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STUDY CENTRE

DAILY CURRENT AFFAIRS

FOR UPSC CIVIL SERVICE EXAMINATION

DATE: 04/06/2025 (WEDNESDAY)

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1. Ladakh Gets New Domicile and Reservation Policies

1. **New Domicile Criteria Introduced**

   o A person must reside continuously in Ladakh for **15 years from October 31, 2019** (the date Ladakh became a Union Territory) to qualify as a **domicile**.

   o Children of Central government officials posted in Ladakh may also qualify under this criterion.

   o This move aims to **protect local rights over jobs and resources** amid growing demands for safeguards.

2. **Reservation in Government Jobs and Hill Councils**

   o Up to **85% reservation** for **resident Ladakhis** in government employment has been introduced.

   o **Scheduled Tribes (STs)** are expected to receive **80% quota**, with other categories like SCs (1%), EWS (10%), and border residents (4%).

   o **Total reservation will stand at 95%**, making it one of the **highest in India**.

   o A **33% reservation for women** has been introduced in the **Autonomous Hill Development Councils** on a **rotational basis**.

3. **Constitutional and Legal Backing**

Policy progress

Key events in the ongoing negotiations regarding Ladakh from 2023 to 2025

- **Jan. 3, 2023:** Committee forms to address Ladakh concerns
- **Nov. 30:** Committee is reconstituted with new members
- **March 4, 2024:** Talks between govt. and Ladakh leaders collapse
- **Oct. 6:** Activist Sonam Wangchuk begins fast
- **Oct. 21:** Govt. agrees to resume talks, fast ends
- **Dec. 3:** Committee meets with Leh and Kargil leaders
- **Jan. 15, 2025:** Follow-up meeting takes place in Delhi
- **May 27:** Domicile and reservation policy is hammered out

Major demand: Protests demanding Statehood for Ladakh have been continuing for the past few years. ANI

e made via the **Union Territory of Ladakh Reservation (Amendment) Regulation, 2025**, which amends the **Jammu and Kashmir Reservation Act, 2004**, for Ladakh's context.

   o It includes a new clause allowing **reservation to exceed 50%**, specifically excluding the 10% EWS quota.

   o This raises constitutional questions around the **50% ceiling set by the Supreme Court** in *Indra Sawhney vs Union of India (1992)*, though exceptions exist for unique socio-political contexts.

4. **Official Languages and Cultural Identity**

    o The official languages of Ladakh are now **Hindi, English, Urdu, Bhoti, and Purgi**, ensuring **cultural and linguistic representation** for tribal communities.

    o The move is also seen as an effort to preserve **local heritage and identity**.

5. **Background: Demands for Safeguards Post Article 370 Abrogation**

    o After **Article 370 was diluted in 2019**, civil society groups in Ladakh feared loss of land, jobs, and demography to outsiders.

    o Protests, shutdowns, and demands for **statehood and Sixth Schedule protections** intensified, leading to the formation of a **High-Powered Committee** by the Centre.

    o Key stakeholders include **Leh Apex Body (LAB)** and **Kargil Democratic Alliance (KDA)**.

6. **Demographic and Strategic Significance**

    o **Ladakh's tribal population** is approximately **80%** (2011 Census), justifying the high ST reservation.

    o Being a border region with **strategic concerns** (near China and Pakistan), local representation in governance is also a national security imperative.

Key Definitions

- **Domicile**: A legal residency status that entitles a person to certain rights and privileges in a region.

- **Scheduled Tribes (STs)**: Indigenous communities recognized under the Constitution (Article 342) for affirmative action and socio-economic safeguards.

Conclusion

The new policies in Ladakh aim to balance local aspirations with national interests. By offering high reservation quotas, protecting tribal identity, and introducing gender inclusivity, the government addresses longstanding concerns post-Article 370 abrogation. However, **demands for statehood and inclusion under the Sixth Schedule** continue, keeping the dialogue on Ladakh's constitutional future open.

2. Land Pooling Policy in Punjab: A Threat to Agrarian Economy

1. **What is Land Pooling Policy?**

    o **Land pooling** is a method where **landowners voluntarily contribute** their land to a government or development agency for planned development. After development, part of the land is returned to the owners and the rest is used for infrastructure, public utilities, or sold to recover costs.

    o It is often used to **avoid forced land acquisition**, as in this case, Punjab Cabinet Minister Aman Arora assured that **"not a single yard will be forcibly acquired."**

2. **Political Criticism and Economic Concerns**

   o **Punjab Congress President Amrinder Singh Raja Warring** opposed the policy, calling it a move to **"collect money"** rather than ensure public welfare.

   o He warned that pooling **24,000 acres of agricultural land** could **destabilize the agrarian economy** of Punjab, a state heavily reliant on agriculture for **employment, trade, and industry**.

   o He emphasized that such a policy, without demand for housing or industrial plots, may result in **idle land, unsold inventory, and economic inefficiency**.

