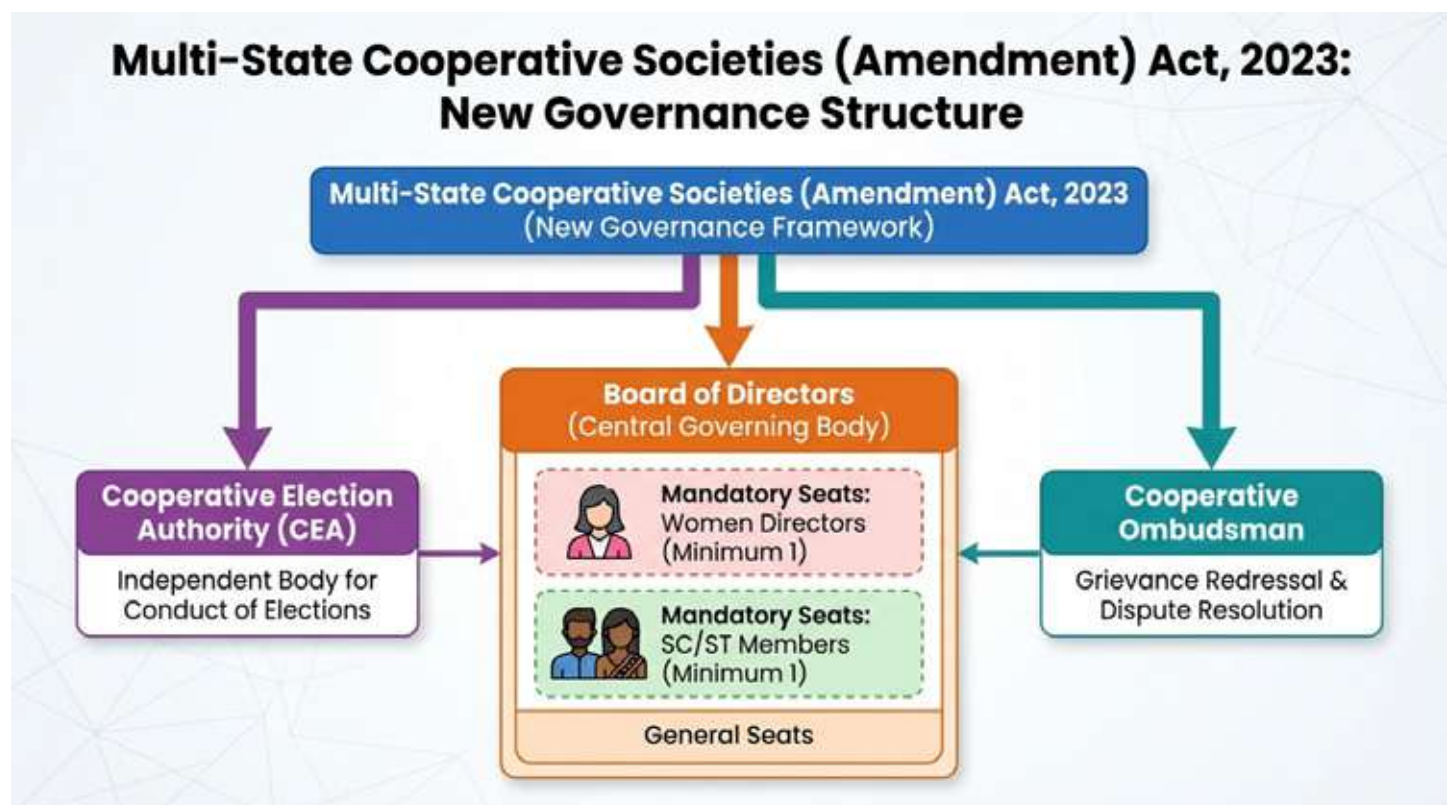
### Prelims Facts (One Liners):

1. The NCDC is a **statutory body** operating under the administrative control of the **Ministry of Cooperation**.

2. Since 2015–16, NCDC's cumulative disbursements have grown at a **33% CAGR**.
3. NCDC targets the formation and promotion of **1,100 additional FPOs** beyond the original mandate.
4. The corporation achieved a net profit of **₹750 crore** in the 2024–25 financial year.

**MCQ Practice:** Q. The "Deep-Sea Trawlers Initiative," which sanctioned funds for trawlers in Maharashtra and Gujarat, is a part of which cooperative support institution? A) NABARD B) NCDC C) NAFED D) TRIFED **Answer: B** (The NCDC sanctioned ₹11.55 crore in Maharashtra and ₹18 crore in Gujarat specifically for the Deep-Sea Trawlers Initiative.)

## Topic 4: Multi-State Cooperative Societies (Amendment) Act, 2023



**Summary:** The **Multi-State Cooperative Societies (Amendment) Act, 2023** is a landmark reform designed to enhance **transparency, accountability, and democratic functioning**. It addresses long-standing issues like financial mismanagement and delayed elections by introducing stringent regulatory oversight and modern auditing standards.

**Background:** The original MSCS Act of 2002 lacked sufficient safeguards to handle the complexities of modern cooperatives. Following the creation of the Ministry of Cooperation in 2021, this amendment was enacted to align Multi-State Cooperative Societies (MSCS) with the vision of **"Sahkar se Samridhi"**.

## Key Points:

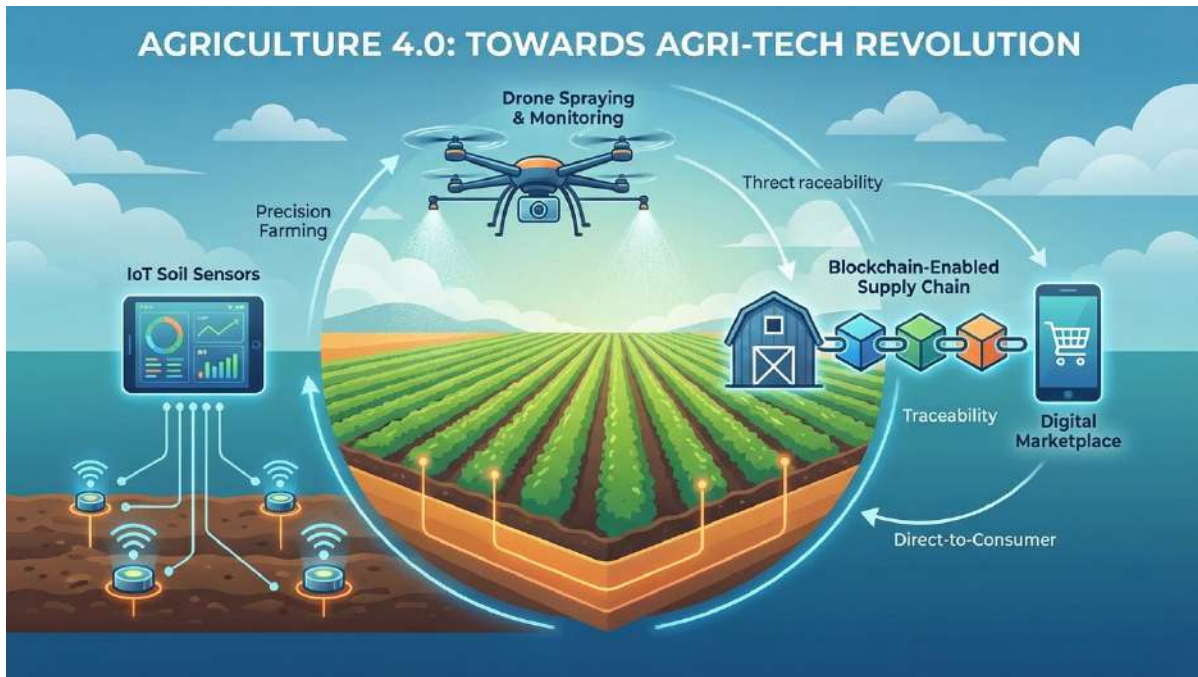
- **Cooperative Election Authority (CEA):** Established under **Section 45** to conduct timely and transparent elections; it has already completed **113 elections** as of April 2025.
- **Social Equity:** Mandatory representation on boards includes **1 SC/ST member and 2 women**, promoting social justice and gender inclusivity.
- **Grievance Redressal:** Institutionalizes a **Cooperative Ombudsman** to handle member complaints and **Cooperative Information Officers (CIOs)** for transparency.
- **Financial Discipline:** Introduces **Concurrent Audits** for large societies and empowers the Central Government to define auditing standards to detect fraud early.
- **Professional Leadership:** Sets **minimum eligibility criteria** for the appointment of CEOs to ensure Capable and qualified leadership.

## Prelims Facts (One Liners):

1. The MSCS (Amendment) Act, 2023, reduces the registration timeline for new societies from **4 months to 3 months**.
2. The expulsion period for board directors under the new Act has been extended from **1 year to 3 years**.
3. Article **243ZJ** of the Constitution is the guiding principle for mandatory representation on MSCS boards.
4. The **Concurrent Audit** provision is found in **Section 70A** of the amended Act.

**MCQ Practice:** Q. Under the Multi-State Cooperative Societies (Amendment) Act, 2023, which authority is responsible for ensuring regular and transparent elections? A) State Election Commission B) Central Registrar of Cooperatives C) Cooperative Election Authority (CEA) D) NABARD **Answer: C** (The CEA was established under Section 45 of the Act specifically to handle MSCS elections.)

## Topic I: Agriculture 4.0: Towards Agri-Tech Revolution



**Summary:** Agriculture 4.0 represents a transformative shift in Indian farming, leveraging **digital technologies** like AI, IoT, blockchain, and robotics to move beyond traditional methods. Its primary objective is to enhance productivity, ensure food security, and boost farmer incomes by transitioning from subsistence farming to high-efficiency **precision agriculture**.

**Background:** Despite being the backbone of the economy, Indian agriculture suffers from yields that are **20–60% lower than global averages**, high climate dependence, and a significant digital divide. With nearly **90% of farmers owning less than 2 hectares of land**, Agriculture 4.0 is necessary to overcome resource stress and labor shortages through data-driven efficiency.

### Key Points:

- **Precision Farming:** IoT sensors can reduce irrigation needs by up to **50%**, while drones enable targeted application of inputs.
- **Dual Paradigm:** The revolution works through **SmartFarm Digitisation** (on-farm tech like sensors and automated irrigation) and **SmartAgriSphere Digitisation** (ecosystem-level tech like blockchain supply chains and digital marketplaces).
- **Agri Stack:** A Comprehensive Agriculture Management System (CAMS) that uses **Aadhaar-linked farmer IDs** to provide seamless access to credit, insurance, and land records.
- **Post-Harvest Efficiency:** Digital platforms and blockchain provide **farm-to-fork traceability**, reducing middlemen and post-harvest losses which currently range from 0.9% to 15.8%.

