NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 24-10-2025

Table of Content

GOVERNMENT DEFENDS FOREST RIGHTS ACT IN SUPREME COURT

Context

- The Central Government has defended the Forest Rights Act (FRA), 2006, before the Supreme Court, emphasizing that the legislation is restoring the dignity, livelihoods, and cultural identity of India's forest-dependent communities.

Background

- The FRA, was challenged in the Supreme Court in **2008** by Wildlife First, an NGO which called for the eviction of people whose FRA claims had been rejected.
- **In February 2019**, the court directed states to evict all claimants whose FRA claims had been rejected.
  - This triggered widespread protests by tribal organizations and civil society groups across India.
- **The Ministry of Tribal Affairs (MoTA)** subsequently intervened, highlighting serious procedural lapses in the verification and approval of claims.
- The court stayed the eviction order and called for detailed data on the rejection of claims.

About the Forest Rights Act, 2006

- The **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006,** popularly known as the **Forest Rights Act (FRA)**, was enacted to correct historical injustices faced by forest-dwelling communities.
- It recognizes and vests **individual and community forest rights (CFRs)** in Scheduled Tribes (STs) and other traditional forest dwellers (OTFDs) who have lived in forests for generations but whose rights were never formally recorded.
- The Act also empowers **Gram Sabhas** to:
  - Identify and verify claims over forest land and resources.
  - Manage and protect forest resources sustainably.
  - Regulate access to **Minor Forest Produce (MFP)** such as bamboo, tendu leaves, lac, honey, and wax.

Significance of the FRA

- **Empowers forest communities** by recognizing traditional ownership and access rights.
- **Promotes participatory forest management**, reducing alienation of local people.
- **Supports poverty alleviation** through sustainable use of forest resources.
- **Strengthens decentralized forest governance** via Gram Sabhas.
- Aligns with the constitutional values such as**, Article 21** (Right to Life) and **Article 46** (promotion of educational and economic interests of Scheduled Tribes).

Key Issues with the Forest Rights Act, 2006

- **Implementation Delays:** Many claims are pending for years due to bureaucratic inefficiency.
  - Lack of trained personnel at the **Gram Sabha**, sub-divisional, and district levels slows verification.
- **Conflict with Forest and Wildlife Laws:** Overlaps with Wildlife Protection Act, **1972** and Forest Conservation Act, **1980** can create confusion.
- **Risk of Exploitation:** Potential for commercialization of Minor Forest Produce (MFP) if monitoring is weak.
- **Limited Integration with Conservation Goals:** FRA implementation sometimes clashes with strict conservation policies, creating tension between livelihood and ecological objectives.
- **Data and Monitoring Issues:** Lack of digitized, accessible records leads to disputes and wrongful rejections.
  - Difficult to track claims and ensure transparency and accountability.

Way Ahead

- **Strengthen implementation** through **better coordination** between MoTA and MoEFCC.
- **Build capacity of Gram Sabhas** and Forest Rights Committees for claim verification and sustainable management.
- **Digitize records** to prevent delays and ensure transparency in claim settlement.
- **Encourage integration of FRA** with national conservation strategies to reinforce the "**Conservation through Coexistence"** model.

Source: IE

DAY-NRLM: ONE OF THE WORLD'S LARGEST INITIATIVES TO IMPROVE LIVELIHOODS OF POOR

Context

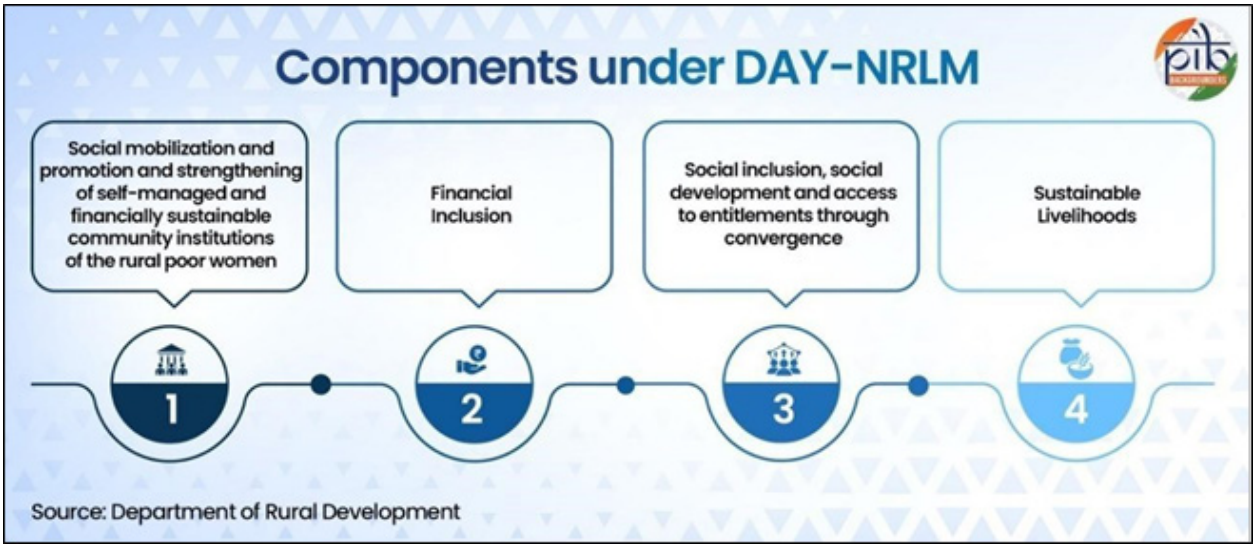
- The Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM), implemented by the Ministry of Rural Development, is one of the world's largest poverty alleviation programmes.