3. **Constitutional and Legal Provisions Involved**

   o **Article 243ZD and 243ZE**: These relate to planning by District and Metropolitan Planning Committees, which should ideally oversee such large-scale land use changes.

   o **Right to Property (Article 300A)**: Although not a fundamental right, any state interference with private property must be under legal authority and public interest.

   o **Land Acquisition and R&R Act, 2013** (LARR Act): While not directly invoked, land pooling must align with its principles of **consent, compensation, and rehabilitation**, even though pooling is "voluntary".

4. **Lack of Stakeholder Consultation**

   o Warring alleged that the policy was brought **without consulting key stakeholders** such as farmers, panchayats, or cooperatives.

   o This raises concerns under **Principle of Cooperative Federalism** and **Participatory Governance**, both emphasized in constitutional and administrative ethics.

5. **Ground Realities vs Policy Objectives**

   o The Congress leader highlighted **low demand** for both residential and industrial plots, pointing to **unsold private housing colonies** and apartments.

   o Implementing such a policy in a **land-rich but demand-poor context** could lead to **resource misallocation**, **loss of fertile land**, and **erosion of agricultural livelihoods**.

6. **Impact on Punjab's Agricultural Identity**

   o Punjab contributes significantly to India's food security and is known as the **'Granary of India'**.

   o Large-scale diversion of agricultural land could affect **food grain production**, **rural employment**, and worsen the **agrarian distress**, already a sensitive issue in the state post the farm laws agitation.

Key Definition

- **Land Pooling**: A collaborative urban land development mechanism in which landowners voluntarily hand over their land for development and receive a share of developed land in return.

Conclusion

The proposed land pooling policy in Punjab, though aimed at planned development, has raised serious alarms about its potential to undermine the state's agrarian backbone. Without robust **stakeholder engagement**, **ground demand assessment**, and **protection of agricultural land**, such policies may weaken Punjab's socio-economic fabric. For UPSC aspirants, this case highlights the **conflict between development and agrarian sustainability**, an issue crucial in India's federal and policy-making framework.

3. Almatti Dam Dispute: Karnataka vs Maharashtra

1. **Background of the Dispute: Almatti Dam & Krishna River**

   o **Almatti Dam**, built across the **Krishna River**, is located in Karnataka and is crucial for irrigation and hydroelectricity.

   o Karnataka now proposes to raise the dam's height to **524 metres**, citing provisions under the **Krishna Water Disputes Tribunal (KWDT)**.

   o Maharashtra has objected, claiming that raising the height could cause **flooding in Sangli and Kolhapur districts**.

2. **Political and Inter-State Dynamics**

   o Karnataka Deputy CM D.K. Shivakumar has stated he will approach **Prime Minister Narendra Modi** and **Union Jal Shakti Minister C.R. Patil** to address the concerns.

   o Maharashtra CM **Devendra Fadnavis** formally raised objections in a letter dated May 9, 2025.

   o Karnataka claims Maharashtra had earlier supported the dam height increase before the KWDT and had submitted an **affidavit supporting the same**.

3. **Legal and Constitutional Framework**

   o **Inter-State River Water Disputes Act, 1956**: Provides the legal basis for setting up tribunals to adjudicate disputes between states over river waters.

   o **Article 262 of the Constitution**: Allows Parliament to provide for adjudication of inter-state water disputes and bars jurisdiction of courts in such matters.

o **Krishna Water Disputes Tribunal (KWDT)**: Set up to resolve water sharing among Karnataka, Maharashtra, Telangana, and Andhra Pradesh. The tribunal permitted Karnataka to raise Almatti's height under regulated conditions.

4. **Flood Management and State Responsibility**

   o Karnataka's Deputy CM emphasized that **flood management within a state is the responsibility of that state government**.

   o This touches upon principles of **federalism** and **administrative autonomy**, especially in managing natural disasters and local infrastructure.

5. **Strategic and Political Mobilization**

   o Karnataka plans to **brief its MPs** to raise the issue in Parliament, showcasing **cooperative federalism** and **state advocacy** at the Union level.

   o The issue also reflects growing regional sensitivities around **inter-state water sharing** amid climatic variability and increasing developmental pressures.

