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CURRENT ISSUES

2025

(MAY - JUNE - JULY)



BRICS

Brasil 2025



Useful for ESE, SSC, RRB & Other Competitive Examinations



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1. Constitution and Polity

1. Caste census:

Context: Centre issued notification for census which begin from October 2026 in Ladakh and March 2027 across rest of India which includes caste census.

More on the News:

- **First Since Independence:** This marks the first time since independence that caste data (beyond Scheduled Castes and Scheduled Tribes) will be officially collected as part of the decennial census.
 - In Pre-independence India, castes were enumerated in each census held between 1881 to 1941.
 - The last official data on caste census is available for the 1931 census as the 1941 data was not publicized due to World War-II.
 - The first census of Independent India was conducted in 1951, discontinuing caste enumeration, except for SCs and STs.
 - In 1961, the Central government asked states to conduct their own surveys and prepare state-specific lists of OBCs if they so wished.
 - Along with the 2011 census, a separate Socio-Economic and Caste Census (SECC) was also held but its data has not been publicized.
- **Digital Mode:** The upcoming census will incorporate a mobile application to digitally record the census data alongside the traditional pen and paper mode.

What is caste census?



- It is a process to collect data caste-wise and tabulate the India's population.
- Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes.

Why is the demand for caste census?

- Finding out the inequalities among castes.
- Non-availability of data since 1931.
- Targeted welfare.
- The issue of sub-categorisation.

Issues with the caste census:

- The issue of privacy
- Further dividing India on caste lines
- More demand for reservations
- Too many castes and subcastes leading to in accuracy of data.

2. 50 Years of Emergency:



Context: 2025 marked 50 years since the imposition of the National Emergency, declared on June 25, 1975, and lasting until March 21, 1977.

About National Emergency (Article 352):

- **Grounds:** War, external aggression, or armed rebellion.
- **Proclamation:** President declares after written communication from Cabinet.
- **Approval:** Must be approved by both Houses within 1 month (Rajya Sabha + newly elected Lok Sabha if dissolved).



Majority: Special majority (total membership + $2/3^{\text{rd}}$ of present & voting).

- **Duration:** 6 months at a time, can be extended indefinitely by re-approval.
- **Revocation:** By President or by Lok Sabha disapproving resolution.

Why Emergency in 1975 was imposed?

- **Social Unrest:** JP Movement protests, strikes, and demonstrations against Indira Gandhi's rule.
- **Economic Crisis:** Inflation, unemployment, stagnation, worsened by 1971 war and global oil shock.
- **Political Factor:** Allahabad HC in State of UP vs. Raj Narain verdict invalidating Indira Gandhi's election, prompting power centralization.

Major Constitutional Amendments during Emergency:

- **38th Amendment (1975):** Made President's satisfaction in Emergency final & beyond judicial review (Arts. 352, 356, 360).
- **39th Amendment (1975):** Excluded election disputes of President, VP, PM & Speaker from judicial scrutiny.
- **Civil Liberties:** FRs suspended (ADM Jabalpur case), press censored, mass arrests under MISA.

42nd Amendment (1976):



- Gave DPSPs primacy over FRs (Article 31C).
- Curtailed SC & HC powers (Articles. 32A, 131A, 226A).
- Extended Lok Sabha term from 5 → 6 years.
- Gave Parliament unlimited amendment power (Article 368 clauses 4 & 5).



3. ECINET digital platform:



Context: The Election Commission of India (ECI) used the new ECINET digital platform during recent bye-elections in five Assembly constituencies across Kerala, Gujarat, Punjab, and West Bengal.

About ECINET:

- **Purpose:** One-stop platform for real-time voter turnout reporting.
- **Legal Basis:** Presiding Officers share turnout via Form 17C under Conduct of Elections Rules, 1961.
- Updates voter turnout every 2 hours on polling day.
- Data entry restricted to EC officials for accuracy.
- Auto-fills most fields in Index Card, enabling release within 72 hours (earlier took weeks).
- **Index Card:** Non-statutory post-election report with detailed constituency-level data for stakeholders.

4. Adi Karmyogi Programme:

Context: The Ministry of Tribal Affairs launched the Adi Karmyogi Programme.



About the Adi Karmyogi Programme:

- **Aim:** Building a cadre of highly motivated officers and change makers dedicated to grassroots transformation.
- **Objective:** To take capacity-building to about 20 lakh field-level stakeholders by creating a batch of trainers and master trainers at the State, district, and block levels. It seeks to bring a fundamental shift in the attitude and motivation of field-level officials, emphasizing citizen-centric ideation and delivery.
- **Target:** Reaching 1 lakh tribal villages and habitations

5. National Cooperative Policy 2025:

Context: Recently, the Union Minister of Cooperatives unveiled the National Cooperative Policy 2025

What are Cooperatives?

- A cooperative is a voluntary group of individuals with common needs who unite to achieve shared economic goals.
- It aims to Support members, with focus on the interest of the poorer sections of society, through self-help and mutual aid.

About IYC 2025:

- It is proclaimed by United Nations General Assembly in June 2024
- **Theme:** "Cooperatives Build a Better World"
- **Objectives:** Raise Awareness, Promote Growth, Advocate for Policies, Inspire Leadership.
- **Host:** Committee for the Promotion and Advancement of Cooperatives (COPAC)

Other developments:

- International Cooperative Alliance (ICA) was founded in 1895 by E.V. Neale and Edward Owen Greening.
- ICA is a global Non-Governmental Organization (NGO) promoting worker cooperation.
- In November 2024, India hosted ICA's Global Cooperative Conference for the first time.

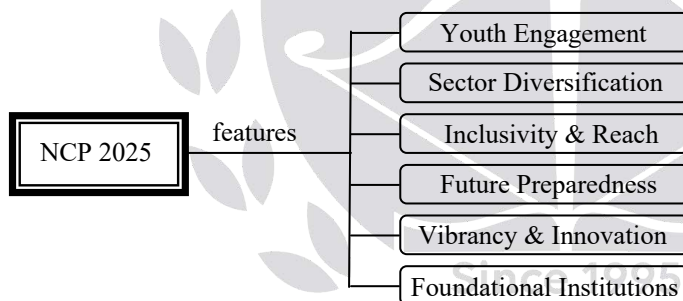


- The Theme was "Cooperatives Build Prosperity For All", aligning with India's "Sahkar Se Samridhi" vision.

Cooperatives in India:

- India holds 27% of the world's cooperatives.
- Top 3 Cooperative sectors: Housing, Dairy, and Primary Agricultural Credit Society (PACS)
- Leading States (57% of total cooperatives): Maharashtra (constitutes 25% of India's cooperatives), Gujarat, Telangana, Madhya Pradesh, Karnataka.
- **Constitutional Status:** 97th Amendment, 2011 granted constitutional status to the Cooperative Societies with following provisions.
- **Fundamental Right:** Added "cooperative societies" in Article 19(1)(c).
- **Directive Principle:** Inserted Article 43B to promote cooperatives.
- **New Part IXB:** Added Articles 243ZH to 243ZT for cooperative governance.

National Cooperative Policy (NCP) 2025:



- **Second Policy:** Introduced after the first cooperative policy of 2002.
- **Vision:** Make cooperatives key drivers for Viksit Bharat 2047 through Sahkar-se-Samridhi.
- **Objective:** Bring 50 crore citizens into active participation in the cooperative sector.
- **Six Mission Pillars:** Focused on strategic reforms, empowerment, and modernization.

Legislative Reforms:

States encouraged to amend cooperative laws for transparency, autonomy, and ease of doing business.

- **Financial Empowerment:** Lower cooperative taxes and make them eligible for corporate-level finance incentives.



- **Business Ecosystem:** Promote model cooperative villages, and branding under the 'Bharat' brand.
- **Technology Integration:** Develop a National Cooperative Stack linked with Agri-stack and national databases.
- **New Sectors:** Expand cooperatives into clean energy, waste management, and technology sectors.
- **Inclusivity:** Ensure greater participation of women, youth, SCs, and STs in cooperatives.
- **Growth Targets:** Triple cooperative sector's GDP contribution by 2034 and increase societies by 30%.
- **Implementation:** Led by an Implementation Cell under the Ministry of Cooperation.
- **Monitoring:** Done by a National Steering Committee chaired by the Union Minister of Cooperation.

6. Removal of judges:

Context: Member of Parliaments across party lines submit motion in Parliament to remove Justice Yashwant Varma.



Constitutional Provisions on Removal of Judges:

- **Article 124(4):** Deals with removal of Supreme Court judges on grounds of proven misbehavior or incapacity.
- **Article 124(5):** Empowers Parliament to frame procedures for judge removal; governed by the Judges Enquiry Act, 1968.
- **Article 217(1)(b):** A High Court judge can be removed by the President using the same procedure as under Article 124(4).
- **Article 218:** Extends the provisions of Article 124(4) & 124(5) to High Court judges as well.



Steps in Removal of Judges:

- **Initiation:** Removal motion signed by 100 Lok Sabha MPs or 50 Rajya Sabha MPs is submitted to the Speaker/Chairman.
- **Committee Formation:** If admitted, a 3-member committee (SC judge + HC Chief Justice + distinguished jurist) is set up to investigate charges.
- **Investigation Outcome:** If the committee finds the judge guilty, the concerned House takes up the motion for discussion.
- **Parliamentary Approval:** Motion must be passed in both Houses by a special majority (majority of total membership and two-thirds of members present & voting).
- **Presidential Order:** After both Houses approve, an address is sent to the President in the same session, and the President issues the removal order.

7. National Standards for Civil Service Training Institutions:

Context: Recently, NSCSTI 2.0 framework was launched by the Minister of State for Personnel, Public Grievances and Pensions.

National Standards for Civil Service Training Institutes (NSCSTI):



- **Developed by:** Capacity Building Commission (CBC) under Mission Karmayogi.
- **Mission Karmayogi Goal:** Build a competent, future-ready civil service for effective public service delivery and Atmanirbhar Bharat.
- **Objective:** Set baseline capacities, improve management of training institutes, and standardize civil service training.



NSCSTI 2.0 Features: Introduces hybrid & AI-driven learning models for modernized training.

- **Inclusivity:** Designed for all levels of government training institutes ensuring equal accessibility.
- **Best Practices:** Encourages public-private collaboration by removing operational barriers.

Capacity Building Commission (CBC):

- Constituted in 2021 via Gazette of India by DoPT as an independent body with full executive & financial autonomy.
- **Structure:** Comprises 3 Members and an internal Secretariat headed by a Joint Secretary-level officer (Secretary to CBC).
- **Diverse Representation:** Members are from state govts, private sector, public sector, and academia for balanced perspectives.
- **Core Purpose:** Build credibility and ensure a uniform, collaborative approach to capacity building.

Key Functions:

- Facilitate Annual Capacity Building Plans for ministries & departments.
- Prepare Annual State of Civil Services Report.
- Approve Knowledge Partners for Mission Karmayogi.
- Promote a harmonized, de-siloed approach to capacity building initiatives.



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2. International Issues

1. India-UK Free Trade Agreement:

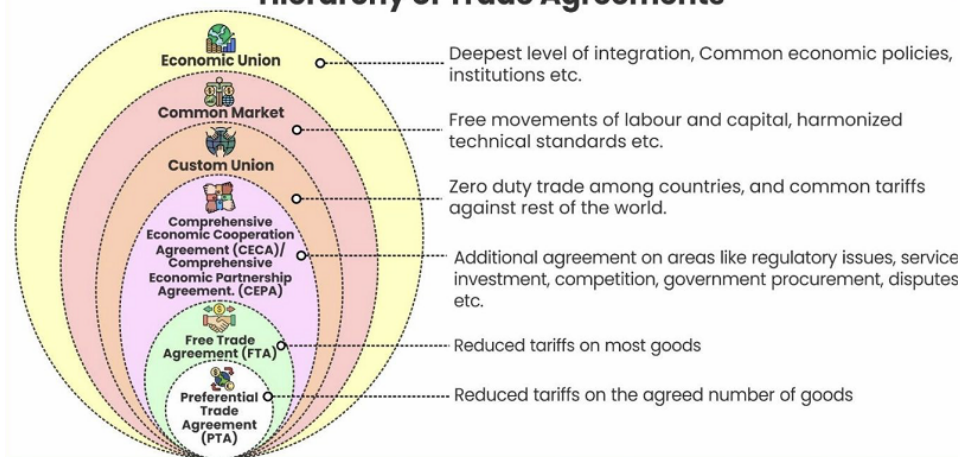
Context: India and the United Kingdom (UK) announced the conclusion of a Free Trade Agreement (FTA) after three years of formal talks.

More about:



- Both countries also agreed to negotiate a reciprocal Double Contributions Convention (DCC).
- DCC is a type of Social Security Agreement which will support business and trade by ensuring that employees moving between both countries and their employers, will only be liable to pay social security contributions in one country at a time

Key Highlights of the India-UK FTA: Since 1995 Hierarchy of Trade Agreements



- **Zero-duty access for Indian exports:** 99% of Indian exports will enjoy zero-duty access in the UK.
- **Tariff reduction on UK goods:** India will cut duties on 90% of UK products, with 85% becoming tariff-free in 10 years.
- **Professional mobility eased:** The FTA facilitates easier movement for Indian professionals and their families.
- **UK commitment in services:** The UK has made ambitious offers in IT, finance, professional and educational services.
- **Government procurement access:** UK businesses can now bid for contracts with Indian government entities and PSUs.

2. **China-Pakistan Economic Corridor (CPEC):**

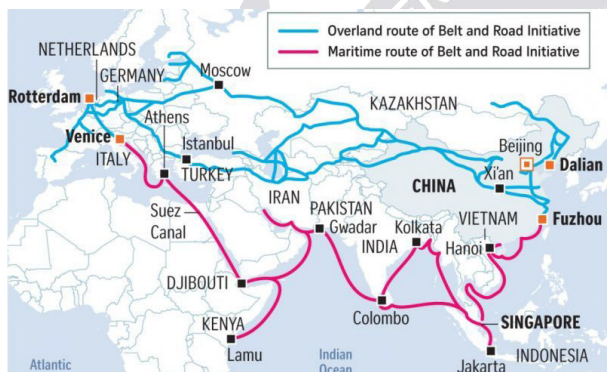
Context: The foreign ministers of China, Pakistan and Afghanistan agreed to extend the China Pakistan Economic Corridor to Afghanistan.

About China-Pakistan Economic Corridor (CPEC):



- It is a 3,000-km long route of infrastructure projects connecting China's northwest Xinjiang Uygur Autonomous Region and the Gwadar Port in the western province of Balochistan in Pakistan.
- It is a bilateral project between Pakistan and China, intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects. It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean
- In return China will support development projects in Pakistan to overcome the latter's energy crises and stabilising its faltering economy.
- It is a part of the Belt and Road Initiative launched in 2015.

Belt and Road Initiative:



- It represents a multifaceted development strategy aimed at enhancing global connectivity and cooperation.
- It was launched in 2013 with the aim to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes.
- The initiative includes two principal components: the Silk Road Economic Belt and the Maritime Silk Road.

India's stand:

- India opposes the project on the grounds of sovereignty and transparency.
- India has boycotted the BRI summits held by China in 2017, and 2019.
- India has not endorsed the BRI joint statements issued by the Shanghai Cooperation Organisation (SCO).



- India's main objection to the BRI is that it includes the China-Pakistan Economic Corridor (CPEC), which passes through the Pakistan-occupied Kashmir (PoK).
- India also argues that the BRI projects should respect the international norms, rule of law, and financial sustainability, and should not create debt traps or environmental and social risks for the host countries.



3. United Nations Peacekeeping forces:

Context: United Nations Peacekeeping Ministerial 2025 concluded recently in Berlin, Germany.

About UN Peacekeeping forces:

- **Origin:** Began in 1948 with the UNTSO mission in the Middle East to monitor ceasefires.
- **Mandate mechanism:** UN Security Council authorizes missions via resolutions.
- **Funding:** Budgets and resources are approved by the UN General Assembly.
- **Core principles:** Operates on consent, impartiality, and limited use of force (only in self-defense or mandate defense).
- **Governing body:** The Department of Peace Operations (DPO), established in 1992, directs peacekeeping missions.
- **Current missions:** 11 active missions in areas like Western Sahara, Golan Heights, and DR Congo.
- **Global recognition:** Awarded the Nobel Peace Prize in 1988.
- **Capstone Doctrine:** Defines guiding principles and training framework for peacekeeping personnel.



- **R2P Doctrine (2005):** Political commitment to prevent mass atrocities and protect civilians.

About UN Peacekeeping Ministerial 2025:

- It was co-organised and hosted by Germany.
- It serves as a high-level political forum to discuss the future of peacekeeping.
- The meeting coincided with the 10-year anniversary of the 2015 New York Summit on Peacekeeping.
- At the ministerial, India pledged one Quick Reaction Force (QRF) Company, one women-led Police Unit, a SWAT Police Unit and peacekeeping training, capacity building and partnerships.

4. **International Atomic Energy Agency (IAEA):**

Context: Minister of Defence urged IAEA oversight of Pakistan's nuclear arsenal.

About International Atomic Energy Agency (IAEA):



- It is widely known as the world's "Atoms for Peace and Development" organization within the United Nations family.
- It is the world's central intergovernmental forum for scientific and technical co-operation in the nuclear field.
- It works for the safe, secure and peaceful uses of nuclear science and technology.
- Though established as an autonomous organisation, independently of the United Nations through its own international treaty, the IAEA Statute, the IAEA reports to both the United Nations General Assembly and Security Council.
- It is headquarters at Vienna, Austria.



Functions:

- The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- It applies nuclear safeguards – consisting of monitoring, inspection, information analysis, and other activities – to verify that nuclear activities remain peaceful and detect and deter their diversion, including to weapons-related purposes.

Atoms4NetZero:



- It is an IAEA initiative that supports efforts by Member States to harness the power of nuclear energy in the transition to net zero.
- The initiative provides Member States and stakeholders with technical expertise and scientific evidence on the potential of nuclear energy to decarbonize electricity production as well as hard-to-abate sectors such as industry and transport.

5. Shanghai Cooperation Organisation (SCO):

Context: Recently, India has refused to sign a joint declaration at the Shanghai Cooperation Organisation (SCO) Defence Ministers' meeting in Qingdao, China.

Why did India refused to sign a Joint Declaration?

- **Double Standard for Terrorism:** In the document, there was no mention of the recent Pahalgam attack but included militant activities in Balochistan.
- India emphasized that SCO should not hesitate to criticize nations that promoted cross-border terrorism.
- **Non-Negotiable Core Principles:** India has consistently maintained that peace and terrorism cannot coexist, and this principle remains non-negotiable even in multilateral forums.



About Shanghai Cooperation Organisation:

- It is an intergovernmental political, economic, and security alliance founded in 2001.
- It was initially launched by Kazakhstan, China, Kyrgyzstan, Russia, Uzbekistan, and Tajikistan.
- The first summit was held in Shanghai, China, in 2001.
- It is headquartered at Beijing.
- In 2015, at Ufa, Russia, the SCO decided to admit India and Pakistan as full members and in 2017 they officially became part.
- Later Iran became part of SCO in 2021.
- The SCO aims to promote cooperation and mutual support in areas such as trade, investment, energy, transportation, and security.
- The Shanghai Spirit is the core value of the SCO.
- It is about mutual trust, mutual benefit, equality, consultation, respect to pursuit of common development among the SCO members.



Members	China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan, Iran, and Uzbekistan
Observers	Afghanistan, Belarus, and Mongolia
Dialogue Partners	Armenia, Azerbaijan, Cambodia, Sri Lanka, Turkey, Egypt, Nepal, Qatar, and Saudi Arabia

6. Israel-US-Iran conflict:

Context: Recently, the Israel Defense Forces (IDF) launched “Operation Rising Lion”, a major strike against Iranian nuclear infrastructure and ballistic missile capability.



Key developments:



- **Israel:** Struck Iran post-IAEA censure; deployed new aerial defence system Barak Magen (“Lightning Shield”).
- **Iran:** Retaliated with Operation True Promise 3.
- **US:** Launched Operation Midnight Hammer targeting Natanz, Isfahan & Fordow nuclear sites.
- **Weapon Used:** US deployed GBU-57 Massive Ordnance Penetrators (MOPs) capable of 200 ft underground penetration.

Major Military Developments Israel – Operation Rising Lion:

- Targeted nuclear sites, missile launchers, and scientists.
- Demonstrated Israel’s reach into Iran’s deeply protected infrastructure.
- Introduced a new aerial defence system “Barak Magen” (Lightning Shield).

US – Operation Midnight Hammer:

- Used GBU-57 Massive Ordnance Penetrators (MOPs) – bunker buster bombs capable of penetrating 200 ft underground.
- Caused “very significant damage” at Fordow, partial at Natanz and Isfahan.

Iran – Operation True Promise III:

- Retaliatory missile and drone strikes against Israel and US assets.
- Effectiveness limited by Israel’s and US’s superior air defence and interception.

What’s at Stake?

Nuclear Program vs. Regional Security:

- Israel & US view Iran’s enrichment (up to 60%, Fordow facility) as existential threat.



- Iran claims civilian/defensive intent → but global suspicion persists. (Mint +1)

Preemption and Deterrence:

- Israel pursues preemptive strikes to neutralize Iran's capability.
- US uses bunker-buster MOPs to hit hardened underground sites. (Economic Times +2, Indian Express +2)

Escalation Risk:

- Iran's retaliation via missiles/drones could widen into regional war.
- Civilian casualties, proxy involvement, strain on non-proliferation norms.

International Law & Sovereignty:

- Tension between state sovereignty vs. preemptive strikes.
- Raises issues of proportionality, UN censure, and IAEA's role.

7. 51st G7 Summit (2025):

Context: India had participated as an Outreach Country in 51st G7 Summit (2025) held in Kananaskis, Canada.

Key Outcomes of 51st G7 Summit (2025) Summit:

- **Kananaskis Wildfire Charter:** Adopted a "whole of society" approach, including Indigenous knowledge, sustainable forest management, and awareness campaigns (endorsed by India).
- **G7 Critical Minerals Action Plan:** Secure sustainable and resilient supply chains for critical minerals.
- **Key Initiatives on Artificial Intelligence (AI):** G7 GovAI Grand Challenge and a shared G7 AI Network (GAIN).



About G7 group:



- The G7 originated from a 1973 meeting of finance ministers and central bank governors in Paris, France.
- The origin of G7 lies in the oil shocks of 1973 and the corresponding financial crisis.
- In order to address the situation after oil shock, the heads of the world's six leading industrial nations decided to hold a meeting in 1975.



- These six nations were - the US, UK, France, Germany, Japan and Italy.
- These countries were joined by Canada in 1976 and G7 came into existence.

Power of G7

- The G7 is not based on a treaty and has no permanent secretariat or office. The agenda of G7 is set by the presiding nation.
- It cannot pass any laws because it is made up of separate nations with their own democratic processes.
- However, decisions taken by G7 have global effects as the member countries are political and economic heavyweights.



8. World Trade Organisation:

Context: Recently, India called for reforms to the WTO during a high-level ministerial meeting in Paris ahead of 14th Ministerial Conference in Cameroon, 2026.

About World Trade Organisation:

- It is an intergovernmental organization that regulates and facilitates international trade between nations.
- It officially commenced operations on 1 January 1995, pursuant to the 1994 Marrakesh Agreement, thus replacing the General Agreement on Tariffs and Trade (GATT) that had been established in 1948.
- The WTO is the world's largest international economic organization, with 164 member states representing over 98% of global trade and global GDP

Ministerial Conference:

- It is the WTO's highest decision-making entity, convenes typically every two years.
- It puts together all of the WTO's members, which are either nations or customs unions.
- All decisions pertaining to any of the multilateral trade agreements must be made by the Ministerial Conference.

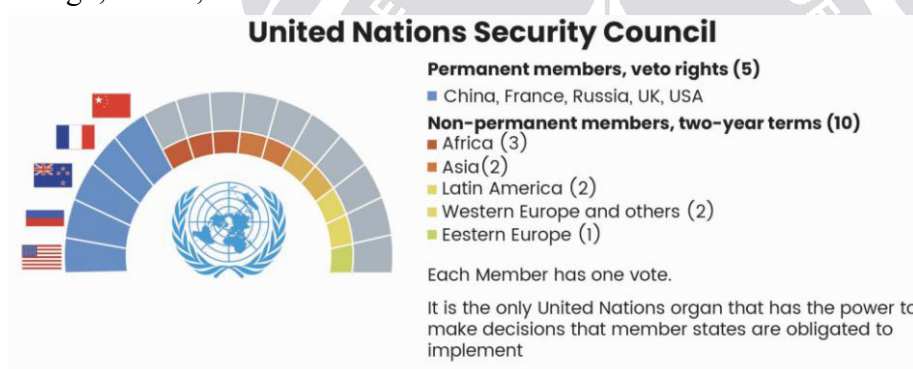
Umbrella	Goods	Services	Intellectual Property
Agreement	General Agreement on Tariffs and trade (GATT)	General Agreement on Trade in Services	Agreement on Trade-Related Aspects of intellectual Property Rights (TRIPS)
About	Binding commitments on tariffs for goods and combinations of tariffs and quotas for some agricultural goods.	Covers all internationally traded services. E.g., Banking, telecommunications, tourism, professional services, etc	Covers Copyright Trademarks, Geographical indications, industrial designs, Patents, etc
Additional Details / Guiding	• Agreement on Agriculture • Sanitary and Phytosanitary	• Most-favoured-nation (MFN) treatment:	• National treatment (treating one's own



Principles	Measures Agreement - Antidumping Agreement - Trade-Related Investment Measures (TRIMs) Agreement	Favour one, favour all principle of non-discrimination. Commitments on market access and National Treatment	nationals and foreigners equally) MFN treatment.
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9. United Nations Security Council (UNSC):

Context: 5 countries were elected to serve as non-permanent members of the United Nations Security Council (UNSC). These countries are Bahrain, Colombia, the Democratic Republic of Congo, Latvia, and Liberia.



About UNSC:

- Genesis:** Established in 1945 through the UN Charter as one of the 6 principal organs of the UN.
- Purpose:** Maintaining international peace and security.
- Members:** 5 permanent members (P5) and 10 non-permanent members.

10. UN Economic and Social Council (ECOSOC):

Context: India has been elected to the UN Economic and Social Council (ECOSOC) for the term 2026–2028.

About UN Economic and Social Council (ECOSOC):

- Headquarter:** New York (USA)
- Genesis:** Established in 1945 as one of the six main organs of the United Nations.



- **Members:** 54 (elected by the UN General Assembly for a 3-year term; 18 elected each year)
- **Key Role:** Advance the three dimensions of sustainable development: economic, social and environmental.

11. International Organization for Mediation (IOMed):

Context: China formally established the IOMed as a global alternative to traditional institutions such as the International Court of Justice (ICJ) and the Permanent Court of Arbitration.

About IOMed:

- **Purpose:** dedicated to resolving international disputes through mediation.
- **Members:** Over 30 countries joined as founding members including Indonesia, Pakistan, and Belarus.
- Most founding members are from Asia, Africa, and the Caribbean, highlighting its non-Western orientation.
- **Scope:** Disputes between states, Disputes Between a state and nationals of another country, International commercial disagreements

12. Medog mega dam project:



Context: China started construction of its Medog mega dam project on the Yarlung Zangbo (Brahmaputra in India) River in Tibet. China presents the Medog (Motuo) Dam project as both a renewable energy initiative and an economic boost for Tibet, supporting its goal of carbon neutrality by 2060.

About the Medog Hydropower Project:

- **Scale and Capacity:** Once completed, it will surpass the Three Gorges Dam as the world's largest, potentially generating three times more energy.



