Factly Monthly

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For UPSC CSE Prelims Exam

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Subject: Polity and Nation

Sixth Schedule: Centre agrees to examine demands for Ladakh safeguards

Why in the News?

The Union Home Ministry has reconstituted a High-Powered Committee to examine the demand of Ladakh to provide constitutional safeguards like inclusion in the Sixth Schedule of the Constitution and granting tribal status to the Union Territory.

What is the High-Powered committee constituted by the Union Home Ministry for Ladakh?

Chaired by: Minister of State for Home Nityanand Rai.
Composition: It is a 22-member panel. It will have representatives from both Kargil and Leh divisions.

Terms of Reference of the committee:

1. To discuss measures to **protect the region's unique culture and language**, taking into consideration its geographical location and strategic importance.
2. To ensure protection of land and employment for people of Ladakh.
3. To discuss measures related to the empowerment of the Ladakh Autonomous Hill District Councils of Leh and Kargil.
4. To examine constitutional safeguards that could be provided to ensure the measures and protection detailed above.

What is the Sixth Schedule of the Constitution?

Specifications	Details
Constitutional Provision	Article 244
Applies to	Assam, Meghalaya, Tripura and Mizoram.
Purpose	1) It provides for the formation of autonomous administrative divisions called Autonomous District Councils (ADCs) that have some legislative, judicial and administrative autonomy within a state.
Composition of ADCs	1) ADCs have up to 30 members with a term of five years. Of these, four are nominated by the governor and the remaining 26 are elected on the basis of adult franchise. 2) The Bodoland Territorial Council in Assam is an exception, with more than 40 members. 3) Each autonomous region also has a separate regional council.

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Powers of ADCs	1) **Civil and judicial powers:** They can constitute village courts within their jurisdiction to hear trials of cases involving the tribes. Governors specify the jurisdiction of high courts for each of these cases. 2) **Legislative powers**: The councils are empowered to make legislative laws on matters like land, forests, fisheries, social security, entertainment, public health, etc. with due approval from the governor. 3)The acts of Parliament or the state legislature do not apply to autonomous districts and autonomous regions or apply with specified modifications and exceptions.

Group of Companies Doctrine: SC holds arbitration agreement can be binding on non-signatory firms

Why in the News?

The Supreme Court of India has held that an arbitration agreement can be binding on non-signatory firms under the "group of companies" doctrine.

What is the Group of Companies Doctrine (GOCD)?

1. The **Group of Companies Doctrine (GOCD) is applied in arbitration proceedings.**
2. The doctrine states an arbitration agreement binding on a firm, which though not a signatory, is a member of a group of companies that is a party to the agreement

What did the Supreme Court say on the Group of Companies Doctrine (GOCD)?

1. The Supreme Court has upheld the "Group of Companies" doctrine in Indian arbitration law.
2. The court also held that **the definition of "parties" under Section 2 and Section 7 of the Arbitration Act included both the signatory as well as non-signatory parties.**
3. This judgment clarifies the scope of the "group of companies" doctrine in India and makes it easier for parties to enforce arbitration agreements.

What is Arbitration?

1. Arbitration is a **form of alternative dispute resolution (ADR) in which a neutral third party resolves a dispute outside of court.**
2. The parties to the dispute agree to submit their case to an arbitrator, who will make a binding decision on the matter.
3. Arbitration can be a faster and more cost-effective way to resolve disputes.
4. Arbitration in India is governed by the Arbitration and Conciliation Act,1996.

Jammu and Kashmir Reservation Bill and J&K Reorganisation (Amendment) Bill

Why in the News?

Lok Sabha has passed Jammu & Kashmir Reservation (Amendment) Bill, 2023 and the Jammu and Kashmir Reorganisation (Amendment) Bill, 2023.

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What is Jammu & Kashmir Reservation (Amendment) Bill, 2023?

Aim: To amend the Jammu and Kashmir Reservation Act, 2004.
Note: The J&K Reservation Act, 2004 provided reservation in jobs and admission in professional institutions to Scheduled Castes (SCs), Scheduled Tribes (STs) and other socially and educationally backward classes.

Key Provisions of the Bill:

The Bill **seeks to replace the term "weak and underprivileged classes (social castes) "in the J&K Reservation Act, 2004 to "other backward classes" as declared by the Union Territory.**

What is Jammu and Kashmir Reorganisation (Amendment) Bill,2023?

Aim: To amend the Jammu and Kashmir Reorganisation Act, 2019.
Note: The J&K Reorganisation Act, 2019 provides for the reorganization of the state of Jammu and Kashmir into the union territories of Jammu and Kashmir (with legislature) and Ladakh (without legislature).

Key Provisions of the Bill:

1. **Increases the total number of seats in the J&K Assembly from 107 to 114**. This is based on the report of the Delimitation Commission.
2. Seeks to provide reservation of 9 seats for Scheduled Tribes for the first time.
3. **Empowers the Lieutenant-Governor to nominate 3 members in the Assembly:**

– Two members from the Kashmiri migrant community including one woman and
– Third member should be a representative of people from PoK who took refuge in India following the wars with Pakistan in 1947, 1965 and 1971.

Reservation policy need not be followed in appointment of law officers, rules Madras High Court

Why in the News?

The Madras High Court has ruled that the rule of reservation need not be followed in the appointment of law officers and merit should be the only criteria.

What was the case about before Madras High Court?

1. A petition was filed in the Madras High Court arguing that the Law Officers of the High Court of Madras (Appointment) Rules, 2017 for the appointment of law officers should be declared unfair due to the absence of reservation provisions.
2. The petitioner said that the **rule of reservation must be applied even to contractual as well as temporary appointments**

What was the court ruling on this?

1. The Madras High Court ruled that the rule of **reservation need not be followed in the appointment of law officers and merit should be the only criteria.**
2. Neither the law officers are appointed to a civil post nor are they employees of the government. As such, Article 16(4) of the Constitution will not be applicable.
   – **Note**: Art 16(4) stipulates that the right to equality in public employment does not prevent the State from making reservations for any backward class of citizens which are not adequately represented.

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3. The government is duty- bound to engage only the most proficient, competent and capable lawyers to represent it before the courts of law.

Section 6A: Who is a citizen, who is an 'illegal immigrant'

Why in the News?

A Five-judge Constitution bench of the Supreme Court has begun hearing pleas challenging Section 6A of the Citizenship Act,1955. Section 6A was introduced following the signing of the Assam Accord.

What is the Assam Accord?

The Assam Accord was a Memorandum of Settlement **(MoS) signed between the Government of India, Government of Assam and the All-Assam Students Union in 1985**. The accord brought an end to the Assam Agitation.

What is Section 6A of the Citizenship Act,1955?

1. Section 6A was introduced in the Citizenship Act, 1955 to accommodate Clause 5 of the Assam Accord.
2. It provides for special provisions for Assam with respect to citizenship. According to this-
   a. **Immigrants who entered Assam before 1 January 1966 would be considered Indian citizens and were allowed to vote.**
   b. **Immigrants who entered Assam after 1 January 1966 but before 24 March 1971 will be detected as "foreigners".** But they would have the opportunity to register themselves according to rules made by the Central Government.
   – They would be granted the same rights and obligations as Indian citizens for a period of 10 years except the right to vote. At the end of this ten-year period, they would be deemed citizens.
   c. **Immigrants who entered Assam on or after 25 March 1971 would be considered illegal immigrants and would be expelled from India.**

3. It forms the basis for conducting [National Register of Citizens (NRC)](#) in the state of Assam.

Why is Section 6A challenged in the Supreme Court?

