

September 1, 2 2024

DONGRIA KONDH TRIBE

Syllabus : GS1/Society

Why in news : Generations of Dongria Kondh tribals in Odisha's Rayagada district have not been to school because of the challenges of living in a hilly area in the forest.

What are the Dongria Kondh Tribe?

Vulnerability

- They are classified as a Particularly Vulnerable Tribal Group (PVTG).

Agricultural Practices

- Some Khond groups, like the Kuttia Khond, continue to practice slash-and-burn agriculture, known as "dongar chaas" or "podu chaas."

Geographic and Legal Status

- Khonds are the **largest tribal group in Odisha**, also designated as a Scheduled Tribe in several states including **Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, Maharashtra, Odisha, Jharkhand, and West Bengal.**
- Niyamgiri** is a hill range in Rayagada and Kalahandi Districts of southwest Odisha, with its highest point known as Niyamgiri or Niyam Dongar.

Language

- They speak **Kui and Kuvi**, Dravidian languages related to Gondi, using the Odia script.
- The Kiu language does not have a script.

Religious Belief

- Their traditional religious beliefs include a mix of totemism, animism, ancestor worship, shamanism, and nature worship.
- Niyam Raja" refers to the Dongria Kondhs' supreme deity, the supreme God of the Niyamgiri forest.

Sub-Tribes

- The tribe has sub-tribes such as Dongria, Kovi, Kuttia, Languli, Penga, and Jharnia.



What are the Particularly Vulnerable Tribal Group (PVTG)?

Definition and Purpose

- PVTGs are a sub-classification of Scheduled Tribes, identified as more vulnerable than others.
- Created to prioritize and improve the living standards of endangered tribal groups.

Historical Background

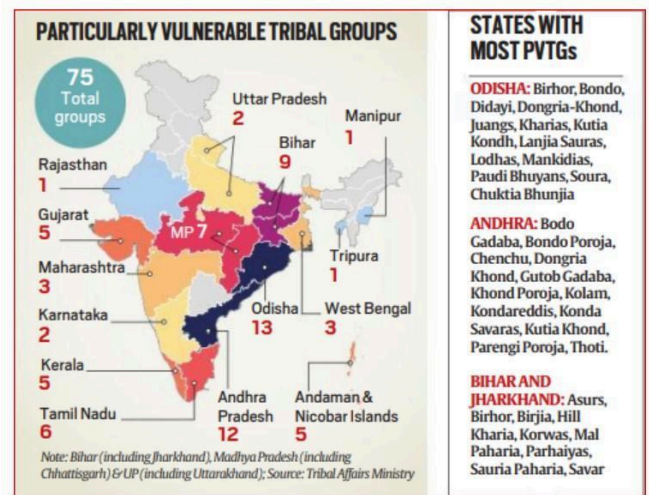
- The **Dhebar Commission** highlighted development inequality among Scheduled Tribes in the 1960s.
- The "**Primitive Tribal Group**" category was introduced in the fourth Five Year Plan (1973).
- Renamed as Particularly Vulnerable Tribal Groups (PVTGs) in 2006.

Identification Criteria

- Based on pre-agricultural practices, hunting and gathering, population trends, and literacy levels.

Distribution

- 75 PVTGs identified across 18 states and 1 Union Territory in India.
- Odisha has the highest number of PVTGs (13), followed by Andhra Pradesh.



TELECOMMUNICATIONS (ADMINISTRATION OF DIGITAL BHARAT NIDHI) RULES, 2024

Syllabus : GS2/Government Policies

Why in news : Rules have been notified by Department of Telecommunication in exercise of powers conferred by the Telecommunications Act, 2023 to operationalize the Digital Bharat Nidhi (DBN).

What are the key highlights of the notified rules?

Criteria for Schemes and Projects

- Provision of telecom services in underserved areas.
- Introduction of next-gen telecom technologies.
- Encouragement of startups and promotion of sustainable, green technologies.

Sharing of Telecom Networks

- DBN implementer must share and provide access to networks and services on an open, non-discriminatory basis.

Process of Fund Allocation Under DBN

- **Bidding:** Supports telecom services in underserved areas.
- **Selection by Application:** Promotes R&D of emerging telecom technologies, co-funding, and Viability Gap Funding (VGF).

What is the Digital Bharat Nidhi?

Digital Bharat Nidhi (DBN) Overview

- Initiative: Launched by the Department of Telecommunications (DoT).

Aims of DBN

- Improve internet connectivity, especially in rural, remote, and economically disadvantaged areas.
- Foster technology innovation, regulatory sandboxes, and enhance India's global telecom presence.
- Promote innovation, indigenous technology development, and standardisation.
- Support startups in the telecom sector and telecom equipment manufacturing.

Replacement of USOF

- Replaces the Universal Service Obligation Fund (USOF) for better resource allocation.

Focus Areas

- Emphasis on research, development, and overall connectivity improvement.
- Encourage telecom services for underserved groups, including women and people with disabilities.

Funding Mechanism

- Telecom companies contribute to DBN, with funds first credited to the Consolidated Fund of India (CFI) and then deposited into DBN.

Utilisation of Funds

- Funds used for promoting access to telecom services, supporting R&D, funding pilot projects, and introducing new technologies in underserved areas.

Management and Implementation

- An administrator manages the fund, and projects are executed by selected implementers via bidding or direct applications.
- Payment methods (full, partial, co-funding) tailored to specific connectivity needs.



ABOUT UNIVERSAL SERVICE OBLIGATION FUND (USOF)

- It was established in 2003 to enhance telecom services in less financially viable regions.
- It was funded by a 5% levy on telecom operators adjusted gross revenue (AGR). However, only about 72% of the Rs 41,740 crore received between 2017 and 2022 was utilized.

LIE-DETECTOR TESTS

Syllabus : GS2/Government Policies & Interventions

Why in news : The Central Bureau of Investigation (CBI) recently conducted a second round of polygraph tests on several individuals linked to the rape and murder of a doctor at R.G. Kar Medical College and Hospital in Kolkata.

What are the Deception Detection Tests (DDTs)

Deception Detection Tests Overview : Deception Detection Tests are scientific methods used during interrogations to detect lies. These include:

- **Polygraph Tests:** Measure physiological responses (blood pressure, pulse rate, skin conductivity) to detect lies.
- **Narco-Analysis:** Induces a drugged state where the subject is less capable of lying.
- **Brain Mapping:** Detects recognition of familiar stimuli through brain activity, indicating potential deception.

What is the effectiveness of the DDTs?

- **Debate:** The effectiveness of deception detection tests is widely debated in the medical community.
- **2010 Paper:** The Indian Journal of Medical Research criticized lie-detection techniques and questioned their ability to reveal concealed knowledge in real-world scenarios.
- **2019 Study:** A U.S. study highlighted high false positive rates and the potential for individuals to manipulate polygraph results.

What are the Judicial Precedents on Lie-Detector Tests?

- **Pre-2010 Practices:** Indian courts previously supported the use of deception detection tests (DDTs) without requiring the accused's consent.
- **Selvi v. State of Karnataka (2010):** Supreme Court ruled that DDTs require the accused's

consent, invoking Article 20(3) of the Constitution.

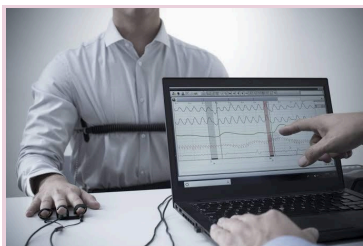
- **Article 20(3):** Protects individuals from being forced to give self-incriminating evidence or testimony.
- **Court Mandates:**
 1. Individuals must have access to a lawyer and be informed of the test's implications.
 2. Consent must be formally recorded before a judicial magistrate.
 3. Adherence to National Human Rights Commission's 2000 guidelines for administering these tests.

What the existing concerns?

- **Continued Use:** DDTs are still employed in India, particularly in high-profile cases, despite Supreme Court guidelines.
- **Concerns:** Issues include the coercive nature of tests and the risk of extracting false confessions under duress.
- **Criticism:** Tests are often criticized for lack of scientific reliability and the unfair implication of guilt from refusing to undergo them.

What is the way forward?

- **Strengthen Legal Protections:** Ensure strict adherence to Supreme Court guidelines and Article 20(3) to protect against self-incrimination and misuse.
- **Enhance Scientific Validation:** Invest in research to improve the scientific reliability of deception detection methods and establish their accuracy and effectiveness.
- **Ensure Transparency and Accountability:** Implement rigorous oversight mechanisms to prevent misuse and coercion during the administration of DDTs.
- **Educate Stakeholders:** Provide training for law enforcement, legal professionals, and the public on the limitations and ethical considerations of DDTs.
- **Promote Alternative Methods:** Explore and develop alternative investigative techniques that are less prone to abuse and offer more reliable results.



MITOCHONDRIAL DYNAMICS TO TREAT PARKINSONS

Syllabus : GS3/Science & Tech

Why in news : Researchers investigate role of mitochondria in Parkinson's disease, targeting key protein Drp1 for potential treatments.

What is this connection between Mitochondria and Parkinson's?

- Presence of environmental toxins and toxic proteins, causes fragmentations and dysfunctions in mitochondria. E.g. **Manganese induced Parkinsonism.**
- Parkinson's disease is a neurodegenerative disease caused by the death of brain cells.

What is this about?

- **Drp1 Inhibition:** Research suggests inhibiting Dynamin-related protein (Drp1) activity could restore mitochondrial function.
- **Drp1 Role:** Drp1 helps mitochondria divide into smaller sizes for better mobility and quality control.
- **Excessive Drp1:** Excessive activity leads to over-fragmentation of mitochondria, impairing their function.

What is Mitochondria?

- **Definition:** Membrane-bound cell organelles that generate most of the cell's energy as ATP (adenosine triphosphate).
- **Functions :**
 1. **Energy Production:** Perform aerobic respiration to produce ATP, earning them the title "powerhouses of the cell."
 2. **Genetic Material:** Contain circular DNA (mitochondrial DNA or mtDNA), RNA, ribosomes, and protein synthesis components.
 3. **mtDNA:** Useful for tracing genetic lines.

What are Mitochondrial Diseases and the treatment?

Mitochondrial Diseases and Inheritance

- **Genetic Causes:** Mitochondrial diseases are caused by mutations in mtDNA or nuclear DNA.
- **Inheritance:** mtDNA is inherited exclusively from the mother, making these diseases maternally inherited.

Mitochondrial Replacement Therapy (MRT)

- **Purpose:** MRT prevents the transmission of mitochondrial diseases from mother to child.

PARKINSON'S DISEASE

- **Definition:** A chronic, degenerative neurological disorder affecting the central nervous system.
- **Impact on Nerve Cells:** Damages nerve cells in the brain, reducing dopamine levels, which impairs communication between the brain and body.
- **Motor Symptoms:** Includes rigidity, delayed movement, poor balance, and tremors.
- **Treatment:** Medication can manage symptoms but cannot cure the disease.
- **Prevalence:** Affects individuals aged 6 to 60 years, with about 10 million people affected worldwide.

PRELIMS

PILIBHIT TIGER RESERVE

Location:

- In Pilibhit, Lakhimpur Kheri, and Bahraich Districts of Uttar Pradesh
- Along the India-Nepal border
- In the Himalayan foothills and terai plains

Water bodies:

- Origin of the Gomti River
- Catchment area for rivers like Sharda, Chuka, and Mala Khannot
- Sharda Sagar Dam (22 km long) on the reserve's boundary

Climate and vegetation:

- Dry and hot climate
- North Indian moist deciduous vegetation
- Combination of dry teak forest and Vindhya mountain soils

Flora:

- Sal forests (76% of reserve area), tall grasslands, and swamps
- Diverse grass species in meadows

Fauna:

- Home to endangered species like tigers, swamp deer, and Bengal florican
- Other animals include hog deer and leopards
- Rich bird life, including various francolin species, hornbills, and quails

Recent incident:

- Poachers killed two chitals
- Stole a rifle from a forest guard



NAVRATNA STATUS

- **Recent development:**
 - Solar Energy Corporation of India Ltd (SECI) granted Navratna status
 - SECI is a Central Public Sector Enterprise under the Ministry of New and Renewable Energy
- **Navratna status:**
 - Part of government categorization of PSUs (Maharatna, Navratna, Miniratna)
 - Introduced in 1997
- **Criteria for Navratna status:**
 - Must be a Miniratna-I, Schedule 'A' company
 - 'Excellent' or 'very good' MoU rating in 3 of last 5 years
 - Composite score of 60 in six performance indicators
 - Financial criteria (one of the following):
 - Net profit > Rs 5,000 crore for 3 consecutive years
 - Average annual turnover of Rs 25,000 crore for 3 years
 - Average annual net worth > Rs 15,000 crore for 3 years
- **Advantages of Navratna status:**
 - Increased financial independence
 - Can invest up to ₹1,000 crore without central government approval
 - Can invest up to 15% of net worth on a single project
 - Can invest up to 30% of net worth in a given year (capped at ₹1,000 crore)
 - Unlimited capital expenditure on new items or replacements
 - Authority to enter technology joint ventures or strategic alliances

SAMUDRA PRATAP

- Recent development:
 - First indigenously developed Pollution Control Vessel of Indian Coast Guard (ICG) launched in Goa
 - Named 'Samudra Pratap'
- Purpose:
 - To check oil spillage along India's sea coast
- Construction:
 - Built by Goa Shipyard Limited (GSL) for the Indian Coast Guard
 - First time such vessels are designed and built indigenously in India
- Specifications:
 - Length: 114.5 meters
 - Breadth: 16.5 meters
 - Displacement: 4,170 tons
 - Crew: 14 officers and 115 sailors
- Key features:
 - State-of-the-art technology for pollution control
 - Side-sweeping arms to contain oil spills while in motion
 - Advanced radar system for oil spill detection
 - Facilities to recover and store various types of oil
- Significance:
 - Enhances Indian Coast Guard's capacity for oil spill response operations
 - Operational area includes India's Exclusive Economic Zone (EEZ) and beyond

- Commissioned in 1997
- Total installed capacity: 480 MW
- 4 units of 120 MW each
- Ownership and operation:
 - Owned by the Central Government
 - Operated by National Hydroelectric Power Corporation Limited (NHPC)



URI-I HYDROELECTRIC PROJECT

- Recent development:
 - Expert Appraisal Committee (EAC) of the Union Ministry of Environment, Forest and Climate Change has deferred the proposal for Environmental Clearance (EC) to Stage-II of the project
- Location:
 - On the Jhelum River in Uri town, Baramulla district, Jammu & Kashmir
 - Very close to the Line of Control (LOC) between India and Pakistan
- Project details:

September 3, 2024

LAW COMMISSION OF INDIA

Syllabus : GS2/Government Policies

Why in news : The President of India recently sanctioned the formation of the 23rd Law Commission for a three-year term.

What is the Law Commission of India?

Overview of the Law Commission

- **Non-Statutory Body:** Constituted by a notification from the Government of India, Ministry of Law & Justice.
- **Purpose:** Conducts legal research and makes recommendations to the government in the form of reports.
- **Advisory Role:** Functions as an advisory body to the Ministry of Law and Justice.

History of the Law Commission

- **Pre-Independence:** First Law Commission established in 1834 by the British Government under the Charter Act of 1833, chaired by Lord Macaulay.
- **Post-Independence:** The first Law Commission of independent India was established in 1955, chaired by M. C. Setalvad.
- **Reconstitution:** Law Commissions are reconstituted every three years by executive orders.

Creation of the Law Commission

- **Process:** Created when the Union government passes a resolution for a new commission after the previous one's expiry.
- **Presidential Assent:** After the resolution is passed and the President gives assent, the government selects the chairperson.

Functioning of the Law Commission

- **Project Basis:** Works on projects based on references from the Central Government, Supreme Court, or High Courts.
- **Suo Moto Studies:** Initiates studies on specific subjects independently, considering their importance.
- **Support:** Aided by Indian Legal Service law officers and Central Secretariat Service administrative officers.
- **Public Participation:** Welcomes suggestions from individuals, institutions, or organizations on issues under consideration.

What are the important recommendations of the Law Commission of India?

1. **Simultaneous Elections:** 170th report (1999) - Hold Lok Sabha and State Assembly elections together.

2. **Death Penalty Abolition:** 262nd report (year not specified, likely 2015) - Abolish death penalty except for terrorism and waging war.
3. **Uniform Civil Code:** 21st Law Commission report (2018) - Implement a non-mandatory UCC.
4. **Decriminalization of Suicide:** 210th report (2008) - Repeal Section 309 of the Indian Penal Code.
5. **Judicial Accountability:** 230th report (2009) - Improve transparency and address judicial misconduct.
6. **Rape Law Amendment:** 172nd report (2000) - Broaden rape definition and increase punishments.
7. **Electoral Disqualifications:** 244th report (2014) - Disqualify candidates charged with serious offenses.
8. **Repeal of Obsolete Laws:** Various reports (years not specified) - Remove outdated and redundant laws.

ARTICLE 39A

—**Equal Opportunity in Justice:** Ensures the legal system promotes justice based on equal opportunity for all citizens.
—**Free Legal Aid:** Mandates the provision of free legal assistance through appropriate legislation or programs.
—**Access to Justice:** Guarantees that no citizen is deprived of justice due to a lack of resources or other barriers.

RBI TO LAUNCH UNIFIED LENDING INTERFACE (ULI)

Syllabus : GS3/Economy

Why in news : Unified Lending Interface (ULI), the Reserve Bank of India's (RBI) technology platform to enable frictionless credit, will be launched nationwide soon.

What is Unified Lending Interface (ULI)?

About ULI:

- **Digital Information Flow:** Facilitates seamless and consent-based digital information sharing, including land records, from various state data providers to lenders.

Objectives

- **Credit Appraisal Efficiency:** Aims to reduce the time taken for credit appraisal, especially benefiting smaller and rural borrowers.

- **Lending Process Improvement:** Enhances efficiency in lending by reducing costs, enabling quicker disbursement, and increasing scalability.

Working

- **Standardised APIs:** ULI uses common, standardized APIs for a 'plug and play' approach, ensuring digital access to information from various sources.
- **Loan Application Example:** For a dairy farmer seeking a loan, lenders can access data on cash flows from milk cooperatives, land ownership from state records, and financial insights through farming patterns.
- **Automated Decision-Making:** Lenders can instantly assess income and credit eligibility, leading to automated decision-making and rapid loan disbursement.

Significance

- **Simplified Technical Integration:** Reduces complexity by digitizing access to financial and non-financial customer data, which is often spread across different silos.
- **Meeting Credit Demand:** Expected to address the large unmet demand for credit, particularly in agriculture and MSME sectors.
- **Support for Tenant Farmers:** Allows tenant farmers to access loans by verifying identity through the intended use of funds rather than land ownership.
- **Digital Infrastructure Leap:** The combination of JAM (Jan Dhan-Aadhaar-Mobile), UPI, and ULI is a significant advancement in India's digital infrastructure.

What are the other platforms that facilitate lending in India?

- **Public Credit Registry (PCR):** A central database storing comprehensive credit information of borrowers, helping lenders assess creditworthiness and reduce information asymmetry in the credit market.
- **Account Aggregator (AA) Framework:** An RBI-regulated, consent-based platform that enables customers to share financial information across institutions, streamlining access for lenders and facilitating quicker, informed lending decisions.
- **Credit Information Companies (CICs):** Companies like CIBIL, Equifax, and Experian collect and maintain credit information of individuals and businesses to aid in credit assessment.
- **Trade Receivables Discounting System (TReDS):** An electronic platform that allows MSMEs to auction their trade receivables at competitive rates, improving their cash flow.

- **Peer-to-Peer (P2P) Lending Platforms:** Online platforms like Faircent and Lendbox facilitate direct lending and borrowing between individuals.

SUPREME COURT'S WORDS AGAINST BULLDOZER JUSTICE

Syllabus : GS2/Polity & Governance

Why in news : The Supreme Court has expressed disapproval over "bulldozer justice" where houses of accused individuals are demolished.

What is 'Bulldozer' justice?

- **Bulldozer Justice:** Demolishes the properties of alleged criminals and rioters using bulldozers.
- **Implementation:** Used in states like Uttar Pradesh, Delhi, and others to target various establishments.

What is the Supreme Court Ruling?

- **Demolition Restrictions for Criminal Convictions:** The Supreme Court ruled that property demolition cannot occur solely due to a criminal conviction.
- **Requirement of Legal Procedures:** Proper legal procedures must be followed before demolishing property.
- **Call for Nationwide Guidelines:** The court emphasized the need for nationwide guidelines to ensure due process and natural justice.

What are the issues with these?

- **Targeting Marginalized Communities:** Bulldozer justice disproportionately impacts marginalized and minority communities, worsening existing inequalities.
- **Undermining the Rule of Law:** This practice bypasses legal processes, eroding public trust in institutions and undermining the rule of law.
- **Violation of Human Rights:** Bulldozer justice often infringes on basic human rights, including shelter and protection, raising ethical concerns due to lack of resettlement or compensation.
- **Ethical Issues:** It conflates judicial roles, leading to unjust outcomes by punishing innocent family members instead of the guilty.
- **Psychological Trauma:** The violent nature of demolitions inflicts significant psychological trauma on individuals and communities.

RETRIBUTIVE JUSTICE

– **Definition:** A theory that emphasizes punishment as the main response to wrongdoing, with penalties proportional to the offense.

– **Principle:** Punishment should be morally appropriate, balancing the harm done with the suffering endured by the offender.

Challenges with Retributive Justice

– **Backward-Looking:** Focuses on responding to past actions rather than future outcomes like deterrence or rehabilitation.

– **Harsh Punishments:** Risk of excessively harsh penalties if proportionality is not well-defined or carefully implemented.

DIGITAL AGRICULTURE MISSION

Syllabus : GS3/Agriculture

Why in news : Recently, the Union Cabinet Committee approved the Digital Agriculture Mission with an outlay of Rs. 2817 Crore, including the central share of Rs. 1940 Crore.

What is the Digital Agriculture Mission?

- **Agri-Tech Support:** The scheme fosters agri-tech start-ups with advancements in cloud computing, earth observation, and AI/ML.
- **Digital Agriculture:** It supports digital agriculture initiatives, including Digital Public Infrastructure and the Digital General Crop Estimation Survey (DGCES), across government and academic sectors

What are the Three Pillars of Digital Agriculture Mission?

AgriStack: A collaborative digital platform with three main components:

- **Farmers' Registry:** A digital directory of farmers
- **Geo-referenced Village Maps:** Detailed maps including crop information
- **Crop Sown Registry:** A digital record of planted crops

Krishi Decision Support System: Provides timely information to farmers for informed decision-making. It aims to create a unified geospatial system incorporating data on crops, soil, weather, and water resources.

Soil Profile Mapping: Maps soil properties, moisture levels, and nutrient content to enable precision agriculture.



What is the significance of Digital Agriculture Mission?

- **Efficient Services:** Farmers will access services and schemes more swiftly, akin to a timely monsoon shower.
- **Data-Driven Insights:** AI-powered predictions and personalized advice enhance interventions and support future policies.
- **Inclusive Growth and Employment:** Aims to create direct and indirect jobs in agriculture, with opportunities for about 2.5 lakh trained local youth and Krishi Sakshis.
- **Resilience:** The Digital Agricultural Mechanism (DAM) will act as an early warning system for pests and drought.

PRELIMS22

E-SHRAM PORTAL

- Achieved over 30 crore registrations in 3 years since launch.
- **Launch Details:** Launched by the Ministry of Labour & Employment on August 26, 2021.
- **Database Overview:** A National Database of Unorganised Workers (NDUW) targeting sectors like construction, agriculture, and domestic work.
- **Registration Criteria:** No income criteria; workers must not be income tax payees.
- **e-SHRAM Card:** Provides a 12-digit Universal Account Number (UAN) that is permanent and unique for each worker.
- **One-Stop Solution:** Integrates various social security schemes for easier access to benefits.
- **Major Scheme Integration:** Links with schemes like PMJJBY, PMSBY, and AB-PMJAY to ensure workers access essential services.

- **Skill India Integration:** Connects with the Skill India Digital Hub (SIDH) for seamless registration and service access.

FORUM ON CHINA-AFRICA COOPERATION

9th Forum on China-Africa Cooperation (FOCAC) scheduled for September 2024 in Beijing

- African nations facing economic challenges and "summit fatigue".
- Suggestion to adopt Banjul format for better management
- Africa's Priorities for FOCAC 2024:
 - Expand trade, especially African exports to China
 - Develop sustainable agriculture sector
 - Promote green energy and industrialization
 - Address debt sustainability
 - Develop coherent strategic engagement

China's Role in African Debt:

- Significant lender, but not the main creditor (12% of Africa's debt)
- Concerns about loan transparency
- Unlikely to forgive large debts
- Lessons for India from Africa-China

Engagement Maintain regular dialogues (e.g., revive India-Africa Forum Summit)

- Support industrial development and value chain integration
 - Explore innovative financing methods
 - Leverage digital technologies for enhanced connectivity

OPERATION BHEDIYA

- Key Points of Operation Bhediya: Launched by Uttar Pradesh government to capture wolves in Bahraich district
- Using teddy dolls soaked in children's urine as bait

- Caused by habitat disruption due to the swelling Ghaghara river

Context on Wolf-Human Interactions in India

- 1997 saw a major wolf attack in UP, resulting in 42 child deaths
- Indian wolves are typically scavengers but may prey on livestock and children when food is scarce
- Estimated population: 2,000-3,000 across several states
- Conservation status: IUCN: Least Concern



September 5, 2024

HARNESSING BIOTECHNOLOGY FOR SUSTAINABLE ECONOMIC GROWTH

Syllabus : GS3/Science & Tech

Why in news : The Centre recently introduced the BioE3 (Biotechnology for Economy, Environment, and Employment) policy, aimed at transforming industrial and manufacturing processes to be more sustainable and environmentally friendly.

What is the BioE3 Policy?

- **Aim:** Foster high-performance biomanufacturing for bio-based products, aligned with 'Net Zero' goals and a circular bioeconomy.
- **Innovation & Hubs:** Focus on R&D, entrepreneurship, biomanufacturing hubs, Bio-AI hubs, and Biofoundries.
- **Workforce & Environment:** Expand biotechnology skills, align with environmental programs, and promote regenerative bioeconomy models.
- **Employment & Regional Growth:** Generate jobs in tier-II and III cities using local biomass for equitable development.
- **Ethics & Global Alignment:** Emphasize biosafety and global regulatory alignment for competitive and responsible biotechnology development.

What are the core themes BioE3 Policy?

- **Bio-Based Chemicals and Enzymes:** Develop eco-friendly bio-based chemicals and enzymes.
- **Functional Foods and Smart Proteins:** Innovate in nutrition and food security through functional foods and smart proteins.
- **Precision Biotherapeutics:** Advance precision medicine and biotherapeutics for better healthcare.
- **Climate Resilient Agriculture:** Support agriculture resilient to climate change for sustained food security.
- **Carbon Capture and Utilization:** Enhance technologies for carbon capture and its industrial utilization.
- **Futuristic Marine and Space Research:** Explore new biomanufacturing opportunities in marine and space biotechnology.

What are the benefits of the BioE3 Policy?

Economic Impact of Biomanufacturing

- **Projected Value:** Biomanufacturing is expected to contribute \$2-4 trillion in the next decade.

Strategic Alignment with Other Initiatives

- **National Missions Integration:** BioE3 aligns with AI, Quantum, and Green Hydrogen missions to advance emerging technologies.

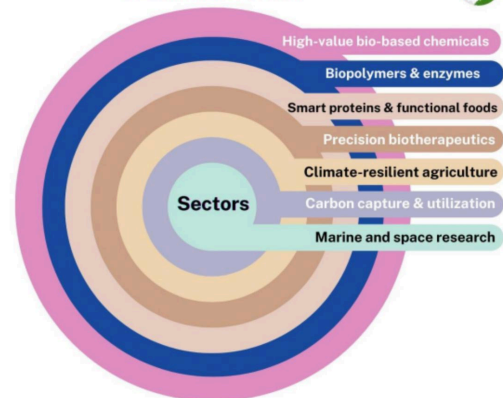
Establishment of Biomanufacturing Hubs

- **Hub Creation:** Plans to establish hubs across India for bio-based chemicals, smart proteins, and other bio-products.
- **Key Focus Areas:** Targeting Bio-Based Chemicals, Smart Proteins, Precision Biotherapeutics, Climate Resilient Agriculture, Carbon Capture, and Futuristic Research.

Futuristic Marine and Space Research

- **Space:** Focus on life support systems that recycle waste in space.
- **Marine:** Discover novel marine compounds for pharmaceuticals and cosmetics.

BioE3 Policy Targets Strategic Sectors for Sustainable Growth



What are the challenges associated?

- **Technological Complexity:** Scaling advanced bio-based products and precision biotherapeutics is challenging.
- **Regulatory Hurdles:** Aligning with global biosafety standards can be costly and time-consuming.
- **Workforce Shortage:** Expanding biotechnology skills, especially in smaller cities, faces infrastructure limitations.
- **Infrastructure Needs:** Building biomanufacturing hubs requires significant investment and coordination.
- **Environmental Concerns:** Maintaining sustainability in biomanufacturing is an ongoing challenge.
- **Economic Viability:** Balancing innovation with financial sustainability is crucial for success.

WORLD BANK REVISES INDIA'S GDP GROWTH ESTIMATE

Syllabus : GS3/Economy

Why in news : The World Bank (WB) revised its forecast for India's GDP growth to 7% for FY25 from 6.6% previously, citing increases in household real estate investments and investments in infrastructure.

What are the highlights of the World Bank Forecast on the Indian Economy?

- **GDP Growth:** India was the fastest-growing major economy at 8.2% last fiscal, expected to grow at 7% this year and 6.7% in FY26.
- **Industrial Growth:** Slowing to 7.3% in FY26 from 7.6% in FY25; recovered to 9.5% in FY24 post-Covid.
- **Gross Fixed Capital Formation (GFCF):** Expected to slow to 7.8% in FY25 from 9.0% in FY24; was 6.6% in FY23.
- **Service Sector Growth:** Expected to slip to 7.4% in FY25 and 7.1% in FY26, down from 7.6% in FY24.
- **Agricultural Growth:** Expected to jump to 4.1% in FY25, up from 1.4% in FY24.
- **Export-Import:** World Bank predicts 7.2% export growth in FY25, with import growth slowing to 4.1% from 10.9% in FY24.

What are the challenges associated?

- **Declining Apparel Exports:** India's share in global apparel exports decreased from 4% in 2018 to 3% in 2022.
- **Trade Barriers:** Rising tariff and non-tariff barriers could limit trade-focused investments
- **Widening CAD:** Projected steady increase in the Current Account Deficit (CAD) from 1.1% in FY25 to 1.6% in FY27.
- **Urban Youth Unemployment:** High unemployment rate of 17% among urban youth.
- **Lost Export Opportunities:** Missed chances to capitalize on China's exit from labor-intensive sectors.

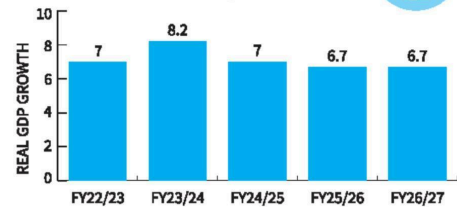
What are the opportunities ahead?

- **Export Sector Expansion:** Potential to grow in electronics, green technology, textiles, garments, and footwear.
- **Trade Reconfiguration:** Post-pandemic changes and increased competitiveness from the National Logistics Policy (NLP) offer new opportunities.
- **Foreign Exchange Reserves:** High reserves provide stability and capacity for trade and investment.

- **Global Value Chains:** Deeper integration can enhance trade-related job creation and boost innovation.

Growth forecast

World Bank forecasts India's GDP growth will quicken to 7% in FY25 and remain strong in FY26 and FY27



WORLD BANK

About the World Bank

- **Creation:** Established in 1944 as the International Bank for Reconstruction and Development (IBRD), now known as the World Bank.
- **Mission:** A global partnership of five institutions focused on reducing poverty and promoting prosperity in developing countries.
- **UN Agency:** The World Bank is one of the United Nations' specialized agencies.

Members

- **Membership:** 189 member countries, including India.

Major Reports

- **Current Reports:** Human Capital Index, World Development Report.
- **Previous Report:** Ease of Doing Business (discontinued).

Five Development Institutions

- IBRD
- IDA
- IFC
- MIGA
- ICSID: India is not a member.

Shareholding

- **Major Shareholders:** USA (16.41%), Japan (7.87%), Germany (4.49%), UK (4.31%), France (4.31%).

Difference from IMF

- **World Bank:** Supports development in countries.
- **IMF:** Stabilizes the international monetary system and monitors currencies.

WEST BENGAL'S NEW LAW FOR DEATH PENALTY IN RAPE CASES

Syllabus : GS2/Government Policies

Why in news : In response to the tragic rape-murder of a woman medic at RG Kar Medical College and Hospital,

the West Bengal Assembly has passed the *Aparajita Woman and Child (West Bengal Criminal Laws Amendment) Bill, 2024*. This bill aims to enhance legal measures for protecting women and children by proposing significant amendments to existing criminal laws.

What is the Aparajita Bill?

Aparajita Bill Overview

- **Purpose:** Amend the Bharatiya Nyay Sanhita 2023, Bharatiya Nagarik Suraksha Sanhita 2023, and the Protection of Children from Sexual Offences Act 2012 in West Bengal.

Amendments to Bharatiya Nyay Sanhita, 2023 (BNS)

- **Section 64** - Penalties for Rape: Enhances penalty to life imprisonment or death, with a fine for victim's expenses.
- **Section 66** - Rape Resulting in Death/Vegetative State: Proposes death penalty as the sole punishment, removing life imprisonment and imprisonment options.
- **Section 70** - Gang Rape: Removes 20-year imprisonment option, mandates life imprisonment or death.

Amendments to Protection of Children from Sexual Offences (POCSO) Act

- **Tougher Penalties:** Introduces stricter penalties for child abuse cases.

Key Provisions

- **Capital Punishment:** Death penalty for rape causing death/vegetative state; life sentence for gang rape and rape.
- **Medical Expenses:** Convict or family must cover victim's medical expenses, with legal recovery for non-payment
- **Time-bound Investigations:** Requires rape investigations to be completed within 21 days.
- **Penalties for Repeat Offenders:** Life sentence for repeat offenders.
- **Publication Restrictions:** Unauthorized publishing of court matters punished with 3-5 years imprisonment and a fine.
- **Opposition:** Justice Verma Committee opposed capital punishment.

What is evaluation of a Death Penalty?

POSITIVE SIDE	NEGATIVE SIDE
<p>–Deterrence: Death penalty may deter rape and sexual violence by imposing severe consequences.</p> <p>–Justice and Closure: Provides a sense of justice and closure for victims and families in brutal or</p>	<p>–Risk of Murder: Death penalty might incentivize accused to murder victims to avoid detection.</p> <p>–Impact on Convictions: Could lead to lower conviction rates and pressure victims to not report assaults.</p>

fatal cases.

–**Preventing Reoffending:** Ensures convicted rapists cannot commit further crimes, protecting society.

–**Message of Intolerance:** Sends a strong message against sexual violence, reflecting commitment to protecting vulnerable populations.

–**Corroborative Evidence:** Increases focus on corroborative evidence and leads to more rigorous examinations.

–**Human Rights Conflict:** Conflicts with the fundamental right to life.

–**Judicial Delays:** Lengthy appeal processes can delay justice and strain resources.

–**Mixed Effectiveness:** Research on death penalty's deterrent effect is inconclusive

PUNISHMENT FOR RAPE ACROSS THE GLOBE

- **Egypt-** The rapist is hanged till death
- **Israel-** Rape convict gets 4 years minimum and 16 years maximum imprisonment
- **United Arab Emirates-** Death
- **China-** Death Penalty is awarded to Rapist
- **Afghanistan-** The rapist is hanged to Death or shot dead by a bullet in the head
- **France-** 10 years of imprisonment, but if victim dies, punishment is increased to 30 years
- **USA-** Maximum punishment granted in 30 years in jail
- **Greece-** Rapist is punished with incarceration
- **Iran-** Death Penalty is granted to rapist
- **North Korea-** The offender is either shot in his head or vital organs by a fir

h

PRELIMS

9 MAOISTS KILLED IN DANTEWADA ENCOUNTER

- **2024 Recovery & Arrests:** 153 Naxalite bodies recovered, 669 arrested, 656 surrendered due to enhanced coordination.
- **Government Target:** Union Home Minister Amit Shah aims to eliminate Naxalism by March 2026

- **Origins:** Naxalism, a Maoist insurgency from the late 1960s, seeks to overthrow the government through armed struggle
- **Roots:** Movement stems from socio-economic disparities and exploitation of marginalized tribal communities.
- **Security Operations:** Deployment of state police, CRPF, and DRG to combat Naxalism.
- **Development Initiatives:** Programs focus on improving infrastructure, education, and healthcare in affected regions.
- **Surrender Policies:** Incentives for Naxalites to surrender and reintegrate into society.
- **Challenges:**
 1. Geographical Terrain: Dense forests and hills complicate security operations.
 2. Local Support: Maoists receive local support due to grievances against the state.
 3. Human Rights: Allegations of human rights violations by security forces hinder counter-insurgency efforts.

Arms and ammunition recovered in joint search operation; all the deceased were identified as members of West Bastar and Dabha Division Committee and PLGA Company No. 02, say police

The crackdown

Chhattisgarh, a region greatly affected by left wing extremism, has seen a surge of counter-insurgency operations this year. Some major operations:

April 16: 29 Maoists, including a senior rebel leader, killed in Kanker (North Bastar)

April 10: 12 Maoists killed in Bijapur

April 2: 13 killed in Bijapur

153 Maoists killed in anti-Naxal operations so far this year; this figure is much higher than the 46 deaths in 2021, 30 in 2022, and 29 in 2023



Dantewada is where the encounter took place on Tuesday

PUTIN'S VISIT TO MONGOLIA

- International Criminal Court (ICC) Warrant: Vladimir Putin has an arrest warrant from the ICC for alleged war crimes related to the Ukraine invasion.
- Putin's Visit: This is Putin's first trip to an ICC member country since the warrant was issued.
- Mongolia's Stance: As an ICC member, Mongolia has not indicated plans to arrest Putin.
- Calls for Action: Ukraine and the EU have urged Mongolia to execute the warrant, but no action has been taken.
- **About ICC :**

1. **Establishment:** The International Criminal Court (ICC) was established in 2002 by the Rome Statute.
2. **Jurisdiction:** The ICC prosecutes individuals for international crimes, including genocide, war crimes, and crimes against humanity.
3. **Location:** Headquartered in The Hague, Netherlands.
4. **Members:** 123 countries are parties to the Rome Statute, making them ICC members.
5. **Mandate:** The ICC aims to hold accountable those responsible for the most serious offenses of international concern and complement national judicial system

ICJ vs. ICC		
	International Court of Justice (ICJ) La Cour Internationale de Justice (CIJ)	International Criminal Court (ICC) La Cour pénale internationale (CPI)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council.
Location	The Hague, The Netherlands	The Hague, The Netherlands
Types of Cases	Contentious between parties & Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary, & maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Funding	UN-funded.	Assessed contribution from state parties to the Rome Statute; voluntary contributions from the U.N.; voluntary contributions from governments, international organizations, individuals, corporations and other entities.

IndOBIS

IndOBIS Workshop: CMLRE held a national workshop on IndOBIS at its Kochi campus.

About IndOBIS:

- Indian regional node of the global OBIS.
- Hosted by CMLRE, Kochi.
- Collects and contributes marine species data from the Indian Ocean to OBIS.

About OBIS:

- Large global repository of marine species data with millions of records.
- Provides information on species distribution, habitats, and environmental parameters.
- Offers tools for data search, visualization, and download.
- Supported by nearly 30 regional nodes ensuring data quality and accessibility.

- Set up by IOC of UNESCO; part of the International Oceanographic Data and Information Exchange (IODE).

BLACK COAT SYNDROME

Term for Justice Anxiety: The President described it as “Judicial Stress,” analogous to “White Coat Hypertension.”

Reasons for Perception:

- High Pendency: 82,887 cases pending in SC (as of August 31).
- Delays in Serious Crimes: Perceived insensitivity due to delays in cases like rape.
- Frequent Adjournments: Causes mental and financial strain, especially for rural litigants.
- District Judiciary Issues: Only 6.7% of district court infrastructure is female-friendly.