### Prelims Facts (One Liners):

1. Agriculture employs **42.3% of India's workforce** and contributes 18.2% to its GDP.

2. India's rice yield is **3.85 t/ha**, significantly lower than China's 6.57 t/ha.
3. **52% of Indian farming** remains entirely rainfall-dependent.
4. The **Digital India programme** aims to provide broadband connectivity to 2.5 lakh villages.
5. 17% of India's groundwater blocks are currently categorized as **overexploited**.

**MCQ Practice:** Q. In the context of "Agriculture 4.0," what is the primary function of the "Agri Stack" (CAMS) initiative? A) To replace manual labor with robotics in all 2.5 lakh villages. B) To provide a unified digital database of farmers for evidence-based policy and credit-insurance linkages. C) To mandate 100% organic farming for all smallholders owning <2 ha. D) To exclusively monitor groundwater overexploitation levels.

**Answer: B** (Agri Stack provides Aadhaar-linked IDs and crop data to ensure evidence-based planning and easy access to institutional credit and insurance.)

## Topic 2: Conservation Agriculture: Practices and Perspectives



### Summary:

Conservation Agriculture (CA) is a sustainable, resource-efficient farming system designed to reconcile **productivity with environmental conservation**. It moves away from the resource-intensive methods of the Green Revolution to address soil degradation and groundwater depletion through natural resource management.

**Background:** The Green Revolution, while ensuring food security, led to **unsustainable resource use and air pollution**. To counter these effects, the FAO promoted CA as an agro-ecosystem management system that ensures food security and profitability while conserving the environment.

## Key Points:

- **Three Core Principles:** CA is built on **minimal soil disturbance** (zero tillage), **permanent soil cover** (mulching with crop residues), and **crop diversification**.
- **Economic Savings:** Zero-tillage saves approximately **60 litres of fuel per hectare** and reduces cultivation costs by ₹2,000–3,000/ha.
- **Environmental Impact:** CA can sequester up to **3,667 kg of CO<sub>2</sub> per hectare annually**, mitigating climate change and avoiding the need for stubble burning.
- **Social Benefit:** The reduction in manual labor and tillage requirements significantly **reduces drudgery**, particularly for women farmers.

## Prelims Facts (One Liners):

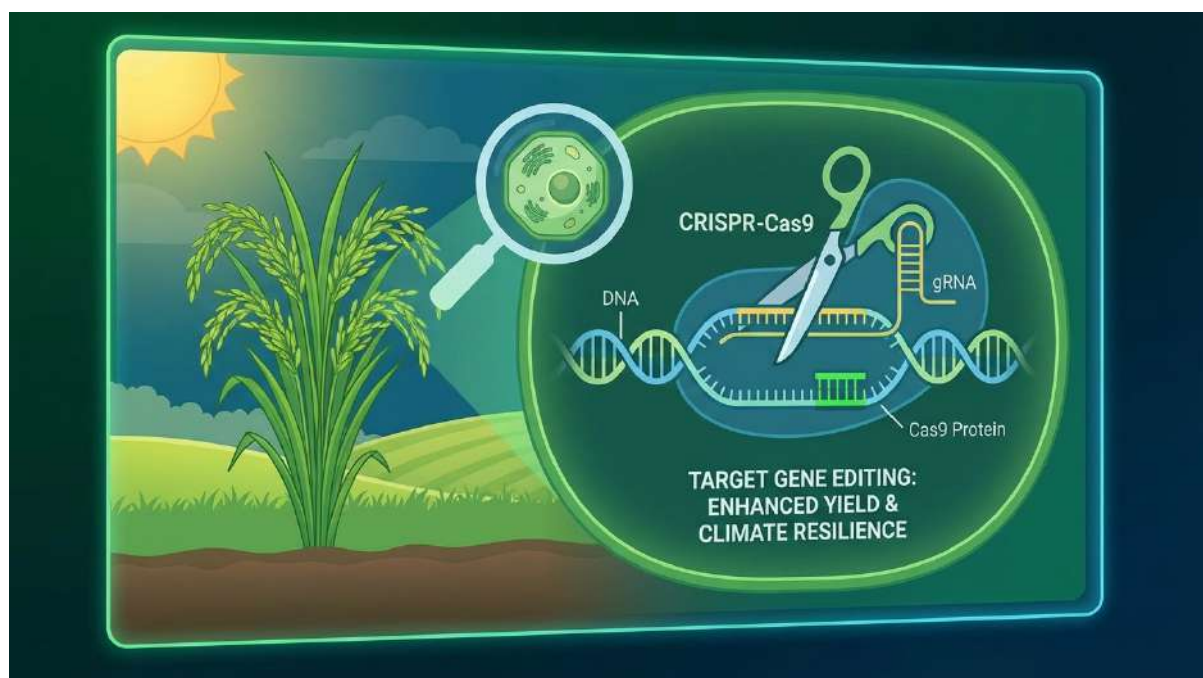
1. Over **7 lakh farmers** in India currently practice CA across 2.5–3 million hectares.
2. The **Namo Drone Didi Yojana** supports women farmers by integrating drone technology into conservation practices.
3. A success story in **Bihar (Rajapur village)** saw wheat yields rise from 3.5 t/ha to 5.5 t/ha through 100% zero-tillage adoption.
4. CA is primarily practiced in the **Indo-Gangetic plains** but is being scaled to drylands for pulses and oilseeds.,

**MCQ Practice:** Q. Which of the following is NOT one of the three core principles of Conservation Agriculture (CA) as defined by the FAO? A) Permanent soil organic cover B) Minimal mechanical soil disturbance C) Intensive use of chemical fertilizers to double yield D) Diversification of crop species

**Answer: C** (CA focuses on resource efficiency and minimal soil disturbance; intensive chemical use is a hallmark of conventional intensive farming, which CA seeks to reform.)

---

## Topic 3: Gene Editing Technology in Agriculture



### Summary:

Gene editing is a path-breaking biotechnology that allows for the **precise modification of DNA** without the introduction of foreign genetic material. Led by **CRISPR-Cas9** technology, it offers solutions for nutritional security, higher productivity, and climate-resilient crops that mimic natural mutations.

**Background:** Traditional genetic modification (GM) often involves foreign DNA, leading to complex regulatory hurdles. Gene editing, specifically **SDN-1 and SDN-2**, was exempted from stringent GM rules in India in 2022 because the resulting plants are equivalent to those developed through conventional breeding.

### Key Points:

- **CRISPR-Cas9 Discovery:** Revolutionized by **Jennifer Doudna and Emmanuelle Charpentier**, who received the Nobel Prize in 2020.
- **New Varieties (2025):** ICAR released **DRR Rice 100 (Kamla)**, which offers a 20% higher yield and 20-day earlier maturity, and **Pusa DST Rice 1** for saline/alkaline soils.
- **Nutritional Security:** Development of **Golden Rice and Maize** enriched with Vitamin A, and "High-GABA" tomatoes for heart health.
- **Livestock Innovation:** India's first gene-edited sheep, developed by SKUAST-Kashmir, shows **30% higher muscle mass**.

### Prelims Facts (One Liners):

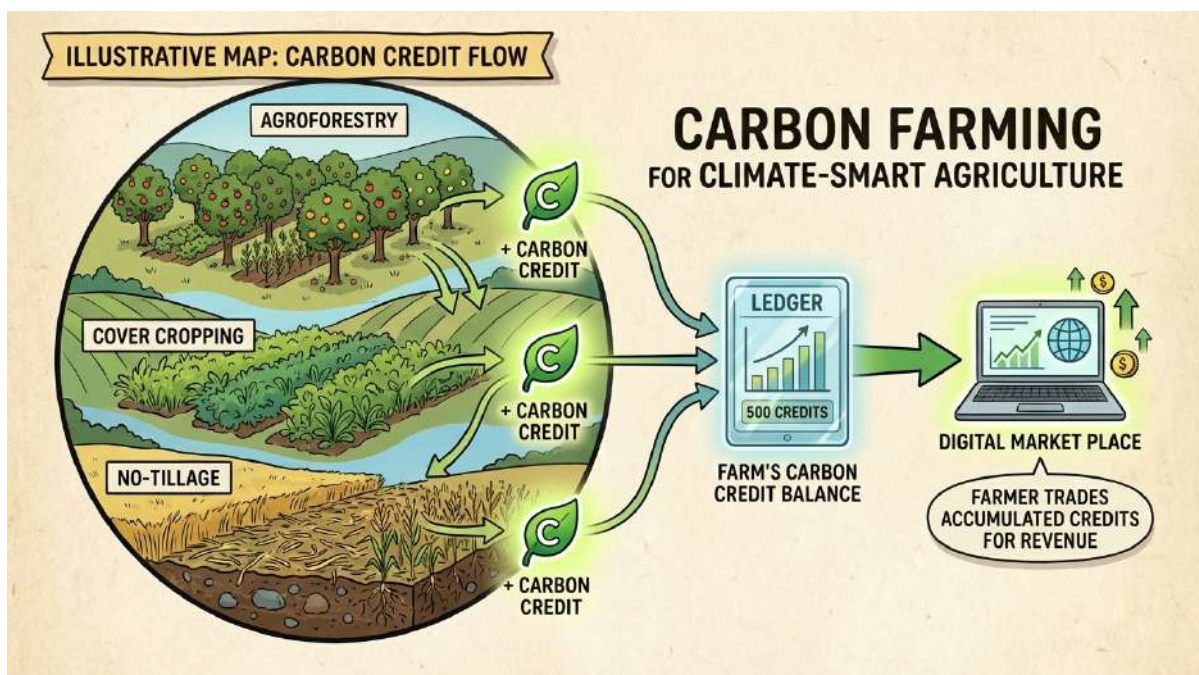
1. India's 2022 guidelines exempt **SDN 1 and SDN 2** genome-edited plants from the Environment Protection Act's GM rules.
2. The **Biotechnology Ignition Grant (BIG)** provides up to ₹50 lakh to support agri-biotech startups.
3. India's seed industry is projected to reach **USD 5.01 billion by 2030**.