6. **Broader Implications for Inter-State Water Disputes**

   o Such disputes highlight the **fragile balance** between **state rights**, **national interest**, and **ecological sustainability**.

   o It reiterates the need for **robust inter-state coordination mechanisms**, timely tribunal decisions, and **transparent stakeholder consultations**.

Key Definitions

- **Tribunal**: A quasi-judicial body established to adjudicate disputes, particularly those involving technical or inter-state issues.

- **River Water Dispute**: Conflict between two or more states over the allocation and usage of river waters, typically involving upstream and downstream concerns.

Conclusion

The Almatti dam issue reflects the **complexities of inter-state river water governance** in India. While Karnataka stands on tribunal-sanctioned legal ground, Maharashtra's flooding concerns must be addressed to maintain regional harmony. For UPSC aspirants, the case provides insight into **constitutional provisions, tribunal mechanisms, federal water politics, and the balance between development and disaster risk management**.

4. Bhu Bharati Act: A Landmark Land Reform Initiative in Telangana

1. **What is the Bhu Bharati Act?**

   o The **Telangana Bhu Bharati (Record of Rights in Land) Act** is a **comprehensive land reform law** enacted in April 2025.

o Its aim is to **digitally survey agricultural land**, accurately identify **boundaries**, and resolve **land ownership disputes** through **scientific and transparent methods**.

2. **Technological Tools for Implementation**

   o The Bhu Bharati project uses **drone-aided surveys** and **Differential Global Positioning System (DGPS)** technology for **high-precision mapping** of land boundaries.

   o These methods significantly enhance accuracy over traditional land records and help minimize human error or manipulation.

3. **Criticism of the Previous Dharani Portal**

   o The Act replaces the **Dharani portal**, introduced by the earlier BRS (Bharat Rashtra Samithi) government, which the current government claims had **curtailed farmers' land rights** and led to widespread dissatisfaction.

   o Telangana Deputy CM **Mallu Bhatti Vikramarka** termed the Bhu Bharati Act a **fulfilment of electoral promises** and a **people-centric reform**.

4. **Constitutional and Legal Relevance**

   o The Act aligns with **Entry 18 of the State List (List II)** in the **Seventh Schedule** of the Constitution, giving states authority over land and land records.

   o It also adheres to **Article 300A**, which ensures that **no person shall be deprived of property except by authority of law**.

   o Modernization of land records is in line with the **Digital India Land Records Modernization Programme (DILRMP)** initiated by the Centre.

5. **Expected Benefits and Socio-Economic Impact**

   o The Act will help in **resolving long-pending land disputes**, reduce litigation, and bring **transparency and trust** in land ownership systems.

   o Clear land titles are critical for **agricultural investments, rural credit, welfare scheme delivery**, and **reducing land-related violence**.

   o The digital records will also aid in **planning infrastructure and welfare schemes** more efficiently.

6. **Pilot Project and Public Engagement**

   o The pilot project has been launched in **Mulugumadu village, Yerrupalem mandal** of Khammam district, showing strong **government-village interface**.

   o Ministers for Revenue and Agriculture were also present, signaling**inter-departmental coordination** and political commitment to implementation.

Key Definitions

- **Record of Rights (RoR)**: An official document that contains details of the ownership, tenancy, and cultivation of agricultural land.

- **DGPS (Differential Global Positioning System)**: An advanced GPS system that provides **highly accurate location data**, ideal for surveying and mapping.

Conclusion

The Bhu Bharati Act marks a **progressive shift in land governance**, combining **technology, legal clarity, and policy intent**. It demonstrates how state-led reforms can correct past administrative flaws and build **institutional trust among farmers**. For UPSC aspirants, the Act is a model for understanding **land reforms, state innovation in federal India, and the integration of digital tools in governance**.

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5. IISc Develops Artificial Nanozyme to Prevent Abnormal Blood Clotting
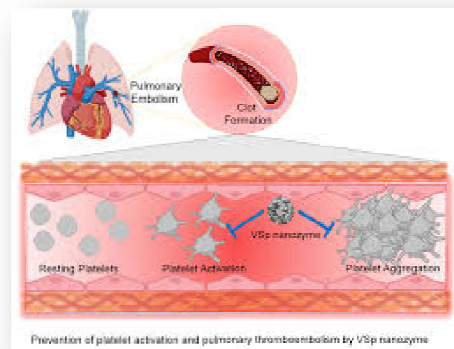
1. **What is the Discovery?**

   o Researchers at **Indian Institute of Science (IISc), Bengaluru** have developed a **metal-based artificial enzyme (nanozyme)** that mimics natural antioxidant enzymes to **prevent abnormal blood clotting**, especially in diseases like **pulmonary thromboembolism (PTE)** and **COVID-19**.

   o The nanozyme, particularly **spherical-shaped vanadium pentoxide (V_2O_5)** particles, helps **reduce Reactive Oxygen Species (ROS)** levels, thereby controlling **excessive platelet aggregation**.