Steps Taken:

- Modernisation: e-Courts project, Tele-Law program.
- Alternate Resolution: Lok Adalat for pre-litigation dispute resolution.
- Infrastructure Improvement: Centrally Sponsored Scheme for Judicial Infrastructure.
- Law Reform: Section 479 applied to facilitate bail for first-time offenders.
- Pro Bono Culture: Nyaya Bandhu program for free legal services.

NA ANKA FAMINE

- **Name Change Proposal:** Union Education Minister proposed renaming Ravenshaw University due to its association with the Na Anka Famine.
- **Na Anka Durbhikshya (1866):**
 - A severe famine in Odisha, occurring two years before Ravenshaw University’s establishment in 1868.
 - Approximately one-third of Odisha’s population perished.
 - Occurred during the 9th Regnal year of King Divya Singha Deva.
- **Role of Thomas Edward Ravenshaw:**
 - British bureaucrat and colonial commissioner of Odisha, who experienced the famine firsthand.
- **Causes and Impact:**

- **Communication Challenges:** Limited connectivity hindered access to essential supplies.
 1. Inaccessibility: Odisha’s isolation worsened the famine’s effects.
 2. Famine Commission Recommendations: Improved communication through the construction of a Trunk Road and navigable irrigation canals, leading to the Orissa Coast Canal project starting in 1880-81.

HAYAO MIYAZAKI WON MAGSAYSAY AWARD

Honoree: Hayao Miyazaki, Japanese animator and Studio Ghibli co-founder, received the Ramon Magsaysay Award 2024

About the Award:

- Asia’s premier prize, often termed Asia’s Nobel Prize
- Recognizes selfless service and outstanding contributions in various fields, including environmental protection and peace.
- Awardees are selected by the Ramon Magsaysay Award Foundation (RMAF) board of trustees

Award Background:

- Presented in Manila on August 31st, the birth anniversary of President Ramon Magsaysay.
- Magsaysay was the Third President of the Philippines post-World War II.

Notable Indian Awardees:

- Vinoba Bhave (1958)
- Mother Teresa (1962)
- Kamaladevi Chattopadhyay (1966)
- Satyajit Ray (1967)
- Mahasweta Devi (1997)
- Arvind Kejriwal (2006)
- Anshu Gupta of Goonj (2015)
- Bezwada Wilson (2016)
- Ravish Kumar (2019)



September 5, 2024

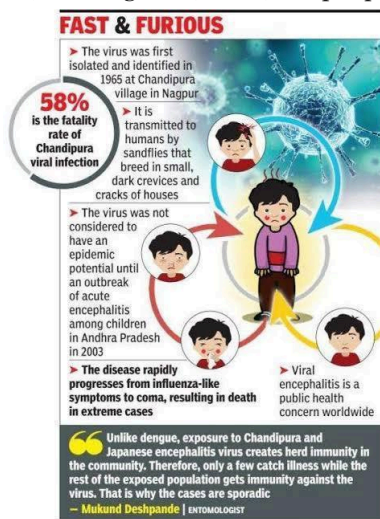
GENOME MAPPING OF CHANDIPURA VIRUS

Syllabus : GS2/Health, GS3/Science & Tech

Why in news : The Gujarat Biotechnology Research Centre (GBRC) in Gandhinagar has successfully published the first fully mapped genome of the Chandipura Vesiculovirus (CHPV).

What is the Chandipura Virus?

- **Chandipura Virus (CHPV):** A viral infection causing Acute Encephalitis Syndrome (AES) or brain swelling.
- **Symptoms:** Fever, headache, convulsions, encephalitis, coma, and death within days.
- **Virus Family:** Belongs to the Rhabdoviridae family, similar to rabies virus.
- **Vectors:** Spread by Phlebotomine sandflies, *Phlebotomus papatasi*, and *Aedes aegypti* mosquitoes.
- **Transmission:** Virus spreads to the central nervous system, leading to rapid onset encephalitis.
- **Affected Population:** Primarily affects children under 15, especially during monsoon seasons.
- **Outbreak History:** First identified in 1965 in Maharashtra; significant outbreaks in 2003-2004 in Maharashtra, Gujarat, and Andhra Pradesh.
- **Fatality Rate:** CFR during 2004 Gujarat outbreak was 78%, and Andhra Pradesh reported 55% in 2003.
- **Endemic Regions:** Predominantly in central India, affecting rural, tribal, and peripheral areas.



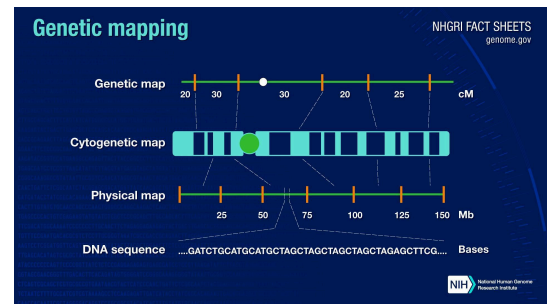
What are the key findings of the study?

- **Minimal Genetic Change:** CHPV from the Gujarat outbreak resembles the 2012 strain, with one mutation in the glycoprotein-B gene.

- **Binding and Immune Response:** Glycoprotein-B gene aids virus binding to human cells and triggers immune response.
- **No Major Mutation Needed:** The virus remains stable due to low antibody development and lack of a vaccine.
- **Low Viral Load, Severe Symptoms:** Despite low viral load, the virus caused severe illness.
- **Indigenous Virus:** Genome sequencing confirms the virus is native to India, linked to earlier outbreaks.

What is Genome Mapping?

- **Genome Mapping:** The process of identifying gene locations and key sequences on a genome.
- **Purpose:** Provides insights into a virus's origin, changes, and mutations affecting transmissibility or lethality.
- **Types of Maps:**
 - **Genetic Maps:** Show relative gene positions based on recombination frequency
 - **Physical Maps:** Show absolute gene positions based on DNA base pairs.



What is the significance of Genome Mapping?

- **Genetic Disorders:** Genome mapping aids in identifying genes linked to genetic diseases, enabling early diagnosis, targeted treatment, and genetic counseling.
- **Personalized Medicine:** Helps create customized treatment plans based on individual genetics, enhancing therapy effectiveness.
- **Agriculture:** Identifies desirable traits in crops and livestock, improving breeding programs for yield, disease resistance, and quality.
- **Vaccine and Drug Development:** Supports the creation of vaccines and drugs by analyzing pathogen genomes, as seen in diseases like COVID-19 and CHPV.
- **Evolutionary Studies:** Provides insights into species' evolutionary relationships by comparing genetic sequences across organisms.

What are the challenges associated with Genome Mapping?

- **Genome Complexity:** Larger genomes, like those of plants and animals, are complex and

contain repetitive sequences, complicating accurate mapping.

- **Ethical Concerns:** Raises privacy and ethical issues around the use and access to genetic information.
- **Cost and Resources:** Despite reduced costs, large-scale genome mapping still demands substantial financial and technological resources.
- **Data Interpretation:** Interpreting the functions of genes and sequences remains challenging due to limited understanding of their roles.

ACUTE ENCEPHALITIS SYNDROME (AES)

—**Overview :** Acute Encephalitis Syndrome (AES) is a severe neurological condition marked by brain inflammation, high fever, and altered mental status, caused by various pathogens or toxins.

—**AES Symptoms:** Sudden high fever, convulsions, altered sensorium, multi-organ dysfunction, vomiting, diarrhea, and severe cases may involve respiratory failure and nasal bleeding.

—**Causes:** AES is caused by viruses, bacteria, fungi, parasites, toxins, and chemicals.

—**Diagnosis Challenge:** Symptoms resemble other infections like CHPV, Enterovirus, Meningitis, and Japanese Encephalitis.

CENTRALISED PENSION PAYMENT SYSTEM (CPPS)

Syllabus : GS2/Government Policies

Why in news : The Union Minister of Labour and Employment and the Chairperson of the EPF's Central Board of Trustees have approved the proposal for a new Centralized Pension Payment System (CPPS) for the Employees' Pension Scheme, 1995.

What is CPPS?

- **About :** Initiative to modernize pension disbursements under the Employees' Pension Scheme (EPS).
- **Operational from :** CPPS will be operational from January 1, 2025, as part of EPFO's Centralized IT Enabled System (CITES 2.01).

What are the key features of CPPS?

- **Unified Payment System:** Pension payments through any bank or branch in India.
- **Direct Credit:** Immediate credit to pensioners' accounts without bank visits.
- **No PPO Transfer Needed:** Uninterrupted pension delivery despite relocations or bank changes.

- **Future Aadhaar Integration:** Transition to Aadhaar-based payments for efficiency.

What are the eligibility criteria for CPPS?

- **Membership:** Must be an EPFO member.
- **Service Duration:** At least 10 years of service required.
- **Pension Age:** Full pension from age 58; reduced pension from age 50.
- **Pension Deferral:** Option to defer up to age 60 with additional benefits.

What are the benefits of this?

- **Nationwide Access:** Pensions accessible from any bank branch.
- **Enhanced Efficiency:** Improved user experience for 78 lakh EPS pensioners.
- **Cost Savings:** Reduced costs in pension payouts for EPFO.
- **Continued Pension:** Ensures pension continuity for retirees moving locations.

UNIFIED PENSION SCHEME :

—**About :** The Unified Pension Scheme (UPS) provides government employees a steady pension based on their length of service and most recent basic salary.

—**Aim :** Balanced Pension Approach: Combines the stability of the Old Pension Scheme (OPS) with the fiscal responsibility of the New Pension Scheme (NPS).

—**Who Can Opt for UPS :** Eligibility: Available to all government employees who retired under NPS since 2004.

—**Switch Option:** Employees can switch to UPS with arrears adjusted for any NPS withdrawals.

—**NPS Retention Option :** Employees can choose to stay with NPS, but the decision is final once made.

Implementation : Launch Date: Scheduled for April 1, 2025.

INDIA AND BRUNEI

Syllabus : GS2/IR

Why in news : India's Prime Minister Narendra Modi visited Brunei Darussalam on an official two-day visit. This is the first-ever bilateral visit by an Indian Prime Minister to Brunei.

About:

- **Historic Milestone:** PM Modi arrived in Bandar Seri Begawan, Brunei Darussalam, on September 3 for an official visit.

- **First Indian PM Visit:** This marks the first visit by an Indian PM to Brunei, coinciding with the 40th anniversary of diplomatic relations between India and Brunei.

What are the key highlights of the visit?

Diplomatic Infrastructure

- **Chancery Inauguration:** PM Modi inaugurated a new Chancery of the High Commission of India in Brunei.
- **Cultural Fusion:** The Omar Ali Saifuddin Mosque, with Mughal and Italian Renaissance architecture, was visited by PM Modi.

Defense Cooperation

- **Joint Working Group:** A Joint Working Group will be formed to strengthen defense ties between India and Brunei.

Space Cooperation

- **Space Pact:** Discussion on a space cooperation agreement and appreciation for Brunei hosting ISRO's TTC Station.

Energy Collaboration

- **LNG Supply:** Long-term cooperation in LNG supplies was discussed amid India's shift from Brunei to Russian oil.

Strengthening Bilateral Ties

- **Enhanced Partnership:** India and Brunei agreed to enhance cooperation in defense, trade, space, health, education, and culture.

What is the significance of India-Brunei Relations?

India's 'Act East' Policy and ASEAN

- **Strategic Partnership:** Brunei plays a key role in India's 'Act East' Policy and Indo-Pacific Vision.
- **ASEAN Connection:** As a member of ASEAN, Brunei is aligned with the central pillar of India's Act East Policy.

Economic Significance

- **Trade Volume:** India-Brunei trade amounted to approximately \$286.20 million last year.
- **Energy Hub:** Brunei is one of Southeast Asia's largest oil and gas producers.

Brunei's South China Sea Location

- **Trade Routes:** Over 55% of India's trade passes through the South China Sea, an area of strategic interest.
- **Regional Claims:** While Brunei has claims in the South China Sea, it has focused on strengthening trade with China rather than asserting territorial claims.

China Plus One Strategy

- **Diversification:** India can leverage Brunei's role in the China Plus One strategy, which encourages businesses to diversify supply chains beyond China.

Indian Diaspora in Brunei

- **Historical Presence:** Indians have been in Brunei since the discovery of oil in the 1920s, with around 14,000 Indians residing there today.
- **Contributions:** Indian professionals, especially doctors and teachers, have significantly contributed to Brunei's healthcare and education sectors.

Sultan Bolckiah's Visits to India

- **Diplomatic Engagement:** Sultan Haji Hassanal Bolckiah has visited India four times, with the latest visit in 2018 as Chief Guest at the Republic Day parade.

BRUNEI

—**Location:** Brunei is located along the northern coast of Borneo Island in Southeast Asia.

—**Hemispheres:** It lies in both the Northern and Eastern hemispheres.

—**Borders:** Bordered by the South China Sea in the north and Malaysia on other sides, with non-contiguous parts divided by Sarawak, Malaysia.

—**Capital:** Bandar Seri Begawan is the capital and largest city.

—**Mountain:** Bukit Pagon is the highest point at 6,069 ft, along the Malaysia border.

—**Rivers:** Major rivers include the Belait, Pandaruan, and Tutong.

—**Oil Production:** Brunei is a major oil producer in Southeast Asia.

—**Population:** About 76% of the population are Brunei citizens, with a majority being Malay or Chinese.

—**Indian Community:** Around 14,000 Indians live in Brunei, contributing significantly to healthcare and education sectors.



FAME 3 SCHEME

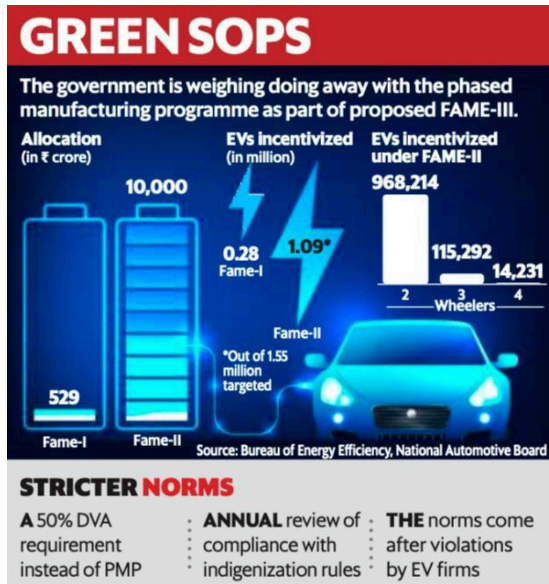
Syllabus : GS2/Government Schemes, GS3/Science & tech

Why in news : Centre is set to clear new rules regarding the FAME 3 Scheme, in a span of 2-3 months

What is it about?

- **Launched in:** 2015

- **Full Form:** Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India)
- **Nodal Ministry:** Ministry of Heavy Industries
- **Part of:** National Electric Mobility Mission Plan
- **Aim:** To promote adoption of electric/hybrid vehicles (xEVs) in India.



What are the different phases under the FAME Scheme?

- **Phase I:** Started in 2015 and functional until 2019, focusing on technological development, demand generation, pilot projects, and charging infrastructure.
- **Phase II:** Launched in 2019, focusing on electrification of public and shared transportation, aiming to support 7000 e-buses, 5 lakh e-3Ws, 55,000 e-4Ws (including strong hybrids), and 10 lakh e-2Ws.

What is the need for this?

- **Industry Participation:** Active involvement from the auto industry is crucial for electric mobility.
- **Auto-Battery Collaboration:** Auto and battery industries should collaborate to enhance EV adoption.
- **Government Incentives:** The government needs to provide incentives for phased EV and battery manufacturing.
- **Supportive Policies:** Implement policies like congestion pricing and low emission zones to encourage EV use.

What are the challenges associated?

- **High Costs:** The initial cost of electric vehicles and charging infrastructure remains high.

- **Charging Infrastructure:** Insufficient and unevenly distributed charging facilities hinder EV adoption.
- **Battery Technology:** Limited battery life and high costs of advanced batteries are challenges.
- **Consumer Awareness:** Lack of awareness about EV benefits and technology impacts adoption.
- **Policy Gaps:** Inconsistent or inadequate policy support can slow down EV market growth.
- **Range Anxiety:** Limited driving range of EVs creates concerns about usability and convenience.

PRELIMS

ILO's WORLD EMPLOYMENT AND SOCIAL OUTLOOK

- **Labor Market Resilience:** Global labor markets showed resilience despite economic challenges in 2023
- **Unemployment Projection:** Unemployment rate expected to rise to 5.2% in 2024, adding 2 million jobseekers
- **Uneven Recovery:** Recovery uneven with persistent gaps between high and low-income countries
- **Income Inequality:** Income inequality widened, with declining disposable incomes in most G20 nations
- **Working Poverty:** Working poverty remains a challenge, with increases in extreme and moderate poverty
- **Informal Work:** Informal work rates static at about 58% of the global workforce
- **Labor Market Imbalances:** Labor market imbalances persist, especially for youth and in gender participation
- **Productivity Concerns:** Productivity growth slowed despite technological advances
- **Structural Challenges:** Structural concerns threaten livelihoods, businesses, and social justice
- **Wage Growth Variation:** India and Turkey showed positive real wage growth, contrary to most G20 countries

CENTRE AND TRIPURA SIGN PEACE TREAT

- **Peace Agreement Signed:** A recent peace agreement aims to end violence and promote peace in Tripura.
- **Parties Involved:** The agreement involves the Centre, Tripura government, and two insurgent groups
- **Objective:** The deal seeks to address long-standing issues and stabilize the northeastern state.
- **Special Development Package:** ₹250 crore approved for the tribal development of Tripura.
- **Demobilization of Cadres:** Over 328 armed cadres will join mainstream society.
- **Significance:** Aims to contribute to both Tripura's and India's overall development.
- **Peace Accords/Agreements in NE:**
 1. NLFT(SD) Agreement (2019): Tripura
 2. Bru Agreement (2020): Tripura
 3. Bodo Accord (2020): Assam
 4. Karbi Accord (2021): Assam
 5. Adivasi Peace Accord (2022): Assam



GREEN MANIFESTO Haryana Green Manifesto 2024 Overview:

- **Initiated By:** People for Aravallis in response to Haryana's environmental crisis.
- **Participatory Creation:** Document developed with inputs from stakeholders across 17 districts.

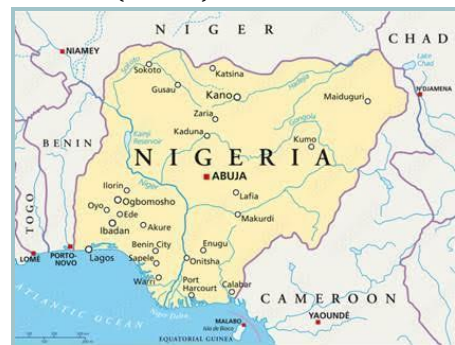
Key Demands in the Green Manifesto:

- **Aravallis and Shivaliks Protection:** Designate as "critical ecological zones" to prevent harmful activities
- **Alternative Building Materials:** Promote to protect hills.
- **Mahendergarh District:** Declare a "pahadi dark zone" and halt mining due to low groundwater levels
- **Legal Mining Appeal:** Withdraw appeal for NCR mining legalization
- **Landfill Removal:** Eliminate landfills in Bandhwari, Pali, and Old Sohna-Alwar road areas.
- **Illegal Waste Management:** Stop illegal dumping and burning in Bhiwadi, Khori Khurd, and Nuha
- **Compensation for Villagers:** Provide farmland and compensation for affected lands.

BOKO HARAM

Boko Haram Overview:

- **Background:** Militant group in northern Nigeria responsible for thousands of deaths and displacing over 3 million people
- **Geographical Presence:** Active mainly in Yobe, Kano, Bauchi, Borno, and Kaduna states.
- **Meaning of Name:** "Boko Haram" translates to "Western education is forbidden."
 1. **Founding:** Established in 2002.
 2. **Alternative Name:** Jama'atu Ahlis Sunna Lidda'awati Wal-Jihad, meaning "People Committed to the Propagation of the Prophet's Teachings and Jihad."
- **Initial Goals:** Aimed to eradicate corruption and impose Sharia law in Nigeria, rejecting Western influences.
- **Affiliation:** Swore allegiance to ISIL in 2015, becoming known as Islamic State West African Province (ISWAP).



September 6, 2024

PM's VISIT TO SINGAPORE

Syllabus : GS2/IR

Why in news : Prime Minister Modi visited Singapore during the second leg of a two-nation trip to South-East Asia, having travelled to Brunei Darussalam in the first leg.

What are the key highlights of the visit?

- **Strategic Partnership** : Bilateral ties between India and Singapore elevated to a comprehensive strategic partnership.
- **MoUs Signed** : Four MoUs signed in digital technologies, semiconductor partnership, health, and education.
- **Trade and Investment** : Leaders called for expanding trade and investment, with Singapore investing around USD 160 billion in India.
- **Ministerial Roundtable Discussion** : Discussed outcomes of the 2nd India-Singapore Ministerial Roundtable, focusing on six pillars of cooperation.
- **Key Areas of Cooperation** : Identified cooperation in advanced manufacturing, connectivity, digitalization, healthcare, skills development, and sustainability.
- **Cultural Connectivity** : Celebrated plans for the 60th anniversary of bilateral relations and the opening of India's first Thiruvalluvar Cultural Centre in Singapore.

What is the status of India-Singapore relations?

Historical Background

- Singapore's colonial ties with India date back to Sir Stamford Raffles establishing a trading station in 1819, governed from Kolkata until 1867.

India-Singapore Relations

- India was one of the first countries to recognize Singapore in 1965; relations were elevated to Strategic Partnership in 2015.

India-Singapore Ministerial Roundtable (ISMR)

- The inaugural ISMR was held in 2022, with the 2nd round in 2024, reviewing progress on key cooperation pillars and adding advanced manufacturing and connectivity.

Trade and Economic Cooperation

- Singapore is India's largest ASEAN trade partner, a key source of FDI, and bilateral trade surged to USD 35.6 billion in 2023-24.

Investment Relations

- Singapore was the largest FDI source in India in FY 2023-24, contributing USD 11.774 billion in equity inflows.

Fintech Cooperation

- Key developments include RuPay card acceptance and the UPI-Paynow Linkage for cross-border payments.

Science and Technology Cooperation

- India launched 17 Singaporean satellites and co-hosted the ASEAN-India Women Scientists Conclave in 2024.

Multilateral Cooperation

- Singapore is part of the International Solar Alliance, Global Bio-fuel Alliance, and India-ASEAN Comprehensive Strategic Partnership.

Indian Community

- Ethnic Indians make up 9.1% of Singapore's resident population, with Tamil as one of the official languages.



VERTICAL FISCAL IMBALANCE

Syllabus : GS3/Economy

Why in news : The financial relationship between the Union and State governments in India is imbalanced, similar to other nations with a federal constitutional structure.

What is Vertical Fiscal Imbalance (VFI)?

- Vertical fiscal imbalance (VFI) refers to the mismatch between the revenue-raising powers and expenditure responsibilities of different levels of government (between the Center and state) within a country.

What is the current scenario of VFI and Tax Devolution in India?

Vertical Fiscal Imbalance (VFI) Extent

- The 15th Finance Commission highlighted the imbalance between states' spending responsibilities and limited revenue-raising powers.

Tax Devolution Rates

- While the 14th and 15th Finance Commissions recommended devolving 42% and 41%, estimates indicated that a 48.94% average was required to eliminate VFI between 2015-2023.

Exclusion of Cesses and Surcharges

- Cesses and surcharges are excluded from the divisible pool, reducing states' share of tax proceeds and limiting their financial resources.

Fiscal Responsibility

- States have adhered to borrowing limits under fiscal responsibility laws but still struggle to meet expenditure needs, underscoring the need for increased support from the Centre.

Why should the VFI be reduced?

Decentralization of Expenditure

- States handle 61% of revenue expenditure, covering key sectors like health and education, but generate only 38% of revenue, leading to dependence on central transfers.

Need for Efficiency in Spending

- Reducing VFI would give states more financial resources, enhancing their ability to address local needs and improving governance efficiency.

Strengthening Fiscal Federalism

- Addressing VFI promotes cooperative federalism, ensuring states have sufficient resources to meet their constitutional duties and population demands.

Preparedness for Crises

- VFI intensifies during crises (e.g., COVID-19), creating fiscal stress. A more balanced fiscal framework would improve crisis management at the state level.

What should be the aim and objectives of the 16th FC in this regard?

Increase Tax Devolution

- States demand raising tax devolution to 50%; the 16th Finance Commission should consider 49% to address VFI and provide more untied funds.

Address Cesses and Surcharges

- The 16th Finance Commission must evaluate the exclusion of cesses and surcharges from the divisible tax pool to improve states' financial resources.

Empower States with Fiscal Autonomy

- The Commission should focus on increasing states' fiscal autonomy by ensuring sufficient resources for constitutional duties without excessive reliance on the Centre.

Support Local Priorities

- Providing untied resources to states will allow them to address specific local challenges and set development priorities, improving governance.

FINANCE COMMISSION

Ex

Demographic Performance

-Rewards states for controlling population growth, considering factors like fertility rate, infant mortality, and sex ratio.

Income Distance

-Measures the difference between a state's per capita income and the national average, with states having lower per capita income receiving a higher share to ensure equity.

Area

-Larger states incur additional administrative costs, making area a criterion for fund allocation.

Forest & Ecology

-States with large forest covers bear opportunity costs for limiting economic activities and receive compensation.

CRITICAL MINERAL MISSION

Syllabus : GS2/Geography, Resources

Why in news : India has announced a Critical Mineral Mission as part of Budget 2024-25.

What are Critical Minerals?

- Critical minerals are minerals that are **essential for a country's economic development** and national security.
- They are vital for the global transition to cleaner energy and are used in many different industries, including electronics, aerospace engineering, and space technology

Critical Minerals Identified in India-

The Government of India identified 30 minerals as Critical in July 2023.

Antimony	Lithium	Strontium
Beryllium	Molybdenum	Tantalum
Bismuth	Niobium	Tellurium
Cobalt	Nickel	Tin
Copper	PGE	Titanium
Gallium	Phosphorous	Tungsten
Germanium	Potash	Vanadium
Graphite	REE	Zirconium
Hafnium	Rhenium	Selenium
Indium	Silicon	Cadmium

Why are they termed “critical”?



What is the importance of Critical Minerals for India?

Push to India’s Economic Development

- Critical minerals support industries like high-tech electronics, telecommunications, transport, and defense.
- Their growth fosters job creation, income generation, and innovation.
- Example: India’s semiconductor manufacturing ambitions depend on these minerals.

Energy Transition Towards Net-Zero Emissions

- Essential for technologies such as solar panels, wind turbines, and advanced batteries.
- Supports India’s goal of achieving net-zero emissions by 2070.

Competitive Value Chain Establishment

- Discovery and use of critical minerals bolster India’s competitive value chain.
- Attracts foreign direct investment, aligning with the China+1 strategy.

National Security

- Vital for defense, aerospace, nuclear, and space applications.
- Helps develop high-quality materials for extreme conditions and complex functions.

Reducing India’s Import Bill

- Exploration and production of critical minerals reduce dependence on imports.
- Helps decrease India’s import burden and Current Account Deficit.

What are the challenges associated?

Geopolitical and Oligopolistic Monopoly

- Concentration of critical minerals in few countries leads to geopolitical and oligopolistic control.
- Example: Australia controls 55% of lithium reserves, and China has 60% of rare earths.

China’s Dominance in Processing and Refining

- China controls about 60% of global production and 85% of processing capacity for critical minerals.
- This dominance gives China significant political leverage.

Geopolitical Risks

- Concentration in specific regions makes supply chains vulnerable to geopolitical risks.
- Example: The civil war in the Democratic Republic of the Congo affects cobalt supply, with DRC holding 70% of global reserves.

Resource Nationalism

- Geographical concentration leads to increased resource nationalism and trade fragmentation.
- Example: Rising resource nationalism in Africa.

Price Volatility

- Limited trading of critical materials on exchanges and insufficient data lead to price volatility and investment delays.

Rising Import Bill

- Significant rise in imports of critical minerals, totaling nearly Rs. 91,000 crore between FY22 and FY23.
- Heavy reliance on imports threatens industrial and energy security.

Environmental Concerns

- Mining critical minerals can cause biodiversity loss, water depletion, pollution, and other environmental issues
- Example: Lithium mining in the Chilean Atacama desert is water-intensive.

Long Gestation Period for Alternatives

- Developing alternative sources and processing capabilities, such as those planned with Australia, can take over 15 years, delaying self-reliance.

PRELIMS

SWACHH BHARAT MISSION REDUCED INFANT MORTALITY RATES – STUDY

Recently, a multidisciplinary science journal named NATURE, has highlighted the impact of the Swachh Bharat Mission (SBM) on reducing infant and under-five mortality rates in India.

Impact on Infant Mortality

- SBM averts 60,000-70,000 infant deaths annually.

Correlation with Toilet Access

- Each 10% increase in toilet access reduces IMR by 0.9 and U5MR by 1.1.

Effectiveness in High Coverage Areas

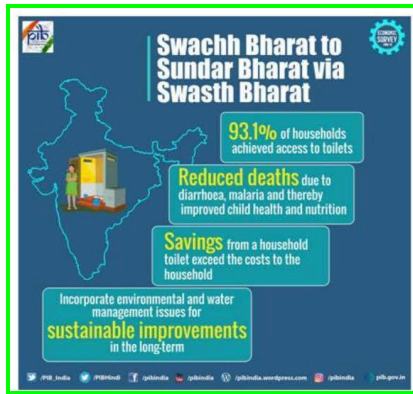
- Districts with >30% toilet coverage show reduced IMR to 5.3 and U5MR to 6.8.

Comprehensive Approach

- SBM’s success combines toilet construction with IEC investments.

Reduction in Pathogen Exposure

- Increased toilet access decreases diarrhea and malnutrition-related child mortality.



Parameter	Public Account Committees	Estimate Committees	Committees on Public Undertaking
Origin	1921 – Government of India Act 1919	1921	1964
Composition	22 members (15 Lok Sabha and 7 from Rajya Sabha)	30 (All from Lok Sabha)	22 members (15 Lok Sabha and 7 from Rajya Sabha)
Selection of members	According to the principle of proportional representation by means of the single transferable vote. Thus all parties get due representation in it. A Minister cannot be elected as a member.		
Tenure	1 (one) year		
Chairman	Appointed by Speaker from amongst its members. Generally from Opposition Party.	Appointed by Speaker	Appointed by Speaker. Member is from Lok Sabha only.

NEUROPLASTICITY

- **Definition:** Neuroplasticity, or brain plasticity, involves changes in neural synapses and pathways in response to environmental, behavioral, and neural factors.
- **Current Research:** While research is still developing, neuroplasticity shows promise for healing and recovery.
- **Hebbian Rule:** According to UCSF researchers, the brain remodels itself based on the Hebbian rule, indicating that brain plasticity is reversible and may help overcome mental health conditions.
- **Significance:** Unlike drug treatments, which are often inadequate for complex brain disorders, brain training through neuroplasticity offers a potential path to neurological recovery and better solutions for mental health issues.

PAC TO REVIEW PERFORMANCE OF REGULATORY BODIES

PAC Performance Review

- **Focus:** The Public Accounts Committee (PAC) will review performance of regulatory bodies like SEBI.

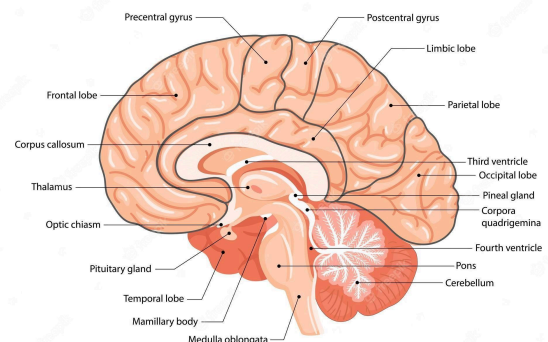
Background

- **Context:** Decision follows conflict of interest allegations against SEBI Chairperson Madhabi Puri Buch.
- **Subjects:** PAC’s suo motu investigations include regulatory bodies and public utilities’ fee regulation.

Public Accounts Committee (PAC)

- **Establishment:** Formed in 1921 under the Government of India Act, 1919.
- **Composition:** 22 members—15 from Lok Sabha, 7 from Rajya Sabha, elected annually.
- **Exclusions:** Ministers cannot be members; term is one year.
- **Functions:** Examines CAG’s annual audit reports and can select suo motu subjects for deeper review.

Human brain anatomy



September 7, 8, 9 2024

HEALTH MINISTRY APPROVES NEW TREATMENT FOR MULTIDRUG-RESISTANT TB

Syllabus : GS2/Health

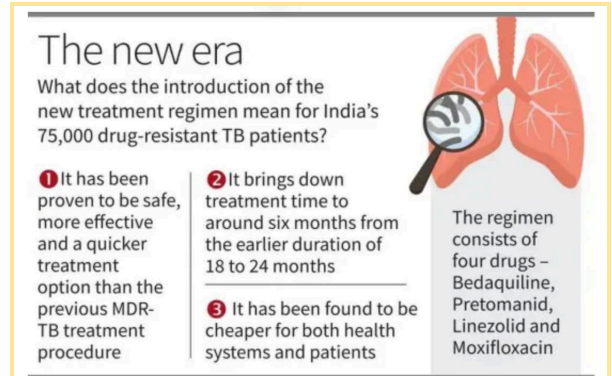
Why in news : This post on Health Ministry Approves New Treatment for Multidrug-Resistant TB has been created based on the article “Health Ministry approves new treatment regimen for multidrug-resistant TB”

What is the new regimen?

- New Drug-Resistant TB Treatment Regimen :** The BPaLM regimen consists of four drugs: Bedaquiline, Pretomanid, Linezolid, and Moxifloxacin.
- Safer and More Effective :** Proven to be a safer, quicker, and more effective option than traditional MDR-TB treatments.
- Reduced Treatment Time :** Treatment time is reduced to six months, compared to up to 20 months for traditional MDR-TB therapies.
- Fewer Side Effects :** Shorter duration reduces the severe side effects commonly seen in older treatment procedures.
- Benefits to Indian Patients :** Around 75,000 drug-resistant TB patients in India will benefit from this regimen, reducing healthcare costs and treatment time.
- Contribution to India’s TB Elimination Goal :** Supports India’s goal to eliminate TB by 2025, five years ahead of the global SDG target.
- Supporting Infrastructure :** India’s vast TB lab network, with over 7,700 testing facilities, will aid the successful implementation of the BPaLM regimen under the National TB Elimination Programme.

What is Drug-resistant TB?

- Definition of MDR-TB :** MDR-TB is caused by bacteria resistant to at least two key first-line TB drugs.
- Transmission of MDR-TB :** It can be transmitted directly from an infected person, as resistant strains are present in the population.
- Airborne Nature of MDR-TB :** Active pulmonary MDR-TB can spread through the air, particularly through coughing.
- Treatment for MDR-TB :** Requires second-line drugs with a treatment duration of 6 months to 24 months if rifampin resistance is detected.



The new era
What does the introduction of the new treatment regimen mean for India’s 75,000 drug-resistant TB patients?

- It has been proven to be safe, more effective and a quicker treatment option than the previous MDR-TB treatment procedure
- It brings down treatment time to around six months from the earlier duration of 18 to 24 months
- It has been found to be cheaper for both health systems and patients

The regimen consists of four drugs – Bedaquiline, Pretomanid, Linezolid and Moxifloxacin

TUBERCULOSIS (TB)

- TB is a bacterial infection spread through inhaling droplets from the coughs or sneezes of an infected person.
- It primarily affects the lungs but can also impact the abdomen, glands, bones, and nervous system.
- TB can be serious but is curable with proper antibiotics.

Symptoms of TB

- Persistent cough lasting more than 3 weeks, possibly bloody.
- Weight loss, night sweats, high temperature.
- Tiredness, fatigue, loss of appetite, and neck swellings.

Types of TB

- Pulmonary TB:**
 - Affects the lungs, most contagious after prolonged exposure.
 - In healthy individuals, the immune system often kills the bacteria without causing symptoms.
- Latent TB:**
 - The immune system contains the bacteria but doesn’t kill it.
 - No symptoms, not infectious, but bacteria remain in the body.
- Active TB:**
 - If the immune system fails to control the bacteria, symptoms develop, and it can spread.
 - About one-quarter of the world’s population is infected with TB, but only 5-15% develop active TB.
 - Latent TB can become active if the immune system weakens.

TECHNICAL TEXTILES

Syllabus : GS3/Science & Tech













Why in news : Annual export of technical textiles will cross \$10 billion by 2030, said Union Minister for Textiles,

inaugurating a conference and exhibition on technical textiles in New Delhi.

What are Technical Textiles?

- **Definition:** Materials and products manufactured for technical and performance properties rather than aesthetics.
- **Composition:** Made from synthetic fibers like polyester, nylon, aramid, carbon fiber; also includes natural fibers such as cotton for specific uses.
- **Production Techniques:** Advanced processes like weaving, knitting, non-woven techniques, coating, lamination, and 3D weaving.
- **Key Features:** High strength, durability, flexibility, and resistance to heat, moisture, and chemicals.
- **Functionality:** Designed for specific purposes like protection, insulation, filtration, and reinforcement across various sectors.
- **Applications:** Used in aerospace, automotive, construction, healthcare, agriculture, and sports industries.
- **Smart Textiles:** Some integrate electronics, sensors, and actuators for responsiveness to environmental changes.
- **Sustainability:** Growing focus on eco-friendly fibers and recycling processes to reduce environmental impact.

What is the usage of Technical Textiles?

	Agrotech Horticulture + landscape gardening, agriculture + forestry, animal keeping		Meditech Hygiene, medicine
	Buildtech Membrane, lightweight + massive construction, engineering + industrial building.		Mobiltech Cars, ships, aircraft, trains, space travel
	Clothtech Garments, shoes		Oekotech Environmental protection, recycling, waste disposal
	Geotech Road infrastructure, Railways, Irrigation and Hydraulic structures, Waste Landfills, Dams etc.		Packtech Packaging, protective-cover systems, sacks, big bags, container systems
	Homotech Furniture, upholstery + interior furnishing, rugs, floor coverings		Protech Person and property protection
	Indutech Filtration, cleaning, mechanical engineering, chemical industry		Sporttech Sport and leisure, active wear, outdoor, sport articles.

What is the status of Technical Textile Sector in India?

- **Second Largest Producer:** India is the second largest producer of polyester globally.
- **Market Share:** Technical textiles account for approximately 13% of India's total textile and apparel market.
- **Economic Contribution:** The sector contributes 0.7% to India's GDP.
- **Demand Potential:** Despite the growing sector, India's technical textile consumption is only

5-10%, compared to 30-70% in advanced nations, indicating significant growth potential.

- **Covid-19 Impact:** The relevance of technical textiles surged during the Covid-19 crisis, particularly for medical equipment.
- **Packtech Dominance:** Packtech holds 41% of the total market share, though it is seen as a low-value, low-technology product.
- **Growth Factors:** Availability of raw materials (cotton, wood, jute, silk), a strong value chain, low-cost labor, power supply, and shifting consumer trends drive India's growth in this sector.

What are the challenges associated?

- **Raw Material Shortage:** Limited supply of essential raw materials.
- **Rising Costs:** Increasing cost of raw materials affects profitability.
- **Labour Issues:** Inflexible labour laws hamper operational flexibility.
- **Regulatory Pressure:** Need to comply with stringent social and environmental norms.
- **Infrastructural Bottlenecks:** Insufficient infrastructure hinders growth.
- **Fragmentation:** The industry is highly fragmented, affecting efficiency.
- **Uneven Development:** Regional disparities in development slow down sectoral progress.

GOVERNMENT INITIATIVES FOR TECHNICAL TEXTILES

— **HSN Codes for Technical Textiles:** In 2019, 207 HSN codes were assigned for technical textiles by the Ministry of Textiles for better import/export monitoring and financial support.

— **100% FDI Allowed:** The Government of India permits 100% Foreign Direct Investment (FDI) under the automatic route in the technical textiles sector.

— **Technotex India:** A flagship event organized by the Ministry of Textiles in collaboration with FICCI, bringing global stakeholders of the technical textile industry together.