1. By establishing a different cut-off date for Indian citizenship in Assam than in the rest of India — which is July 1948 — it is argued that Section 6 A is discriminatory, arbitrary and illegal.
2. It has led to a significant change in the demographic pattern of Assam, reducing the indigenous Assamese people to a minority in their own state.

Supreme Court upholds repeal of J&K's Special Status

Why in the News?

The Supreme Court in a unanimous ruling upheld the abrogation of Article 370 of the Constitution, which had conferred special status on the erstwhile State of Jammu and Kashmir.

What was the case before the Supreme Court?

1. In 2019, Parliament passed the Constitution (Application to Jammu and Kashmir) Order, 2019. The order effectively abrogates the special status accorded to Jammu and Kashmir under the provision of Article 370.

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2. Further, the Parliament has also passed the Jammu and Kashmir (Reorganisation) Bill,2019. The bill bifurcated the State into two separate union territories of Jammu and Kashmir (with legislature) and Ladakh (without legislature).

3. A petition was filed in the Supreme Court challenging the abrogation of Article 370 and bifurcation of the state of Jammu & Kashmir into two Union Territories.

What is the Supreme Court verdict on this?

1. **Abrogation of Article 370 was legal**: The court upheld the power of the President to abrogate the special status of Jammu and Kashmir under Article 370 of the Constitution.

2. **Article 370 is temporary**: The Court held that Article 370 was always intended to be a temporary provision and not a permanent feature of the Constitution.

3. **No internal sovereignty:** The Court rejected the argument that Jammu and Kashmir had any internal sovereignty after its accession to India.

4. **J&K always been an integral part of India**: J&K has always been an integral part of India. The court cited Section 3 of the J&K Constitution itself, apart from Article 1 and 370 of the Indian Constitution. – Section 3 of the J&K Constitution says that the State of Jammu and Kashmir is and shall be an integral part of the Union of India. While Section 147 of the J&K Constitution prohibited any amendment to Section 3.

5. **Action of abrogation taken under President's rule**: The petitioners argued that the government acted illegally by taking irrevocable action regarding Article 370 while Jammu and Kashmir was under President's rule (Article 356).
– However, the Supreme Court ruled against this argument. The court relied on the 1994 **Bommai judgment,** which states that the President's actions are valid unless they are done with bad faith or are clearly unreasonable.

Other Directions of Supreme Court

1. **Restoration of J&K Statehood**: The court directed the Union Government to expedite the process of restoration of statehood for Jammu and Kashmir (without the Union Territory of Ladakh). It also said that the Legislative Assembly elections should be held by September 2024.

2. **Truth-and-Reconciliation Commission**: The court ordered the establishment of a Truth-and-Reconciliation Commission to address human rights violations both by state and non-state actors in Jammu and Kashmir since the 1980s.

Lok Sabha Rules for Visitors' Entry

Why in the News?

Recently, two people visiting the Parliament jumped into the Lok Sabha chamber from the visitor's gallery and opened canisters that emitted yellow smoke.

What do the Lok Sabha Rules say on the entry of visitors in Lok Sabha?

Visitors' admission, withdrawal and removal is governed by Rule 386 and 387 of the Rules of Procedure and Conduct of Business in the Lok Sabha.

1. **Rule 386:** It states that the admission of strangers during the sittings of the House to those portions of the House which are not reserved for the exclusive use of members shall be regulated in accordance with orders made by the Speaker.

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2. **Rule 387**: It gives the Speaker the power to withdraw "strangers" from any part of the House if he/she deems it fit.

What is the process of entry of strangers in Lok Sabha?

1. Visitors such as academics, students, and members of the general public are frequently admitted in Parliament. They ask MPs for passes so they can observe how laws are made.
2. MPs requesting visitor passes must give a declaration that they know the guest personally and take full responsibility for him or her.
3. Visitor cards are typically issued for a particular day and fixed hours. In special cases, two cards may be issued.
4. The visitor is also mandated to carry a photo identification.
5. Lok Sabha has 2 types of galleries– public and Speaker's. Members can facilitate entry for four in the public and two in the Speaker's gallery. The Speaker's gallery entries need Speaker's approval.
6. Members are accountable for any incidents related to the cardholders and are advised to be cautious while recommending visitors.
7. Similar rules are in force for visitor entry into the Rajya Sabha.

Supreme Court Affirms Validity of Arbitration Agreements in Unstamped Contracts

Why in the News?

Recently, a seven-judge Constitution Bench ruled that arbitration agreements in unstamped or insufficiently stamped commercial contracts remain valid, enforceable, and existent.

What are the Highlights of Judgment in simplified terms?

1. The court held that unstamped or insufficiently stamped agreements **are not void or unenforceable.**
2. The Arbitration Act is **independent of the Stamp Act**. Even if a document is invalid under the Stamp Act, any arbitration agreement reached over the invalid document is valid.
3. The court applied the "**separation presumption**" by which an arbitration agreement is presumed to have a separate existence from the contract. This means that the validity of the arbitration agreement is independent of the validity of the underlying contract.
4. The separation presumption applied in this case gave effect to the doctrine of competence-competence. According to this doctrine, the arbitral tribunal has its own authority/ is competent to decide its own jurisdiction. Thus, an arbitration agreement can be valid if the arbitral authority gives it approval, despite the case being of unstamped or insufficiently stamped commercial contracts.
5. With this, the 7-judge bench has overruled an earlier verdict of the Supreme Court in the N.N. Global case. **Note**- In the **N. N. Global case**, a five-judge bench ruled that an arbitration agreement without proper stamping was deemed void and unenforceable.

What is the Significance of Judgement?

1. **Swift resolution of commercial disputes**- Previously, disputes of this nature faced obstacles due to parties failing to pay the necessary stamp duty or inadequately stamping contracts.
2. The ruling provides a significant boost to India's aspirations of becoming a global arbitration hub.

What is Arbitration?

Arbitration is a form of alternative dispute resolution (ADR) in which a neutral third party resolves a dispute outside of court. Arbitration in India is governed by the Arbitration and Conciliation Act,1996

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Post Office Bill 2023

Why in the News?

Recently the Post Office Bill, 2023 has been introduced into the parliament seeking to repeal the Indian Post Office Act of 1898.

What are the Key Provisions of the Bill?

1. **Aim-** The Bill aims to "**consolidate and amend the law** relating to Post Office in India," which today provides many services beyond simply mail delivery.
2. **Interception of Shipments- Section 9** grants the Centre the authority, via notification, to empower officers for the interception, opening, or detention of items in the interest of state security, friendly relations with foreign states, public order, emergencies, public safety, or compliance of other laws.
3. **It also permits post officers to transfer postal items to customs authorities** in cases where they are suspected of containing prohibited items or if such items are subject to duty.
4. **Exemptions from Liability- Section 10** exempts the Post Office and its officers from "any liability for loss, mis-delivery, delay, or damage during services, except as prescribed.
5. **Offences and Penalties**– The majority of offenses and penalties stipulated in the Post Office Act of 1898 have been **eliminated**, with the **exception of non-payment cases, which are recoverable as arrears of land revenue.**
6. **Exclusive Privileges-**The current Bill has **eliminated Section 4 of the 1898 Act**, **which granted the Centre the exclusive privilege** of transporting all letters from one location to another by post.
7. The 2023 Bill, for the first time, **regulates private courier services** by bringing it under its ambit.
8. It **extends the powers of the Director General of Postal Services beyond postal operations**, granting them the authority to oversee activities related to extra services specified by the central government and establish fees without the need for parliamentary approval.