About the Mission

- **Launch:** It was launched in 2010 by restructuring the earlier Swarnajayanti Gram Swarozgar Yojana

(SGSY), the initiative was renamed in 2016 as Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM).

- **Aim:** It is a centrally sponsored scheme, aimed to reduce rural poverty through self-employment and skilled wage employment.
- **Women Centric Model:** The mission promotes economic independence by linking women to credit, markets, and technology through SHGs and federations.



Implementation of DAY-NRLM

- **Community Institutions:** DAY-NRLM promotes building strong institutions such as Self-Help Groups (SHGs) for the poor, particularly women.
  - These institutions provide them with long-term support to diversify their livelihoods, enhance their incomes, and improve their quality of life.
  - SHG women are trained as community resource persons (CRPs) – Krishi Sakhis, Pashu Sakhis, Bank Sakhis, Bima Sakhis, Banking Correspondent Sakhis, etc.
- **Entrepreneurship Promotion:** The mission also promotes micro-enterprises in areas like handicrafts and food processing through sub-schemes such as the Start-up Village Entrepreneurship Program (SVEP).
- **Skill Development and Employment Programs:** The Ministry implements two Centrally Sponsored Schemes under DAY-NRLM:
  - **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY):** Provides placement-linked skill training for rural youth aged 15–35 years.
    - A total of 17.50 lakh candidates have been trained and a total of 11.48 lakh have been placed, as of June 2025.
  - **Rural Self Employment Training Institutes (RSETIs):** Bank-sponsored centres for youth aged 18–50 that provide entrepreneurship training and promote self- and wage-employment, with financial support for infrastructure and training costs.
    - A total of 56.69 lakh candidates have been trained and a total of 40.99 lakh have been settled since inception till June 2025.
  - **Leading States in Skill Development:** Uttar Pradesh, Odisha, Andhra Pradesh, Rajasthan, Madhya Pradesh, and Karnataka.

Achievements of the Mission

- Mobilized 10.05 crore rural households into 90.9 lakh SHGs across India.
- Supported 4.6 crore Mahila Kisans and 3.74 Lakh enterprises through entrepreneurship programs.
- Trained 17.5 lakh rural youth under DDU-GKY, with a total of 11.48 lakh already placed.
- Deployed 47,952 Bank Sakhis to boost rural financial inclusion and credit access.
- Promoted sustainable livelihoods through agriculture, non-timber forest produce, livestock, and non-farm enterprises.
- **High-performing states under DAY- NRLM:** Bihar, Uttar Pradesh, and Andhra Pradesh.

Conclusion

- With its emphasis on women's empowerment, financial inclusion, and sustainable livelihoods, the DAY-NRLM stands as a global model for community-driven poverty alleviation.
- By turning rural women into entrepreneurs, leaders, and changemakers, the mission continues to drive inclusive and resilient growth across India's villages.