— **National Technical Textiles Mission:** Approved with a \$194 million budget for 2020-24, focusing on:

- Research, Innovation, and Development
- Promotion and Market Development
- Export Promotion
- Education, Training, and Skill Development

— **Scheme for Integrated Textile Park (SITP):** Supports entrepreneurship through financial aid and state-of-the-art infrastructure.

— **Centres of Excellence:** Established under the Technology Mission on Technical Textiles (TMTT) to provide research and testing infrastructure for technical textiles.

— **Amended Technology Upgradation Fund**

Scheme (ATUFS): Launched in 2016 to promote exports and encourage investments in textile machinery.
– **State Schemes:** States like Gujarat and Maharashtra promote technical textiles through dedicated textile policies.
– **National Infrastructure Pipeline:** A \$1.4 trillion initiative for energy, road, railways, and other sectors, boosting demand for technical textiles.
– **Mega Textiles Park:** Aims to create world-class textile infrastructure to attract investments, generate employment, and increase exports.

QUAD

Syllabus : GS2/IR

Why in news : As India and U.S. agree to swap turns, Biden to host Quad Summit at his home State India will instead host summit in 2025, indicating Donald Trump or Kamala Harris will visit next year.

What is the QUAD?

- **QUAD Overview:** The Quadrilateral Security Dialogue (Quad) includes the US, Japan, India, and Australia.
- **Objective:** Promotes regional security and economic cooperation in the Indo-Pacific.
- **Common Interests:** Focuses on a free Indo-Pacific, democracy, human rights, and countering China's influence.
- **Meetings:** Includes discussions on maritime security, infrastructure, and supply chain resilience.
- **Nature:** Aims to balance China's influence without being a military alliance, open to like-minded countries.

What is the genesis and evolution of QUAD?

- **2007:** The Quad was formed during an informal ASEAN meeting, proposed by Japanese Prime Minister Shinzo Abe.
- **2012:** Japan introduced the 'Democratic Security Diamond' concept, including the US, Japan, India, and Australia.
- **2017:** The Quad was revitalized with expanded goals and a focus on establishing an international rules-based order; the first 'Quad' talks were held in Manila.

- **2020:** The Quad's first joint military exercises occurred when Australia joined the Malabar naval exercises.
- **2021:** Quad leaders met virtually and issued a joint statement titled 'The Spirit of the Quad'.

What is the significance of QUAD?

- **Strategic Importance:** The Quad addresses Indo-Pacific challenges like China's rise and its 'String of Pearls' strategy.
- **Economic Significance:** Initiatives like the Asia-Africa Growth Corridor and Blue Dot Network enhance regional development, with India benefiting from investments.
- **Maritime Security:** The Quad strengthens Indian maritime security through joint naval exercises and coordination on navigation and piracy.
- **Regional Stability:** It promotes a free, open Indo-Pacific and a rules-based international order to enhance regional stability.
- **Post-COVID Diplomacy:** The Quad aims to shift manufacturing from China due to pandemic disruptions, presenting opportunities for India.

What are the challenges associated with QUAD?

- **Lacks Definitive Structure:** The Quad lacks a formal structure, secretariat, or permanent decision-making body.
- **Difficulty Addressing China's Concerns:** The Quad is viewed by China as a containment effort, complicating constructive engagement and potentially causing member tensions.
- **Imbalanced Cooperation:** Differences in financial resources, strategic awareness, and military capabilities among members may lead to cooperation challenges.
- **Limited Military Capabilities:** Varying military strengths among members, with the US being the most powerful and Australia the least, could restrict the group's effectiveness.
- **Domestic Politics:** Internal political factors, such as those in India, might hinder closer alignment and cooperation among members.
- **Geopolitical Challenges:** Territorial disputes, regional tensions, and non-traditional security threats require coordinated efforts, which may be difficult to achieve.
- **Lack of Coherent Actions:** Absence of concrete actions by the Quad could undermine its credibility and effectiveness in addressing Indo-Pacific issues.

NGT SEEKS REPLY ON DELHI FLOODS

Syllabus : GS3/Environment

Why in news : NGT seeks reply from authorities regarding urban flooding in Delhi

Why is there Urban Flooding in Delhi?

- **Unchecked Urban Expansion:** Rapid, ill-planned urban growth without considering natural topography and drainage patterns.
- **Inadequate Drainage Systems:** Existing drainage systems are unable to handle high-intensity rainfall, leading to significant runoff.
- **Concrete Overdevelopment:** Excessive construction on low-lying areas and flood plains, leaving little room for water absorption.
- **Destruction of Water Bodies:** Reduction of water bodies that could manage floodwaters, with many converted into real estate.
- **Neglect of Water in Urban Planning:** Lack of a comprehensive water masterplan that integrates water management into urban development.

What is the current scenario of Rapid Urbanisation in Delhi NCR?

- **Fastest Urban Expansion:** Delhi is one of the fastest-growing cities globally, with its geographic size almost doubling between 1991 and 2011.
- **Population Growth:** Predicted to overtake Tokyo as the world's most populous city by 2030, with an estimated population of 39 million.
- **Urban Sprawl:** Expansion primarily on the peripheries, converting rural areas into urban zones, and rapid urbanization in NCR cities like Ghaziabad, Faridabad, Noida, and Gurugram

What are the challenges associated with this?

- **Topographical Neglect:** Building in low-lying areas and on flood plains, disrupting natural drainage and increasing flood risks.
- **Inadequate Infrastructure:** Insufficient desilting of drains, inadequate stormwater management systems, and improper solid waste management.
- **Lack of a Water Masterplan:** Absence of comprehensive planning for clean and wastewater flows, leading to issues like the flooding of new infrastructures like the Pragati Maidan Tunnel.
- **Reduction of green space and water bodies:** Conversion of green spaces and water bodies into concrete developments, further aggravating flood situations.
- **Inconsistent Urban Planning:** No systematic approach to integrating natural water flows and gradients into urban development plans.

What are the recommendations?

- **Integrated Urban Planning:** Develop a water masterplan that prioritizes water management in urban development.
- **Protection of Water Bodies:** Preserve and restore existing water bodies to manage floodwaters effectively.
- **Sustainable Development:** Implement policies to prevent construction in low-lying and flood-prone areas.
- **Infrastructure Improvement:** Enhance drainage systems, desilting processes, and solid waste management to reduce water logging.
- **Public Awareness:** Increase awareness about the importance of sustainable urban planning and the risks of unchecked urbanisation.

NATIONAL GREEN TRIBUNAL

- **Purpose:** A specialized body set up under the National Green Tribunal Act (2010) for expeditious handling of environmental and natural resource cases.
- **Global Position:** India was the third country to establish a specialized environmental tribunal, following Australia and New Zealand, and the first developing country
- **Mandate:** Required to dispose of applications or appeals within six months of filing.
- **Sittings:** Principal place of sitting is New Delhi, with additional locations in Bhopal, Pune, Kolkata, and Chennai.

PRELIMS

SWISS PEACE PROCESS

India's Role in Peace Efforts:

- **Consideration for Involvement:** The Union government is exploring India's potential role in ending the Russia-Ukraine war.
- **Ukrainian Interest:** Ukraine seeks India's participation in the Swiss peace summit and future peace efforts.

India's Response to Swiss Peace Summit:

- **Disassociation:** India disassociated itself from the Swiss summit's outcome due to the absence of Russia and Ukraine.
- **Future Participation:** Ukraine hopes for India's future involvement and has proposed retroactive participation.
- **Second Summit:** Plans for a second peace summit are scheduled for October or November.

- **Ambassador's Statement:** Ukraine's Ambassador to India suggested that India could play a larger role, including potentially hosting future summits.

Ukraine's Desire for India's Greater Role:

- **Bilateral Engagement:** Ukraine anticipates that PM Modi's visit and talks with President Zelenskyy will demonstrate India's commitment to peace.
- **Significant Role:** Ukraine hopes India will play a major role in peace-building, including hosting summits or proposing solutions on key issues.

India's Diplomatic Engagements:

- **Intensified Outreach:** India's diplomatic outreach includes visits by External Affairs Minister S. Jaishankar to key countries and National Security Adviser Ajit Doval's visit to Russia.
- **Global South Mediation:** Discussions on India's role as a mediator alongside other Global South countries.
- **Russian Appreciation:** President Putin acknowledged India's efforts in peace efforts.
- **Bilateral Discussions:** Zelenskyy and Modi discussed bilateral issues and cooperative plans during their talks.

BOEING STARLINER RETURNS EARTH WITHOUT ASTRONAUTS

- **Purpose:** A spacecraft designed to transport astronauts into space, launched by a rocket.
- **Components:** Includes a crew capsule and a service module.
- **Crew Capsule:** Houses astronauts and is designed for reentry and landing.
- **Service Module:** Contains life support systems, engines, and fuel; not reusable.
- **Dimensions:** Over 4 meters wide, accommodating up to seven astronauts.
- **Features:** Weldless structure, reusable up to 10 times, with a six-month turnaround; includes wireless internet and tablet technology.
- **Launch Vehicle:** Fits atop an Atlas V rocket, operated by United Launch Alliance (Boeing and Lockheed Martin).

ENEMY PROPERTY

- **Definition:** Properties owned by individuals or entities from countries (Pakistan and China) that committed external aggression against India.
- Includes properties of those who acquired citizenship of Pakistan or China post-partition and after the 1962 war.
- **The Enemy Property Act, 1968:** Defines "enemy" as the aggressor countries and their citizens.
- "Enemy property" refers to assets held by or on behalf of such entities.
- **Amendments:** 2017 Amendments: Expanded definitions to include legal heirs, successors, and firms related to enemies.
- **Custodianship:** Properties continue to vest with the Custodian regardless of changes in enemy status or nationality.
- **Geographical Distribution:**
 1. **Uttar Pradesh:** 4,991 properties
 2. **Bengal:** 2,735 properties
 3. **Delhi:** 487 properties

FINANCIALISATION

- **Definition:** Increase in the financial sector's size and influence relative to the overall economy.
- **Process:** Financial markets, institutions, and elites gain greater sway over economic policy and outcomes.
- **Shift:** Transition from industrial activities to financial activities like trading and speculation.
- **Characteristics:** Growing diversity of transactions, market players, and their integration into various economic and societal aspects.
- **Historical Context:** Occurred as countries moved away from industrial capitalism.
- **Impact:** Changes in financial market structure, corporate behavior, economic policy, and income distribution favoring the financial sector.

September 10 2024

CHILD DEATHS LINKED TO MALNUTRITION

Syllabus : GS2/Health

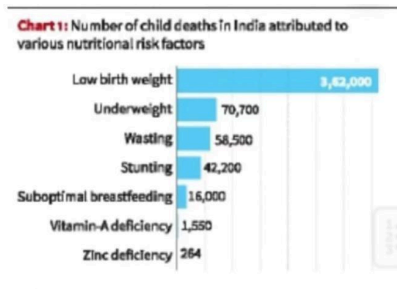
Why in the news : Death rates from malnutrition are much higher in low-income countries, where children often don't get the diversity of nutrients

What is India's Position on Malnutrition?

- In 2021, in India, **0.7 million children under the age of five died**. Of these, 0.5 million of the deaths were attributed to child and maternal malnutrition. It means, over 70% of them were linked to nutritional deficiencies.
 - High Data :** In 2021, globally, about 50% of child deaths were linked to nutritional deficiencies, which is 20% lower than India's figures.
 - Premature Death :** Children often don't die directly from malnutrition but from conditions worsened or triggered by it, making malnutrition a significant risk factor for premature death.

What are the Nutritional Risks that cause the deaths?

- Low Birth Weight:** Child Deaths in India are highest due to low birth weight.
- Other Factors:** Underweight, Wasting, Stunting, Suboptimal breastfeeding, Vitamin A Deficiency and Zinc Deficiency
 - Wasting means weight is too low for their height
 - Stunting means too short for their age
- Factors:** It often happens because the mother is malnourished or has experienced infectious diseases during pregnancy.
- Prevalence:** Death rates from malnutrition are much higher in low-income countries
- Reason:** Children often don't get the diversity of nutrients they need and where infectious diseases are much more common.



What country-wise situation of Malnutrition Death Rates?

- Affected Regions:** Most malnutrition deaths occur in Sub-Saharan Africa and South Asia.
 - Most affected Countries are Chad Somalia and Mali
- BRICS countries** also have an impact.
- Differences Observed:** In rich countries (on the right of the chart), rates are 20 to 50 times lower than in the poorest countries, on the left.

MALNUTRITION

- Malnutrition refers to deficiencies, excesses, or imbalances in nutrient intake (WHO).
- It leads to inadequate health growth, and development.

Types of Malnutrition:

Undernutrition:

- Wasting: Low weight-for-height.
- Stunting: Low height-for-age.
- Underweight: Low weight-for-age.

Micronutrient-related Malnutrition

- Vitamin A Deficiency: Impairs vision and immunity.
- Iron Deficiency: Causes anaemia.
- Iodine Deficiency: Affects growth and cognition.

Obesity: Excessive body fat due to calorie intake.

Diet-related NCDs: Includes cardiovascular diseases linked to poor diet.

STEPS TAKEN BY THE GoI AGAINST MALNUTRITION

- Mission Poshan 2.0:** Aims to strengthen nutrition programs and address malnutrition.
- Integrated Child Development Services (ICDS):** Provides food, preschool education, and healthcare.
- Pradhan Mantri Matru Vandana Yojana (PMMVY):** Financial support to pregnant and lactating women.
- Mid-Day Meal Scheme:** Nutritious meals for school children.
- Scheme for Adolescent Girls (SAG):** Nutrition support for adolescent girls.
- Mother's Absolute Affection(MAA):** Promotes breastfeeding.
- Poshan Vatikas:** Nutrition gardens for locally grown food.

INDIA STATUS REPORT ON ROAD SAFETY, 2024

Syllabus : GS2/Governance, GS3/Economy

Why in news : Recently, The “India Status Report on Road Safety 2024,” prepared by the TRIP Centre at IIT Delhi

What is the report about?

- **Slow Progress in Road Safety :** India shows slow progress in reducing road accident fatalities, linked to road construction and mobility.
- **Road Safety Analysis :** Road safety analysis used FIR data from six states and audits of compliance with Supreme Court directives.

What are the key findings of the report?

Disparities in Road Traffic Death Rates

- High death rates observed in Tamil Nadu, Telangana, and Chhattisgarh; lower rates in West Bengal and Bihar.

States with Highest Traffic Fatalities

- Uttar Pradesh, Maharashtra, Madhya Pradesh, Karnataka, Rajasthan, and Tamil Nadu contribute to nearly half of all traffic fatalities.

Vulnerable Groups

- Pedestrians, cyclists, and motorised two-wheeler riders are the most frequent victims of road accidents, with trucks being the most responsible vehicles.

Global Comparison

- India’s road safety performance is significantly worse than developed countries like Sweden.
- The likelihood of dying in a road accident in India has sharply increased compared to these nations over the past decades.

Safety first In 2021, road traffic injuries were the 13th leading cause of death in India and the 12th leading cause of health loss.

Percentage of road traffic deaths by victims mode of transport in six States

	Chhattisgarh	Chandigarh	Delhi	Haryana	Maharashtra	Uttarakhand
Pedestrian	19	23	44	29	24	28
Bicycle	4	13	3	3	1	3
Motorised two-wheeler	58	51	40	47	58	48
Motorised three-wheeler	1	7	4	3	1	3
Car	4	4	5	8	6	7
Bus	1	1	0	1	1	4
Truck	5	1	2	5	5	4
Farm tractor	6	0	0	2	2	0
Others	0	1	1	1	2	1
Unknown	0	1	1	0	0	1
Total (%)	100	100	100	100	100	100

Percentage of road traffic deaths by type of impacting vehicle in six States

	Chhattisgarh	Chandigarh	Delhi	Haryana	Maharashtra	Uttarakhand
Bicycle	0	0	1	0	1	0
Motorised two-wheeler	13	11	6	10	14	10
Motorised three-wheeler	0	7	2	1	0	1
Car	7	36	14	25	14	21
Bus	3	5	6	4	4	7
Truck	24	12	18	32	27	28
Farm tractor	5	1	1	7	4	6
Others	11	12	5	1	5	2
None	16	9	3	2	16	5
Unknown	18	9	45	17	15	21
Total (%)	100	100	100	100	100	100

Source: India Status Report on Road Safety 2024

What are the issues and concerns associated?

Inadequate Data and Safety Measures

- National road safety data systems are inadequate, with limited audits and lack of basic safety measures.

Limited Data and Intervention

- Absence of a national crash-level database hinders effective analysis and intervention.

Helmet Usage and Trauma Care

- Helmet usage is low in rural areas, and trauma care facilities are insufficient.

Public Health Issue and Progress

- Road traffic injuries remain a major public health issue, with minimal progress towards reducing fatalities.
- Most Indian states are unlikely to meet the UN goal of halving traffic deaths by 2030

What are the recommendations of the report?

Importance of Road Safety Education

- Road safety education is as crucial as other basic survival skills.

Government Prioritization

- Central and State governments must prioritize scaling up road safety interventions.

National Crash Database

- A national database for fatal crashes should be established, with public access to improve understanding of risks and intervention effectiveness.

Tailored Strategies

- Customized strategies are needed to address the unique road safety challenges faced by different states.

UNITED NATIONS DECADE OF ACTION — for Road Safety

— The United Nations General Assembly proclaimed the Decade of Action for Road Safety 2021-2030 in September 2020. The goal is to reduce road traffic deaths and injuries by 50% by 2030.

GLOBAL STATUS REPORT ON ROAD SAFETY

— The WHO Global Status Report on Road Safety 2023 is the fifth report tracking progress in reducing road traffic deaths.

Progress and Baseline

— It covers the period from 2010 to 2021 and establishes a baseline for achieving the UN Decade of Action 2021-2030 target to halve road traffic deaths by 2030.

INDIA AND UAE FOR NUCLEAR COOPERATION

Syllabus : GS2/IR

Why in news : India and the United Arab Emirates (UAE) signed a Memorandum of Understanding (MoU) for civil nuclear cooperation.

What is this about?

- **Nuclear Energy Cooperation :** India and the UAE agreed in 2015 to collaborate on peaceful nuclear energy use in multiple sectors.
- **UAE Investment Policy :** The agreement supports the UAE’s expansion of nuclear energy investments.
- **LNG Supply MoU :** A separate MoU was signed for a long-term LNG supply between ADNOC and Indian Oil Corporation.

What is India’s Civil Nuclear Cooperation?

Civil Nuclear Cooperation

- Involves collaboration to develop and use nuclear technology for peaceful purposes, including energy production, safety standards, fuel supply, and non-proliferation efforts.

India’s Civil Nuclear Program

- Focuses on harnessing nuclear energy for peaceful uses, primarily electricity generation.

Existing Partnerships

- India has nuclear cooperation agreements with France, Russia, the USA, and Japan.

What are the related agreements?

Indo-U.S. Nuclear Deal (2005)

- Enhanced India’s access to global nuclear markets.

Civil Nuclear Cooperation Agreement with the U.S. (2008)

- Granted India access to civilian nuclear technology and fuel from the international market.
- Required separation of civilian and military nuclear facilities, with civilian facilities under IAEA safeguards.

What are the key reactors and projects in India?

Major Nuclear Power Plants

- Key facilities include Tarapur, Kudankulam, and Rajasthan, crucial for India’s nuclear energy production.

Fast Breeder Reactors

- India is developing Fast Breeder Reactors (FBRs) that use plutonium to generate more fuel than they consume.

Thorium-Based Reactors

- India aims to use its abundant thorium resources, working on reactors like the Advanced Heavy Water Reactor (AHWR) as part of its three-stage nuclear program.

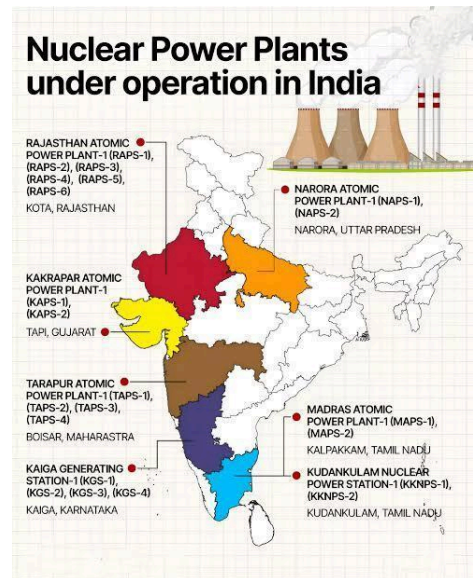
INDIA’S NUCLEAR WEAPON PROGRAMME :

—**Smiling Buddha (1974) :** India’s first nuclear test, code-named “Smiling Buddha,” led to the development of a nuclear triad with land, sea, and air-based delivery systems.

—**Operation Shakti (1998) :** A series of nuclear tests at Pokhran, codenamed “Operation Shakti,” included fission and fusion devices and marked India’s formal entry into the nuclear weapons club.

—**International Criticism :** India’s nuclear weapons program has faced criticism, particularly from the United States and its allies.

—**No First Use Policy :** India has a “no first use” policy, pledging not to initiate nuclear weapons use but reserving the right to retaliate if attacked with nuclear weapons.



DELAY IN CONDUCTING CENSUS IN INDIA

Syllabus : GS2/Governance

Why in news : The Union Ministry of Statistics and Programme Implementation has dissolved the 14-member Standing Committee on Statistics (SCoS). The official reason stated that the committee’s work overlapped with that of the recently formed Steering Committee for National Sample Surveys.

What is it about?

- **Formation of SCoS (2023) :** SCoS was established to advise the Union government on survey methodology, including sampling frame, design, and tabulation plans.

- **Decennial Census History** : India's decennial census has been conducted every ten years since the 1870s, with the last one in 2011.
- **Delay of 2021 Census** : The 2021 census was delayed due to COVID-19 and has yet to be notified.
- **Concerns About Data Accuracy** : Economists worry that reliance on 2011 census data for statistical surveys affects their accuracy and quality.

What is Census?

Definition of Census

- The Census is a periodic and systematic collection of demographic, economic, and social data of a population within a specific region.

Purpose and Conduct

- Typically conducted by governments to gather detailed information about population characteristics and living conditions.

Importance of Census Data

- Provides essential data for governments, businesses, researchers, and policymakers for planning public services, allocating funding, and making informed decisions.

What is the status of Census in India?

Census History in India

- The Census in India has been conducted regularly since 1871, with the first complete Census in 1881.

Constitutional Mandate

- Conducted under the Census Act of 1948, which empowers the Government of India to carry out periodic population surveys.

Frequency

- The Census of India occurs every ten years, with the most recent conducted in 2011.

What is the significance of Census?

Policy Formulation

- Provides crucial data for planning and formulating policies in education, healthcare, infrastructure, and social welfare.

Resource Allocation

- Assists in equitable resource distribution by offering data on population distribution, demographics, and socio-economic conditions.

Understanding Demographic Trends

- Aids in analysing demographic trends, urbanisation patterns, migration flows, and population growth rates.

Monitoring Development Goals

- Instrumental in tracking progress toward national and international development goals, including Sustainable Development Goals (SDGs).

Why is there a delay in conducting Census in India?

COVID-19 Pandemic

- The pandemic disrupted the scheduling and planning of large-scale surveys like the Census.

Preparation and Planning

- Conducting the Census in India requires detailed planning, resource mobilization, and coordination across government departments.

Political and Administrative Priorities

- Delays occur due to government prioritization of other activities or elections.

Technological and Methodological Upgradation

- Periodic updates in technology and methodologies for data collection and processing require extra time and resources.

Complexity of Data Collection

- India's diversity in geography, languages, cultures, and socio-economic conditions creates challenges for comprehensive Census execution.

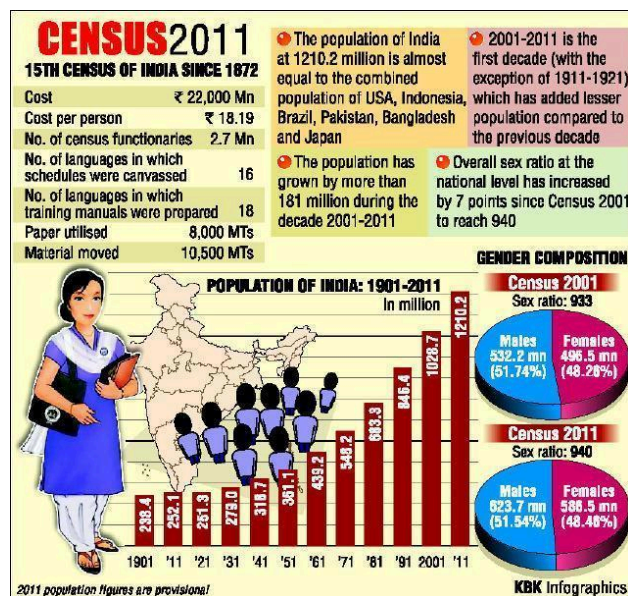


Fig : Census 2011

PRELIMS

BANGLADESH TO SEEK EXTRADITION FROM INDIA

- Bangladesh's International Crimes Tribunal is seeking her extradition to face charges related to these accusations.

Extradition Treaty between India and Bangladesh Background:

- India and Bangladesh signed a criminal extradition treaty in January 2013.
- This treaty facilitates the extradition of individuals who are wanted for criminal activities in either country.

- The treaty aims to strengthen bilateral cooperation in combating crime and ensuring that fugitives do not find safe havens.

Key Provisions:

Extraditable Offenses:

- The treaty covers a wide range of offenses, including terrorism, organized crime, drug trafficking, and other serious crimes.
- Both countries have agreed to extradite individuals who are accused or convicted of these offenses.

Political Offenses:

- One of the critical clauses in the treaty is the provision that allows either country to refuse extradition if the offense is of a "political character."
- This clause is often invoked in cases where the accused claims that the charges against them are politically motivated.

Human Rights Considerations:

- The treaty also includes provisions to ensure that the extradition process respects human rights.
- Extradition can be refused if it is believed that the individual may face torture, inhumane treatment, or unfair trial in the requesting country.
- India will need to balance its legal obligations under the extradition treaty with its diplomatic relations with Bangladesh. The decision will also be influenced by domestic and international human rights considerations.

GROUP OF MINISTERS (GoM) TO DECIDE ON TAX ON HEALTH, LIFE COVERS

The Goods and Services Tax (GST) Council is currently deliberating on the tax rate applied to health and life insurance premiums. The current rate stands at 18%, and there is growing demand for its reduction or complete removal.

- **Formation of Group of Ministers (GoM):**
 1. A new GoM has been established to review the tax rate on health and life insurance premiums.
 2. The GoM has been given a 50-day deadline to present its recommendations by the end of October 2024.
- **Key issues for Review :**
 1. Whether the 18% GST rate should be reduced or scrapped altogether.
 2. Identification of specific groups or types of policies that might be exempted
 3. Treatment of group insurance policies under the GST framework.
- **Exit Steps :**

1. The GST Council will reconvene in November 2024 to make a final decision based on the GoM's recommendations.

GST Council discusses whether the rate should be reduced from 18% or scrapped altogether, who should be exempted if at all, and also how group insurance policies should be treated

On the table

The GST Council meeting on Monday took decisions on a host of pending issues



Health and life insurance premiums:

50-day deadline for a new Group of Ministers (GoM) to go into demand for a reduction in the 18% levy

Rationalising GST rates and slabs:

Panel to meet on September 23 to discuss its broader mandate

GST Compensation Cess:

A new ministerial group is being formed to deliberate on the future of the levy on a few select items, including automobiles and demerit goods.



Real estate issues:

GoM has been asked to examine the issue of factoring in the cost of land while assessing the value of construction services in property transactions

UPS AND DOWNS

Tax on three cancer drugs cut from 12% to 5%

Levy on car seat covers up from 18% to 28%

Tax on some extruded savoury snacks go down from 18% to 12%



TWO ANTI-SUBMARINES WARFARE VESSELS LAUNCHED

- Two anti-submarine warfare shallow watercraft vessels of the Indian Navy were launched at the Cochin Shipyard.
 1. Once commissioned by the Navy, the vessels will be called INS Malpe and INS Mulki — with a displacement of about 900 tonne.
 2. The ships are designed to fit the indigenously developed sonar for underwater surveillance
- The vessels are the fourth and fifth in a series of eight watercraft.
- Mahe-class of ships will replace the in-service Abhay-class ASW corvettes
 1. They are designed to undertake anti-submarine operations in coastal waters, low intensity maritime operations and mine-laying operations, apart from search and rescue
 2. Each vessel has an installed propulsion power of a bout 12 MW and is equipped with light-weight torpedoes, ASW rockets and mines, close-in weapon system and stabilised remote-control guns.

SC REFUSES PLEA FOR HALT IN MILITARY EXPORTS TO ISRAEL

- **Case Background:** India's Supreme Court dismissed a Public Interest Litigation (PIL) seeking to halt licenses for Indian firms exporting arms to Israel.
- **Court's Rationale:**
 1. The bench, including Chief Justice D Y Chandrachud, stated that intervention in foreign policy is beyond the court's jurisdiction.
 2. Indian firms involved in arms export may face legal action for breach of contractual obligations but cannot be stopped from supplying.
- **PIL Claim:**
 1. The petitioners argued that India is bound by international laws prohibiting arms supplies to states involved in war crimes, which could be used in serious violations of international humanitarian law.
- **Government and Public Response**
 1. A group of eminent citizens had urged the defense minister to halt the licensing process.
 2. Investigative reports suggest India might be supplying weapons to Israel.
- **Context:**
 1. The UN Security Council has condemned Israel's actions in Gaza following an attack by Hamas on October 7, 2023. The conflict has led to significant casualties and a humanitarian crisis in Gaza.
 2. Israel faces accusations of genocide, and the International Court of Justice has ordered a halt to military operations in certain areas.

September 11, 2024

ANUSANDHAN NATIONAL RESEARCH FOUNDATION (ANRF)

Syllabus : GS3/Science & Tech

Why in the news : Prime Minister Narendra Modi chaired the inaugural meeting of the Governing Board of the Anusandhan National Research Foundation (ANRF).

What is the current scenario?

- The meeting focussed on discussion about India's Science and Technology landscape and redesigning of research and development programmes

What is ANRF?

- **Establishment of ANRF :** The Anusandhan National Research Foundation (ANRF) was created under the ANRF Act 2023 to promote research and innovation in India.
- **Objectives of ANRF :** ANRF aims to seed, grow, and foster a research-driven culture nationwide, as outlined in the National Education Policy (NEP).
- **Integration of SERB :** The Science and Engineering Research Board (SERB) has been subsumed into ANRF, centralizing research funding activities.
- **Funding Target :** ANRF has a funding goal of ₹50,000 crore for the 2023-2028 period.

What is the current status of the Research & Development (R&D) sector?

Increase in GERD

- India's Gross Expenditure on Research and Development (GERD) rose from ₹6,01,968 million in 2010-11 to ₹12,73,810 million in 2020-21.

R&D Investment as a Percentage of GDP

- R&D investment in India stands at 0.64% of GDP, significantly lower than major economies like China (2.4%), Germany (3.1%), South Korea (4.8%), and the U.S. (3.5%).

PhD Output

- India produces around 40,813 PhDs annually, ranking third globally.

Research Publications

- India ranked third in 2022 with over 3,00,000 research publications.

Patent Grants

- India ranked sixth in patent grants in 2022 with 30,490 patents.

What significance of the R&D Sector?

Economic Growth

- R&D drives economic growth by fostering innovation, creating new markets, and increasing GDP through employment opportunities.

Technological Advancement

- Investments in R&D promote the development of new technologies and processes, boosting industry efficiency.

Tackling National Challenges

- R&D is essential for addressing key national issues like health, agriculture, and environmental sustainability.

Global Competitiveness

- A robust R&D sector improves a country's global competitiveness, enhancing India's rankings in indices like the Global Innovation Index and Nature Index.

Education and Skill Development

- R&D supports education and skill development by encouraging innovation and knowledge transfer.

What are the issues/concerns associated with this?

Low R&D Expenditure

- India's R&D spending has declined to 0.64% of GDP, down from 0.8% in 2008-09 and 0.7% in 2017-18, significantly lower than developed countries that spend 2%-4% of GDP.

Heavy Reliance on Public Funds

- Public funding dominates R&D, with private sector contributions at only 36.4%, while developed nations see over 70% of R&D funded by the private sector.

Barriers to Private Sector Investment

- Limited private sector funding is due to unclear regulations, inadequate intellectual property protection, and weak evaluation mechanisms.

Technology Transition Issues

- The Economic Survey highlights slow 'Lab to Land' technology transitions, impacting the practical application of research.

Funding Concerns

- There are concerns over both the adequacy of R&D funding and the efficient use of allocated resources.



GOVERNMENT INITIATIVES

- National Research Foundation (NRF)** : A ₹50,000-crore fund was established in 2021 to promote interdisciplinary research in India.
- Anusandhan National Research Foundation (ANRF)** : Established under the ANRF Act 2023 to enhance research and innovation across sectors.
- Private Sector-Driven R&D** : The government is promoting a conducive environment and substantial funding to boost private sector participation in research and innovation.
- Space Program Expansion** : India's space program, with missions like Mangalyaan and Chandrayaan, is expanding its commercial potential.
- Nuclear Energy Development** : India is investing in small and modular nuclear reactors to meet energy demands and reduce carbon emissions.

What is the future outlook in this regard?

- **Importance of R&D** : R&D is essential for national growth, driving technological, industrial, and scientific advancements.
- **Progress and Challenges** : Despite significant progress, India needs to address funding gaps, increase private sector participation, and implement recent policies effectively.
- **Focus Areas for Improvement** : Emphasis on equitable fund distribution, interdisciplinary collaboration, and meeting global standards is crucial to enhancing India's R&D ecosystem.

INDIA - UAE RELATIONS

Syllabus : GS2/IR

Why in news : Abu Dhabi Crown Prince Sheikh Khaled bin Mohamed is on visit to India. It has led to the signing of several key agreements and many symbolic gestures like tree planting, which may further strengthen this relationship.

What are the key agreements signed during the visit of the UAE Prince to India?

- **Nuclear Energy Cooperation** : ENEC and NPCIL signed an MoU to enhance cooperation in nuclear power plant operations, maintenance, and sourcing of nuclear goods from India.
- **LNG Supply Agreement** : ADNOC and Indian Oil Corporation signed a long-term liquefied natural gas (LNG) supply agreement.
- **Strategic Petroleum Reserve Cooperation** : ADNOC and ISPRIL agreed on strategic petroleum reserve cooperation.

- **Abu Dhabi Onshore Block Agreement** : Urja Bharat and ADNOC signed a production concession agreement for Abu Dhabi onshore block-one.
- **Food Parks Initiative** : Gujarat government and Abu Dhabi Developmental Holding Company PJSC agreed to set up food parks in India.

How are the India-UAE Bilateral Relations?

ECONOMIC :

Trade Relations

- India became the first country to sign a Comprehensive Economic Partnership Agreement (CEPA) with the UAE in February 2022.
- India-UAE trade grew from US\$ 180 million in the 1970s to US\$ 85 billion in 2022-23.
- CEPA has reduced tariffs on over 80% of goods and gives zero duty access to 90% of India's exports to the UAE.
- Target of US\$ 100 billion in non-oil trade by 2030 is achievable.

Investments

- UAE's investment in India is around US\$ 20-21 billion, including US\$ 15.5 billion in FDI.
- ADIA has invested in Indian projects, including the NIIF Master Fund and renewable energy.

India's Exports

- UAE is India's 2nd largest export destination, with exports worth US\$ 31.61 billion in 2022-23.
- Key exports include petroleum products, gems, food items, textiles, and engineering goods.

India's Imports

- UAE is India's 4th largest source of crude oil and 2nd largest for LNG and LPG.
- Major imports include petroleum, gems, minerals, and chemicals.

Connectivity

- More than 1,500 flights operate between the UAE and India weekly.

Financial System

- India and UAE signed a MoU for a Local Currency Settlement (LCS) System in 2023 to facilitate transactions in INR and AED.
- UPI network can be used by Indian tourists and residents in the UAE with Indian bank accounts.

Exports and imports basket (FY23) (in \$ million)



GEO-STRATEGIC

Security Implications

- Middle Eastern conflicts like the Israel-Hamas war and the rise of ISIS affect India's security, with examples such as ISIS recruitments from Kerala.

- India-UAE relations are key for bolstering internal and external security of both nations.

Strategic Cooperation

- India's access to UAE's Al Dhafra air base enhances its strategic reach for refuelling operations.
- Strengthening India-UAE ties is crucial for securing the Arabian Sea and Indian Ocean region, areas vulnerable to piracy.

Military Collaboration

- India and UAE conduct joint military exercises such as Desert Cyclone (Military), Zayed Talwar (Naval), and Desert Eagle (Air Force) to counter terrorism.

Economic Corridor

- UAE plays a vital role in the India-Middle East-Europe Economic Corridor (IMEEC), which provides a credible alternative to China's Belt and Road Initiative.

GEO-POLITICAL RELATIONS

Multilateral Cooperation

- UAE supports India's bid for a permanent seat in the UNSC.
- Both nations collaborate in forums like BRICS, I2U2 (India-Israel-UAE-USA), and the UAE-France-India trilateral.
- UAE was a Guest Country at the G20 Summit during India's presidency.

Regional Groupings

- UAE's influence in the OIC and GCC could help India gain membership in the OIC and secure an India-GCC Free Trade Agreement (FTA).

PEOPLE-TO-CONNECT

Indian Diaspora

- The Indian community, making up 35% of the UAE's population, contributes 18% of total remittances to India.

Cultural Relations

- BAPS Mandir in Abu Dhabi is set to enhance cultural ties, with completion expected in 2024.
- Academic cooperation through NYU Abu Dhabi and the Indian Council for Cultural Relations is fostering educational exchanges.

Education

- IIT Delhi campus to open in Abu Dhabi by 2024, along with existing Indian institutions like Manipal, BITS Pilani, and Amity University operating in the UAE.

What are the challenges associated in this regard?

- **Non-Tariff Barriers (NTBs)** : UAE's Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) hinder Indian exports of poultry, meat, and processed foods.

- **China's Cheque Book Diplomacy** : China's low-interest loans are crowding out Indian firms from the UAE and Middle Eastern markets.
- **Regional Conflict**: Middle Eastern conflicts and UAE's normalization with Israel could affect India's connectivity projects like IMEC and relations with Iran and other Arab nations
- **Kafala System** : The Kafala system imposes restrictive conditions on Indian blue-collar workers in the UAE, impacting their welfare and rights.
- **Extension of Loans to Pakistan** : UAE's loans to Pakistan, which supports cross-border terrorism against India, raise security concerns.
- **Trade Imbalance** : India's trade deficit with the UAE was USD 16.78 billion in FY 2022-23, and UAE's economic diversification may affect Indian interests.

What is the way forward?

- **Transparency and Predictability in NTBs** : Regularly share information on labelling, licensing, permit requirements, and import monitoring to improve transparency.
- **Establishment of 2+2 Dialogue** : India should set up strategic dialogue platforms similar to the 2+2 dialogue with the U.S. and Russia for enhanced cooperation.
- **Alignment with 'Vision 2021'** : India should leverage UAE's 'Vision 2021' to deepen engagement in sectors like renewable energy, start-ups, and fintech.
- **Reformation of Kafala System** : India should advocate for the reform of the Kafala system in the UAE, following Qatar's example of promising reforms.

CYBER-COMMANDOS

Syllabus : GS3/Cybersecurity

Why in the news : Union Home Minister Amit Shah addressed the first Foundation Day program of the Indian Cyber Crime Coordination Centre (I4C) and launched key initiatives for prevention of cyber crime.

What platforms were launched at the I4C?

- **Cyber Fraud Mitigation Center (CFMC)**: Aimed at addressing and mitigating cyber fraud.
- **Samanvaya Platform**: A tool for cybercrime data repository, sharing, mapping, analytics, and coordination among law enforcement agencies.
- **Cyber Commandos Programme**: Plan to train 5,000 cyber commandos over five years to boost cybersecurity.

- **Suspect Registry:** Initiative to manage fraud risk by creating a registry of identifiers with the National Cybercrime Reporting Portal and financial institutions.

INDIAN CYBER CRIME COORDINATION CENTRE (I4C) :

– I4C was established in **2018** under the Central Sector Scheme within the Cyber and Information Security Division of the **Ministry of Home Affairs**.
– It provides a framework and eco-system for Law Enforcement Agencies (LEAs) to deal with Cybercrime in a coordinated and comprehensive manner.