2. **Key Scientific Terms Defined**

   o **Nanozyme**: A **nanomaterial with enzyme-like activity**, designed to mimic the catalytic function of natural enzymes, often more stable and cost-effective.

   o **Reactive Oxygen Species (ROS)**: Chemically reactive molecules containing oxygen. Excess ROS leads to **oxidative stress**, a condition that damages cells and plays a key role in **abnormal blood clotting**.

   o **Thrombosis**: Formation of **unwanted blood clots inside blood vessels**, potentially leading to serious conditions like **stroke, heart attack, or PTE**.

   o **Haemostasis**: A natural process that stops bleeding at the site of injury by forming **protective blood clots** through **platelet activation** and **protein cascade** interactions.

Prevention of platelet activation and pulmonary thromboembolism by VSp nanozyme

3. **Mechanism of Action**

   o The artificial nanozyme controls oxidative stress by **mimicking antioxidant enzymes** like **catalase and peroxidase**, which neutralize ROS.

   o This **prevents the over-activation of platelets**, which, if unchecked, can lead to **excessive blood clot formation (thrombosis)**.

4. **Constitutional and Legal Context**

   o Though scientific in nature, this innovation touches on **Article 21** of the Constitution (Right to Life), as it contributes to **preventive healthcare** and **life-saving treatments**.

- o This also aligns with the **National Health Policy, 2017**, which promotes **research and innovation in biomedical sciences** and **indigenous technological development**.

5. **Potential Applications and Future Plans**

- o The research team plans to test the nanozyme's effectiveness in **preventing ischemic strokes**, caused by **blockage of blood vessels in the brain**.

- o This innovation could be a game-changer in **non-invasive therapies** for clot-related disorders and may reduce reliance on drugs like **blood thinners**, which often have side effects.

6. **Relevance to UPSC and Indian Science Policy**

- o The development showcases **India's capabilities in nanotechnology and biomedical research**, essential for UPSC topics under **Science & Technology**, **Health**, and **Innovation in India**.

- o Also relevant to schemes like **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)** and **Make in India** for scientific equipment.

Conclusion

The artificial nanozyme developed by IISc offers a **cutting-edge solution to combat abnormal blood clotting** by using **nanotechnology to regulate oxidative stress**. It reflects the growing role of **indigenous scientific research** in improving public health outcomes and aligns with India's vision for **self-reliant innovation**. This breakthrough reinforces the importance of **interdisciplinary research**, combining chemistry, biology, and medicine to address **critical health challenges**.

6. Induction of IAS Officers from State Civil Services

1. **Context: 127th Induction Training Programme at LBSNAA**

- o Indian Administrative Service (IAS) officers inducted from State Civil Services and undergoing training at the **Lal Bahadur Shastri National Academy of Administration (LBSNAA)** met the **President of India, Smt. Droupadi Murmu** on **June 3, 2025**.

- o The President emphasized their **expanded national role**, moving from state-specific to **all-India governance responsibilities**.

2. **Role Transformation & National Responsibility**

- o Previously focused on **local and state-level governance**, these officers now must operate under the broader **national governance framework**.

- o Their duties must align with the national developmental vision of **"Viksit Bharat by 2047"**, a goal aimed at transforming India into a **developed nation**.

3. **Focus on Inclusive and Equitable**

Development

- o The President stressed that real progress involves **uplifting the marginalized and weaker sections**.

- o Inclusive governance must ensure that **poverty reduction, social justice**, and access to public goods reach the **last mile**, especially to **SCs, STs, minorities, and women**.

4. **Importance of Technology in Governance**

   - o Officers were encouraged to leverage **AI, e-governance, digital feedback**, and **data analytics** to enhance **transparency, efficiency, and citizen participation**.

   - o Emphasis was placed on building **citizen-centric governance systems**, promoting **real-time service delivery and accountability**.

5. **Ethics, Integrity & Empathetic Administration**

   - o President Murmu reminded officers of the **core values of the IAS**: **integrity, impartiality, empathy, and fairness**.

   - o **Ethical governance** and **responsible use of authority** are foundational to maintaining **citizen trust and good governance**.

6. **Constitutional and Legal Relevance**

   - o The IAS forms part of the **All India Services**, constituted under **Article 312 of the Indian Constitution**.

   - o They are crucial for implementing **central and state policies**, maintaining **law and order**, and ensuring **administrative continuity**.