Source: PIB

THE SEVILLA FORUM LAUNCHED TO TACKLE GLOBAL DEBT CRISIS

Context

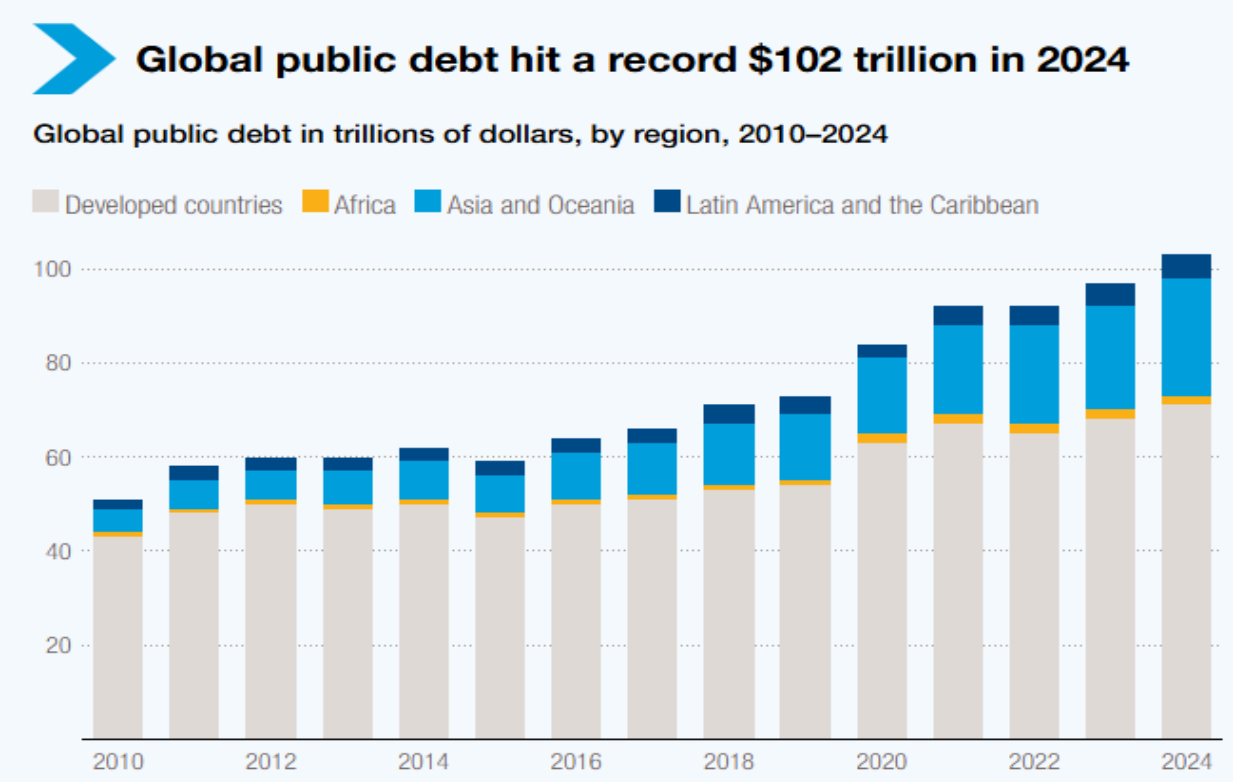
- At the 16th United Nations Conference on Trade and Development (UNCTAD16) held in Geneva, a new global initiative, the **Sevilla Forum on Debt**, was launched.

About the Sevilla Forum

- The Forum, **led by Spain** and supported by **UNCTAD** and the **United Nations Department of Economic and Social Affairs (UN DESA),** aims to create a permanent, inclusive platform for dialogue and coordinated action on sovereign debt challenges.
- It marks one of the first tangible outcomes of the **Fourth International Conference on Financing for Development (FfD4)** and is part of the broader **Sevilla Platform for Action**, which operationalizes the Sevilla Commitment.
  - **The Sevilla Commitment** lays down a roadmap for strengthening development financing and ensuring debt sustainability in developing economies.

Rising Global Debt Levels

- According to UNCTAD, **global public debt** reached a record **$102 trillion in 2024.**
  - Developing countries accounted for **$31 trillion** of this debt.
  - These countries collectively paid **$921 billion in interest payments**, a burden exceeding spending on health and education in many cases.
- As per the **World Bank 2024 Report**, Developing countries spent a record **$1.4 trillion** to service their foreign debt as their interest costs climbed to a 20-year high in **2023.**
  - Currently, more than half of developing countries allocate at least **8%** of government revenues to interest payments, a figure that has doubled over the past decade.
- This unsustainable debt trajectory threatens progress toward the **Sustainable Development Goals (SDGs)** and has amplified calls for comprehensive sovereign debt reform.



Public debt of India

- India's public debt-to-GDP ratio has barely increased from 81% in 2005-06 to **84% in 2021-22**, and is back to **81% in 2022-23.**
- As per the **Fiscal Responsibility and Budget Management (FRBM) Act 2003**, the general government debt was supposed to be brought down to **60% of GDP** by **2024-25.**

- The IMF states that India's general government debt, including the Centre and States, could be **100% of GDP** under adverse circumstances by fiscal 2028.
- It has projected the ratio at **82.4% for 2024-25.**