What Cybercrime?

- **Definition:** Use of digital technologies like computers and the internet to commit crimes.
- **Types:** Includes financial fraud (e.g., credit card fraud, online transaction fraud), crimes against women and children (e.g., sexually explicit material), and deep fake content.
- **Constitutional Purview:** Cybercrimes fall under State subjects as per the Seventh Schedule of the Indian Constitution.
- **Crime Statistics:** The ‘Crime in India’ report by the NCRB shows a 24.4% increase in cyber crime cases in India.

What are the reasons for the increase in Cybercrime?

- **Rapid Digitalization:** Increased reliance on digital technologies and the Internet creates more opportunities for cybercriminals.
- **Large Internet User Base:** With 95 crore Internet users, India is a prime target for cyberattacks due to its vast pool of potential victims.
- **Inadequate Cybersecurity Infrastructure:** Developing cybersecurity measures in India leave many organizations, particularly small businesses, vulnerable to attacks.
- **Insider Threats:** Employees or individuals with access to sensitive information misusing it pose a significant risk, especially in the corporate sector.
- **Payment Systems Vulnerability:** The rise of digital payments and transactions increases risks of financial crimes, with UPI transactions reaching ₹20,64,000 crore in 2024, accounting for 46% of global digital transactions.
- **Low Digital Literacy:** Limited public awareness and digital gaps contribute to a heightened risk environment in the cyber domain.

What are the effects of Cybercrime?

- **Financial Losses:** Significant financial damage through theft, fraud, and restoration costs.

- **National Security Concerns:** Geopolitical cyberattacks targeting government and critical infrastructure pose security risks.
- **Data Breaches:** Unauthorized access to sensitive data results in loss of confidentiality and potential legal issues.
- **Disruption of Services:** Essential services and infrastructure are disrupted, affecting businesses and individuals.
- **Loss of Intellectual Property:** Theft of trade secrets and proprietary information undermines business competitiveness and innovation.

GOVERNMENT INITIATIVES

– **Information Technology Act, 2000:** Sections 43, 66, 70, and 74 address hacking and cyber crimes.
– **Indian Computer Emergency Response Team (CERT-In):** Issues alerts and advisories on cyber threats and countermeasures.
– **National Cyber Coordination Centre (NCCC):** Provides situational awareness and facilitates timely information sharing on cybersecurity threats.
– **Cyber Swachhta Kendra:** Offers tools for detecting and removing malicious programs and malware.
– **Bharat National Cyber Security Exercise 2023 (Bharat NCX):** Enhances strategic leaders’ understanding of cyber threats and crisis management skills.

PRELIMS

BLACK SAND

- **Recent Event:** The black sand washed up on Visakhapatnam beach is a result of high tidal waves triggered by a depression in the Bay of Bengal.
- **Local Impact:** This event has brought mineral-rich sand to the shore, which could have both economic and environmental implications for the region.
- **Composition of Black Sand**
 1. **Mineral Content:** Black sand typically contains heavy minerals such as magnetite, ilmenite, and sometimes gold. These minerals are denser than the usual quartz sand.
 2. **Magnetite:** This is a type of iron oxide that is magnetic and often found in black sand. It is used in various industrial applications.

3. **Ilmenite:** This mineral is a source of titanium, which is used in the production of titanium dioxide for paints, paper, and plastics.
 4. **Other Minerals:** Depending on the location, black sand can also contain garnet, zircon, and other valuable minerals.
- **Formation and Deposition**
 1. **High Tidal Waves:** The high tidal waves, often triggered by depressions or cyclones in the Bay of Bengal, bring these heavy minerals from the deeper ocean to the shore
 2. **Erosion and Weathering:** The minerals are eroded from rocks and transported by rivers to the sea, where they are eventually deposited on the beach by wave action.
 - **Economic Importance**
 1. **Mining:** Black sand is often mined for its valuable mineral content. For example, ilmenite and magnetite are extracted for industrial use.
 2. **Tourism:** Unique black sand beaches can attract tourists, adding to the local economy.
 - **Environmental Impact**
 1. **Ecosystem:** The deposition of mineral-rich sand can affect the local ecosystem, both positively and negatively. It can provide new habitats for certain species but can also disrupt existing ones.
 2. **Coastal Erosion:** The movement of sand due to tidal waves can lead to coastal erosion, impacting human settlements and natural habitats.



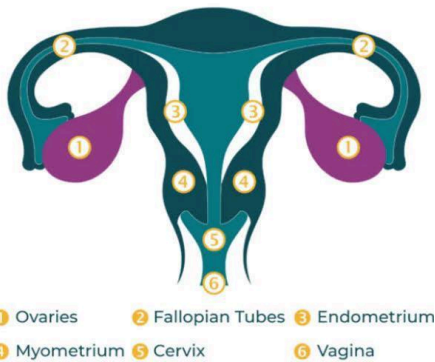
INDIA'S FOUR-POINT PRINCIPLE TO END RUSSIA-UKRAINE CONFLICT

1. **Time for Peace:** India believes that the current period should be focused on achieving peace rather than continuing hostilities.
2. **No Battlefield Solutions:** India asserts that the conflict cannot be resolved through military means and that solutions must be sought through dialogue and negotiation.
3. **Inclusion of Russia:** For any successful peace process, Russia must be included at the negotiation table. India emphasizes the importance of Russia's participation in discussions.
4. **Engagement and Concern:** India is actively engaged and concerned about finding a resolution to the conflict. This includes diplomatic efforts and consistent engagement, as evidenced by high-level visits and discussions.

OVARIAN CANCER MONTH

- **Definition:** A type of cancer that begins in the ovaries, which are part of the female reproductive system.
- **Characteristics:** Often called a "silent killer" due to its vague symptoms and late detection.
- **Symptoms:** Include bloating, pelvic pain, changes in appetite, and frequent urination.
- **Global Burden:**
 1. According to the World Health Organization, ovarian cancer is the 8th most common cancer in women worldwide.
 2. In 2020, there were approximately 313,000 new cases and 207,000 deaths globally.
- **Indian Statistics:**
 1. As of 2022, India reported 47,333 new ovarian cancer cases and 32,978 deaths.
 2. This highlights the significant impact of the disease in the country.
- **Research Developments:**
 1. Ongoing research into new screening methods and treatments, including targeted therapies and immunotherapies.
 2. Studies are exploring the potential of artificial intelligence in early detection and diagnosis.
- **Policy Initiatives:**
 1. The Indian government has been working on strengthening cancer care infrastructure under the National Programme for Prevention and Control

- of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS).
- 2. Efforts to improve access to genetic testing for high-risk individuals are ongoing.
- **Awareness Campaigns:**
 1. September is recognized as Ovarian Cancer Awareness Month globally, including in India.
- **Healthcare Access:**
 1. Discussions about improving access to specialized cancer care in rural and underserved areas of India.
 2. Debates on including more cancer treatments under government health insurance schemes.
- **Genetic Testing:**
 1. Increasing emphasis on genetic counselling and testing for individuals with a family history of ovarian cancer.
 2. Discussions about making such tests more affordable and accessible across India.



September 14 2024

PORT BLAIR RENAMED AS SRI VIJAYA PURAM

Syllabus : GS2/Government Policies

MUCH-DEBATED PROJECT

The Kerihole is one of the four streams from which water will be diverted under the project.
— PHOTO: NOHIT H. RAO

24.01 tmcft of water* to be diverted from four streams near Sakleshpur	14 tmcft of water to Tumkur, Bangalore Rural; 10.01 tmcft of water to Kolar, Chikkaballapur	<p>G There should have been a public meeting before undertaking such a project. Land-owners should be heard... the government has violated its own rules.</p> <p>S.K. VISWANATHAN, president of the Malenadi Jangama Horita Samiti</p>
8 wells to be constructed across the Yettinahole, Kadumanehole, Hongadahalahole and Kerihole	1,200 acres of land required; 50 per cent of which is forest	

Project cost is Rs. 8,323 crore; Rs. 1,000 crore of which was earmarked in the 2013-14 State Budget.

* 1 tmcft of water can fill over 56 lakh 5,000-litre tankers

Water conservationists Laxman and Rajender Singh have been requested to prepare a report on rejuvenation of lakes in Kolar and Chikkaballapur. They can rejuvenate tanks within six years, while it will take 20 years to implement this project.

S.K. VISWANATHAN, CPD's Hassan district committee secretary

Why in the news : The Centre has decided to rename Port Blair as Sri Vijaya Puram. This move is aimed at shedding the colonial legacy associated with the former and to recognise Andaman and Nicobar Islands' contribution to the Indian freedom struggle.

What is Port Blair's connection with the imperial Cholas and Srivijaya?

Srivijaya Empire:

- **Influence and Role:** Ancient empire in Sumatra with influence across Southeast Asia, played a key role in the spread of Buddhism.
- **Decline:** Declined in the 11th century after naval raids by the Cholas.

Chola Strategic Base:

- **Naval Base:** Andaman Islands used as a naval base by Chola emperor Rajendra I in the 11th century.



- **Launch Point for Attack:** Served as a launch point for an attack on the Srivijaya Empire (present-day Indonesia).

Chola-Srivijaya Conflict:

- **Rare Conflict:** Chola invasion of Srivijaya was a rare instance of conflict between India and Southeast Asia.
- **Motivations:** The attack may have been motivated by Srivijaya obstructing Chola trade or Rajendra I's ambition to expand his empire.
- **Historian's View:** American historian G.W. Spencer attributes the attack to Chola expansionism.

Thanjavur Inscription:

- **Nicobar Islands:** 1050 CE inscription refers to the Nicobar Islands as Ma-Nakkavaram land, leading to its modern name.

Renaming of Port Blair:

- **Honoring History:** Renaming Port Blair to Sri Vijaya Puram honors its historical significance and India's shift from its colonial past.

What is the colonial background of Port Blair?

Origins of Port Blair:

- **Naming:** Originally a fishing hamlet, Port Blair was named after Lieutenant Archibald Blair, a British naval officer.
- **Surveying Expedition:** In 1778, Blair began his first survey of the Andaman Islands, discovering a natural harbour.

Establishment of a Penal Colony:

- **Chatham Island Colony:** In 1789, the Government of Bengal founded a penal colony on Chatham Island, later abandoned in 1796 due to disease.

Blair's Role in Surveying:

- **Mapping the Islands:** Blair's surveys of the Andaman and Nicobar Islands laid the groundwork for British control and integration into their maritime network.

Resettlement of Port Blair:

- **Post-1857 Revolt:** Following the Revolt of 1857, Port Blair was resettled as a penal colony, receiving its first batch of prisoners in 1858.

Cellular Jail:

- **Kala Pani:** The Cellular Jail, built by 1906, housed Indian convicts, particularly political prisoners, in solitary confinement.

PROCESS TO RENAME A STATE/UNION TERRITORY IN INDIA

Constitutional Provision:

—**Parliament's Power:** Parliament has the authority to change a state's name under Article 3 of the Constitution.

—**Article 3:** Outlines the procedure to alter the area, boundaries, or name of a state.

Proposal:

—**Initiation:** Renaming can be initiated by either Parliament or the state assembly.
 —**Resolution:** The state legislature sends a resolution to the Central government.
 —**Presidential Recommendation:** The bill requires a recommendation from the President before being presented in Parliament.

Procedure:

—**State's Involvement:** The affected state's legislation must be presented with the bill.
 —**State Legislature's Role:** The state can provide its views, but they are not binding on Parliament or the President.
 —**Dismissal of Opinion:** Parliament can dismiss the state legislature's opinion if desired.
 —**Return to Parliament:** After suggestions or the expiration of the time period, the bill returns to Parliament for further deliberation.

Passing of the Bill:

—**Simple Majority:** The bill must pass with a simple majority (50%+1 vote).
 —**Presidential Approval:** Once passed and approved by the President, the bill becomes law, and the state's name is changed.

CBI AS A 'CAGED PARROT' : SUPREME COURT

Syllabus : GS2/Governance

Why in news : Recently, the Supreme Court of India has invoked the expression 'Caged Parrot' for the Central Bureau of Investigation (CBI) in a case over the alleged liquor policy 'scam' in Delhi.

What is this about?

Bail and CBI's Image:

- **Recent Case:** Judges emphasized the need for the CBI to shed its "caged" image while granting bail to Delhi's Chief Minister in a corruption case related to the excise policy.

Origins of the Term "Caged Parrot":

- **Supreme Court 2013:** The term "Caged Parrot" was first used by the Supreme Court during the 2013 coal block allocation scam, criticizing the CBI's lack of independence.

Justice R. M. Lodha's Observation:

- **Scathing Critique:** A bench led by Justice R. M. Lodha compared the CBI to a 'caged parrot,' acting under political influence and lacking autonomy.

Symbolism of the Term:

- **Controlled Agency:** The “Caged Parrot” metaphor reflects the CBI’s restricted functioning, despite its status as a premier investigative agency.

What is the autonomy and superintendence of CBI?

- **Autonomy:** The CBI is often referred to as an ‘autonomous body.’
- **CVC Oversight:** The CVC, under the CVC Act (2003), plays a critical role in overseeing the CBI to ensure no external interference in investigations.
- **Limited Supervision:** The CVC’s superintendence is restricted to broader oversight and cannot interfere with the specifics of the CBI’s investigations.

What are the challenges and criticisms associated?

Administrative Autonomy:

- **Deputation Dependency:** CBI senior officer appointments often depend on deputation from state or central forces, affecting its independence.
- **Extended Tenures:** The 2021 ordinance extending CBI directors’ tenures from two to five years, with annual extensions, has been criticized for undermining institutional checks and balances.

Financial Dependence:

- **Ministry Control:** The CBI lacks full financial autonomy, with its administrative and financial control under the Ministry of Personnel.

Lack of Resources:

- **Infrastructure Deficit:** The agency’s investigations suffer due to inadequate modern infrastructure, forensic labs, and technical expertise.

Coordination Issue:

- **State Police Collaboration:** Coordination problems with state police and other investigative agencies create gaps in intelligence sharing and joint operations.

What is the way ahead?

Improving CBI’s Independence:

- **Beyond a “Parrot”:** The CBI must aim to be more than just a voice for others, ensuring autonomy in its investigations.

Statutory Status:

- **Dedicated Legislation:** Granting the CBI statutory status through specific legislation, instead of the Delhi Special Police Establishment Act, 1946, would ensure clarity and independence.

Structural Reforms:

- **Second ARC Recommendation:** The Second Administrative Reforms Commission (ARC)

recommended making the CBI structurally independent to shield it from executive influence.

Modernization:

- **Technology and Training:** The CBI needs to invest in modern technology, training, and infrastructure to efficiently handle complex cases like economic offenses, cybercrimes, and corruption.

Independent Investigations:

- **Court-Monitored and Suo Moto Investigations:** Implementing court-monitored investigations and enabling suo moto investigations could enhance the CBI’s independence in handling sensitive cases.

CENTRAL BUREAU OF INVESTIGATION :

Origins and Purpose:

—**World War II Origins:** CBI traces its roots to the Special Police Establishment (SPE), set up in 1941 to investigate bribery and corruption during WWII.

—**1963 Establishment:** Formally established in 1963 following the recommendations of the Santhanam Committee via a resolution from the Ministry of Home Affairs.

—**Legal Framework:** Operates under the Delhi Special Police Establishment (DSPE) Act 1946, covering corruption and major criminal offences, though the term “CBI” is not explicitly mentioned.

Functions:

—**Ministry Supervision:** Functions under the Ministry of Personnel, Public Grievances, and Pensions and is exempt from the RTI Act.

—**Investigating Corruption:** Focuses on corruption, bribery, and economic offences.

—**Economic Crimes:** Tackles financial frauds, narcotics, smuggling, and other economic crimes.

—**Special Crimes:** Handles terrorism, kidnapping, and other serious offences.

—**Interpol Coordination:** Serves as the nodal agency for coordinating investigations with Interpol.

Jurisdiction:

—**State Jurisdiction:** Under Section 6 of the DSPE Act, the CBI can investigate cases in a state upon the state’s recommendation.

—**Court-Ordered Probes:** Courts can order and monitor CBI investigations.

—**Union Territories:** CBI can initiate suo-moto investigations only in Union Territories.

NITI AAYOG ON FUTURE PANDEMIC PREPAREDNESS

Syllabus : GS2/Health

Why in the news : Recently, the NITI Aayog released an Expert Group report titled ‘Future Pandemic Preparedness and Emergency Response —A Framework

for Action', focusing on public health emergencies or pandemics.

What is this about?

- **Recognizing Future Threats:** The 'Future Pandemic Preparedness and Emergency Response (PPER) – A Framework for Action' acknowledges that COVID-19 won't be the last pandemic.
- **Evolving Dynamics:** Ongoing changes in ecology, climate, and human-animal-plant interactions necessitate readiness for new infectious threats.
- **WHO Warning:** The World Health Organization (WHO) projects that 75% of future public health threats are likely to be zoonotic, originating from animals.

What are the key objectives of the report?

- **Mission:** Formed to develop a robust framework for future pandemic preparedness and emergency response.
- **Task:** Examine COVID-19 management nationally and globally, learn from successes and challenges, and identify key gaps to improve readiness for health crises.

What are the "FOUR PILLARS" of preparedness? Governance, Legislation, Finance, and Management:

- **Effective Structures:** Implement well-defined SOPs for rapid response and establish a special PPER Fund for surveillance, data management, forecasting, research, and infrastructure development.

Data Management, Surveillance, and Predictive Tools:

- **Timely Collection:** Efficient data collection, surveillance systems, and predictive models are crucial for early outbreak detection and informed decision-making.

Research, Innovation, and Infrastructure:

- **Investment Needs:** Focus on research, innovation, and domestic manufacturing for developing diagnostic tools, treatments, and vaccines, and invest in infrastructure and capacity building.

Partnerships and Community Engagement:

- **Collaborative Efforts:** Strengthen healthcare capacity through community engagement, private sector partnerships, and international collaborations for knowledge sharing and resource pooling.

What are the other recommendations?

- **Public Health Emergency Management Act (PHEMA):** Proposed to manage public health crises beyond epidemics, covering

non-communicable diseases, disasters, and bioterrorism, similar to developed countries.

- **Indian Regulatory System:** Global harmonisation of regulatory norms is essential for mutual acceptance of data and establishing a common framework for innovative technologies and emergency approvals.
- **Strengthening CDSCO:** India's regulatory authority (CDSCO) requires special legislative powers, technical competence, and autonomy to meet these global standards.



What is the future prospect?

- **Roadmap for the Future:** The 'Future Pandemic Preparedness and Emergency Response (PPER) – A Framework for Action' acts as a beacon, guiding us through upcoming challenges in a world where pandemics are frequent.
- **Proactive Approach:** It emphasizes that preparedness goes beyond reaction, focusing on proactive planning, collaboration, and building resilience.

PRELIMS

IRULA TRIBE :

The Irula are an ancient indigenous group in India, classified as a Particularly Vulnerable Tribal Group (PVTG). They primarily inhabit northern **Tamil Nadu, with some presence in Kerala and Karnataka**. Their language, Irula, is related to Tamil and Kannada.

Key aspects of Irula culture and lifestyle include:

1. Pantheistic religious beliefs with a main deity, Kanniamma, associated with cobras
2. Living in small settlements called mottas, often on hill edges

3. Traditional skills in hunting, gathering, and honey collecting
4. Expertise in herbal medicine and healing
5. Renowned knowledge of snakes and snake venom

The Irula Snake Catchers' Industrial Cooperative Society, located near Chennai, is a major producer of anti-snake venom in India. They supply about 80% of the venom used for anti-venom production in the country, using traditional methods to catch snakes, extract venom, and release them unharmed. However, the cooperative is currently facing an uncertain future.



HYDRO ELECTRIC PROJECTS

Scheme for budgetary support for Hydro Electric Projects (HEP) infrastructure:

1. **Duration:** FY 2024-25 to FY 2031-32
2. **Goal:** Enhance infrastructure and support hydro power development in India
3. **Scope:**
 - Covers transmission lines, pooling substations, ropeways, railway sidings, and communication infrastructure
 - Includes strengthening existing roads and bridges to project sites
4. **Target:** Support projects with a cumulative capacity of about 31,350 MW
5. **Eligibility:**
 - Hydro projects over 25 MW, including private sector projects
 - Pumped Storage Projects (PSPs)
6. **Budgetary support limits:**
 - Up to 200 MW: Rs. 1 crore per MW
 - Above 200 MW: Rs. 200 crores plus Rs. 0.75 crore per MW
 - Exceptional cases: Up to Rs. 1.5 crore per MW

7. **Approval process:** Involves cost appraisals by DIB and PIB, followed by Competent Authority approval
8. **Deadline:** Projects must have Letter of Award for first major package issued by June 30, 2028

This scheme aims to address challenges in hydro power development, particularly in remote locations with inadequate infrastructure.

OpenAI o1

OpenAI's new AI model o1 and its smaller version o1-mini:

Key features of o1:

1. Large language model trained with reinforcement learning
2. Focuses on complex reasoning
3. Generates internal chain of thought before responding
4. Improved performance in science, coding, and math tasks
5. Aims to be a step towards human-like AI

Improvements:

1. Better at code generation and multistep challenges
2. Trained to spend more time thinking through problems
3. Significant improvement in math skills (83% on International Mathematics Olympiad qualifying exam vs. 13% for GPT-4o)

Training approach:

1. Used a system of rewards and penalties
2. Taught to break down and process queries step-by-step

Limitations:

1. Cannot browse the internet
2. Cannot process files or images
3. Lacks up-to-date factual information on recent events

OpenAI has also released o1-mini, a smaller and cheaper version of o1, though specific details about this version are not provided in the given information.

ONITIS BORDATI

Newly discovered dung beetle species and the Nongkhylllem Wildlife Sanctuary:

Onitis bordati (New Dung Beetle Species):

1. Discovered in Nongkhylllem Wildlife Sanctuary, Meghalaya
2. Belongs to the genus Onitis
3. Males typically have distinctive long, slender, curved forelegs
4. Previously only found in Vietnam and Thailand
5. Ecologically significant for seed dispersal, nutrient cycling, and pest control
6. Threatened by habitat destruction and climate change

Nongkhylllem Wildlife Sanctuary:

1. Location: Eastern Himalayan Global biodiversity hotspot, Meghalaya
2. Topography: Undulating plains to low hills, part of Archaean Meghalaya Plateau
3. Rivers: Umtrew (main river), Umran, Umling, Umtasor, and smaller streams
4. Fauna: Clouded Leopard, Elephants, Himalayan Black Bear
5. Flora: Shorea robusta, Tectona grandis, Terminalia myriocarpa, Gmelina arborea

The discovery of Onitis bordati in this sanctuary highlights the area's rich biodiversity and importance for conservation efforts.

RANGEEN MACHHLI APP

"Rangeen Machhli" Mobile App:

1. Purpose: Supports the ornamental fisheries sector
2. Developer: ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA)
3. Supported by: Pradhan Mantri Matsya Sampada Yojana (PMMSY)

Key Features:

1. Multilingual information in 8 Indian languages
2. Details on care, breeding, and maintenance of ornamental fish
3. "Find Aquarium Shops" tool for locating nearby shops
4. Educational modules for beginners and professionals

Indian Council of Agricultural Research (ICAR):

1. Role: Apex body for agricultural research and education in India
2. Oversight: Under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare
3. Functions: Coordinates, guides, and manages agricultural research and education nationwide

The app aims to provide comprehensive resources for hobbyists, shop owners, and fish farmers in the ornamental fisheries sector, while promoting local businesses and education in the field.

August 20 2024

LATERAL ENTRY

Syllabus : GS2/Role of Civil Services in a Democracy

Why in the news : A recent advertisement to recruit 45 members laterally to posts under the aegis of the Union Service Public Commission has sparked controversy.

What is Lateral Entry?

- Lateral entry refers to recruiting individuals from outside traditional civil services into senior government positions.
- A recent advertisement for 45 such positions has sparked debate.

What is the Historical Background of Lateral Entry?

- Lateral appointments occurred even under previous governments, with notable examples like Dr. Manmohan Singh and Montek Singh Ahluwalia.

- The current government has aimed to make the process more organised and transparent.

What are the Pros of Lateral Entry?

- Brings specialised expertise and fresh perspectives
- Can potentially improve efficiency and innovation
- Promotes merit-based selection beyond just exam scores

What are the cons/criticism of Lateral Entry?

- May bypass reservation policies for SC/ST/OBC communities
- Lateral entrants may lack institutional knowledge of bureaucratic processes
- Potential risk of political influence on appointments

How is this going to be implemented?

- UPSC oversees the recruitment process
- Appointments are initially for 3 years, extendable based on performance
- Positions include Director, Joint Secretary, and Deputy Secretary levels

What is the rationale behind this move?

- Balancing innovation with administrative continuity
- Ensuring representation while tapping external talent
- Addressing civil service shortages (estimated 20% IAS officer shortage)

What can be seen as the way forward?

- Focus on in-house specialisation and out-of-government work deputations
- Consider semi-permanent teams for highly specialised technological needs
- Aim for limited lateral entry while upskilling existing civil servants

KEY FACTS :

- **2019:** 9 professionals were appointed as Joint Secretaries through lateral entry.
- **2021:** 31 positions filled at Joint Secretary, Director, and Deputy Secretary levels through lateral entry.
- **10% of Joint Secretary positions** were filled through lateral entry in 2021.
- **31 lateral entrants** were appointed by UPSC across various ministries by 2022.
- **Eligibility:** 15+ years of experience required for lateral entry positions.
- **Tenure:** Lateral entrants typically serve for 3 to 5 years.
- **Pay Scale:** Comparable to regular civil servants at equivalent levels.

VIOLENCE AGAINST HEALTHCARE WORKERS IN INDIA

Syllabus : GS2/Governance

Why in the news : Violence against healthcare workers is a disturbingly common occurrence in India.

About :

- Violence against healthcare workers is increasingly common in India, especially in public healthcare facilities.
- Younger and female professionals are disproportionately affected.

What are the types of violences?

- 75% of violence is verbal, including threats and intimidation.
- Violence is more common in high-stakes settings like emergency and intensive care units.

What are the reasons for this and who are the perpetrators?

- 82.2% of perpetrators are family members or relatives of patients.
- Reasons include unmet expectations, concerns about patient conditions, high costs, and long waiting times.

What is the impact of this?

- Psychological effects on healthcare workers, including PTSD, anxiety, and depression.
- Negative impact on rural healthcare due to doctors preferring safer urban settings.
- Potential decrease in quality of care due to over-caution and defensive practices.

What is the legal protection?

- No central law exists; 19 states have their own statutes as of 2020.
- Kerala and Karnataka offer the strongest legal protections.
- Challenges in enacting a central law due to health being a state subject.

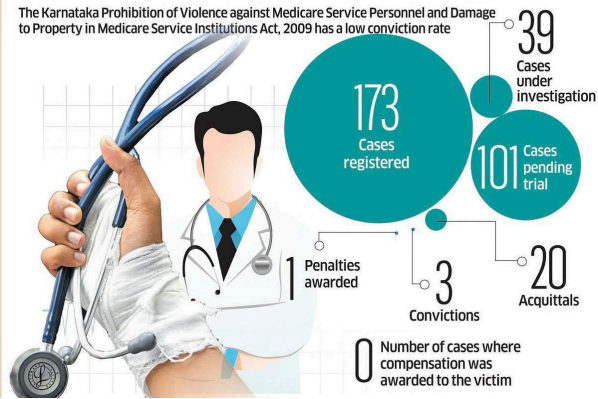
What are the proposed solutions?

- Strengthen the healthcare system from the grassroots level.
- Improve accessibility of medicines, tests, and financial aid.
- Implement security measures like CCTV cameras and metal detectors.

- Provide counsellors to improve communication with patients and relatives.
- The central government plans to review a 2019 bill for protecting healthcare workers.

NO LEGAL ACTION

The Karnataka Prohibition of Violence against Medicare Service Personnel and Damage to Property in Medicare Service Institutions Act, 2009 has a low conviction rate



KEY FACTS :

- **2021:** 66% of doctors in India reported facing violence at work.
- **2019:** 75% of doctors reported experiencing verbal or physical abuse in a survey by the Indian Medical Association (IMA).
- **COVID-19 Impact:** Reports of violence against healthcare workers increased by 70% during the pandemic.
- **2017:** 68% of violent incidents against healthcare professionals occurred in ICUs.
- **Legislation:** The Epidemic Diseases (Amendment) Act, 2020, was introduced to address violence against healthcare workers, with penalties including fines up to ₹2 lakh and imprisonment up to 7 years.
- **Healthcare workers:** 30% faced physical violence, while 40% experienced verbal abuse, as per a 2018 study.
- **Hospitals:** 47% of violent incidents occurred in emergency wards, according to a 2015 survey.

THIRD VOICE OF GLOBAL SOUTH SUMMIT (VOGSS) :

Syllabus : GS2/IR

Why in the news : PM Modi addressed the inaugural session of the third Voice of the Global South Summit (VOGSS).

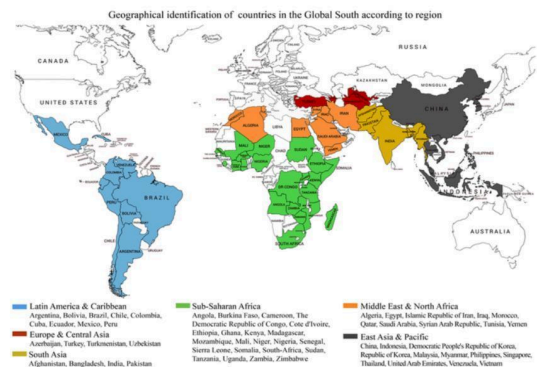
About VOGSS :

- The theme is "An Empowered Global South for a Sustainable Future".

- India hosted the first VOGSS in January 2023 and the second in November 2023.
- Both previous sessions were held virtually.

What is "Global South"?

- Term coined by **Carl Oglesby in 1969**.
- Refers to countries in **Asia, Africa, Latin America, and Oceania**.
- Characterised by lower development levels, higher inequality, and colonial history.

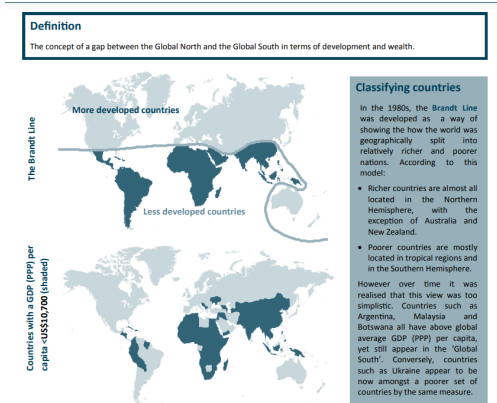


Why is India's Role significant in this context?

- Taking leadership in representing Global South interests.
- Succeeded in inducting African Union into G20.
- Distributed COVID-19 vaccines through 'Vaccine Maitri' initiative.
- Offering digital public assets (UPI, RuPay, India stack) to other developing countries.

What are the challenges faced by the Global South?

- Difficulty in uniting Global South for common goals.
- Disproportionate impact of COVID-19 and Ukraine war on Global South.
- Concerns about possible neglect of Africa.
- Objections from Global North about excluding China and India from Global South definition.



The gap between the 'North' and 'South'

Despite very significant development gains globally which have raised many millions of people out of absolute poverty, there is substantial evidence that inequality between the world's richest and poorest countries is widening. In 1820 western Europe's per capita income was three times bigger than Africa's but by 2000 it was thirteen times as big. In addition, in 2013, Oxfam reported that the richest 85 people in the world owned the same amount of wealth as the poorest half of the world's population.

Today the world is much more complex than the Brandt Line depicts as many poorer countries have experienced significant economic and social development. However, inequality *within* countries has also been growing and some commentators now talk of a 'Global North' and a 'Global South' referring respectively to richer or poorer communities which are found both within and between countries. For example, whilst India is still home to the largest concentration of poor people in a single nation it also has a very sizable middle class and a very rich elite.

There are many causes for these inequalities including the availability of natural resources; different levels of health and education; the nature of a country's economy and its industrial sectors; international trading policies and access to markets; how countries are governed and international relationships between countries; conflict within and between countries; and a country's vulnerability to natural hazards and climate change.

This summit represents India's efforts to lead and unite the Global South, while facing challenges in definition, representation, and achieving common goals among diverse developing nations.

JUSTICE HEMA COMMITTEE REPORT

Syllabus : GS2/Governance/Social Issues

Why in the news : The Justice Hema Committee report unveiled widespread sexual exploitation and rights violations against women in the Malayalam film industry.

What is it about?

- The report was submitted to the Kerala government five years ago.
- It identified at least 17 forms of exploitation across 30 different job categories in the industry.
- Major issues included the casting couch phenomenon, inadequate basic facilities, and intimidation against reporting misconduct.
- The report confirmed the long-rumoured existence of the "casting couch" practice.

Committee consists of ?

- The committee consisted of retired High Court **Justice K. Hema**, former actress **Sharada**, and retired IAS officer **K.B. Valsala Kumari**.
- Its formation followed the 2017 abduction and sexual assault of a prominent actress, a case still under trial.

What are the critical issues highlighted?

- An industry "power group" influences casting decisions and can even prevent movie releases.
- Many sets lack basic amenities like changing rooms and toilets, leading to health issues for women.
- Junior artists often face exploitative working conditions, sometimes labouring up to 19 hours a day.
- The absence of written contracts allows for exploitation in terms of promised remuneration.
- Some men in the industry misconceive actresses' willingness to perform intimate scenes as extending beyond professional boundaries.

What are the future implications?

- The report's release marks a pivotal moment for addressing long standing issues of exploitation and gender inequality in the Malayalam film industry.
- It calls for immediate action from both civil society and industry leaders.
- The committee recommends establishing a tribunal, similar to a civil court, to address serious issues faced by women in the industry.

PROJECT TO ADDRESS MICROPLASTICS IN THE ENVIRONMENT

Syllabus : GS3/Environment

Why in the news :

The Food Safety and Standards Authority of India (FSSAI) has initiated a project to tackle microplastic contamination in food.

What is the project all about?

- Project Title: "Micro-and Nano-Plastics as Emerging Food Contaminants: Establishing Validated Methodologies and Understanding the Prevalence in Different Food Matrices"
- Collaborators:
 - CSIR-Indian Institute of Toxicology Research (Lucknow)
 - ICAR-Central Institute of Fisheries Technology (Kochi)
 - Birla Institute of Technology and Science (Pilani)
- Goals:
 - Develop and validate detection methods for micro and nano-plastics in food

- Evaluate the presence and exposure levels of microplastics in various Indian food products

What are microplastics?

- Microplastics are fragmented larger plastics, synthetic clothing fibres, microbeads in personal care items.
- According to FAO , microplastics are also detected in common foods like sugar and salt.



What is India's Situation?

- Widespread plastic use, inadequate waste management has become a challenge in India.
- Both urban (where plastic consumption is high) and rural (affected by poor waste disposal practices) contribute to the distribution of microplastics.

What are the Impacts and Concerns?

Environmental:

- Diverse ecosystems affected, from Himalayas to coasts
- Marine life ingests microplastics, risking physical harm and toxin transfer
- Freshwater systems contaminated, affecting aquatic species and potentially water quality

Health:

- Microplastics can enter human body through food and water
- Potential to penetrate cells and tissues due to small size

What regulatory and mitigation efforts are undertaken?

- The government has banned single-use plastics and introduced regulations on waste management.
- Additionally , promotion of alternative materials and recycling is improved.

What are the future aspects?

- There is need for comprehensive policies and increased public awareness
- The importance of collaborative efforts involving government, businesses, and communities
- Also there is potential for public education campaigns to encourage sustainable practices

Addressing microplastic contamination requires robust measures, increased awareness, and innovative solutions to protect ecosystems and public health in India.

PRELIMS

INS SHIVALIK REACHED GUAM ISLAND

- **INS Shivalik:** Reached Guam for an Operational Turnaround
- Successfully completed participation in RIMPAC 2024, the world's largest Multinational Maritime Exercise
- **Guam Island:**
- **Location:** North Pacific Ocean
- **Status:** Island territory of the United States of America
- **Significance:** Largest, most populous, and southernmost of the Mariana Islands
- **Capital:** Hagåtña (also known as Agana)
- **Historical context:**
- Under Spanish possession until 1898
- Ceded to the United States during the Spanish-American War
- **Native population:**
- Ethnically called **Chamorros**
- Of Malayo-Indonesian descent
- Mixed ancestry including Spanish, Filipino, Mexican, European, and Asian



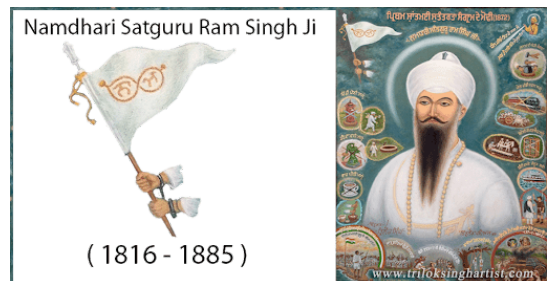
SUPER-BLUE MOON :

- A "super blue moon" coincided with Raksha Bandhan (Rakhi) this year.
- **Super Blue Moon:** A rare event combining a "blue moon" and a "super moon."
- Occurs roughly every 10 to 20 years
- **Super Moon:** Moon at its closest point to Earth (perigee) during a full moon
- **Appears 14% larger and 30% brighter than a full moon at apogee**
- Term coined by astrologer Richard Nolle in 1979
- **Blue Moon:** Two definitions:
 1. Second full moon in a single calendar month
 2. Third full moon in a season with four full moons
- Term first recorded in English in 1528
- **Doesn't actually appear blue; "blue" refers to rarity**
- **Visibility :** Moon may appear more yellow or orange near the horizon due to atmospheric scattering



NAMDHARI SECT:

- Violent clashes occurred between rival groups of the Namdhari sect in Rania, Haryana's Sirsa district.
- Founded by Satguru Ram Singh of Baisakhi in 1857
- Ram Singh challenged the status quo, advocated social reform, and resisted British rule
- **Historical Persecution:** British authorities punished Namdharis severely
- Ram Singh was deported to Rangoon and never returned
- **Beliefs:** Followers believe Ram Singh is still alive and will return
- They wear white to mourn his absence
- Consider the Guru Granth Sahib as Supreme Gurbani
- Also believe in a living human Guru
- **Practices:** Consider cows sacred
- Abstain from alcohol, tea, and coffee
- **Geographic Presence:**
 - Headquarters in Ludhiana's Bhaini Sahib near village Raiyaan
 - Deras (centers) across Punjab and Haryana
 - Some presence in other countries
- **Significance:** Represents a distinct sect within Sikhism
- Combines religious beliefs with social reform and historical resistance

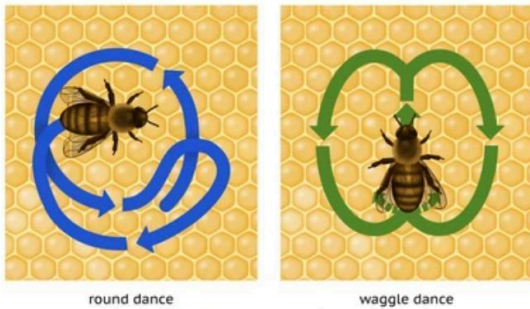


WAGGLE DANCE AND CIRCLE DANCES :

- Scientists have raised concerns about potential "problematic behavior" in scientific papers on honeybee waggle dance, co-authored by Mandyam Srinivasan.
- **Purpose of Bee Dances:** Used by honeybees to communicate the location of flower patches rich in nectar or pollen.
- One bee performs the dance while others observe to understand the directions.
- **Two Types of Dances: a) Waggle Dance:**
 - Bees move in a figure-eight pattern.

- Communicates both distance and direction to the food source.
- The straight line in the figure-eight is called the waggle run.
- **b) Circle Dance:**
- Bees move in a circular pattern.
- Communicates only the distance to the hive.
- **Significance:**
- These dances demonstrate complex communication methods in insects.
- They allow for efficient foraging by the colony.
- **Scientific Interest:**
- The study of these dances is an important area in entomology and animal behaviour research.
- Recent concerns about the integrity of some research papers highlight the importance of scientific rigour in this field.