   - o This event reinforces the importance of **federal cooperation** and **cadre integration**, where State Civil Service officers are promoted into the IAS.

Conclusion

The President's interaction with the newly inducted IAS officers underscores the need for a **responsive, inclusive, and tech-driven civil service** that can drive India's transformation into a developed nation by 2047. As part of the steel frame of India, these officers now shoulder expanded responsibilities, not just of administration but of **nation-building**, grounded in **constitutional values and ethical governance**.

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7. Election Commission to Upgrade Voter Turnout Reporting

1. **New Tech-Driven Voter Turnout Reporting (VTR) System**

   - o The **Election Commission of India (ECI)** is launching a new digital mechanism for real-time sharing of **approximate Voter Turnout trends** through the **ECINET App**.

   - o This system replaces the older **manual method** of reporting through phone calls, SMS, or

messaging apps, which caused significant delays and misinformation.

2. **Role of Presiding Officers & Form 17C (Legal Provision)**

   o As per **Rule 49S of the Conduct of Elections Rules, 1961**, Presiding Officers (PROs) are **legally mandated** to submit **Form 17C**, which contains the official vote count details at the close of polling, to polling agents.

   o While this statutory rule remains unchanged, the **new ECINET system** supplements it by enabling **real-time turnout updates**, enhancing public transparency.

3. **Working of the Upgraded ECINET System**

   o **PROs will enter approximate voter turnout data directly into the ECINET App** every two hours on polling day.

   o After the close of poll, final figures are to be entered immediately before leaving the station. Data is then aggregated **constituency-wise** and shared publicly via the **updated VTR App**.

   o In **offline areas**, the app allows for data syncing once connectivity is restored.

4. **Advantages of the Updated System**

   o Reduces time lag in reporting from **4–5 hours to near real-time**, addressing issues of **data accuracy** and **misinformation**.

   o Enhances **transparency, accountability, and voter trust** in the electoral process by providing timely updates to the public and media.

5. **Definition and Relevance of Voter Turnout (VTR)**

   o **Voter Turnout** refers to the **percentage of registered voters who actually cast their votes** in an election.

   o It is a key indicator of **public participation and democratic health**, and any delays or inaccuracies in its reporting can impact **election credibility and perception**.

6. **Broader Context and Application**

   o The improved system aligns with the **Election Commission's mandate under Article 324 of the Constitution**, which vests in it the **superintendence, direction, and control of elections**.

   o The update will be **fully implemented before the upcoming Bihar elections**, serving as a model for future electoral transparency reforms.

Conclusion

The Election Commission's decision to modernize its Voter Turnout Reporting system through the **ECINET App** is a major step towards **efficient, transparent, and real-time electoral data dissemination**. By leveraging technology while retaining statutory compliance, this initiative strengthens the **integrity of democratic processes** and builds public confidence in India's electoral framework.

8. New Centre of Excellence for South-South Cooperation in Agriculture

1. **Launch of ISSCA – A Strategic Agricultural Initiative**

   o The **ICRISAT Centre of Excellence for South-South Cooperation in Agriculture (ISSCA)** was launched by **ICRISAT** and **RIS** during the "Conference on Global South and Triangular Cooperation" in New Delhi.

   o It aims to **accelerate agricultural transformation** across the **Global South** through **knowledge sharing, innovation, and strategic partnerships**.

2. **South-South and Triangular Cooperation – Key Concept**

   o **South-South Cooperation (SSC)** refers to **collaboration among developing countries** to share knowledge, skills, innovations, and resources.

   o **Triangular Cooperation** includes partnerships between two or more developing countries supported by a third (typically a developed country or international organization).

   o The ISSCA embodies both models to solve **agricultural and climatic challenges** common to Global South nations.

3. **Key Partners – ICRISAT, DAKSHIN, and RIS**

   o **DAKSHIN** (Development and Knowledge Sharing Initiative) is a **Government of India initiative** aimed at promoting SSC via capacity building.

   o **RIS** is a policy research institution supporting development partnerships.

   o The MoU signed between ICRISAT and DAKSHIN strengthens this alliance to promote **climate-smart agriculture** and digital innovation.

4. **Features and Functions of ISSCA**

   o Acts as a **digital repository and exchange hub** of **validated agricultural innovations** for dryland and semi-arid regions.

   o Supports **peer-to-peer learning**, policy model replication, and deployment of **low-cost, high-impact technologies**.

   o Promotes **inclusive growth**, **climate resilience**, and **sustainable practices** in agricultural systems.

5. **Institutional Support and National Commitment**

   o **Indian Council of Agricultural Research (ICAR)** and **Department of Agricultural Research and Education (DARE)** have extended support for ISSCA.

   o This reflects India's proactive role in **global agricultural diplomacy**, with a focus on

technology sharing, food security, and **sustainability**.