- **Location:** Situated at the Great Bend of the Yarlung Tsangpo River in Tibet, near the Arunachal Pradesh border.
- **Project design:** Marketed as a run-of-the river project, it will feature five cascade hydropower plants, reservoir-like structures, diverting up to half of the river's flow.

Key Concerns of the Project:



- Disruption in Brahmaputra's water flow threatens agriculture, food security, and hydro projects in Northeast India.
- India, China, and Bangladesh face intense competition over dams and diversions, impacting regional stability.
- Disruption of sediment flow endangers the Ganga-Brahmaputra delta and threatens 218 fish species, including Hilsa & Mahseer, risking 2M livelihoods.
- Project lies in Seismic Zone V; prone to earthquakes & landslides

13. Prime Minister visit to African countries:

Context: Prime Minister of India completed his recent visit to African nations of Ghana and Namibia and he reiterated that "Africa's goals are India's priority".



- Intensify and deepen Indian engagement with Africa.
- Greater market access to Africa and greater investments in Africa.
- Enhance agricultural productivity.



- Combating terrorism together and fostering peace and security.
- Cooperation on promoting the aspirations of African youth.
- Create local capabilities and opportunities.
- Use of digital tools to support Africa's development.
- Address climate change challenges.
- Free and open oceans for all.
- Collaboration on establishing a just, representative and democratic global order.

More about:

- Prime Minister was conferred the national honour of Ghana – Officer of the Order of the Star of Ghana - by the President of Ghana.
- India and Africa are working based on kampala principles.

14. Prime Minister visit to Latin america countries:



Context: The Prime Minister's recently visited Trinidad and Tobago, Argentina and Brazil, and participation in the 17th BRICS Summit in Rio de Janeiro.



More on the News:



- **Highest Civilian Honours:** The Prime Minister was conferred Order of the Republic of Trinidad & Tobago.
- Indian PM was conferred with Brazil's highest civilian award, the Grand Collar of the National Order of the Southern Cross.

15. 17th BRICS Summit:



Context: At the 17th BRICS Summit, BRICS leaders signed the Rio de Janeiro Declaration entitled "Strengthening Global South Cooperation for More Inclusive and Sustainable Governance".

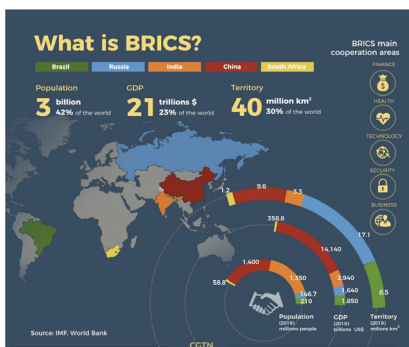
Key developments during the summit:

- First summit to bring together 11 full member states and 10 partner countries, along with eight invited nations.
- Welcomed Indonesia as a 11th BRICS member.
- Launch of the Partnership for Elimination of Socially Determined Diseases (SDDs). SDDs are closely linked to poverty, inequality, and inadequate living conditions



What BRICS?

- BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China, and South Africa.
- In 2001, the British Economist Jim O'Neill coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
- The grouping was formalized during the first meeting of BRIC Foreign Ministers in 2006.
- The first BRIC summit took place in the year 2009 in Yekaterinburg (Russia).



- South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- The Johannesburg declaration, 2023 issued after the summit, said Argentina, Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates (UAE) had been invited to become full members from January 1, 2024.
- However Argentina did not join.
- Indonesia joined as 11th member in 2025

Agenda of the BRICS

- International terrorism.
- Climate change.
- Food and energy security.
- International economic and financial situation.
- Reform of the Bretton Woods Institutions.
- Trade protectionism and the WTO.



16. Geelong treaty:



Context: Recently, Australia and United Kingdom (UK) signed a bilateral defence cooperation agreement also known as Geelong treaty, under AUKUS Pillar I for the next 50 years.

About AUKUS initiative:

- It was established in 2021. AUKUS is intended to be a strategic partnership among Australia, the United Kingdom (UK), and the United States.
- It aims to bolster their allied deterrence and defense capabilities in the Indo-Pacific.

It has two pillars.

- **Pillar I** revolves around the acquisition and development of conventionally armed nuclear-powered submarines for the Royal Australian Navy;
- **Pillar II** calls for collaboration on advanced capabilities that will involve technology and information sharing.

Geelong Treaty:

- **Also Known As:** Nuclear-Powered Submarine Partnership and Collaboration Treaty.
- **Objective:** Strengthen stability and security in the Euro-Atlantic and Indo-Pacific regions.
- **Supply Chains:** Aims to develop resilient trilateral supply chains among partner nations.
- **Compliance:** Aligned with international nuclear non-proliferation obligations and the AUKUS Naval Nuclear Propulsion Agreement (ANNPA).



17. Kaladan Project:



Context: Union Minister said that KMTTP will be Operational by 2027.

- **Framework Agreement:** Signed in 2008.
- **Nodal Ministry:** Ministry of External Affairs.

About Kaladan Multi-Modal Transit Transport Project:

- Kaladan Project would link India and Myanmar via the Bay of Bengal.
- It aims to create a multi-modal mode of transport for the shipment of cargo from the eastern ports of India to Myanmar as well as to the North-Eastern part of India through Myanmar.
- Once completed, it will link Kolkata with the Sittwe seaport in Rakhine state in Myanmar, primarily over the Bay of Bengal – covering over 500 km.

The project envisaged four important stages:

- Kolkata to Sittwe waterway;
- Sittwe to Paletwa inland (River Kaladan) waterway;
- Paletwa to India-Myanmar border post in Myanmar;
- Finally, linking the road to Lawngtlai in Mizoram as part of the project's last leg.



Benefits of the project:

- The project is expected to contribute to the economic development of the North-Eastern States of India.
- It also provides a strategic link to the North-East, thereby reducing pressure on the Siliguri Corridor.

18. Group of Friends (GOF):

Context: India has reiterated its commitment to ensuring justice for crimes committed against UN peacekeepers at the meeting of the Group of Friends (GOF).

About Group of Friends:

- It is Indian-led initiative and seeks to facilitate the promotion of accountability for all acts of violence against UN peacekeepers.
- Launched in 2022.
- The Group is a driving force of United Nations Alliance of Civilizations (UNAOC)

United Nations Alliance of Civilizations (UNAOC)

- **Establishment:** Launched in 2005 by the UN at the initiative of Spain and Turkey.
- **Purpose:** Promotes dialogue, understanding, and cooperation among different cultures, religions, and civilizations.
- **Focus Areas:** Countering extremism, promoting intercultural dialogue, youth empowerment, media literacy, and migration management.
- **Partnerships:** Works with governments, civil society, youth, media, and private sector to foster peaceful coexistence.

About UN Peacekeeping forces:

- **Origin:** Began in 1948 with the UNTSO mission in the Middle East to monitor ceasefires.
- **Mandate mechanism:** UN Security Council authorizes missions via resolutions.
- **Funding:** Budgets and resources are approved by the UN General Assembly.
- **Core principles:** Operates on consent, impartiality, and limited use of force (only in self-defense or mandate defense).



- **Governing body:** The Department of Peace Operations (DPO), established in 1992, directs peacekeeping missions.
- **Current missions:** 11 active missions in areas like Western Sahara, Golan Heights, and DR Congo.
- **Global recognition:** Awarded the Nobel Peace Prize in 1988.
- **Capstone Doctrine:** Defines guiding principles and training framework for peacekeeping personnel.
- **R2P Doctrine (2005):** Political commitment to prevent mass atrocities and protect civilians. About UN Peacekeeping Ministerial 2025:
 - It was co-organised and hosted by Germany.
 - It serves as a high-level political forum to discuss the future of peacekeeping.
 - The meeting coincided with the 10-year anniversary of the 2015 New York Summit on Peacekeeping.
 - At the ministerial, India pledged one Quick Reaction Force (QRF) Company, one women-led Police Unit, a SWAT Police Unit and peacekeeping training, capacity building and partnerships.

19. International Criminal Court:

Context: International Criminal Court welcomed Ukraine as 125th State Party to the Rome Statute.

International Criminal Court (ICC):



- It was created by the 1998 Rome Statute of the International Criminal Court, and began functioning on 1 July 2002 when the Statute came into force.



- It investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes etc.
- It is the only permanent international criminal tribunal.
- 125 nations are States Parties to the Rome Statute and recognize the ICC's authority; the notable exceptions being the US, China, Russia, and India.
- Unlike the International Court of Justice, which hears disputes between states, the ICC handles prosecutions of individuals.
- It is Headquartered at Hague, Netherlands.

20. 'One, Big, Beautiful Bill':

Context: US House Approves 'One, Big, Beautiful Bill' with 3.5% outward remittance tax provision. Called the 'Excise tax on remittance transfers', the newly proposed provision will be effective from January 1, 2026.

More about:

- The movement of funds from the country of work back to a home country is known as remittances.
- In 2023, remittances back to home countries totalled about \$656 billion.
- India got 14.3% of global remittances in 2024 (its highest ever).
- Remittance tax (excise tax) will apply only to non-US citizens and US citizens are exempted.

21. Global Peace Index (GPI):

Context: 19th edition of the Global Peace Index (GPI) has been released by the Institute for Economics and Peace (IEP).

About Global Peace Index (GPI):

- It included 163 independent state and territories.
- It uses 23 qualitative and quantitative indicators across three domains:
 1. Level of Societal Safety and Security.
 2. Extent of Ongoing Domestic and International Conflict.
 3. Degree of Militarisation.



Ranking:

RANK		COUNTRY	SCORE	CHANGE
1	●	Iceland	1.095	↔
2	●	Ireland	1.260	↔
3	●	New Zealand	1.282	↑ 2
4	●	Austria	1.294	↓ 1
5	●	Switzerland	1.294	↓ 1
6	●	Singapore	1.357	↔
7	●	Portugal	1.371	↑ 1
8	●	Denmark	1.393	↓ 1
9	●	Slovenia	1.409	↔
10	●	Finland	1.420	↑ 1

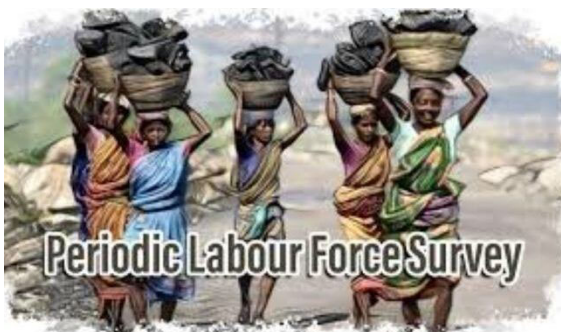
RANK		COUNTRY	SCORE	CHANGE
111	●	Nicaragua	2.207	↑ 2
112	●	Benin	2.211	↑ 5
113	●	Uganda	2.217	↑ 12
114	●	Zimbabwe	2.223	↑ 8
115	●	India	2.229	↔

161	●	Sudan	□	3.323	↑ 2
162	●	Ukraine		3.434	↓ 3
163	●	Russia	■	3.441	↓ 2



3. Economy and Industrial Development

1. Periodic Labour Force Survey (PLFS):



Context: National Statistics Office (NSO) has revamped Periodic Labour Force Survey (PLFS) from January 2025

About Periodic Labour Force Survey (PLFS):

- **Conducting Agency:** National Statistical Office (NSO)
- **Ministry:** Ministry of Statistics and Programme Implementation
- **Introduced:** 2017
- **Objective (Quarterly):** To estimate key employment/unemployment indicators for urban areas based on Current Weekly Status (CWS) – now includes rural areas too
- **Objective (Annual):** To estimate employment/unemployment indicators for both rural and urban areas using Usual Status and CWS

Key Terminologies:

- **Labor Force Participation Rate (LFPR):** % of persons in labour force (working/seeking work) in total population.
- **Worker Population Ratio (WPR):** % of employed persons in total population.
- **Unemployment Rate (UR):** % of unemployed persons among the labour force.
- **Activity Status:** Categorizes individuals based on their activity (employment/unemployment) during a reference period



- **Usual Status (ps+ss):** Based on activity during the last 365 days (includes principal + subsidiary economic activities)
- **Current Weekly Status (CWS):** Based on activity during the last 7 days
- **Current Daily Status (CDS):** Based on daily activity — work status assigned if worked for 1 hour or more in a day

Key changes in PLFS Introduced:

- **Monthly Estimates Introduced:** Key employment and unemployment indicators now available monthly for both rural and urban areas under Current Weekly Status (CWS).
- **First Monthly Bulletin Released:** Marks the beginning of monthly labour market data dissemination.
- **Quarterly Data Extended to Rural Areas:** Previously available only for urban areas; now quarterly CWS data includes rural areas too.
- **Calendar Year Reporting:** From 2025 onwards, annual PLFS data will follow January–December cycle instead of earlier July–June cycle.
- **Increased Sample Size:** Sample households increased by 2.65 times for better representation.

2. Vizhinjam International Seaport:

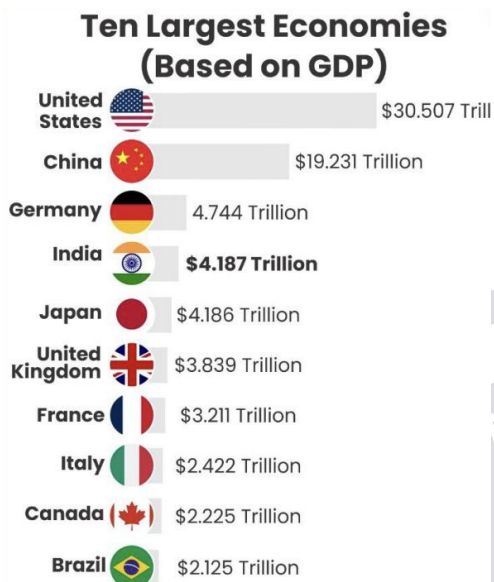
Context: Recently, Prime Minister of India inaugurated the Vizhinjam International Transshipment Deepwater Multipurpose Seaport in Kerala.

About Vizhinjam seaport:

- It is a transshipment deepwater multipurpose seaport project is being built by Adani Ports and SEZ Private Limited in Vizhinjam near Thiruvananthapuram, Kerala.
- Vizhinjam port is India's first international deepwater transshipment port.
- The port is designed to handle container transshipment, multi-purpose, and break-bulk cargo.
- It is strategically located just ten nautical miles from the international shipping route.
- The port has minimal littoral drift and requires minimal maintenance dredging, reducing operational costs.
- The port boasts a natural depth of more than 18 meters, which can be further scaled up to 20 meters.



3. India now the 4th largest economy:



Context: As per the recent World Economic Outlook of the IMF, India has surpassed Japan to become 4th largest economy worldwide.

Key drivers for India's Economic Leap:



- Urbanization and rising aspirations are increasing per capita income and lifestyle consumption.
- India's young population (~29 years median age) offers a strong demographic dividend.
- Private consumption contributes nearly 70% to India's GDP, indicating strong domestic demand.
- GST, IBC, and corporate tax cuts have simplified taxation and improved business climate.
- Infrastructure growth is driven by projects like the National Infrastructure Pipeline and PM Gati Shakti.
- Atmanirbhar Bharat and PLI schemes are boosting domestic manufacturing and self-reliance.



- Digital Public Infrastructure like UPI and JAM Trinity has enhanced financial inclusion and efficiency.
- Indian IT, software exports, and consulting services are in high global demand.
- FDI inflows into India have increased steadily, supporting capital and technology inflow.

4. Indian Institute of Creative Technology (IICT):

Context: Indian Institute of Creative Technology (IICT) has been launched by Ministry of Information and Broadcasting in collaboration with FICCI and CII.

About IICT:

- It will serve as a National Centre of Excellence (NcoE) dedicated exclusively to Animation, Visual Effects, Gaming, Comics, and Extended Reality (AVGC-XR) sector.
- Extended Reality (XR) technologies blend physical and digital worlds e.g. Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR).
- It will follow same template as IITs and IIMs in India to transform itself into a massive world-class education.

5. Foreign Direct Investment (FDI):

Context: As per RBI Bulletin (June 2025), India's net FDI inflows fell by 96% in FY25 in comparison to FY24 despite rise in its gross FDI inflows.



About Foreign Direct Investment (FDI):

- It refers to the investment through equity instruments by a person resident outside India in an unlisted Indian company; or in
- 10% or more of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company.



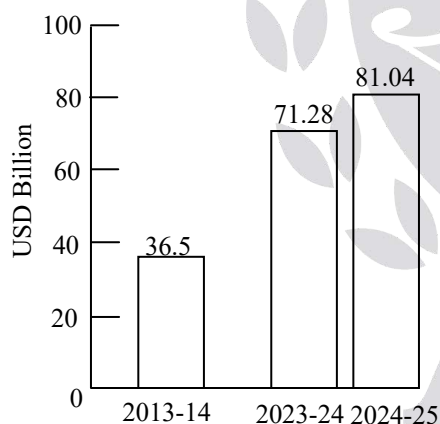
- **Governance and Regulation:** Consolidated Foreign Direct Investment Policy (2020); Foreign Exchange Management (Non-Debt Instruments) Rules, 2019.

Gross and Net FDI:

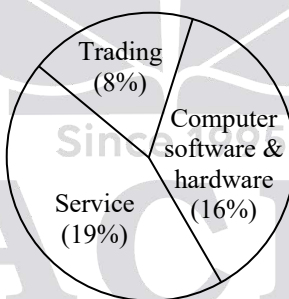
- **Gross FDI:** Total investment made by foreign entities directly into the productive assets of India.
- **Net FDI:** Difference between inward FDI flows and outward FDI flows (Repatriation by foreign firms + Outward FDI by Indian firms).

Entry Routes:

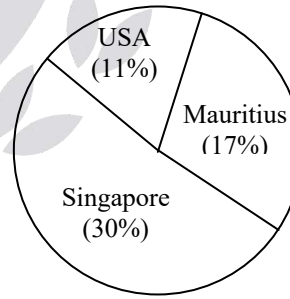
- **Automatic Route:** Prior approval of the RBI or the Central Government is not required.
- Example of sectors with 100% FDI Through automatic route: Agriculture & Animal Husbandry; Coal and Lignite; Exploration of Oil and Natural Gas; Airports (Greenfield and Existing); Industrial Parks; Telecom Services; Trading etc.
- **Government Route:** Prior Government approval required, and foreign investment shall conform to the conditions stipulated by the Government in its approval.



(a) FDI Inflows



(b) Sector-wise Trends
% of Total FDI Inflows (2024-25)



(c) % of Total FDI Share of
source countries (2024-25)



6. Sustainable Development Report (2025):

India enters top 100 in UN's global Sustainable Development Goals (SDG) rankings for first time

THE ECONOMIC TIMES JUNE 25, 2025



India has for the first time secured a place among the top 100 out of 167 countries ranked for their progress in achieving the SDGs, according to a report. According to the UN Sustainable Development Solutions Network's 10th and latest Sustainable Development Report (SDR), India ranks 99th on the 2025 SDG Index with a score of 67.

Context: For first time, India has entered top 100 in SDG Index, ranking 99th out of 167 countries in Sustainable Development Report (2025).

About SDG Index:



- SDG Index is released as part of the annual Sustainable Development Report by the United Nations Sustainable Development Solutions Network (UNSDSN) since 2016.



- Established in 2012, UNSDSN operates under the auspices of the UN Secretary-General.
- It works at maximizing SDG achievements across global, regional, national, and local levels in partnership with international organizations and national governments.
- Index measures overall progress toward achieving 17 SDGs adopted by all UN member states in 2015.
- SDG Index score is presented on a scale of 0 to 100 and with a score of 100 indicating full achievement of all goals Rankings:
- India's Performance: Improved from 120th (2021) to 99th (2025) with a score of 67/100.
- **Global Ranking:** Finland (87) topped, followed by Sweden and Denmark.
- **Regional Comparison:** Bhutan 74th (70.5), Nepal 85th (68.6), Maldives 53rd, Sri Lanka 93rd, Bangladesh 114th, Pakistan 140th.
- **New Indicator:** Added under SDG 2 – Minimum dietary diversity among children (6–23 months).
- **SDR 2025 Outlook:** None of the 17 SDGs are on track to be fully achieved by 2030.

Key Indicators of India's Performance (As per 2025 SDR)	
SDG1 (No Poverty)	Poverty headcount ratio at \$3.65/day is 5.5%
SDG2 (Zero Hunger)	Prevalence of undernourishment-13.7%
SDG3 (Good Health and Well-Being)	Maternal mortality ratio (Per 100,000 live births) is 80.5
SDG4 (Quality Education)	Net primary enrollment rate – 99.9%
SDG5 (Gender Equality)	• Ratio of female-to-male labor force participation rate -43% • Seats held by women in parliament – 14%
SDG6 (Clean Water and Sanitation)	Population using at least basic drinking water services – 93%
SDG7 (Affordable and Clean Energy)	• Population with access to electricity – 99% • Population with access to clean fuels and technology for cooking – 74%
SDG9 (Industry, Innovation and Infrastructure)	• Rural population with access to all-season roads – 99% • Population using the internet – 56%
SDG10 (Reduced Inequalities)	Gini coefficient in India is 34.8

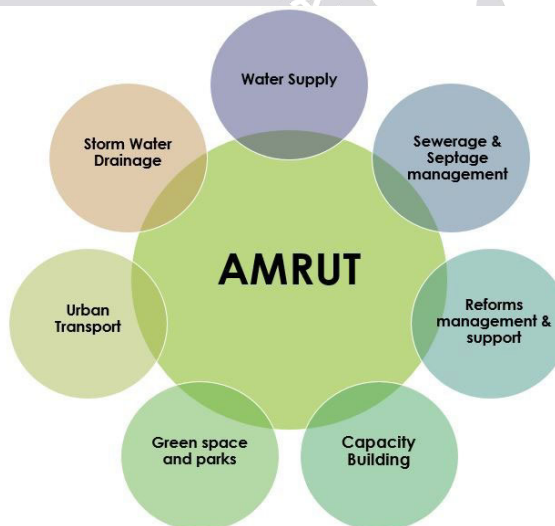


7. Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme:

Context: The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme has completed a decade since its launch.

About Atal Mission for Rejuvenation and Urban Transformation:

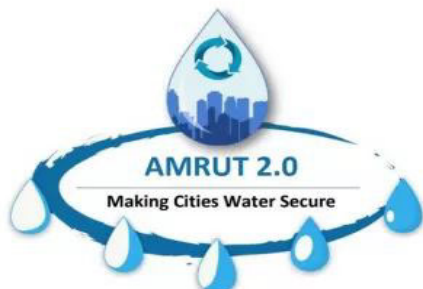
- AMRUT was launched on 25th June 2015 in selected 500 cities and towns with population more than 1 lakh across the country.
- The Mission focuses on development of basic infrastructure, in the selected cities and towns, in the sectors of water supply; sewerage and septage management; storm water drainage; green spaces and parks; and non-motorized urban transport.
- It was launched by the Ministry of Housing and Urban Affairs.



- Ministry of Housing and Urban Affairs has approved State Annual Action Plans (SAAPs) of all the States/Union Territories (UTs) amounting to ₹77,640 crore for the entire Mission period.
- Rajasthan was the first state in the country to submit State Annual Action Plan under Atal Mission for Rejuvenation and Urban Transformation (AMRUT).

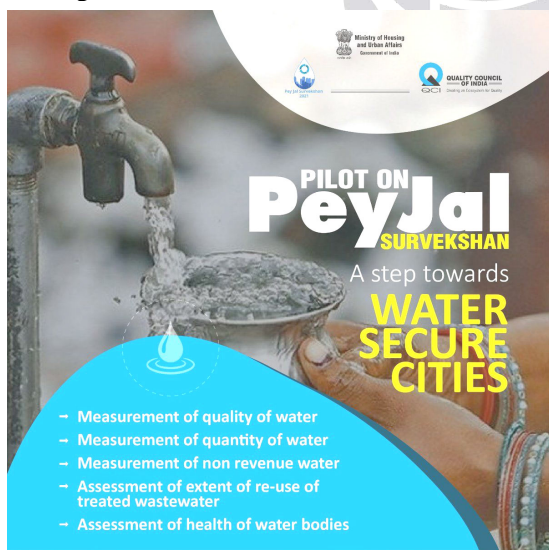


AMRUT 2.0:



- AMRUT 2.0 scheme has been launched on 01 October, 2021 for the period of 5 years i.e. from the financial year 2021-22 to the financial year 2025-26.
- It is designed to provide universal coverage of water supply through functional taps to all households in all the statutory towns in the country.
- It also aimed at the coverage of sewage/septage management in 500 cities covered in first phase of the AMRUT scheme.
- AMRUT 2.0 will promote circular economy of water through development of City Water Balance Plan (CWBP) for each city focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation.
- The total indicative outlay for AMRUT 2.0 is ₹2,99,000 crore.

Other components of AMRUT 2.0 are:



- i. Pey Jal Survekshan to ascertain equitable distribution of water, reuse of wastewater, mapping of water bodies and promote healthy competition among the cities /towns.
- ii. Technology Sub-Mission for water to leverage latest global technologies in the field of water.
- iii. Information, Education and Communication (IEC) campaign to spread awareness among masses about conservation of water.

8. Digital Payment Intelligence Platform (DPIP):

Context: DPIP will be developed as a Digital Public Infrastructure (DPI) under the supervision and guidance of the RBI.

About Digital Payment Intelligence Platform (DPIP):

- **DPIP Objective:** Strengthens fraud risk management through real-time intelligence sharing using advanced tech.
- **Function:** Enhances fraud detection systems via coordination among banks.
- **Committee:** Headed by Shri A.P. Hota to examine DPIP setup.
- **Implementation:** RBI Innovation Hub (RBIH) to build prototype with 5–10 banks.
- **Consultation:** Includes both public and private banks.

9. Sagarmala Finance Corporation Limited (SMFCL):

Context: SMFCL is India's first Non-Banking Financial Company (NBFC) in the maritime sector.

More about:

- Formerly known as Sagarmala Development Company Limited, SMFCL is a Mini Ratna, Category-I, Central Public Sector Enterprise (under Ministry of Ports, Shipping and Waterways).
- It is now formally registered as an NBFC with the Reserve Bank of India (RBI).
- It will offer tailored financial products to a diverse range of stakeholders, such as port authorities and shipping companies.
- It will also support strategic sectors like shipbuilding, renewable energy, cruise tourism, and maritime education.



Basis of Comparison	NBFCs	Banks
Meaning	They provide banking services to people without holding Bank License	It is government authorized financial intermediary which aim at providing banking services to the public.
Regulated under	Companies Act 2013	Banking Regulation Act 1949
Demand Deposit	Cannot be accepted	Can be accepted
Foreign Investment	Allowed up to 100%	Allowed up to 74% for Private Sector Bank
Payment and Settlement System	Not a part of the system	An Integral part of the System
Maintenance of Reserve Ratios	Not required	Mandatory
Deposit Insurance Facility	Not available	Available
Credit Creation	NBFC does not create Credit	Bank create Credit
Transaction Services	Cannot be provided by NBFC	Provided by Bank

10. Centre of Excellence for South-South Cooperation (ISSCA):

Context: ICRISAT, in collaboration with the Research and Information System for Developing Countries (RIS), launched the ICRISAT Centre of Excellence for South-South Cooperation (ISSCA).

- ICRISAT also signed an MoU with DAKSHIN (Development and Knowledge Sharing Initiative), which is India's initiative for strengthening South-South cooperation through capacity building and development partnerships.
- RIS is a New Delhi-based autonomous policy research institute.

About ISSCA:

- Premier platform dedicated to accelerating agricultural innovation, collaboration, and knowledge exchange among countries of Global South.
- It is also aligned with India's DAKSHIN initiative (A government-backed program for development and knowledge sharing among Global South countries).





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



Genesis: Established as a Non-profit research centre under the CGIAR consortium (global research group) in the 1970s.



Purpose: To improve **food security in semi-arid regions** and **support smallholder farmers in drylands**.