HONEYBEE DANCE MOVEMENTS



August 21 2024

EXTRADITION TREATY BETWEEN INDIA AND BANGLADESH

Syllabus : GS2/IR, Governance

Why in the news : Former Bangladesh PM Sheikh Hasina is facing multiple criminal cases in Bangladesh, leading to the possibility that her extradition may be sought by the Bangladeshi government.

What is the Extradition Treaty between India and Bangladesh?

- **Extradition Treaty Signed:** India and Bangladesh signed an extradition treaty in 2013.
- **Amendment:** The treaty was amended in 2016 to streamline the extradition process.
- **Purpose:** The treaty targets Indian insurgents hiding in Bangladesh and Bangladeshi militants seeking refuge in India.
- **Militant Refuge:** Groups like Jamaat-ul-Mujahideen Bangladesh (JMB) sought refuge in Indian states like West Bengal and Assam.
- **Key Extradition:** India successfully extradited ULFA leader Anup Chetia from Bangladesh in 2015.
- **Fugitive Exchange:** Following the treaty, additional fugitives have been exchanged between the two countries.

What are the key provisions of the treaty?

- **Extradition Requirement:** India and Bangladesh must extradite individuals charged, convicted, or wanted for an offence by a court in the requesting country.
- **Extraditable Offence:** Offences are considered extraditable if they carry a minimum punishment of one year imprisonment, including financial crimes.
- **Dual Criminality:** The offence must be punishable under the laws of both countries.
- **Scope:** The treaty also covers extradition for attempts, aiding, abetting, inciting, or participating as an accomplice in such offences.

What is India's dilemma concerned with Sheikh Hasina?

- **Serious Charges Against Hasina:** Hasina is accused of multiple serious crimes, including murder, enforced disappearance, and genocide.
- **2016 Treaty Amendment:** The amendment removed the requirement for evidence in extradition cases, now needing only an arrest warrant from a competent court.
- **Grounds for Refusal:** India can refuse Hasina's extradition if the accusations are not made in good faith or relate to military offences not punishable under general criminal law.
- **Article 7 Inapplicable:** Article 7, which allows refusal if the person can be tried in the Requested State, does not apply to Hasina's case.
- **Impact on Relations:** Refusing to extradite Hasina could harm India's diplomatic relations with Bangladesh's new ruling government

What is the course of action for India?

- **Diplomatic Dilemma:** India faces a challenge in balancing its relationship with Sheikh Hasina and its strategic interests with Bangladesh.
- **Strategic Over Legal Considerations:** A former RAW officer argues that strategic interests outweigh the legalities of Hasina's extradition.
- **Persistent Ties:** Bangladesh's political and military connections with India are expected to endure, regardless of the interim government's stance.
- **National Interests Priority:** Security sources and a former diplomat highlight that national interests often take precedence over legal formalities in such cases.
- **Treaty Obligations:** Despite diplomatic concerns, the legal provisions of the extradition treaty must be satisfied.
- **Precedents Exist:** There are instances where countries maintain good relations despite unresolved extradition requests.
- **Ongoing Process:** The case is still unfolding, and the extradition process will develop over time according to a former diplomat.

What is Extradition?

- *Ex* = "outing" and *traditio* = "handing over"
- One country asks another country to return someone who has been accused of a crime or has been convicted of one in the requesting country.
 - Not to be confused with deportation, which is administered by the immigration department.

INDIA MALAYSIA RELATIONS

Syllabus : GS2/IR

Why in the news : Prime ministers of India and Malaysia sought to reset relations between the two countries, as they agreed to boost trade, movement of workers and the use of their own currencies to settle bilateral transactions.

India-Malaysia Bilateral Relationship in brief :

- **Diplomatic Relations:** India established diplomatic relations with the Federation of Malaya (now Malaysia) in 1957.
- **1960s Friendship:** Strong ties in the 1960s were fostered by the personal friendship between Prime Ministers Nehru and Tunku Abdul Rahman Putra.

- **Current Relations:** India and Malaysia now enjoy close political, economic, and socio-cultural relations.
- **Indian Diaspora:** Malaysia is home to over 2.95 million people of Indian origin, the second largest PIO community globally after the US.
- **Economic Ties:** Malaysia is the 13th largest trading partner for India, while India ranks among Malaysia's top ten trading partners.
- **CECA Agreement:** A bilateral Comprehensive Economic Cooperation Agreement (CECA) covering goods, services, and investment has been in effect since 2011.
- **Major Exports to Malaysia:** India exports mineral fuels, mineral oils, aluminum, meat and edible meat offal, iron and steel, copper, and related products.
- **Major Imports from Malaysia:** India imports palm oil, mineral fuels, mineral oils, electrical machinery, equipment, and animal or vegetable fats and oils.
- **Malaysian Investments in India:** Malaysia is the 26th largest investor in India, with FDI inflows of US\$ 1.16 billion between April 2000 and September 2022.
- **Malaysian Presence in India:** Malaysia has its largest concentration of construction companies outside Malaysia in India.
- **Indian Investments in Malaysia:** Indian companies have invested over US\$ 2.62 billion in approximately 250 manufacturing projects in Malaysia.
- **Indian Companies in Malaysia:** More than 150 Indian companies, including 61 joint ventures and 3 Public Sector Undertakings, operate in Malaysia.
- **Trade Settlement in INR:** Trade between India and Malaysia can now be settled in Indian Rupees (INR) in addition to other currencies.
- **Defense Cooperation:** India-Malaysia defense relations have grown since the 1993 MOU on Defence Cooperation.
- **Defense Exhibitions:** Both countries participate in each other's biennial defense exhibitions, LIMA and MILAN.
- **Straits of Malacca Cooperation:** India contributes to safety and environmental projects in the Straits of Malacca and Singapore (SOMS).

What are the challenges and the way forward in India-Malaysia economic ties?

- **Challenges in Economic Ties:** like geopolitical tensions, global demand stagnation, and higher import tariffs, which may slow economic growth.
- **Strategic Partnership:** India and Malaysia maintain a strong strategic partnership and are members of key global forums like the Commonwealth, NAM, G-15, and G-77.

- **Opportunities for Growth:** Opportunities exist to strengthen bilateral relations through efforts like avoiding double taxation, mutual customs assistance, improving air connectivity, and airline collaborations.
- **Positive Factors for Future Trade:** A vibrant diaspora, steady GDP growth, a younger population, expected FDI increases, and rapid digitization support promising future trade prospects.
- **Renewed Cooperation:** The recent revival of the India-Malaysia Joint Commission Meeting after 12 years shows renewed commitment to bilateral cooperation.
- **MICECA Amendment:** The upcoming amendment to the Malaysia-India Comprehensive Economic Partnership Agreement (MICECA) aims to reach a trade volume of US\$25 billion within the next three years.



LANDSLIDE DAMAGES ON TEESTA RIVER

Syllabus : GS1/Geography, GS3/Disaster Management

Why in the news : A landslide damaged six houses and a building of the National Hydroelectric Power Corporation (NHPC) at the site of its Teesta-V hydropower station in Sikkim's Gangtok district recently.

What is the Teesta-V Hydropower Station?

- **Location:** The project is a 510 MW hydropower plant on the Teesta River basin in Gangtok district, Sikkim.
- **Project Type:** It is a run-of-river project with an 88.6-meter high, 176.5-meter-long concrete gravity dam, featuring a regulating reservoir for daily power peaking.
- **Development Timeline:** The project was developed in a single phase, with construction starting in 1999 and commercial operations beginning in 2008.
- **Ownership:** The project is developed and owned by the National Hydroelectric Power Corporation (NHPC).



Fig : Teesta-V Hydropower Station

About the Teesta River :

- **River Overview:** The Teesta River is a trans-Himalayan river flowing through the Indian states of Sikkim and West Bengal, and Rangpur in Bangladesh.
- **Tributary Status:** It is a tributary of the Brahmaputra River.
- **Geographical Boundary:** The river forms a boundary between Sikkim and West Bengal.
- **Course:** The Teesta River originates in the Himalayas near Chunthang in Sikkim, flows southward through a gorge in the Siwalik Hills east of Darjeeling, then turns southeast through the Sivok Khola pass onto the plains of West Bengal.
- **Historical Course Change:** Around 1787, the river changed its course, now flowing eastward through the Rangpur region of Bangladesh to join the Jamuna River (Brahmaputra).
- **River Length:** The Teesta River has a total length of about 309 kilometers and drains an area of approximately 12,540 square kilometers.
- **Major Tributaries:**
 1. **Left-bank:** Lachung Chhu, Chakung Chhu, Dik Chhu, Rani Khola, Rangpo Chhu.
 2. **Right-bank:** Zemu Chhu, Rangyong Chhu, Rangit River.



Fig : Teesta River basin

SUPREME COURT CONSTITUTES NATIONAL TASK FORCE FOR HEALTHCARE WORKERS' SAFETY

Syllabus : GS2/Judiciary, Governance, Health

Why in the news : The Supreme Court has constituted a national task force (NTF) of senior medical professionals to formulate comprehensive safety protocols for healthcare workers across India.

Why was this step taken?

- The rape and murder of a trainee doctor at RG Kar Medical College in Kolkata have triggered widespread protests within the medical community.
- Medical professionals are demanding enhanced safety measures following the incident.
- The Supreme Court of India has taken **suo motu** cognizance of the case.
- The Court stressed the urgent need for a national consensus on standard safety protocols for protecting medical professionals.

What is the current situation?

- **State Responsibility:** Health and law and order are State subjects, making it the responsibility of State governments or Union Territories to prevent violence against medical professionals.
- **Central Data Gap:** There is no centralized record of fatalities among medical professionals due to attacks by patients' families.
- **Need for Safety Measures:** Experts highlight the necessity for better security in medical colleges, such as improved lighting, security guards, cameras, and secure walkways.
- **Global Examples:** Countries like the U.K., U.S., and Australia have implemented effective

measures, including zero-tolerance policies, felony classifications for assaults, and enhanced hospital security protocols.

- **Call for Central Protection Act:** There is an urgent need for India to introduce a Central protection Act and adopt stringent measures to ensure a safer environment for healthcare workers.

About the National Task Force (NTF) formed by SC

Establishment of NTF:

- The Supreme Court formed a 10-member National Task Force (NTF) to create a blueprint for the safety and well-being of healthcare workers at their workplaces.

NTF Members:

- **The NTF includes prominent medical experts:**
- Surgeon Vice-Admiral Aarti Sarin, Dr. D Nageshwar Reddy, Dr. M Shreenivas, Dr. Pratima Murty, Dr. Goverdhan Dutt Puri, Dr. Saumitra Rawat, Anita Saxena, Pallavi Sapre (Dean), Dr. Padma Srivastava
- **Ex officio members include:**
- The Cabinet Secretary, Home Secretary, Secretary of the Union Health Ministry, Chairperson of the National Medical Commission, and President of the National Board of Examiners.

Responsibilities:

- The NTF is tasked with devising an action plan to ensure the safety and dignity of medical professionals, particularly focusing on preventing gender-based violence.

Key Areas to Address:

- **Security Enhancements:** Improve security in emergency rooms and critical areas. Implement baggage screening to prevent arms entry.
- **Visitor and Crowd Management:** Restrict non-patient visitors and improve crowd control.
- **Facilities for Medical Staff:** Provide restrooms, gender-neutral spaces, and transport between 10 pm and 6 am
- **Technological Measures:** Introduce biometric and facial recognition systems; improve lighting and install CCTV.
- **Workshops and Audits:** Conduct workshops on handling grief and crisis; perform quarterly safety audits
- **Police Presence:** Establish a police force proportionate to hospital footfall.
- **POSH Act Implementation:** Apply the Prevention of Sexual Harassment (POSH) Act to medical establishments and ensure an Internal Complaints Committee is constituted.
- **Emergency Helpline:** Set up a dedicated helpline for medical professionals.

PRELIMS

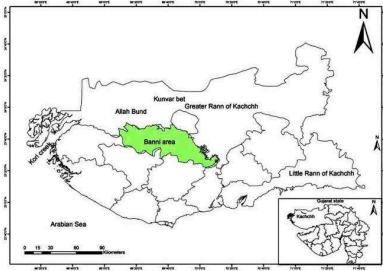
MAGIC FESTIVAL MAYONG

- The Mayong Indrajal Magic Festival, set for August 18, 2024, will take place in Morigaon district, Assam.
- The event highlights Mayong's rich tradition of magic, aiming to boost tourism in the area.
- Activities include a cultural procession, a magic performance by Jadu Samrat Bikram, and a photo exhibition titled "The Magic of Mayong."
- The festival is part of a broader effort to preserve Mayong's magical heritage.
- Future editions of the festival are planned to be extended to a week-long event, attracting more visitors.



RESTORATION OF BANNI GRASSLAND :

- **Restoration Zones:**
- Researchers assessed Banni Grassland for sustainable restoration based on ecological value.
- **Categorization of Areas:**
- Highly Suitable: 937 sq. km (36%) of existing grassland.
- Suitable: 728 sq. km (28%).
- Moderately Suitable: 714 sq. km (27%).
- Marginally Suitable: 182 sq. km (7%).
- Not Suitable: 61 sq. km (2%).
- Overall Suitability:
- Nearly two-thirds of the Banni grassland area falls under the "highly suitable" and "suitable" categories for restoration.



DOGFISH SHARK SQUALUS HIMA

- Squalus Hima is distinguished from other species by specific characteristics, including the number of precaudal vertebrae, total vertebrae, teeth count, trunk and head heights, fin structure, and fin color.
- Species from the genus Squalus, along with Centrophorus, are harvested for their liver oil, which is rich in squalene.
- Squalene is a highly sought-after substance used in high-end cosmetic and anticancer products.



August 22 2024

PM's VISIT TO UKRAINE AND POLAND

Syllabus : GS2/IR

Why in the news : Prime Minister Narendra Modi has arrived in Warsaw for the first leg of his two-nation visit to Poland and Ukraine. After visiting Poland on August 21, he will head to Ukraine on August 23.

What is the significance of the PM's visit to Ukraine and Poland?

- **Engagement Focus:** PM Modi's visit to Poland and Ukraine highlights India's growing focus on Central Europe in its foreign policy.
- **Geopolitical Significance:** The visit addresses a gap in India's European policy as Central Europe gains importance due to the Ukraine conflict.
- **Historical Significance:** Modi's visit marks the first by an Indian PM to Poland since 1979 and to Ukraine since its independence.
- **Strategic Partnership:** Poland and Ukraine are expected to become key long-term partners for India as they play significant roles in the new European order.
- **Diversification Strategy:** India is broadening its European engagement beyond the big four nations, connecting with sub-regions like Central Europe.
- **Economic and Strategic Weight:** Poland is Central Europe's largest economy, and Ukraine's post-war reconstruction adds to its future geoeconomic importance.

India - Poland Relations in brief :

- **Diplomatic Ties:** Established in 1954, with embassies opened in Warsaw and New Delhi soon after.
- **WWII Refuge:** Over 6,000 Polish women and children found refuge in Indian states Jamnagar and Kolhapur between 1942-1948.
- **Trade Relations:** Poland is India's largest trading partner in Central & Eastern Europe, with bilateral trade increasing by 192% from 2013 to 2023.
- **Investment:** Indian investments in Poland exceed \$3 billion, while Polish investments in India stand at \$685 million.
- **Sectoral Collaboration:** Significant collaboration in mining, power, and chemical industries, with Poland exporting clean coal technologies to India.

- **Textile Trade:** Textiles are the largest segment of Indian exports to Poland, reaching \$645 million in 2023.
- **Cultural Relations:** Monuments commemorating Indian hospitality to Polish refugees during WWII were unveiled in Warsaw in 2014 and 2017.



Fig : Ukraine and Poland

India - Ukraine relations in brief :

- **Diplomatic Ties:** India established diplomatic relations with Ukraine in January 1992, shortly after Ukraine's independence from the Soviet Union.
- **Economic Relations:** Bilateral trade between India and Ukraine reached \$4.2 billion in 2021, with India being one of the largest importers of Ukrainian agricultural products, particularly sunflower oil.
- **Cultural Exchange:** Both countries have strong cultural connections, with several Indian cultural centers and associations active in Ukraine, promoting Indian culture and heritage.
- **Educational Ties:** Over 18,000 Indian students study in Ukraine, mostly in medical universities, making education a key component of bilateral relations.
- **Defence Cooperation:** Ukraine has been a significant supplier of military hardware to India, especially in the fields of aircraft and ship repair.
- **Humanitarian Assistance:** India has provided humanitarian aid to Ukraine during crises, including medical supplies during the ongoing conflict with Russia.
- **Recent Developments:** PM Modi's recent visit to Ukraine signifies India's growing focus on Central Europe and its interest in playing a more active role in the region's geopolitical dynamics.

E-COMMERCE SECTOR IN INDIA

Syllabus : GS3/Industrial Growth

Why in the news : Aiming at the largest online retailer in the world - Amazon, the Union Minister of Commerce and Industry voiced concerns about the rapid expansion of the e-commerce sector in India.

Definition: E-commerce refers to the buying and selling of goods and services or transmitting funds or data over an electronic network, primarily the internet.



What are the pros of E-commerce?

- **No Geographical Barriers:** Products can be delivered even to remote areas, bringing suppliers and customers closer, boosting output, and fostering competition.
- **Lower Costs:** Reduced miscellaneous expenses and increased economies of scale lead to lower product costs.
- **Personalization and Recommendations:** Customers benefit from feedback and review systems, enhancing their understanding of products.
- **Business Benefits:** Businesses enjoy an expanded customer base, increased sales, wider reach, and the convenience of recurring payments and instant transactions.

What are the cons of E-commerce?

- **Security and Privacy Issues:** The lack of strong encryption techniques hampers trust in online transactions, affecting the general acceptance of e-commerce.
- **Limited Customer Service:** Physical stores offer easier resolution of issues and better assessment of product suitability compared to online platforms.
- **Regulatory Concerns:** Unclear online sales laws lead to distrust between consumers and sellers.

- **Product Suitability Understanding:** Online shopping removes the ability to physically examine products, relying solely on digital images.
- **Accountability Issues:** E-commerce companies may not meet customer expectations regarding product quality.

What are the initiatives taken by the Government to promote E-commerce in India?

- **Digital India, Make in India, Start-up India, Skill India, and Innovation Fund:** Since 2014, these initiatives have played a crucial role in supporting the growth of e-commerce in India by fostering a digital ecosystem, encouraging manufacturing, and promoting startups.
- **Government e-Marketplace (GeM):** Launched in 2016 by the Ministry of Commerce and Industry, GeM is an online platform for public procurement. It aims to create an inclusive, efficient, and transparent marketplace for buyers and sellers, ensuring fair competition.
- **National Retail Policy:** The proposed policy focuses on integrating offline retail and e-commerce by improving:
 1. Ease of doing business
 2. Rationalisation of the licence process
 3. Digitisation of retail
 4. Reforms focus
 5. Open Network for Digital Commerce (ONDC)
- **Open Network for Digital Commerce (ONDC):** Designed to promote open networks for all digital transactions, ONDC uses open specifications and protocols that are platform-independent, enhancing interoperability across e-commerce platforms.
- **Consumer Protection (E-commerce) Rules 2020:** These rules mandate e-commerce platforms to display the country of origin for products, along with revealing the criteria behind product listings, enhancing transparency for consumers.
- **5G Rollout:** The government's investment in 5G infrastructure, particularly in building a fiber network, is expected to significantly boost e-commerce by improving connectivity and enabling faster online transactions.

RBI FRAMEWORK FOR SELF REGULATORY ORGANISATIONS

Syllabus : GS3/Economy

Why in the news : The Reserve Bank of India issued a framework for recognition of self-regulatory organisations in the financial markets space to help strengthen compliance culture and provide a consultative platform for policy making.

What are the key regulations?

- **Application Process:** Applications can be submitted via email or to RBI's Financial Markets Regulation Department in Mumbai.
- **Eligibility Criteria:** SROs must be not-for-profit entities with a minimum net worth of ₹10 crore, registered under Section 8 of the Companies Act, 2013.
- **Voluntary Membership:** Membership must be voluntary.
- **Representation:** SROs should represent a diverse mix of sector entities; a two-year plan is required if representation is inadequate.
- **Directors:** Directors should have a clean reputation without past convictions, especially for economic crimes.
- **RBI Oversight:** The RBI may impose additional conditions for the SRO's public interest functioning.

WHAT IS SRO?

Definition: SROs are industry-created entities that regulate and oversee their members, operating under industry-developed rules rather than government mandates.

Primary Objectives:

- Develop and enforce industry standards and ethical guidelines.
- Provide dispute resolution mechanisms between members or between members and clients.
- Offer training and resources on industry developments and regulatory changes.

What are the challenges associated with SROs?

- **Compliance Consistency:** Ensuring consistent adherence to standards among members, especially in rapidly changing industries.
- **Balancing Stakeholder Interests:** Managing conflicts between large corporations and small businesses within the industry.
- **Regulatory Oversight:** The balance between self-regulation and external regulation impacts SRO effectiveness.

What is the way forward?

- **Focus Areas:** Indian SROs are likely to enhance their regulatory frameworks, adopt new

technologies for compliance, and improve transparency.

- **Adaptation:** SROs must innovate and adapt to the challenges of modern self-regulation to maintain high industry standards.

PRELIMS

ANTIHYPER HYDROGEN - 4

- **New Discovery:** Antihyper Hydrogen-4, made of an antiproton, two antineutrons, and one antihyperon, was recently discovered.
- **Location:** Found in particle tracks from 6 billion collisions at the Relativistic Heavy Ion Collider (RHIC) in New York.
- **Lifetimes:** Both hyperhydrogen-4 and antihyper hydrogen-4 have similar, short lifetimes.
- **Future Research:** Scientists will compare the masses of these antiparticles and their matter counterparts to explore the origins of the universe.
- **Antimatter:** Antimatter particles have the same properties as their matter counterparts but with opposite electric charges.
- **Antiparticle:** A subatomic particle with the same mass as another but with opposite properties, e.g., the positron is the antiparticle of the electron.

WATERSPOUTS

- **Definition:** A waterspout is a rotating column of air and mist over a water body, similar to a tornado but generally weaker.
- **Duration:** They typically last around five minutes, but occasionally up to 10 minutes.
- **Size and Speed:** The average waterspout is about 165 feet in diameter with wind speeds of approximately 100 km/h.
- **Occurrence:** More common in tropical waters but can form anywhere with high humidity and warm water temperatures compared to the air above.
- **Types:** Tornadoic Waterspouts: Actual tornadoes that form over water or move from land to water.
- Fair-Weather Waterspouts: Form over water during fair weather, are less dangerous, and usually smaller.

- **Climate Impact:** The increasing frequency of waterspouts is linked to rising ocean temperatures.



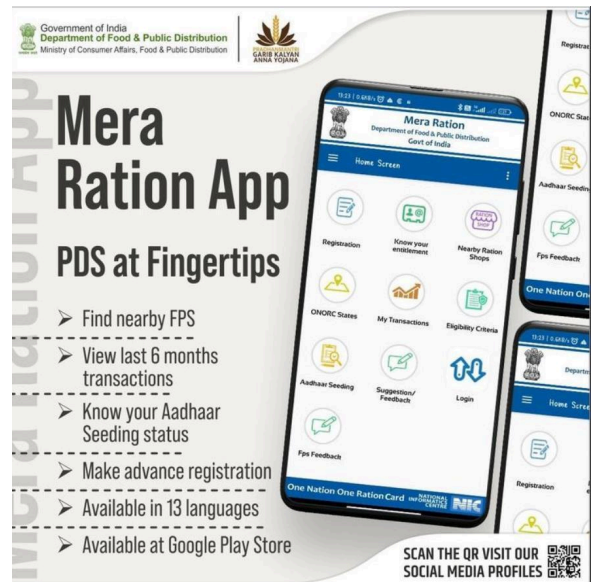
DHANGARS OF MAHARASHTRA

- **Community Overview:** The Dhangars are a pastoralist community primarily engaged in sheep and goat herding. They have a rich cultural heritage and are spread across Maharashtra, Gujarat, Karnataka, and Andhra Pradesh.
- **Grazing Corridors:** The Dhangars have historically relied on specific routes for grazing their livestock, which are essential to their livelihood and cultural identity. Recently, they have been demanding the restoration of these traditional grazing corridors in Maharashtra's Buldhana district.
- **Scheduled Tribe Status:** In Maharashtra, the Dhangars are categorised under the Vimukta Jati and Nomadic Tribes (VJNT) group. However, they have been campaigning for recognition as a Scheduled Tribe (ST) for decades. In other regions of India, under the name "Dhangar," they are already recognized as an ST and receive associated benefits.

JAN POSHAN KENDRAS

- **Jan Poshan Kendras:**
- Pilot project launched for 60 ration shops in 4 states.
- Aims to transform FPS shops into hubs offering nutrition-rich food items.

- Shops will allocate 50% of space for nutrition products and 50% for other items.
- Seeks to increase FPS dealers' income levels.
- **FPS-Sahay App:**
- Provides paperless, collateral-free, cash flow-based financing to FPS dealers.
- Designed for on-demand, invoice-based loans.
- **Mera Ration App 2.0:**
- Enhanced version of the existing mobile app for beneficiaries.
- Includes additional value-added features.



Government of India
Department of Food & Public Distribution
Ministry of Consumer Affairs, Food & Public Distribution

GARIB KALYAN ANNA YOJANA

Mera Ration App

PDS at Fingertips

- Find nearby FPS
- View last 6 months transactions
- Know your Aadhaar Seeding status
- Make advance registration
- Available in 13 languages
- Available at Google Play Store

SCAN THE QR VISIT OUR SOCIAL MEDIA PROFILES

August 23 2024

INTERNSHIP SCHEME

Syllabus : GS2/Polity, Governance

Why in the news : The Union Budget 2024–25 includes a special package to create a new portal where youth can apply directly for internships with the top 500 enterprises in India. The portal will be accessible once the Ministry of Corporate Affairs (MCA) issues guidelines for the internship scheme.

About the Internship Scheme :

- **Background:** PM's Package for Employment and Skilling announced in Union Budget 2024-25 with a Rs 2 lakh crore outlay, including a youth internship scheme to address unemployment.
- **Objective:** Government to offer 1 crore youth internships over five years in top 500 Companies, targeting less skilled and less employable individuals.
- **Allowance:** Interns receive Rs 5,000 per month and Rs 6,000 one-time assistance.
- **Funding:** Companies to use CSR funds for training and 10% of internship costs, with a total scheme cost of Rs 66,000 crore.
- **Concerns:** Questions about company and intern eligibility, and whether participation is mandatory.
- **Solution:** Government to discuss with top 500 companies to establish a voluntary quota system based on CSR expenditure.

What are its key features?

- **Functionality:** Employers will post internship openings, and candidates can submit their information, with the portal matching skill sets to opportunities.
- **Objective:** Facilitate a seamless matching process between applicants' skills and internship opportunities offered by companies.
- **Opt-in System:** No existing youth database will be uploaded; participation is voluntary, allowing only interested candidates to apply.

What are the challenges associated?

- **Data Matching Accuracy:** Ensuring the portal accurately matches candidates' skills with relevant internship opportunities could be challenging, particularly given the diversity of skill sets and job requirements.
- **Engagement and Awareness:** Encouraging widespread participation from both companies and candidates may be difficult, especially if there is a lack of awareness or interest in the scheme.
- **Quality Control:** Maintaining high-quality internship opportunities and preventing

exploitation of interns could be a concern, especially with the large number of participants.

- **Technological Infrastructure:** Developing and maintaining a robust, user-friendly portal that can handle high traffic and provide a seamless experience for both employers and candidates is critical and potentially challenging.
- **Equity and Access:** Ensuring that candidates from marginalized or less connected backgrounds can access the portal and opportunities may require additional support and outreach efforts.
- **Security and Privacy:** Protecting the personal data of candidates from misuse or breaches is essential, especially since participation is voluntary and not based on an existing database.

CURRENT ISRO MISSIONS

Syllabus : GS3/Science & Tech

Why in the news : Despite a quieter phase at Sriharikota, India's space program has continued to advance following the successful landing of Chandrayaan-3 on the moon.

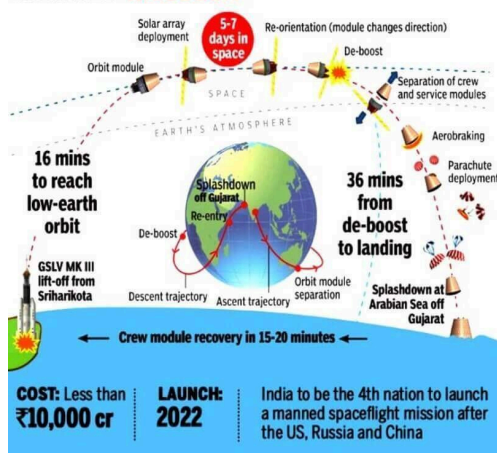
Key Achievements after Chandrayaan-3 :

- **Aditya L1 Mission:** Launched on September 2, 2023, it reached the Earth-Sun Lagrange point (L1) by January 2024, advancing solar observation capabilities.
- **Gaganyaan TV-D1:** The first abort mission of India's human spaceflight program successfully tested the Crew Escape System on October 21, 2023, proving readiness for future manned missions.
- **XPOsat:** Launched on January 1, 2024, as India's second space-based observatory, it studies polarized radiation, contributing to cosmic research.
- **INSAT-3DS:** This meteorological satellite, launched on February 17, 2024, plays a key role in proving GSLV's reliability before the upcoming NASA-ISRO NISAR mission.
- **Reusable Launch Vehicle (RLV-TD):** Successful landing experiments for ISRO's scaled-down RLV lay the groundwork for future orbital return flight tests.
- **Small Satellite Launch Vehicle (SSLV):** The successful third development flight on August 16, 2024, marked the completion of SSLV's development phase, readying it for broader industrial use.

What are the prospective future plans?

- **Gaganyaan Program:** Focused on human spaceflight, with advanced training for astronaut candidates; the first uncrewed mission is anticipated by late 2024, followed by a crewed mission.
- **Next-Generation Launch Vehicle (NGLV):** ISRO is developing a heavy-lift launch vehicle to support goals like a future Indian space station and extensive lunar exploration.
- **Lunar Exploration:** ISRO has a 25-year plan for lunar exploration, aiming for an Indian astronaut on the moon by 2040 and long-duration lunar missions.

MANNED MISSION



Next-Gen launch vehicle (NGLV) for India
(Modular, Cost Competitive Reusable/Heavy Lift)

10 tons to GTO Future Ready	3 stage to orbit vehicle Lower Prod. cost	LOX/Methane or Kerosene powered Green Propulsion
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"Through Public & Private Partnership"

- Leveraging the capabilities of Industries and knowledge of ISRO
- Simple, robust and designed for bulk manufacturing
- Modularity in systems, sub-systems & stages: Variants with minimal modifications
- Standardized parts: ease of production
- Minimal refurbishment & turn-around time

Potential uses

- Multiple communication satellites
- Deep space missions
- Future Human spaceflight
- Cargo missions
- Satellite constellations

Revolutionize space launch market with lowest launch cost

- Launch cost to LEO: \$3000/kg (Expendable), \$1900/kg (Reusable)

LM - LOX/Methane
SC - Semicryo (LOX/Kerosene)

NEWSPACE INDIA LTD (NSIL) :
-NewSpace India Limited (NSIL): ISRO's commercial arm managing satellite launches and technology transfer.
-Satellite Launch Services: NSIL markets and launches satellites for domestic and international clients.
-Satellite Manufacturing: NSIL oversees the production and sale of ISRO-developed satellites.
-Satellite Communication: NSIL leases transponders and provides satellite communication services.
-Technology Transfer: Facilitates transfer of ISRO technologies to Indian industries.
-Space Applications: Promotes and commercializes space-based services like satellite imagery and navigation.

FIXED DOSE COMBINATION (FDC)

Syllabus : GS2/Health

Why in the news : The Union Health Ministry has banned 156 fixed dose combination (FDC) medicines, citing "no therapeutic justification" and potential risks to patients. FDC drugs combine multiple active ingredients, which can be helpful for conditions like tuberculosis and diabetes but may also deliver unnecessary or harmful components

About :

- **Definition:** Fixed Dose Combination (FDC) drugs combine two or more active drugs into a single dosage form, also known as cocktail drugs.
- **FDA Definition:** A combination product includes any mix of a drug with a device, biological product, or both.
- **Acceptability:** FDCs are accepted if they meet specific dosage requirements for defined populations and offer proven benefits over separate single compounds in terms of efficacy, safety, or compliance.

What are its advantages?

- **Complementary Mechanisms:** FDCs can leverage the combined mechanisms of action of different drugs for enhanced therapeutic effects.
- **Synergistic Effects:** The combination can produce a greater effect than the individual drugs, improving treatment outcomes.
- **Better Tolerability:** Combining drugs may reduce side effects compared to higher doses of single drugs.
- **Reduced Pill Burden:** FDCs simplify treatment regimens by reducing the number of pills or doses a patient needs to take.
- **Improved Compliance:** Fewer medications to manage can lead to better adherence to treatment plans.
- **Cost Savings:** FDCs can be more cost-effective by reducing the need for multiple prescriptions and healthcare visits.

What are its disadvantages?

- **Complexity in Dosage:** Fixed Dose Combinations (FDCs) can complicate dose adjustments if one component needs to be changed.
- **Increased Risk of Adverse Effects:** Combining multiple drugs may increase the risk of adverse reactions or drug interactions.

- **Limited Flexibility:** Patients may not receive the optimal dose of each drug component, as all components are fixed in a single formulation.
- **Regulatory and Development Challenges:** Developing and approving FDCs can be more complex due to the need for extensive clinical trials and regulatory scrutiny.
- **Cost Implications:** FDCs may be more expensive to develop and market compared to single-drug formulations, impacting overall treatment costs.

What are the challenges associated?

- **Increased Adverse Effects:** FDCs can have higher chances of adverse drug reactions and interactions compared to individual drugs.
- **Irrational FDCs:** Many FDCs in India are considered irrational, exposing patients to unnecessary risks and adverse reactions.
- **Financial Burden:** Irrational FDCs can impose additional costs on consumers, and medical practitioners using them may face legal and professional challenges.
- **Lack of Credibility:** Such FDCs are often not supported by standard medical texts or reputable journals, raising concerns about their efficacy and safety.
- **Manufacturer Benefits:** Pharmaceutical companies benefit from high sales of these combinations and continue to promote them aggressively despite the issues.

Health & Safety

<p>What Does FDC Contain A FDC contains two or more active ingredients in a fixed dose ratio</p>	<p>Common Use These FDCs are commonly used for treating cough, fever, infections and body ache</p>
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Past Move
Earlier in 2016, the govt had restricted about 344 categories of FDCs after an expert panel declared them as 'irrational'



PERFORMANCE REVIEW OF REGIONAL RURAL BANKS

Syllabus : GS3/Economy

Why in the news : The Union Minister for Finance and Corporate Affairs chaired a meeting to review performance of nine Regional Rural Banks (RRBs) of 5 states.

About :

- The review meeting focused on business performance, upgrading digital technology services, fostering business growth in MSME clusters, and deepening financial inclusion in rural areas.
- The RRBs were urged to generate awareness of Government schemes, especially in aspirational districts.

What are the achievements of RRBs?

- **CRAR Improvement:** Consolidated Capital to Risk (Weighted) Assets Ratio (CRAR) of Regional Rural Banks (RRBs) rose from 7.8% in FY 2021 to 13.7% in FY 2024.
- **Profitability Boost:** RRBs' profitability improved from a loss of Rs. 41 crore in FY 2021 to a net profit of Rs. 2,018 crore in FY 2024.
- **GNPA Ratio:** Gross Non-Performing Assets (GNPA) are relatively low at 3.9%.

REGIONAL RURAL BANKS (RRB) :

-RRBs were established under the provisions of an Ordinance passed on 26 September 1975 and the RRB Act 1987 to provide sufficient banking and credit facilities for agriculture and other rural sectors.

-The RRBs were established as per the recommendations of the Narasimham Committee to cater to the rural credit needs of the farming and other rural communities.

The Prathama Grameen Bank was the first bank to be established on 2nd October 1975.

The Syndicate Bank became the first commercial bank to sponsor the Prathama Grameen Bank RRB.

Ownership of RRBs :

- The equity of the Regional Rural Banks is held by the stakeholders in a fixed proportion.
- This proportion is 50:35:15, distributed as:
 1. Central Government – 50%
 2. Sponsor Bank – 35%
 3. State Government – 15%

What are the challenges associated?

- **High Non-Performing Assets (NPAs):** RRBs experience a high level of NPAs, particularly in the agricultural sector. This is due to factors like crop failures, natural disasters, and the vulnerability of rural borrowers.
- **Limited Capital Base:** RRBs often operate with a limited capital base, restricting their ability to

expand, invest in technology, and meet regulatory capital requirements.

- **Operational Inefficiencies:** RRBs often face operational inefficiencies due to outdated infrastructure, lack of skilled staff, and bureaucratic processes.
- **Regulatory Constraints:** RRBs are subject to various regulatory constraints, including strict lending norms and capital adequacy requirements, which can be challenging to meet given their limited resources.
- **Mobilization issue:** Practical exclusion of the richer rural population restricts deposit mobilization.

What is the way forward?

- **Structural Consolidation:** Merging smaller or weaker RRBs to form larger, more robust entities to enhance efficiency.
- **Recapitalization:** Infusing additional capital into RRBs to strengthen their financial base and improve stability.
- **Periodic Review and Capacity Building:** Regular performance reviews and skill development programs for RRB employees to maintain service standards and enhance capabilities.

PRELIMS

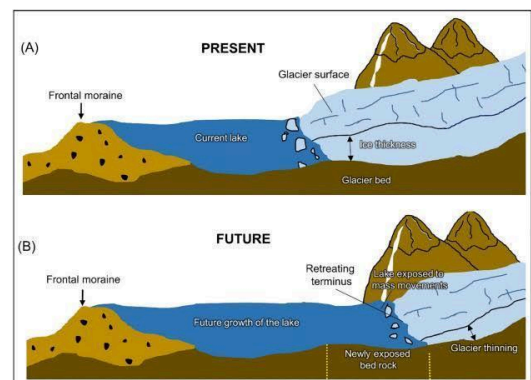
QUANTUM NONLOCALITY:

- **Classical vs. Quantum Physics:** Classical physics assumes locality, but quantum mechanics often incorporates the principle of nonlocality.
- **Nonlocality:** Refers to the ability of entangled particles to instantaneously affect each other's state, regardless of the distance separating them.
- **Instantaneous Action:** Nonlocality implies that information or action can occur instantly, seemingly violating the speed limit set by the speed of light.
- **Contradiction to Locality:** This phenomenon contradicts the principle of locality, which states that distant objects cannot influence each other directly and are only affected by their immediate surroundings.
- **Entanglement:** Nonlocality arises from entanglement, where interacting particles

become correlated and act as a single entity, suggesting deep, immediate connections within the universe.

GLACIAL LAKES:

- **Glacial Lake Definition:** A body of water originating from a glacier, typically forming at, on, or under it.
- **Formation Categories:** ISRO classifies glacial lakes as moraine-dammed, ice-dammed, erosion-based, or 'others'.
- **Formation Process:** Glacial lakes form when glaciers retreat and meltwater fills depressions or holes left behind, or from natural dams of ice and moraines.
- **Ice Dams:** Created when a rapidly moving glacier blocks a valley or fjord, trapping meltwater behind it.
- **Moraine-Dammed Lakes:** Formed by ridges of debris (moraines), which can be either stable or leaky.
- **Importance and Risks:** Glacial lakes are vital freshwater sources but can cause Glacial Lake Outburst Floods (GLOFs) if natural dams fail, leading to severe downstream flooding.



GONGRONEMA SASIDHARANII

- **Discovery:** Gongronema sasidharanii is a newly discovered plant species found in Pampadum Shola National Park, Idukki District, Kerala.

- **Characteristics:** It features smooth stems and small urn-shaped flowers that are creamy white to purplish-green.
- **Geographic Significance:** This is the first time the genus *Gongronema* is reported from South India; previously, *Gongronema* species were known only in northeast India, Uttar Pradesh, Punjab, and West Bengal.
- **Location:** Pampadum Shola National Park is situated in the eastern Southern Western Ghats, Idukki District, Kerala.
- **Area and Name:** Covering approximately 12 sq km, its name means 'the forest where the snake dances.'
- **Terrain and Climate:** The park features undulating terrain with altitudes between 1600-2400 m, experiencing a misty, cloudy climate and heavy rain during the North-East monsoon.
- **Vegetation:** It includes evergreen and moist deciduous forests, shola grasslands, and semi-evergreen areas.
- **Flora:** Home to 22 tree species, 74 herbs and shrubs, and 16 climbers.
- **Fauna:** Includes tigers, leopards, giant gizzard squirrels, flying squirrels, Nilgiri Tahr, spotted deer, Nilgiri marten, and around 100 butterfly species.