6. **Constitutional and Policy Relevance**

   o Aligns with **Article 51(c)** of the Constitution, promoting international peace and cooperation.

   o Complements India's **Act East Policy** and **development partnership strategy**, especially in Africa, Southeast Asia, and Latin America.

   o Supports **UN SDG Goals**, particularly **SDG-2 (Zero Hunger)** and **SDG-13 (Climate Action)**.

Conclusion:

The establishment of ISSCA signals India's leadership in **global agricultural cooperation**, leveraging its scientific and institutional strengths. Through collaborative platforms like this, the **Global South can address shared developmental challenges**, enhance food security, and build climate-resilient agricultural systems—advancing the broader goal of **sustainable and inclusive growth**.

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9. Clean Plant Projects & India's First International Agri Hackathon

1. **Launch of 'Clean Plant' Program for Disease-Free Horticulture**

   o The Government of India is launching **9 'Clean Plant' projects**, with **3 located in Maharashtra** (Pune for grapes, Nagpur for oranges, and Solapur for pomegranates) at a cost of □300 crore.

   o Aim: Ensure **disease-free planting materials** and promote **productivity and quality** in horticulture.

   o Modern **nurseries** will be established: □3 crore for large and □1.5 crore for medium-sized ones, generating **8 crore clean seedlings annually**.

2. **Key Constitutional & Legal Context**

   o **Article 48** (Directive Principles): Promotes modern agriculture and animal husbandry.

   o **Article 51A(g)**: Fundamental duty to protect and improve the natural environment, including agriculture.

   o Aligned with **National Horticulture Mission (NHM)** and **National Innovation in Climate Resilient Agriculture (NICRA)**.

3. **India's First International Agri Hackathon**

   o Held in **Pune**, with participation from **startups, agri-innovators, and farmers**; focused on solving real-world farm problems using **technology and innovation**.

   o Categories included **AI in agriculture, soil health, irrigation, pest control, post-**

harvest tech, and **agri-market linkages**.

  o Maharashtra praised for excellence in **grapes, pomegranates, oranges, and vegetables**.

4. **'Lab to Land' Mission – Scientist-Farmer Linkage**

  o Government will deploy **16,000 agricultural scientists** to work directly with farmers to ensure that innovations reach the field.

  o Objective: Bridge the gap between **research and farm-level implementation** for boosting yields and disease control.

5. **Youth Engagement & Global Vision**

  o The Minister emphasized youth participation in **agri-startups**, encouraging **climate-resilient seed innovation**.

  o India aspires to become a **global food bank**, targeting **export surplus** after meeting domestic needs, especially in the horticulture sector.

  o Support from **Israel and the Netherlands** will be leveraged for tech transfer and clean plant propagation.

6. **Vision for Developed India through Agricultural Transformation**

  o Reiterated PM's goal of **'Viksit Bharat by 2047'** is incomplete without **developed agriculture** and **prosperous farmers**.

  o Emphasis on **reducing input costs, fair prices, insurance coverage**, and **climate adaptation** to make agriculture sustainable.

Conclusion:

The 'Clean Plant' program, in tandem with initiatives like the **Agri Hackathon** and **Lab to Land**, represents a comprehensive strategy to modernize Indian agriculture. By promoting disease-free horticulture, technology integration, and direct research application, these steps aim to ensure **food security, higher exports**, and **farmers' prosperity**, thereby contributing significantly to **India's developmental goals and agricultural diplomacy**.

10. C CARES Version 2.0 of CMPFO

1. Launch of C CARES Version 2.0 for Coal Sector Welfare

- Union Minister of Coal & Mines, Shri G. Kishan Reddy launched **C CARES Version 2.0**, a web-based digital platform for the **Coal Mines Provident Fund Organization (CMPFO)**.

- Developed by **C-DAC** in collaboration with **State Bank of India**, the portal aims to ensure **streamlined disbursement** of Provident Fund (PF) and Pension benefits to coal sector workers.

- CMPFO currently serves **3.3 lakh PF subscribers** and **6.3 lakh pensioners** from the coal sector.
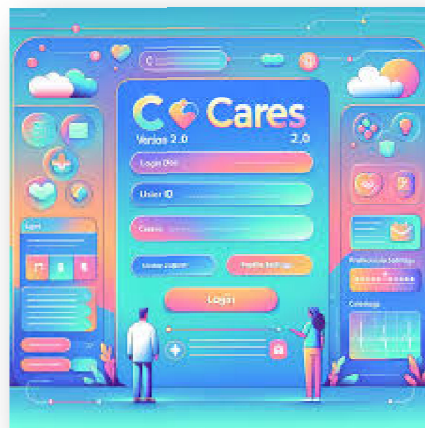
2. Objective and Features of C CARES Portal

- Brings coal workers, coal companies, and CMPFO onto a **unified digital interface**.