4. Gene-edited wheat is being developed to reduce **acrylamide**, a carcinogenic substance.

**MCQ Practice:** Q. In May 2025, ICAR released a new gene-edited rice variety named "Kamla" (DRR Rice 100). Which of the following is a key benefit of this variety? A) It requires 50% more fertilizer to achieve peak yield. B) it contains foreign DNA from drought-resistant cacti. C) It matures 20 days earlier and lowers methane emissions by 9 tonnes/ha. D) It is the first variety designed exclusively for indoor vertical farming.

**Answer: C** (Kamla is a climate-smart variety that matures earlier, saves water, and significantly reduces methane emissions.)

## Topic 4: Carbon Farming for Climate-Smart Agriculture



### Summary:

Carbon farming involves agricultural practices that enhance **Soil Organic Carbon (SOC)** and vegetative storage, effectively turning farms into carbon sinks. By removing CO<sub>2</sub> from the atmosphere, farmers can earn **carbon credits**, creating a new revenue stream while building climate resilience.

**Background:** Agriculture is responsible for **20% of global GHG emissions**. With 170 million hectares of arable land, India has a carbon sequestration potential worth **\$63 billion**, yet the practice remains underutilized among its 85% smallholder population.

### Key Points:

- **Monetization:** One carbon credit is equivalent to **1 tonne of CO<sub>2</sub> removal or reduction**.
- **Practices:** Includes **agroforestry** (integrating trees), **biochar** (long-term carbon sink), and the **4Rs of Nutrient Management** (Right time, rate, source, place).
- **Carbon Markets:** India amended the **Energy Conservation Act in 2022** to establish a domestic Indian Carbon Market, linking farmers to voluntary markets.

- **MRV System:** The success of carbon farming depends on a robust **Measuring, Reporting, and Verification** infrastructure to validate carbon sequestration.

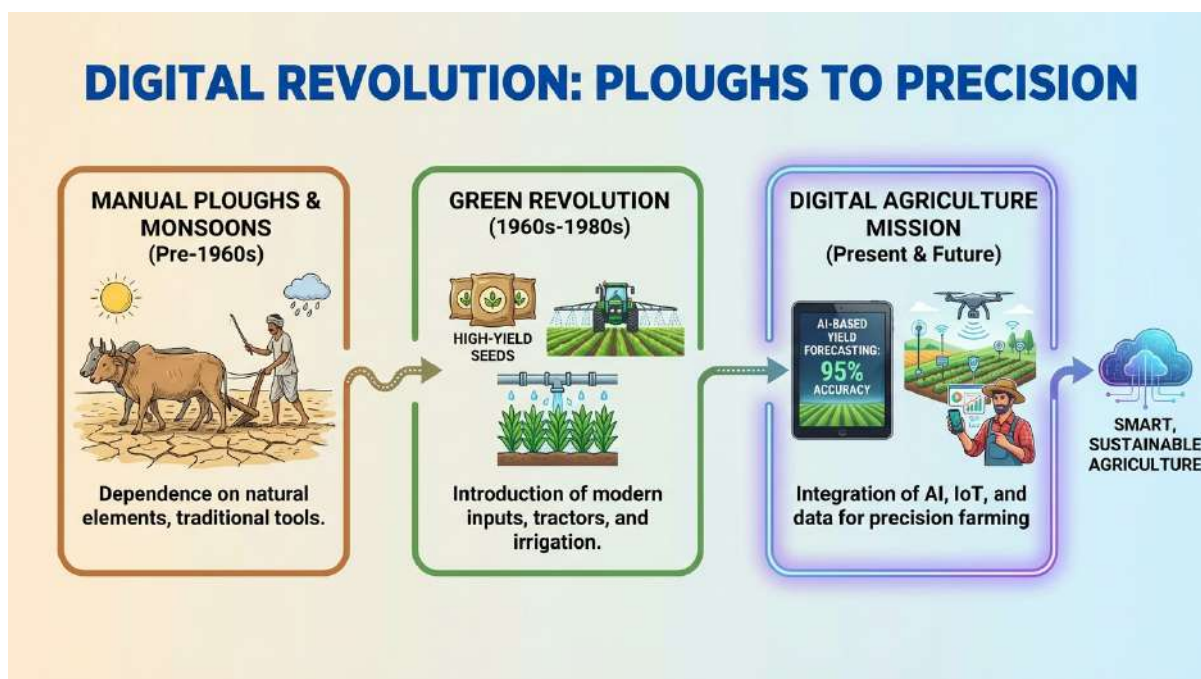
### Prelims Facts (One Liners):

1. India has the **second-highest number of Clean Development Mechanism (CDM) projects** globally.
2. Indian soils are capable of storing **3–8 billion tonnes of CO<sub>2</sub> annually** for up to 30 years.
3. **Dhaincha** is a common cover crop used in rice–wheat systems to increase soil organic carbon.
4. Carbon farming aligns with India's **Net Zero 2070** commitment.,

**MCQ Practice:** Q. What is the economic value of "one carbon credit" in the context of international climate agreements? A) The cost of one solar-powered irrigation pump. B) The price of 100 kg of bio-fortified rice. C) One tonne of CO<sub>2</sub> removal or emission reduction. D) A 50% subsidy on precision farming hardware.

**Answer: C** (Under the UNFCCC and the Paris Agreement, one carbon credit represents one tonne of CO<sub>2</sub> reduced or removed from the atmosphere.),

## Topic 5: Digital Revolution: Ploughs to Precision



**Summary:** The

digital revolution in agriculture marks a shift from subsistence farming to **data-driven precision farming**. By integrating AI, IoT, drones, and satellite imagery, India aims to make farming more sustainable, profitable, and resilient against climate risks.,

**Background:** While agricultural GVA has risen significantly since 2011, its relative share in the total economy has declined. Digital interventions are necessary to modernize the sector, which still supports **46% of the population**.

## Key Points:

- **Digital Agriculture Mission (2024):** Allocated **₹2,817 crore** for 2025–26 to focus on AI, drones, and digital farmer registries.
- **e-NAM:** A national digital market that has integrated **1,522 mandis**, ensuring fair pricing for over 1.79 crore farmers.
- **AI Success:** Microsoft's **Farm Vibes** pilot in Maharashtra resulted in a 40% yield increase and 50% less water use.
- **Namo Drone Didi Scheme:** A ₹1,261 crore initiative training **15,000 women Self-Help Groups (SHGs)** in drone usage for agricultural spraying.

## Prelims Facts (One Liners):

1. Agricultural GVA rose from ₹15.02 lakh crore (2011–12) to **₹48.78 lakh crore** (2023–24).
2. Over **24.74 crore Soil Health Cards** have been issued, now featuring GIS and QR code technology.
3. The **m-Kisan SMS service** has reached 8.93 crore farmers with plant protection advisories.
4. **Rural internet users** now account for 55% of the total users in India.
5. **Common Service Centres (CSCs)** provide soil testing and agri-advisories in 77% of rural areas.

**MCQ Practice:** Q. Which initiative is specifically designed to empower women in the agricultural technology sector by training them in drone operations? A) PM-KISAN B) AgriStack Project C) Namu Drone Didi Scheme D) Soil Health Card Scheme

**Answer: C** (The Namu Drone Didi Scheme, launched in 2023, provides training and financial support to 15,000 women SHGs for drone usage in farming.)

## Topic I: Fostering Jobs, Building Bharat: ELI Scheme as a Gamechanger



**Summary:** The **Employment Linked Incentive (ELI)** Scheme is a flagship initiative launched to bolster job generation, enhance employability, and provide social security, particularly within the **manufacturing sector**. It represents a paradigm shift by directly linking monetary incentives to actual job creation and long-term retention.

**Background:** Announced as part of the Prime Minister's five-scheme package in the **Union Budget 2024-25**, the ELI Scheme came into effect on **1st August 2025**. It evolved from earlier post-COVID recovery programs, like the Aatmanirbhar Bharat Rojgar Yojana, to create a more targeted, skill-focused approach to youth employment.

### Key Points:

- The scheme has a projected outlay of **Rs. 99,446 crore**.
- It is implemented in two parts: providing **incentives for first-time employees** to join the formal workforce and offering **support to employers** for generating additional jobs.
- Unlike traditional training programs, ELI training is **demand-driven** and directly tied to sector-specific opportunities.
- Implementation involves multi-agency coordination between the Ministries of Labour, Finance, and Skill Development, along with the **EPFO and UIDAI**.
- Robust monitoring includes **Aadhaar authentication**, cross-verification with GST/IT data, and **AI/ML integration** for fraud detection.

### Prelims Facts (One Liners):

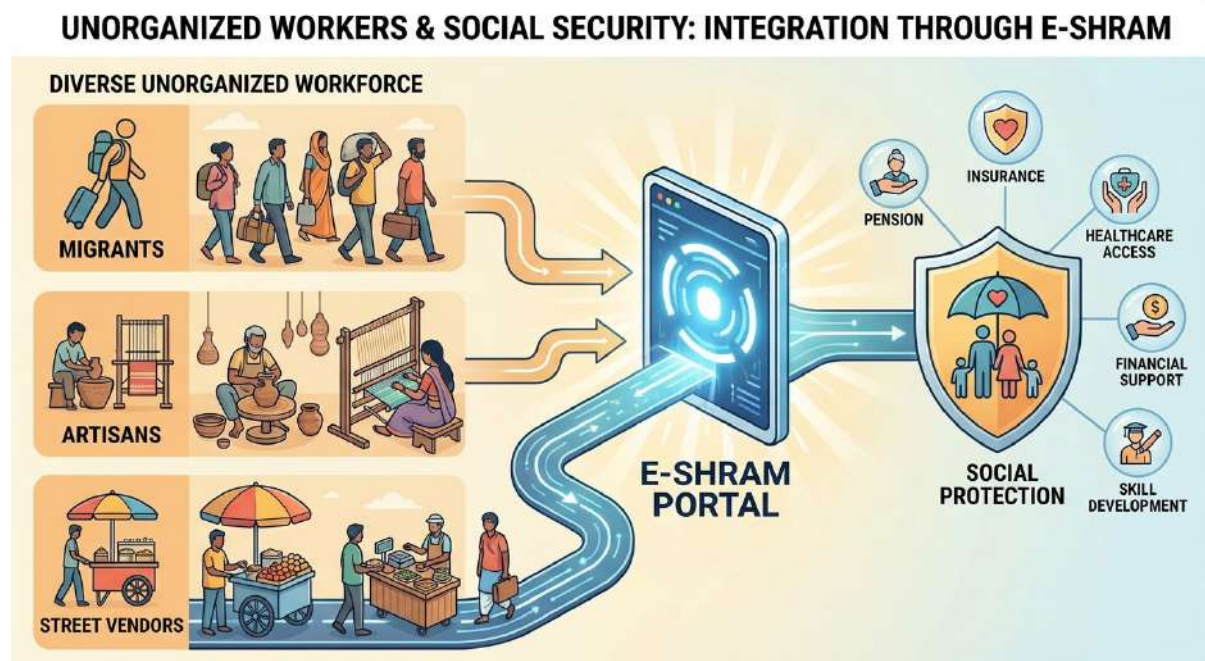
1. The ELI Scheme officially came into effect on **August 1, 2025**.
2. Employers must submit a monthly **Electronic Challan-cum-Return (ECR)** for scheme compliance.