Chief Election Commissioner and other Election Commissioners (Appointment, Terms of Office) Bill, 2023

Why in the News?

Rajya Sabha has passed The Chief Election Commissioner (CEC) and other Election Commissioners (Appointment, Conditions of Office and Terms of Office) Bill, 2023.

How is the Election Commission currently appointed under the Constitution?

1. **Article 324** provides for the composition of the Election Commission of India (ECI). It consists of the CEC and two other ECs.
2. The Constitution provides that the appointment of the CEC and EC, subject to the provisions of any law made by Parliament, be made by the President.
3. The existing parliamentary law provides for their conditions of service but is silent with respect to appointments, thereby raising concerns for independence of ECI.
4. The appointments till date are made by the President, that is the Central Government and there is no mechanism for ensuring independence during the appointment process.

What did the Supreme Court rule on appointment of EC and CECs?

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Anoop Baranwal v. Union of India Case: The Supreme Court laid down that the CEC and ECs shall be appointed by a committee consisting of the Prime Minister, the CJI and the Leader of the Opposition or the largest opposition party in the Lok Sabha.

– It said that this mechanism shall be in place till Parliament enacts a law on this matter.

What are the Key Provisions of the CEC and EC Bill, 2023?

Replaces: The Bill replaces the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991.

Purpose: To provide for the appointment, salary and removal of the Chief Election Commissioner (CEC) and Election Commissioners (ECs).

Key Provisions of the bill:

1. The CEC and other ECs shall be appointed from persons who are holding or have held a post equivalent to the rank of Secretary to the Government of India.
2. A search committee, led by the Law and Justice Minister, will suggest five candidates to the selection committee composed of the Prime Minister, the Leader of Opposition in the Lok Sabha and a nominated Union Cabinet Minister.

Note: The bill removes the CJI from the selection process that was laid down in the Anoop Baranwal case.

3. Based on the recommendation from the selection committee, the President will then appoint the CEC and ECs.

The Telecommunications Bill 2023

Why in the News?

The Telecommunications Bill, 2023 seeks to **substitute** the Indian Telegraph Act 1885, the Indian Wireless Telegraphy Act 1933, and the Telegraph Wires (Unlawful Possession) Act, 1950. It also **amends** the Telecom Regulatory Authority of India (TRAI) Act, 1997.

What are the key provisions of the Telecommunications bill 2023?

1. **Objective –** The Bill revises regulations related to the development, operation, and expansion of telecommunication services, networks, spectrum assignment, etc.
2. **Authorisation for telecom-related activities** – Obtaining **prior approval from the central government** is mandatory for (i) providing telecom services, (ii) establishing, operating, or expanding telecom networks, or (iii) possessing radio equipment.
3. **Assignment of spectrum**: **Spectrum will be assigned by auction**, except for specified uses. In some specific use cases, it will be allocated on an administrative basis (by the Government). These include: (i) national security and defence, (ii) disaster management, (iii) weather forecasting, (iv) transport, (v) satellite services such as DTH and satellite telephony, and (vi) BSNL, MTNL, and public broadcasting   services.
   The Central government may re-purpose or re-assign any frequency range and permit the sharing, leasing, and surrender of spectrum.

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4. **Powers of interception and search** – Government can suspend, assume control of, or oversee any telecom service in case of **public emergency or national security concerns**. A government authorized officer may search premises or vehicles for unauthorized telecom equipment.
5. **Digital Bharat Nidhi**: An earlier fund to provide telecom services in underserved areas has been renamed as Digital Bharat Nidhi, expanding its usage to include R&D.
6. **Exclusion of OTT Apps and Communication Platforms-** The bill excludes Over-the-Top (OTT) apps and communication platforms like WhatsApp from being classified as telecom services.

Rules for Suspension of MPs – 141 Opposition MPs suspended

Why in the News?

141 Opposition MPs from Lok Sabha and Rajya Sabha have been suspended for disrupting Parliamentary proceedings.

What are the rules on the suspension of MPs?

The Presiding Officers — the Speaker of Lok Sabha and Chairman of Rajya Sabha plays the major role in suspensions of Members of Parliament (MPs).

In Lok Sabha, the Speaker acts in accordance with Rules 373, 374, and 374A of the Rules of Procedure and Conduct of Business. **In Rajya Sabha,** the Chairman acts as per Rules 255 and 256 of the Rules.

1. **Rule 373 and Rule 255**: The presiding officers can direct an MP to withdraw from the House for any disorderly conduct.
2. **Rule 374 and Rule 256:** The presiding officer can "name" the legislator if the MP continues to disrupt the House proceedings, after that, the House can move a motion to suspend the MP until the end of the session.
3. **Rule 374A:** It was incorporated in the Rule Book of Lok Sabha in 2001. It empowers the Speaker to deal with grave and disorderly conduct. As per this rule, an MP "named" by the Speaker shall automatically stand suspended for a period of five days or the remaining part of the session. This rule removes the need for the House to pass a motion for suspension.

– Note: Rajya Sabha has not incorporated this provision in its procedures.

How long can MPs be suspended for?

Maximum for the remaining part of the session only.

But the House at any point of time can reinstate a suspended member by passing a motion.

Can courts intervene in the matter of the suspension of MPs?

Article 122 of the Constitution says parliamentary proceedings cannot be questioned before a court. However, in some cases, courts have intervened in the procedural functioning of legislatures.

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Shakti Sadan: Rehabilitation of Trafficking Survivors

Why in the News?

The erstwhile 'SwadharGreh' and 'Ujjawala Homes', under 'Mission Shakti', have been merged and will now be known as 'Shakti Sadan'. It is aimed at rehabilitation of women trafficking survivors.

What is Shakti Sadan?

1. Shakti Sadan is part of Mission Shakti of Ministry of Women and Child Development.
2. It serves as an **Integrated Relief and Rehabilitation Home for women in distress** situations and difficult circumstances.
3. Shakti Sadan residents will receive shelter, food, clothing, counseling, primary health care, and other essential needs.
4. Residents will also be given vocational training, help with bank account openings, and access social security benefits through relevant departmental schemes.
5. So far, 445 Shakti Sadans are functional, benefitting about 10955 women.

Criteria for SC status in India

Why in the News?

National Commission for Scheduled Castes (NCSC) directs States to grant Scheduled Caste status to the Namashudra, Paundra and Rajvanshi sub-castes of rehabilitated Bengali society.

What is the Status of these Sub-Castes of Rehabilitated Bengali people in India?

1. The people who came from East Pakistan in 1947 were rehabilitated in 18 States by the Government of India since 1960.
2. In 8 states, Namashudra, Paundra and Rajvanshi sub-castes of Bengali society have been given the status of Scheduled Caste.
3. However, in the remaining 10 states i.e Delhi, Maharashtra, Madhya Pradesh, Telangana, Uttar Pradesh, Bihar, Rajasthan, Uttarakhand, Jharkhand, and Karnataka, they remain without Scheduled Caste status.
4. NCSC will take action under **Article 338** of the Constitution of India to grant them Scheduled Caste status.