Factors Contributing to Debt Burden

- **Oil Price Shock (1970s):** The 1970s saw a sharp rise in oil prices due to geopolitical tensions, including the **1973 Arab Oil Embargo.**
  - Oil-importing developing countries faced a financial squeeze due to rising import bills.
- **Petrodollar Recycling:** Oil-exporting Arab nations deposited their surplus "petrodollars" in Western banks.
  - These funds were loaned to developing countries, enabling them to afford higher oil prices and continue purchasing Western exports.
  - This system supported Western economies by keeping factories open and avoiding recession.
- **Rise of Private Lending:** Private Western banks began overtaking official sources (like governments or IMF) in lending.
  - By 1982, banks lent $63 billion annually—nearly double the official lending.
  - Many developing countries experienced rapid economic growth in the 1970s as a result.
- **The Debt Crisis (1980s):** A global recession and high interest rates hit in the 1980s.
  - Developing countries struggled to repay their debts and began borrowing more just to pay interest, a classic debt trap.
- **High Interest:** The UNCTAD report showed that developing regions borrow at rates that are **2-4 times higher** than those of the US and **6-12 times higher** than those of **Germany.**
  - This is largely because developing countries are perceived to have a more **"high-risk environment"**, and thereby face higher cost of borrowing.

Concerns of rising debt

- **Impact on climate action:** Developing countries need to increase climate investments from their current level of **2.1% of GDP to 6.9% by 2030** to meet the **Paris Agreement targets**. However, they are currently spending more on interest payments than on climate investments.
- **Increase the cost of resolving debt crises:** The increasing complexity of the creditor base makes debt restructuring more difficult as it requires negotiating with a **broader range of creditors** with diverging interests and legal frameworks.
- **Inequalities in the international financial architecture:** Borrowing from private sources on commercial terms is more expensive than concessional financing from multilateral and bilateral sources.
- Countries with high debt **reduce expenditure in public services** such as healthcare, education, and social welfare. This can exacerbate poverty and inequality.

Way Ahead

- **Promote Responsible Borrowing and Lending:** Encourage countries to follow fiscal prudence and avoid excessive reliance on high-cost commercial loans.
- **Enhance Coordination Among Stakeholders:** Foster collaboration between multilateral institutions, bilateral creditors, private banks, and borrower nations.
- **Link Debt Relief to Development Goals:** Tie debt swaps and relief measures to investments in health, education, climate action, and sustainable infrastructure.

Source: DTE

THE UN'S EARLY WARNINGS FOR ALL (EW4ALL) INITIATIVE

In News

- The World Meteorological Organization (WMO) at its Extraordinary Congress in Geneva, rallied its 193 Member States to commit to universal early warning coverage by **2027 under the UN's Early Warnings for All (EW4All) initiative.**
  - An Early Warning System (EWS) is an **integrated approach** that combines hazard monitoring, forecasting, disaster risk assessment, communication, and preparedness to enable timely action for saving lives, livelihoods, and assets at risk.

UN's Early Warnings for All (EW4All) Initiative

- The UN-backed EW4All initiative was **launched in 2022** by Secretary-General António Guterres, co-led by WMO, the UN Office for Disaster Risk Reduction (UNDRR), the International Telecommunication Union (ITU), and the International Federation of Red Cross and Red Crescent Societies (IFRC).
- Its goal is to ensure that every person — regardless of where they live — is protected by life-saving alerts for hazards such as cyclones, floods, heat waves or droughts.
- The EW4All initiative aims to address the growing threat of weather, water, and climate-related hazards—from cyclones and floods to heatwaves and droughts.

- The initiative focuses on strengthening the entire early warning "value chain"
  - Monitoring and forecasting hazards
  - Assessing risks
  - Disseminating alerts
  - Ensuring communities can act on them

Need for Early Warning

- Timely warnings (within 24 hours) can reduce disaster damage by 30%.
- Countries without multi-hazard early warning systems experience disaster mortality rates six times higher and impacts four times greater compared to those with established systems.
- Since 1970, economic losses from extreme weather events have surpassed US$4 trillion globally.

Challenges

- Despite progress, stark inequalities persist:
  - As of 2024, only 108 countries have some capacity for multi-hazard early warning systems—up from 52 in 2014.
  - Least Developed Countries (LDCs), Small Island Developing States (SIDS), and conflict-affected regions remain disproportionately exposed.
  - In countries without adequate systems, disaster mortality is six times higher, and four times more people are affected.
  - Technical barriers include weak observing networks,limited data sharing,Insufficient financing and Lack of community trust and understanding
  - In 50 years, climate-related disasters have killed 2 million people, 90% in developing nations.

Progress

- The EW4All initiative has catalyzed global action:
  - WMO's 2025 Congress saw 193 Member States endorse a Call to Action for universal coverage by 2027.
  - Country-led assessments and partnerships are driving improvements in hazard monitoring, forecasting, and governance.
  - Integration with the Sendai Framework for Disaster Risk Reduction ensures alignment with broader UN goals.