- The scheme focuses on the **manufacturing sector** to foster inclusive and sustainable economic growth.
- The Aatmanirbhar Bharat Rojgar Yojana (2020-22), a predecessor, benefited over **60 lakh individuals**.

**MCQ Practice:** Q. What is the primary distinguishing feature of the Employment Linked Incentive (ELI) Scheme compared to traditional skill-development programs? A) It focuses solely on agricultural skill sets. B) It provides training that is directly tied to sector-specific employment opportunities and actual job creation. C) It is a purely voluntary program with no budgetary outlay. D) It replaces all existing Sector Skill Councils.

**Answer: B** (The ELI scheme is distinct because it links training directly to employment and makes employers jointly accountable for job creation.)

## Topic 2: Unorganized Workers and Social Security Measures



**Summary:** The **unorganized sector** is a pillar of the Indian economy, employing over **90% of the total workforce** and contributing approximately 50% to the national GDP. Social security measures are designed to provide these marginalized workers with job security, legal protection, and access to basic amenities.

**Background:** The legislative framework for these protections is rooted in the **Unorganized Workers' Social Security Act, 2008**, and has been further strengthened by the **Code on Social Security, 2020**, which extended coverage to gig and platform workers.

## Key Points:

- The Ministry of Labor categorizes these workers into four groups: **Occupational** (farmers, artisans), **Nature of Employment** (migrants, casual), **Distressed** (scavengers), and **Service** (domestic workers).
- **Life/Accident Insurance:** Provided through **PMJJBY** and **PMSBY**, with 23.6 crore enrolled as of April 2025.
- **Retirement Security:** The **PM Shram Yogi Maan-Dhan (PM-SYM)** offers a monthly pension of **Rs. 3,000** for workers earning up to Rs. 15,000 per month.
- **Livelihood Support:** **PM SVANidhi** provides loans up to Rs. 30,000 for street vendors.
- **Food Security:** Enabled via the **One Nation One Ration Card (ONORC)**, benefiting 81 crore people.

## Prelims Facts (One Liners):

1. Social protection coverage in India nearly doubled to **48.8% by 2024**.
2. More than **53% of E-Shram registrations** are women.
3. The **Atal Pension Yojana (APY)** has over 7.65 crore subscribers.
4. The **PM Vishwakarma Yojana** provides support to over 2.37 million artisans.

**MCQ Practice:** Q. Which recent legislation consolidates multiple labor laws and extends social security coverage to gig and platform workers? A) Unorganized Workers' Social Security Act, 2008 B) Code on Social Security, 2020 C) PM Shram Yogi Maan-Dhan Act D) National Commission on Labor Report 1969

**Answer: B** (The Code on Social Security, 2020, consolidates labor laws and explicitly includes unorganized, gig, and platform workers.)

## Topic 3: Green Technology for Sustainable Rural Jobs



**Summary:** India's transition toward a **clean and green economy** is a major driver for rural employment. Green technologies—ranging from renewable energy to waste management—are creating sustainable livelihoods while addressing environmental imperatives.

**Background:** Supported by missions like the **National Green Hydrogen Mission** and **PM-KUSUM**, India now ranks **4th globally** in renewable energy employment as of 2025.

### Key Points:

- **Renewable Energy:** Employs **1.1 million people**; decentralized solutions like solar microgrids and irrigation pumps reduce rural migration.
- **Skill Training:** Programs like **Suryamitra, Vayumitra, and Jal-Urjmitra** train youth in solar, wind, and hydropower domains.
- **Circular Economy:** Waste-to-energy and e-waste recycling have the potential to create **33 lakh additional jobs**.
- **Green Healthcare:** Solar-powered health centres and AI diagnostics generate employment in operations and digital health services.
- **Eco-Tourism:** Generates transferable skills in hospitality and digital marketing in rural clusters like Araku Valley.

### Prelims Facts (One Liners):

1. India ranks **4th globally** in renewable energy employment as of 2025.
2. The **PM-KUSUM** scheme has the potential to create **7.55 lakh job-years**.
3. Recycling **10,000 tonnes of waste** generates approximately **115 jobs**.
4. The **Skill Council for Green Jobs (SCGJ)** has trained over 500,000 candidates.

**MCQ Practice:** Q. According to the sources, how many additional jobs can be generated across India through circular economy and waste management initiatives? A) 1.1 million B) 5.4 million C) 33 lakh D) 7.55 lakh

**Answer: C** (Circular economy and advanced waste management solutions have the potential to create 33 lakh additional jobs.)

## Topic 4: Digital India and Rural Transformation



**Summary:** Launched in 2015, the **Digital India programme** is transforming rural areas into a knowledge-based society. It enhances connectivity, fosters innovation in agriculture, improves access to education, and generates new employment in the gig economy.

**Background:** This transformation is underpinned by key policies such as the **National Broadband Mission** and the **Digital Personal Data Protection Act**, aiming to reach a **\$5 trillion economy** with IT contributing significantly by 2025.

### Key Points:

- **Connectivity:** The **BharatNet Project** has connected **2,18,000 Gram Panchayats** with optical fibre.
- **Education:** **PMGDISHA** has trained **6.39 crore rural citizens** in digital literacy.
- **Innovation:** Villages are adopting **AI, IoT, and blockchain** for services like telemedicine and digital agriculture.
- **Employment:** New jobs are emerging in **IT support, BPOs, and content creation**, reducing rural-urban migration.
- **Financial Inclusion:** **UPI transactions** have crossed **10 billion per month**.

### Prelims Facts (One Liners):

1. **Rural internet users** now constitute **55%** of the total users in India.
2. **4G and 5G networks** currently cover **99.6% of districts**.
3. **Regional language content** makes up **60%** of internet content in India.
4. **Harisal (Maharashtra)** is a notable smart village using White-Fi technology.

**MCQ Practice:** Q. Which program is specifically credited with training 6.39 crore rural citizens in digital literacy? A) BharatNet B) PMGDISHA C) UMANG D) SWAYAM

**Answer: B** (PMGDISHA is the specific program mentioned for training 6.39 crore rural citizens in digital literacy.)

## Topic 5: India-UK FTA and Rural Economy



**Summary:** The India-UK **Comprehensive Economic and Trade Agreement (CETA)**, signed on **July 24, 2025**, marks a transformative milestone for the rural economy. It provides duty-free access for major Indian exports and aims to double bilateral trade by 2030.

**Background:** This is India's first major trade deal in a decade, designed to expand the country's global trade footprint post-Brexit and strengthen economic integration.

### Key Points:

- **Market Access:** Provides **duty-free access** for **99% of India's exports**, including textiles, leather, footwear, and engineering goods.
- **Agri-Export Boost:** Targeted commodities like **grapes, shrimps, honey, and spices** are expected to see a **50% increase** in exports over three years.
- **Small Farmer Support:** The FTA encourages value addition and diversification, benefiting **small/marginal farmers and FPOs**.
- **Marine Sector:** Duty-free access for **shrimp and fish** will benefit coastal fisherfolk and women in processing plants.

- **Regional Growth:** Trade in gems, jewellery, and furniture will boost employment in clusters across **UP, Tamil Nadu, and Gujarat.**

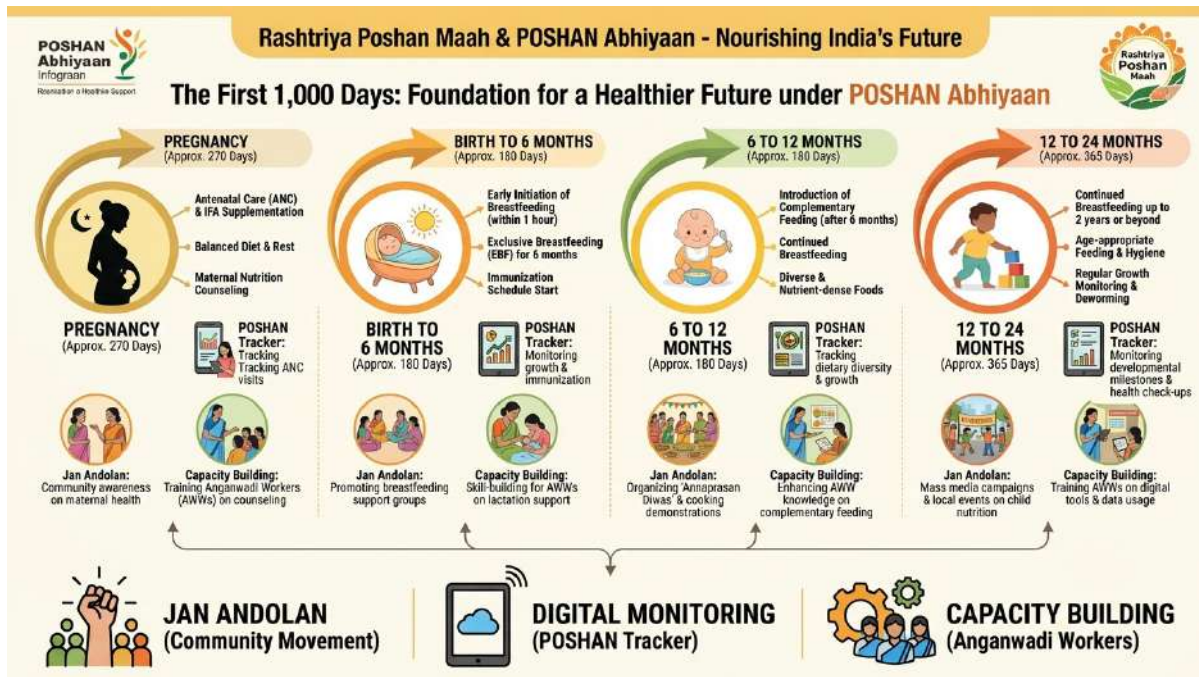
**Prelims Facts (One Liners):**

1. The India-UK FTA (CETA) was signed on **July 24, 2025.**
2. Bilateral trade is targeted to reach **\$112 billion by 2030** (double the current \$56 billion).
3. The agreement covers **1,437 agricultural tariff lines.**
4. Simplified **Sanitary & Phytosanitary (SPS) measures** facilitate e-commerce and small consignments.