Global Footprint: **Asia, Sub-Saharan Africa, and other dryland** regions globally.



Achievements: **Africa Food Prize in 2021**, Developed **world's first pigeon pea hybrid** etc.

11. National Turmeric Board:



Context: Headquarters of National Turmeric Board was inaugurated in Nizamabad, Telangana.

About the NTB:

- **Aim:** Providing leadership, enhancing coordination with the Spices Board and government agencies to boost turmeric development and growth.
- **Headquarters:** Nizamabad, Telangana
- **Ministry:** Ministry of Commerce & Industry
- **Composition:** Chairperson to be appointed by the Central Government and members from the Ministry of AYUSH, Departments of Pharmaceuticals, Agriculture & Farmers Welfare, Commerce & Industry of the Union Government

Turmeric production in India:

- A rhizome, known as the “Golden Spice”.
- **Climate:** Tropical 20 – 30°C temperature, ≥ 1500 mm rainfall.



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- **Soil:** Prefers well-drained sandy or clay loam.
- **Health Benefits:** Antioxidant and anti-inflammatory.
- **India's Status:** World's largest producer, consumer & exporter of turmeric.
- **Diversity:** Grows 30+ varieties across 20+ states.
- **Production Share:** Accounts for 70% of global output.

Key States:

- Telangana, Maharashtra, Tamil Nadu & Andhra Pradesh = 63.4% of India's production.
- **Exports:** Holds 62% of global trade; key markets – Bangladesh, UAE, USA, Malaysia.
- **GI Tags:** Sangli & Waigaon (Maharashtra), Erode (Tamil Nadu), Lakadong (Meghalaya).

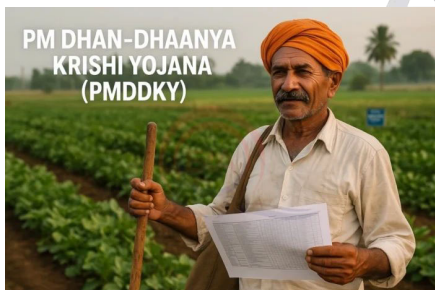
12. Nano Fertilizers:

Context: Indian Farmers Fertilizer Cooperative Limited (IFFCO) to set up its first overseas nano fertiliser plant in Brazil. IFFCO had launched world's first 'Nano Liquid Urea' fertiliser in 2021 & then Nano-DAP in 2023.

About Nano fertilizers:

- **Definition:** Nutrients encapsulated/coated in nanomaterials ≤ 100 nm.
- **Function:** Enable controlled release & slow diffusion into soil.
- **Sustainability:** Reduce soil & water contamination.
- **Efficiency:** Improve nutrient absorption, cut wastage, lower application frequency & cost.

13. PM Dhan-Dhaanya Krishi Yojana:



Context: In pursuance of the Union Budget 2025–26 announcement, PMDDKY was approved for a period of six years.



More about:

- Inspired by NITI Aayog's Aspirational District Programme, the scheme focuses exclusively on agriculture and allied sectors.
- It focuses on 100 low-performing districts facing issues such as low yields, water scarcity, and limited resource access.

The Dhan dhanya krishi yojana aims are to:

1. Enhance agricultural productivity
2. Adopt crop diversification and sustainable agricultural practices
3. Augment post-harvest storage at panchayat and block level
4. Improve irrigation facilities
5. Facilitate availability of long- and short-term credit

Salient features:

Greener fields

The PMDDKY aims at enhancing **agricultural productivity**, increasing adoption of **crop diversification** and **sustainable agricultural practices**, and augmenting **post-harvest storage**

₹ 24,000 cr.

to be allocated yearly for six years for the scheme

■ States and private sector to partner with the Centre to implement the scheme

100 districts to come under the scheme which will begin this financial year

■ Districts to be identified based on 3 key indicators: **low productivity**, **low cropping intensity**, **less credit disbursement**

Helping hand: Nearly 1.7 crore farmers will benefit from the scheme. PTI



- ₹24,000 crore annually for a period of six years starting FY 2025–26.
- The scheme is implemented by the Ministry of Agriculture and Farmers' Welfare and monitored through a three-tier structure:- National-level oversight bodies, State-level nodal committees, and District Dhan Dhaanya Samitis chaired by District Collectors.



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Criteria and Selection of Districts: NITI Aayog will finalize 100 districts based on:

- **Low Crop Productivity:** Yields below national averages.
- **Moderate Cropping Intensity:** Below national average(155%).
- **Low Credit Access:** Limited penetration of bank loans or Kisan Credit Cards.
- **Geographic Representation:** At least one district per state and Union Territory.

14. Biannual Financial Stability Report (FSR) 2025:

Context: Reserve Bank of India (RBI) in its Biannual Financial Stability Report (FSR) 2025 found rising public debt in the Indian economy.

Key highlights of the report:



- **Strong GDP Growth** → India's GDP expected to grow 6.5% in 2025–26, fueled by domestic demand and investments.
- **Robust Banking Sector** → GNPA at 2.3% and NNPA at 0.5%, lowest in decades.
- **Improved Corporate Health** → Large borrower GNPA fell from 3.8% (Sep 2023) to 1.9% (Mar 2025).
- **Low Inflation** → CPI inflation dropped to a 6-year low of 2.8% (May 2025).
- **Imported Inflation Risks** → Eased by slower global growth but threatened by Middle East tensions.
- **High Public Debt** → India's public debt above 80% of GDP, higher than peer EMEs.
- **Global Debt Outlook** → IMF projects global public debt to cross 95% in 2025 and 100% by 2030.

15. Employment Linked Incentive (ELI) Scheme:

Context: Recently the Union Cabinet approved the Employment Linked Incentive (ELI) Scheme which is expected to enhance youth employability, nurture skills and facilitate job retention in private sector.



About Employment Linked Incentive (ELI) Scheme:

- Announced in the Union Budget 2024-25 as part of PM's package of five schemes to facilitate employment, and skilling opportunities for youth.
- Nodal Ministry:** Ministry of Labour & Employment.
- Purpose:** Promote job creation, enhance employability, and expand social security across sectors, specifically manufacturing.
- Target:** 3.5 crore jobs (including first-time employees)

Part A – Incentives for First-Time Employees	Part B – Support to Employers
Eligibility: First-time employees registered with EPFO salary up to Rs.1,00,000.	Coverage: All sectors, manufacturing gets extra benefits.
Benefit: One month's EPF wage (max Rs.15,000) paid in two instalments after 6 month & 12 months.	Employer Eligibility: EPFO-registered establishment.
Payment mode: Direct Benefit Transfer (DBT) to employee.	Benefits for Additional Hiring: Financial assistance for each additional employee with sustained employment of at least 6 months. Key Conditions: - Salary cap for incentives up to Rs. 1,00,000 - Additional hiring norm at least 2 hires (< 50 employees) or 5 hires (≥ 50 employees)
	Incentive to Employers: Rs. 1,000 – Rs. 3,000 per employee per month for 2 years, manufacturing sector get an extra 2 years.
	Payment Mode: Directly into PAN-linked accounts.

16. Research, Development, and Innovation (RDI) Scheme:

Context: The Union Cabinet recently approved RDI Scheme with a corpus of ₹1 lakh Crore.



About RDI Scheme:

- **Nodal Department:** Implemented by the Department of Science & Technology (DST).
- **Objective:** Promote private sector R&D and innovation in sunrise sectors and areas of strategic importance.
- **Deep-Tech Push:** Facilitates creation of a Deep-Tech Fund of Funds for startups and innovation.
- **Financial Outlay** → ₹1 lakh crore budget allocated for large-scale RDI financing.
- **Funding Support** → Offers long-term low/no-interest loans and equity infusion (esp. for startups).
- **Exclusions** → Grants and short-term loans are not covered under the scheme.
- **Cost Coverage** → Up to 50% of project cost financed; higher support possible with EGoS approval.

17. Financial Inclusion Index (FI-Index):

Context: The RBI Financial Inclusion Index (FI-Index) has risen to 67 in 2025, up by 24.3% since 2021.



More about:

- **FI-Index Purpose** : Measures financial inclusion across banking, insurance, investment, and pension sectors.
- **Sub-Indices Covered** : Based on Access, Usage, and Quality dimensions of financial services.
- **FY2025 Growth** : Improvement driven by higher usage and better quality of financial services.



Sub-Index	Indicators	Weight
Access	26	35%
Usage	52	45%
Quality	19	20%

- Planning Commission (2009) viewed financial inclusion as "universal access to a wide range of financial services at a reasonable cost," including banking, insurance, and equity products.
- Score of Index: It operates on a scale from 0 to 100.
- 0 signifies complete financial exclusion and 100 represents full financial inclusion

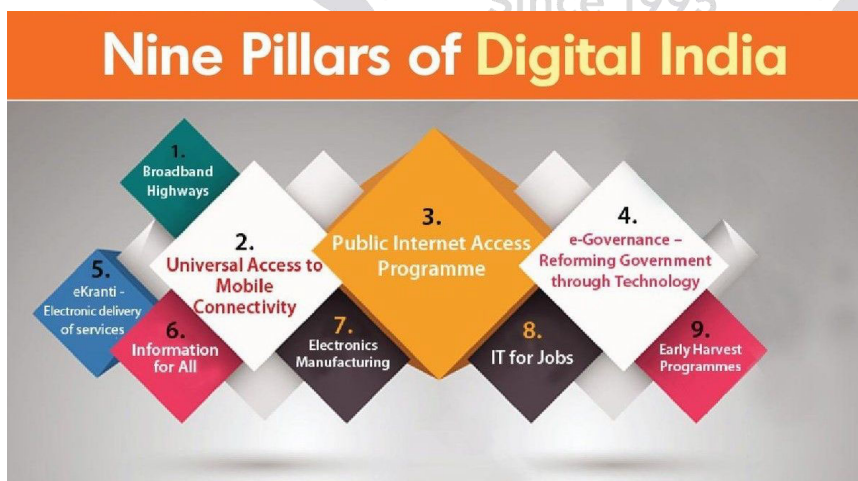
18. Digital India Mission:

Context: India is celebrated 10th years of the Digital India Mission launched in 2015.

About Digital India Mission:

- **Nodal Implementing Ministry:** Ministry of Electronics and Information Technology (MeiTY)
- **Purpose:** To transform India into a digitally empowered society and knowledge economy
- **Nature:** Umbrella programme that clubs together various e-governance initiatives across Ministries and Departments
- **Leveraging private sector:** Public Private Partnerships (PPP) are preferred wherever feasible to implement e Governance projects.

Objectives:



- To transform India into a digitally empowered society and knowledge economy.
- To ensure digital access, digital inclusion, digital empowerment and bridge the digital divide.
- To ensure that Government services are available to citizens electronically.

19. Digital Payments Index:



Recently, RBI published the Reserve Bank of India–Digital Payments Index (RBI-DPI).

- **Objective:** capture the extent of digitisation of payments systems & measure the adoption of online transactions
- **Released frequency:** Semi-annual (March & September).
- **Base Period:** March 2018.

20. 'Global Findex 2025'

Context: The World Bank report titled 'Global Findex 2025' released reflecting achievements in digital and financial inclusion.

India specific Highlights:

- India has account ownership at or close to 90 percent.
- 16 percent of account owners do not have an active account, the average for all other low- and middle-income economies is 4 percent.
- The primary barrier to mobile phone ownership is the cost of the device, and lack of reliable mobile network coverage.



21. CROPIC app:

Context: This initiative is part of digital innovations in agriculture for fostering financial resilience. About CROPIC (Collection of Real Time Observations & Photo of Crops) initiative:

- It is a mobile app launched by The Ministry of Agriculture under Pradhan Mantri Fasal Bima Yojana (PMFBY).
- To take geotagged pictures of crops four-five times during their cycle.
- It will use an AI-based cloud platform for photo analysis and information extraction, and a web-based dashboard for visualisation.
- **Funding:** Through Fund for Innovation and Technology (FIAT) under PMFBY

22. Aluminium and Copper:



Context: Central Government recently unveiled Aluminium and Copper Vision Documents.

About Vision Document:

- Provides a long-term strategy to meet growing domestic demand while ensuring raw material security.
- **Copper Vision Document:** Anticipates a six fold increase in demand by 2047 and outlines plans to add 5 Million Tonnes Per Annum (MTPA) of smelting and refining capacity by 2030.
- **Aluminium Vision Document:** Outlines a strategic roadmap to scale up aluminium production six fold by 2047 and aims to expand bauxite production capacity to 150 MTPA.

Aluminium/Bauxite:

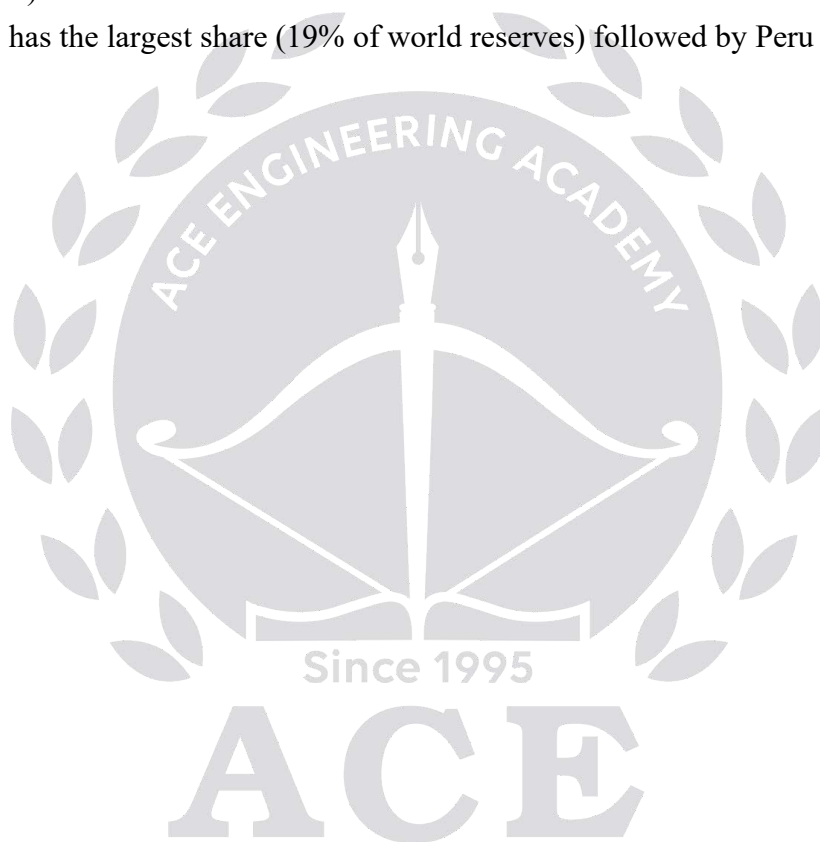
- **India:** Reserve: Odisha (41%) followed by Chhattisgarh and Andhra Pradesh for bauxite. Odisha is leading producing State (73%).



- **World:** China is the leading producer of aluminium (58%) which is followed by Australia, Brazil and India.

Copper:

- **India:** Reserves: Rajasthan (52.25%) followed by Madhya Pradesh and Jharkhand. Production: Madhya Pradesh was the leading producer (57% of the production during 2022-23), followed by Rajasthan (43%).
- **World:** Chile has the largest share (19% of world reserves) followed by Peru and Australia (10%).



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4. Defence and Security

1. Operation Sindoor:



Context: India launched Operation Sindoor in retaliation for the April 2025 Pahalgam terrorist attack, targeting 9 terrorist infrastructure sites in Pakistan and Pakistan-occupied Jammu and Kashmir (PoJK).

What is Operation Sindoor?

- Operation Sindoor was a coordinated precision strike operation launched by the Indian Armed Forces on 7th May 2025, in retaliation for the Pahalgam terror attack.
- It was executed through the coordinated efforts of the Army, Navy, and Air Force, conducted from Indian territory.
- Unlike past operations with aggressive names meant to project strength, this operation's name was chosen as a personal tribute to the victims, particularly the widows of the Pahalgam attack.

Targets:

- Under 'Operation Sindoor,' the Indian Armed Forces targeted terror facilities linked to Jaish-e-Mohammed, Lashkar-e-Taiba, and Hizbul Mujahideen in Pakistan and PoJK.
- These strikes aimed to dismantle terrorist infrastructure used for planning attacks against India.



SITES TARGETED IN OPERATION SINDOOR



Past military operations:

Operation	Year	Conflict Context	Objective	Outcome
Operation Riddle	1965	1965 Ind-Pak War	Counter Pakistan's Operation Gibraltar & Grand slam in J&K	Indian forces repelled Pakistani advances; led to Tashkent Agreement (1966)
Operation Ablaze	1965	Precursor to 1965 War	Pre-emptive mobilization after Rann of Kutch conflict	Demonstrated India's readiness; helped deter further aggression
Operation Cactus Lily	1971	1971 Indo-Pak War (Eastern Front)	Cross Meghna River & advance to Dhaka during Bangladesh Liberation War	Enabled rapid advance; led to surrender of Pakistani forces in East Pakistan
Operation Trident	1971	1971 Indi-Pak War (Naval)	Attack Karachi harbor on 4 December 1971	Major success; destroyed ships and fuel depot; celebrated as Navy Day



Operation Python	1971	1971 Indo-Pak War (Naval)	Follow-up naval strike on Karachi	Further damaged Pakistani naval assets
Operation Meghdoot	1984	Siachen Conflict	Pre-empt occupation of Siachen Glacier	India gained control of Siachen and strategic passes
Operation Vaj	1999	Kargil War	Evict Pakistani infiltrators from Indian positions	India recaptured key peaks; Kargil War ended in India's favor
Operation Safed Sagar	1999	Kargil War (IAF involvement)	Use air power to support ground troops in Kargil	First major IAF action since 1971; assisted ground success
Surgical Strikes	2016	Response to Uri attack	Destroy terrorist launch pads across LoC	Claimed neutralization of militants; showcased new strategic posture
Operation Bandar	2019	Balakot Air Strikes	Avenge Pulwama attack; airstrike on JeM camp in Balakot	First airstrike across LoC since 1971; Led to brief India-Pak air combat

India's new security doctrine:

Pillar	Details	Significance
Decisive Retaliation	- India will respond strongly to any terrorist attack. - Strikes target terror hubs at their root (e.g., Lashkar-e-Taiba, Jaish-e-Mohammed in PoJK & Pakistan).	- Lowers threshold of response. - Acts as a deterrent against future attacks. - Imposes high military and economic costs on states supporting terrorism.
No Tolerance for Nuclear Blackmail	- India rejects intimidation through nuclear threats. - Will strike terrorist sanctuaries even under nuclear shadow (e.g., Balakot strike despite Pakistan's threats)	- Breaks from strategic restraint. - Reinforces India's right to self-defense. - Signals that nuclear threats won't shield terror infrastructure.

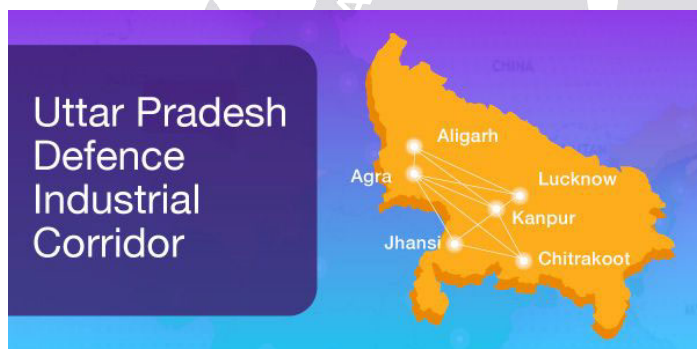


No Distinction between Terror Sponsors and Terrorists	- India views state and non-state actors involved in terrorism as one. - Deep strikes inside Pakistan (e.g., Operation Sindoor in Punjab and Bahawalpur).	- Treats state-sponsored terrorism as acts of war. - Increases diplomatic and military pressure on complicit states. - Supports global counter-terror norms.
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2. Brahmos Aerospace Testing Facility:

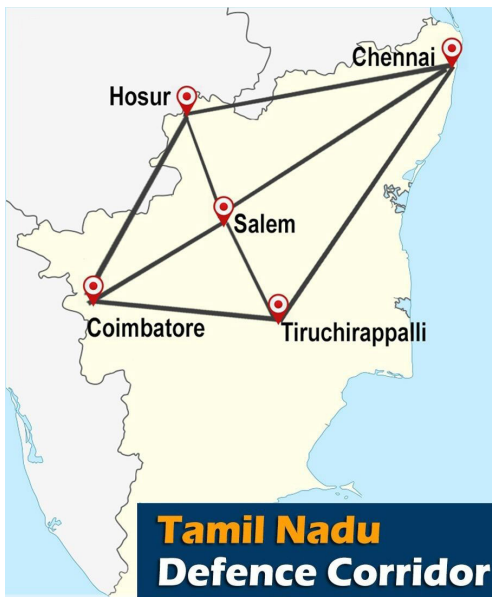
Context: The Defence Minister recently inaugurated the Brahmos Aerospace Testing Facility in Lucknow, Uttar Pradesh. Alongside the testing facility, a Brahmos missile production unit was also inaugurated. These units are part of the Uttar Pradesh Defence Industrial Corridor

Defence Industrial Corridors:



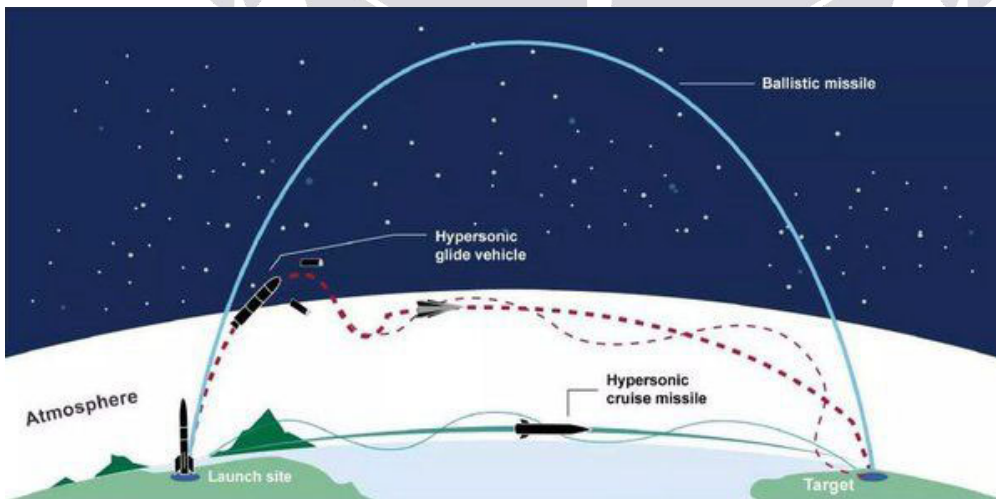
- To strengthen defence manufacturing and promote the sector, two Defence Industrial Corridors are being established, one in Uttar Pradesh and the other in Tamil Nadu.
- These were announced in the Union Budget 2018-19.
- Uttar Pradesh Defence Industrial Corridor is implemented by the Uttar Pradesh Expressways Industrial Development Authority (UPEIDA).
- Comprises six nodal points:** Agra, Aligarh, Chitrakoot, Jhansi, Kanpur and Lucknow.





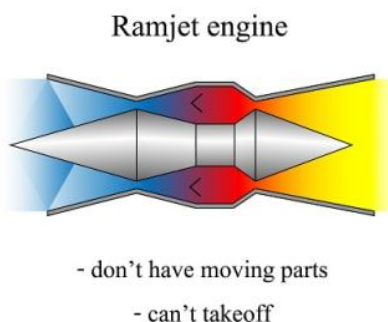
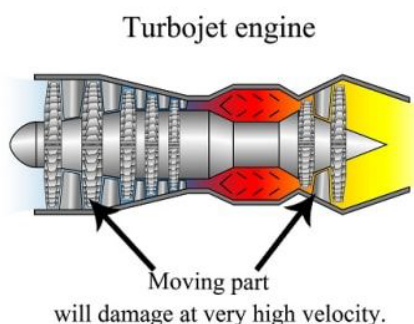
- Tamil Nadu Defence Corridor is led by the Government of Tamil Nadu.
- **Comprises five nodal points:** Chennai, Coimbatore, Hosur, Salem, and Tiruchirappalli.

About Brahmos missile:



- The BrahMos missile is an Indo-Russian joint venture.
- It has a range of 290 km and is the fastest cruise missile in the world with a top speed of Mach 2.8.





- BrahMos is named for the rivers Brahmaputra and Moskva.
- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) missile.
- Its first stage brings the missile to supersonic speed and then gets separated.
- The liquid ramjet or the second stage then takes the missile closer to three times the speed of sound in cruise phase.
- It is a multiplatform missile i.e., it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the "Fire and Forgets" principle i.e it does not require further guidance after launch.

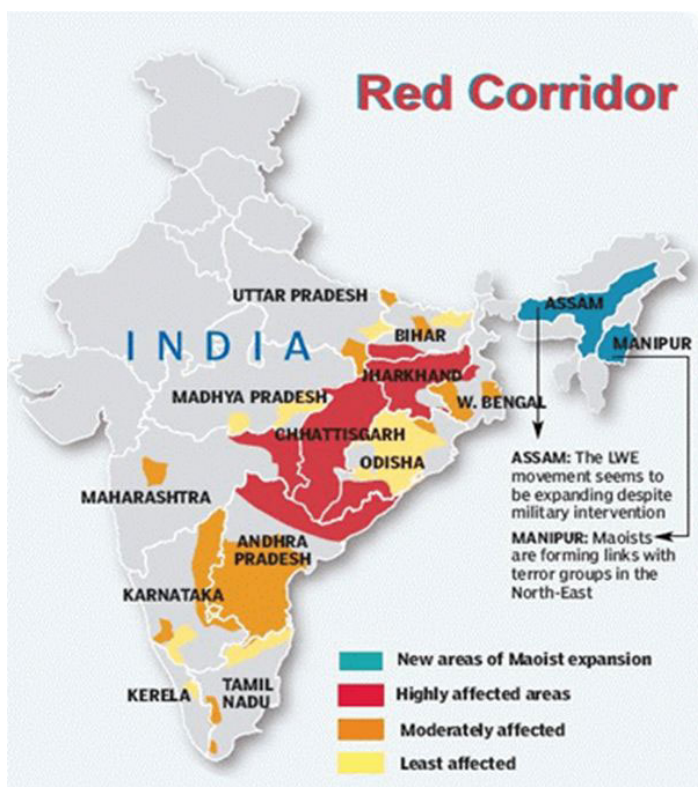
3. **Naxalism:**

Context: Recently, security forces conducted the largest ever anti-Naxal operation at Karreguttalu Hill on the Chhattisgarh-Telangana border. The operation was conducted in line with the goal of achieving a Naxal-free India by March 31, 2026.

What is Naxalism?

- The term Naxalism derives its name from the village Naxalbari of West Bengal.
- It originated as rebellion against local landlords who bashed a peasant over a land dispute.





- The rebellion was initiated in 1967, with an objective of rightful redistribution of the land to working peasants under the leadership of Kanu Sanyal and Jagan Santhal.
- The movement has spread across the Eastern India; in less developed areas of states such as Chhattisgarh, Odisha and Andhra Pradesh.
- The influence zone of Naxalism in India is called the Red corridor, which has been steadily declining in terms of geographical coverage and number of violent incidents.
- The movement initially took inspiration from China's founding father, Mao Zedong, but had later become radically different from Maoism.
- Maoism is a form of communism developed by Mao Tse Tung. It is a doctrine to capture State power through a combination of armed insurgency, mass mobilization and strategic alliances.
- There has been a decrease in the geographical spread of violence as only 46 districts reported LWE-related violence in 2021, compared to 96 districts in 2010.
- Union Home Ministry has stated that violence related to LWE had come down by 76% in 2022 as compared to 2010.