Suggestions

- To meet the 2027 target, the UN and WMO call for Embedding early warning systems in national climate and disaster policies
- Securing long-term, predictable financing
- Empowering national meteorological services with clear mandates
- Combining scientific and indigenous knowledge for inclusive communication
- Harnessing AI and innovation to improve prediction accuracy

Source :DTE

INDIA REFRAMES ITS RENEWABLE REVOLUTION

Context

- India's renewable energy sector is moving **from rapid expansion to building a strong, stable, and resilient system** to support its 500 GW non-fossil capacity target by 2030.

About

- In the past decade, India's installed renewable capacity (excluding large hydro) **rose from under ~35 GW in 2014 to over ~197 GW today.**
  - India continues to **add 15–25 GW of new renewable capacity annually** — a rate that remains among the fastest in the world.
- The current focus is **"capacity absorption" rather than just "capacity addition"** — i.e., making sure renewables can be smoothly integrated into grid, market and system architecture.

Capacity Building in Renewable Energy

- Capacity building in renewable energy refers to the **process of developing the skills, knowledge, infrastructure, institutions, and systems** necessary to plan, deploy, operate, and maintain renewable energy technologies effectively.
- It ensures that human resources, technical capabilities, and institutional frameworks are equipped to support the rapid transition to clean energy.

Need for the Capacity Building

- **Grid Integration:** As renewable share rises, grid operators need skills and systems to manage variability and intermittency from solar and wind sources.
- **Technical Expertise:** Skilled manpower is essential for design, installation, and maintenance of advanced technologies like battery storage, offshore wind, and hybrid projects.
- **Institutional Strengthening:** State and central agencies require capacity to plan, regulate, and implement large-scale renewable and transmission projects efficiently.

- **Local Manufacturing Ecosystem:** Building technical and managerial capacity supports domestic production reducing import dependence.
- **Policy and Regulatory Capacity:** Continuous upskilling helps policymakers and regulators adapt to evolving markets.
- **Community & Workforce Engagement:** Local capacity building ensures job creation, social acceptance, and effective participation in the energy transition.

Challenges

- **Skill Gap:** Shortage of trained engineers, technicians, and project managers for advanced renewable technologies like offshore wind, battery storage, and hybrid projects.
- **Limited Training Infrastructure:** Few institutions offer specialised courses; existing technical institutes often lack up-to-date labs, equipment, and faculty expertise.
- **Rapid Technological Change:** Fast-evolving technologies in storage, smart grids, and green hydrogen require continuous upskilling, making training programs quickly obsolete.
- **Coordination Across Agencies:** Capacity building requires alignment among central ministries, state agencies, private sector, and academia, which is often fragmented.
- **Financial Constraints:** Funding for training programs, research, and skill development initiatives is limited, especially for smaller states.
- **Retention of Skilled Workforce:** Trained personnel move to other sectors or abroad reduces the impact of capacity-building efforts.

Government Initiatives

- **Grid Integration Plan:** India's grid is being reimagined through the 2.4 lakh crore Transmission Plan for 500 GW, linking renewable-rich states with demand centres.
  - The Government is prioritizing investment in transmission infrastructure through the Green Energy Corridors and new high-capacity transmission lines from Rajasthan, Gujarat, and Ladakh.
  - While these projects are multi-year efforts, once operational they will unlock over 200 GW of new renewable capacity.
- **Vision till 2032:** Government has already planned for building High-Voltage Direct Current (HVDC) corridors and boosting inter-regional transmission capacity from 120 GW today to 143 GW by 2027, and 168 GW by 2032.
- **Incentives:** Domestic manufacturing, incentivised through the Production-Linked Incentive (PLI) scheme, Domestic Content Requirement, imposition of duties, and duty exemptions for capital equipment, is reducing import dependency.
- **National Institute of Solar Energy (NISE):** Offers training programs, workshops, and research support for solar PV, solar thermal, and hybrid technologies.
- **Capacity Building for State Nodal Agencies (SNAs):** Training and technical support to state renewable energy agencies for project implementation, monitoring, and policy enforcement.
- **Research & Innovation Support:** Funding for R&D in battery storage, hybrid projects, offshore wind, and green hydrogen.
- **International Cooperation & Training Programs:** Collaboration with IRENA, GIZ, and other global agencies for knowledge exchange.

Way Ahead

- **Large hybrid and ReNew's Round-the-Clock (RTC) projects** are moving into execution across Rajasthan, Gujarat, and Karnataka.
- Offshore wind and pumped hydro storage are gaining momentum.
- Distributed solar and agrovoltaic initiatives under **PM Suryaghar and PM KUSUM are deepening rural participation.**
- **The National Green Hydrogen Mission** is linking renewables with industrial decarbonisation.
- RE integration through strengthening of **Green Energy Corridor Phase III.**

Conclusion

- Over the past two years, policy attention has consciously shifted from pure capacity growth to system design.
- These reforms mark a decisive step toward optimising transmission utilisation and fast-tracking stranded renewable projects, directly addressing one of the sector's core implementation challenges.