**MCQ Practice:** Q. By what year is the India-UK bilateral trade targeted to double according to the 2025 FTA? A) 2025 B) 2027 C) 2030 D) 2047

**Answer: C** (The FTA aims to double bilateral trade to reach the target by 2030.)

# Topic I: Rashtriya Poshan Maah and POSHAN Abhiyaan



**Summary:** Malnutrition is a multidimensional challenge in India that impacts health, productivity, and economic growth, costing the global economy approximately **US\$3.5 trillion annually**.

**Rashtriya Poshan Maah**, celebrated annually in September, serves as a focal point for **Social Behaviour Change Communication (SBCC)** and community-led movements to translate nutrition policy into household practice.

**Background:** India's nutrition policy has evolved from the 1975 **Integrated Child Development Services (ICDS)** to the landmark **POSHAN Abhiyaan (National Nutrition Mission)** launched in **2018**. To enhance convergence, the government launched **Saksham Anganwadi and Mission Poshan 2.0** in 2021, integrating various schemes to serve nearly **10 crore beneficiaries**.

## Key Points:

- **Three-Pronged Strategy:** POSHAN Abhiyaan rests on **Jan Andolan** (community behaviour change), **Digital Monitoring** (via POSHAN Tracker), and **Capacity Building** for 1.4 million workers.
- **SBCC Communication Approach:** Uses a three-tier strategy involving **Mass Media** (TV/Radio), **Mid-Media** (folk performances, wall paintings), and **Interpersonal Counselling** (home visits).
- **2025 Theme:** The theme for Poshan Maah 2025 is "**Swasth Naari, Shashakt Parivar,**" focusing on obesity prevention, reduced salt/sugar intake, and sectoral convergence.
- **Panchayat-Led Governance:** Empowers local governance, especially Gram Panchayats, to lead nutrition campaigns and ensure local accountability.

## Prelims Facts (One Liners):

1. The **first 1,000 days** of life refers to the period from conception to a child's second birthday.

[Click here to access Monthly Magazine](#)

[Click here to access Yojana Magazine](#)

[Click here to access Current Affairs](#)

[Click here to access PIB Summaries](#)

2. The **POSHAN Tracker** is a real-time digital tool used for monitoring service delivery and nutritional outcomes.
3. **Mission Poshan 2.0** (launched in 2021) integrated POSHAN Abhiyaan, Anganwadi Services, and the Scheme for Adolescent Girls.
4. Malnutrition costs the global economy an estimated **US\$500 per person annually**.

**MCQ Practice:** Q. Which of the following initiatives was launched in May 2023 to integrate play-based, inclusive Early Childhood Care and Education (ECCE) at Anganwadi Centres? A) Mission Poshan 2.0 B) Saksham Anganwadi C) Poshan Bhi Padhai Bhi (PBPB) D) Annaprashan Diwas **Answer: C** (The Poshan Bhi Padhai Bhi initiative was launched on 10 May 2023 to transform Anganwadis into vibrant early learning hubs.)

## Topic 2: Nourishing India's Future: IYCF and ECCE



**Summary:** Early nutrition and care are the foundations of human capital. Focusing on **Infant and Young Child Feeding (IYCF)** and **Early Childhood Care and Education (ECCE)** helps break the intergenerational cycle of malnutrition and ensures children are school-ready and developmentally on track.

**Background:** The **86th Constitutional Amendment (2002)** inserted **Article 45**, directing the State to provide ECCE for children up to age six. This was further strengthened by **Section 11 of the RTE Act (2009)**, which mandates free pre-school education for children above three years.

### Key Points:

- **Exclusive Breastfeeding:** Promoted for the first **6 months** as a scientifically proven intervention against infections and infant mortality.

- **Complementary Feeding:** Timely introduction of local, low-cost nutrient-dense foods is recommended starting at **6 months** of age.
- **Poshan Bhi Padhai Bhi (PBPB):** A dedicated program to train 14 lakh Anganwadi Workers in play-based pedagogy using curricula like **Navchetana** (0-3 years) and **Aadharshila** (3-6 years).
- **Nutrition Literacy:** The 8th Poshan Maah (2025) emphasizes tackling **obesity and overnutrition** by promoting "Oil and Sugar Boards" at Anganwadi Centres to visualised consumption patterns.

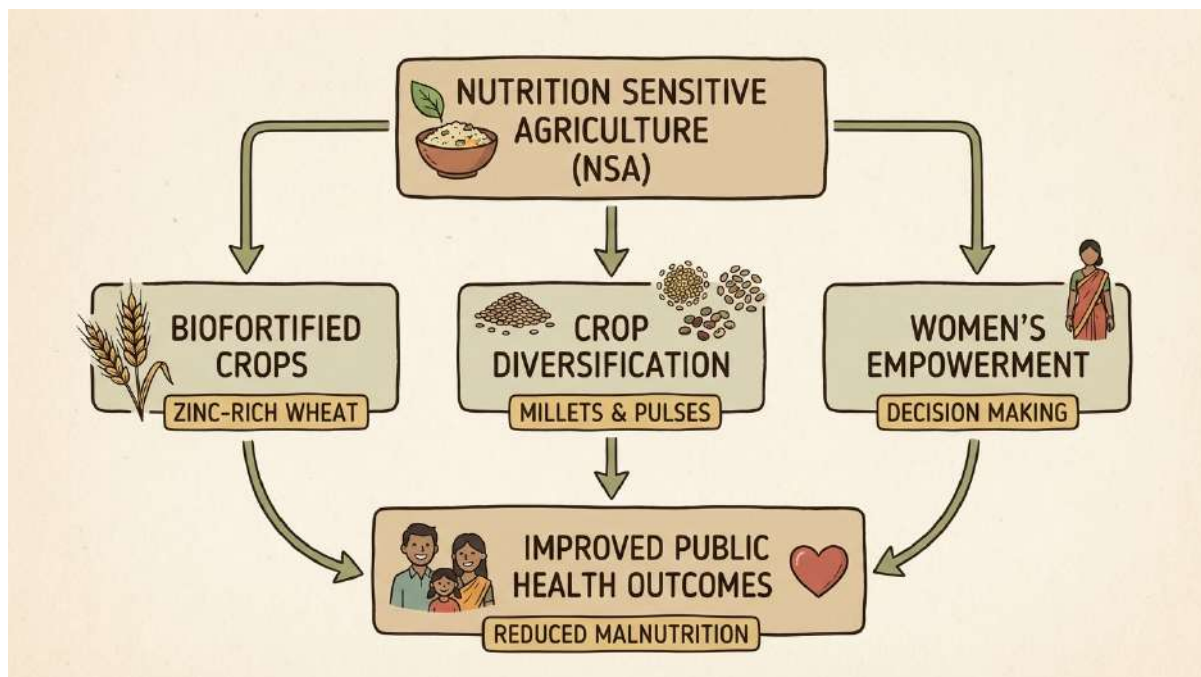
### Prelims Facts (One Liners):

1. The **Anganwadi network** consists of over **14 lakh centres**, reaching 46% of India's under-six population.
2. Children completing ECCE now receive a certificate linked to their **APAAR ID** and UDISE databases.
3. **Annaprashan Diwas** is a monthly event celebrating the introduction of complementary foods at age six months.
4. World Health Organization (WHO) indicators for malnutrition include **stunting** (low height-for-age) and **wasting** (low weight-for-height).

**MCQ Practice:** Q. According to the WHO recommendations for complementary feeding mentioned in the sources, how many nutritious meals/snacks should a child aged 9-24 months receive daily? A) 1-2 meals B) 2-3 small meals C) 3-4 meals + 1-2 snacks D) 5-6 small meals

**Answer: C** (For children aged 9-24 months, the recommendation is 3-4 meals plus 1-2 nutritious snacks daily.)

### Topic 3: Nutrition Sensitive Agriculture (NSA) in Rural India



**Summary:** In rural India, where 44% of the workforce is in farming, **Nutrition Sensitive Agriculture (NSA)** integrates agricultural production with nutritional needs. It addresses India's "**Nutrition Paradox**"—being a leading producer of milk and pulses while facing high rates of stunting and anaemia.

**Background:** NSA is a strategy endorsed by the **FAO** to strengthen agricultural systems to improve nutrition outcomes through diversification, equity, and health linkages. It is estimated that NSA could reduce child stunting by **20% by 2030**.

### Key Points:

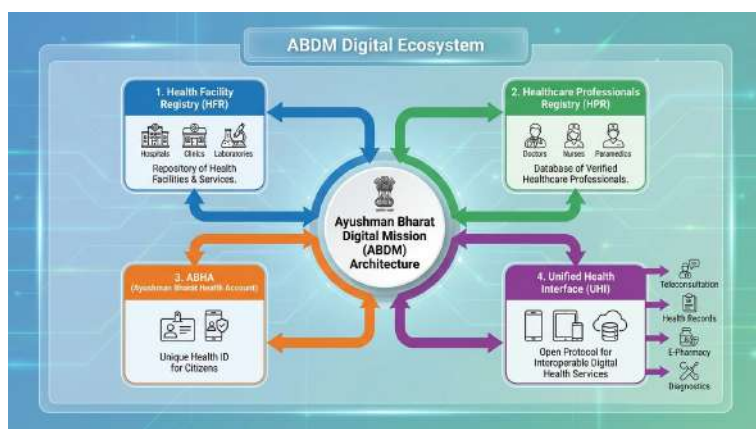
- **Biofortification:** Development of nutrient-rich crops such as **zinc-rich wheat, iron-fortified millets**, and vitamin A sweet potatoes.
- **Women's Empowerment:** Women form 70–80% of the agricultural workforce but own **less than 13% of land**; NSA seeks to empower them as primary nutrition providers.
- **Biofortification Mission (2022–25):** A ₹10,000 crore mission aimed at promoting nutrient-rich crops for 10 million farmers.
- **Economic Impact:** Malnutrition-related losses cost India approximately **4% of its GDP annually** (~\$1.4 trillion).

### Prelims Facts (One Liners):

1. India ranked **105 out of 127** countries in the **Global Hunger Index 2024** with a "serious" score.
2. **NFHS-5 (2019–21)** data shows that **35.5%** of children under 5 in India are stunted.
3. Post-harvest losses for perishables in India reach as high as **40%**.
4. **Sikkim** is noted as an example of a state with high organic/NSA integration, while the sources mention **Kerala** having 15% lower stunting than Bihar.