Samadhan doctrine:

LEFT WING EXTREMISM

New Operational Doctrine 'SAMADHAN' enunciated to tackle LWE menace:



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SMART POLICING AND LEADERSHIP

AGGRESSIVE STRATEGY

MOTIVATION AND TRAINING

ACTIONABLE INTELLIGENCE

DASHBOARD FOR DEVELOPMENT AND
KEY PERFORMANCE INDICATORS

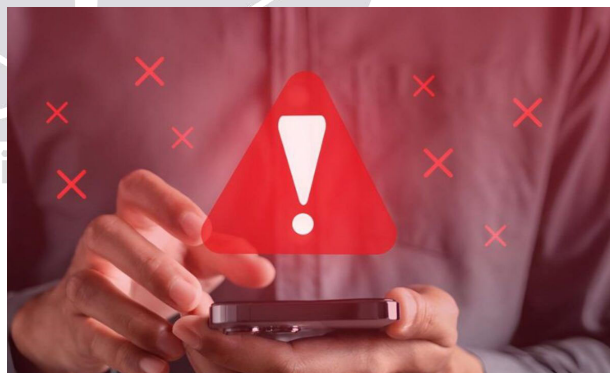
HARNESSING TECHNOLOGY FOR
DEVELOPMENT AND SECURITY

ACTION PLAN FOR EACH THEATRE

NO ACCESS TO FINANCING

- It encompasses the entire strategy for security operations, ranging from short-term policy to long-term policy formulated at different levels.
- This includes providing Central Armed Police Forces (CAPFs), sanctioning India Reserve (IR) battalions, and supporting the modernization and upgradation of State Police forces for State Governments.

4. Financial fraud risk indicator:



Context: The Department of Telecommunications (DoT) has introduced a Financial Fraud Risk Indicator (FRI) to combat mobile based cyber fraud.

What is Financial Fraud Risk Indicator (FRI)?

- It is a risk-based metric that classifies a mobile number to have been associated with Medium, High, or Very High risk of financial fraud.



- It empowers stakeholders such as banks, NBFCs, and UPI service providers to prioritize enforcement and take additional customer protection measures in case a mobile number have high risk.

5. Victims of Terrorism Associations Network (VoTAN):

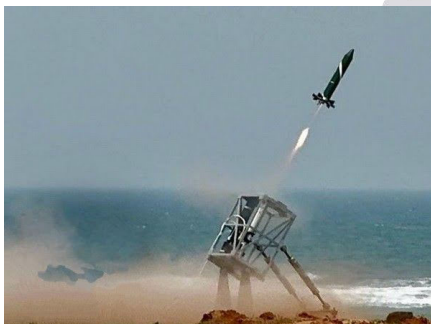


Context: The UN Office of Counter-Terrorism (UNOCT) launched VoTAN, a global network to support victims and survivors of terrorism.

About VoTAN:

- The Group of Friends of Victims of Terrorism, chaired by Spain and Iraq, was established nearly six years ago to uphold the need to protect victims' rights.
- The network is a key outcome of the 2022 UN Global Congress on Victims of Terrorism.
- Goal:** To provide a safe space for victims and survivors to support each other, build resilience and engage as advocates, educators, and peacebuilders.
- Financial Support:** Received from Spain

6. Bhargavastra:



Context: India has successfully test-fired an indigenously developed anti-drone system, Bhargavastra.

Key Features of Bhargavastra:

- **Detection Capability:** Capable of detecting small incoming drones at distances exceeding 6 kilometers.
- **Rapid Response:** Designed for rapid deployment on mobile platforms.
- **Multi-Target Engagement:** can simultaneously detect and track & engage up to 64 targets.
- **Guided Micro Munitions:** Utilizes micro munitions that can be guided towards identified threats.

7. HawkEye 360 technology:



Context: The US has recently approved sale of HawkEye 360 technology to India to boost the country's surveillance capabilities.

About HawkEye 360 technology:

- It uses clusters of three satellites in Low Earth Orbit to detect, geolocate, and analyze radio frequency (RF) signals.
- It can detect vessels that turn off their Automatic Identification System (AIS) to avoid tracking in disputed or sensitive areas.
- It will boost India's maritime domain awareness in the Indo-Pacific.

8. Igla-S:

Context: Indian Army received new Russian Igla-S missiles to counter drones, choppers, jets.



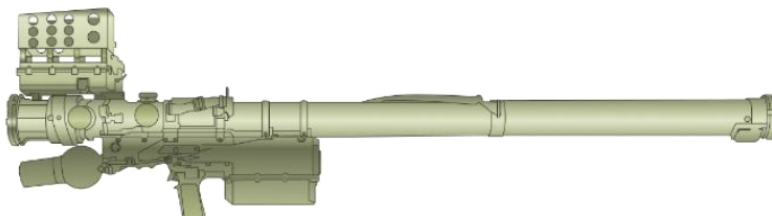


About Igla-S:

- It is a man-portable air defence system (MANPADS) developed by Russia.
- It is known in the West as SA-24 Grinch.
- It entered service with the Russian Army in 2004.
- It can be fired by an individual or crew to bring down an enemy aircraft.

Igla-S portable anti-aircraft missile system

Designed to engage all types of aircraft and helicopters, as well as small airborne targets such as cruise missiles, at any time of day in visible conditions on collision and pursuit courses against background and artificial thermal interference.



 **500 to 6,000 m**
Firing range

 **10 to 3,500 m**
target altitude

 **no more than 12 s.**
mobile-to-combat position
transition time

 **no more than 5 s.**
ready to start time
from activation

Target speed:

 **up to 400 m/s**
on collision courses

 **up to 320 m/s**
on catch-up courses

Homing head type:

• tracking • passive • thermal • bispectral

Sources: Rosoboronexport

 **SPUTNIK**



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- It can also identify and neutralize air targets, such as cruise missiles and drones.
- It has an effective range upto 6 km.
- The limiting altitude of effective target destruction for the "Igla-S" complex is 3.5 km.

9. Operation Hawk

Context: CBI launched Operation Hawk to crack down on global cybercrime networks involved in online child sexual exploitation.

- The operation follows Operation CARBON (2021) and Operation Megh Chakra (2022) to track suspects and dismantle such networks with international links.

10. Nomadic Elephant:

Context: 17th edition of India-Mongolia Joint Military Exercise Nomadic Elephant is to be conducted in Ulaanbaatar, Mongolia

About Nomadic elephant:

- Conducted annually and alternatively in India and Mongolia.
- Last edition (2024) was conducted at Umroi, Meghalaya.
- Aims to enhance interoperability between the two forces, employing joint task force in semi conventional operations in semi urban/ mountainous terrain under United Nations mandate.

11. INTERPOL Notices:

Context: The INTERPOL has issued the first silver notice on India's request. It was issued to track the global assets of former French Embassy officer Shubham Shokeen, who is wanted in connection with a visa fraud.

About INTERPOL:

- INTERPOL, formally known as the International Criminal Police Organization, is an intergovernmental organization with 194 member countries. It was established in 1923.
- Its primary objective is to facilitate international cooperation between national police forces in combating transnational crimes.
- It is headquartered in Lyon, France.



Functions of INTERPOL:



INTERPOL notices:

- They are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.
- **Silver notice:** To identify and trace criminal assets.

About Bharatpol:

- BHARATPOL is an online portal for international police cooperation developed by the Central Bureau of Investigation (CBI).
- Through this, every agency and police force in India will be able to seamlessly connect with INTERPOL, thereby expediting investigations.



TYPES OF INTERPOL NOTICES



RED NOTICE: To seek the location and arrest of wanted persons with a view to extradition or similar lawful action.



YELLOW NOTICE: To help locate missing persons, often minors, or to help identify persons who are unable to identify themselves.



BLUE NOTICE: To collect additional information about a person's identity, location or activities in relation to a crime.



BLACK NOTICE: To seek information on unidentified bodies.



GREEN NOTICE: To provide warnings and intelligence about persons who have committed criminal offences and are likely to repeat these crimes in other countries.



ORANGE NOTICE: To warn of an event, a person, an object or a process representing a serious and imminent threat to public safety.



INTERPOL-UN SECURITY COUNCIL SPECIAL NOTICE: Issued for groups and individuals who are the targets of UN Security Council sanctions committees.

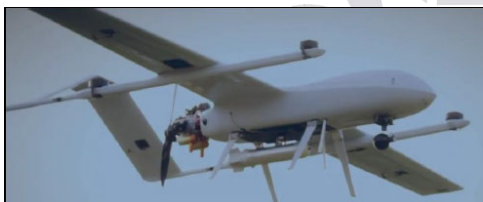


PURPLE NOTICE: To seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.

Source: www.interpol.int

NATION GRAPHICS

12. Rudrastra:



Context: Hybrid Unmanned Aerial Vehicle (UAV) Rudrastra demonstrated vertical takeoff and landing (VTOL) capabilities, extended flight range, real-time surveillance, and accurate target engagement over a range of 50 kilometres.

About Rudrastra:

- It is a Hybrid Vertical Take-Off and Landing (VTOL) UAV manufactured by Solar Defence and Aerospace Limited (SDAL).



- **Features:** Total range (including loitering over the target) is 170 km, with an estimated endurance of 1.5 hours.
- Equipped with precision-guided anti-personnel warheads with mid-altitude release capability.
- Can relay back live video and return to the launch position in automated mode.

13. Exercise Khaan Quest:

Context: Indian Army contingent reached Ulaanbaatar, Mongolia for the 22nd Multinational Military Exercise Khaan Quest.



About Exercise Khaan Quest:

- **Genesis:** Bilateral initiative between the United States and Mongolia in 2003.
- First multilateral exercise KHAAN QUEST: 2006.
- **Objective:** To prepare Indian Armed Forces for peacekeeping missions under Chapter VII of the United Nations Charter.
- Chapter VII of the United Nations Charter mentions Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression.

14. Passage Exercise (PASSEX) 2025:



- It is a joint naval exercise between the Navies of India and the UK, is being held in the northern Arabian Sea.



15. Operation Mahadev:

- A joint counter terror mission of Indian Army, CRPF & J&K Police.
- **Objective:** Eliminate foreign terrorists who have infiltrated into Kashmir valley with support from Pakistan-based groups like LeT.

16. Operation MED MAX:

- It was an operation conducted by Narcotics Control Bureau (NCB) for cracking down on illegal pharmaceutical drug trade.
- Under it, NCB dismantled a transnational drug trafficking syndicate that smuggled controlled medicines across four continents.
- The syndicate used encrypted digital platforms, drop shipping models, and cryptocurrency to smuggle the controlled substances.

17. Project 17A:

Context: INS Udaygiri, the second ship of Project 17A's stealth frigates, was delivered to the Indian Navy



About Project 17A:

- It is the project that aims to build a series of stealth guided-missile frigates.
- A stealth frigate is a warship specially designed to avoid detection by enemy radar, sonar, and other surveillance systems.
- They are currently being built by Mazagon Dock Shipbuilders (MDL) and Garden Reach Shipbuilders & Engineers (GRSE) for the Indian Navy.
- They are also called as The Nilgiri-class frigates.



- As of 2024, all seven frigates have been launched and are intended to enter service with the IN between 2024 and 2027.
- The seven frigates are Nilgiri, Himgiri, Taragiri, Udaygiri, Dunagiri, Vindhyagiri and Mahendragiri.
- The frigates will form a part of the Eastern Fleet as well as the future Carrier Battle Group (CBG) of INS Vikrant.

18. Astra Missile:



Context: DRDO & Indian Air Force (IAF) successfully conducted the flight-test of 'Astra' equipped with indigenous Radio Frequency (RF) Seeker from Su-30 Mk-I platform.

About Astra Missile:

- It is Indigenous Beyond Visual Range Air-to-Air missile (BVRAAM).
- The missile is designed to engage and destroy highly manoeuvring supersonic aircraft.
- Developed by Defence Research and Development Organisation (DRDO).
- The missile has all weather day and night capability.
- Its range exceeds 100 kms and is equipped with state-of-the art guidance and navigation systems.



19. Pralay missile:

PRALAY: Surface-to-Surface Missile

Pralay is a canisterised tactical, surface-to-surface, and short-range ballistic missile for battlefield use developed by the Defence Research and Development Organisation of India

ENGINE: Two stage rocket motor with third stage MaRV

SPEED: Mach 1 to 1.6

RANGE: 150-500 km

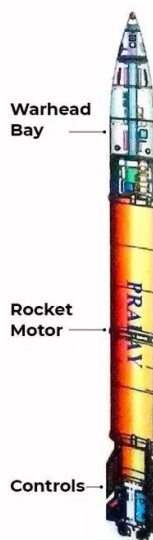
TRAJECTORY: low

GUIDANCE SYSTEM: Inertial navigation system

LAUNCH PLATFORM: 8x8 BEML-Tatra transporter erector launcher

MASS: 5 tonnes (4.9 long tons; 5.5 short tons)

OPERATIONAL RANGE: 150-500 km (93-311 mi)



Can change its path after covering certain range mid-air and is difficult to be tracked

It is capable of being launched from a mobile launcher and has latest navigation system and integrated avionics

It has the capability to defeat interceptor missiles

Context: DRDO conducted two consecutive successful flight tests of the Pralay missile at Odisha coast

About Pralay missile:

- A surface-to-surface short range solid propellant quasi-ballistic missile which can fly at hypersonic speed (Above Mach 5).
- Quasi ballistic missiles are a class of missiles that have low trajectory and take ballistic trajectory but can change course and make maneuvers during the flight if required.
- **Developed indigenously by:** Hyderabad-based DRDO facility Research Centre Imarat in collaboration with other facilities.
- **Strike Range:** From 150 to 500 km



20. Military exercises in news:

Exercise Name	Edition / Year	Participants	Type / Nature	Location / Host	Objective / Highlights
Exercise Bold Kurukshetra	14 th Edition (2025)	India & Singapore Armies	Table Top Exercise & Computer Based Wargame	-	Validate operational procedures for mechanized warfare
Bharat NCX	Bharat NCX 2025	National Security Council Secretariat (NSCS) & Rashtriya Raksha University (RRU)	National Cybersecurity Exercise	Gandhinagar, Gujarat	Strengthen cyber resilience & simulate real-world cyberattacks with AI-integrated defence
SIMBEX	32 nd Edition (2025)	Indian Navy & Republic of Singapore Navy	Bilateral Maritime Exercise	Singapore	Strengthen maritime cooperation; aligns with SAGAR & Act East Policy
Talisman Sabre	2025	19 National (>35,000 personnel) – Major participants: US, Canada, India, Japan etc	Multilateral Military Exercise	Sydney, Australia	Live-fire drills, amphibious landings, air combat, maritime ops & field training activities
Jaa Mata	2025	Japan Coast Guard & India Coast Guard	Joint Sea Exercise	Chennai, India	Enhance operational capabilities, combat skills, and interoperability



5. Environment, Ecology and Disaster Management

1. Basel convention, Rotterdam convention and Stockholm convention:



BASEL CONVENTION

*the world environmental
agreement on wastes*



Context: The 17th Basel, 12th Rotterdam, and 12th Stockholm Convention meetings were recently held consecutively in Geneva.

Basel convention:

- **Adoption:** Established on 22 March 1989 in Basel, Switzerland; India is a party to it.
- **Objective:** Protect human health and the environment from hazardous and other wastes.
- **Scope:** Covers hazardous wastes based on origin, composition, or characteristics; also includes some “other wastes” like household and plastic waste.
- **Transboundary Control:** Enforces Prior Informed Consent (PIC) for international movement of hazardous waste— exporting countries must get consent from importers.
- **Textile Waste:** Increasing focus on regulating textile waste, often mislabelled as donations, especially impacting developing nations.
- **Shipbreaking:** Highlights hazards from dismantling old ships (e.g., POPs, heavy metals); faces regulatory overlap issues with the Hong Kong Convention.

Rotterdam convention:

- **Establishment:** Entered into force in 2004; India joined in 2006.
- **Objective:** Promote shared responsibility in international trade of hazardous chemicals to protect human health and the environment.





- **PIC Procedure:** Ensures no hazardous chemical is exported without the prior informed consent (PIC) of the importing country.
- **Scope:** Covers banned or severely restricted pesticides and industrial chemicals.
- **Annexures:** Has 4 annexures; Annex III lists chemicals subject to the PIC procedure.
- **Legal Obligation:** Parties are legally bound to follow the PIC process before export.
- **Information Sharing:** Focuses on transparent communication and does not outright ban chemicals; allows countries to make informed choices.

Stockholm Convention on Persistent Organic Pollutants (POPs):



- **Genesis:** Adopted in 2001 in Stockholm, Sweden; entered into force in 2004. It was ratified by India in 2006.
- **Objective:** To protect health and the environment from long-lasting, widespread chemicals that accumulate in humans and wildlife and cause harm.

2. **Sagarmatha Sambaad:**

Context: Union Minister for Environment, Forest and Climate Change, represented India at the inaugural session of the Sagarmatha Sambaad in Kathmandu, Nepal.

More about:

- **Sagarmatha Sambaad:** It is a multi-stakeholder dialogue forum committed to deliberating on the most prominent issues of global, regional and national significance.



- **Theme of the Summit:** ‘Climate Change, Mountains, and the Future of Humanity’.
- India outlined a five-point call for global action to address ecological challenges in mountainous regions:
 - ❖ **Enhanced Scientific Cooperation:** Boost research on cryosphere, water cycles, and biodiversity in mountain regions.
 - ❖ **Building Climate Resilience:** Invest in adaptation, early warning systems (e.g., GLOFs), and climate-resilient infrastructure.
 - ❖ **Empowering Mountain Communities:** Center policies around local needs, traditional knowledge, and promote green livelihoods.
 - ❖ **Providing Green Finance:** Ensure predictable climate finance for mountain nations under UNFCCC and Paris Agreement.
 - ❖ **Recognizing Mountain Perspectives:** Integrate mountain-specific issues into global climate and sustainable development agendas.

About Himalayas:



- **Youngest & Highest:** The Himalayas are the youngest and highest fold mountain range in the world.
- **Geographical Spread:** Extend across India, Nepal, Bhutan, China, and Pakistan.
- **Formation:** Formed around 50 million years ago due to the collision of the Indian and Eurasian Plates.
- **Indian Himalayan Range:** Spans across 13 states/UTs including J&K, Ladakh, Uttarakhand, Himachal Pradesh, and Northeastern states; total length ~2500 km.



Major Glaciers:

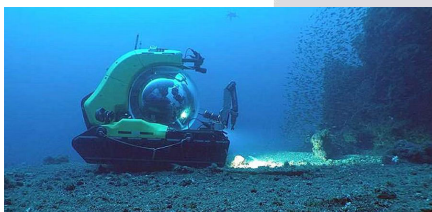
- Gangotri Glacier (Bhagirathi)
- Bandar Poonch/Yamunotri Glacier (Yamuna)
- Alakapuri Glacier (Alaknanda)
- Sumeru Glacier (Mandakini)
- Bara Shigri Glacier (Chenab)
- Zemu Glacier (Teesta)

3. National Centre for Polar and Ocean Research (NCPOR):

Context: National Centre for Polar and Ocean Research (NCPOR) celebrates 25 years.

About NCPOR:

- Established in 1998; autonomous institute under the Ministry of Earth Sciences.
- **Headquarters:** Located in Goa.
- **Governing Body:** 13 members; chaired by the Secretary, Ministry of Earth Sciences (ex-officio).



- **Polar Research:** Manages India's research stations — Maitri & Bharati (Antarctica), Himadri (Arctic), and Himansh (Himalayas).
- **Deep Ocean Mission:** Leads India's initiative to explore deep-sea mineral resources and hydrothermal systems in the Indian Ocean.
- **Policy Support:** Supports implementation of India's Arctic Policy (2022) and Indian Antarctica Act (2022).

4. Global Methane Tracker 2025:

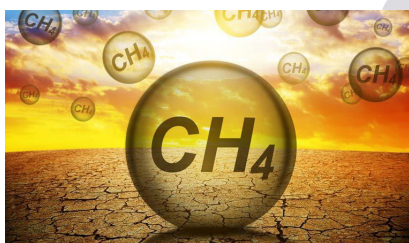
Context: Global Methane Tracker 2025 has been released by the International Energy Agency (IEA).



Key findings:

- Methane (greenhouse gas) is responsible for around 30 % of the rise in global temperatures since the Industrial Revolution.
- The three main sources of methane include agriculture, energy and waste sectors.
- The energy sector including oil, natural gas, coal bioenergy accounts for more than 35 percent of methane emissions from human activity

About Methane(CH₄):



- It is a hydrocarbon that is a primary component of natural gas.
- Methane is also a greenhouse gas (GHG), so its presence in the atmosphere affects the earth's temperature and climate system.
- It is a colourless, odourless and highly flammable gas.
- Methane is the second most abundant anthropogenic GHG after carbon dioxide (CO₂), accounting for about 20 percent of global emissions.
- It is short-lived gas compared to carbon dioxide with approximate time of 10 years.
- Over a century, methane has a global warming potential 28-times greater than CO₂.

5. Asiatic Lion:

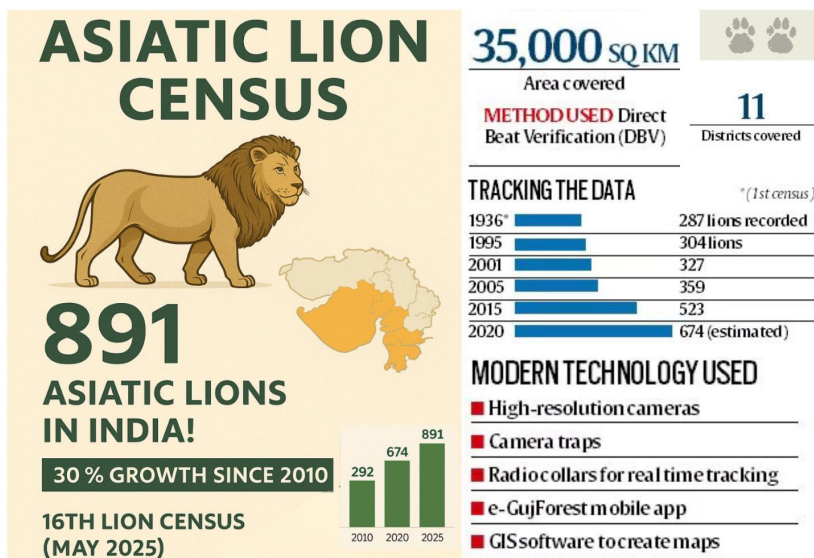
Context: Asiatic Lion population increases from 674 to 891 in 5 years according to the Lion Census (2025)

About the census:

- There has been an increase in the number and distribution area of Asiatic Lions (also outside Gir National Park), exemplifying the success of 'Project Lion.'
- The census conducted (every 5 years) by the Gujarat Forest Department.



- Project Lion (2020), has the goal of long term conservation for them to perform their ecological role and retain their evolutionary potential.



About Asiatic lion:

- Habitat:** Inhabits grasslands, savannas, dense scrub, and open woodlands.
- Range:** Primarily found in Gir National Park, with Barda Wildlife Sanctuary emerging as a second habitat (both in Gujarat).
- IUCN Status:** Vulnerable.

Legal Protection:

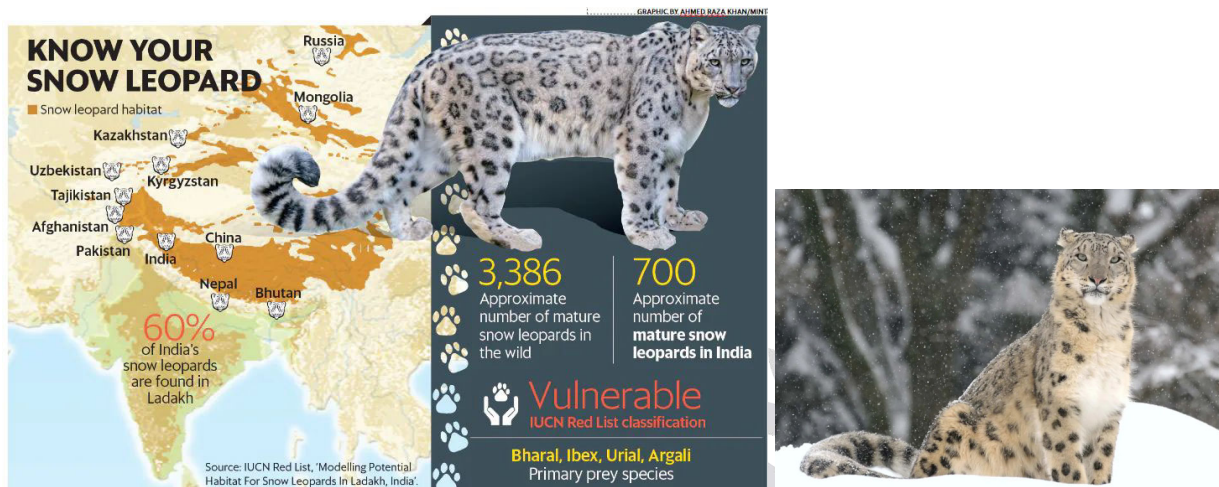
- Schedule I & IV of the Wildlife (Protection) Act, 1972
- Appendix I of CITES

6. Snow leopards:

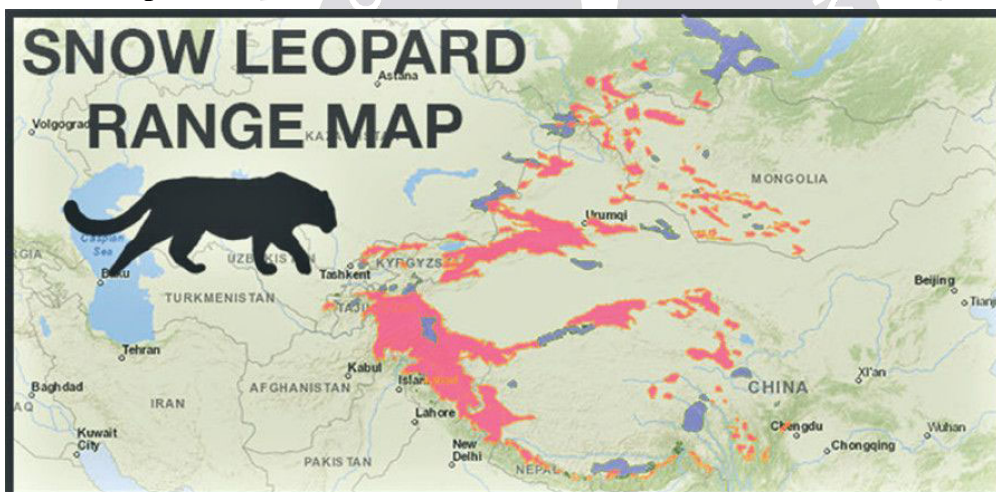
Context: Study by Ladakh's Department of Wildlife Protection has estimated 477 snow leopards in Ladakh.

- Ladakh has one of the world's highest densities of Snow Leopard, representing 68% of India's species population.





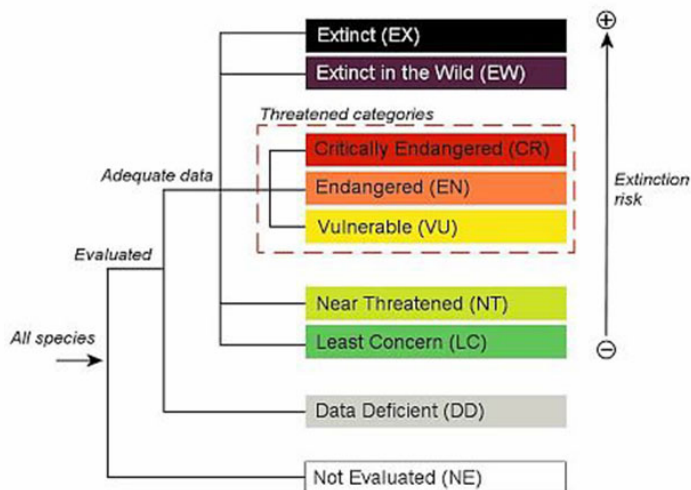
About Snow leopards:



- It is found in the mountainous regions of central and southern Asia.
- In India, it is seen in Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim and Arunachal Pradesh.
- The Hemis National Park has a good presence of Snow Leopard.
- They play a key role as a top predator, an indicator of the health of their high-altitude habitat.