August 24 2024

PM's VISIT TO UKRAINE

Syllabus : GS2/IR

Why in the news : Prime Minister Narendra Modi paid a State Visit to Ukraine.

What is this about?

- **First Indian PM Visit:** This is the first visit by an Indian Prime Minister to Ukraine since its independence in 1991.
- **Bilateral Relations:** Both leaders aimed to elevate relations from a comprehensive partnership to a strategic partnership.
- **Agreements Signed:** Four agreements were signed, including humanitarian aid, cooperation in agriculture and the food industry, cultural cooperation, and drug regulation.
- **Diplomatic Positioning:** The Prime Minister's visits to both Russia and Ukraine enhance India's role in facilitating direct communication between the leaders.

What is India's Position wrt the Russia-Ukraine war?

- **Neutral Stance on Sanctions:** India distanced itself from the US-led sanctions on Russia but expressed concern over the humanitarian impact, especially on children.
- **Diplomatic Message to Russia:** India conveyed to Russia that "this is not the era of war," signalling its disapproval of the conflict without directly condemning Russia.
- **Advocacy for Dialogue:** India advocates for direct talks between Russia and Ukraine to resolve the conflict peacefully.

What is the significance of India's move?

- **First PM Visit to Ukraine:** This marks the first visit by an Indian Prime Minister to Ukraine since its independence, indicating a move to strengthen diplomatic ties.
- **Diplomatic Balancing:** India is positioning itself as a mediator, engaging with both Russia and the West to enhance its diplomatic influence.
- **Global South Influence:** Ukraine hopes India's involvement will sway the Global South towards supporting peace efforts.
- **Active Diplomatic Role:** The visit signals India's intent to play a more active role in global conflicts, rather than remaining passive.
- **Complex Geopolitical Navigation:** India is skillfully balancing its relationships with Russia,

Ukraine, and Western nations amidst ongoing tensions.

UKRAINE-RUSSIA CRISIS

Conflict at a glance

After months of tensions, on **February 24**, Russian forces launched a full-scale military invasion of Ukraine. **Kyiv has declared martial law**, saying Ukraine will defend itself.



Fig : Russia - Ukraine conflict at a glance

SECURITY OF SUPPLY ARRANGEMENT (SOSA)

Syllabus :GS2/IR

Why in the news : Defence Minister Rajnath Singh reached Washington DC on a four-day official visit.

What is this about?

- India and US signed two key pacts — a non-binding Security of Supply Arrangement (SOSA) and a Memorandum of Agreement regarding Assignment of Liaison Officers.

What is this about?

- **Reciprocal Priority Support:** The SOSA requires the US and India to provide priority support to each other for goods and services crucial to national defense.
- **Supply Chain Security:** It allows both nations to secure industrial resources from one another to address unexpected supply chain disruptions.
- **India as 18th SOSA Partner:** India joins 17 other nations, including allies like Australia and the UK, as a SOSA partner with the US.
- **Liaison Officers Agreement:** A memorandum was signed to assign liaison officers, aimed at enhancing defense cooperation, interoperability, and information sharing between the two countries.

Overview of India-US relations :




- **Cold War Legacy:** India-US relations have evolved from Cold War-era distrust to strong cooperation, overcoming estrangement over India's nuclear program.
- **Bilateral Trade:** Trade between the US and India increased by 72% between 2017-18 and 2022-23, with the US being the second-largest source of FDI in India during 2021-22.
- **Defense and Security:** India and the US have signed foundational defense pacts (LEMOA, COMCASA, BECA) and India was designated a Major Defense Partner by the US in 2016.
- **Space Cooperation:** India signed the Artemis Accords, enhancing collaboration in space exploration, with ongoing cooperation through the Civil Space Joint Working Group.
- **Multilateral Cooperation:** India and the US work together in multilateral organizations like the UN, G20, and Quad, promoting a free and open Indo-Pacific.
- **Nuclear Cooperation:** The 2005 Civil Nuclear Deal led to India separating civil and military nuclear facilities, allowing for full civil nuclear cooperation with the US.

What are the challenges in their relations?

- **Strategic Autonomy:** India aims to strengthen ties with the U.S. while maintaining its strategic autonomy in international relations.
- **Conflicting Positions:** India's muted criticism of Russia's invasion of Ukraine in 2022 has caused some frustration in the West, questioning its credibility as a security partner.
- **Defense Relations with Russia:** The U.S. is concerned about India's continued defense ties with Russia, particularly the acquisition of systems like the S-400, which could hinder interoperability and secure communications between U.S. and Indian forces.

INDIA-US RELATIONSHIP OVERVIEW

The confluence of common factors like democratic values, Shared areas of Interests, Stand against terrorism makes India and US enjoy a comprehensive strategic partnership.

 \$ 128.55 billion Bilateral trade in 2022-23 (increase of 7.65% over 2021-22)	 Largest Export destination US is the major export hub for Indian goods.	 3rd largest defence Supplier US (~11%) is India's 3 rd largest defence supplier after Russia (~45%) and France (~29%)	 \$28 billion India maintains a trade surplus with the US
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Defence ties

- US recognized India as a "Major Defence Partner" in 2016.
- US Defence agreements like
 - Logistics Exchange Memorandum of Association (LEMOA), 2016
 - Communications Compatibility and Security Agreement (COMCASA), 2018
 - Industrial Security Agreement 2019
- Basic Exchange and Cooperation Agreement (BECA) 2020 are signed with India
- Bilateral military exercises like Yudh Abhyas, Vajra prahar, Malabar, RIMPAC etc. are conducted between the two countries.

People to People ties

- Indian diaspora in US is around 4.9 Million and they form the second largest immigrant group in US after the Mexicans

SPACE SECTOR AND INDIA'S GDP

Syllabus : GS3/Economy

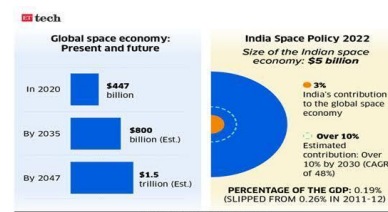
Why in the news : India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's Gross Domestic Product over the last decade.

What is this about?

- **Consistent Investment:** India's space sector has seen \$13 billion in investment over the past decade, making it the 8th largest space economy globally in terms of funding.
- **2024-25 Union Budget:** The Indian government allocated ₹13,042.75 crore to the space sector, significantly boosting space-related initiatives.

What is the contribution of the Space Sector in India's GDP?

- **Investment and Budget Allocation :** India's space sector received ₹13,042.75 crore in the Union Budget for 2024-25.
- **Employment Impact :** The sector has supported 96,000 jobs in public and private sectors.
- **Economic Multiplier Effect :** Every dollar produced by the space sector had a multiplier effect of \$2.54 on the Indian economy.
- **Productivity Comparison :** India's space sector was 2.5 times more productive than the country's broader industrial workforce.
- **Sector Diversification :** The Indian space sector had 700 companies, including 200 start-ups, with revenues reaching \$6.3 billion in 2023.
- **Revenue Contribution by Segment :** Satellite communications contributed 54% to the space economy, followed by navigation (26%) and launches (11%).
- **Industry Support :** The main industries supported by the space sector were telecom (25%), information technology (10%), and administrative services (7%).



What is the potential of Space Sector?

- **Export Potential and Investment :** India's export market share in space-related services is ₹2,400 crore, with a target to reach ₹88,000 crore.
- **Rise of Space Tourism :** The space tourism market was valued at \$848.28 million in 2023, projected to grow to \$27,861.99 million by 2032.

What are the challenges associated?

- **Competition and Global Market Share :** Indian space companies need to compete internationally to achieve an 8% global market share.
- **Private Sector Participation :** Increased investment and commitment from the private sector are essential.
- **Technology Development and Innovation :** Substantial investment and research are required for advanced technologies like reusable launch vehicles and miniaturized satellites.
- **Regulatory Framework and Licensing :** Navigating licensing processes, export controls, and compliance is complex.
- **Infrastructure and Facilities :** Developing and maintaining space infrastructure demands significant capital.

STATE OF THE CLIMATE IN 2023 – DROUGHT

Syllabus : GS3/Environment

Why in the news : The State of the Climate in 2023 report was released by the National Oceanic and Atmospheric Administration (NOAA).

What are the key findings?

- **Record-breaking climate events:**
 1. Highest global land area under extreme drought (8%)
 2. Warmest year on record
 3. New highs in greenhouse gas levels
 4. Record ocean heat content and sea levels
- **Global weather patterns:**
 1. Below-average tropical cyclone count, but above-average intensity
 2. Widespread drought affecting nearly 30% of global land
- **Regional impacts:**
 1. Severe droughts in Mexico, South America, West Asia, and Europe
 2. Record-breaking wildfires in Canada and Greece
 3. Australia's driest three-month period on record

● Polar regions:

1. Arctic: Fourth-warmest year, continued permafrost thawing
2. Antarctica: Record low sea ice extent in multiple months

PRELIMS

VIRUPAKSHA TEMPLE AT HAMPI

- Conservation of Hampi is critical following the collapse of Saalu Mantapa due to heavy rainfall.
- Located in Hampi, Karnataka, India, it is a UNESCO World Heritage Site within the Group of Monuments at Hampi.
- It holds significant religious and cultural value.
- **Historical Background :** Dates back to the 7th century CE; some suggest it existed before the Vijayanagara Empire's capital was established in Hampi.
- Expanded significantly during the 14th to 16th centuries under Vijayanagara rulers, flourishing as a key religious and cultural center.
- **Architectural Marvels :** Built by the Vijayanagara Empire (1336–1646) known for its grand Dravidian-style temples and palaces, including the Virupaksha Temple.
- Features include towering **gopurams (gateways), pillared halls, and deities' shrines.**
- The Vitthala Temple is noted for its ornate structure, grand bazaar street, stepped tank, and intricately carved mandapas.
- **Religious Significance :** Dedicated to Lord Virupaksha, a form of Lord Shiva.
- Associated with local goddess Pampadevi and the Tungabhadra River.
- Continues to be a place of worship despite the city's destruction in 1565.



WORLD'S LARGEST DIAMOND DISCOVERED IN BOSTWANA

- **Recent Discovery** : The world's second-largest diamond, weighing 2,492 carats, was discovered in Botswana at a Lucara Diamond-owned mine.
- **Historical Context** : The largest diamond, the 3,106-carat Cullinan Diamond, was found in South Africa in 1905.
- **About BOSTWANA** : It is situated in the Southern African region.
- It is a land-locked country dominated in geographical terms by the **Kalahari Desert**.



- It is bordered by Zambia and Zimbabwe to the northeast, Namibia to the north and west, and South Africa to the south and southeast.
- **Capital City**: Gaborone
- Botswana's climate is semi-arid though it is hot and dry for much of the year.
- **Major Rivers** : Significant rivers include the Limpopo, Okavango, and Shashe with the Molopo River creating a geographical border between South Africa and Botswana.



PM-WANI

- **Draft Telecommunication Tariff Order** : TRAI has released a draft order for the PM-WANI scheme's regulatory framework.
- **PM-WANI Scheme Overview** : Launched in 2020, PM-WANI aims to expand public Wi-Fi hotspots and improve digital infrastructure, especially in rural areas.
- **Scheme Objectives** : Increase employment for small entrepreneurs and offer low-cost internet to underserved areas.
- **Ecosystem Components** : The PM-WANI ecosystem includes Public Data Offices (PDOs), Public Data Office Aggregators (PDOAs), App Providers, and a Central Registry.
- **Concerns and Targets** : The scheme falls short of the National Digital Communications Policy (NDCP) 2018 and Bharat 6G Vision goals for public Wi-Fi hotspots.



August 25 & 26, 2024

3 NEW RAMSAR SITES ADDED

Syllabus : GS3/Environment

Why in the news : Three new wetlands have got the Ramsar site tag taking the total tally of Ramsar wetlands to 85 in India. The three new Ramsar sites are Nanjarayan Bird Sanctuary and Kazhuveli Bird Sanctuary in Tamil Nadu and Tawa Reservoir in Madhya Pradesh

Which 3 new sites are added?

Nanjarayan Bird Sanctuary

- Located on the banks of the **Noyyal River in Tamil Nadu.**
- Originally a water reservoir for irrigation.
- Evolved into a crucial ecosystem and biodiversity hotspot.
- Hosts species like Eurasian coot, spot-billed duck, and various herons.
- Attracts migratory birds via the Central Asian Flyway.
- Supports local livelihoods through fishing.



Kazhuveli Sanctuary

- Located on the Coromandel Coast, one of the largest brackish water wetlands in South India.
- Ecosystem includes salt marshes, mudflats, and shallow waters.
- Home to globally endangered species like black-headed ibis and greater flamingo.
- Serves as a stopover for migratory birds along the East Asian-Australasian Flyway.
- Helps with flood control and groundwater recharge, maintaining the region's water table.



Tawa Reservoir :

- Located in Madhya Pradesh, integral to regional water management.
- Created by damming the Tawa River, forming a large reservoir.

- Acts as a significant wintering ground for migratory birds.
- Provides irrigation water to farmlands and drinking water to local communities.
- Supports and sustains nearby fisheries.



WETLANDS :

1. Wetlands are water-covered or water-saturated areas creating unique ecosystems.
2. They include diverse types like marshes, peatlands, and shallow marine waters.
3. Wetlands regulate climate through carbon sequestration and are highly productive ecosystems.
4. They maintain biodiversity, regulate water cycles, and act as natural water purifiers.
5. In India, wetlands cover 4.63% of the country's total geographical area.
6. Gujarat has the largest wetland area in India, followed by Andhra Pradesh and Uttar Pradesh.
7. The Indian government has implemented various conservation programs to protect wetlands.

RAMSAR SITES :

1. Ramsar sites are wetlands of international importance designated under the Ramsar Convention.
2. The Ramsar Convention is an international treaty established in 1971 for wetland conservation.
3. It aims to conserve and promote sustainable use of wetlands globally.
4. The convention has 172 signatory countries and collaborates with major environmental organizations.
5. Ramsar sites are selected based on specific criteria, including their ecological importance and biodiversity support.
6. India joined the convention in 1982, initially designating two sites.
7. India now has one of the highest numbers of Ramsar sites in Asia.

LITHIUM MINING

Syllabus : GS2/Geography, Resources

Why in the news : According to a new study, Chile's Atacama salt flat (flat expanses of ground covered with salt and other minerals) is sinking at a rate of 1 to 2 cm per year due to lithium brine extraction.

What is Lithium Mining?

- Lithium mining involves extracting lithium from brine water and hard-rock (spodumene) deposits.
- Brine extraction accounts for 66% of total lithium production, using evaporation to isolate lithium carbonate.
- Hard-rock mining extracts lithium-bearing minerals through traditional mining techniques.
- Lithium production has surged over the past decade, surpassing 100,000 tonnes globally in 2021.
- In 2022, global lithium production reached an estimated 130,000 metric tons.

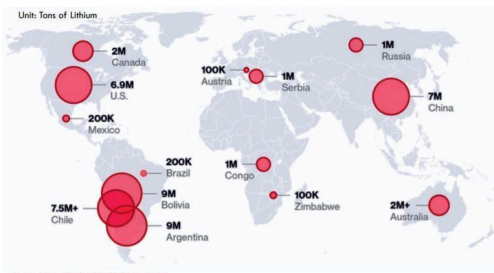


Fig : Lithium Reserves around the world

What is the status of Lithium in India?

- GSI identified India's first lithium inferred resources of 5.9 million tonnes in J&K's Reasi district.
- Another significant lithium reserve was discovered in Degana, Rajasthan's Nagaur district.
- The Degana reserve is believed to be larger and could meet 80% of India's lithium demand.
- The Ministry of Mines recently auctioned India's first lithium block in Korba district, Chhattisgarh.



What are the challenges associated lithium mining?

- **Deplete water resources:** Extracting one ton of lithium requires 500,000 liters of water, depleting water resources in arid regions.
- **Contaminate soil and water sources:** Chemicals like sulfuric acid used in extraction can contaminate soil and water, harming health and ecosystems.
- **Carbon emissions:** Lithium mining, especially from hard rock, is energy-intensive.
- **Non-renewable energy usage:** The energy often comes from non-renewable sources, increasing carbon emissions.
- **Environmental impact:** The carbon footprint of lithium production is significant due to these factors.

What is the issue of Fallout's of Lithium Mining in Chile?

- **Environmental fallouts:** Lithium mining has caused severe environmental issues, particularly in Chile.
- **Atacama salt flat:** Satellite data (2020-2023) shows Earth's crust deformation in this major lithium source.
- **Affected areas:** Worst impacts are where lithium-rich brine is pumped extensively.
- **Rapid pumping:** The extraction rate exceeds the recharge of aquifers, leading to subsidence.
- **Subsidence:** This causes the Earth's surface to move downward, exacerbating environmental degradation.



CHILD ADOPTION IN INDIA

Syllabus : GS2/Government policies

Why in the news : Govt lifts restriction, allows single individuals to foster children, adopt after 2 years

What is adoption?

- **Adoption:** The formal process where a child is permanently separated from biological parents and legally becomes the child of adoptive parents.

- **Rights and privileges:** The adopted child gains all rights, privileges, and responsibilities as if they were a biological child.

What are the legal provisions associated with adoption?

- **Legislations:** Adoption in India is governed by the Hindu Adoption and Maintenance Act, 1956 (HAMA) and the Juvenile Justice (Care and Protection of Children) Act, 2015.
- **Rules and Regulations:** Includes Juvenile Justice Model Rules, 2016, and Adoption Regulations, 2017.
- **Adoption principles:** Prioritize the child's best interests and prefer Indian citizens for adoption, considering socio-cultural environment placement.
- **CARA:** Central Adoption Resource Authority (CARA) is the nodal agency for adoption in India.
- **CARINGS:** CARA maintains the centralized Child Adoption Resource Information and Guidance System (CARINGS) for child and parent registration.

CENTRAL ADOPTION RESOURCE AUTHORITY (CARA)

- **CARA:** Established under the Juvenile Justice (Care and Protection of Children) Act, 2015.
- **Nodal Body:** Oversees and regulates in-country and inter-country adoptions of Indian children.
- **Primary Role:** Manages adoptions of orphaned, abandoned, and surrendered children through recognized agencies.
- **Central Authority:** Designated to handle inter-country adoptions per the Hague Convention on Inter-country Adoption, 1993.

Who can be adopted?	Who can adopt?
<p>– Eligibility for Adoption: Orphaned, abandoned, or surrendered children declared legally free for adoption by the Child Welfare Committee (CWC) under the JJ Act 2015.</p> <p>– Relative Adoption: Children can be adopted by relatives such as paternal or maternal uncles/aunts or grandparents.</p> <p>Step-Parent Adoption: Children from a previous marriage of a spouse, surrendered by biological parents, can be adopted by the step-parent according</p>	<p>– Adoption Criteria: Prospective adoptive parents (PAPs) must be physically and mentally stable, financially capable, and free of life-threatening medical conditions.</p> <p>– Married Couples: Must have two years of stable marital relationship and both spouses must consent to the adoption.</p> <p>Single Adopters: Single women can adopt a child of any gender; single males cannot adopt a girl child.</p> <p>Age Difference: The minimum age difference between the child and</p>

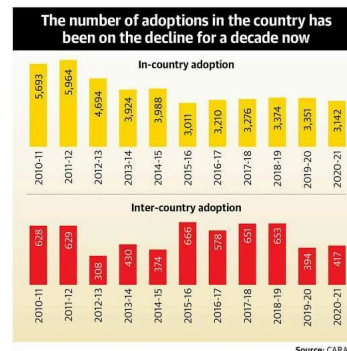
to CARA.

either PAP must be at least 25 years.

– **Family Size:** Couples with three or more children are generally not considered, except for adopting children with special needs or hard-to-place children.

What are the challenges associated with the Electronic Sector?

- **Market Competition:** The global electronics market is dominated by countries like China, Taiwan, USA, South Korea, Vietnam and Malaysia. **India currently exports approximately USD 25 billion annually, representing less than 1% of the global share.**
- **Technical Skills:** There is a lack of adequately trained technical personnel for advanced manufacturing processes.
- **Capital Intensive industry:** Electronic manufacturing is a complex and technology-intensive sector with huge capital investments, high risk, long gestation and payback periods, requiring significant and sustained investments.
- **Import dependency:** Heavy reliance on imports for key components, especially semiconductors, makes the industry vulnerable to global supply chain disruptions.
- India's electronics industry is **focussed primarily on assembly**, with limited capabilities in design and component manufacturing.



PRELIMS

NARCOTICS CONTROL BUREAU (NCB)

- NCB is India's primary drug law enforcement and intelligence agency under the Ministry of Home Affairs.
- It was established in 1985 under the Narcotic Drugs and Psychotropic Substances Act.
- NCB coordinates actions between various offices, state governments, and authorities under relevant laws.
- It implements India's obligations under international conventions related to drug trafficking.
- NCB assists foreign authorities and international organizations in coordinating anti-drug trafficking efforts.
- It coordinates actions of other ministries and departments on matters relating to drug abuse.
- NCB operates through zonal offices that collect data, analyze trends, and work with other law enforcement agencies.

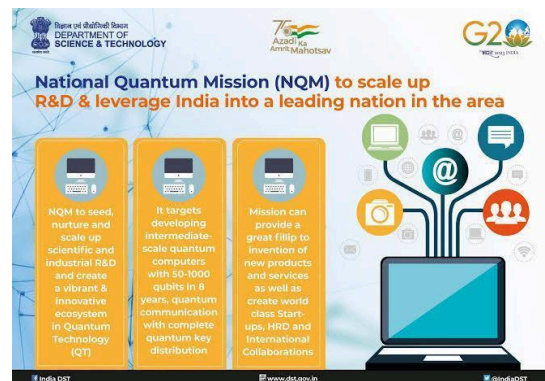
WULAR LAKE

- Wular Lake is India's largest and Asia's second-largest freshwater lake.
- It's located in the Bandipore district of Jammu and Kashmir, fed by the Jhelum River.
- The lake lies at 1,580 m altitude near Haramuk Mountain, covering 200 sq.km.
- Its basin was formed by tectonic activity and may be a remnant of the ancient Satisar Lake.
- The lake features a small island called 'Zaina Lank', built by King Zainul-Abi-Din.
- Designated as a Ramsar site in 1990, it's crucial for various bird species.
- Wular Lake is vital for fish, producing 60% of Jammu and Kashmir's total fish output.



NATIONAL QUANTUM MISSION (NQM)

- NQM aims to advance India's quantum technologies in computing, communication, measurement, and sensing.
- The mission has a budget of ₹6,000 crore and will establish four companies under premier institutions.
- NQM plans to develop quantum computers with 50-1000 physical qubits by 2031.
- It aims to establish secure quantum communications over 2000 km within India and beyond.
- The mission will support the development of quantum materials and devices.
- Four thematic hubs will be created to drive fundamental and applied research.
- Quantum computing uses qubits, allowing for superposition of binary states, unlike classical bits.



Augusts 27 2024

NEW INDIA LITERACY PROGRAMME (NILP)

Syllabus : GS2/Government Policies, Education

Why in the news : In order to push for adult literacy under the New India Literacy Programme (NILP), the Union Ministry of Education (MoE) has defined "literacy" and what it means to achieve "full literacy" in a letter to all States.

What is the New India Literacy Programme (NILP)?

- **ULLAS - Nav Bharat Saksharta Karyakram/NILP:** A centrally sponsored literacy initiative by the Ministry of Education, aligned with NEP 2020, with a financial outlay of Rs.1037.90 crore for five years (2022-23 to 2026-27).
- **Objective:** Empower adults aged 15+ who missed formal schooling, helping them integrate into society and contribute to national growth.
- **Components:** Includes Foundational Literacy and Numeracy (FLN), Critical Life Skills, Vocational Skills Development, Basic Education, and Continuing Education.
- **Beneficiaries:** Identified through door-to-door surveys via a mobile app, with an option for direct registration.
- **Volunteerism:** The scheme is volunteer-based, with teaching and learning facilitated through volunteers who can register via a mobile app.
- **Technology-Based Implementation:** Predominantly online, using the DIKSHA platform, with supplementary modes like TV, radio, and community centers.

Who is considered Literate under the NILP?

- **Meaning of Literacy:** Defined by the MoE as the ability to read, write, and compute with comprehension, including skills like digital and financial literacy.
- **Full Literacy:** A State/UT with 95% literacy is considered fully literate.
- **Literacy Declaration under NILP:** Individuals are declared literate after passing the Foundational Literacy and Numeracy Assessment Test (FLNAT).
- **FLNAT 2023 Results:** Out of 39,94,563 adult learners who took the test, 36,17,303 were certified as literate.
- In India, rainfall-induced landslide events are more common.

What are the challenges associated with literacy in India?

- **Non-Literate Population:** Census 2011 reports 25.76 crore non-literate individuals aged 15 and above.
- **Gender Disparity:** Of the non-literate population, 9.08 crore are males, and 16.68 crore are females.
- **Challenges for Non-Literates:** Non-literate individuals struggle with financial transactions, job applications, media comprehension, understanding rights, and participating in high-productivity sectors.
- **Government Initiative Shortfalls:** Despite the Saakshar Bharat program certifying 7.64 crore people as literate, 18.12 crore adults in India remain illiterate.
- **FLNAT Pass Rates:** The pass rate for the FLNAT exam was 89.64% to 91.27% in 2023, dropping to 85.27% in 2024.
- **Budget Cuts:** NILP's budget was reduced from ₹157 crore to ₹100 crore in the 2023-24 revised estimate.

OTHER KEY GOVERNMENT INITIATIVES FOR IMPROVING THE LITERACY IN INDIA :

- **Saakshar Bharat Programme:** Launched in 2009, this adult education program focused on increasing literacy rates among women, aiming to create a literate society by targeting adults, particularly those in rural areas.
- **National Literacy Mission (NLM):** Established in 1988, the NLM aimed to make 80 million adults literate by 1995. It focused on functional literacy, providing adults with reading, writing, and arithmetic skills.
- **Total Literacy Campaign (TLC):** This initiative, a part of the NLM, was designed to eradicate adult illiteracy by involving the community in teaching basic reading, writing, and arithmetic skills.
- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** Although primarily a skill development initiative, PMKVY indirectly supports literacy by offering basic education and vocational training to adults, enhancing their employability.
- **Samagra Shiksha Abhiyan:** This overarching scheme integrates various education initiatives, including adult education and literacy programs, to provide inclusive and equitable quality education.

UNIFIED LENDING INTERFACE

Syllabus : GS3/Economy

Why in the news : The Reserve Bank is piloting an application for frictionless credit – Unified Lending

Interface (ULI). It will be launched nationwide soon and will become the UPI on the credit side.

What is Unified Lending Interface?

- **Pilot Project:** RBI launched a pilot for a tech platform in August 2023 to streamline credit processes.
- **Proposed Name:** RBI Governor suggested naming it Unified Lending Interface (ULI), aiming to revolutionize lending like UPI did for payments.
- **Digitalization:** ULI addresses challenges from scattered credit appraisal data across various systems.
- **Functionality:** ULI facilitates seamless, consent-based digital information flow to expedite credit appraisals, especially for smaller and rural borrowers.
- **Benefits:** ULI aims to meet the large unmet demand for credit in agriculture and MSME sectors by digitizing access to financial and non-financial data.

What is Unified Payments Interface?

- **UPI System:** UPI integrates multiple bank accounts into a single mobile app, allowing seamless transactions.
- **Functionality:** It combines banking features, fund routing, and merchant payments into one platform.
- **Purpose:** UPI acts as an interface for transferring money between bank accounts through a single window.
- **Launch:** UPI was introduced in 2016 by the National Payments Corporation of India (NPCI).

What are the features of UPI?

- **24/7 Accessibility:** UPI enables instant money transfers through mobile devices, available 24/7, all year round.
- **Unified Access:** One mobile app allows users to access multiple bank accounts.
- **Simplified Transactions:** UPI transactions are hassle-free, not requiring card numbers, account numbers, or IFSC codes.

What are the Benefits of UPI?

For Banks:

- Universal app for transactions.
- Single-click two-factor authentication.
- Secure and easy transactions.
- Provides a unique identifier.

For Merchants:

- Simplified fund collection and in-app payments.
- No need to store customers' virtual addresses.
- Access to customers without credit/debit cards.

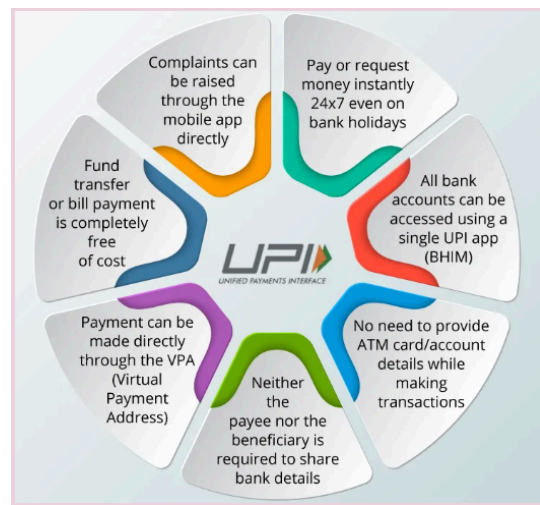
For Customers:

- Single app to access multiple bank accounts.
- 24/7 availability.
- Easy complaint resolution via mobile app.
- Secure transactions using Virtual ID.

UPI STATS :

UPI Transaction Value (July 2024): ₹20,64,292.40 crore.

UPI Transaction Count (July 2024): 14,435.55 million transactions.



UNIFIED PENSION SCHEME

Syllabus : GS2/Government Policies

Why in the news : Recently, the Union Cabinet, chaired by the Prime Minister, approved the Unified Pension Scheme (UPS) by replacing the National Pension System (NPS).

What is it about?

- **Implementation Date:** Based on T. V. Somanathan Committee recommendations, effective April 1, 2025.
- **Combines Benefits:** Merges advantages of Old Pension Scheme (OPS) and New Pension Scheme (NPS).
- **Purpose:** A forward-looking approach to secure and sustainable pension planning in India.
- **Goal:** Offers long-term financial security to government employees with flexibility and choice.

What is the Unified Pension Scheme basically?

- **Guaranteed Pension:** Employees under UPS are assured a pension equal to 50% of their average basic pay over the last 12 months before retirement.

- **Proportional Pension:** For service periods between 10 and 25 years, the pension will be proportional.
- **Minimum Service Requirement:** Full pension is guaranteed for employees with at least 25 years of service.
- **Family Pension:** In the event of an employee's death, the family will receive 60% of the employee's pension.
- **Assured Minimum Pension:** Employees with at least 10 years of service receive a minimum pension of ₹10,000 per month upon retirement.
- **Guaranteed Pension:** Employees with 25+ years of service receive a pension equal to half of their average basic salary over the last 12 months.
- **Inflation Indexation:** Pensions are adjusted for inflation through Dearness Relief, based on the All India Consumer Price Index for Industrial Workers (AICPI-IW).
- **Lump Sum Payment:** In addition to gratuity, employees receive 1/10th of their monthly salary plus Dearness Allowance for every six months of service completed.
- **Employee Contribution:** Employees opting for the UPS will continue to contribute 10% of their salary.
- **Government Contribution:** The government's contribution will increase from 14% to 18.5%.
- **No Additional Burden:** The system is designed to prevent any additional financial burden on employees.

	Old Pension Scheme (OPS)	National Pension Scheme (NPS)	Unified Pension Scheme (UPS)
Guaranteed pension	Yes	No	Yes
Pension amount	50% of last drawn basic pay + DA	Market-linked, depends on fund performance	50% of average basic pay over the last 12 months
Government contribution	Not applicable	14% of basic pay + DA	18.5% of basic pay + DA
Employee contribution	Not applicable	10% of basic pay + DA	10% of basic pay + DA
Inflation protection	Yes	No	Yes
Lump sum payment	No	No	1/10th of the monthly pay (basic + DA) for every 6 months of service completed
Minimum pension*	₹9,000	No	₹10,000

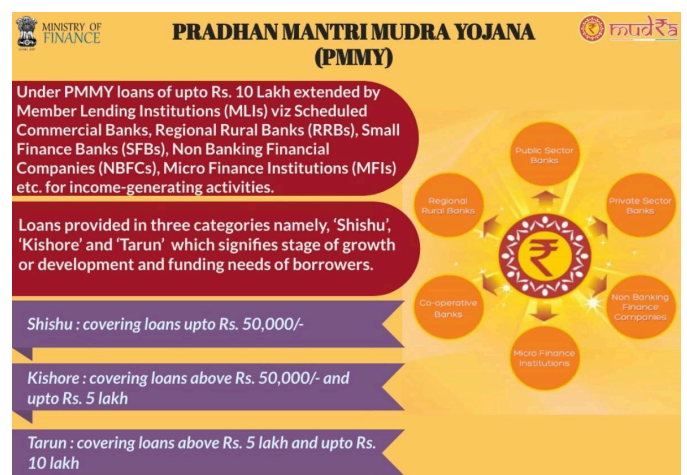
Is there a choice between UPS and NPS?

- Central government employees have the option to choose between the UPS and the National Pension Scheme (NPS).
- Unlike the UPS, the NPS is market-linked.

PRELIMS

PRADHAN MANTRI MUDRA YOJANA

- PMMY is a 2015 Indian government initiative providing affordable credit to micro and small enterprises. Key features include:
- Loans up to ₹10 lakh for non-farm income-generating activities
- Three loan categories: Shishu (up to ₹50,000), Kishore (₹50,000-5 lakh), and Tarun (₹5-10 lakh)
- Available through various financial institutions
- **Impact of MUDRA 1.0:**
- Over ₹27.75 lakh crore disbursed to 47 crore entrepreneurs
- 69% of accounts held by women, 51% by SC/ST and OBC entrepreneurs
- Job creation in rural and semi-urban areas
- **Vision for MUDRA 2.0:**
- Expanded scope and outreach
- Financial literacy programs
- Enhanced Credit Guarantee Scheme
- Robust Monitoring and Evaluation Framework
- The scheme aims to boost grassroots economy, promote inclusivity, and encourage self-employment.



PARIVESH 2.0 PORTAL

- Registration Mandate:
- MoEFCC requires registration of exotic pets listed in Schedule IV of the Wildlife Act
- Registration to be done with state wildlife departments via PARIVESH 2.0 portal
- Deadline: Within 6 months
-
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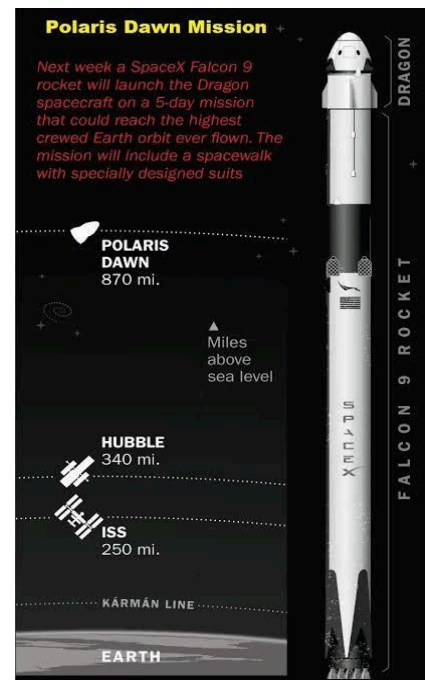
- **Exotic Species:**
- Animals or plants moved from their natural habitat to a new location
- Delhi has registered 8 exotic species so far
- Registration required as per Living Animal Species Rules, 2024
- Wild Life (Protection) Amendment Act, 2022 introduced Section 49 M for mandatory registration
- **Concerns:**
- Non-regulation of exotic species import and breeding
- Zoonotic disease risks
- Increasing smuggling of endangered exotic animals
- **PARIVESH 2.0 Portal:**
- Web-based application for environmental clearances
- Developed by MoEFCC
- Provides single-window solution for green clearances and compliance monitoring



POLARIS DAWN MISSION

- **Mission Overview:**
 1. First non-governmental spacewalk
 2. Targeting altitude of 700 km, surpassing ISS
 3. Using SpaceX Falcon 9 rocket and Dragon capsule
 4. Led by entrepreneur Jared Isaacman
- **Van Allen Belts:**

1. Charged particles trapped in Earth's magnetosphere
 2. Inner belt (680-3,000 km) and outer belt (15,000-20,000 km)
 3. Present radiation risks to astronauts
- **Key Mission Elements:**
 1. Spacewalk through Van Allen Belts
 2. Testing new SpaceX spacesuits
 3. Health research on space travel's biological effects
 4. Studying decompression sickness
 - **Technological Innovations:**
 1. Testing laser communications via Starlink network
 - **Significance:**
 1. Pushes boundaries of commercial spaceflight
 2. Data collection for future deep-space missions
 3. Advances in spacesuit technology and radiation protection
 4. Contributes to understanding of space health risks
 - **Future Plans:**
 1. Part of a series of three Polaris missions
 2. Aims to further human spaceflight capabilities



July 28 2024

CONFLICT OF INTEREST OF PUBLIC OFFICIALS

Syllabus : GS4/Public, Civil Service Values

Why in the news : Recently, a US-based firm accused the Chairperson of SEBI of violating SEBI's Code of Conduct, leading to a potential conflict of interest.

What is Conflict of Interest?

- A conflict of interest occurs when a public official's private interests could improperly influence their official duties. This has become a global concern due to increased public-private collaboration.
- There are **three types** of conflicts of interest:
 1. **Actual:** Private interest directly conflicts with public duty (e.g., awarding a contract to a family member's company).
 2. **Potential:** Private interest may conflict with public duty in the future (e.g., researcher receiving funding from a company related to their study).
 3. **Perceived:** Appearance of conflict, even if none exists (e.g., official attending an event hosted by a lobbyist).

When can Conflict of Interest arise?

- **Financial interests:** When an official stands to gain financially from their decisions.
- **Relationships:** Personal or family relationships influencing professional decisions.
- **Outside employment:** Secondary jobs or consultancy roles conflicting with primary duties.
- **Gifts and hospitality:** Accepting favours that could influence impartiality.
- **Future employment prospects:** Making decisions to benefit potential future employers.
- **Use of insider information:** Utilising confidential information for personal gain.
- **Public-private partnerships:** When roles and interests between sectors blur.
- **Political activities:** Personal political involvement affecting professional neutrality.
- **Professional affiliations:** Membership in organisations conflicting with official duties.
- **Procurement and contracting:** Involvement in processes that benefit associated parties.

What is the way forward to ensure effective resolution of Conflict of Interests?

- **Identification process:** Establish procedures to identify, manage, and resolve conflicts of interest through prompt disclosure.
- **Leadership commitment:** Encourage officials to maintain their private interests in a way that

preserves public confidence, beyond mere compliance.

- **Policy communication:** Widely publish and promote understanding of the conflict of interest policy.
- **Regular risk assessment:** Periodically review high-risk areas such as insider information, gifts, outside appointments, and post-public office activities.
- **Cooling-off period:** Implement a waiting period before former public officials can work in related private sector roles to prevent "revolving door" issues.
- **Independent oversight:** Create independent bodies or ethics commissions to monitor, investigate, and enforce conflict of interest rules.

LEGAL FRAMEWORK TO PREVENT CONFLICT OF INTEREST IN INDIA :

For Public Servants:

1. Central Civil Services (Conduct) Rules, 1964:
 - Requires declaration of private interests related to public duties
 - Prohibits misuse of position for personal, family, or friends' benefits
2. Central Vigilance Commission guidelines for procurement and bidding processes
3. SEBI's Code for Board Members: Requires steps to prevent personal conflicts from affecting Board decisions

For Businesses:

1. Companies Act, 2013 (Section 166): Prohibits directors from situations with potential direct or indirect conflicts of interest
2. SEBI Guidelines: Addresses conflicts of interest for entities like stock exchanges and intermediaries

THE TELEGRAM ISSUE

Syllabus : GS2/IR, GS4/Ethics, Integrity and Aptitude

Why in the news : Pavel Durov, the founder and CEO of Telegram, was arrested in Paris recently on charges related to the alleged use of his messaging platform for illicit activities, including drug trafficking and the distribution of child sexual abuse material.