Source: PIB

NEWS IN SHORT

INTERNATIONAL CONVENTION FOR THE SUPPRESSION OF THE FINANCING OF TERRORISM

Context

- **Iran** ratified a law joining a United Nations convention against terror financing.

About

- **Adoption:** It was adopted by the UN General Assembly in 1999. Entered into force in 2002.
- **Purpose:** To criminalize the financing of terrorism.
- **Key Features:**
  - **Criminalization of Financing:** Making funds available with intent or knowledge that they will be used to carry out terrorism.
  - **Jurisdiction:** States must establish jurisdiction over offenses committed in their territory, by their nationals, or on board their ships/aircraft.
  - **Extradition & Cooperation:** Facilitates extradition of offenders and promotes international cooperation in investigations and prosecutions.
  - **Preventive Measures:** Encourages countries to freeze funds linked to terrorist activities and share information to prevent financing.
- **India:** India ratified the convention in 2003.
  - Supports India's legal framework under Unlawful Activities (Prevention) Act (UAPA), 1967 and anti-money laundering laws.

Source: TH

ONLINE NATIONAL DRUGS LICENSING SYSTEM

Context

- The Drugs Controller General of India (DCGI) has directed digital monitoring on the Online National Drugs Licensing System (ONDLS) for tracking the supply chain of high-risk solvents.

Online National Drugs Licensing System

- ONDLS is a single-window digital platform in India for **processing drug- and cosmetic-related applications** for manufacturing and sales licences, and various certificates.
- It is developed by the **Centre for Development of Advanced Computing (CDAC)** in coordination with the **Central Drugs Standard Control Organisation (CDSCO).**
- **Key Features:**
  - **Digital Tracking System:** The ONDLS portal now enables **real-time monitoring of solvent batches** used in drug manufacturing.
  - **Mandatory Registration:** All state drug regulators and pharmaceutical manufacturers must register on the portal.
  - **Batch-Wise Digital Record:** Every solvent batch must be digitally logged with details such as, Batch number, Quantity, Certificate of Analysis (CoA), Vendor or buyer information.
  - **Pre-Market Verification:** State regulators must ensure no batch is released until data has been uploaded and verified on the portal.

Source: TH

INDIAN RAILWAYS DEPLOYS REAL-TIME HEAT-MAPPING AND CROWD CONTROL SYSTEM

In News

- With Chhath Puja witnessing one of the largest annual migration surges, the Indian Railways has introduced an AI-based real-time heat-mapping and crowd control system across 35 major stations.

About the Initiative

- **Technology Used:** Uses AI-enabled CCTV analytics, thermal sensors, and real-time data dashboards to detect crowd density and movement patterns.
- **Function:**
  - Generates heat maps of platforms and concourses showing congestion levels.
  - Enables automated alerts to station managers and Railway Protection Force (RPF) for quick crowd dispersal.
  - Integrates with Railway Helpline 139 and the Integrated Security System (ISS) for coordination.
- **Coverage:** Implemented at high-traffic stations such as Delhi, Patna, Varanasi, Lucknow, Kolkata, and Mumbai.

Source: TH

QUANTUM ECHOES ALGORITHM

Context

- Google claims its quantum processor "Willow" has achieved the first verifiable quantum advantage—performing a task practically impossible for classical computers.

About

- Willow ran the **Quantum Echoes algorithm 13,000x faster than the best classical supercomputers.**
  - Quantum Echoes is a special algorithm developed to study how information spreads and scrambles in a quantum system.
  - It helps scientists "unscramble" information in chaotic quantum systems to understand the underlying rules (the Hamiltonian).

Significance

- Google's Willow quantum processor ran a task 13,000 times faster than the world's fastest classical supercomputer.
  - **Classical simulation would take over 3 years, Willow did it in hours.**
- Helps understand **complex quantum systems,** study new materials, and possibly discover drugs.
- A big step toward **practical quantum computing** and real-world applications.

Willow

- Willow is a superconducting quantum processor developed by Google.
- It uses quantum bits (qubits) instead of classical bits to perform computations.
- **Key Features:**
  - Can create entanglement and quantum interference between qubits.
  - Designed to handle complex quantum calculations that classical computers struggle with.
  - Used in experiments like the Quantum Echoes algorithm to study quantum chaos.

Source: TH

DEFENCE PROCUREMENT MANUAL (DPM)

In News

- Defence Minister Rajnath Singh launched the **Defence Procurement Manual (DPM) 2025**.