Conservation status:



- In the IUCN- Red List, the snow leopard is listed as Vulnerable.
- In addition, the snow leopard, like all big cats, is also listed in Appendix I of the Convention on International Trade of Endangered Species (CITES).
- In India, the snow leopard is listed under Schedule I of the Wildlife (Protection) Act, 1972, giving it the highest protection status under the country's laws.

Snow Leopard Population Assessment in India (SPAI) Program:

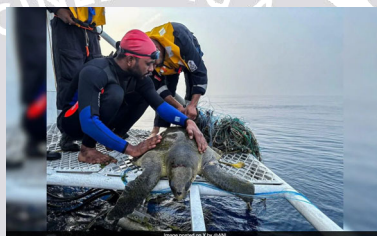
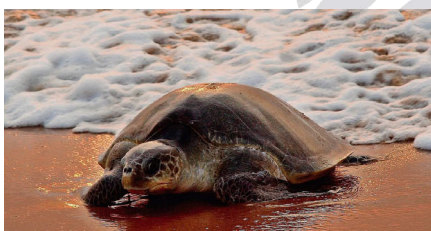


- It is the first-ever scientific exercise that reports Snow leopard population of 718 individuals in India.



- The Wildlife Institute of India (WII) is the National Coordinator for this exercise that was carried out with the support of all snow leopard range states and two conservation partners, the Nature Conservation Foundation, Mysuru and WWF-India.
- SPAI exercise was conducted from 2019 to 2023 Details of the report:
- Ladakh (477), Uttarakhand (124), Himachal Pradesh (51), Arunachal Pradesh (36), Sikkim (21), and Jammu and Kashmir (9).
- The Snow leopard occupancy was recorded in 93,392 km², with an estimated presence in 100,841 km².

7. Operation Olivia:



Context: Operation Olivia has shielded over 8-lakh olive Ridley turtles on Odisha's Gahirmatha coast.

About Operation Olivia:

- **Initiated:** In 1980s, by the Indian Coast Guard & It is conducted every year from November to May.
- The operation focuses on: Gahirmatha Beach, Rushikulya River Mouth, and Devi River Mouth.
- These coastal zones witness the arrival of over 800,000 Olive Ridley turtles annually for mass nesting called arribada.

About Olive ridley sea turtles:

- They are the smallest and most abundant of all sea turtles found in the world.
- It gets its name from the olive green colouration of its shell.
- Its scientific Name is *Lepidochelys olivacea*.
- They are mainly found in the warm waters of the Pacific, Atlantic, and Indian oceans.



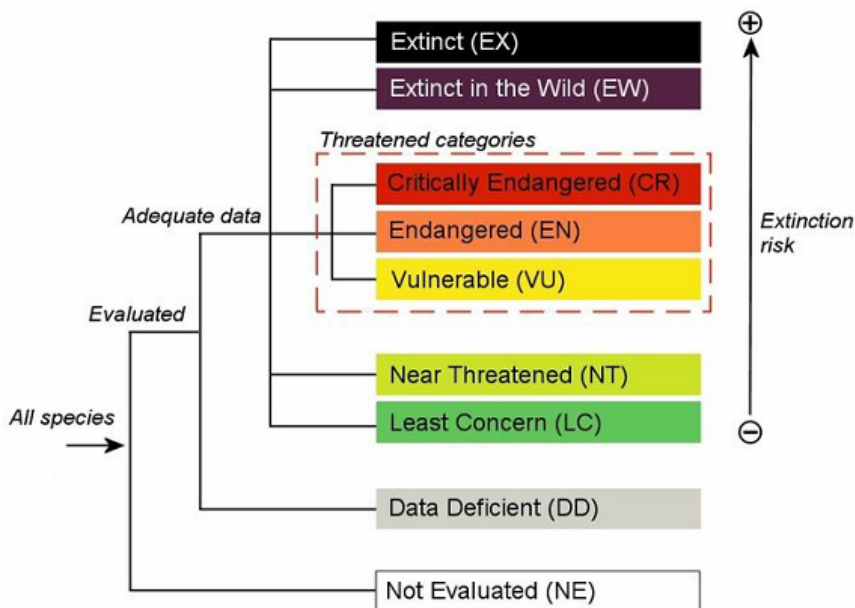


- They are best known for their unique mass nesting, called Arribada, where thousands of females come together on the same beach to lay eggs.
- Odisha's Gahirmatha Marine Sanctuary is known as the world's largest colony of sea turtles.

Features:

- An adult typically measures between 62 and 70 cm in length and weighs about 35-45 kg.
- They have one to two visible claws on each of their paddle-like flippers.
- They are omnivorous and feed on both plants and animals.
- They are solitary, preferring the open ocean.

Conservation Status:



- **IUCN Red List:** Vulnerable
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I

8. **Tsarap Chu Conservation Reserve:**

Context: State Government of Himachal Pradesh notified Tsarap Chu Conservation Reserve (India's largest) in Spiti Valley.

About Tsarap Chu:



- It is the location for the confluence of the Unam River and Charap Nala.
- It is bounded by the UT of Ladakh to the north, the Kibber Wildlife Sanctuary extending up to Malang Nala and Lungar Lungpa to the east, Kabjima Nala to the south and Chandratat Wildlife Sanctuary to the west.
- It is particularly known for the snow leopard, often called the 'ghost of the mountains'.



9. Yala glacier:

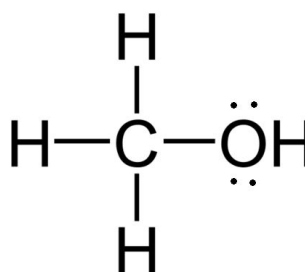
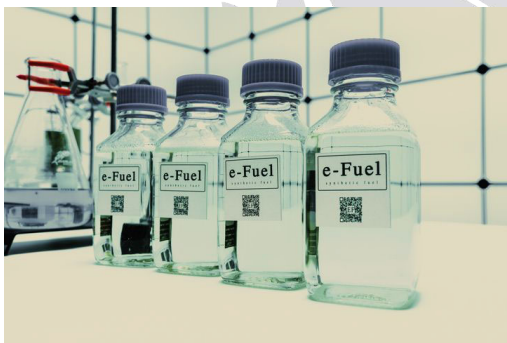


Context: Glaciologists and local communities mourned the loss of Nepal's Yala glacier after it has shrunk by 66% since the 1970s, making it among Nepal's first likely to be declared dead.

Glacier Funeral:

- It is a symbolic ceremony held to mark rapid disappearance of glaciers due to climate change.
- Other major glaciers declared dead: Pizol Glacier, Switzerland (2019); Clark Glacier, US (2020); Ayoloco glacier, Mexico (2021); etc.
- The world's first funeral was held for Okjokull glacier in Iceland in 2019.

10. E-methanol:



Context: The world's first commercial-scale e-methanol plant began operations in Denmark.

What is Methanol?

- Methanol (CH_3OH) is the simplest alcohol, also known as wood alcohol.
- It is a colorless, volatile, flammable liquid with a mild alcoholic odor.
- Used as a fuel, solvent, antifreeze, and feedstock for chemical synthesis.



Production of Methanol: (CH₃OH)

- **From Natural Gas (SMR):** Methane reacts with steam to produce syngas (CO + H₂).
- **Methanol Synthesis:** Syngas is converted to methanol using Cu/ZnO/Al₂O₃ catalysts.
- **From Coal (Gasification):** Coal is gasified to form syngas, which is then converted to methanol.
- **Biomass-based Methanol:** Biomass gasification produces syngas used for methanol synthesis.
- **CO₂ Hydrogenation (Green Methanol):** CO₂ reacts with green hydrogen to form eco-friendly methanol.

What is e-methanol (or electro-methanol)?

- It is a low-carbon energy produced by combining green hydrogen with captured carbon dioxide.
- E-methanol production typically involves **three key steps**:
 - **Green hydrogen generation:** Renewable energy-powered water electrolysis creates the hydrogen feedstock.
 - **CO₂ capture:** Carbon dioxide is captured from industrial flue gases or directly from the air, reducing overall emissions at the source.
 - **Methanol synthesis:** The hydrogen and CO₂ are combined in a catalytic reactor under pressure, yielding methanol with minimal by-products.

11. Regional Integrated Multi-Hazard Early Warning System (RIMES):

Context: Declaration on Disaster Preparedness has been adopted at the 4th Ministerial Conference of Regional Integrated Multi-Hazard Early Warning System (RIMES), held in Colombo, Sri Lanka.



About Regional Integrated Multi-Hazard Early Warning System (RIMES), 2009:

- It is an intergovernmental body that provides early warning services, disaster risk reduction strategies, and capacity building to its Member States.



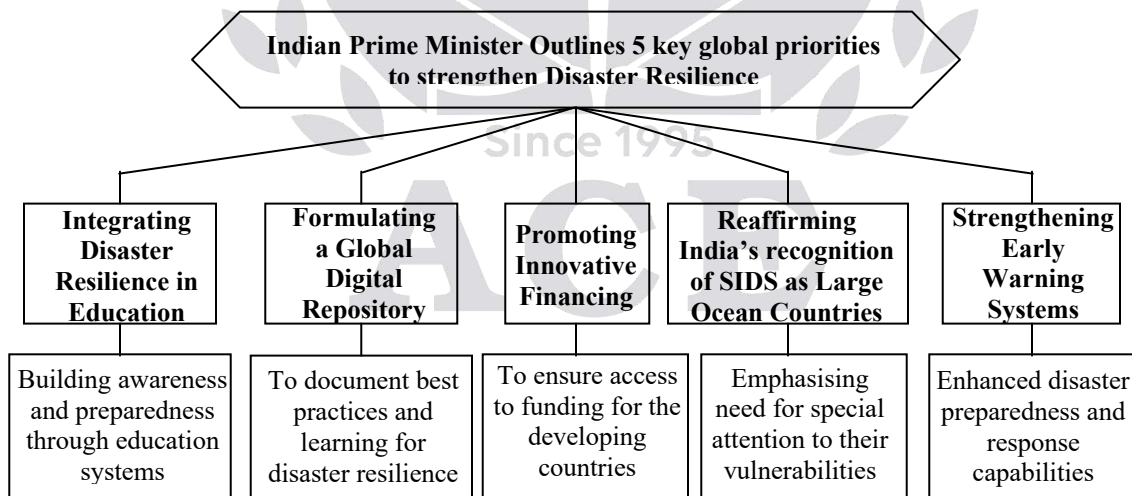
- It evolved from the efforts of countries in Africa, Asia and the Pacific, in the aftermath of the 2004 Indian Ocean tsunami, to establish a regional early warning system.
- **Membership:** It has 22 member states and 26 collaborating states.
- It operates from its regional early warning center located at Asian Institute of Technology in Thailand.

12. Coalition for Disaster Resilient Infrastructure:

Context: Recently, the African Union joined India's Coalition for Disaster Resilient Infrastructure at the 7th International Conference on Disaster Resilient Infrastructure (ICDRI) in France.

More about:

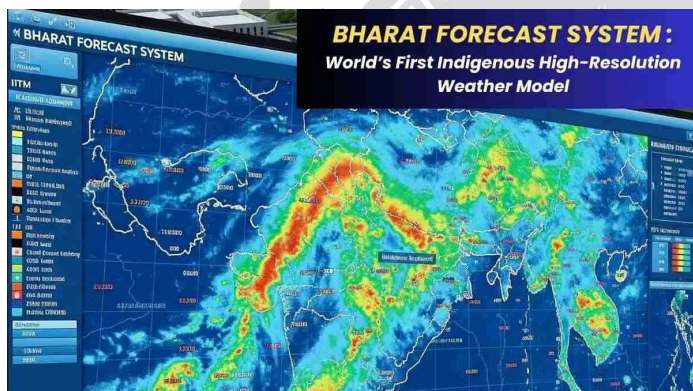
- ICDRI 2025 has launched a call to action for coastal resilience in SIDS (Small Island Developing States).
- ICDRI is a platform under the Coalition of Disaster Resilient Infrastructure (CDRI) to drive discussions and actions on climate adaptation, coastal resilience, and sustainable development.
- This year's conference is the first to be held in Europe and is being co-hosted by the CDRI and the Government of France.
- The theme of the conference is shaping a Resilient Future for Coastal Regions.



Coalition for Disaster Resilient Infrastructure (CDRI):

- It is an international coalition of countries, UN agencies, multilateral development banks, the private sector, and academic institutions that aim to promote disaster-resilient infrastructure.
- It aims to increase the resilience of infrastructure systems to climate and disaster risks, thereby ensuring sustainable development.
- It was launched in 2019, at the United Nations Climate Action Summit in New York.
- It is the Government of India's second major global initiative after the International Solar Alliance.
- Since its inception, 39 countries, 6 international organisations and 2 private sector organisations have joined CDRI as members.

13. Bharat Forecast System:



Context: Ministry of Earth Sciences unveils Bharat Forecast System (BFS), one of the world's first indigenously developed high resolution weather forecast systems.

About Bharat Forecast System:

- **Developed by:** Indian Institute of Tropical Meteorology (IITM), Pune, an autonomous institute of the Ministry of Earth Sciences.
- **Role:** It enhances India's weather prediction resolution from 12 km to 6 km, enabling every village in India to access more precise and location-specific forecasts.
- **Data Sources:** Integrates real-time inputs from 40 Doppler Weather Radars, improving accuracy of localised forecasts and nowcasts.



- Doppler Radar is a specific type of radar that uses the doppler effect (Change in frequency of wave emitted by a source moving relative to the observer) to gather velocity data from particles that are being measured.

14. International convention on biological hazards:

Context: International Labour Organization's (ILO) member states have adopted the first ever international convention on biological hazards at work.

About the Convention (ILO Convention 192):

- It calls on Member States to formulate national policies and adopt measures on occupational safety and health that include –
 - the prevention and protection against biological hazards, and
 - the development of preparedness and response measures to deal with accidents and emergencies.
- India's Concerns:** The blanket application across all sectors and enterprise sizes, regardless of exposure level, may place greater burden on MSMEs and informal enterprises in developing countries.

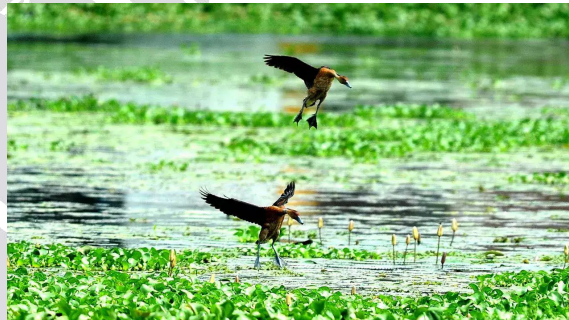
Report	Released By	Key Highlights / Findings
State and Trends of Carbon Pricing 2025	World Bank Group	Operational CP Instruments: Increased from 5 (2005) → 80 (2025). Coverage: 28% of global GHG emissions (43 carbon taxes + 37 ETSs). Revenue: > USD 100 billion (2024) from ETSs & carbon taxes. Sectoral Coverage: Power & industry most covered; agriculture & waste largely uncovered. Carbon Credit Supply: Outstrips demand, ~ 1 billion tons unretired credits (2024).
State of the Climate in Asia 2024	World Meteorological Organization (WMO), UN specialized agency	Warmest Year: 2024 = Asia's warmest/2nd warmest year (+1.04°C above 1991-2020 average).



		• Rapid Warming: Asia warming $2 \times$ global average. • Glacial Loss: Melting in Central Himalayas & Tian Shan due to reduced snowfall & extreme heat. • Sea Temperatures: Record highs; decadal warming rate almost double global average
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15. New Ramsar sites:

Context: India added two more wetland into Ramsar list of Wetlands of International Importance.



More about:

- Khichan and Menar wetlands in Rajasthan were declared Ramsar Sites on world environment day 2025, raising India's total count to 91.
- World Environment Day is celebrated annually on 5th June (Since 1973) led by the UN Environment Programme.
- The theme for 2025 is Beat Plastic Pollution.
- With the addition of these wetlands, Rajasthan now has four Ramsar sites, including Sambhar Salt Lake and Keoladeo Ghana National Park in Bharatpur.

About New Ramsar Sites	
Khichan Wetland	• Location: Northern Thar Desert, Phalodi District (Rajasthan) • It comprises two water bodies, Ratri nadi (river) and Vijayasagar talab (pond), riparian habitat and scrub land.



	The site hosts large wintering flocks of migratory demoiselle cranes (<i>Anthropoides virgo</i>).
Menar Wetland Complex	Location: Menar and Kheroda village, Udaipur District (Rajasthan). - It is a freshwater monsoon wetland complex formed by three ponds (Braham talab, Dhand talab and Kheroda talab) - Notable bird species are the critically endangered white-rumped vulture (<i>Gyps bengalensis</i>) and long-billed vulture (<i>Gyps indicus</i>).

What is Ramsar convention?

- Ramsar Convention on Wetlands establishes the guidelines for the preservation and judicious use of all wetlands.
- It is the only international environmental agreement that addresses a specific habitat.
- It was adopted in the Iranian city of Ramsar in 1971 and entered into force in 1975.
- The Cobourg Peninsula in Australia was the world's first Site, designated in 1974.
- On February 1, 1982, India became a party to the 'Convention on Wetlands'.

Three pillars of Ramsar sites:

- Wise Use:** Work to ensure that all of their wetlands are used wisely
- List of Wetlands of International Importance:** Designate appropriate wetlands under the Ramsar List
- International Cooperation:** Cooperation on a global scale regarding common species, shared wetland systems, and transboundary wetlands.

Montreux Record:

- Montreux Record is the primary tool under the Ramsar Convention for recognising wetlands sites on priority basis.
- It was adopted by the Conference of the Contracting Parties in Brisbane, in 1996.
- Keoladeo National Park in Rajasthan and Loktak Lake in Manipur were both inducted into the Montreux Record in 1990 and 1993, respectively.



16. Greater Flamingo Sanctuary:



Context: Tamil Nadu notified Greater Flamingo Sanctuary at Dhanushkodi to preserve a critical stopover point along the Central Asian Flyway for thousands of migratory wetland birds.

About Greater Flamingo (*Phoenicopterus roseus*):

- **IUCN Status:** Least Concern
- **Distribution:** Africa, western Asia (India), and southern Europe.
- **Habitat:** Breeds in shallow wetlands that are either saline or alkaline.
- **Features:** This species has a great dispersal capacity outside of the breeding season, but it is highly philopatric (to return to or remain near a particular site or area).
- The Kachchh Desert Wildlife Sanctuary in the Great Rann of Kachchh (GRK) in Gujarat State, is a unique Protected Area, that supports South Asia's only breeding ground of Greater Flamingos, internationally renowned as the "Flamingo City".

17. Integrated Biodiversity Assessment Tool Alliance (IBAT) Context:

IBAT Alliance doubled its investment in biodiversity data from 2023 to 2024.

About IBAT Alliance:

- **Headquarter:** The UK
- **Genesis:** Founded in 2008.
- It is a coalition of four of the world's largest and most influential conservation organisations.
- These four organizations are: Birdlife International, Conservation International, The International Union of Conservation for Nature (IUCN), The United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)
- **Mission:** To provide data, tools and guidance that help organisations act on biodiversity-related risks etc.





18. International Big Cat alliance:

Context: The 1st assembly of the IBCA convened in New Delhi, endorsed the India's Union Minister of Environment, Forest & Climate Change, Shri Bhupender Yadav, as the President of IBCA.

What are Big cats?



- The term "big cat" is typically used to refer to any of the 7 living members of namely- the tiger, lion, jaguar, leopard, and snow leopard, as well as the cheetah and cougar.
- **Genesis:** Launched in April 2023 (occasion of 50 years of India's Project Tiger)
- **Main Goal:** To foster collaboration and synergy by establishing a platform dedicated to sharing best practices in big cat conservation.



- **Founding Members (16):** Armenia, Bangladesh, Bhutan, Cambodia, Egypt, Ethiopia, Ecuador, India, Kenya, Malaysia, Mongolia, Nepal, Nigeria, Peru, Suriname, & Uganda.
- India is the host country & Secretariat for the IBCA.
- Out of these five big cats viz. Tiger, Lion, Leopard, Snow Leopard and Cheetah are found in India.

International Big Cat Alliance (IBCA):



- It has been conceived as a multi-country, multi-agency coalition of 96 big cat range countries, non-range countries interested in big cat conservation, conservation partners
- The alliance's purpose is to provide a platform for the dissemination of information on benchmarked practices, capacity building, resources repository, research and development, awareness creation, etc., on the protection and conservation of big cats.

19. Energy Transition Index (ETI), 2025:

Context: World Economic Forum (WEF) recently released Energy Transition Index (ETI), 2025.

Key Findings:

- Sweden ranked first followed by Finland, Denmark and Norway
- India's rank dropped from rank 63 in 2024 to rank 71 in 2025.

About ETI:

- It ranks countries on their progress towards energy transition from fossil fuels to clean energy.



- It takes into account two main aspects to put together the Index: System Performance (energy security, equity & sustainability), Transition Readiness (regulation, infrastructure, investment etc.)
- The Index uses 43 indicators under these broad categories using data from multiple sources and scores countries on a scale of 0 to 100.

20. Salkhan Fossil Park:

Context: Salkhan Fossil Park in Uttar Pradesh, India, has been added to UNESCO's tentative list of World Heritage Sites.



About Salkhan Fossil Park:

- **Location:** Situated in Kaimur Range (Vindhya range), near Kaimur Wildlife Sanctuary, Uttar Pradesh.
- **Age:** Fossils date back ~1.4 billion years, making it among the oldest preserved sites globally.
- **Fossils:** Hosts Stromatolites formed by cyanobacteria (blue-green algae).
- **Scientific Value:** Records the Great Oxidation Event, when oxygen first accumulated in Earth's atmosphere.
- **Paleoenvironment:** Stromatolite forms (domal, columnar, stratiform) reveal ancient water depth, sedimentation, and wave activity.
- **Global Importance:** Fills the Precambrian fossil gap, representing 85% of Earth's history underrepresented in heritage records.



21. Recent volcanic eruptions:

Volcano	Features
Mount Etna	• Location: Sicily Island, Italy • Highest Mediterranean island mountain • Most active stratovolcano in the world • Europe's largest active volcano • A UNESCO World Heritage Site.
Mount Lewotobi Laki-Laki	• Location: Flores Island, Indonesia. • Part of the Pacific Ring of Fire.
Kilauea volcano	• Location: Southeastern part of the island of Hawaii, U.S. • Shield Volcano.

22. Ethanol Blended Petrol (EBP) Programme:

**INDIA
HITS 20%
ETHANOL
BLENDING**

5 years ahead of
schedule. A milestone
in clean energy.



Target
2030

Achieved
2025



Context: Union Minister for Petroleum and Natural Gas announced India's achievement of 20% Ethanol blending target in petrol. The target was achieved as envisaged in Ethanol Blended Petrol (EBP) Programme.



About Ethanol:

- Ethanol (C_2H_5OH), considered a renewable fuel, is an anhydrous ethyl alcohol produced from sugarcane, maize, wheat, and other crops with high starch content.
- It is naturally produced by the fermentation of sugars by yeasts or via petrochemical processes such as ethylene hydration.

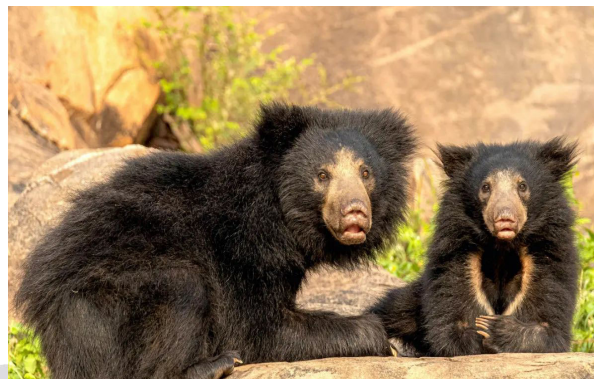
Type of Ethanol	Feedstock / Source	Examples	Key Features
1 st Generation Ethanol	Food crops (sugar & starch-based)	Rice, Wheat, Barley, Corn, Sorghum, Sugarcane, Sugar beet	Produced by fermentation of food crops; impacts food security
2 nd Generation Ethanol	Lingo-cellulosic biomass & agricultural residues	Wheat straw, Corn stover, Bagasse, Wood, Rice husk	Uses non-food biomass, more sustainable than 1 G
3 rd Generation Ethanol	Aquatic biomass	Algae	High yield, eco-friendly minimal land requirement
4 th Generation Ethanol	Engineered plants & genetically modified microorganisms	GM algae, Engineered crops	Focuses on carbon capture & enhanced efficiency

Ethanol Blended Petrol (EBP) Programme:

- Launch:** Started in 2003 to promote ethanol blending in petrol.
- Definition:** Mixing ethanol with petrol to make fuel cleaner and more sustainable.
- Blending Types:** E10 (10% ethanol), E20 (20%), E85 (85%).
- E20 Benefits:** Better acceleration, improved ride quality, and 30% lower carbon emissions vs. E10.
- Target:** 20% ethanol blending in petrol by 2025-26 (advanced from 2030).
- Achievement:** Ethanol production rose from 38 crore liters (2014) to 660+ crore liters (2025).



23. Centrally Sponsored Scheme-Integrated Development of Wildlife (CSS-IDWH):



Context: Gharial and Sloth Bear were recommended for inclusion under the Species Recovery Programme of Centrally Sponsored Scheme- Integrated Development of Wildlife (CSS-IDWH).

About scheme:

- **Nodal Ministry:** Ministry of Environment, Forest and Climate Change (MoEFCC).
- **Type:** Centrally Sponsored Scheme.
- **Purpose:** Wildlife protection, conservation, and habitat development.
- **Financial Assistance To:** State/UT Governments for wildlife-related initiatives.
- **Species Covered:** 22 species including Snow Leopard, Asiatic Lion, Great Indian Bustard, Gangetic River Dolphin, etc.

Key Support Areas:

- **Protected Areas:** National Parks, Wildlife Sanctuaries, Conservation Reserves, Community Reserves.
- Wildlife Protection outside protected areas.
- Recovery programmes for critically endangered species & habitats.

Aspect	Gharial	Sloth Bear
Habitat	Deep, fast-flowing rivers	Forests and grasslands
Range	Nepal: Rapti-Narayani River India: Girwa (UP), Son (MP), Ramganga (Uttarakhand), Gandak (Bihar), Chambal (UP, MP, Rajasthan), Mahanadi (Odisha)	Native to India, Nepal, and Sri Lanka



Key Features	- Specialized teeth for catching fish. - Thinnest & elongated snout among crocodilians. - Adult males have GHARA bulb on snout. - Only visibly sexually dimorphic crocodilian. - Most aquatic crocodilian species.	- Named due to long claws & Unusual teeth resembling sloths. - Shaggy black coat & long snout. - Specializes in eating termites & ants. - Does not hibernate. - Solitary, nocturnal, agile, and highly aggressive.
Threats	- Habitat degradation due to dams, barrages, & water diversion. - Prone to drowning in fishing nets due to elongated snout.	- Habitat loss & degradation. - Human-animal conflict. - Estimated global population < 20000.
Conservation Status	IUCN: Critically Endangered CITES: Appendix I WPA, 1972: Schedule I	IUCN: Vulnerable CITES: Appendix I WPA, 1972: Schedule I
Conservation Efforts	- Project Crocodile (1975) – Supported by UNDP & FAO. - Gharial Conservation Breeding Program.	Daroji Sloth Bear Sanctuary (Karnataka) – Asia's first dedicated sloth bear sanctuary.

24. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

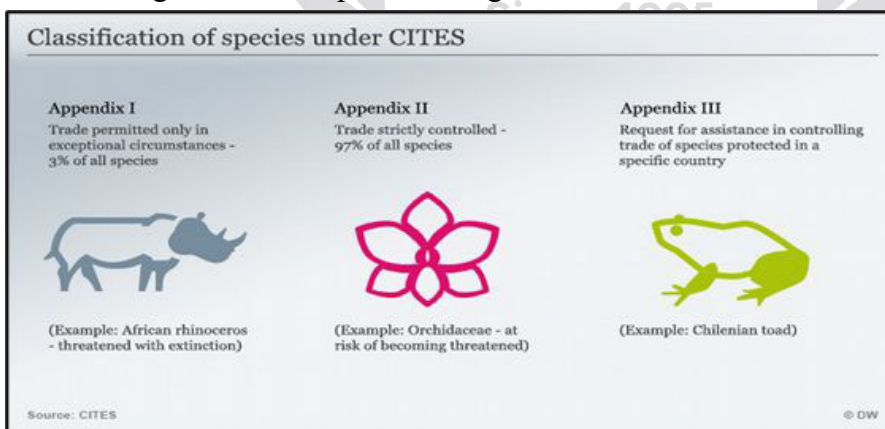
Context: In 2025, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is celebrating its 50th anniversary.



Convention on International Trade in Endangered Species (CITES)/ Washington Convention:



- It is an international agreement to regulate worldwide commercial trade in wild animal and plant species.
- It was signed on March 3, 1973 on World Wildlife Day.
- It is administered by the United Nations Environment Programme (UNEP).
- Secretariat — Geneva, Switzerland.
- CITES is legally binding on state parties to the convention, which is obliged to adopt their domestic legislation to implement its goals.



25. Pacific Ring of Fire:

Context: A powerful magnitude 8.8 earthquake struck near Russia's Kamchatka Peninsula which is part of the seismically active Pacific Ring of Fire triggering tsunami waves that hit coastal towns in Russia and Japan.

About Pacific Ring of Fire:



- **Also Known As:** Circum-Pacific Belt.
- **Shape & Nature:** A horseshoe-shaped belt of intense seismic & volcanic activity around the Pacific Ocean.
- **Significance:** Accounts for ~75% of active volcanoes and ~90% of global earthquakes.
- **Extent:** Stretches for ~40,000 km around the Pacific Ocean basin.
- **Tectonic Plates Involved:** Includes Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.
- **Geographical Impact:** Formation of mountains, island arcs, deep ocean trenches (e.g., Mariana Trench).
- **Energy Resource:** Contains 40% of the world's geothermal energy resources.
- **Mineral Wealth:** Rich in gold, copper, molybdenum, and other metals.
- **Agricultural Significance:** Volcanic soils are highly fertile, supporting crops like rice and coffee.

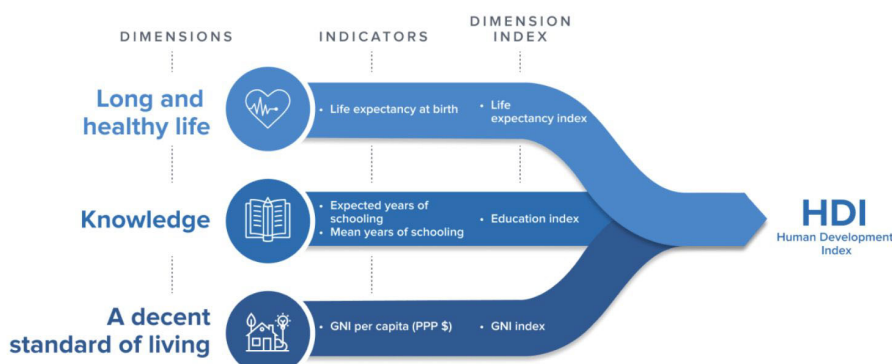


6. Social Issues in India

1. Human Development Report 2025:

Context: The United Nations Development Programme released its Human Development Report 2025 which appreciated India for its progress in human development but also warned about rising inequality, particularly significant income and gender disparities.

What is Human development Index?



- The Human Development Index measures a country's achievement in key human development areas.
- It is measured 0 to 1, 1 being the best.
- It goes beyond only income criteria to measure the well-being of individuals. It is released by UNDP.

Key findings:

- **HDI Global Trend:** Inequality between low and very high HDI countries has widened for the fourth consecutive year.
- **Top HDI Countries:** Iceland, Norway, and Switzerland are the top 3 in HDI rankings.
- **India's HDI Rank:** India improved its HDI rank from 133 (2022) to 130 (2023) out of 193 countries.
- **India's HDI Value:** India's HDI rose from 0.676 (2022) to 0.685 (2023), nearing the high development threshold.



- **Long-term HDI Growth:** Since 1990, India's HDI has grown by over 53%, outpacing global and South Asian growth.
- **Inequality-Adjusted HDI:** India suffers a 30.7% loss in human development due to inequality.
- **Income Disparity:** In India, the poorest 40% hold 20.2% of income, while the richest 10% hold 25.5%.
- **Multidimensional Poverty:** 16.4% of Indians live in multidimensional poverty; 4.2% in severe poverty.
- **Poverty Vulnerability:** 18.7% of Indians are vulnerable to falling into multidimensional poverty.
- **Gender Inequality Index:** India ranks 102nd out of 193 countries in gender inequality.
- **Female LFPR:** India's female labour force participation rate is 35.1%, compared to 76.4% for males.

2. Sample Registration System (SRS) Report 2021:



Context: The Sample Registration System (SRS) Report 2021 was released by the Registrar General of India (RGI) containing data on fertility and mortality indicators for India and bigger States/UTs.

About SRS:

- Sample Registration System (SRS) is a large scale demographic survey for providing reliable estimates of birth rate, death rate and other fertility and mortality indicators at the National and Sub-National levels.
- The SRS sample is revised every ten years based on the latest census frame.



Key Findings of the SRS Report 2021:

Crude Birth Rate (CBR) = (Number of live births during the year/ Mid-year population) × 100

- Declined by 11% from 21.8 in 2011 to 19.3 in 2021.
- **States:** Maximum: Bihar (25.6); Minimum: Kerala (12.9).

Population Composition (percentage of total population):

- **Age group 0-14:** Gradual DECLINE from 36.3% (1991) to 24.8% (2021)
- **Economically active population (15-59 years):** INCREASED (57.7% (1991) to 66.2% (2021))
- **Elderly population:** INCREASED (60+ years- 9%; 65+ years- 5.9%)
- **Mean age at effective marriage for Females:** INCREASED (19.3 years in 1990 to 22.5 years in 2021)

Maternal Mortality Ratio (MMR):

- DECLINED by 37 points from 130 per lakh live births in 2014–16 to 93 per lakh live births in 2019–21. [SDG target of MMR (≤ 70 by 2030)]
- **Neonatal Mortality Rate (NMR):** Number of neonatal deaths that from birth to 29 days per 1,000 live births.
- DECLINED from 26 per 1000 live births in 2014 to 19 per 1000 live births in 2021. [SDG target of NMR (≤ 12 by 2030)]
- **States:** Lowest: Kerala; Highest: Madhya Pradesh

Infant Mortality Rate (IMR):



- Number of infants deaths from birth to the 1 year old per 1,000 live births.
- DECLINED from 39 per 1000 live births in 2014 to 27 per 1000 live births in 2021.



- **States:** Lowest: Kerala (6); Highest: Madhya Pradesh (41)
- Despite this decline, one in every 37 infants at the National level die within one year of life.
- Under-five Mortality Rate(U5MR): Number of deaths of children under 5 years of age per 1,000 live births.
- DECLINED from 45 per 1000 live births in 2014 to 31 per 1000 live births in 2021. [SDG target of U5MR (≤ 25 by 2030)]
- **States:** Lowest: Kerala; Highest: Madhya Pradesh

Sex Ratio at Birth:

- INCREASED from 907 in 2018-20 to 913 in 2019-21.
- **States:** Highest: Kerala (962); Lowest: Uttarakhand (852)
- **Rural (2019-21):** 912; **Urban (2019-21):** 918
- Total Fertility Rate (TFR) Average number of children a woman would have at the end of their reproductive period.
- DECLINED during 2016-2021 at the National level.
- **States:** Highest: Bihar (3.0); Lowest: Delhi and West Bengal (1.4)
- Replacement level TFR, viz. 2.1, has been attained at the National level along with 16 States/UTs.
- **Rural:** 2.2; **Urban:** 1.6

Life-expectancy at birth:

- 69.8 years (for period 2017-21), registering a decline of 0.2 years from 2016-20.
- Life expectancy for males has been estimated at 68.2 years and that for females, at 71.6 years.



Institutional Deliveries:

- In 2021, ~91.1% of the deliveries was institutional including Government and private hospitals.
- **Urban areas:** 95.5%; **Rural areas:** 89.7%

3. Fully functional literacy state:

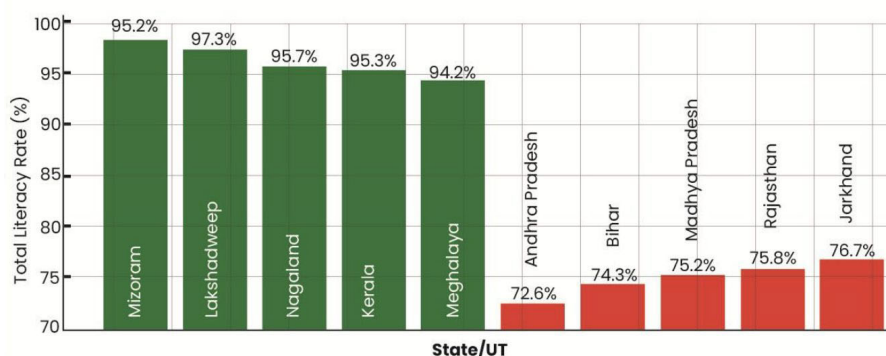
Context: Recently, the Chief Minister of Mizoram officially declared Mizoram a fully literate state, making it the first state in India to achieve full functional literacy.

More about:

- Mizoram crossed above 95% literacy rate (98.20% as per the PLFS Survey 2023-24)
- Earlier, in June 2024, Ladakh became the first administrative unit to declare full functional literacy.
- Goa has become the second state to achieve full functional literacy.
- According to the Ministry of Education above 95% literacy rate is considered equivalent to Full literacy.
- These developments are due to the implementation of ULLAS - Nav Bharat Saaksharta Karyakram

Literacy in India according to Periodic Labour Force Survey (PLFS) 2023-24

Top and Bottom 5 States/UTs by Literacy Rate



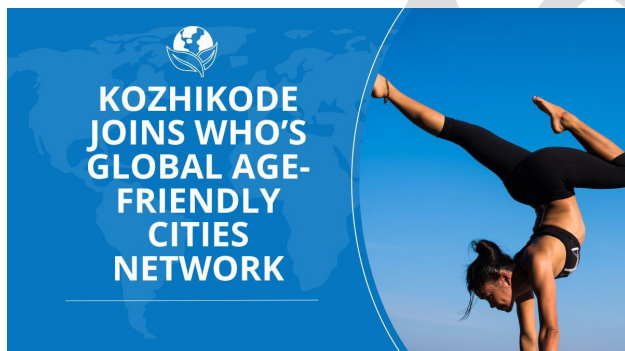
- **Overall literacy rate (age seven and above):** 80.9%
- **Urban vs Rural:** Literacy in urban India stands at 88.9%, while rural areas lag behind at 77.5%.
- **Gender divide:** Male literacy hits 87.2%, while female literacy is 74.6%



About ULLAS - Nav Bharat Saaksharta Karyakram or New India Literacy Programme (NILP):

- **Definition of Literates:** Literates are those with reading, writing, basic math, digital, and financial literacy skills.
- **Scheme Type:** It is a Centrally Sponsored Scheme aligned with NEP 2020.
- **Overall Target:** Aims to educate 5 crore adults (1 crore/year) using the Online Teaching, Learning and Assessment System (OTLAS) system.
- **Technology Backbone:** OTLAS is a digital platform developed by NIC for online teaching, learning, and assessment.
- **Duration:** The scheme runs from FY 2022–23 to 2026–27.
- **Nodal Ministry:** Implemented by the Ministry of Education.
- **Target Group:** Adults aged 15 and above who missed out on formal education.
- **Programme Components:** Includes literacy, numeracy, life skills, vocational skills, and continuing education.
- **Implementation Mode:** Driven by volunteerism to instil social responsibility (Kartavya Bodh).
- **Infrastructure:** Samajik Chetna Kendras are set up using existing community spaces with schools as base units.
- **Regional Access:** Content is accessible in regional languages via DIKSHA and ULLAS apps/portals.
- **Assessment:** (Foundational Literacy and Numeracy Assessment Test (FLNAT) is held twice a year or on-demand in local schools for evaluation and certification.

4. Global Network for Age-friendly Cities and Communities:



Context: Kozhikode city has been honoured with a membership in the WHO's GNAFCC.



About GNAFCC:

- **Established:** 2010
- **Members:** 1300 members from 51 countries.
- **Aim:** To connect cities, communities and organizations worldwide with the common vision of making their communities great places to grow older in.
- It connect cities and communities worldwide to facilitate the exchange of information, knowledge and experience.

5. **Global Gender Gap Report 2025:**

Context: The Global Gender Gap Report 2025 was released recently.

About the report:

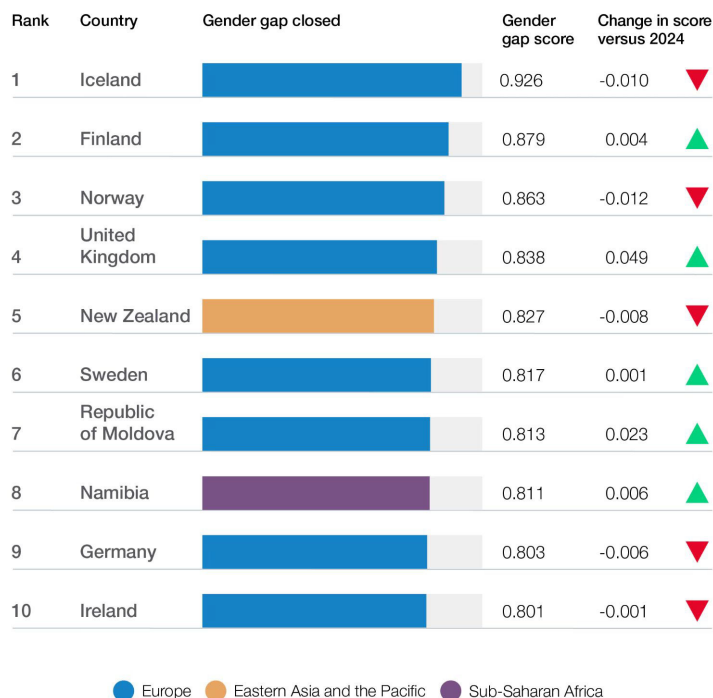
- It benchmarks countries on their progress towards gender parity in four key dimensions with Submatrices-Economic Participation and Opportunity, Educational Attainment, Health and Survival, Political Empowerment.
- It aims to serve as a compass to track progress on relative gaps between women and men on health, education, economy and politics.
- It is published every year by World Economic Forum.

Key Findings of Report:

- **India:** India has been ranked 131st out of 148 countries slipping from 129th position in 2024, although score improved to 0.644(2025) from 0.641(2024).
- Bangladesh emerged as the best performer in South Asia, jumping 75 ranks to rank 24 globally.
- Nepal ranked 125, Sri Lanka 130, Bhutan 119, ranked better than India.
- **Global Rankings:** Iceland leads the rankings for the 16th year running, followed by Finland, Norway, the United Kingdom and New Zealand.
- **Gender Gap:** There is still a combined global average gender gap of over 30%.
- Overall, no economy has yet achieved full gender parity.
- It will take 123 years to reach full parity globally.



The Global Gender Gap Index 2025 Rankings



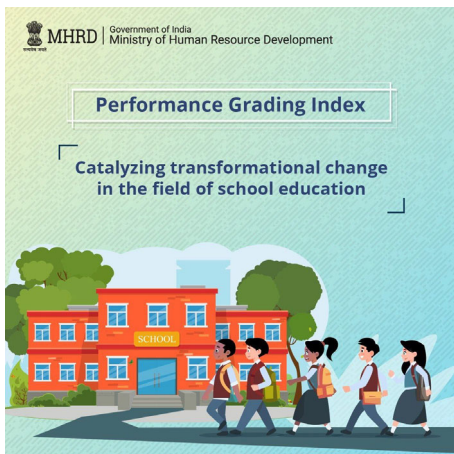
Source: World Economic Forum. (2025). *Global Gender Gap Report 2025*.

Key Dimension	India's Performance (2025)
Economic Participation & Opportunity	Economy improved; economic participation up 0.9% to 40.7%; parity in earned income improved; labour-force participation steady at 45.9% (highest to date).
Educational Attainment	Score: 97.1%, showing gains in female literacy and tertiary enrolment.
Health & Survival	Higher parity due to better sex ratio at birth and healthy life expectancy; however, overall reduction in both men's and women's life expectancy.
Political Empowerment	Parity dropped - 0.6 points; female representation in parliament declined from 14.7% → 13.8%; women in ministerial roles fell from 6.5% → 5.6%.



6. Performance Grading Index 2.0:

Context: Performance Grading Index 2.0 was released



About Performance Grading Index 2.0:

- **Launch:** Introduced in 2017, revamped as PGI 2.0 in 2021.
- **Released by:** Ministry of Education.
- **Data Sources:** UDISE+, NAS, PM-POSHAN portal, PRABAND portal, Vidyanjali portal.
- **Purpose:** To holistically assess school education systems of States/UTs.

Scores (% of total points)	Score range	Grade
91% to 100%	941-1000	Daksh
81% to 90%	881-940	Utkarsh
71% to 80%	821-880	Atti-Uttam
61% to 70%	761-820	Uttam
51% to 60%	701-760	Prachesta-1
41% to 50%	641-700	Prachesta-2
31% to 40%	581-640	Prachesta-3
21% to 30%	521-580	Akanshi-1
11% to 20%	461-520	Akanshi-2
up to 10%	401-460	Akanshi-3



- **Structure:** 1000 points, 73 indicators, grouped under Outcome & Governance & Management.
- **Domains:** 6 domains – Learning Outcomes, Access, Infrastructure & Facilities, Equity, Governance Processes, Teacher Education & Training.
- **Evaluation:** States/UTs graded across 10 levels (Grades).

Key Findings of the Report:

- No state/UT achieved the top four grades (Daksh, Utkarsh, Atti-Uttam, Uttam).
- **Top Performer:** Only Chandigarh attained Grade Prachesta-1.
- **Lowest Performer:** Meghalaya is the only state in the tenth grade (Akanshi-3).
- **Inter-State Disparity:** The report highlights that this disparity has reduced.
- **Overall Trends:** 24 states/UTs improved scores in 2023-24 compared to 2022-23.
- 12 states/UTs including Bihar, Andaman and Nicobar Islands, Chhattisgarh, Jharkhand, Karnataka, etc. saw score declines.

7. Sustainable development goals report 2025:

Context: SDGR is the only UN official report that monitors global progress on the 2030 Agenda for Sustainable Development.

About sustainable Development goals:



- **Adopted By:** United Nations General Assembly in 2015 as part of the 2030 Agenda for Sustainable Development.
- **Total Goals:** 17 SDGs addressing global challenges.
- **Targets & Indicators:** 169 targets and 304 indicators to measure progress.
- **Purpose:** Promote a more inclusive, equitable, and sustainable world.
- **Focus Areas:** Poverty, inequality, health, education, climate change, environmental protection, peace, and justice.
- **Timeline:** To be achieved by 2030.
- **Relation to MDGs:** Builds upon the Millennium Development Goals (MDGs), addressing gaps and expanding objectives globally.

SDG Goal	Goal Name	Key Progress Highlights (2023-2024)
Goal 1	No Poverty	8.9% of the global population still lives in extreme poverty.
Goal 2	Zero Hunger	1 in 11 people worldwide faced hunger in 2023.
Goal 4	Quality Education	Since 2015, 110M more children enrolled in schools, but 272M remained out of school in 2023.
Goal 5	Gender Equality	Women occupy < 1/3 rd of managerial positions globally.
Goal 8	Decent Work & Economic Growth	Unemployment fell to a record low of 5.0% in 2024, but 58% of workers are still informally employed.
Goal 10	Reduced Inequalities	In 2024, 57% of working-age people were employed globally, impacting 3.6B workers & families.
Goal 11	Sustainable Cities & Communities	3B people face housing affordability issues; 1.12B live in slums or informal settlements.
Goal 13	Climate Action	2024 was the hottest year on record with temperatures +1.55°C above pre-industrial levels.
Goal 16	Peace, Justice & Strong Institutions	In 2024, 50,000 deaths due to conflict and 123.2M forcibly displaced worldwide.



8. National indicator framework (NIF) progress report 2025:

Context: NIF launched by MoSPI reflects India's commitment to the Sustainable Development Goals (SDGs) and serves as the backbone for monitoring SDGs at the national level.

Key progress:

SDG Goal	Goal Name	Key Progress Highlights (2015-2025)
SDG 2	Zero Hunger	Agriculture productivity improves; income per worker from Rs.61,247 (2015-16) to Rs. 94,110 (2024-25)
SDG 6	Clean Water & Sanitation	Rural access to safe drinking water increased from 94.57% (2015-16) to 99.62% (2024-25).
SDG 7	Clean Energy	Share of renewable energy in total installed capacity rose from 16.02% (2015-16) to 22.13% (2024-25); per capita renewable energy generation capacity grew from 64.04W (2014-15) to 156.31W (2024-25).
SDG 8	Decent Work & Economic Growth	Social protection coverage expanded from 22% (2016) to 64.3% (2025).
SDG 9	Industry, Innovation & Infrastructure	Emission intensity of GDP reduced by 36% from 2005 to 2020, indicating greener growth.
SDG 10	Reduced Inequality	Gini coefficient of household expenditure dropped from 0.283 → 0.237 (rural) and 0.363 → 0.284 (urban) between 2011-12 and 2023-24.
SDG 12	Responsible Consumption & Production	Waste processing improved from 17.97% (2015-16) to 80.7% (2024-25).
SDG 15	Life on Land	Forest cover increased from 21.34% (2015) to 21.76% (2023).

9. National Education Policy (NEP) 2020:

Context: National Education Policy (NEP) 2020 completed 5 years. It is the country's third education policy post-independence (first 2 policies in 1968 and 1986 modified in 1992). It was drafted on the recommendations of Kasturirangan Committee.



Fundamental Principles of NEP

- **Emphasis on Conceptual Understanding:** Rather than rote learning.
- **Use of Technology:** In teaching and learning, removing language barriers, access for Divyang students.
- **'Light but tight' Regulatory Framework:** Ensure integrity, transparency, and resource efficiency.
- **Respect for diversity:** Inclusion of local context in all curriculum, pedagogy, and policy.
- **Equity and Inclusion:** For unprivileged sections.
- **Research:** Core requisite for outstanding education and development.
- **Continuous Review of Progress:** Based on sustained research and regular assessment.

Key targets of the policy

- Universal FLN in primary school by 2025
- 100 % GER in preschool to secondary level by 2030
- 6% Public Investment in Education (% of GDP)
- 50% GER in higher education including vocational education by 2035
- All higher education institutions (HEIs) to become multidisciplinary institutions, by 2040
- At least 50% of learners through school and higher education to have exposure to vocational education by 2025

School education:

Focus Area	Key Initiatives / Provisions	Details / Objectives
Early Childhood Care and Education (ECCE)	National Curricular and Pedagogical Framework for ECCE (NCPFEC)	• Designed for children up to 8 years of age. • Ensures play-based, activity-based, and discovery-based learning. • Covers preschool to Grade 2. • Integrated approach for cognitive, social, emotional, and physical development.



Foundational Literacy and Numeracy (FLN)	Digital Infrastructure for Knowledge Sharing (DIKSHA)	- A national digital platform providing e-content and resources in 133 Indian languages. - Supports teachers, students, and parents. - Aims to achieve universal FLN by Grade 3 by 2025. - Includes interactive videos, assessments, and training modules.
New Pedagogical & Curricular Structure	5+3+3+4 Design and National Curriculum Framework for School Education (NCFSE)	- Replaces old 10+2 structure. Structure: → Foundational Stage (5 years): 3 years of preschool + Grades 1 & 2 → Preparatory Stage (3 years): Grades 3 to 5. → Middle Stage (3 years): Grades 6 to 8. → Secondary Stage (4 years): Grades 9 to 12. - NCFSE designed by NCERT to ensure a holistic, multidisciplinary curriculum.
Multilingualism	Local Language as Medium of Instruction	- Medium of instruction to be the mother tongue/regional language till at least Grade 5 (Preferably till Grade 8 and beyond). - Promotes multilingual proficiency through the three-language formula.
Assessment Reforms	PARAKH (Performance Assessment, Review & Analysis of Knowledge for Holistic Development)	- A national-level assessment centre. - Standard-setting body for student assessment. - Shifts focus from rote learning to competency-based evaluation.



		- Introduces holistic report cards and diagnostic tests. - Board exams to test core concepts and analytical ability rather than memorization
Teachers	Teacher Recruitment, Training & Development	- Maintain Pupil-Teacher Ratio (PTR) under 30:1 at every school level. - Strengthening Teacher Eligibility Tests (TETs) to ensure better quality. - Mandatory 50 hours to Continuous Professional Development (CPD) annually for every teacher. - Training aligned with 21st-century pedagogical skills and digital literacy.

Focus Area	Key Initiatives / Provisions	Details / Objectives
Quality Universities and Colleges	3 or 4-Year Undergraduate Degree Courses	- Offers flexibility with multiple entry and exit options: → 1 Year → Certificate → 2 Years → Diploma → 3 Years → Bachelor's Degree → 4 Years → Bachelor's with research. - Encourages multidisciplinary learning and experiential learning. - Aims to create world-class institutions focusing on innovation, critical thinking, and research.
	Academic Bank of Credits (ABC)	A digital repository that securely stores academic credits earned by students from various recognized Higher Education Institutions (HEIs).



		- Enables students to transfer credits between universities and re-enter courses without losing progress. - Promotes flexibility in learning pathways.
Standard-setting and Accreditation	Department of School Education & State-Level Monitoring	- Establish apex bodies for policymaking and state-level school standards authorities. - Ensures quality control, transparency, and accountability. - Accreditation based on learning outcomes, teacher quality, and infrastructure standards. - Encourages school complexes/clusters for efficient resource sharing.