Note- Under Article 338, the NCSC monitor safeguards for these groups as per the Constitution and other laws.

What is the Criteria for SC Status in India?

1. **Article 341(1)** of the Indian Constitution empowers the **president to designate castes** in the country and specific states as Scheduled Castes.
2. Inclusion in the SC list is based on significant social, educational, and economic backwardness resulting from **historical untouchability**, though not explicitly mentioned in the constitution.
3. The concerned State Governments/ Union Territory Administrations make proposal for inclusion in the SC list. Such a proposal must be **approved by the Registrar General of India** (RGI) and the **National Commission for Scheduled Castes** (NCSC).
4. As per Article 341(2), **Parliament may by law make further amendments** to the list of Scheduled Castes as notified by the President.

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Gyanvapi Mosque: Religious character of a place of worship can be decided only in a trial, says Allahabad HC

Why in the News?

The Allahabad High Court has ruled that the Places of Worship Act, 1991 does not prevent lawsuits seeking to determine the religious character of a place of worship or to reclaim a place of worship.

What is the case about?

1. A petition was filed in 1991 seeking the restoration of a temple where the Gyanvapi mosque now exists (in Varanasi, Uttar Pradesh).
2. Against this, several petitions were filed in the Allahabad High Court by the Gyanvapi Mosque Committee and the UP Sunni Central Waqf Board.
3. The petitioners argued that the 1991 lawsuit was not maintainable as it was barred by The Places of Worship (Special Provisions) Act, 1991.

What did the High Court rule on this?

1. **Lawsuit maintainable:** The Court dismissed the petition and ruled that the lawsuit is not barred by the Places of Religious Worship Act, 1991
2. **1991 Act not an absolute bar:** The Court ruled that the Act isn't an absolute barrier to seeking legal recourse regarding the religious character of a place of worship.
3. **Religious character undefined:** The Act does not define "religious character," leaving it to the courts to determine on a case-by-case basis through evidence.
4. **Challenging conversions that took place before the Act:** The court also held that if the "conversion" of a religious place had taken place "much before" the commencement of the Act, relevant party could still move the court.

– In the Gyanvapi case, the Hindu petitioners said that the temple was brought down by the "Farman of Emperor Aurangzeb in the year 1669" which is much before the commencement of the 1991 Act.

People with blood disorders not eligible for reservation in jobs

Why in the News?

According to the Ministry of Social Justice, people with blood disorders like thalassemia, haemophilia, and sickle cell disease are not eligible for job reservations in government roles under the Persons with Disabilities category.

What is the Issue?

1. The **Right to Persons with Disabilities Act (RPwD), 2016** provides for **reservation of 4% of government jobs for people with specific disabilities**, such as total loss of vision, low vision, complete loss of hearing etc.
2. While the three diseases were **included in the list of disabilities** under the RPwD Act, 2016, the government held that as per Section 34 of the Act, persons with blood disorders including Thalassemia are **not eligible for reservation in government jobs**.

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Note- Under Section 34 of RPwD, 2016, each government establishment is required to set aside 1% of total vacancies for individuals with benchmark disabilities arising of autism, intellectual disability, specific learning disability, and mental illnesses.

3. There are concerns that the exclusion of these blood disorders from job reservations undermines the intended purpose of the legislation.

What are these blood disorders?

Specifications	Details
Thalassemia	It is a genetic blood disorder causing abnormal hemoglobin production and anemia
Haemophilia	It is a genetic bleeding disorder that **hinders the blood's clotting** ability.
Sickle cell disease	It is a genetic blood disorder involving **abnormal hemoglobin**, causing misshapen red blood cells.

Lok Sabha passes Bills to replace British-era criminal laws

Why in the News?

Lok Sabha has passed 3 bills to replace British-era criminal laws. These includes Bharatiya Nyaya Sanhita Bill (BNS), Bharatiya Sakshya Bill (BS) and the Bharatiya Nagarik Suraksha Sanhita Bill (BNSS).

What is Bharatiya Nyaya Sanhita Bill (BNS)?

Replaces: Indian Penal Code, 1860

Key Provisions of the bill:

1. The Bill retains most offences from the IPC. It **adds community service** as a form of punishment.
2. **Sedition is no longer an offence**. Instead, there is a new offence for acts endangering the sovereignty, unity and integrity of India.
3. The bill, for the first time, **defines terrorism and adds it as a separate offence in general criminal law**. It is defined as an act that intends to threaten the unity, integrity, security or economic security of the country, or strike terror in the people.
4. For the first time, **capital punishment has been introduced for the offence of mob lynching**

What is Bharatiya Sakshya Bill (BS)?

Replaces: Indian Evidence Act, 1872

Key Provisions of the bill:

1. Indian Evidence Act (IEA), 1872 provides for **two kinds of evidence** – documentary and oral. Documentary evidence includes primary (original documents) and secondary (that proves the contents of the original). The Bill retains this distinction.
2. The bill classifies **electronic records as primary evidence**. It expands such records to include information stored in semiconductor memory or any communication devices (smartphones, laptops).
3. The bill **expands secondary evidence** to include: (i) oral and written admissions, and (ii) the testimony of a person who has examined the document and is skilled in the examination of documents.

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What is Bharatiya Nagarik Suraksha Sanhita Bill (BNSS)?

Replaces: Criminal Procedure Code, 1973 (CrPC)

Key Provisions of the bill:

1. The bill mandates **forensic investigation** for offences punishable with seven years of imprisonment or more.
2. All **trials, inquiries and proceedings may be held in electronic mode**. Production of electronic communication devices, likely to contain digital evidence will be allowed for investigation, inquiry, or trial.
3. If a proclaimed **offender has absconded to evade trial** and there is no immediate prospect of arresting him, the trial can be conducted and **judgment pronounced in his absence**.
4. The bill permits **police custody of up to 90 days** as against the 15-day custody allowed till now.

Press and Registration of Periodicals Bill passed by Lok Sabha

Why in the News?

The Lok Sabha has passed the Press and Registration of Periodicals Bill, 2023. Rajya Sabha had already passed this bill in the previous session.

What is the Press and Registration of Periodicals Bill, 2023?

Replaces: Press and Registration of Books Act, 1867.

Key Provisions of the bill:

1. **Grant of title allotment and Certificate of Registration Periodicals:** The Bill provides for an online mechanism to apply for title verification and grant of certificate of registration from the Press Registrar General.
2. **Limited Role of District magistrate/ local authority:** The publishers would no longer be required to file a declaration. Furthermore, printing presses would also not be required to furnish any such declaration; instead, only intimation would be sufficient.
3. **Facsimile edition of a foreign periodical** can be printed in India with prior approval of the Central Government and its registration with the Press Registrar General.
4. **Books which were part of the Act** have been taken away from the purview of the bill as books as a subject are administered by the Ministry of Education.
5. **Substantially decriminalized:** Now, the maximum jail term of six months applies only in extreme situations. For example, if a publication continues printing without a registration certificate despite a six-month warning from the Press Registrar General.
   Moreover, for certain violations, financial penalties have been proposed instead of conviction as earlier.
6. **Restrictions on who can bring out periodical:** A person who has been convicted by any court for an offence involving terrorist act or unlawful activity or having done anything against the security of the State shall not be permitted to bring out a periodical.
7. **Cancellation of registration:** In the 1867 Act, only the DM could cancel the declaration of a periodical. The Bill empowers the Press Registrar General to suspend/cancel the Certificate of Registration.