- Enables **real-time tracking of claims**, direct benefit transfer (DBT), **grievance redressal**, and digital **PF ledger updates**.

- Enhances **transparency**, **efficiency**, and **accountability**, aligning with PM Modi's vision of **'Minimum Government, Maximum Governance'** and **Digital India**.

3. Mobile App for Workers and Chatbot Assistance

- The C CARES 2.0 platform includes a **mobile application** for CMPFO members.

- Features: View personal and employment profile, **track claims**, lodge **grievances**, view **PF balances**, and access assistance via **chatbot**.

4. Initial Implementation & Rollout Plan

- The module has been implemented in **five regional offices**: Godavarikhani &Kothagudem (SCCL), Asansol-I (ECL), Bilaspur (SECL), and Nagpur (WCL).

- Full rollout across all CMPFO regional offices planned from **1st July 2025**.

5. Prescriptive Dashboard and Predictive Analytics

- The portal has a **dashboard for coal companies and CMPFO** to generate customizable reports.

- Enables **trend analysis and predictions** for improving future **claim settlements** and **service delivery efficiency**.

6. Legal & Administrative Context

- CMPFO is an **autonomous body under the Ministry of Coal**, established in **1948** to administer PF and pension schemes for coal workers.

- The platform supports **Directive Principles of State Policy (DPSPs)** under **Article 41** (Right to work and public assistance) and **Article 43** (Living wage and conditions of work).

Conclusion

The launch of **C CARES 2.0** marks a significant leap in **e-governance** and **social security delivery** for coal sector workers. By digitizing claim processing and providing real-time services, the portal enhances **transparency**, reduces delays, and embodies a **worker-centric welfare approach**, thereby contributing to the broader goal of **inclusive growth and good governance** in the extractive sector.

11. India's Energy Sector Transformation: Strategy, Reforms & Growth

1. India's Rise as a Global Economic & Energy Power

- In 2025, **India became the world's fourth-largest economy**, surpassing Japan with a GDP of **$4.3 trillion**, up from $2 trillion in 2014.

- India is now the **3rd largest energy and oil consumer**, **4th largest refiner**, and **4th largest LNG importer**.

- Energy demand is projected to **grow 2.5x by 2047**, with **India contributing 25% of global incremental energy demand**, underlining the strategic link between **energy security and development security**.

2. Four-Pillar Energy Strategy

- India addresses the **energy trilemma** (Availability, Affordability, Sustainability) through:

    1. **Diversification of sources and suppliers**

    2. **Expansion of domestic production**

    3. **Transition to renewable energy**

    4. **Affordability for citizens**

- Reforms like the **Open Acreage Licensing Policy (OALP)** and **reduction of 'No-Go' areas by 99%** have doubled India's exploration acreage from 8% (2021) to 16% (2025), targeting **1 million sq km by 2030**.

3. Boost to Domestic Oil & Gas Production

- Discoveries in **Mumbai Offshore, Cambay, Mahanadi, and Assam basins** added **75 MMtoe oil** and **2,700 MMSCM gas**.

- Initiatives like **Mission Anveshan**, **National Seismic Programme**, and **Airborne Gravity Gradiometry** aid exploration, especially in frontier basins.

- New revenue-sharing contracts promote **infrastructure sharing** and cost optimization among E&P players.

4. Acceleration of Green & Renewable Energy

- **Ethanol blending** in petrol increased from **1.5% (2013)** to **19.7% (2025)**; savings: ▢1.26 lakh crore in forex, ▢1.79 lakh crore paid to distillers.

- The **SATAT initiative** promotes **Compressed Biogas (CBG)** blending (target: 5% by 2028).

- **Green Hydrogen Mission**: 8.62 lakh tonnes awarded; major PSUs like IOCL, BPCL, HPCL leading hydrogen deployment.

- **Oilfields (Regulation and Development) Amendment Act, 2024** enables **hybrid leases**— renewables with hydrocarbons.

5. Infrastructure and Governance Reforms

- India now operates **24,000 km product pipelines**, 96,000 fuel outlets, and **25,000 km natural gas pipelines**, targeting **33,000 km by 2030**.

- **PM Gati Shakti** has digitally mapped over **1 lakh energy assets**, ensuring inter-ministerial coordination and cost-efficiency.