What's the issue basically?

- Telegram stated it adheres to EU regulations and industry-standard moderation practices following Durov's arrest

- Concerns arise that the arrest could stifle free expression online, with critics viewing it as government overreach.

What does the Universal Declaration of Human Rights (UDHR) say?

- Article 19 of the UDHR guarantees the right to freedom of opinion and expression, including the ability to share ideas across any media without interference.
- However, this freedom is not absolute and can be restricted to maintain public order, morals, and public health.

What is the National Cyber Security Policy (2013)?

- A policy framework by the Department of Electronics and Information Technology (DeitY) aims to protect public and private infrastructure from cyber-attacks.
- It also seeks to safeguard information like personal data, financial and banking details, and sovereign data.

What are the implications of Pavel Durov's arrest got Global Free Speech Debate?

- **Concerns Raised:** Edward Snowden condemned Durov's arrest as an attack on basic human rights, while Elon Musk warned of "dangerous times" for free expression, using the hashtag #FreePavel.
- **Backlash from Diverse Groups:** Durov's arrest has sparked outrage from an unusual coalition, including both Kremlin supporters and opponents in Russia, and global free speech advocates, underscoring Telegram's vital role in organizing dissent.
- **Limits Free Speech:** The Stanford Cyber Policy Center notes that Durov's case involves criminal law violations related to child abuse material, terrorism, and drug sales, highlighting legal limits on free speech.

What is the Indian Scenario here?

- **Current Status:** Telegram remains unbanned in India, but its future hinges on the results of an ongoing investigation into its alleged involvement in criminal activities like exam paper leaks, extortion, and stock price manipulation.
- **Compliance with IT Rules:** Telegram complies with India's IT Rules by appointing compliance officers and publishing monthly reports, but its minimal physical presence in India complicates communication and regulatory enforcement.

How to maintain a balance between Free speech and the responsibility and Tech platforms?

Free Speech vs. Responsibility:

- Tension between Durov's advocacy for absolute free speech and the need to address illegal activities on Telegram
- Highlights the challenge of balancing user safety and fundamental rights

Need for Responsible Moderation:

- Telegram must find a way to prevent harmful content while still protecting users' privacy rights
- This balance is crucial for maintaining its position as a free speech advocate

Legal Accountability:

- If Durov is found guilty, it could set a precedent for holding tech executives responsible for platform content
- Potential consequences include stricter regulations and increased scrutiny of messaging apps globally

Future of Messaging Apps:

- The case's outcome may influence other messaging platforms' operations
- Could lead to wider adoption of stricter content moderation policies to avoid similar legal issues

What is the way forward?

- The Telegram issue highlights the struggle between protecting free speech and ensuring public safety.
- The ongoing legal proceedings will be closely monitored for their impact on Telegram and the broader tech landscape.

PREVENTION OF MONEY LAUNDERING ACT (PMLA)

Syllabus : GS3/Economy, Money Laundering

Why in the news : The Supreme Court granted bail to Bharat Rashtra Samithi (BRS) leader K Kavitha in the graft and money laundering cases related to the Delhi excise policy scam.

What is this about?

- The Supreme Court granted bail to BRS leader K Kavitha in the Delhi excise policy scam cases.
- The court stated that Kavitha's custody is no longer needed as the investigation is complete.
- The decision referenced the earlier Manish Sisodia case, emphasising that undertrial custody should not be punitive.
- **The court highlighted Section 45(1) of the PMLA, which allows special consideration for women in granting bail.**

What is the Section 45 of PMLA?

- Section 45 of PMLA sets strict conditions for granting bail.
- Bail is denied unless the Public Prosecutor is heard and opposes, and the court believes the accused is not guilty and won't reoffend.
- The provision makes bail an exception, not the rule, under PMLA.
- **Twin Test of Bail:** Section 45 of PMLA requires proving innocence and ensuring no reoffending, making bail nearly impossible.
- **Burden of Proof:** The accused must prove innocence and non-reoffending, despite being disadvantaged by incarceration.
- **2019 Amendments:** Before 2019, PMLA presumed guilt for the original crime (scheduled offence), requiring proof of innocence for bail.
- **Exceptions:** Women, minors, and the sick/infirm may be granted bail with court approval, similar to IPC provisions.
- **Legal Precedent:** In 2023, Delhi HC granted bail to Preeti Chandra, emphasizing that PMLA doesn't differentiate among women types, but bail requires assurance of no flight risk or witness tampering.

What are the key highlights of the judgement?

- **Case Background:** BRS MLC K Kavitha allegedly provided ₹100 crore to AAP to influence the Delhi excise policy, with the money reportedly funding AAP's 2022 Goa election campaign.
- **ED Allegations:** Kavitha was accused of being part of a "South Group" receiving favors from AAP in exchange for bribes.
- **Bail Justification:** The court granted bail as the investigation was complete, chargesheet filed, and her continued custody deemed unnecessary.
- **Criticism of Delhi HC Ruling:** The court criticised a Delhi HC decision denying bail to an educated woman, arguing it could unjustly prevent educated women from receiving bail under PMLA.

Prevention of Money Laundering Act :

- **PMLA Overview:** Core framework for combating money laundering in India.
- **Enforcement:** Came into effect on July 1, 2005, under Article 253 to implement international conventions.
- **Objectives:** Prevent/control money laundering, confiscate/seize laundered property, and address related issues.
- **Powers:** Director of FIU-IND and Director (Enforcement) have exclusive powers under the Act.
- **Amendments:** Revised by Prevention of

Money Laundering (Amendment) Acts of 2009 and 2012.

MISLEADING ADS ABOUT AYURVEDIC, SIDDHA AND YUNANI DRUGS

Syllabus : G2/Government Policies, Health

Why in the news : The Supreme Court of India stayed a notification issued by the Ministry of AYUSH in which Rule 170 of the Drugs and Cosmetics Rules, 1945 was omitted.

What is this about?

- **Supreme Court Stay:** Stayed the Ministry of AYUSH's notification omitting Rule 170 of the Drugs and Cosmetics Rules, 1945.
- **Rule 170:** Concerns action against objectionable or misleading ads for Ayurvedic, Siddha, and Unani drugs.

What is the scenario of Drug Regulation in India?

- **Drug Regulation in India:** Governed by the Drugs and Cosmetics Act, 1940, and Rules, 1945, which allocate responsibilities to central and state regulators.
- **Central Drugs Standard Control Organisation (CDSCO) :**
 1. National Regulatory Authority under the Ministry of Health & Family Welfare.
 2. Responsible for drug approval, clinical trials, setting drug standards, quality control of imports, and coordinating with state drug control organizations.
 3. Plans to include all medical devices in its scrutiny.
- **Drugs Controller General of India (DCGI):**
 1. Head of CDSCO.
 2. Oversees approval of licenses for critical drugs (e.g., blood products, vaccines) and sets manufacturing and distribution standards.

AYURVEDA, SIDDHA AND UNANI DRUGS :

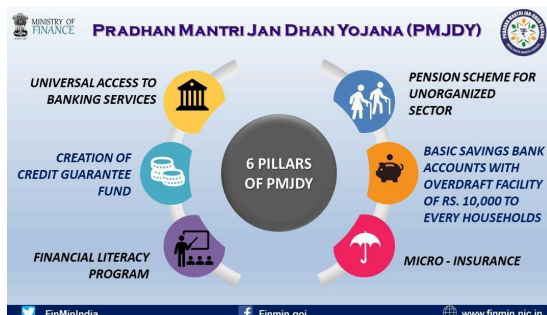
- **Definition:** Ayurvedic, Siddha, and Unani drugs are defined by the Drugs and Cosmetics Act, 1940 as medicines used to treat, prevent, or diagnose diseases in humans or animals.
- **Regulation:** The Ayurvedic, Siddha, and Unani Drugs Technical Advisory Board (ASUDTAB) sets standards for these drugs.
- The Central Government can amend rules after consulting ASUDTAB.

- **Schedule T under Drugs and Cosmetics Act 1940** : Details Good Manufacturing Practices for Ayurvedic, Siddha, and Unani medicines.

PRELIMS

PRADHAN MANTRI JAN-DHAN YOJANA

- PMJDY celebrates 10 years on August 28, 2024
- Launched in 2014 to promote financial inclusion
- Provides access to banking, savings, remittance, credit, insurance, and pensions
- Backbone for government economic initiatives and Direct Benefit Transfers
- Eligibility: Indian nationals aged 18-59 (10+ with guardian support)
- Zero-balance accounts available with RuPay debit card
- Offers accident insurance up to ₹2 lakh and life insurance up to ₹30,000
- Overdraft facility up to ₹10,000 with additional ₹5,000 loan option
- 66.6% of accounts in rural/semi-urban areas, 55.6% held by women
- 99.95% of inhabited villages have banking within 5 km radius
- Accounts grew from 14.72 crore (2015) to 53.13 crore (2024)
- Deposits increased from ₹15,670 crore to over ₹2.31 lakh crore
- Government targets 3 crore new accounts in FY 2024-25
- PMJDY accounts make up over 53 crore of 173 crore CASA accounts nationwide



NORTHERN BALD IBIS

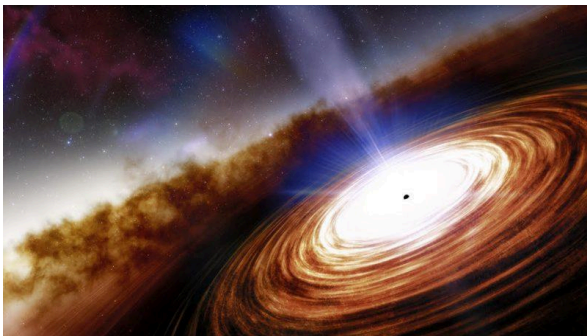
- Northern bald ibis population increased from zero to nearly 300 since 2002
- Conservation status improved from "critically endangered" to "endangered"
- Scientific name: *Geronticus eremita*
- Native to Central Europe until 17th century, also found in North Africa and Arabia
- Distinctive black plumage with green sheen, bald red head, curved beak
- Diet: insect larvae, earthworms, invertebrates
- Habitat: open areas with short grass
- Social birds, form large colonies
- Seasonally monogamous, nest on steep rock faces
- Lay up to four greenish eggs, young fledge in 42-50 days
- Learn migration routes by following experienced birds



QUASARS

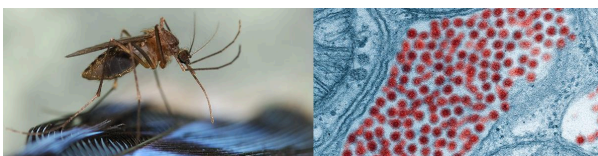
- Astronomers identified the "brightest" and "most luminous" quasar using ESO's VLT
- Quasar: extremely active and luminous type of active galactic nucleus (AGN)
- AGN is a feeding supermassive black hole at a galaxy's center
- All quasars are AGNs, but not all AGNs are quasars
- Name origin: "quasi-stellar radio source"
- Intense source of X-rays and visible light
- Form in regions with higher-than-average matter density
- Created when a supermassive black hole consumes large amounts of matter

- Matter forms a spiraling accretion disk around the black hole
- Friction in disk generates extreme heat, causing bright shine
- Some material funneled away in luminous, magnetically collimated jet
- Can outshine all stars in their host galaxies
- Most quasars found billions of light-years away



EASTERN EQUINE ENCEPHALITIS (EEE) :

- **Eastern Equine Encephalitis (EEE):** A rare, serious, and often fatal infection caused by the EEE virus (EEEV) that leads to brain inflammation.
- **Transmission:** Spread through mosquito bites from mosquitoes that feed on infected birds and mammals.
- **Symptoms:** Can be asymptomatic or severe, including headache, high fever, chills, vomiting, disorientation, seizures, encephalitis, and coma, with severe cases often resulting in death or permanent neurologic damage.
- **Treatment:** No vaccines or specific treatments; supportive care includes hospitalization, respiratory support, intravenous fluids, and infection prevention.



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August 29, 2024

PM 2.5 POLLUTION IN INDIA DECREASED IN INDIA

Syllabus : GS3/Environmental Pollution & Degradation

Why in the news : A study by the Energy Policy Institute at the University of Chicago (EPIC) found that favorable meteorological conditions and slightly reduced emissions led to a decrease in PM_{2.5} pollution in India between 2021 and 2022. This, in turn, has contributed to a one-year increase in the country's average life expectancy

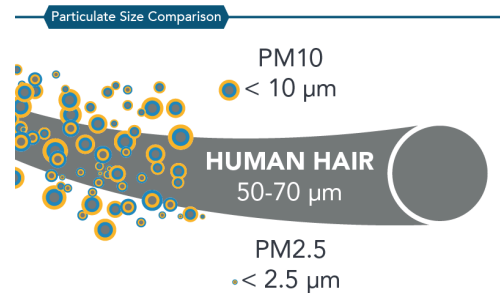
What are WHO's revised air quality guidelines 2021?

- **WHO 2021 Air Quality Guidelines (AQG):** Strengthened air quality recommendations issued in September 2021.
- **Six Pollutants:** Guidelines cover ozone, nitrogen dioxide, sulphur dioxide, carbon monoxide, PM₁₀, and PM_{2.5}.
- **Stricter Levels:** Recommended pollutant levels are lower than the previous 2005 guidelines.
- **Non-Binding:** These guidelines are not legally binding on any country.

What are the key highlights of the report?

- **Report Overview:** The "Air Quality Life Index" 2024 by EPIC, University of Chicago, assesses global air quality, highlighting successes and failures in policy.
- **India's Pollution Reduction:** India saw a 19.3% drop in PM_{2.5} pollution in 2022 compared to 2021, second only to Bangladesh, adding 51 days to life expectancy.
- **Need for WHO Standards:** Indians could lose 3.6 years of life expectancy if WHO's PM_{2.5} standard of 5 µg/m³ isn't met; 2022 levels were 9 µg/m³.
- **Significant Reductions:** Largest PM_{2.5} declines were in districts like Purulia, Bankura (West Bengal), and several in Jharkhand.
- **Population Exposure:** 42.6% of India's population still lives in areas exceeding national air quality standards.
- **National Clean Air Programme (NCAP):** Districts under NCAP saw a 19% average PM_{2.5} reduction; the programme aims for a 40% reduction by 2026.
- **Innovative Policies:** Gujarat's particulate pollution market reduced pollution by 20-30%; India's clean cooking program (PMUY) and

reduced diesel use in transport also contributed to emission declines.



What is PM 2.5?

- PM 2.5 is an atmospheric particulate matter of diameter of fewer than 2.5 micrometres, which is around 3% the diameter of a human hair.
- PM 2.5 particles are small enough to penetrate deep into the lungs and even enter the bloodstream, and long-term exposure to PM 2.5 can lead to lung cancer, heart disease, stroke, and other chronic health conditions.

Pollutant	Averaging Time	2005 AQGs	2021 AQGs
PM _{2.5} , µg/m ³	Annual	10	5
	24-hour ^a	25	15
PM ₁₀ , µg/m ³	Annual	20	15
	24-hour ^a	50	45
O ₃ , µg/m ³	Peak season ^b	-	60
	8-hour ^a	100	100
NO ₂ , µg/m ³	Annual	40	10
	24-hour ^a	-	25
SO ₂ , µg/m ³	24-hour ^a	20	40
CO, mg/m ³	24-hour ^a	-	4

Fig : Recommended 2021 AQG levels compared to 2005 air quality guidelines

SMART CITIES UNDER THE NATIONAL INDUSTRIAL DEVELOPMENT PROGRAMME

Syllabus : GS3/Infrastructure

Why in the news : Government has approved 12 new industrial smart cities under the National Industrial Corridor Development Programme (NICDP).

About the New Industrial Smart Cities Project :

- Projects span across ten states in India.
- Strategically planned along six major corridors.
- Locations include:
 - Khurpia in Uttarakhand
 - Gaya in Bihar
 - Rajpura-Patiala in Punjab
 - Zaheerabad in Telangana
 - Dighi in Maharashtra

- Orvakal and Koppurthy in Andhra Pradesh
- Palakkad in Kerala
- Jodhpur-Pali in Rajasthan
- Agra and Prayagraj in Uttar Pradesh.

What are the key highlights?

- **Strategic Investments:** NICDP aims to create a dynamic industrial ecosystem by attracting investments from both large industries and MSMEs.
 - These industrial nodes aim to contribute to achieving \$2 trillion in exports by 2030, aligning with the vision of a self-reliant, competitive India.
- **Smart Cities and Modern Infrastructure:** New industrial cities will be developed as greenfield smart cities of global standards, based on ‘plug-n-play’ and ‘walk-to-work’ concepts.
 - The cities will be equipped with advanced infrastructure to support sustainable and efficient industrial operations.
- **Area Approach on PM GatiShakti:** Projects will align with the PM GatiShakti National Master Plan, featuring multi-modal connectivity infrastructure for seamless movement.
 - These industrial cities are designed to be growth centers, transforming the entire region.

What is the significance?

- **Global Value Chains:** NICDP aims to position India as a key player in global value chains by offering developed land parcels for immediate allotment, attracting domestic and international investors.
- **Investment Expectations:** Projects are anticipated to attract around Rs 1.52 trillion from large industries and MSMEs.
- **Economic Impact and Employment:** The initiative is expected to create 1 million direct and 3 million indirect jobs.
- **Sustainable Development:** The government plans to build industrial cities with quality, reliable, and sustainable infrastructure, promoting both economic activity and environmental stewardship.

NATIONAL INDUSTRIAL CORRIDOR DEVELOPMENT PROGRAMME

- **Ambitious Infrastructure Programme:** India’s NICDP is designed to develop new industrial cities as “Smart Cities” integrating next-generation technologies.
- The goal is to create futuristic industrial cities that can rival top manufacturing and investment destinations worldwide.

- **Economic and Social Impact:** The initiative aims to generate employment and spur economic growth, contributing to overall socio-economic development.
- **Project Scope:** The program includes 32 projects across 4 phases and 11 corridors, as part of the National Infrastructure Pipeline.

INDIA’S PHARMACY SECTOR TO REACH \$130 BILLION BY 2030

Syllabus : GS3/Economy

Why in the news : Union Minister of State for Commerce and Industry, has stressed that the country’s pharmaceutical sector will touch the 130 billion US dollar mark by 2030.

What is the scenario of the Pharmaceutical Sector of India?

- **Industry Value:** India’s pharmaceutical industry is valued at \$50 billion.
- **Major Segments:** Includes generic drugs, OTC medicines, bulk drugs, vaccines, contract research & manufacturing, biosimilars, and biologics.
- **Global Ranking:** The third largest in the world by volume and 14th by value.
- **GDP Contribution:** Contributes approximately 1.72% to India’s GDP.
- **API Production:** India is the third largest producer of APIs, holding an 8% share of the global API industry.

What is the significance of the Pharma sector of India?

- **Vaccine Production:** India produces 60% of global vaccines, fulfilling 70% of WHO’s DPT and BCG vaccine demands, and 90% of the measles vaccine demand.
- **Generic Supply:** Supplies over 50% of Africa’s generics, ~40% of US generic demand, and ~25% of UK medicines.
- **FDI Inflow:** Cumulative FDI equity inflow of \$22.52 billion (2000-2024), about 3.4% of total sector inflows.
- **Global Position:** Largest global provider of generics with a 20% share in volume and leading vaccine manufacturer; recognized as the “pharmacy of the world” for its cost-effective and high-quality medicines.

What are the challenges associated?

- **Intellectual Property Disputes:** Frequent conflicts with multinational corporations due to India's patent laws, particularly compulsory licensing and Section 3(d) of the Indian Patent Act.
- **Import Dependence:** Vulnerabilities from reliance on imports for APIs and KSMs, exposing the industry to supply chain and price fluctuations.
- **Skilled Workforce:** Need for a highly skilled workforce for R&D, operations management, and quality control.
- **Quality Concerns:** Issues with drug quality, with a CDSCO survey (2014-2016) indicating about 5% of Indian drugs failed quality tests.

KEY GOVERNMENT INITIATIVES :

- **PLI Scheme for Pharmaceuticals:** Implemented with a budget of Rs. 15,000 crore (US\$ 2.04 billion) from 2020-21 to 2028-29 to enhance manufacturing, investment, and product diversification.
- **PMBJP:** Provides quality generic medicines at affordable prices through Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJK).
- **Strengthening of Pharmaceutical Industry (SPI):** Active from FY 21-22 to FY 25-26, supports Pharma clusters and MSMEs in improving productivity, quality, and sustainability.
- **Scheme for Promotion of Bulk Drug Parks:** Aims to provide world-class infrastructure in drug parks, reducing manufacturing costs and increasing self-reliance.
- **FDI in Pharmaceuticals:** 100% FDI is allowed under the automatic route for greenfield projects, and up to 74% for brownfield projects, with further investment requiring government approval.

HIMACHAL PRADESH INCREASES MINIMUM AGE FOR WOMEN TO 21 YEARS

Syllabus : GS2/Government Policies

Why in the news : The Himachal Pradesh Assembly has passed the Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024. The Bill proposed to raise the minimum age of marriage for women from 18 to 21 years

What is this about?

- Himachal Pradesh Assembly has approved the Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024.
- The Bill aims to raise the minimum legal marriage age for women from 18 to 21 years.
- **It amends the Prohibition of Child Marriage (PCM) Act, which was initially passed by Parliament in 2006.**

What is the debate around the minimum age for marriage for girls?

- **Rising Demand:** Growing calls to raise the minimum marriage age for girls to 21 due to social, economic, and health factors.
- **Higher Education:** More time for girls to complete education, enhancing career opportunities.
- **Empowerment:** Delayed marriage fosters skill development and financial independence for women.
- **Maternal Health:** Delaying marriage reduces early pregnancies, lowering risks of maternal and infant mortality.
- **Maturity:** Girls attain physical and emotional maturity, leading to safer pregnancies and healthier outcomes.
- **Child Development:** Mothers are better prepared emotionally and economically, providing better care for children.
- **Combating Child Marriage:** Helps address issues like domestic violence, lack of education, and poverty.
- **Workforce Participation:** Delayed marriage boosts women's workforce participation, aiding economic growth.

What are the challenges associated?

- **Equal Marriage Age :** The Bill raises the minimum marriage age for females to 21, aligning it with the age for males.
- **Majority Age Discrepancy :** The legal age of majority remains 18 under the Majority Act, 1875.
- **Potential Consequences :** The difference in ages could impact the rights and responsibilities of individuals aged 18 to 21.

SC Rulings on Marriage Rights:

1. In 2018, the Supreme Court declared that the right to marry is part of the right to life under Article 21 of the Constitution.
2. The Court also held that consensual marriage between adults is a

manifestation of their choice, protected under Articles 19 and 21.

- **Restriction Concerns:**
 1. The Bill restricts the right to marry before the age of 21, raising questions about the reasonableness of this restriction for those aged 18-21.
 2. For restricting fundamental rights, there must be a public purpose, a direct connection with the purpose, and no less intrusive means to achieve it.
- **Implementation Challenges:**
 1. Limited success in preventing marriages below 18 years suggests potential challenges in enforcing the new age limit.
 2. In 2020, only 785 cases were registered under the 2006 Act, indicating low detection rates of underage marriages.

How did Himachal Pradesh make a law on this issue?

- **Amendment Proposal:** The Himachal Pradesh Bill proposes to raise the minimum marriage age for women to 21 years, conflicting with the central law, which sets it at 18.
- **Concurrent List:** Marriage falls under the Concurrent List, allowing both central and state governments to legislate on it.
- **Constitutional Conflict:** Under Article 254(1) of the Constitution, any state law conflicting with central law becomes void unless the President gives assent under Article 254(2).
- **Presidential Assent:** The Governor of Himachal Pradesh must reserve the Bill for the President's consideration, making the President's assent crucial for it to become law, similar to the process with Uttarakhand's Uniform Civil Code (UCC) Bill.

PRELIMS

ARALAM WILDLIFE SANCTUARY :

- **Location:** Aralam Wildlife Sanctuary is in the northern Western Ghats of Kerala.
- **Contiguity:** Borders Wayanad-Brahmagiri, Wayanad northern slopes, and Karnataka's Brahmagiri and Coorg forests.
- **Rivers:** Main drainage by Cheenkannipuzha, with Narikkadavu thodu, Kurukkathodu, and Meenumuttithodu.

- **Vegetation:** Includes evergreen, semi-evergreen, moist deciduous, and hilltop evergreen forests, plus plantations.
- **Protected Area:** Only area in the West Coast Tropical Evergreen forest of Dipterocarpus-Mesua-Palaquium type.
- **Highest Peak:** Katti Betta.
- **Flora:** Major species include Artiocarpus heterophyllus, Bishofia javanica, Calophyllum elatum, and others.

AGRICULTURE INFRASTRUCTURE FUND (AIF) :

- **Central Sector Scheme:** AIF launched in 2020.
- **Objective:** Provides debt financing for post-harvest management and community farming projects.
- **Duration:** Scheme runs from FY2020 to FY2032 (10 years).
- **Eligible Entities:** PACS, Marketing Co-ops, FPOs, Farmers, SHGs, JLGs, Startups, PPP Projects.
- **Exclusions:** PSUs are not directly eligible, except under PPP.
- **Financial Institutions:** Banks, NBFCs, NCDC participate in providing financing.
- **Interest Subvention:** 3% per annum on loans up to ₹2 crores for 7 years.
- **Project Limit:** 25 projects per applicant, with loans up to ₹2 crores each.
- **Contribution Requirement:** Borrowers must contribute at least 10% of the project cost.
- **Moratorium:** Repayment moratorium ranges from 6 months to 2 years.
- **SC/ST Allocation:** 24% of grants earmarked for SC/ST entrepreneurs.
- **Credit Guarantee:** Coverage up to ₹2 crores under CGTMSE, fee paid by the government.
- **FPOs:** Credit guarantee under the DACFW's FPO promotion scheme.

August 30, 2024

LATERAL ENTRY INTO CIVIL SERVICES

Syllabus : GS2/Governance

Why in the news : Recently, the Union Public Service Commission (UPSC) withdrew an advertisement for lateral recruitment to 45 government posts.

What is the “Lateral Entry” in Civil services?

- **Lateral entry in administration:** Appointment of specialists from the private sector into government roles.
- **Recommendations:** Proposed by NITI Aayog’s Three-year Action Agenda and supported by the Group of Secretaries (GoS) on Governance.
- **Objectives:**
 1. Domain expertise: Introduce specialized knowledge into civil services.
 2. Addressing IAS shortage: Mitigate the lack of IAS officers at the Centre.
- **Government Aim:** Recruit top individuals with expertise in various sectors like revenue, financial services, agriculture, transport, and more to enhance governance.

What is the process of Lateral Entry Recruitment?

- **Selection Process:** The Union Public Service Commission (UPSC) oversees the selection process for lateral entry into administration.
- **Role of DoPT:** The Department of Personnel and Training (DoPT) requests the UPSC to conduct the selection for various government positions.
- **Application Process:** UPSC invites online applications for these lateral recruitment positions.
- **Interviews:** UPSC shortlists candidates, conducts interviews, and recommends selected candidates to the DoPT.
- **Appointment:** The Government appoints the recommended candidates, usually for a tenure of 3 to 5 years.

What is the need for Lateral Entry?

- **Officer Shortage:** There is a 22.48% shortage of IAS officers, amounting to 1,510 officers, as per the DoPT.
- **Combined Deficit:** The IAS and IPS together face a shortage of 2,418 officers.
- **Domain Expertise:** Lateral entry enables the recruitment of domain experts from the private sector into central administration.

- **Efficiency Boost:** Bringing in experts can enhance efficiency and foster a competitive environment in governance.

What are the advantages of Lateral Entry in Civil services?

- **Expertise and Specialization:** Lateral entry brings professionals with specialized knowledge from the private sector, improving policymaking and governance quality.
- **Innovation and Fresh Perspectives:** Diverse backgrounds introduce new ideas, enhancing efficiency and effectiveness in public administration.
- **Merit-Based Selection:** Prioritizes skills and experience over seniority, fostering a performance-driven culture in civil services.
- **Shortened Learning Curve:** Experienced professionals can adapt quickly, reducing the need for extensive training compared to career bureaucrats.

What are the disadvantages of Lateral Entry in Civil Servants?

- **Cultural and Bureaucratic Resistance:** Traditional civil services might resist lateral entrants, leading to friction and integration challenges.
- **Lack of Public Sector Experience:** Lateral entrants may struggle with government protocols and the complexities of public administration, impacting their effectiveness.
- **Potential for Bias:** The lateral entry selection process could be seen as biased or politically influenced, raising concerns about transparency.
- **Short-Term Focus:** Lateral entrants might prioritize short-term goals over long-term public service commitments, potentially affecting policy continuity and sustainability.

What should be the way forward?

- **Higher Scrutiny:** Ensure careful monitoring of appointments at the secretary level to positively influence policy decisions.
- **Integration with Public Policy:** Align lateral entrants at operational levels with public policy objectives for cohesive governance.
- **Balancing Merit with Social Justice:** Combine technical competence with considerations for reservation and social justice in appointments, following the principles highlighted by Michael Sandel.

GENDER BUDGET 2024-25

Syllabus : GS3/Economy

Why in the news : In the 2024-25 Budget, the Finance Minister emphasized women-led development, highlighting a strong commitment to women's empowerment.

What is the scenario of Gender Budget in India?

- **Gender Budgeting Definition:** A policy strategy that integrates a gender perspective into the budgetary process.
- **Objective:** Assesses how government spending and resource allocation impact men and women differently.
- **Goal:** Promotes gender equality by ensuring equitable distribution of public resources across all genders.
- **Tool for Gender Mainstreaming:** Applies a gender lens to the entire policy process.
- **Components:** Involves gender-sensitive formulation, resource allocation, and continuous monitoring to address women's vulnerabilities throughout their life cycle

What is the need for Gender Budgeting?

- **Persistent Gender Disparities:** Despite progress, significant gender gaps remain in education, health, employment, and political participation.
- **Need for Gender Budgeting:** Essential to address these disparities and ensure women's specific needs are considered in policy-making.
- **Promotes Accountability:** Gender budgeting fosters accountability in achieving gender equality objectives.

GENDER BUDGET :

—**Introduction in India:** Gender budgeting was introduced in India in 2005-06 by the Ministry of Women and Child Development with support from the Ministry of Finance.

—Classification of Allocations:

- Part A: 100% of the budget allocated for women.
- Part B: At least 30% of the budget allocated for women.
- Part C: Up to 30% of the funds allocated to women.

—Implementation:

- **Central Level:** Led by the Ministry of Women and Child Development.
- **State/Union Territories:** Implemented by Departments of Women and Child Development, Social Welfare, Finance, or Planning.
- **District Level:** Empowerment of Women hubs

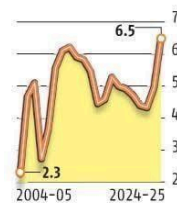
coordinate and have at least one gender specialist.

What are the highlight of the Gender Budget 2024-25?

- **2024-25 Allocation:** Gender budgeting reaches 1% of GDP, with ₹3 lakh crore for pro-women schemes.
- **Historical Average:** Gender Budget Statement (GBS) consistently accounts for about 5% of the total budget, rising to 6.8% in 2024-25.
- **Increase Drivers:**
 - Part C: Includes schemes with less than 30% allocation for women, such as PM Kisan.
 - Part A: Share rises to nearly 40% due to reclassification of schemes like PMAY from Part B.
- **Reporting Issues:**
 - Over-Reporting: Seen in schemes like PM Employment Generation Programme (PMEGP), with unexplained allocations.
- **Under-Reporting:** Notable in schemes like National Rural Livelihoods Mission (NRLM), where actual spending on women is not fully captured.
- **Examples:** Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) shows discrepancies between actual benefits and reported allocations.

A GIANT LEAP

Gender budget as a % of total expenditure



Source: Budget documents

HUGE BOOST FOR RURAL HOUSING

Scheme Allocation (in ₹ cr)

Rural Housing (PMAY)	54,500.14
Jal Jeevan Mission	34,162.32
MGNREGS	28,888.67
Saksham Anganwadi and Poshan 2.0	15,900
National Health Programme*	15,456.38
NRLM-Aajeevika	15,047
Samagra Shiksha	11,250
LPG connection to poor households	9,094
PM POSHAN	6,233.7
Rooftop Solar	4,555.83
Ayushman Bharat- PMJAY	3,600

*National Health Programme and National Urban Health Mission, Flexible pool for RCH and Health System Strengthening; Note: Figures are BE for FY25
Source: Budget document

VEHICLE SCRAPPING POLICY

Syllabus : GS3/Economy

Why in the news : The Ministry of Road Transport and Highways has launched the Voluntary Vehicle Modernization Program or Vehicle Scrapping Policy to create an ecosystem for phasing out unfit polluting vehicles across the country.

What is this about?

- **Implementation:** The program will be executed through Registered Vehicle Scrapping Facilities (RVSFs) and Automated Testing Stations (ATSs).

- **Current Facilities:** Over 60 RVSFs in 17 States/UTs and 75 ATSS in 12 States/UTs are operational.
- **Incentives:** Fleet modernization and circular economy goals lead to discounts from vehicle manufacturers for a limited time against a Scrappage Certificate.
- **Discount Duration:** Commercial vehicle manufacturers offer discounts for two years, while passenger vehicle manufacturers offer them for one year.

What are the advantages of Vehicle Scrapping Policy?

- **Increased Demand for New Cars:** Scrapping old vehicles will boost demand for new ones, with over 51 lakh vehicles over 20 years old.
- **Job Creation:** Setting up scrapping centers and rising vehicle sales will create jobs in manufacturing, services, and recycling.
- **Improved Air Quality:** Removing unfit vehicles will reduce air pollution and enhance air quality.
- **Optimal Scrap Pricing:** Vehicle owners will receive competitive prices for scrapped parts, and the recycling sector will see increased activity and revenue.
- **Enhanced Fuel Efficiency:** Newer vehicles are typically more fuel-efficient, saving fuel and reducing reliance on fossil fuels.

What are the challenges associated?

- **Financial Burden:** Replacing older vehicles can be costly for lower-income owners, even with incentives.
- **Waste Management Issues:** Scrapping a large number of vehicles poses challenges in managing hazardous waste, including batteries and oils.
- **Market Disruptions:** The increased scrapping and demand for new vehicles may disrupt the automotive market, affecting prices and demand.

What is the way ahead?

- **Accessibility:** Ensure scrapping centers are easily reachable, especially in rural and semi-urban areas.
- **Policy Review:** Regularly review and adjust the policy based on technological advancements and environmental needs.
- **Support for Affected Workers:** Provide retraining, financial aid, or transition opportunities for small businesses and unorganized sector workers impacted by the policy.

PRELIMS

INS ARIGHAAT

- **Technological Upgrades:** INS Arighaat features advanced design and manufacturing improvements over INS Arihant.
- **Construction:** Incorporates advanced technology, special materials, and indigenous systems developed by Indian scientists and industry.
- **Strategic Importance:** Enhances India's nuclear triad, strengthening nuclear deterrence and maintaining regional strategic balance.
- **INS Arihant:** First of its kind, commissioned in 2016 after launching in 2009.
- **Arms:** Equipped with K-15 SLBM (750 km range) and developing K-4 SLBM (3,500 km range).
- **Nuclear Triad:** Completion announced in November 2018.
- **Future Submarine:** A third, larger, and more capable submarine is under construction.



SHe-Box

- **SHe-Box Portal:** Launched by the Union Ministry of Women and Child Development to address workplace sexual harassment complaints.
- **Centralized Repository:** Compiles information on Internal Committees (ICs) and Local Committees (LCs) across sectors.
- **Complaint Management:** Provides a unified platform to file, track, and process complaints within a set timeframe.

- **Real-Time Monitoring:** Nodal officer will oversee complaints and ensure effective redressal and streamlined processes.



BONDA TRIBE

- **Historic Achievement:** An Odisha tribal boy from the Bonda tribe clears the NEET exam and is set to pursue an MBBS program.
- **Bonda Tribe:** Inhabits Malkangiri district, Odisha, known for their geographical isolation and ancient cultural practices.
- **Identity:** Refers to themselves as 'Remo,' symbolizing independence and freedom.
- **Cultural Traits:** Men are recognized for bravery, often carrying traditional weapons like bows and arrows.
- **Language:** Bonda language is part of the Austro-Asiatic language group.
- **Dormitory System:** The tribe practises separate dormitories for men and women, used for socialising, rituals, and discussions.

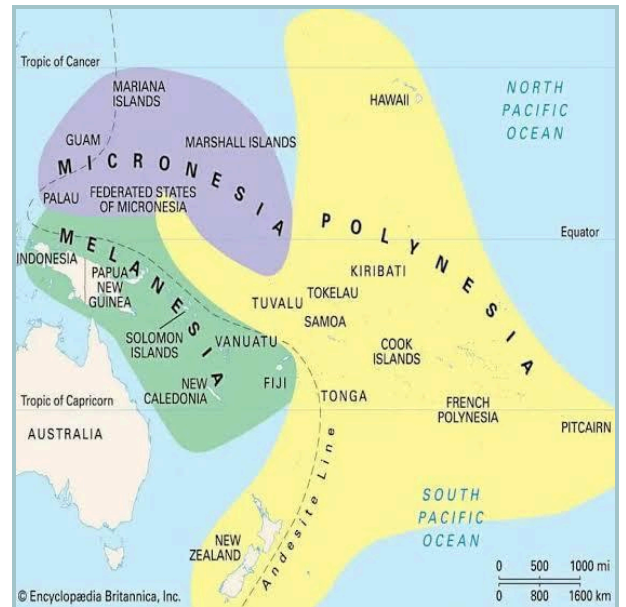


PACIFIC ISLANDS FORUM (PIF)

- **Event Location:** The annual Pacific Islands Forum (PIF) meeting is held in Nuku'alofa, Tonga.
- **Attendance:** Over 1,500 delegates from around 40 countries are participating.
- **Agenda Focus:** Climate change is a key topic, with many PIF members facing severe impacts like rising sea levels.
 - About PIF:
 - Formed in 1971.
 - Consists of 18 member states in the

Pacific region.

- Member states include Australia, Cook Islands, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.
- **Objectives:** Aims to promote economic growth, enhance political governance and security, and boost regional cooperation.
- **Meeting Chair:** Annual meetings are chaired by the Head of Government of the host country, serving as the Forum Chair until the next meeting.
- **Decision-Making:** Decisions are reached by consensus and implemented by the Pacific Islands Forum Secretariat.



CYCLONE ASNA

Syllabus : GS1/Geography

Why in the news : As per the India Meteorological Department (IMD) Cyclone Asna has formed over the Kutch coast in Gujarat and adjoining areas of Pakistan.

About Cyclone Asna :

- This is the first cyclonic storm in the Arabian Sea in August since 1976.
- The name Asna, which means “the one to be acknowledged or praised”, has been given by Pakistan.
- Between 1891 and 2023, only three cyclonic storms formed in the Arabian Sea in August (in 1976, 1964, and 1944).

Evolution of BRICS Summit :

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Eee6eee6reeeeeeeeeee6t6rt6rrrt6rrr6r

6r6r6rrrrrr6rrrrrrr6sThe grouping was first informally formed during a meeting of the leaders of BRIC (Brazil, Russia, India, and China) countries on the sidelines of the G8 Outreach Summit in St.Petersburg, Russia, in 2006. Later that year, it was formalised during the 1st BRIC Foreign Ministers' Meeting in New York.

- **2009:** The first BRIC (BRICS minus South Africa) summit was held in Yekaterinburg, Russia.
- **2010:** South Africa was accepted as a full member, and the group became BRICS.
- **2011:** South Africa attended its first BRICS summit in China.
- **2014:** The **Fortaleza Declaration** was adopted at the 6th BRICS Summit, and it marked the establishment of the New Development Bank (NDB).
- **2015:** The Ufa Declaration of BRICS was adopted at the 7th BRICS Summit held in Ufa, Russia. It covers a range of topics, including global governance, international security, and economic cooperation.
- **2021:** The 13th BRICS Summit was held under India's Chairship (virtual summit). It was the third time that India hosted the BRICS Summit after 2012 and 2016.

- **2022:** The **Beijing Declaration** was adopted at the 14th BRICS Summit, where it was declared that the BRICS countries support talks between **Russia and Ukraine**.
 - Also, cooperation in the fight against COVID-19, digital transformation, resilience and stability of industrial and supply chains, and low-carbon development.