Defence Procurement Manual (DPM) 2025

- It is designed to streamline procurement processes and enhance operational readiness.
- It will oversee revenue procurement worth 1 lakh crore across the Armed Forces and Defence Ministry establishments.
- It emphasizes transparency, fairness, and support for MSMEs and start-ups in defence manufacturing.

Key Features of the Revised Defence Procurement Procedures

- **Ease of Business:** Procedures have been streamlined to expedite decision-making and minimize bureaucratic delays, making it easier for vendors to participate.
- **Relaxed Penalties:** The cap on liquidated damages (LD) for major delivery delays is set at 10%, and for indigenisation projects, it is now 0.1% per week, reduced from the earlier 0.5%.
- **Long-term Orders:** Indigenously developed items can now receive assured orders for up to five years or longer.
- **No NOC Required:** The requirement for a No Objection Certificate (NOC) from the Ordnance Factory Board has been abolished, simplifying vendor participation and reducing procedural hurdles.
- **Procurement Thresholds:** Limited Tender Enquiries are now allowed for procurements up to 50 lakh, with higher-value cases permitted only under exceptional circumstances.
- **Growth Provisions:** Ship repair and aviation overhaul work can now benefit from an upfront growth allowance of 15%, ensuring greater platform readiness.
- **Structured Format:** The procedures are divided into two volumes—Volume I covers main provisions, while Volume II contains forms, appendices, and government orders.
- **New Chapters Added:**
  - Promoting Self-Reliance through Innovation and Indigenisation
  - Information & Communication Technology Procurement
  - Consultancy and Non-Consultancy Services.

Source: TH

CASSAVA/TAPIOCA CROPS

Context

- A tiny parasitic wasp, Anagyrus lopezi, has been successfully used for biological control of the **invasive cassava mealybug in tapioca plantations.**

About

- Cassava, popularly known as tapioca, is a woody perennial shrub.
- **Scientific Name:** Manihot esculenta.

- **Production:** It is grown over approximately 1.73 lakh hectares in India, with Tamil Nadu and Kerala contributing over 90% of production.
  - Under India's "One District One Product" (ODOP) scheme, cassava has been identified as a key crop for several districts in Kerala and Tamil Nadu.
- **Origin:** It is believed to have originated in Latin America, particularly in Brazil and the Amazon basin.
- **Introduction in Asia:** Portuguese traders introduced cassava into India in the 17th Century.
- **Largest Producer and Exporter: Nigeria** stands as the world's largest cassava producer and **Thailand** is the largest exporter of cassava starch globally.

Tapioca

- Tapioca is a **starch extracted from cassava root** that serves as a versatile ingredient in cooking, baking, and beverage production worldwide.
- It is a gluten-free and grain-free product with a neutral flavor profile, making it valuable for both culinary applications and dietary requirements.

Source: TH

5TH EDITION OF "AN EYE ON METHANE: FROM MEASUREMENT TO MOMENTUM"

In News

- The UN Environment Programme (UNEP) has released the fifth edition of its flagship publication — **"An Eye on Methane: From Measurement to Momentum", prepared by the International Methane Emissions Observatory (IMEO).**

Key Highlights of the 2025 Report

- Methane emissions from energy, agriculture, and waste sectors remain high, despite available cost-effective mitigation technologies.
- Methane has **80 times more warming potential than CO_2 over 20 years**.
- Approximately **60% of current methane emissions** originate from human activities, with the largest contributors being agriculture, fossil fuel extraction and use, and landfill waste.
- The report calls for integrating methane data into **national climate strategies (NDCs)** and global stocktake under the **Paris Agreement.**
- The report highlights India's effective role in the **Global Methane Pledge (GMP)** and its efforts through **SATAT, National Biogas Mission, and waste-to-energy projects.**

Source: DTE

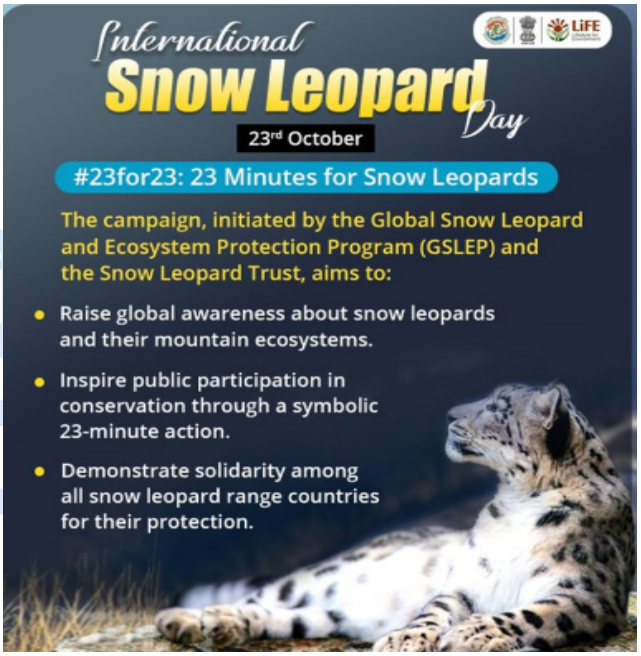
INTERNATIONAL DAY OF THE SNOW LEOPARD 2025