**MCQ Practice:** Q. According to the NFHS-5 data provided in the sources, what percentage of children under five in India are currently anaemic? A) 19.3% B) 35.5% C) 57.0% D) 67.1% **Answer: D** (NFHS-5 data reports that 67.1% of children under 5 are anaemic.)

## Topic 4: Digital Transformation in Healthcare



**Summary:** India's healthcare sector is undergoing a digital revolution through innovations like **telemedicine, electronic health records (EHRs), and health-tech startups**. The primary vehicle for this change is the **Ayushman Bharat Digital Mission (ABDM)**, which aims to make healthcare accessible and equitable, particularly in rural India.

**Background:** Launched in **2021**, ABDM seeks to create a unified digital health infrastructure. The successful deployment of the **CoWIN platform** for billion-plus vaccinations served as a global model for the feasibility of digital health at scale.

### Key Points:

- **Pillars of ABDM:** Includes the **Health Facility Registry (HFR)**, **Healthcare Professionals Registry (HPR)**, and the **Ayushman Bharat Health Account (ABHA)**.
- **eSanjeevani:** The world's largest telemedicine initiative, which has delivered **over 150 million consultations**.
- **Health ATMs:** Digital kiosks equipped with diagnostic tools being piloted in states like **Uttar Pradesh and Bihar** to bridge rural health gaps.
- **Data Protection:** The **Digital Personal Data Protection Act (2023)** provides the legal framework to safeguard patient data and consent.

### Prelims Facts (One Liners):

1. As of August 2025, over **3.3 lakh facilities** and **4.7 lakh professionals** are registered on the ABDM platform.
2. The **POSHAN Tracker** integrates nutrition data into the digital health ecosystem for targeted interventions.
3. Rural internet penetration in India is approximately **38%**, compared to 70% in urban areas.
4. **eSanjeevani** consultations rose by 200% during the COVID-19 pandemic.

**MCQ Practice:** Q. Which of the following is NOT one of the primary pillars of the Ayushman Bharat Digital Mission (ABDM) as defined in the sources? A) Ayushman Bharat Health Account (ABHA) B) Health Facility Registry C) Digital Green Bond Register D) Unified Health Interface (UHI) **Answer: C** (The pillars of ABDM are the Health Facility Registry, Healthcare Professionals Registry, ABHA, and UHI. Digital Green Bonds are not part of this mission.)

## Topic 1: Rural India as a Hub of Ecotourism



**Summary:** Ecotourism is a vital component of India's rural development, serving to integrate **economic diversification, environmental stewardship, and social inclusion**. By focusing on low-impact, authentic, and community-centric travel, ecotourism supports biodiversity conservation while generating green economic growth.

**Background:** Ecotourism is defined by the International Ecotourism Society as responsible travel that conserves the environment and improves the well-being of local people. It aligns with India's diverse cultural and natural heritage, and has gained policy prominence as a tool for **conservation financing** and rural livelihood generation.

### Key Points:

- **Economic Stature:** India ranks **10th globally** in travel and tourism GDP contribution, with the sector projected to generate **53 million jobs by 2029**.
- **National Strategy for Ecotourism (2022):** This policy aligns the Ministry of Tourism with the MoEFCC to promote **eco-certification**, community participation, and carrying-capacity assessments in fragile ecosystems.
- **Government Schemes:** Initiatives like **Swadesh Darshan 2.0** focus on sustainable circuits (e.g., rainforest trekking in Kerala), while the **PRASHAD scheme** supports eco-spiritual and heritage infrastructure.
- **LiFE Mission:** Promotes responsible tourism behaviour and citizen engagement aligned with sustainability principles.

- **Social Impact:** Ecotourism can increase rural household income by **35–60%** and has empowered thousands of women, particularly in states like Kerala.

### Prelims Facts (One Liners):

1. India's ecotourism sector was valued at **USD 19.8 billion in 2024**.
2. International tourist arrivals in India are expected to reach **30.5 million by 2028**.
3. The tourism sector contributed **US\$ 199.6 billion** to the economy in 2022.
4. **82% of Indian travellers** currently prioritise sustainable options like eco-lodges and homestays.
5. The top three sources of Foreign Tourist Arrivals (FTAs) in 2023 were **Bangladesh, USA, and the UK**.

**MCQ Practice:** Q. According to the National Strategy for Ecotourism (2022), which of the following is a primary focus area for tourism in fragile ecosystems? A) Mass infrastructure development B) Eco-certification and carrying-capacity assessment C) Privatisation of forest resources D) Rapid urbanisation of rural hubs

**Answer: B** (The strategy emphasizes eco-certification, responsible tourism, and carrying-capacity assessment.)

---

## Topic 2: Vibrant Villages Programme (VVP)



**Summary:** The **Vibrant Villages Programme (VVP)** is a holistic initiative designed to transform border villages through tourism-driven economic growth and infrastructure development. Its

primary goal is to create self-reliant communities, showcase indigenous culture, and **curb outmigration** from strategically sensitive areas.

**Background:** Launched to strengthen national security and border vibrancy, VVP integrates community participation with infrastructure to align with the vision of **Viksit Bharat @2047** and **Aatmanirbhar Bharat**.

### Key Points:

- **Phase I Outlay:** Allocated **Rs 4,800 crore** (2022–23 to 2025–26) for 663 villages across the northern borders, including Arunachal Pradesh, Himachal Pradesh, Sikkim, Uttarakhand, and Ladakh.
- **Phase II Expansion:** Approved in April 2025 with **Rs 6,839 crore**, extending coverage to border villages in states like Assam, Bihar, Gujarat, Punjab, and Rajasthan.
- **Infrastructure Focus:** The programme prioritises all-weather road connectivity, **4G telecom**, electrification (on-grid and off-grid), and digital tools like **PM Gati Shakti**.
- **Tourism Incentives:** The **Best Tourism Village Competition (BTVC)** motivates villages to adopt sustainable practices; the 2024 edition recognised 36 winners across categories like Heritage and Vibrant Villages.
- **Sustainable Livelihoods:** Encourages agro-based value chains, community-managed homestays, and the branding of local cuisines and indigenous products.

### Prelims Facts (One Liners):

1. Phase I of VVP targeted **455 villages** specifically in Arunachal Pradesh.
2. VVP Phase II is scheduled to continue until **FY 2028–29**.
3. The programme strengthened road connectivity with **113 roads and 8 low-suspension bridges** in its first phase.
4. Digital education is supported through **SMART classrooms** in border villages.
5. Villages under VVP-I were specially showcased during the **Republic Day 2025** celebrations.

**MCQ Practice:** Q. VVP Phase II, approved in 2025, has expanded its geographical scope to include border villages in which of the following states/UTs? A) Kerala and Tamil Nadu B) Gujarat, Punjab, and Rajasthan C) Madhya Pradesh and Chhattisgarh D) Odisha and Andhra Pradesh

**Answer: B** (Phase II expands to border villages beyond the northern border, including states like Gujarat, Punjab, and Rajasthan.)

## Topic 3: Agro-Tourism in India



**Summary:** Agro-tourism integrates **agriculture with tourism**, providing farmers—particularly small and marginal ones—with supplementary income while promoting eco-friendly farming and cultural preservation. As the world’s **4th largest economy in 2025**, India leverages its 15 agro-climatic zones to drive this sustainable model.

**Background:** Agro-tourism shifts the focus from mere production-centric farming to **income-centric strategies**. It aligns with UN Sustainable Development Goals (SDGs) by addressing poverty alleviation, food security, and decent wages.

### Key Points:

- **Economic Potential:** The Indian agro-tourism market is projected to reach **USD 4,911.9 million by 2033**, growing at an annual rate of 17.9%.
- **State Leadership:** Maharashtra’s **ATDC** covers over 200 villages and 1,000 centres, while Kerala’s **ATCOS** promotes farm stays and spice cultivation.
- **Agricultural Strength:** India is the **largest producer** of milk, pulses, and spices, and the second-largest in fruits, vegetables, wheat, and rice.
- **Sustainability:** Supports organic agriculture and eco-friendly crop protection, as seen in the **UNIDO-India FARM project**.
- **Foodgrain Milestone:** Production rose from 265.05 million tonnes in 2014-15 to an estimated **347.44 million tonnes in 2024-25**.

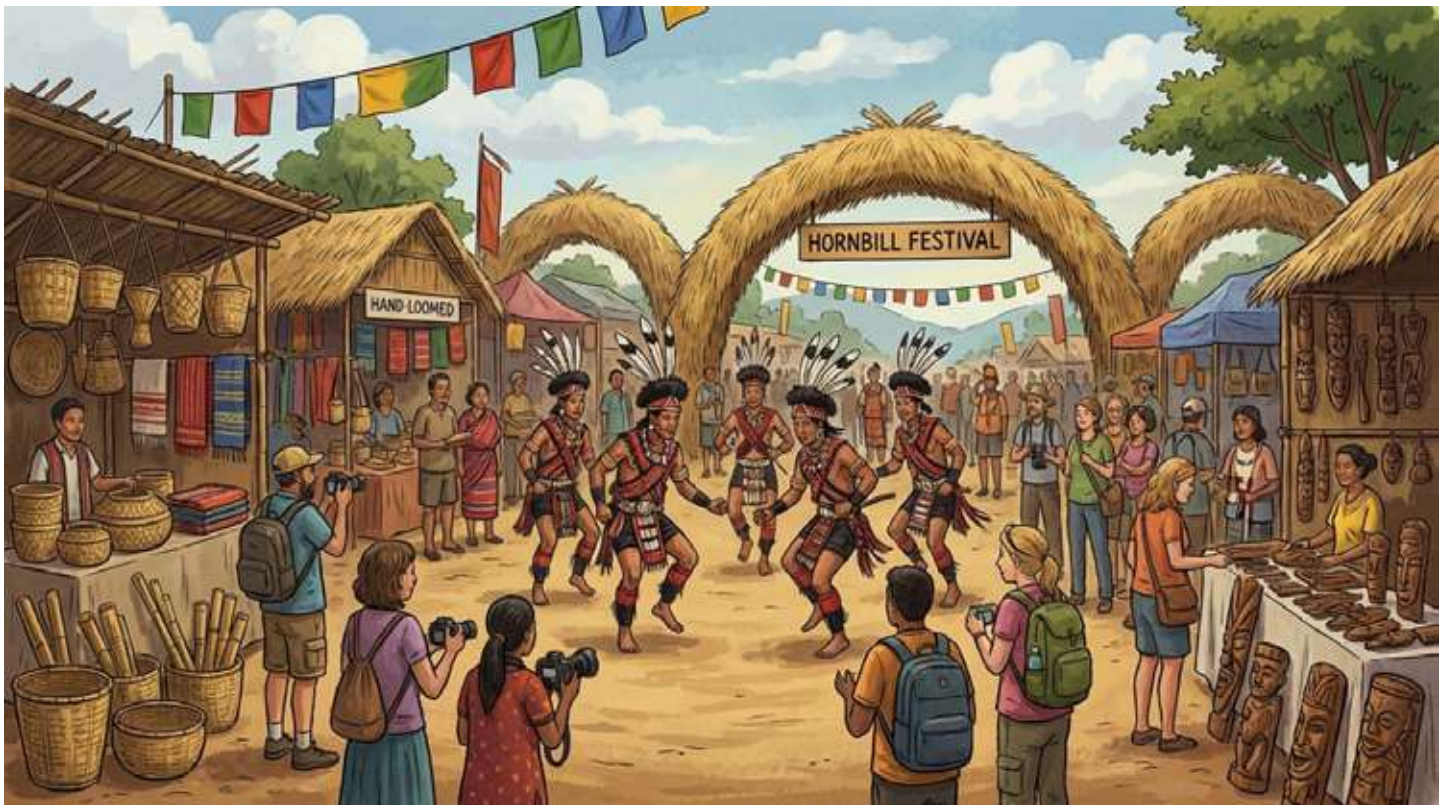
## Prelims Facts (One Liners):