Higher education:

Focus Area	Key Initiatives / Provisions	Details / Objectives
Quality Universities and Colleges	3 or 4-Year Undergraduate Degree	- Offers flexibility with multiple entry and exit options: → Year → Certificate → 2 Years → Diploma → 3 Years → Bachelor's Degree → 4 Years → Bachelor's with Research. - Encourages multidisciplinary learning and experimental learning. - Aims to create world-class institutions focusing on innovation, critical thinking, and research.
	Academic Bank of Credits (ABC)	A digital repository that securely stores academic credits earned by students from various recognized Higher Education Institutions (HEIs)



		- Enables students to transfer credits between universities and re-enter courses without losing progress. - Promotes flexibility in learning pathways.
Teacher Education	Use of Technology Platforms	- Platforms like SWAYAM and DIKSHA provide online courses and digital resources for teacher training. - Ensures scalable, affordable, and accessible professional development. - Focuses on 21st-century pedagogical skills, digital literacy, and blended learning techniques.
	National Mission for Mentoring (NMM)	- Offers personalized mentoring sessions from experienced professionals. - Aims to improve teaching standards through peer learning and expert guidance.
Regulatory Transformation	Higher Education Commission of India (HECI)	- Establishes HECI as an umbrella regulatory institution for higher education (excluding medical and legal education). - Has four independent verticals: - NHERC – National Higher Education Regulatory Council → Sets regulatory standards. - NAC – National Accreditation Council → Accredits institutions. - HEGC – Higher Education Grants Council → Provides funding and scholarships. - GEC – General Education Council → Frames learning outcomes and academic standards. - Ensures “light buy tight” regulation to promote autonomy while maintaining accountability.
Other Key Areas	National Committee for the Integration of Vocational	- Integrates vocational education into mainstream higher education. - Targets 50% student exposure to vocational skills by 2025.



	Education (NCIVE)	Promotes internships, apprenticeships, and hands-on training.
	Professional Education	- Improves the quality of law, medicine, agriculture, management, and engineering education. - Encourages multidisciplinary approaches and industry-academia collaboration.
	Adult Education and Lifelong Learning	- Expands access to continuing education programs for adults. - Uses online and blended models to improve digital literacy, financial literacy, and vocational skills. - Aims to achieve universal adult literacy by 2030.
	Promotion of Indian Languages, Arts, and Culture	- Establishes an Institute for Translation and Interpretation (ITI). - Promotes Sanskrit and other regional languages. - Sets up National Institute for Pali, Persian, and Prakrit, and Indian Institute of Translation and Interpretation (IITI). - Encourages preservation and study of Indian heritage, art, and cultural traditions.
	Technology Use and Integration	- Establishes National Educational Technology Forum (NETF). - Facilitates the use of digital tools, AI, and data analytics in teaching and research. - Develops National Digital Education Architecture (NDEAR) for seamless digital learning integration. - Promotes virtual labs, e-content, and online degree programs.



Key Achievements of National Educational Policy 2020:

Focus Area	Key Achievements	Details / Highlights
School Education (Economic Survey 2024-25)	Near-Universal GER at Primary Level	Gross Enrolment Ratio (GER) at primary level reached 93%, showing significant progress toward universal primary education.
	Decline in School Dropout Rates	- Primary: 1.9% - Upper Primary: 5.2% - Secondary: 14.1%. Marked improvement compared to previous years.
	Digitalization in Schools	- Schools with computers increased from 38.5% (2019-20) to 57.2% (2023-24). - Schools with internet access increased from 22.3% to 53.9% in the same period.
Higher Education (18-23 Age Group) (Economic Survey 2024-25)	Rising Gross Enrolment Ratio (GER)	GER increased from 23.7% (2014-15) to 28.4% (2021-22).
	Growth in Higher Education Institutions (HEIs)	- Number of HEIs increased by 13.8% between 2014-15 and 2022-23. - Expansion supports increased accessibility and research opportunities.
Rural Schools (ASER 2024)	Implementation of FLN Directives	Over 80% of 15,728 rural schools reported receiving Foundational Literacy and Numeracy (FLN) directives ensuring early-grade learning.
	High Enrolment Rates	Overall school enrolment among 6-14 year-olds maintained at above 95% for nearly two decades.
	Decline in Non-Enrolled Children (15-16 years)	Drop from 13.1% (2018) to 7.9% (2024), reflecting better retention.



Teacher Training	NISHTHA Programme	12.97 lakh teachers trained under the NISHTHA Teacher Training Programme for professional upskilling and competency-based learning.
Innovation & Research	Patent Filings	92,168 patents filed in 2023-24. - Higher Education Institutions (HEIs) contributed 25% of total findings showing a strong R & D focus.
Inclusivity	Girl's Education Initiatives	7.58 lakh girls enrolled in inclusive residential schools under NEP-driven schemes.
Internationalisation of Education	Global University Campuses in India	Prestigious institutions like Deakin University & Wollongong University (Australia) and the University of Southampton (UK) opened campuses in India, boosting global exposure.
Literacy Milestones	Fully Literate Regions	- Ladakh became the first fully literate administrative unit. - Followed by Mizoram, Goa, and Tripura achieving similar literacy milestones.
Multilingualism	National-Level Exams in Indian Languages	Competitive exams like CUET, JEE (Mains), and NEET (UG) are now conducted in 12 Indian languages, promoting inclusivity and accessibility.
Monitoring & Assessment	PARAKH Rashtriya Sarvekshan (Dec 2024)	- Covered 21.15 lakh students across 74,000 schools. - Evaluated learning levels and curriculum effectiveness nationally.



Key Government Schemes & Initiatives under NEP 2020:

Scheme / Initiative	Objective	Key Features / Highlights
PM SHRI (PM Schools for Rising India)	To revamp over 14,500 schools across India between 2022-2027 into model schools aligned with NEP 2020	- Focus on 21st-century learning skills, critical thinking, and digital education. - Upgrades in infrastructures, labs, smart classrooms, and inclusive teaching. - Acts as a “lighthouse” model for other schools to adopt innovative practices. - Emphasis on environment-friendly and sustainable practices.
NIPUN Bharat (National Initiative for Proficiency in Reading with Understanding and Numeracy)	To achieve Foundational Literacy and Numeracy (FLN) by Grade 3 for all students by 2026-27.	- Covers students in Grades 1 to 3. - Focuses on reading, writing, comprehension, and basic numeracy skills. - Provides teacher training modules, assessment tools, and digital resources. - Implemented via DIKSHA platform for e-content and capacity building.
One Nation One Subscription (ONOS)	To provide country-wide access to scholarly research articles and journals through a single digital platform.	- A Central Sector Scheme benefiting students, teachers, and researchers. - Provides free or subsidized access to top research publications, journals, and databases. - Reduces duplication of subscriptions across institutions. - Promotes knowledge democratization and fosters a research-oriented ecosystem.
Initiatives for Children with Special Needs (CwSN)	To ensure inclusive education for differently-abled students by using technology and special pedagogy.	- PM e-Vidya DTH Channel in Indian Sign Language. - PRASHAST tool for disability screening and early intervention. - Ensures accessible learning materials and personalized support.



		Encourages teacher training for special education needs.
ULLAS / NILP (Nav Bharat Saaksharta Karyakram / New India Literacy Programme)	To promote adult education and lifelong learning for individuals aged 15 years and above who missed formal schooling.	- Covers basic literacy, numeracy, digital literacy, vocational training, and financial literacy. - Special focus on marginalized communities, women and rural populations. - Uses technology-enabled learning platforms. - Aims to achieve universal adult literacy by 2030.
Vidyanjali	To encourage community participation in school development through volunteering and CSR initiatives.	- Connects schools with volunteers, retired professionals, NGOs, and corporate partners. - Allows contributions in the form of teaching support, mentorship, digital tools, and infrastructure upgrades. - Strengthens the school-community relationship. - Promotes holistic school-community relationship.
Rashtriya Vidya Samiksha Kendra (RVSK)	To provide real-time monitoring and evaluation of school education to support evidence-based policymaking	- Collects and analyzes key performance indicators (KPIs) for schools. - Uses digital dashboards for school performance tracking. - Helps policymakers and education departments take corrective actions based on data. - Integrates Unified District Information System for Education (UDISE+) for accurate statistics.

10. Kashi Declaration:

Context: As part of broader Mera Yuva (MY) Bharat framework, the Youth Spiritual Summit laid the foundation for a national youth-led anti-drug campaign. MY Bharat is an autonomous body set up by the Government of India to provide an institutional mechanism powered by technology for youth development and youth-led development.



About Kashi Declaration:

- Sets a 5-year roadmap for India's De-Addiction Movement.
- Recognizes substance abuse as a public health and societal challenge.
- Proposes institutional mechanisms for multi-ministerial coordination.
- Calls for a Joint National Committee, annual progress reports, and a national support platform.
- Stresses integration of spiritual, cultural, educational, and technological measures to combat addiction.

Initiative	Year	Implementing Agency	Key Features / Objectives
Narcotic Drugs and Psychotropic Substances (NDPS) Act	1985	Ministry of Finance (Dept. of Revenue)	• Main legislation to regulate, control, and prohibit the production, sale, and use of narcotic drugs and psychotropic substances. • Imposes strict penalties for possession, trafficking, and consumption. • Empowers central and state agencies for enforcement.
Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act	1988	Ministry of Finance	• Supplementary law to the NDPS Act. • Focuses on preventing illegal trade and trafficking networks. • Allows detention of offenders involved in illicit drug operations for up to 1 year without formal charges.
National Action Plan for Drug Demand Reduction (NAPDDR)	2018-2025	Ministry of Social Justice & Empowerment	• A comprehensive strategy to reduce demand for drugs. • Promotes awareness, treatment, rehabilitation, and capacity-building. • Involves NGOs, educational institutions, and community organizations. • Focuses on prevention, identification, counselling, and rehabilitation.



Nasha Mukta Bharat Abhiyaan (NMBA)	2020	Ministry of Social Justice & Empowerment	• Flagship nationwide campaign to make India drug-free. • Targets 272 vulnerable districts across India. • Focuses on community outreach, awareness campaigns, and counselling.
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11. TALASH (Tribal Aptitude, Life Skills and Self-Esteem Hub) Initiative:

Context: The National Education Society for Tribal Students (NESTS), under the Ministry of Tribal Affairs, in partnership with UNICEF India launched TALASH (Tribal Aptitude, Life Skills and Self-Esteem Hub) Initiative.

About TALASH:

- A national program for the holistic development of students in Eklavya Model Residential Schools (EMRSs).
- **EMRS:** A central sector scheme under the Ministry of Tribal Affairs for residential schooling of tribal children in areas with 50%+ ST population.
- Provides an innovative digital platform for student support and growth.
- Offers psychometric assessments (based on NCERT's 'Tamanna' initiative).
- Tamanna - Try And Measure Aptitude aNd Natural Abilities is an initiative of the Central Board of Secondary Education (CBSE) and National Council of Educational Research and Training (NCERT)
- Includes career counselling, life skills & self-esteem modules, and e-learning for teachers.

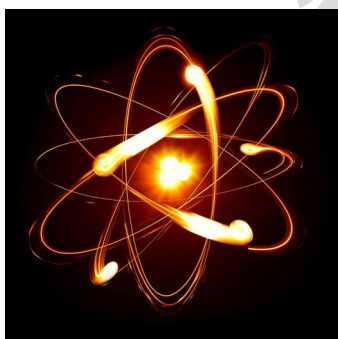


7. Science and Technology Developments

1. Quantum technology:

Context: MeitY, CERT-In, and cybersecurity firm SISA jointly launched a white paper titled “Transitioning to Quantum Cyber Readiness” to prepare for disruptive potential of quantum technologies, especially in cybersecurity.

What is quantum science?



- Quantum technology is an emerging field of physics and engineering, which relies on the principles of quantum physics (the physics of subatomic particles).
- Subatomic particles are the smaller constituents of atoms, which are the basic building blocks of matter.
- Atoms themselves are composed of three primary types of subatomic particles: protons, neutrons, and electrons.

National Quantum Mission:

- It'll be implemented by the Department of Science & Technology (DST) under the Ministry of Science & Technology.
- The mission launched in 2023 at a cost of Rs 6,000 crore, planned for 2023-2031 time period.
- It aims to seed, nurture, and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in Quantum Technology (QT).

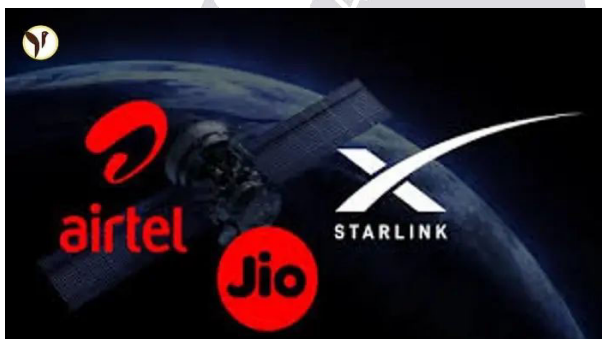


- With the launch of this mission, India will be the seventh country to have a dedicated quantum mission after the US, Austria, Finland, France, Canada and China.

Objectives:

- To develop quantum computers with 50-1000 qubits in 8 years on various platforms such as superconducting and photonic technology.
- To develop secure Satellite-based quantum communications between ground stations over 2000 kilometres range within India.
- To develop secure long-distance quantum communications with other countries.
- To develop inter-city quantum key distribution over a 2000 km range as well as multi-node Quantum networks.

2. Satellite Internet services:



Context: Indian telecom companies Airtel and Jio signed a deal with SpaceX to bring Starlink satellite internet services to India.

About Satellite Internet:

Various Types of Orbits and Satellite Internet Services			
	Geostationary Earth Orbit (GEO)	Medium Earth Orbit (MEO)	Low Earth Orbit (LEO)
Distance from Earth	–35,786 km	–2,000 km – 35,786 km	–160 km –2,000 km
Latency	Medium latency	Low latency	Very low latency



Deployment cost	Very high cost setup	Mid-high cost setup	Comparatively low cost setup
Earth coverage	Very large	Large	Small
Antenna speed	Stationary antennas (three satellites for global coverage)	1-hour slow tacking (six satellites for coverage)	10-minute fast tracking (100s-1,000s satellites needed for coverage)
Applications	Weather data, broadcast TV, imagery, low-speed data communication	Communications, defense industry applications, navigation systems such as GPS	Remote sensing, human space flight, data communication
Players using this orbit	Jio Space Technology Limited (will use a combination of GEO and MEO satellite constellations)		Starlink, OneWeb, Project Kuiper, Telesat

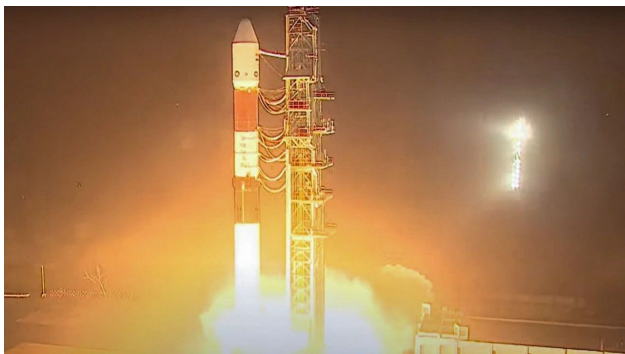
- **Definition:** Satellite internet or satellite broadband, is a wireless internet connection provided through communication satellites orbiting the Earth.
- **Difference:** Unlike land-based internet services such as fiber, cable, or DSL, it doesn't rely on wires to transmit data.

About Starlink project:

- It is a SpaceX project, launched in 2019, to build a broadband network with a cluster of thousands of orbiting satellites.
- The goal of the project is to create a low-cost, satellite-based broadband network that can provide global internet access.
- The Starlink satellites will be placed in an altitude range between 350 km and 1,200 km in Low Earth Orbit (LEO).
- Starlink satellites operate in Low-Earth Orbit (LEO) which results in lower latency and faster data transfer rates than typical geostationary satellites orbit at much higher altitudes.



3. 63rd PSLV mission (PSLV-C61/EOS-09) :



Context: ISRO's 63rd PSLV mission (PSLV-C61/EOS-09) failed due to a technical malfunction during the third stage of the PSLV rocket.

- Since its first flight, Polar Satellite Launch Vehicle (PSLV) has failed only twice - inaugural flight in 1993 and again in 2017.

About PSLV-C61/EOS-09 Mission:



- PSLV-C61 was meant to carry the EOS-09 (Earth Observation Satellite-09) into a Sun-Synchronous Polar Orbit (SSPO).
- It was launched from the First Launch Pad at Satish Dhawan Space Centre in Sriharikota.
- EOS-09 is an advanced Earth observation satellite, equipped with C-band Synthetic Aperture Radar (SAR) technology.
- **Objective:** To provide continuous and reliable remote sensing data for operational applications across various sectors.
- This satellite can capture high-resolution images of the Earth's surface in any weather, day or night.



Polar Satellite Launch Vehicle (PSLV):



- It is a four-stage vehicle with multiple satellite launch capabilities and multiple orbit capabilities.
- It is the first Indian launch vehicle to be equipped with liquid stages.
- Capable of launching satellites into LEO, Geosynchronous, and Geostationary orbits, like satellites from the IRNSS Constellation.

Stages of PSLV	Use of Equipment
First stage	Solid rocket motor S139
Second stage	Earth storable liquid rocket engine (Vikas engine)
Third stage	Solid rocket motor S7 (provide high thrust to the upper stages)
Fourth stage	Two Earth storable liquid engines

4. Trachoma:

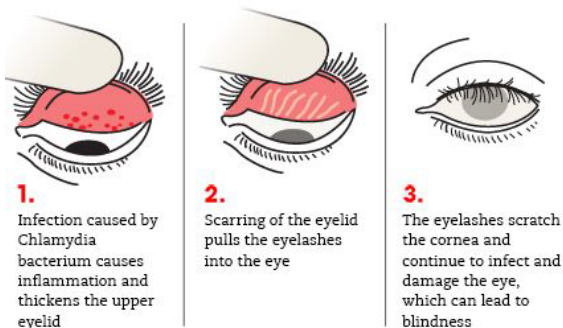
Context: India was awarded the Certificate of Elimination of Trachoma as a Public Health Problem by the World Health Organisation (WHO).

- India was declared the 3rd (after Nepal and Myanmar) Southeast Asian region country to have eliminated Trachoma in 2024.



About Trachoma:

Stages of trachoma



- It is an eye disease caused by the bacterium Chlamydia trachomatis.
- It is categorized as a Neglected Tropical Disease by the WHO.
- **Impact:** Irreversible blindness. Repeated episodes may cause the eyelashes to be drawn in, rubbing the eye surface causing permanent corneal damage.
- **Spread:** Personal contact or through flies.
- **Indian Initiative:** Trachoma control program integrated under the National Program for Control of Blindness and Visual Impairment (NPCBVI) in 1976.

5. Axiom-4 Mission:



Context: The Axiom-4 Mission carrying Indian astronaut Group Captain Shubhanshu Shukla and 3 other astronauts successfully returned on July 15, 2025.

About Axiom-4 (Ax-4) Mission:

- **Mission:** 4th private astronaut mission to ISS by Axiom Space, with NASA & SpaceX.



- **Launch:** 14-day mission aboard SpaceX Dragon on Falcon 9 from Kennedy Space Centre, Florida.
- **Crew:** Shubhanshu Shukla (India), Peggy Whitson (USA), Sławosz Uznański (Poland), Tibor Kapu (Hungary).
- **Aim:** First ISS mission for India, Poland, Hungary; revival of government-backed spaceflights after 40+ years.
- **Research Scope:** 60+ studies from 31 countries – microgravity, human physiology, Earth imaging, etc.

About International Space Station (ISS):

- It is a habitable artificial satellite, in Low Earth orbit (LEO) (altitude of 370–460 km).
- **Key partners for ISS:** Europe (ESA), the USA (NASA), Japan (JAXA), Canada (CSA) and Russia (Roscosmos)
- It orbits the Earth at a speed of approximately 28,000 kilometres per hour, completing one orbit every 90 minutes.
- It is the largest artificial body in orbit providing a laboratory in space, having an orbit such that it can fly over 90% of inhabited Earth.
- Its first component was launched into orbit in 1998 and it will continue to be a working laboratory and outpost in orbit until at least 2030.

6. S&T Clusters initiative:

Context: S&T Clusters Annual Report 2024-2025 highlighted various initiatives launched under the programme, including Kalaanubhav.in which is an AR/VR-enabled artisan marketplace

About the S&T Clusters initiative:



- **Genesis:** Launched in 2020 based on the recommendations of the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).
- **Aims:** To bring together stakeholders, like academic institutions, R&D organisations, industry, local governments, to deliver demand-driven solutions through innovative ideas.
- **Nodal Implementing Agency:** Office of the Principal Scientific Adviser (PSA). PSA works under the Cabinet Secretary

7. DHRUVA:

Context: The Department of Posts (DoP) has released a comprehensive policy document outlining the framework for DHRUVA, a national-level Digital Address Digital Public Infrastructure (DPI).

About DHRUVA:

- **DHRUVA:** A Digital Public Infrastructure (DPI) by Department of Posts to assign a unique digital address for every home in India.
- **Framework:** Uses a geo-coded system for secure and accurate address sharing.
- **Aim:** Treat address management as core public infrastructure for governance, inclusive service delivery, and user experience.
- **Service Model:** Enables Address-as-a-Service (AaaS) for address data management.

Layers:

- **DIGIPIN:** 10-digit alphanumeric code from latitude-longitude grids (~4x4m) uniquely identifying locations.
- **Digital Address Layer:** Consent-based, user-friendly system to create labels for DIGIPIN + descriptive addresses.

8. India's first gene-edited sheep:



Context: India's first gene-edited sheep has been produced by researchers from Kashmir University in collaboration with ICAR using CRISPR-Cas9 technology.

More about:

- India's first gene-edited sheep is named Tameem.
- The sheep was developed by researchers at Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST-K) in Srinagar.
- They used CRISPR-Cas9 technology to modify the myostatin gene, increasing muscle mass in the sheep.
- The sheep is a Kashmir Merino, a local breed.

About CRISPR-Cas9 (Clustered Regularly Interspaced Short Palindromic Repeats) tool:

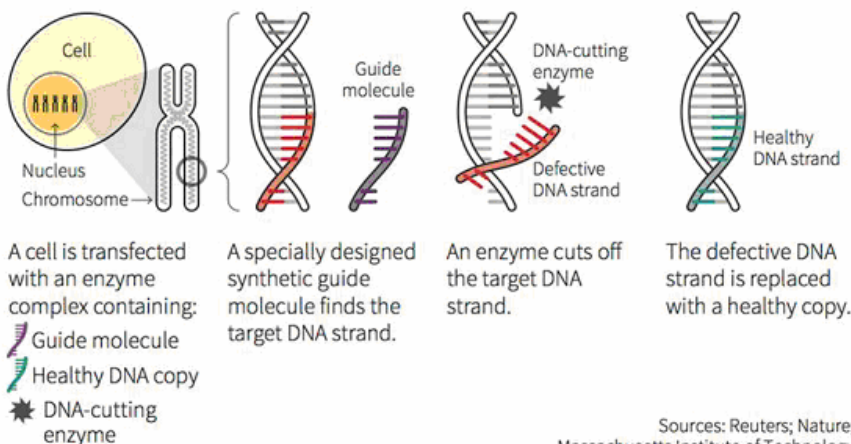
- CRISPR-Cas9 is a technology that enables geneticists and medical researchers to edit parts of the genome by removing, adding or altering sections of the DNA.
- The CRISPR-Cas9 system consists of two key molecules that introduce a change into the DNA.

These are:

DNA editing

A DNA editing technique, called CRISPR/Cas9, works like a biological version of a word-processing programme's "find and replace" function.

HOW THE TECHNIQUE WORKS



1. **An enzyme called Cas9:** This acts as a pair of 'molecular scissors' that can cut the two strands of DNA at a specific location in the genome so that bits of DNA can then be added or removed.



2. **A piece of RNA called guide RNA (gRNA):** This consists of a small piece of pre-designed RNA sequence located within a longer RNA scaffold. The scaffold part binds to DNA and the pre-designed sequence 'guides' Cas9 to the right part of the genome. This makes sure that the Cas9 enzyme cuts at the right point in the genome.

9. **Wegovy:**

Context: Danish pharma company Novo Nordisk launched its weight loss drug Wegovy in India.



More about:

- The drug semaglutide, marketed under the brand name Wegovy, will be available in the form of injections to be administered once a week.
- Semaglutide, works as an appetite suppressant by imitating a hormone called glucagon-like peptide-1 (GLP-1).
- GLP-1 is an intestinal hormone released after eating, and usually makes people feel fuller.
- Other weight loss drugs include Mounjaro, which is made up of tirzepatide (mimics function of GLP-1 and GIP).

10. **NISAR satellite:**

Context: The NISAR satellite was successfully launched from Satish Dhawan Space Centre, Sriharikota.

About NISAR satellite:

- **NISAR:** A joint ISRO–NASA L- & S-band microwave imaging mission with polarimetric & interferometric capabilities.



- **NASA Contribution:** L-band radar, GPS receiver, high-rate telecom system, Solid-State Recorder, and 12m deployable antenna.
- **ISRO Contribution:** S-band radar, spacecraft bus, GSLV-F16 launch vehicle, and related systems.
- **Investment:** NASA – \$1.16 billion; ISRO – \$90 million.

Band	Frequency Range	Purpose/Applications	Key Examples
L-Band	1-2 GHz	GPS, mobile communications, maritime navigation, weather monitoring	GPS satellites, Inmarsat, Iridium
S-Band	2 – 4 GHz	Weather radars, telemetry, tracking, telecommand, broadcasting	INSAT, NASA's TDRSS, India's NavIC
C-Band	4/8 GHz	Television broadcasts, satellite communication VSAT, maritime communications	Doordarshan DTH, GSAT series
X-Band	8-12 GHz	Military satellite communications, weather radars, SAR imaging	GSAT-7 (Rukmini) RISAT satellites
Ku-Band	12-18 GHz	Direct-to-Home (DTH) TV, broadband services, VSAT, satellite telephony	Tata Sky, Airtel DTH, GSAT-10, GSAT-15
K-Band	18-27 GHz	High-resolution satellite imaging, scientific experiments	Earth observation missions, ESA satellites
Ka-Band	27-40 GHz	High-speed internet, military communication, deep-space communication	GSAT-19, OneWeb, Starlink

- **Weight:** 2,392 kg.
- **Launch Vehicle:** GSLV-F16.
- **Orbit:** Sun-Synchronous Polar Orbit (SSO) at 743 km altitude.
- **Significance:** First time GSLV used for placing a satellite in SSO instead of traditional GTO.
- **SSO Feature:** Keeps satellite in sync with the Sun, ensuring consistent lighting for imaging.
- **Mission Life:** 5 years.



Objective	Purpose/Focus Area
Measure woody biomass	To monitor forests and detect changes in vegetation and biomass levels.
Track active crops	To analyze changes in the extent of agricultural land and crop patterns.
Understand wetlands' changes	To study the extent and dynamics of global wetlands
Map polar ice sheets	To monitor Greenland & Antarctica's ice sheets, sea ice dynamics, and mountain glaciers.
Characterize land surface deformation	To assess changes due to earthquakes, volcanism, landslides, subsidence, uplift, and impacts on aquifers, hydrocarbon reservoirs, etc.

11. 3 by 35 initiative:

Context: WHO launched the initiative with aim to raise prices of any or all of three unhealthy products tobacco, alcohol, and sugary drinks by at least 50% through health taxes by 2035. Launched initiative can mobilize an additional US\$ 1 trillion in public revenue globally over next decade

12. Phenome India National Biobank:

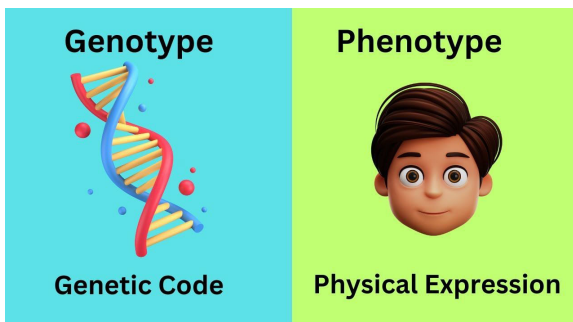
Context: National Biobank inaugurated at the CSIR-Institute of Genomics and Integrative Biology (IGIB). The newly launched facility marks a significant stride towards building India's own longitudinal health database

What is Phenome?