8) **Press and Registration Appellate Board**: It is headed by Chairperson, Press Council of India. It will deal with issues related to registration.

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Supreme Court: Physical Training Instructors Recognized as Teachers

Why in the News?

Recently, the Supreme Court held that individuals serving as physical training instructors (PTIs) fall under the categorization of 'teachers.

What was the Case?

1) The Bench was hearing the case of a sports officer/ PTI at Jawaharlal Nehru Krishi Vishwa Vidyalaya (university). He was challenging the university's demand to retire him at 60 years of age.

2) He had sought parity with the other teaching faculty whose age of superannuation was 62.

What has the Supreme Court held?

1) The Supreme Court has ruled that physical training instructors (PTIs) are **recognized as 'teachers**,' even if they don't necessarily conduct classes within the confines of a building as in the case of a Professor/Associate Professor/Assistant Professors.

2) The Bench held that **'PTI's teach students the skills and regulations of different sports and games'**.

3) **Multifarious duties**– The court held that a physical director holds a range of responsibilities such as overseeing daily student games, handling sports equipment and ground maintenance, coordinating inter-class and inter-college tournaments.

Extended Version of Mission Karmayogi launched

Why in the News?

To commemorate Good Governance Day, Dr. Jitendra Singh, the Union Minister, unveiled the Enhanced Edition of Mission Karmayogi featuring **new features on Mission Karmayogi platform 'iGOT'**.

What is Mission Karmayogi?

1) It is a nationwide programme to lay the foundation for **capacity building of civil servants.**

2) It focuses on grooming civil servants of the future by making them more technology-enabled, innovative, progressive and transparent.

3) **iGOT Karmayogi** is the online learning platform under it.

What are the details of new features launched on Mission Karmayogi platform 'iGOT'?

1) **My iGOT-** provides targeted training courses on each officer's homepage, directly addressing their unique capacity-building needs. With over 28 lakh users on the platform, it offers access to approximately **830 high-quality e-learning courses.**

2) **Blended Programs-** these programs seamlessly combine traditional in-person classroom courses with online learning elements to meet dynamic training needs of the officials

3) **Curated Programs-** designed to meet the varied learning needs of Ministries/Departments and Training Institutions. Course Providers can tailor learning journeys by selecting relevant content, resources, and assessments from the iGOT repository with a programmatic approach.

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4) 12 domain-specific e-learning courses- meant to cater to the specific competency needs of Civil Servants at Department of Personnel and Training (DoPT) and assist other Government organizations in efficiently managing day-to-day functional matters.
– It has been developed by the Karmayogi Digital Learning Lab (**KDLL**) of the DoPT which was inaugurated in 2021 to develop e-learning courses to build the capacity of the civil servants.

5) VIKAS (Variable & Immersive Karmayogi Advanced Support)- it is a blended learning programme designed to **enhance the capacity of middle management civil servants** in the Central Secretariat.
– It focuses on development of functional, behavioural and technological competencies required in Central Government.

UGC releases draft norms on recognition of colleges in India

Why in the News?

Recently, the **University Grants Commission (UGC)** published the draft guidelines on recognition of colleges.

What are the Proposed Guidelines?

1) The proposed guidelines will be applicable to colleges as defined under the UGC Act.

2) For UGC recognition, a college should be affiliated to a university in accordance with UGC regulations.

3) The college is required to offer degree or diploma programs spanning a minimum of one academic year and requiring a bachelor's degree for admission.

4) A college must also submit documents including establishment year, university affiliation certificate, regulatory body approval, and assure compliance with UGC provisions.

5) The responsibility of verification of the documents is with the universities. If the information provided is found to be incorrect, the UGC may remove its name.

6) Operational colleges must obtain UGC recognition **within three years from the regulations' notification**. Those established or affiliated afterward must secure UGC recognition within three years of their establishment or affiliation.

Offshore Mineral Blocks Auction Rules

Why in the News?

Recently the Ministry of Mines has published **two draft rules for offshore mineral blocks auction** under the Offshore Areas Mineral (Development and Regulation) Act, 2002 (OAMDR Act).

What are the Key Provisions of Draft Offshore Areas Mineral (Auction) Rules?

1) Based on the Mineral (Auction) Rules, 2015 framed under the **Mines and Minerals (Development and Regulation) Act** (MMDR Act).

2) **Bidding-** The combined license and production lease will be awarded through an ascending forward online electronic bidding system.

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3) **Requirement for Auction of Production Lease**: Net worth requirements for auction of production lease will be based on the block's estimated resource value, capped at a maximum of INR 200 crore.

4) **Requirement for Auction of Composite License:** The auction's net worth criteria for a composite license will also be determined by the block's estimated resource value, with a maximum requirement of INR 100 crore.
– For blocks with unassessable resource quantities, the net worth requirement is set at INR 25 crore.

What are the Key Provisions of draft Offshore Areas Mineral (Auction) Rules?

1) Derived from the Minerals (Evidence of Mineral Contents) Rules, 2015, established under the MMDR Act.

2) These regulations **outline exploration standards** for diverse mineral types and deposits.

3) The proposed regulations suggest a **minimum G2 level of exploration** (General Exploration) for considering a block for production lease auction.

4) To qualify for the grant of a **composite license**, exploration must extend to at least **G4 level** or the mineral potentiality of the block must be identified.

Note- There are the four stages of geological assessment i.e. G1 (detailed exploration), G2 (general exploration), G3 (prospecting) and G4 (reconnaissance)

What is the Offshore Areas Mineral (Development & Regulation) Act, 2002 [OAMDR Act]?

1) The Act governs the **development and regulation of mineral resources** in India's territorial waters, continental shelf, exclusive economic zone, and other maritime zones, along with related matters.

2) The OAMDR Act was recently amended via **Offshore Areas Mineral (Development and Regulation) Amendment Bill, 2023.**

Subject: International Relations

Paris Club Group of Creditors

Why in the News?

Recently, Sri Lanka has reached a preliminary debt restructuring deal with India and the Paris Club group of creditors, paving the way for it to revive a stalled International Monetary Fund (IMF) loan programme.

What is the Sri Lanka debt scenario?

1. Sri Lanka in May 2022 became the first country in the Asia-Pacific to default on its debts in two decades, the result of domestic economic mismanagement and a surge in global inflation following the coronavirus pandemic.
2. Sri Lanka has foreign debts of about $40bn. **China, Japan and India are amongst the largest creditors.**
3. The **IMF has cleared a $3-billion-Extended Fund Facility (EFF) in March 2023** for Sri Lanka but this loan facility has been stalled due to some disagreement between the creditors.

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4. **Major lenders, excluding China, formed the Official Creditor Committee (OCC) in May 2023** in response to Colombo's request for debt treatment. It is co-chaired by India, Japan, and France (as chair of the Paris Club)

What is the Paris Club?