- Projects like the **Indo-Nepal pipeline** and **Samruddhi Utility Corridor** showcase optimized routing and savings of over ▢169 crore.

6. Pro-People Measures & Energy Justice

- **PM Ujjwala Yojana (PMUY)** ensures LPG affordability (▢553/cylinder) despite 58% global price rise, backed by subsidies.

- India's fuel prices have been **kept stable** through **excise cuts** and **oil company support**, shielding citizens from volatility.

- City Gas Distribution (CGD) network expanded from **55 areas in 2014** to **307 in 2025**, with **PNG connections up to 1.5 crore** and over **7,500 CNG stations**.

Constitutional & Legal Backing

- **Article 39(b)&(c)** of the **Directive Principles of State Policy (DPSPs)** mandate equitable distribution of material resources and prevention of concentration of wealth.

- **Oilfields (Regulation and Development) Act, 1948** and its **2024 Amendment** empower energy sector governance through hybrid leases and simplified compliance.

Conclusion

India's energy transformation underlines its journey from **import dependence to energy self-reliance**, aligning economic growth with sustainability and strategic autonomy. Through **technological innovation, infrastructure development, and inclusive policies**, energy has become a **strategic asset**, not just a commodity—fueling India's rise as a **global power** with **socio-economic equity** at its core.

12. India-Australia Defence Ties Beyond American Shadows

1. Strategic Realignment in Indo-Pacific Amidst Uncertainty in U.S. Commitments

- With Donald Trump's possible return and U.S. security guarantees becoming more transactional, middle powers like **India and Australia** are recalibrating regional defence cooperation.

- The evolving **Indo-Pacific architecture** is prompting deeper bilateral ties independent of the U.S. strategic umbrella.

- Both countries share mutual concerns over **China's assertiveness** and a vision for **sovereign resilience** and **regional stability**.

2. Institutional Foundations of India-Australia Defence Partnership

- **Comprehensive Strategic Partnership (CSP) – 2020** and **2+2 Ministerial Dialogue – 2021** institutionalise defence and strategic engagement.

- Key agreements:

    o **Mutual Logistics Support Agreement (MLSA)**: Enables sharing of defence logistics.

    o **Air-to-Air Refuelling Arrangement (2024)**: Enhances operational reach of Indian aircraft.

- Joint military exercises: **AUSTRAHIND (Army)**, **AUSINDEX (Navy)**, and participation in **Malabar** and **Pitch Black** exercises.

3. Emerging Areas of Strategic and Operational Cooperation

- Rebalancing military cooperation beyond naval silos towards tri-services synergy and **joint staff-level operations**.

- Need to upgrade **Defence Adviser post** in Canberra to a senior rank (one-star) and involve Army and Air Force representatives.

- Proposal for **joint military exercises** and regular **war-gaming** and **staff college fellowships** for deeper operational understanding.

4. Defence Industrial and Technological Collaboration

- India and Australia to explore cooperation in **Maintenance, Repair & Overhaul (MRO)** of naval vessels.

- Joint production of **patrol boats** for Indian Ocean and Pacific Island states as a symbol of collaborative security architecture.

- India's proven MRO capacity (with UK and U.S. navies) could be extended to Australian platforms.

5. MSME and Defence Start-up Collaboration Potential

- Major defence collaboration has bypassed **MSME sectors** despite strong indigenous innovation.

- Opportunity for **defence tech startups and dual-use technologies** to collaborate via a model similar to**INDUS-X** (U.S.-India Defence Innovation Bridge).

- Both countries share a focus on **indigenisation of defence industries**, which opens the door for deeper technological synergy.

Key Definitions & Legal Provisions

- **Comprehensive Strategic Partnership (CSP)**: A high-level diplomatic framework to expand cooperation across defence, economic, and strategic spheres.

- **2+2 Dialogue**: Ministerial-level talks involving Foreign and Defence Ministers to enhance strategic coordination.

- **Logistics Exchange**: Mutual use of each other's military facilities for refuelling and maintenance, improving interoperability.

- **Article 73 of Indian Constitution**: Empowers the Union government to conduct international relations including defence treaties.

- **Article 253**: Allows Parliament to make laws to implement international treaties and agreements.

Conclusion

India and Australia, as middle powers, are poised to take leadership in ensuring regional stability and maritime security amid the shifting sands of global power equations. Their defence cooperation, rooted in shared democratic values and strategic interests, has evolved into a robust and autonomous partnership. Moving beyond dependency on American guarantees, this relationship is vital for shaping a multipolar Indo-Pacific and advancing India's **Act East** and **Security and Growth for All in the Region (SAGAR)** doctrines.