How does the BRICS expansion take place?

- Incentives for official participation in BRICS have increased in 2023. Although “BRICS Plus” was created in 2017 and invited non-BRICS officials, over the last two years, China has supported the concept of expanding cooperation within the ‘BRICS Plus.’ Model.
- Moscow has also mentioned the potential expansion of BRICS members from 5 to 17 nations. About 40 additional countries are believed to have expressed interest in joining and include heavy hitters such as Argentina, Egypt, Indonesia, Iran, Nigeria, Saudi Arabia, Turkiye, and the UAE.
- In the meantime, in addition to reviewing the collective decision of the organisation and having the necessary conditions and procedures for the process of accepting new members, the structure of BRICS and the process of accepting new countries may change with the joining of more countries.

What is the significance of BRICS?

- **Economic Cooperation:** BRICS facilitates economic collaboration through initiatives such as the **New Development Bank (NDB)**, aimed at funding infrastructure projects in member countries.
 - Economic collaboration within BRICS facilitates trade diversification, technology transfer, and infrastructure development, which are crucial for India's economic growth and development aspirations.
- **Global Governance Reform:** India uses BRICS as a platform to advocate for reforms in international financial institutions like the IMF and World Bank, aiming to increase the voice and representation of emerging economies in global economic governance.
- **Cultural and Academic Exchange:** BRICS fosters cultural and academic exchanges, promoting people-to-people ties and enhancing mutual understanding among member countries.

About the New Development Bank (NDB) :

- NDB is a **multilateral development bank** established by BRICS with the purpose of mobilising resources for infrastructure and sustainable development projects in **emerging markets and developing countries (EMDCs)**.
- The Agreement was signed during the BRICS Summit held in **Fortaleza in 2014**, and the Bank started operations in 2015.
- **Headquarters:** Shanghai, China, with regional offices in South Africa and Brazil.
- Apart from the founding members, **Bangladesh and United Arab Emirates, Egypt, and Uruguay** are the new members. The membership is open to members of the United Nations.
- The voting power of each member shall equal its subscribed shares in the capital.
- However, the share of the **BRICS nations can never be less than 55% of the voting power**. Also, none of the countries will have veto power.
- NDB has so far **committed \$32.8 billion** to 96 infrastructure and sustainable development projects.

About the BRICS Payment System :

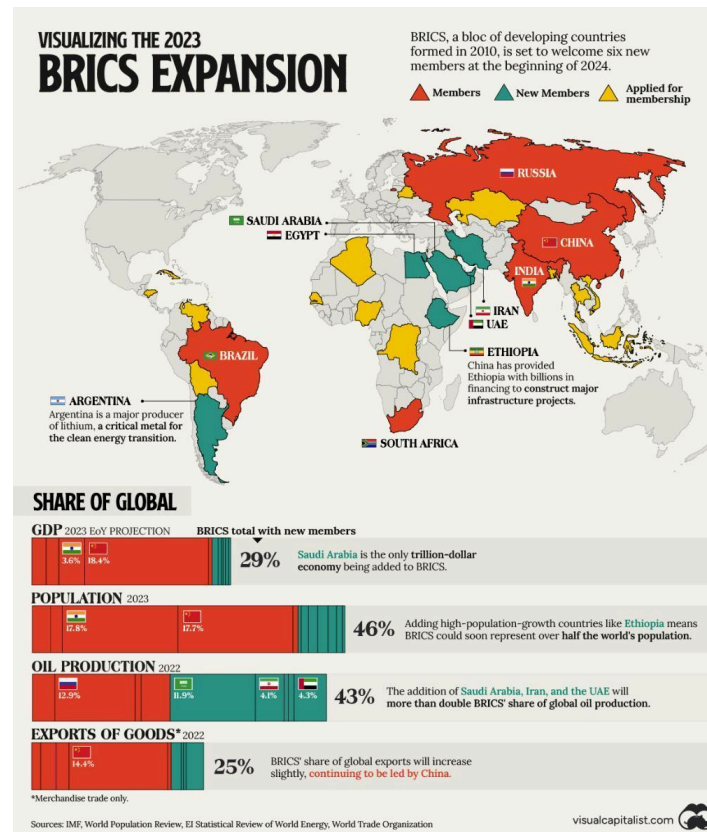
- The BRICS nations are working towards establishing a payment system that can serve as a substitute for the **SWIFT payment system**.
- It is considered an alternative to the dollar-dominated payment system to reduce the dependence on the dollar-based system.

India and BRICS :

India is an important member of the BRICS group, and its participation in the organisation has been beneficial in many ways. Some of the key reasons why BRICS is important for India are:

- **Strategic cooperation:** BRICS offers India a key platform for global engagement on security, terrorism, climate, and trade.
- **Economic benefits:** As a BRICS member, India gains access to a large market of 3+ billion people, offering vast business opportunities. NDB funding supports India's development projects.
- **Reform of multilateral institutions:** As a member of BRICS, India has been able to work with other member countries to promote a more inclusive and equitable global order by promoting multilateral reforms.
- **South-south cooperation:** India, as a leading member of BRICS, has been able to use the platform to promote south-south cooperation in areas such as trade, investment, and technology transfer.

- **Pillar of the New World Order:** In the fifteenth BRICS Summit, after its expansion, the leaders called BRICS the pillar of the New World Order.
- **Dilemma:** However, the challenge before India is to choose between a China-centric or a West-centric world order or balance the two.



ETHANOL PRODUCTION

Syllabus : GS3/Economy

Why in the news : Cereal Grains have overtaken sugarcane as the primary feedstock for the production of ethanol used in blending with petrol.

About :

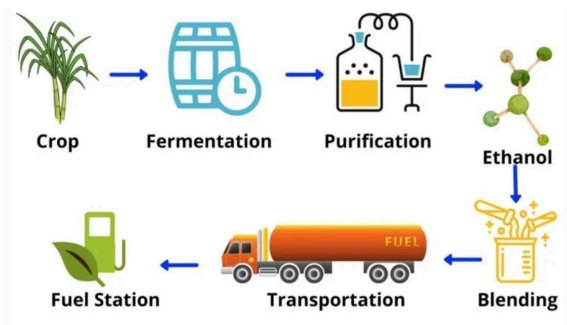
- In the current supply year **2023- 2024**, sugar mills and distilleries supplied **401 crore liters of ethanol** to oil marketing companies.
- Of that, **211 crore litres or 52.7%** was ethanol produced using maize and damaged foodgrains (mainly broken/ old rice not fit for human consumption), while **sugarcane-based feedstocks** (molasses and whole juice/ syrup) accounted for the remaining **190 crore liters**.
- This is the first time that the contribution of grains to India's ethanol production has surpassed **50%**.

What is Ethanol?

- Ethanol is **99.9%** pure alcohol that can be blended with petrol.
- Alcohol production involves **fermentation of sugar** using yeast. In cane juice or molasses, sugar is present in the form of **sucrose** that is **broken down into glucose and fructose**.
- Also grains contain starch, a carbohydrate that has to **first be extracted and converted** into sucrose and simpler sugars, before their further fermentation, distillation and dehydration to ethanol.

What Ethanol Blending?

- The '**National Policy on Biofuels**' notified by the government in 2018 envisaged an indicative target of 20% ethanol blending in petrol by 2030.
 - In **2014 only 1.5%** ethanol was blended in petrol in India.
- Given the encouraging performance and various interventions made by the government since 2014, the **20% target was advanced to 2025-26**.



What is the significance of Maize being promoted to produce Ethanol?

- Till 2017-18, ethanol was being produced only from **molasses**, the dense dark brown liquid byproduct containing sucrose that mills cannot economically recover and crystallise into sugar.
- However Sugarcane is a **water-guzzling crop**. A NITI Aayog report says that just **one litre of ethanol produced** from sugarcane consumes at least **2,860 litres of water**.
- India will require **1320 million tons of sugarcane, 19 million hectares of additional land and 348 billion cubic metres of extra water** to produce enough ethanol to meet the 20% ethanol blending target of 2025.
- Further the **Food Corporation of India's (FCI)** has restricted the use of rice on concerns over cereal inflation and hence maize has emerged as the top ethanol feedstock.

PROJECT TIGER

Syllabus : GS3/Environment

Why in the news : Project Tiger is expected to displace at least 550,000 Scheduled Tribes and other forest dwellers.

About Project Tiger :

- India has achieved significant progress in protecting its national animal, the Bengal tiger, through initiatives such as Project Tiger, which was **initiated in 1973** as a Centrally Sponsored Scheme across nine reserves in various states (Assam, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh, and West Bengal).
- The project focuses on selecting and preserving areas that are specifically managed to conserve the tiger population and their associated ecosystems. Project Tiger has placed the endangered wild tigers of India on a secure path to recovery and has successfully completed 50 years of implementation.
- Over the past five decades, India's Project Tiger has made remarkable advancements in tiger conservation.

What is the impact on the Tribes?

- **Displacement:** the establishment of tiger reserves often leads to the displacement of local communities.
 - Since 2021, displacement has significantly increased, with an average of 48,333 people displaced from each reserve, a 967% rise compared to pre-2021 figures.
- **Loss of Livelihood:** When tribal communities are uprooted from their ancestral lands, they lose their livelihoods.
 - Traditional practices like hunting, fishing, and gathering food become impossible.
 - Victims face severe human rights abuses including extra-judicial killings, enforced disappearances, torture, and other forms of violence.
- **Cultural Disruption:** Displacement disrupts cultural practices, access to sacred sites, and burial grounds. Indigenous knowledge about forests and wildlife is also lost.
- **Lack of Consent:** the lack of free, prior, and informed consent from affected communities before designating areas as tiger reserves.
 - Consent is only sought after displacement, not before.

What should be done?

- **Policies should prioritise coexistence** rather than displacement. Involving local communities in conservation efforts can lead to better outcomes.
- **Seek consent** from affected communities before designating an area as a tiger reserve.
- **Provide alternative livelihood** options to displaced families.
- Striking a **balance between tiger protection and human well-being** is crucial.
- India's tiger conservation policy must evolve to protect both tigers and the people who share their habitat.
- By addressing displacement, respecting indigenous rights, and fostering community participation, we can achieve a harmonious coexistence between humans and wildlife.
 - For example, In Biligiri Rangaswamy Temple Tiger Reserve (Karnataka), The Soliga tribal people successfully coexist with tigers, with the tiger population increasing significantly from 35 to 68 between 2010 and 2014.



PRELIMS

DROPOUCHE FEVER

- Recently, **Brazil** has reported the first-ever deaths from **Oropouche Fever**, a **mosquito-borne disease** with symptoms **similar to dengue**.

- It is caused by the **Oropouche virus**, which belongs to the **Orthobunyavirus genus**. It was **first detected in Trinidad and Tobago** back in 1955.
- **Transmission:** The Oropouche virus primarily spreads through the bite of a tiny insect called the **Culicoides Paraensis Midge**.
 - These minuscule midges are **stealthy and efficient carriers of this virus**.
 - However, **there's no evidence of human-to-human transmission**.
- **Symptoms:** Symptoms are eerily **similar to dengue—think fever, chills, muscle pain, and joint discomfort**.

INTERNSHIP PROGRAM IN THE BUDGET 2024

- **The industries and the academia** are waiting for the **details of the internship programme** announced in the **Union Budget by the Finance Minister** recently.
- The details of the internship programme are not yet out.
- The Budget announcement says that the government **will bear a large part of the cost** and companies will have to **fund 10% from their corporate social responsibility (CSR) fund**.
- It will make it very easy for the companies. Internships and apprenticeships are strategic **tools of up-levelling skills and building the right talent for the company**.

STURGEON

- The WWF report documented 395 cases of illegal sturgeon fishing and trade affecting 1,031 sturgeon individuals from 2016 to 2023.

- Sturgeons are the most endangered species group



on earth.

- These gentle giants have been around since the age of the dinosaurs.
- They usually live in freshwater, coastal waters and inner seas throughout Azerbaijan, Bulgaria, China, Iran, Kazakhstan, Romania, Russia, Turkmenistan, Turkey, Ukraine, other European countries and North America.
- **Importance** :They award a cultural, economic and natural value to many rivers of the Northern hemisphere and have become symbols for healthy and free flowing river systems.
- **Global Exploitation**: They are heavily exploited for caviar and meat, leading to global population declines.
- **Status**: Stellate sturgeon, Russian sturgeon, and beluga sturgeon are Critically Endangered.
 - Sterlet sturgeon is listed as Endangered.

July 31 2024

August 31, 2024

CYCLONE ASNA

Syllabus : GS1/Geography

Why in the news : As per the India Meteorological Department (IMD) Cyclone Asna has formed over the Kutch coast in Gujarat and adjoining areas of Pakistan.

About the Cyclone ASNA :

- This is the first cyclonic storm in the Arabian Sea in August since 1976.
- The name Asna, which means “the one to be acknowledged or praised”, has been given by **Pakistan**.
- Between 1891 and 2023, only three cyclonic storms formed in the Arabian Sea in August (in 1976, 1964, and 1944).

What are Cyclones?

- Cyclones involve rapid inward air circulation around a **low-pressure area, moving anticlockwise in the Northern hemisphere and clockwise in the Southern hemisphere**.
- They are often associated with violent storms and bad weather.
- The term “Cyclone” comes from the Greek word “**Cyclos**,” meaning snake coils, coined by Henry Peddington due to the storm’s resemblance to coiled serpents in the sea.

What is the classification of Cyclones?

- **There are two types of cyclones: Tropical cyclones and Extra-Tropical cyclones** (also known as Temperate, Middle Latitude, Frontal, or Wave Cyclones).
- The World Meteorological Organisation defines a ‘Tropical Cyclone’ as a weather system with winds exceeding 63 km/h.
- **Tropical cyclones** develop between the Tropics of Capricorn and Cancer over tropical or subtropical waters, forming organized surface wind circulation.
- **Extra-tropical cyclones** occur in temperate and high-latitude regions but can originate in Polar Regions.

How is a Tropical Cyclone formed?

- **Initial conditions:** Cyclones form over warm ocean waters, which provide heat and moisture.
- **Evaporation and low pressure:** Warm water evaporates, creating moist air that rises, leading to low surface air pressure.
- **Low-pressure system:** Rising air creates a low-pressure area, drawing in surrounding air.

- **Cyclonic circulation:** Earth's rotation (Coriolis effect) causes the rising air to spin around the low-pressure center.
- **Eye formation:** As wind speed increases, a calm, clear eye forms in the center with very low air pressure.
- **Sustaining factors:** Temperature difference between warm rising air and cooler surroundings maintains the cyclone's buoyancy.
- **Dissipation:** Cyclones weaken when moving over cooler waters, encountering dry air, or interacting with land, disrupting their warm, moist air supply.

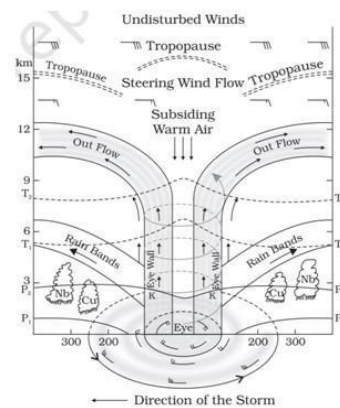


Fig 4: Vertical section of the tropical cyclone

How is the nomenclature of Tropical Cyclones done?

- Coordinated by the World Meteorological Organization (WMO) : For the Indian Ocean region, established in 2004
- **Eight countries contribute names:** Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, and Thailand
- Names are assigned sequentially as cyclones develop
- **Examples:** Hudhud, Titli, Phethai, Fani, Vayu, Amphan

Global terminology for tropical cyclones:

- China Sea and Pacific Ocean: **Typhoons**
- West Indian islands, Caribbean Sea, and Atlantic Ocean: **Hurricanes**
- Guinea lands of West Africa and southern USA: **Tornados**
- North-western Australia: **Willy-willies**
- Indian Ocean: **Tropical Cyclones**

PM SHRI SCHOOLS

Syllabus : GS2/Education

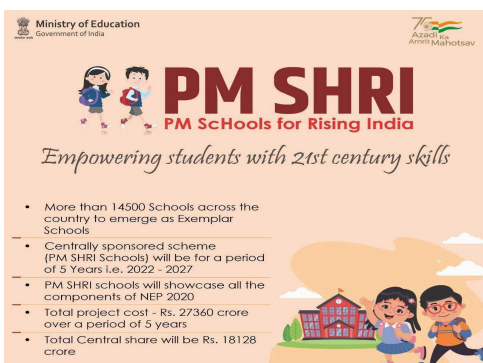
Why in the news : The Education Ministry has asked the states to sign the PM-SHRI MoU to get Samagra Shiksha funds.

What is PM SHRI Schools (PM Schools for Rising India) Scheme?

- **Centrally sponsored** scheme by the Government of India.
- Aims to establish over **14,500 PM SHRI Schools** under Central, State/UT governments, local bodies, KVS, and NVS.
- Focuses on creating an **inclusive, secure, and enriching learning environment** for all students.
- Provides diverse learning experiences and access to quality infrastructure and resources.
- Aims to nurture students into engaged, productive, and contributing citizens.
- Aligns with the National Education Policy 2020's vision of equity, inclusivity, and pluralism.

What are the features of PM SHRI Schools?

- **Focus on Holistic Education:** Emphasizes cognitive development and 21st-century skills.
- **Innovative Pedagogy:** Experiential, play-based, and learner-centered teaching methods.
- **Infrastructure and Sustainability:** Upgrades include labs, libraries, art rooms, and green school initiatives.
- **Learning Outcomes and Assessments:** Competency-based assessments with a focus on real-life application.
- **Quality Assurance:** School Quality Assessment Framework (SQAF) for regular evaluations.
- **Project Duration and Funding:** Runs from 2022-23 to 2026-27 with a total cost of Rs 27,360 crore.
- **Selection Process:** Schools selected through Challenge Mode to become exemplar institutions.



SAMAGRA SHIKSHA :

- Integrated School Education:** Covers education from pre-school to class XII.
- Objectives:** Aims for inclusive, equitable, and affordable school education.
- Consolidation of Schemes:** Subsumes Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education (TE).
- Coverage:** Encompasses 1.16 million schools, over 156 million students, and 5.7 million teachers in government and aided schools.
- Centrally Sponsored Scheme:** Implemented with a 60:40 funding split between the Centre and most states, launched by the Ministry of Education in 2018.

RBI's REPORT ON THE ECONOMY'S PERFORMANCE

Syllabus : GS3/Economy

Why in the news : The first official gauge of the economy's performance so far in 2024-25 has been recently released by the Reserve Bank of India (RBI).

What are the highlights of the RBI's Report?

GDP Growth:

- RBI revised Q1 GDP forecast from 7.2% to 7.1%
- Anticipated 7.2% growth for 2024-2025
- Last year's growth was 8.2%

GVA Growth:

- Real GVA outperformed GDP growth with 6.8% increase in Q1 2024-25
- Driven by 8.4% growth in Secondary Sector (construction, utilities, manufacturing)

Employment Generation:

- 46.7 million jobs created in FY 2023-24
- Total employment reached 643.3 million
- 6% employment growth rate, up from 3.2% previous year

Bank Credit Growth:

- **Agriculture:** 18.1% growth to Rs 21.55 lakh crore (July 2024), up from 16.7% a year ago
- **Industrial:** 10.2% growth to Rs 37.05 lakh crore (July 2024), up from 4.6% in July 2023
- **Services:** 15.4% growth (July 2024), down from 19.7% a year ago, due to slower growth in NBFCs and trade segments

What are the positive aspects?

- **Favourable Monsoon:** Expected to enhance agricultural output, reduce inflation, and strengthen rural demand and private consumption.

- **Private Sector Investment:** Rising demand could stimulate private firms to invest in new capacities, decreasing dependence on government spending for growth.

What are the challenges and way forward?

- **Election Impact on Public Spending:** Extended general election has delayed public capital expenditure, necessitating increased government efforts to meet spending targets.
- **Urgency for Reforms:** There is a critical need for comprehensive reforms across the economy and for boosting the efficiency of institutions and the judiciary.

GLOBAL FINTECH FEST (GFF)

Syllabus : GS3/Economy

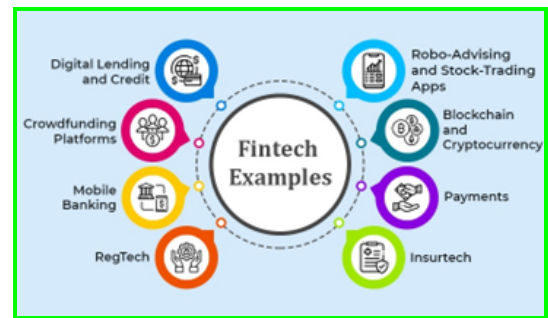
Why in the news : GFF was jointly organized by the Payments Council of India, National Payments Corporation of India, and Fintech Convergence Council.

WHAT IS FINTECH?

- Fintech, or financial technology, involves using technology to make financial services more efficient, accessible, and user-friendly. It includes a wide array of innovations aimed at improving and automating financial services, typically through digital platforms.

What are Fintech's Applications?

- **Digital Payments:** Platforms for online and mobile financial transactions (e.g., UPI, Google Pay).
- **Lending and Borrowing:** Online platforms offering loans using data-driven credit assessments (e.g., peer-to-peer lending, digital loan apps).
- **Wealthtech:** Tools for investment management and financial planning, including robo-advisors and online brokerage services.
- **Blockchain and Cryptocurrency:** Technologies enabling secure, decentralized transactions, including cryptocurrencies and blockchain-based services.
- **Regtech:** Technologies that assist financial institutions in complying with regulations efficiently using AI and big data.
- **Neobanking:** Digital-only banks providing services without physical branches, accessible via mobile apps or online platforms.



What are the benefits of the Fintech?

- **Financial Inclusion:** Fintech provides banking and financial services to underserved populations, especially in rural areas, through mobile banking and digital wallets.
- **Job Creation and Growth:** The sector creates jobs and stimulates economic growth by improving business efficiency and supporting SMEs.
- **Digital Payments:** Widespread adoption of digital payments enhances transparency, reduces corruption, and makes transactions more secure and efficient.
- **Equal Access:** Fintech provides financial services equally across urban and rural areas.
- **Mobile Technology:** Rural populations access financial tools similar to those in urban centers, promoting economic equity.

What are the challenges of the Fintech?

- **Money Laundering Risks:** Fintech companies are exploited for money laundering, with cases like the Pyppl app involving Chinese scammers posing challenges for law enforcement.
- **Fraud Trends:** While transaction volumes have increased, the rate of fraudulent transactions remains low.
- **UPI Fraud Impact:** Only 0.0189% of UPI users have been affected by fraud, indicating a relatively low overall impact despite concerns about illegal activities.

PRELIMS

COLOMBO SECURITY CONCLAVE

- Overview: A regional security grouping focusing on the Indian Ocean Region (IOR)
- Aim: Prioritizes maritime security, marine pollution response, and maritime search & rescue.

- **Members:** India, Sri Lanka, Mauritius, Maldives, and recently, Bangladesh.
- **Five Pillars of Cooperation:**
 1. Maritime Security
 2. Countering Terrorism
 3. Combating Transnational Organised Crime
 4. Cyber Security
 5. Humanitarian Assistance



RESEARCH AND ANALYSIS WING (R&AW)

- **Establishment:** Formed in 1968 to manage India's international intelligence affairs.
- **Oversight:** Operates under the Prime Minister's Office.
- **Functions:** Collects military, economic, scientific, and political intelligence through covert and overt operations; monitors terrorist activities and smuggling rings.
- **Historical Context:**
 1. Prior to 1968, the Intelligence Bureau (IB) handled both internal and external intelligence.
 2. Established following the 1962 China-India war and the 1965 Indo-Pakistani war to focus exclusively on external intelligence.
 3. Achievements: Provides intelligence support for significant operations abroad.

PROJECT NAMAN

- **Purpose:** Supports Defence Pensioners, Veterans, and their families through the

SPARSH digital pension system, improving access and facilitation.

- **Implementation:** Involves a tripartite MoU between the Indian Army, CSC e-Governance India Limited, and HDFC Bank.
- **Common Service Centres (CSCs):** Provide SPARSH-enabled pension services, G2C, and B2C services at convenient locations.
- **Phase One:** 14 CSCs established in key locations like New Delhi, Jalandhar, and Bangalore.
- **Management:** Each CSC is managed by a Village Level Entrepreneur (VLE), selected from veterans or Next of Kin (NOKs), trained by CSC e-Governance India Limited.
- **Financial Support:** HDFC Bank provides a ₹20,000 monthly grant for the first 12 months to help stabilize the centres.

MoU WITH MALAYSIA FOR TOURISM

- **Purpose:** Strengthen cooperation in tourism, focusing on medical tourism, business tourism, ecotourism, and expanding tourism research and training.
- **Tourist Exchange:** Malaysia is a key inbound market for India; over 250,000 Malaysian tourists visited India in 2022.
- **Recent Development:** India and Malaysia have upgraded their relationship to a Comprehensive Strategic Partnership.



September 14 2024

PORT BLAIR RENAMED AS SRI VIJAYA PURAM

Syllabus : GS2/Government Policies

Why in the news : The Centre has decided to rename Port Blair as Sri Vijaya Puram. This move is aimed at shedding the colonial legacy associated with the former and to recognise Andaman and Nicobar Islands' contribution to the Indian freedom struggle.

What is Port Blairs's connection with the imperial Cholas and Srivijaya?

Srivijaya Empire:

- **Influence and Role:** Ancient empire in Sumatra with influence across Southeast Asia, played a key role in the spread of Buddhism.
- **Decline:** Declined in the 11th century after naval raids by the Cholas.

Chola Strategic Base:

- **Naval Base:** Andaman Islands used as a naval base by Chola emperor Rajendra I in the 11th century.
- **Launch Point for Attack:** Served as a launch point for an attack on the Srivijaya Empire (present-day Indonesia).

Chola-Srivijaya Conflict:

- **Rare Conflict:** Chola invasion of Srivijaya was a rare instance of conflict between India and Southeast Asia.
- **Motivations:** The attack may have been motivated by Srivijaya obstructing Chola trade or Rajendra I's ambition to expand his empire.
- **Historian's View:** American historian G.W. Spencer attributes the attack to Chola expansionism.

Thanjavur Inscription:

- **Nicobar Islands:** 1050 CE inscription refers to the Nicobar Islands as Ma-Nakkavaram land, leading to its modern name.

Renaming of Port Blair:

- **Honoring History:** Renaming Port Blair to Sri Vijaya Puram honors its historical significance and India's shift from its colonial past.

What is the colonial background of Port Blair?

Origins of Port Blair:

- **Naming:** Originally a fishing hamlet, Port Blair was named after Lieutenant Archibald Blair, a British naval officer.
- **Surveying Expedition:** In 1778, Blair began his first survey of the Andaman Islands, discovering a natural harbour.

Establishment of a Penal Colony:

- **Chatham Island Colony:** In 1789, the Government of Bengal founded a penal colony on Chatham Island, later abandoned in 1796 due to disease.

Blair's Role in Surveying:

- **Mapping the Islands:** Blair's surveys of the Andaman and Nicobar Islands laid the groundwork for British control and integration into their maritime network.

Resettlement of Port Blair:

- **Post-1857 Revolt:** Following the Revolt of 1857, Port Blair was resettled as a penal colony, receiving its first batch of prisoners in 1858.

Cellular Jail:

- **Kala Pani:** The Cellular Jail, built by 1906, housed Indian convicts, particularly political prisoners, in solitary confinement.

PROCESS TO RENAME A STATE/UNION TERRITORY IN INDIA

Constitutional Provision:

—**Parliament's Power:** Parliament has the authority to change a state's name under Article 3 of the Constitution.

—**Article 3:** Outlines the procedure to alter the area, boundaries, or name of a state.

Proposal:

—**Initiation:** Renaming can be initiated by either Parliament or the state assembly.

—**Resolution:** The state legislature sends a resolution to the Central government.

—**Presidential Recommendation:** The bill requires a recommendation from the President before being presented in Parliament.

Procedure:

—**State's Involvement:** The affected state's legislation must be presented with the bill.

—**State Legislature's Role:** The state can provide its views, but they are not binding on Parliament or the President.

—**Dismissal of Opinion:** Parliament can dismiss the state legislature's opinion if desired.

—**Return to Parliament:** After suggestions or the expiration of the time period, the bill returns to Parliament for further deliberation.

Passing of the Bill:

—**Simple Majority:** The bill must pass with a simple majority (50%+1 vote).

—**Presidential Approval:** Once passed and approved by the President, the bill becomes law, and the state's name is changed.

CBI AS A 'CAGED PARROT' : SUPREME COURT

Syllabus : GS2/Governance

Why in news : Recently, the Supreme Court of India has invoked the expression ‘Caged Parrot’ for the Central Bureau of Investigation (CBI) in a case over the alleged liquor policy ‘scam’ in Delhi.

What is this about?

Bail and CBI’s Image:

- **Recent Case:** Judges emphasized the need for the CBI to shed its “caged” image while granting bail to Delhi’s Chief Minister in a corruption case related to the excise policy.

Origins of the Term “Caged Parrot”:

- **Supreme Court 2013:** The term “Caged Parrot” was first used by the Supreme Court during the 2013 coal block allocation scam, criticizing the CBI’s lack of independence.

Justice R. M. Lodha’s Observation:

- **Scathing Critique:** A bench led by Justice R. M. Lodha compared the CBI to a ‘caged parrot,’ acting under political influence and lacking autonomy.

Symbolism of the Term:

- **Controlled Agency:** The “Caged Parrot” metaphor reflects the CBI’s restricted functioning, despite its status as a premier investigative agency.

What is the autonomy and superintendence of CBI?

- **Autonomy:** The CBI is often referred to as an ‘autonomous body.’
- **CVC Oversight:** The CVC, under the CVC Act (2003), plays a critical role in overseeing the CBI to ensure no external interference in investigations.
- **Limited Supervision:** The CVC’s superintendence is restricted to broader oversight and cannot interfere with the specifics of the CBI’s investigations.

What are the challenges and criticisms associated?

Administrative Autonomy:

- **Deputation Dependency:** CBI senior officer appointments often depend on deputation from state or central forces, affecting its independence.
- **Extended Tenures:** The 2021 ordinance extending CBI directors’ tenures from two to five years, with annual extensions, has been criticized for undermining institutional checks and balances.

Financial Dependence:

- **Ministry Control:** The CBI lacks full financial autonomy, with its administrative and financial control under the Ministry of Personnel.

Lack of Resources:

- **Infrastructure Deficit:** The agency’s investigations suffer due to inadequate modern infrastructure, forensic labs, and technical expertise.

Coordination Issue:

- **State Police Collaboration:** Coordination problems with state police and other investigative agencies create gaps in intelligence sharing and joint operations.

What is the way ahead?

Improving CBI’s Independence:

- **Beyond a “Parrot”:** The CBI must aim to be more than just a voice for others, ensuring autonomy in its investigations.

Statutory Status:

- **Dedicated Legislation:** Granting the CBI statutory status through specific legislation, instead of the Delhi Special Police Establishment Act, 1946, would ensure clarity and independence.

Structural Reforms:

- **Second ARC Recommendation:** The Second Administrative Reforms Commission (ARC) recommended making the CBI structurally independent to shield it from executive influence.

Modernization:

- **Technology and Training:** The CBI needs to invest in modern technology, training, and infrastructure to efficiently handle complex cases like economic offenses, cybercrimes, and corruption.

Independent Investigations:

- **Court-Monitored and Suo Moto Investigations:** Implementing court-monitored investigations and enabling suo moto investigations could enhance the CBI’s independence in handling sensitive cases.

CENTRAL BUREAU OF INVESTIGATION :

Origins and Purpose:

—**World War II Origins:** CBI traces its roots to the Special Police Establishment (SPE), set up in 1941 to investigate bribery and corruption during WWII.

—**1963 Establishment:** Formally established in 1963 following the recommendations of the Santhanam Committee via a resolution from the Ministry of Home Affairs.

—**Legal Framework:** Operates under the Delhi Special Police Establishment (DSPE) Act 1946, covering corruption and major criminal offences, though the term “CBI” is not explicitly mentioned.

Functions:

—**Ministry Supervision:** Functions under the Ministry of Personnel, Public Grievances, and Pensions and is exempt from the RTI Act.

—**Investigating Corruption:** Focuses on corruption, bribery, and economic offences.

—**Economic Crimes:** Tackles financial frauds,

narcotics, smuggling, and other economic crimes.
 —**Special Crimes:** Handles terrorism, kidnapping, and other serious offences.
 —**Interpol Coordination:** Serves as the nodal agency for coordinating investigations with Interpol.

Jurisdiction:

—**State Jurisdiction:** Under Section 6 of the DSPE Act, the CBI can investigate cases in a state upon the state’s recommendation.
 —**Court-Ordered Probes:** Courts can order and monitor CBI investigations.
 —**Union Territories:** CBI can initiate suo-moto investigations only in Union Territories.

NITLAAYOG ON FUTURE PANDEMIC PREPAREDNESS

Syllabus : GS2/Health

Why in the news : Recently, the NITI Aayog released an Expert Group report titled ‘Future Pandemic Preparedness and Emergency Response —A Framework for Action’, focusing on public health emergencies or pandemics.

What is this about?

- **Recognizing Future Threats:** The ‘Future Pandemic Preparedness and Emergency Response (PPER) — A Framework for Action’ acknowledges that COVID-19 won’t be the last pandemic.
- **Evolving Dynamics:** Ongoing changes in ecology, climate, and human-animal-plant interactions necessitate readiness for new infectious threats.
- **WHO Warning:** The World Health Organization (WHO) projects that 75% of future public health threats are likely to be zoonotic, originating from animals.

What are the key objectives of the report?

- **Mission:** Formed to develop a robust framework for future pandemic preparedness and emergency response.
- **Task:** Examine COVID-19 management nationally and globally, learn from successes and challenges, and identify key gaps to improve readiness for health crises.

What are the “FOUR PILLARS” of preparedness? Governance, Legislation, Finance, and Management:

- **Effective Structures:** Implement well-defined SOPs for rapid response and establish a special PPER Fund for surveillance, data management, forecasting, research, and infrastructure development.

Data Management, Surveillance, and Predictive Tools:

- **Timely Collection:** Efficient data collection, surveillance systems, and predictive models are crucial for early outbreak detection and informed decision-making.

Research, Innovation, and Infrastructure:

- **Investment Needs:** Focus on research, innovation, and domestic manufacturing for developing diagnostic tools, treatments, and vaccines, and invest in infrastructure and capacity building.

Partnerships and Community Engagement:

- **Collaborative Efforts:** Strengthen healthcare capacity through community engagement, private sector partnerships, and international collaborations for knowledge sharing and resource pooling.

What are the other recommendations?

- **Public Health Emergency Management Act (PHEMA):** Proposed to manage public health crises beyond epidemics, covering non-communicable diseases, disasters, and bioterrorism, similar to developed countries.
- **Indian Regulatory System:** Global harmonisation of regulatory norms is essential for mutual acceptance of data and establishing a common framework for innovative technologies and emergency approvals.
- **Strengthening CDSCO:** India’s regulatory authority (CDSCO) requires special legislative powers, technical competence, and autonomy to meet these global standards.



What is the future prospect?

- **Roadmap for the Future:** The ‘Future Pandemic Preparedness and Emergency Response (PPER) — A Framework for Action’ acts as a beacon, guiding us through upcoming challenges in a world where pandemics are frequent.
- **Proactive Approach:** It emphasizes that preparedness goes beyond reaction, focusing on

proactive planning, collaboration, and building resilience.

PRELIMS

IRULA TRIBE :

The Irula are an ancient indigenous group in India, classified as a Particularly Vulnerable Tribal Group (PVTG). They primarily inhabit northern **Tamil Nadu, with some presence in Kerala and Karnataka**. Their language, Irula, is related to Tamil and Kannada.

Key aspects of Irula culture and lifestyle include:

6. Pantheistic religious beliefs with a main deity, Kanniamma, associated with cobras
7. Living in small settlements called mottas, often on hill edges
8. Traditional skills in hunting, gathering, and honey collecting
9. Expertise in herbal medicine and healing
10. Renowned knowledge of snakes and snake venom

The Irula Snake Catchers' Industrial Cooperative Society, located near Chennai, is a major producer of anti-snake venom in India. They supply about 80% of the venom used for anti-venom production in the country, using traditional methods to catch snakes, extract venom, and release them unharmed. However, the cooperative is currently facing an uncertain future.



HYDRO ELECTRIC PROJECTS

Scheme for budgetary support for Hydro Electric Projects (HEP) infrastructure:

9. **Duration:** FY 2024-25 to FY 2031-32
10. **Goal:** Enhance infrastructure and support hydro power development in India
11. **Scope:**
 - Covers transmission lines, pooling substations, ropeways, railway sidings, and communication infrastructure
 - Includes strengthening existing roads and bridges to project sites
12. **Target:** Support projects with a cumulative capacity of about 31,350 MW
13. **Eligibility:**
 - Hydro projects over 25 MW, including private sector projects
 - Pumped Storage Projects (PSPs)
14. **Budgetary support limits:**
 - Up to 200 MW: Rs. 1 crore per MW
 - Above 200 MW: Rs. 200 crores plus Rs. 0.75 crore per MW
 - Exceptional cases: Up to Rs. 1.5 crore per MW
15. **Approval process:** Involves cost appraisals by DIB and PIB, followed by Competent Authority approval
16. **Deadline:** Projects must have Letter of Award for first major package issued by June 30, 2028

This scheme aims to address challenges in hydro power development, particularly in remote locations with inadequate infrastructure.

OpenAI o1

OpenAI's new AI model o1 and its smaller version o1-mini:

Key features of o1:

6. Large language model trained with reinforcement learning
7. Focuses on complex reasoning
8. Generates internal chain of thought before responding
9. Improved performance in science, coding, and math tasks
10. Aims to be a step towards human-like AI

Improvements:

4. Better at code generation and multistep challenges
5. Trained to spend more time thinking through problems

6. Significant improvement in math skills (83% on International Mathematics Olympiad qualifying exam vs. 13% for GPT-4o)

Training approach:

3. Used a system of rewards and penalties
4. Taught to break down and process queries step-by-step

Limitations:

4. Cannot browse the internet
5. Cannot process files or images
6. Lacks up-to-date factual information on recent events

OpenAI has also released o1-mini, a smaller and cheaper version of o1, though specific details about this version are not provided in the given information.

ONITIS BORDATI

Newly discovered dung beetle species and the Nongkhylliem Wildlife Sanctuary:

Onitis bordati (New Dung Beetle Species):

7. Discovered in Nongkhylliem Wildlife Sanctuary, Meghalaya
8. Belongs to the genus Onitis
9. Males typically have distinctive long, slender, curved forelegs
10. Previously only found in Vietnam and Thailand
11. Ecologically significant for seed dispersal, nutrient cycling, and pest control
12. Threatened by habitat destruction and climate change

Nongkhylliem Wildlife Sanctuary:

6. Location: Eastern Himalayan Global biodiversity hotspot, Meghalaya
7. Topography: Undulating plains to low hills, part of Archaean Meghalaya Plateau
8. Rivers: Umtrew (main river), Umran, Umling, Umtasor, and smaller streams
9. Fauna: Clouded Leopard, Elephants, Himalayan Black Bear
10. Flora: Shorea robusta, Tectona grandis, Terminalia myriocarpa, Gmelina arborea

The discovery of Onitis bordati in this sanctuary highlights the area's rich biodiversity and importance for conservation efforts.

RANGEEN MACHHLI APP**"Rangeen Machhli" Mobile App:**

4. Purpose: Supports the ornamental fisheries sector
5. Developer: ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA)
6. Supported by: Pradhan Mantri Matsya Sampada Yojana (PMMSY)

Key Features:

5. Multilingual information in 8 Indian languages
6. Details on care, breeding, and maintenance of ornamental fish
7. "Find Aquarium Shops" tool for locating nearby shops
8. Educational modules for beginners and professionals

Indian Council of Agricultural Research (ICAR):

4. Role: Apex body for agricultural research and education in India
5. Oversight: Under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare
6. Functions: Coordinates, guides, and manages agricultural research and education nationwide

The app aims to provide comprehensive resources for hobbyists, shop owners, and fish farmers in the ornamental fisheries sector, while promoting local businesses and education in the field.