What is it?	1) An informal group of creditor countries whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries.
Origin	**It was created gradually from 1956**, when the first negotiation between Argentina and its public creditors took place in Paris.
Member Countries	1) **Currently has 22 permanent members**: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Israel, Japan, Netherlands, Norway, Russia, South Korea, Spain, Sweden, Switzerland, the United Kingdom and the United States. 2) All are members of the Organisation for Economic Co-operation and Development (OECD). 3) **India is not a member of this club.**
Key features	1) It **operates on the principles of consensus and solidarity**. Any agreement reached with the debtor country will apply equally to all its Paris Club creditors. 2) The **outcome of the negotiation is not a legally binding agreement** but forms the basis for legally binding bilateral arrangements between the debtor country and its Paris Club creditor countries.

International Maritime Organisation (IMO): India re-elected with highest vote tally

Why in the News?

India has been re-elected to the International Maritime Organisation (IMO) Council for the 2024–25 period.

What is the International Maritime Organisation (IMO)?

Specifications	Details
What is it	It is a specialized agency of the United Nations that **regulates the maritime industry**, which supports global trade, transportation, and all marine operations.
Established in	1948 but entered into force in 1958.
Headquarters	London, UK
Purpose	1) It is responsible for measures to improve the safety and security of international shipping and to prevent pollution from ships. 2) It is also involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic.

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Members	175
	– India joined the IMO in 1959.

Article 99 of the UN Charter, invoked for the first time in decades as Israel attacks Gaza

Why in the News?

The United Nations Secretary-General has decided to invoke Article 99 of the UN Charter and has urged the UN Security Council to act on the humanitarian crisis in Gaza.

What is the UN Charter?

1. The UN Charter is the founding document of the United Nations.
2. **It was signed on 26 June 1945 in San Francisco**, US at the conclusion of the United Nations Conference on International Organization. It came into force on 24 October 1945.
3. The charter **grants the power to the UN to take action on a wide variety of issues**.
4. The Charter is considered an international treaty, meaning UN Member States are bound by it.

What is Article 99 of the UN Charter?

1. Article 99 of the UN Charter is a **special, discretionary power given to the UN Secretary-General.**
2. The article allows the UN Secretary-General to bring to the attention of the UN Security Council (UNSC) any matter which in his opinion may threaten the maintenance of international peace and security
3. **When Article 99 is invoked, the President of the UNSC is under the obligation to call a meeting of the Security Council.**
4. But Article 99 does not provide the UN Secretary General with the means to compel the UNSC to adopt resolutions. For any resolution to be adopted, it will require at least nine votes in favor and no vetoes by the five permanent members.
5. **It has only been invoked four times in the past** — in the Congo (1960), East Pakistan (1971), Iran (1979) and Lebanon (1989).

Guyana and Venezuela Conflict

Why in the News?

Recently Venezuela held a nonbinding referendum to strengthen the nation's century-old claim to the oil-rich Essequibo territory governed by Guyana.

What is the dispute between Guyana and Venezuela?

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Source- BBC

Historical background

1. The **land boundary between Guyana and Venezuela has been disputed since its colonial inception between British and Spanish powers in South America.**
2. In the 1840s, the British government had the border unilaterally surveyed, but the proposed line encroached on Venezuelan territorial claims.
3. While the British line, accepted by Guyana, is the current de facto boundary, Venezuela maintains a historic claim to all territory currently administered by Guyana west of the Essequibo River.
4. Venezuela contends that the Essequibo River represents the natural border between the countries, dating back to Spanish rule, while Guyana upholds the border established during the British colonial era, validated by 1899 arbitration court.

Current Status

1. Guyana submitted the dispute to the International Court of Justice (ICJ) in 2018. **The ICJ validated Guyana's claims.**
2. Venezuela proceeded with the referendum despite calls from the ICJ to refrain from actions affecting the disputed territory.

About Essequibo

1. Essequiba is a disputed territory **west of the Essequibo River, claimed by both Guyana and Venezuela.**
2. The region makes up two thirds of the total of the land currently controlled by Guyana and is home to 125,000 of Guyana's 800,000 citizens.
3. **It is an oil and mineral-rich** (gold, copper, diamond, aluminium and iron ore) region.

India to host 27th WAIPA World Investment Conference in New Delhi

Why in the News?

India is going to host the 27th World Investment Conference (WIC) in New Delhi.

What is the World Investment Conference (WIC)?

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Specification	Details
What is it?	1) It is an annual flagship event of the World Association of Investment Promotion Agencies (WAIPA). 2) It serves as a platform for global investment promotion and innovation stakeholders.
2023 WIC theme	**Empowering Investors**: IPAs Pioneering Future Growth.
Organising body	**Invest India (Current President of WAIPA)**- 1) It's India's investment promotion agency under the Ministry of Commerce and Industry. 2) It empowers investors under the 'Make in India' initiative to establish, operate, and expand businesses in India.
Key features of 2023 WIC	1) The WIC is being **held in India for the first time** and is set to be the largest WIC ever. 2) This conference unites stakeholders to discuss investment policies and trends, offering a unique opportunity for networking, knowledge sharing, and building partnerships. 3) **Experience India Centre (EIC)**- Invest India will establish an EIC to showcase India's top services, technology, and products using various technologies, including virtual and augmented reality.

What is the World Association of Investment Promotion Agencies (WAIPA)?

Specification	Details
What is it?	It's a non-governmental organization serving as a forum for investment promotion agencies (IPAs), facilitating networking, and promoting best practices in investment promotion.
Established in	1995 by the United Nations Conference on Trade and Development
Secretariat	Istanbul
Members	It has more than 120 member agencies representing more than 100 countries.
Objectives	1) Promote and develop understanding and cooperation amongst IPAs. 2) Assist IPAs in advising their respective governments on the formulation of appropriate investment promotion policies and strategies. 3) It acts as a bridge between the public and private sector

Operation Storm Makers II: Cases of human trafficking victims being forced to commit cybercrimes on the rise

Why in the News?

Interpol has conducted a major operation called Operation Storm Makers II.

What is Operation Storm Makers II?

Specifications	Details
Conducted by	Interpol
Aim	To target fraud schemes fuelled by victims of human trafficking.
Participating countries	27 including India
Key findings of the operation	1) Human trafficking-fuelled frauds are expanding beyond Southeast Asia. 2) Victims are lured by fake job ads and forced to commit online fraud such as: Fake cryptocurrency investments, Work-from-home scams and Lottery and online gambling scams. 3) Victims are also subjected to physical abuse.

What is Interpol?

Source: Interpol

Specifications	Details
Full Name	International Criminal Police Organization (ICPO-INTERPOL)
Type	Inter-governmental organization
Established in	1923
Purpose	It facilitates worldwide police cooperation and crime control.
Functions	1) It provides investigative support, expertise and training to law enforcement

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	worldwide, focusing on three major areas of transnational crime: terrorism, cybercrime and organised crime. 2) It facilitates cooperation among national law enforcement institutions through criminal databases and communications networks.
Members	196 (India has been member since 1949)
Headquarters	Lyon, France
INTERPOL Notices	Notices are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.
National Central Bureau (NCB)	1) Each of the member countries hosts a National Central Bureau (NCB) which acts as a country's focal point for all INTERPOL activities 3) CBI is the NCB for Interpol in India.

Tax Inspectors Without Borders

Why in the News?

Recently Tax Inspectors Without Borders (TIWB) launched a programme in Saint Lucia. India has been selected as the Partner Administration and will contribute Tax Experts to this programme.

What is Tax Inspectors Without Borders (TIWB)?