1. Agriculture employs **46.1% of India's workforce**.
2. **Sikkim** is recognised as India's first fully organic state.
3. Karnataka's coffee plantation stays in **Coorg** are a major agro-tourism draw.
4. Small and marginal farmers constitute approximately **80%** of India's farming community.
5. The agriculture sector contributes **17.8% to India's GDP** as of FY 2023-24.

**MCQ Practice:** Q. In the context of agro-tourism, what is the primary objective of the UNIDO-India FARM project mentioned in the sources? A) Promoting industrial-scale chemical farming B) Enhancing eco-friendly crop protection and sustainable farm management C) Replacing traditional crops with imported varieties D) Moving all farmers to urban manufacturing hubs

**Answer: B** (The project focuses on eco-friendly protection and sustainable management.)

## Topic 4: Rural Festivals in India



**Summary:** Rural festivals reflect India's **cultural heritage** and act as significant engines for **economic growth**. These events transform traditional celebrations into sustainable economic opportunities by promoting local entrepreneurship, tourism, and seasonal employment for artisans.

**Background:** Around **65% of India's population** lives in rural areas, where festivals provide a platform for local crafts, music, and dance. Government schemes like **Swadesh Darshan and TRIFED** support these festivals to boost village cash flow.

## Key Points:

- **Economic Multiplier:** Festivals increase demand for local food, accommodation, and transportation, acting as a branding tool for states.
- **Key Examples:** The **Hornbill Festival** (Nagaland), **Surajkund Fair** (Haryana), **Pushkar Fair** (Rajasthan), and **Thrissur Pooram** (Kerala) are major tourism identities.
- **Community Participation:** Events like those in **Mawlynnong (Meghalaya)** and **Sualkuchi (Assam)** demonstrate successful community-led tourism.
- **Challenges:** Overcrowding can lead to **environmental pressure** and waste management issues, requiring better infrastructure and carrying-capacity planning.
- **Digital Adoption:** Solutions like e-ticketing and digital payments are recommended to manage crowds and modernise these traditional events.

## Prelims Facts (One Liners):

1. Festivals provide **seasonal employment** for small traders, farmers, and artisans.
2. The **Pushkar Fair** in Rajasthan is a key example of North Indian festival-based tourism.
3. **Chhath Puja** in Bihar and **Tusu Parva** in Jharkhand are significant cultural identities in East India.
4. The **PRASHAD scheme** is used to support heritage-linked tourism at festival sites.

**MCQ Practice:** Q. Which of the following festivals is specifically mentioned as a tourism identity for the North East region of India? A) Surajkund Fair B) Pongal C) Hornbill Festival D) Thrissur Pooram

**Answer: C** (The Hornbill Festival of Nagaland is a major identity for the North East.)

## Topic 5: Vocal for Local Initiative



**Summary:** The '**Vocal for Local**' initiative aims to achieve **self-reliance (Aatmanirbhar Bharat)** by encouraging the consumption of locally made products. It strengthens the domestic economy by empowering MSMEs, artisans, and start-ups while reducing dependency on imports.

**Background:** Launched by Prime Minister Narendra Modi in **May 2020**, the initiative focuses on preserving cultural heritage and enhancing the entrepreneurial capacities of rural and urban areas.

### **Key Points:**

- **Procurement Preference:** The Public Procurement Order mandates preference for '**Class-I Local Suppliers**' (products with >50% local content) in government contracts.
- **Tender Restrictions:** Global tenders are generally restricted for government projects valued up to **₹200 crore**, protecting local suppliers.
- **Support Schemes:** Includes **PMEGP** for micro-enterprise subsidies, **CGTMSE** for collateral-free credit, and **SFURTI** for organizing artisans into clusters.
- **Digital Integration:** Partnerships with the **Government e-Marketplace (GeM)** and **ONDC** help onboard local entrepreneurs onto e-commerce platforms.
- **Aakanksha Window:** A specific window on GeM dedicated to showcasing local products from **Aspirational Blocks**.

### **Prelims Facts (One Liners):**

1. Class-I Local Suppliers must provide products with **more than 50% local content**.
2. The **PLI Scheme** provides financial incentives to boost domestic manufacturing in sectors like electronics and pharmaceuticals.
3. The **Ministry of Textiles** uses celebrity endorsements and exhibitions to promote indigenous products.
4. GeM allows **DPIIT-recognised start-ups** to sell directly to government entities with relaxed norms.
5. The initiative aims to transform India into a **global manufacturing hub**.

**MCQ Practice:** Q. Under the 'Vocal for Local' framework, what is the minimum local content requirement for a supplier to be classified as a 'Class-I Local Supplier'? A) 25% B) 33% C) 50% D) 75%

**Answer: C** (A Class-I Local Supplier must have more than 50% local content.)

## Topic 1: Khadi: Innovation, Sustainability and India's Textile Renaissance



**Summary:** Khadi is an iconic hand-spun and handwoven fabric that serves as a convergence of **heritage, sustainability, and rural livelihoods**. In the modern era, it has been repositioned as a **premium, eco-conscious textile** that offers a viable alternative to resource-intensive fast fashion while promoting inclusive growth.

**Background:** The roots of Khadi extend back to ancient civilisations, with archaeological evidence from **Mohenjo-Daro** and references in **Chanakya's Arthashastra**. It gained modern political significance in 1918 when **Mahatma Gandhi** launched the Khadi Movement to resist colonial economic exploitation and address rural poverty through **Swadeshi and self-reliance**.

### Key Points:

- **Definition and Characteristics:** Khadi (or khaddar) is hand-spun and handwoven from natural fibres like cotton, silk, or wool, offering unique **breathability and thermal versatility**.
- **Institutionalisation:** Following independence, the sector was structured through the **Khadi and Village Industries Commission (KVIC), 1957**, to manage raw materials, production techniques, and marketing.
- **Designer-Led Revival:** Efforts in the late 1980s and 1990s by designers like Ritu Kumar began repositioning Khadi as a **premium artisanal fabric** by introducing contemporary patterns and innovative dyeing.

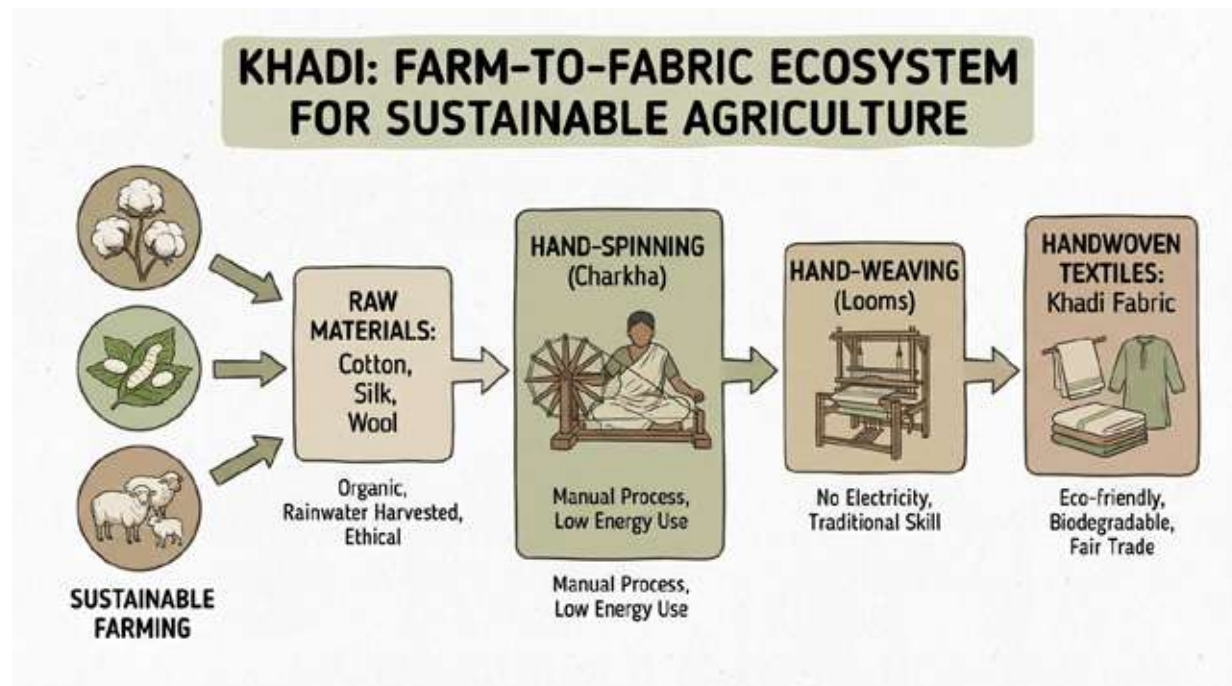
- **Technological Interventions:** Modern resurgence is supported by **solar-powered charkhas**, ergonomic looms, and low-impact dyes that reduce physical drudgery while maintaining the fabric's handmade character.