Context

- India celebrated International Snow Leopard Day on October 23**,** with a nationwide campaign **"#23for23".**

About

- In 2024, the **United Nations General Assembly** proclaimed **October 23** as the International Day of the Snow Leopard to enhance international and regional cooperation for its conservation.
- The '#23for23' campaign is an initiative of the **Global Snow Leopard and Ecosystem Protection Programme (GSLEP)** and the Snow Leopard Trust Worldwide.



About Snow Leopards (Panthera uncia)

- **Physical traits:** Snow leopards are adapted to rugged, cold environments, with thick fur, stocky bodies, and long tails that serve as rudders for balance and warmth.
- **Habitat:** They inhabit the high-altitude mountain ranges of **12 Asian countries, including India**, Afghanistan, Bhutan, China, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan.
  - They are often referred to as the '**ghosts of the mountains**' as they are hardly ever seen.
- **Population:** The global population is estimated at **4,500–7,500**, with **India accounting for 10–15%**.
  - The first-ever Snow Leopard Census across the Indian Himalayas recorded **718 individual** snow leopards, of which **Ladakh alone hosts 477.**

- **Conservation Status:**
  - **IUCN Red List:** Vulnerable
  - **Wildlife (Protection) Act, 1972:** Schedule I species
  - **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** Appendix I (since 1975)
  - **CMS (Convention on Migratory Species):** Appendix I (since 1986)
- **Threats:** Climate change, habitat loss, reduced prey, retaliatory killings, and poaching.
- **Significance:** State animal of Himachal Pradesh and Ladakh.

Conservation Initiatives

- **Bishkek Declaration** entitled "Caring for snow leopards and mountains: our ecological future", signed by 12 snow leopard range countries, including all five Central Asian countries.
- **Samarkand Resolution of 2024** for snow leopard conservation and climate adaptation, adopted at the eighth Steering Committee Meeting of the Global Snow Leopard and Ecosystem Protection Programme.
- **International Big Cat Alliance (IBCA):** An Indian initiative to promote the conservation of seven big cats, including the snow leopard, through research collaboration, funding, and capacity building across range countries.
- **Project Snow Leopard (2009):** A flagship scheme of the Ministry of Environment, Forest and Climate Change (MoEFCC) focusing on landscape-based management of high-altitude ecosystems.

Source: DD News

CHRYSANTHEMUM FLOWERS OR GUL-E-DAWOOD

In News

- Kashmir's new Chrysanthemum Garden, Bagh-e-Gul-e-Dawood will open near the Zabarwan range, featuring over 30 lakh blooms across 50+ varieties.

Chrysanthemum

- It is a perennial flowering plant from the Asteraceae family.
- It is widely cultivated in China, Japan, Europe, and the U.S. for its medicinal properties and use in aromatic beverages.
- It is rich in phenolic compounds and exhibits potent antioxidant, antimicrobial, anti-inflammatory, anticancer, and other therapeutic activities.

Source: IE

INTERNATIONAL CONVENTION AGAINST DOPING IN SPORT

In News

- India was re-elected as Vice-Chairperson of the Bureau representing the Asia-Pacific (Group IV) during the **10th Session of the Conference of Parties (COP10) to UNESCO's International Convention against Doping in Sport**, held in Paris to commemorate the Convention's 20th anniversary.

International Convention against Doping in Sport

- UNESCO's International Convention against Doping in Sport (2005) is a **multilateral treaty** by which States agree to adopt national and international measures to prevent and eliminate doping in sport.
- The Convention was adopted during the 33rd session of UNESCO's General Conference (19 October 2005) and entered into force on 1 February 2007.
- Since its initial ratification by 30 countries, the Convention now counts with 192 States Parties, making it UNESCO's second most ratified treaty.
- It is the **only legally binding international instrument** committed to promoting integrity and eliminating doping in sport globally.

Objectives

- It aims to harmonize anti-doping legislation, guidelines, regulations, and rules internationally in order to provide a level and safe playing environment for all athletes.
- It offers a legal framework for States Parties to promote integrity in sport by encouraging international cooperation, restricting access to banned substances, supporting doping controls and national testing programs, and fostering best practices in supplement distribution.
- It also backs anti-doping education and research.

Source:PIB

■■■■