Aspect	Details
What is it?	1) It is an initiative aimed at supporting countries in **building tax audit capacity.** 2) It facilitates the transfer of tax audit knowledge and skills to developing country tax administrations using a practical, "learning by doing" approach. 3) The initiative underpins the OECD/G20 BEPS actions.
Launched by	Joint initiative of the Organisation for Economic Co-operation and Development (OECD) and the United Nations Development Programme (UNDP), launched in 2015.
Secretariat	Located in Paris, the Secretariat is backed by UNDP's network of Country Offices in developing nations.
Key Features of the Programme	1) Enhance international cooperation on tax matters and support the domestic resource mobilization efforts of developing countries. 2) It facilitates targeted, tax audit assistance programmes in developing countries across the globe.

What is the TIWB Programme in Sant Lucia?

1. In partnership with the TIWB Secretariat, **India aims to assist Saint Lucia in enhancing its tax administration** by imparting technical knowledge and skills, as well as sharing best practices.

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2. The program will emphasize the efficient utilisation of automatic exchange of information within the Common Reporting Standard (CRS) framework.
3. It is the **seventh TIWB programme which India has supported** by providing Tax Experts.

INDIAN OCEAN NAVAL SYMPOSIUM (IONS) 2023

Why in the News?

Recently the 8th edition of the Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) held in Bangkok, Thailand.

What is Indian Ocean Naval Symposium (IONS)?

1. It is a **biennial forum** conceived by the Indian Navy in 2008.
2. **Purpose-** It is a voluntary initiative that seeks to **increase maritime cooperation among navies of the littoral states of the Indian Ocean Region**. It provides an open and inclusive forum for discussion of regionally relevant maritime issues.
3. The inaugural edition of IONS was held in Feb 2008 at New Delhi, with Indian Navy as the Chair for two years (2008 – 2010)
4. IONS strength is 34 (**25 members and 9 observer states**).

What are the Highlights of the IONS 2023 Conclave of Chiefs?

1. Conducted by Royal Thai Navy at Bangkok, Thailand.
2. **Thailand took over as the IONS Chair**.
3. The **flag designed by India was chosen as the official IONS Flag**.
4. India assumed the co-Chair position for IONS Working Groups on Maritime Security and Humanitarian Assistance and Disaster Relief (HADR) for the upcoming cycle.
5. **The Republic of Korea Navy was added as the latest observer**.

Note- India is set to assume the role of Chair for IONS (2025-27) during the 9th CoC, scheduled to be held in India at the end of 2025.

Migration and Mobility Agreement between India and Italy

Why in the News?

The Union Cabinet has approved the Ministry of External Affairs' proposal to sign and ratify the Migration and Mobility Agreement between India and Italy.

What is Migration and Mobility Agreement between India and Italy?

1) The agreement was signed on 2 November 2023.

2) It aims to enable **seamless movement of workers, students and professionals** and enhance cooperation on the issue of illegal migration.

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3) The Agreement locks-in the current Italian visa regime including **mechanisms for post study opportunities, internships, professional trainings** assuring an advantage for India.

4) Once approved by both parties, it **stays in force for 5 years**. The agreement will be automatically renewed for successive periods, unless terminated by a participant.

What are the Key Provisions of the Agreement?

1) Indian students completing academic/ vocational training in Italy can obtain **temporary residence in the country for up to 12 months** to gain initial professional experience.

2) Under the current Flows Decree, Italian side has offered incremental **re-served quotas for both seasonal and non-seasonal workers from 2023-2025.**

3) It also formalizes collaboration between the two parties in the efforts to **combat irregular migration.**

4) The Agreement establishes a formal monitoring mechanism through a **Joint Working Group (JWG)** that will meet periodically, either virtually or in person, as needed, to oversee its implementation.

Angola quits OPEC amid dispute over oil production quotas

Why in the News?

Angola has opted to withdraw from the Organization of the Petroleum Exporting Countries (OPEC) due to a disagreement concerning oil production quotas.

Note- Several other members have quit the group in recent years, for different reasons: Qatar, Indonesia and most recently, Ecuador.

What will be the impact of this decision?

1) It will **shrink membership** of OPEC to 12 nations.

2) Angola's departure raised **concerns regarding the unity** of the organization and resulted in a **drop in international oil prices**.

What is the Organization of the Petroleum Exporting Countries (OPEC)?

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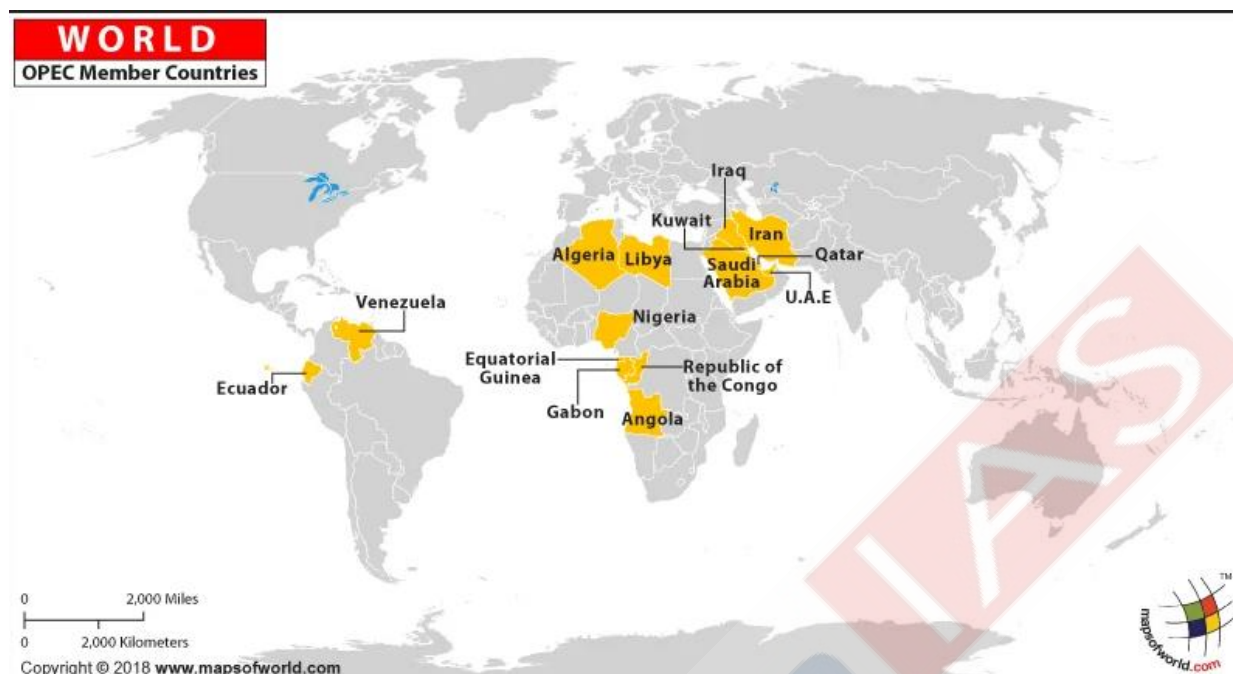
Source- mapsofworld

Specifications	Details
What is it?	It is an intergovernmental organisation of oil producing nations. They together account for an estimated **44 percent of global oil production and 81.5 percent of the world's "proven" oil reserves.**
Objective	To coordinate and unify petroleum policies among its member countries to secure fair and stable prices for petroleum producers.
Founded in	14 September 1960 in Baghdad, Iraq.
Headquarter	Vienna, Austria.
Members	**Total members countries**– 13 (Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, and Venezuela) **Founding members**– Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela
Functions	1) It plays a significant role in influencing global oil production levels to meet market demand and maintain the economic interests of its member nations. 2) Decisions about matching oil production to expected demand are taken at the meeting of the OPEC conference.