### Prelims Facts (One Liners):

1. Khadi is defined under the KVIC Act, 1956, as cloth hand-spun and handwoven from cotton, silk, or wool in India.
2. The **charkha** served as a national symbol of resistance and dignity of labour during the freedom movement.
3. The global fashion industry is responsible for nearly **10 per cent of global carbon emissions**, making Khadi's low-energy production highly relevant.
4. KVIC operates under the administrative control of the **Ministry of Micro, Small and Medium Enterprises (MSME)**.

**MCQ Practice:** Q. Which of the following bodies was established in 1957 to institutionalise the promotion and development of the Khadi sector in India? A) National Textile Corporation B) Khadi and Village Industries Commission (KVIC) C) Handloom Export Promotion Council D) Ministry of Textiles **Answer: B** (KVIC was established in 1957 to supply raw materials, improve techniques, and generate sustainable rural employment.)

## Topic 2: Strengthening the Rural Economy and Self-Reliance



**Summary:** Khadi acts as a major driver for the **rural economy**, integrating self-reliance with national identity under the **Aatmanirbhar Bharat** initiative. It creates a decentralised value chain that empowers women and supports millions of livelihoods in semi-urban and rural regions.

**Background:** Mahatma Gandhi envisioned Khadi as a tool for **economic Swaraj**, allowing villages to become self-sufficient units. Post-independence, KVIC has been mandated to foster rural industrialisation and prevent distress migration by providing credit and skill support.

**Key Points:**

- **Historic Growth:** Between 2013–14 and 2024–25, Khadi production increased by **347 per cent**, while sales grew by **447 per cent**, reaching a historic turnover of **Rs 1.70 lakh crore**.
- **Employment and Women Empowerment:** The sector supports approximately **1.94 crore people**, and notably, women constitute **80 per cent of all Khadi artisans**.
- **Global Reach:** KVIC has registered Khadi trademarks in **15 countries** and logos in 31, with international brands like **Patagonia** placing significant orders for the fabric.
- **The 3P Approach:** The Ministry of MSME utilises a strategy to **Protect, Promote, and Propel** the industry through infrastructure modernisation and diversified market access.

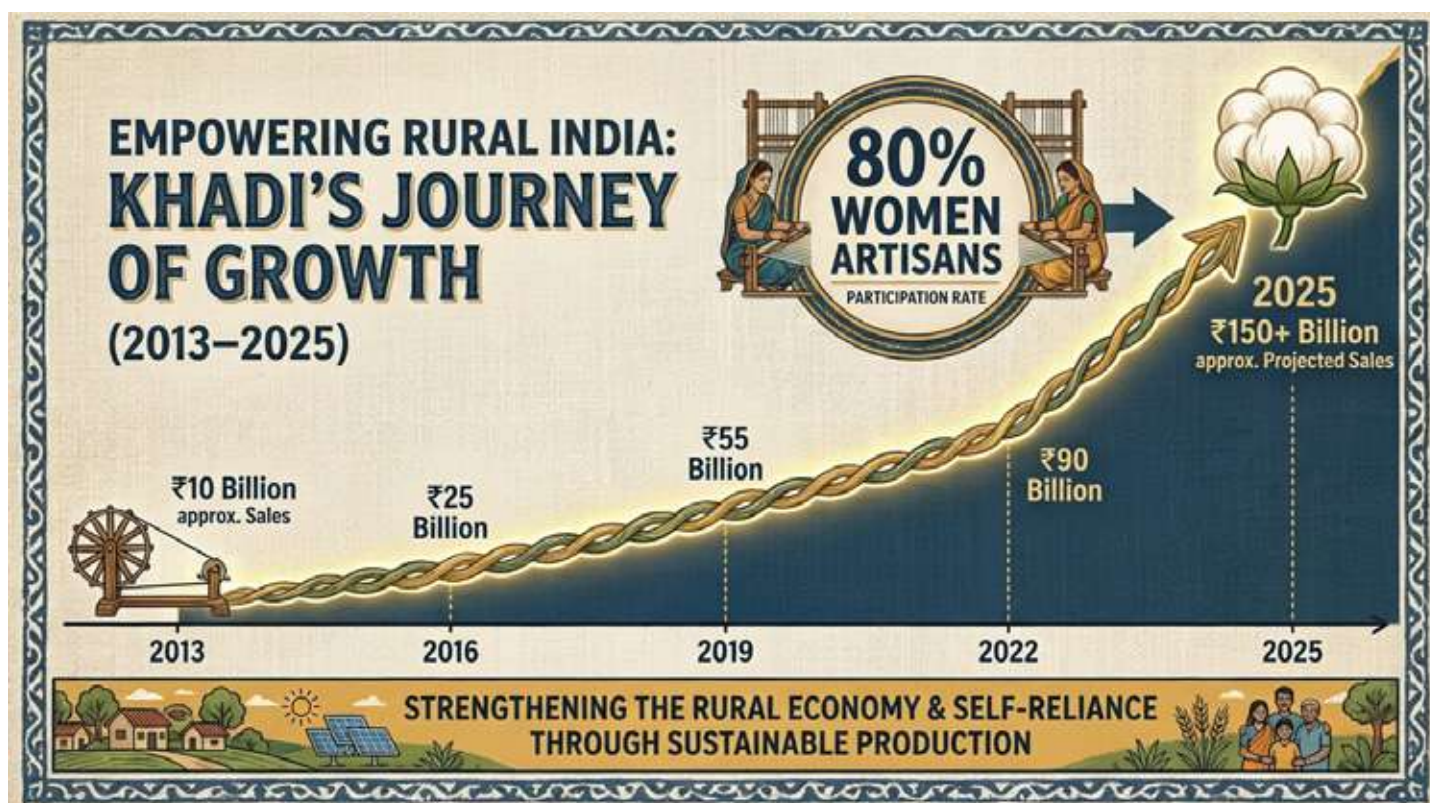
**Prelims Facts (One Liners):**

1. Artisan wages in the Khadi sector have increased by **275 per cent** over the last 11 years.
2. India's first **Khadi Mall**, featuring AI-based virtual try-ons, is located at Connaught Place in New Delhi.
3. The **Prime Minister's Employment Generation Programme (PMEGP)** has generated employment for 90 lakh individuals through micro-enterprises.
4. Khadi exports stood at **Rs 37.88 crore** in 2023–24, reaching markets such as Russia, China, and Tanzania.

**MCQ Practice:** Q. What percentage of Khadi artisans in India are women, as per the MSME and KVIC data for 2024–25? A) 33% B) 50% C) 80% D) 95% **Answer: C** (Women constitute 80 per cent of Khadi artisans, benefiting from home-based spinning and weaving that promotes social empowerment.)

---

## Topic 3: Khadi as a Driver of Sustainable Agriculture



**Summary:** Khadi serves as a strategic link between **agriculture and cottage industries**, enhancing rural resilience by providing income diversification for small and marginal farmers. It promotes a **green economy** through the use of organic fibres and natural dyes, aligning with global climate goals.

**Background:** The **farm-to-fabric ecosystem** preserves traditional skills while maximising local resource utilisation. This symbiosis is reinforced by Gandhian principles that encourage household-level production during agricultural off-seasons to reduce economic dependence.

### Key Points:

- **Livelihood Security:** By offering off-season employment, Khadi reduces the vulnerability of rural families to **climatic shocks and crop failures**.
- **Sustainable Sourcing:** The industry sources raw materials directly from farms, including **cotton, silk (sericulture), and wool (sheep rearing)**.
- **Millet Mission Integration:** Linking Khadi with **millets (Shree Anna)** strengthens climate-smart livelihoods as millets require less water and are suitable for dry regions.
- **Flagship Allied Schemes:** Initiatives like the **Honey Mission** (beekeeping) and **Kumhar Sashaktikaran Yojana** (pottery) further diversify supplementary rural income.

### Prelims Facts (One Liners):

1. Khadi production involves **negligible carbon emissions** due to manual hand-spinning and hand-weaving processes.
2. The **SFURTI** scheme focuses on cluster-based development for infrastructure and marketing of traditional industries like Khadi.
3. Integration with organic practices helps Khadi align with India's **Net Zero 2070** commitment.
4. The sector created **10.17 lakh new jobs** over the last decade, reflecting an 81 per cent growth in employment.

**MCQ Practice:** Q. How does the Khadi sector contribute to India's Net Zero 2070 commitment? A) Through the mass production of synthetic fibres B) By using manual production processes with minimal electricity and low carbon footprints C) By centralising all textile production in urban hubs D) By relying exclusively on heavy industrial machinery **Answer: B** (Manual hand-spinning and weaving result in negligible carbon emissions and minimal electricity dependence.)

## Topic 4: Eco-Friendly Textile and Living Cultural Heritage



**Summary:** Khadi is reimagined as a **climate-smart textile** and a **living heritage craft**, embodying ethical consumption long before sustainability became a global trend. It exemplifies

a **circular economy** through zero-waste craftsmanship and the use of biodegradable natural fibres.

**Background:** The fabric is rooted in a philosophy of **harmony between nature, craft, and community**. Post-independence, the government has protected this heritage value through the **Khadi Mark certification** to ensure authenticity against machine-made imitations.

### Key Points:

- **Low Energy Footprint:** Manual spinning eliminates the need for heavy machinery and electricity, distinguishing it from mill-made fabrics.
- **Environmental Benefits:** Being biodegradable, natural Khadi fibres avoid the **microplastic pollution** associated with synthetic textiles.
- **Water Efficiency:** The use of natural and herbal dyes minimises water pollution and toxic chemical discharge.
- **Heritage Governance:** KVIC and State Khadi Boards use schemes like **SFURTI** to regenerate traditional clusters and integrate them into **heritage tourism circuits**.

### Prelims Facts (One Liners):

1. **Khadi Mark certification** is used to protect the fabric's heritage value and ensure its authenticity.
2. The manual production of Khadi reflects **circular economy principles** by reusing fabric scraps for accessories and paper.
3. Fast fashion consumes vast resources, while Khadi offers a **low-impact, slow-fashion alternative**.
4. The UGC and NIFT have established **Centres of Excellence for Khadi (CoEK)** to bridge the gap between heritage craft and modern markets.

**MCQ Practice:** Q. In the context of the circular economy, how is "zero-waste craftsmanship" practiced in the Khadi industry? A) By discarding all fabric scraps to maintain quality B) By using only synthetic dyes that never fade C) By reusing fabric scraps for accessories, quilts, and paper production D) By burning excess materials to generate electricity **Answer: C** (Khadi follows circular economy principles by reusing scraps for various products, minimising waste.)