- Phenome is the entire set of phenotypes in a cell, tissue, organ, organism or species.
- Phenotype refers to the observable physical characteristics of an organism.
- These include the organism's appearance, development, and behavior.
- An organism's phenotype is determined by its genotype (set of genes the organism carries) as well as by environmental influences upon these genes.



About Phenome India Project:



- It is officially called as Phenome India-CSIR Health Cohort Knowledgebase (PI-CheCK).
- **Launched by:** Council of Scientific and Industrial Research (CSIR) in 2023.
- **Objective:** It is designed to be a long-term, data-rich study tracking the health trajectories of individuals over several years.

About National Biobank:



- Launched under the Phenome India Project, modeled on the UK Biobank but tailored for Indian diversity.
- Aims to enable early diagnosis and improve therapeutic targeting for complex diseases.
- Focuses on conditions like diabetes, cancer, cardiovascular diseases, and rare genetic disorders.
- Will generate high-resolution data to support AI-driven diagnostics and gene-guided therapies.
- Plans to collect genomic, lifestyle, and clinical data from 10,000 individuals across India.



8. Miscellaneous

1. Gallantry Awards



Context: President conferred Kirti Chakras and Shaurya Chakras to the personnel of the Armed Forces, Central Armed Police Forces and State/Union Territory Police.

What are Gallantry awards?

- Gallantry Awards have been instituted to honour the acts of bravery and sacrifice of the officers/personnel of the Armed Forces, other lawfully constituted Forces and civilians.
- These gallantry awards are announced twice a year - first on the occasion of Republic Day and then on the occasion of Independence Day.

Categorisation of awards:



Gallantry Awards are classified into two categories

1. Gallantry in the Face of Enemy.
2. Gallantry Other than in the Face of Enemy.



Gallantry in the Face of Enemy:

1. Param Vir Chakra (PVC)
2. Mahavir Chakra (MVC)
3. Vir Chakra

Gallantry Other than in the Face of Enemy:

1. Ashok Chakra
2. Kirti Chakra
3. Shaurya Chakra

History of the awards:

- The first three gallantry awards namely the Param Vir Chakra, the Maha Vir Chakra and the Vir Chakra were instituted by the Government of India on 26th January 1950.
- Other three gallantry awards i.e., the Ashoka Chakra Class-I, the Ashoka Chakra Class-II and the Ashoka Chakra Class-III were instituted by the Government of India on 4th January 1952.
- These awards were renamed the Ashoka Chakra, the Kirti Chakra and the Shaurya Chakra respectively in January 1967.

2. **Khel Ratna award:**

Context: Satwiksairaj Rankireddy & Chirag Shetty received the Major Dhyan Chand Khel Ratna award.

- The badminton pair reached the No. 1 rank in Badminton World Federation rankings in 2023 & clinched Asian Games gold medal in Hangzhou

6 Categories of National Sports Awards:



- **Major Dhyan Chand Khel Ratna Award (1991-92):** Awarded for outstanding performances in sports spanning over a period of 4 years.



- Established in 1991–92 as the Rajiv Gandhi Khel Ratna, it was renamed the Major Dhyan Chand Khel Ratna Award in 2021.
- **Eligibility:** Only performances in recognized international events are considered.
- **Award:** ₹25 lakh cash prize, Medal and a certificate of honour.
- **Arjuna Award (1961):** Awarded for consistent good performance over a period of 4 years.
- **Dronacharya Award (1985):** It is highest sports honour for coaches.
- **Major Dhyan Chand Award (2002):** India's highest honour for lifetime achievements in sports.
- **Rashtriya Khel Protsahan Puruskar (2009):** Awarded to organizations /corporates (private & public) & individuals for playing a role in area of sports promotion & development over last 3 years.

3. **Pulitzer Prize:**

Context: The New York Times won four Pulitzer Prizes and The New Yorker three for journalism in 2024.



About Pulitzer Prize:

- The Annual Pulitzer Prize is an esteemed set of awards presented annually by Columbia University in New York City.
- Pulitzer Prizes were established by Joseph Pulitzer, a Hungarian-American journalist and newspaper publisher, who left money to Columbia University upon his death in 1911.
- It recognizes outstanding achievements in journalism, letters, and music.
- It was first awarded in 1917.



4. Atal Pension Yojana (APY) :



Context: Atal Pension Yojana (APY) completed 10 years.

About Atal Pension Yojana:

- It is the guaranteed pension scheme of Government of India administered by PFRDA.
- The scheme allows any Citizen of India between the age group of 18-40 years to join through the bank or post office branches.
- The scheme was launched in May, 2015.
- It mainly focuses on the poor, the under-privileged and the workers in the unorganised sector.

Eligibility:

- Any Indian citizen in the age group of 18-40 years having savings bank account/ post office savings bank account.
- The co-contribution of the Government of India is available for 5 years & for those who are not covered by any Statutory Social Security Scheme and are not income tax payers.

Benefits:

- It provides a minimum guaranteed pension ranging from Rs 1000 to Rs 5000 on attaining 60 years of age.
- The amount of pension is guaranteed for lifetime to the spouse on death of the subscriber.
- In the event of death of both the subscriber and the spouse, the entire pension corpus is paid to the nominee.



5. GI tags:



Context: Kumbakonam vetrilai and Thovalai maanikka maalai from Tamil Nadu were recently granted a Geographical Indication (GI) tag.

About Kumbakonam Vetrilai:

- It is a betel (pan) leaf.
- It is grown in Thanjavur's fertile Cauvery River basin.
- It is known for its high antioxidant and anti-inflammatory properties, due to the presence of chavicol.

About Thovalai maanikka maalai:

- It is a special type of garland that is made only in Thovalai.
- The flowers are carefully folded and arranged in precise patterns to create the appearance of gems (especially rubies) in a geometrically manner.

What are GI tags?



Geographical Indication (GI) Tags

अतुल्य भारत की अमूल्य निधि
Invaluable Treasures of Incredible India

- A GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.



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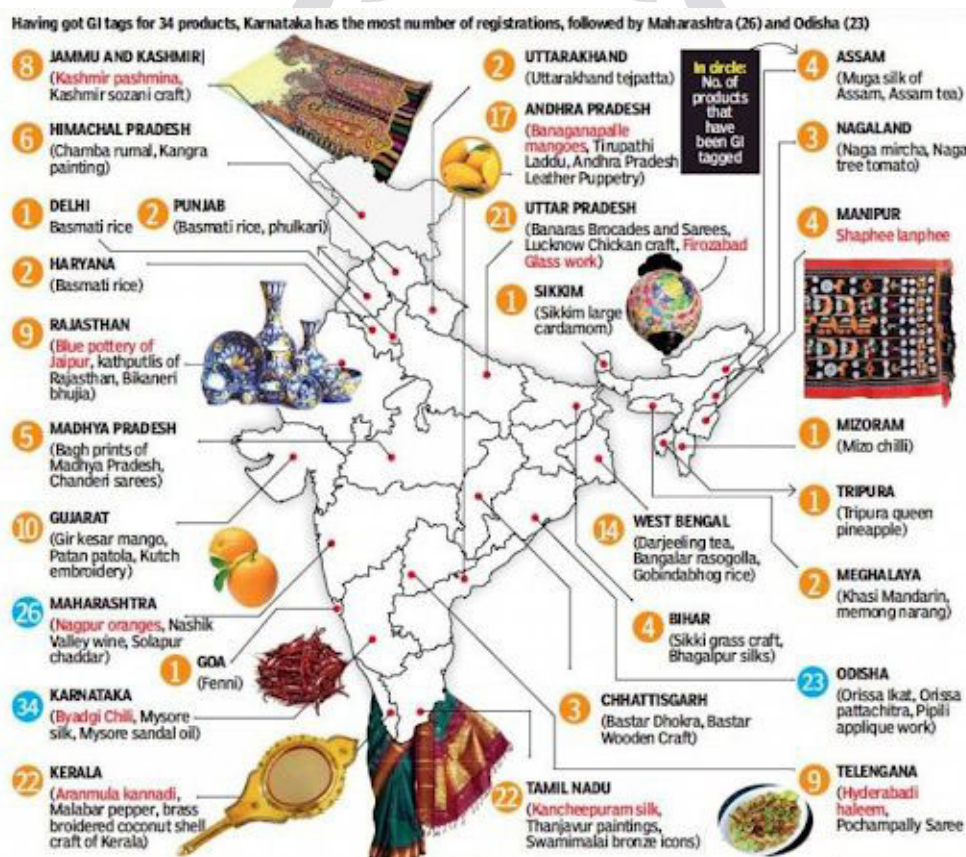
3rd Floor, Suryalok Complex, Rosary Convent School, Road,
Gun Foundry, Hyderabad, Telangana 500001, India



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- The GI tag ensures that only the authorised users or those residing in the geographical territory are allowed to use the popular product name.
- GI registration is overseen by the Department for Promotion of Industry and Internal Trade under the Ministry of Commerce and Industry.
- India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration and Protection) Act, 1999 w.e.f. September 2003.
- GIs have been defined under Article 22 (1) of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.



- The tag stands valid for 10 years.
- Uttar Pradesh currently holds the highest number of GI (Geographical Indication) tags in India. As of recent reports, Uttar Pradesh has 75 GI-tagged products, surpassing other states like Tamil Nadu and Karnataka.
- The Geographical Indications Registry is located at Chennai.



6. World Test Championship (WTC):



Context: South Africa recently won the World Test Championship against titleholder Australia.

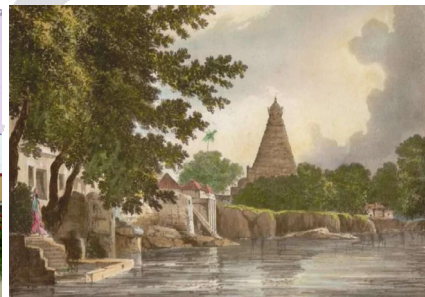
About World Test Championship (WTC):

- **Genesis:** In 2019.
- **Teams playing WTC:** The Top nine test teams of the world.

Format:

- Each team plays three home and three away series. Each match in a bilateral test series contributes points towards the WTC standings over a two-year cycle.
- Each series consists of a minimum of two (2) Tests, and a maximum of five (5) Tests.
- The top two teams (according to the points percentage system and not on the basis of matches won) compete against each other to be crowned as the winner

7. Chola Gangam lake:



Context: Tamil Nadu government announced to develop 1000-year-old Chola Gangam lake in Gangaikonda Cholapuram.



More about:

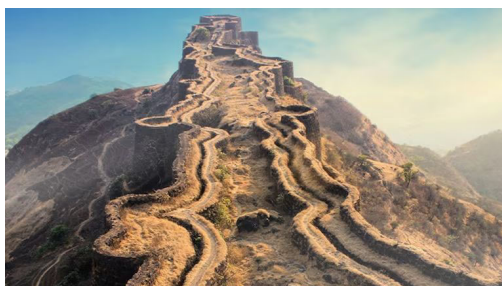
- The announcement was made during Aadi Thiruvathirai Festival to mark birth anniversary of Rajendra Chola I.
- Aadi Thiruvathirai Festival commemorates 1,000 years of Rajendra Chola's maritime expedition to South East Asia and construction of Gangaikonda Cholapuram temple.
- It honours Tamil Saiva Bhakti traditions, 63 Nayanmars, saint-poets supported by the Chola dynasty and highlights Shaiva Siddhanta philosophy.

About Cholagangam lake:

- Chola Gangam Lake, also called Ponneri Lake, is India's largest ancient man-made lake.
- **Location:** Near Gangaikonda Cholapuram, Ariyalur District, Tamil Nadu.
- **Built by:** Rajendra Chola I (1014–1044 CE), son of Rajaraja Chola I.
- Constructed to celebrate Rajendra Chola's Gangetic expedition and victory over several kings, including Kalinga and Pala ruler Mahipala. Holy Ganga water was brought and poured into the lake, giving it the name Chōlagangam. Known as Ponneri during the Vijayanagara period.
- **Water Source:** Connected via canal to Kollidam River, a tributary of Kaveri River.
- **Structure:** Elliptical bunds strengthened with laterite stones.
- **Purpose:** Provided drinking water to Gangaikonda Cholapuram and supported irrigation.

8. Maratha Military Landscapes:

Context: Maratha Military Landscapes of India added to the UNESCO World Heritage List as the 44th site from India.



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What are UNESCO World Heritage Sites (WHS)?

- A World Heritage Site is a location recognised by UNESCO for its “outstanding universal value”.
- It is guided by Convention Concerning Protection of World Cultural and Natural Heritage (called World Heritage Convention).
- **Three categories:** Cultural heritage, Natural heritage, and Mixed heritage (cultural as well as natural).

Recent editions:

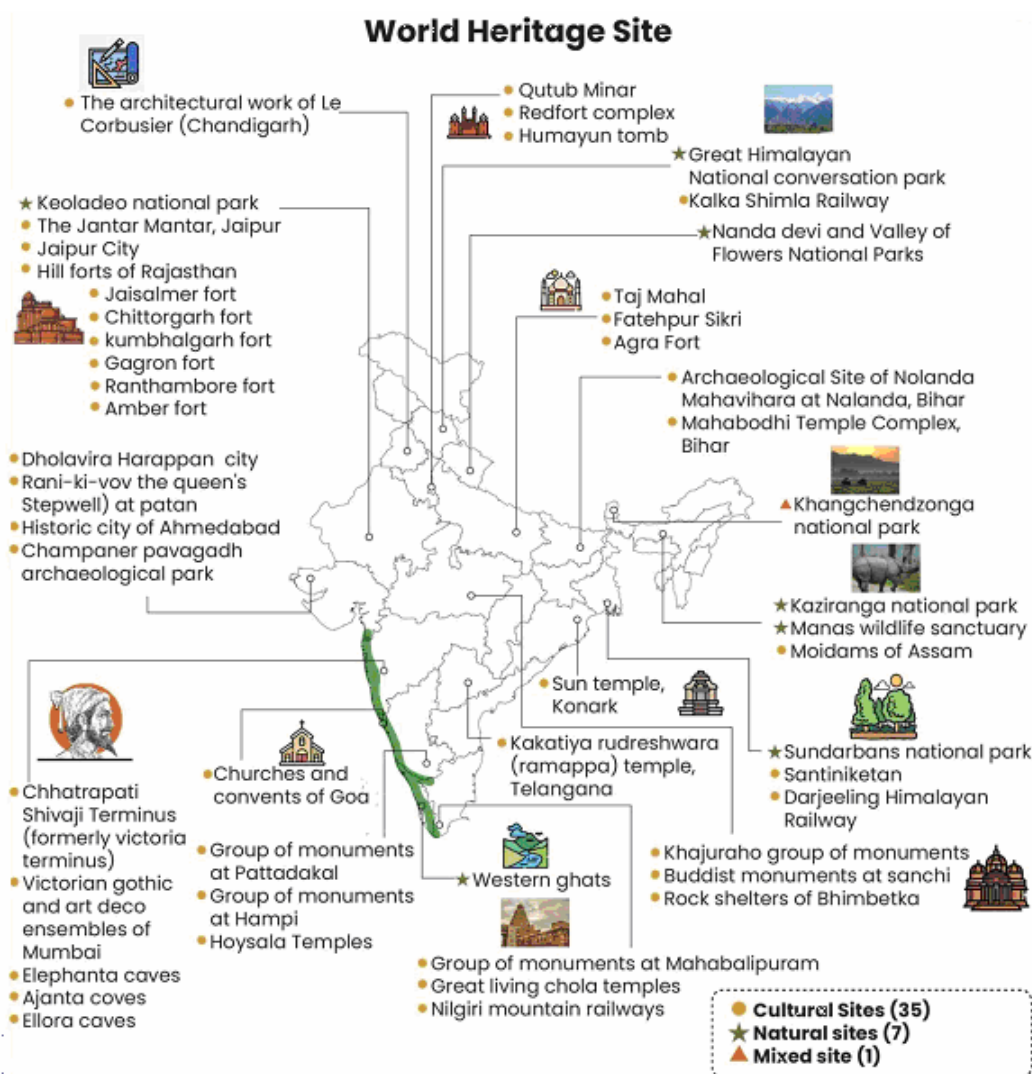
Site	Year	Description
Kakatiya Rudreshwara Temple, Telangana (Ramappa)	2021	A 13th-century Shiva temple built by the Kakatiya dynasty, featuring granite & dolerite sculptures and carvings depicting regional dance customs; harmoniously blends with the environment.
Dholavira: A Harappan City, Gujarat	2021	An important Harappan civilization site (3 rd to mid-2 nd millennium BCE) with walled city remains, cemetery, water systems, and trade links extending to Mesopotamia; rediscovered in 1968.
Santiniketan, West Bengal	2023	Founded by Debendranath Tagore and developed into a university town by Rabindranath Tagore; central to the Bengali Renaissance and home to Visva-Bharati University.
Sacred Ensembles of the Hoysalas, Karnataka	2023	Consists of three Hoysala temples (Belur, Halebidu, Somanathapura) built 12 th -14 th century; showcases a blend of Dravidian & northern architectural styles with intricate sculptures; significant for Vaishnavism & Shaivism.
Moidams – Mound – Burial System of the Ahom Dynasty, Assam	2024	Royal burial mounds at Charaideo, capital of the Ahom kingdom (1228 – 1826); reflects Tai-Ahom spiritual beliefs with an undulating landscape resembling hills.
Maratha Military Landscapes of India (Maharashtra & Tamil Nadu)	2025	Comprises 12 forts linked to Chhatrapati Shivaji and Maratha power; constructed of basalt rocks on hills, used for defense and administration during the 17 th century and beyond.



About Forts:

Fort Name	Key Features & Historical Significance
Salher Hill Fort	Site of the 1672 battle between the Marathas and the Mughals.
Shivneri Hill Fort	Birthplace of Chhatrapati Shivaji Maharaj.
Lohgad Hill Fort	Located near the Buddhist caves of Bhaje, known for strategic importance
Raigad Hill Fort	Selected by Chhatrapati Shivaji as his permanent capital; significant Maratha power center.
Rajgad Hill Fort	Formerly Murumdev; first political base of 'Hindavi Swarajya' and an early capital of the Maratha Empire; one of the 17 forts retained by Shivaji under the treaty of Purandar (1665)
Gingee Hill Fort	Features three distinct hilltop citadels, massive stone walls, and cliffs; a strong southern Maratha base.
Pratapgad Hill Fort	Site of the famous battle with Afzal Khan in 1659, a turning point for Maratha expansion.
Panchala Plateau Hill Fort	Served as the Maratha state capital under Tarabai after Shivaji's era.
Sindhudurg Island Fort	Built on an islet in the Arabian Sea by Shivaji; known for maritime defense.
Suvarnadurg Island Fort	Presumably built by the Bijapur rulers in the 16 th Century; later used by the Marathas for naval control.
Khanderi Island Fort	Constructed by Shivaji in 1679 CE to monitor the Siddhis at Murad-Janjira Fort.
Vijaydurg Coastal Fort	Captured by Shivaji from Adil Shah of Bijapur; renamed "Vijaydurg" meaning "Victory Fort"; nicknamed "Eastern Gibraltar" for its maritime strength.





9. Pradhan Mantri Kisan Sampada Yojana:



Context: Cabinet has approved additional outlay of Rs.1920 crore for ongoing Central Sector Scheme “Pradhan Mantri Kisan Sampada Yojana” (PMKSY) during 15th Finance Commission Cycle.

About the scheme:

- It is a Central Sector Umbrella Scheme.
- Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters(SAMPADA)
- The objective of PMKSY is to supplement agriculture, modernize processing and decrease Agri-Waste.

Components:

- Mega Food Parks,
- Integrated Cold Chain and Value Addition Infrastructure,
- Infrastructure for Agro-Processing Clusters,
- Creation of Backward and Forward Linkages,
- Creation/Expansion of Food Processing & Preservation Capacities,
- Food Safety and Quality Assurance Infrastructure, and
- Human Resources Institutions.

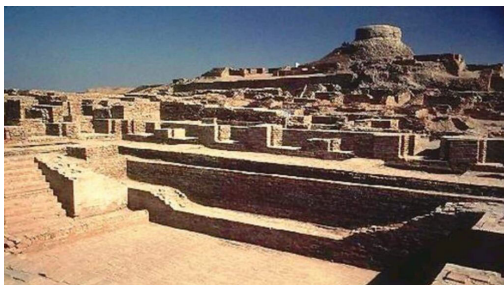
Aspect	Details
Ministry	Ministry of Food Processing Industries (MoFPI)
Type	Central Sector Scheme
Tenure	2021-22 to 2025-26
Background	Launched in 2017 as SAMPADA (Scheme of Agro-Marine Processing and Development of Agro-Processing Clusters). Renamed as PMKSY, with some components revised/discontinued.
Objective	To create modern infrastructure, reduce agricultural wastage, boost food processing, improve farmers income, and promote exports.



Component	Purpose/Features	Implementing Agencies
Integrated Cold Chain & Value Addition Infrastructure	Provides seamless cold chain facilities from farm gate to consumer; focuses on fruits & vegetables under Operation Greens.	Firms, companies, cooperatives, SHGs, FPOs, NGOs, PSUs, etc.
Creation of Infrastructure for Agro-Processing Cluster (APC)	Establishes small-scale food processing units similar to Mega Food Parks; requires minimum 10 acres of land.	Private firms, FPOs, NGOs, cooperatives, SHGs, etc.
Creation/Expansion of Food Processing & Preservation Capacities (Unit Scheme)	Sets up or expands food processing units within Mega Food Parks and APCs; promotes modernization.	PSUs, joint ventures, FPOs, NGOs, cooperatives, SHGs, private firms, individuals.
Food Safety & Quality Assurance Infrastructure (FTL)	Establishes food testing labs, provides support for HACCP, ISO 22000, and global certifications.	MoFPI in collaboration with labs, institutions, and industries.
Human Resource & Institutions (HRI) – R&D	Promotes research and development; 100 R&D projects sanctioned for 15 th Finance Commission cycle.	Academic institution, research bodies, industries
Operation Greens (OG)	Launched in Union Budget 2018-19 on the lines of Operation Flood; aims to stabilize prices and promote value addition for TOP crops (Tomato, Onion, Potato).	Implemented through MoFPI with industry collaboration.



10. Ratadiya Ri Dheri:



Context: A new Harappan site has been found at Ratadiya Ri Dheri in Jaisalmer district, Rajasthan.

About Ratadiya Ri Dheri:

- Ratadiya Ri Dheri is the first Indus Valley settlement discovered in Rajasthan's Thar Desert.
- Located 17 km northwest of Sadewala, near the India-Pakistan border.
- Bridges an archaeological gap between Rajasthan and Gujarat Harappan sites.
- Before this, Pilibanga was the most well-known Harappan site in Rajasthan, discovered by Luigi Pio Tessitori.
- Artefacts found: Red pottery fragments, bowls, jars, clay & shell bangles, terracotta objects, stone tools, and wedge-shaped kiln bricks.
- The kilns resemble those at Kanmer (Gujarat) and Mohenjo-daro (Pakistan), suggesting a developed settlement.
- Dated to the mature urban phase of the Indus Valley Civilisation (2600–1900 BCE).
- Identified as a rural Harappan settlement connected to the Sindh Harappan network.

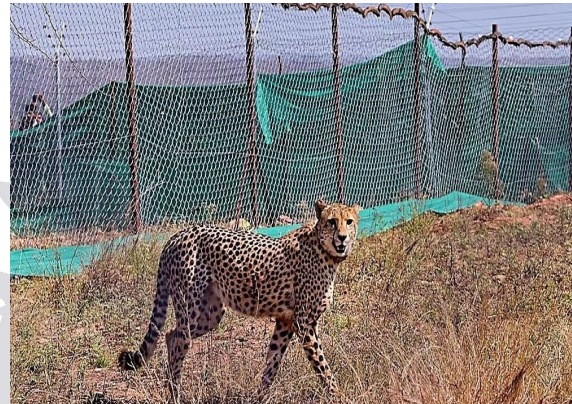
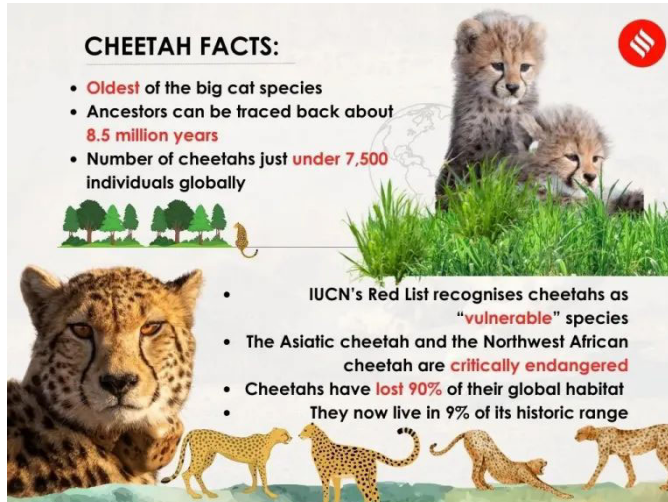
11. Banni grasslands:



Context: Banni grasslands ready for cheetah introduction programme.



Project cheetah:



- Project Cheetah is the world's first intercontinental large wild carnivore translocation project.
- The project aimed at the reintroduction of Cheetahs in the country which had become extinct in 1950s in the country.

Implementation:

- The project involves translocation of cheetahs from source countries in Africa.
- Kuno National Park in Madhya Pradesh has been chosen as the first reintroduction site due to its suitable grasslands and prey base.
- The first batch of eight cheetahs (five females and three males) arrived in India from South Africa in September 2022.
- In February 2023, an additional 12 cheetahs were translocated from South Africa under an agreement for further introductions over the next 8-10 years.

Gandhi Sagar Wildlife Sanctuary:

- The Gandhi Sagar Wildlife Sanctuary is a wildlife sanctuary situated on the northern boundary of Mandsaur and Nimach districts in Madhya Pradesh, India.
- It is spread over an area of 368.62 square kilometers adjoining Rajasthan state in India.
- The Chambal River passes through the sanctuary dividing it into two parts.
- It is in the Khathiar-Gir dry deciduous forests ecoregion.



Cheetah Introduction at Gandhi Sagar Wildlife Sanctuary:



- Gandhi Sagar Wildlife Sanctuary in Madhya Pradesh will be the second home for cheetahs in India after Kuno National Park.
- Preparations for the introduction are complete; final decision on import from Namibia and South Africa will be made post-monsoon.

Banni Grasslands:



- Banni covers nearly 3,500 square kilometers in southern Kutch.
- Although it has ample space, there is currently insufficient prey (like chital) to sustain a viable cheetah population.
- Antelope species like chinkara and blackbuck are present but not in sufficient numbers.
- Banni has the advantage of lacking leopards, which could allow for a larger cheetah population if prey is sufficient.



12. FIDE Women's World Cup:

Context: Divya Deshmukh became the first Indian woman to win the FIDE Women's World Cup title after defeating fellow Indian Koneru Humpy in the final, in Batumi, Georgia. With this achievement, Divya joins Koneru Humpy, Dronavalli Harika, and R Vaishali as the fourth Indian woman to become a Grandmaster.

Other recent achievements:

Year	Player/Team	Achievement	Event/Tournament	Significance
2024	GM Gukesh Dommaraju	Became the youngest undisputed World Chess Champion at age 18	World Chess Championship	Defeated Ding Liren to claim the title
2024	Indian Men's Chess Team	Won Gold Medal	45 th FIDE Chess Olympiad (Budapest, Hungary)	Historic first double-gold victory for India
2024	Indian Women's Chess Team	Won Gold Medal	45 th FIDE Chess Olympiad (Budapest, Hungary)	Equaled men's achievement, making it a double triumph
2023	GM Praggnanandhaa Rameshbabu	Became the world's youngest chess player (18) to reach the World Cup final	FIDE Chess World Cup	Only the second Indian after Viswanathan Anand to reach the final