About Angola

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Source- Britannica

1) Angola is a country **located on the west coast of Southern Africa.**

2) It is **bordered** by Namibia to the south, the Democratic Republic of the Congo to the north, Zambia to the east, and the Atlantic Ocean to the west

Subject: Indian Economy

RBI's Cloud Facility for Financial Sector

Why in the News?

The Reserve Bank of India (RBI) is working on establishing a cloud facility for the financial sector in India.

What is the Cloud Centre for Financial Data?

1. It aims to provide a structured, scalable data storage and data processing facility.
2. It will be part of the Digital Public Infrastructure (DPI)
3. The facility will be set up and initially operated by the Indian Financial Technology & Allied Services (IFTAS), a **wholly owned subsidiary of RBI**. Eventually, the cloud facility will be transferred to a separate entity owned by the financial sector participants.

What is the Significance of the move?

1. Enhance the security, integrity and privacy of financial sector data.
2. Alternative to similar services offered by American companies like Amazon, Google and Microsoft.
3. For smaller organizations such as cooperative banks, this offers significant efficiency in scaling since maintaining individual databases for each one could require substantial investments and specialized skills.
4. It will empower the financial sector to utilise next-generation technologies, including AI, platform automation,   etc.

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Mines Ministry to directly Sanctions Critical Mineral Exploration to Private Agencies

Why in the News?

Ministry of Mines has introduced a new scheme. Now exploration projects for critical and deep-seated minerals will be directly sanctioned to Notified Private Exploration Agencies (NPEAs).

What are the Policy Changes taken up by the Ministry?

1. **The government has taken the recent step**–
a. The Ministry of Mines will **directly sanction exploration projects** to NPEAs for critical and deep-seated minerals.
b. It has also allowed these NPEAs to bid for auction for mineral blocks explored by them which was not allowed earlier.

2. Earlier in 2023, the government brought amendment to the MMDR Act through which the Ministry of Mines designated 24 minerals, including graphite and nickel, as critical and strategic. This amendment empowers the Center to issue mineral concessions for these minerals, enabling it to prioritize their auction.

What is the Significance of this New Scheme?

1. The scheme will help cut delays in sanction of projects as well as fast-track execution of projects.
2. It will also attract major mining companies and encourage global junior mining firms to undertake exploration projects in India
3. It will **contribute to the infusion of innovative technologies** in the field of exploration.
4. It will increase the pace of auction and early production of the critical minerals.

What are Notified Private Exploration Agencies (NPEAs)?

1. The government amended the 1957 Mines and Minerals (Development and Regulation) Act (MMDR Act) through the MMDR Amendment Act, 2021 which empowers the Central Government to identify entities, including private ones, eligible for prospecting operations.
2. In **association with QCI-NABET**, the ministry of Mines will provide accreditation to Private entities. National Accreditation Board for Education and Training (NABET) is a constituent Board of Quality Council of India.
3. Upon accreditation, they should submit their application to the Ministry for notification under the MMDR Act.
4. Based on this, the Ministry of Mines has notified 16 Private Exploration Agencies to take up exploration projects through State Governments, funded by National Mineral Exploration Trust (NMET).

What is the National Mineral Exploration Trust (NMET)?

NMET is a **statutory body** responsible for overseeing the comprehensive operations of the mining sector.

States can borrow an extra ₹2 lakh crore this fiscal year

Why in the News?

The Finance Ministry has allowed states to access approximately ₹2.04 lakh crore overall as additional borrowings beyond their net borrowing limits for the current fiscal year.

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What is the recent decision taken by the Centre?

1. The Centre has allowed extra borrowing of Rs 60,876.80 crore to States, on top of their net borrowing ceilings of 3% of Gross State Domestic Product (GSDP).
2. 22 states have been granted this additional borrowing for meeting pension liabilities under the National Pension System (NPS).
   Note- The NPS has been overseeing government employee retirement savings since 2004.

What are the borrowing ceiling for States?

1. The normal net borrowing ceiling for states is fixed at 3 per cent of the Gross State Domestic Product (GSDP).
   – For FY24, this is equivalent to Rs 8,59,988 crore as recommended by the Fifteenth Finance Commission.
2. States are allocated an **extra 0.5 per cent of GSDP** in borrowing capacity as a performance-based incentive for power sector reforms.
   – According to this, States are eligible to borrow Rs 1.43 lakh crore on the recommendation of the power ministry for FY24.

What are the Related Constitutional provisions?

Article293(3) -A State may not without the consent of the Government of India raise any loan if there is still outstanding any part of a loan which has been made to the State by the Government of India or by its predecessor Government

– In Practice, the Centre has been utilizing this authority following the guidance provided by the Finance Commission.

RAMP Programme: Union Minister launches three sub-schemes under it

Why in the News?

Union Minister for MSME has launched three sub-schemes under the aegis of the RAMP programme.

What are the three sub schemes launched under the RAMP Programme?

1. **MSME Green Investment and Financing for Transformation Scheme (MSE GIFT Scheme):** It aims to help MSMEs adopt green technology with interest subvention and credit guarantee support.
2. **MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme):** It aims to support circular economy projects through credit subsidy. This will lead to realizing the dream of MSME sector towards zero emissions by 2070.
3. **MSE Scheme on Online Dispute Resolution for Delayed Payments:** It aims to synergise legal support with modern IT tools and Artificial Intelligence to address the incidences of delayed payments for Micro and Small Enterprises.

What is the RAMP Programme?

1) RAMP is a **World Bank assisted Central Sector Scheme**.

2) **Aim-** To provide support to the MSMEs by:
a. Improving access to market and credit
b. Strengthening institutions and governance at the Centre and State

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c. Improving Centre-State linkages and partnerships
d. Addressing issues of delayed payments and greening MSMEs.

3) **Nodal Ministry-** Ministry of Micro, Small and Medium Enterprises (MSME)

T+0 Settlement Cycle: SEBI Proposes Instant Settlement Cycle

Why in the News?

The **Securities and Exchange Board of India (SEBI)** has proposed to introduce the T+0 settlement cycle on an optional basis. This facility will be in addition to the existing T+1 (trade plus one day) settlement cycle.

What is the current settlement cycle followed in the securities market?

1) Currently on Indian exchanges, the settlement cycle for all traded instruments is **T+1** day, with T representing the trading day. It was introduced in 2021 in a phased manner and was fully implemented in 2023.

2) T+1 means **settlements will have to be cleared within one day** after the actual transaction takes place. F**or example-** trades executed on Monday get settled on Tuesday, the next working day.

What has SEBI proposed now?

1) It suggested adding a shorter settlement cycle as an option for the equity cash segment, alongside the existing T+1 cycle.

2) The proposed implementation involves **two phases:**
a. **Phase 1** – An optional T+0 settlement cycle (**for trades until 1:30 PM**) is envisioned, aiming to conclude the settlement of funds and securities on the same day by 4:30 PM.
b. **Phase 2** – There's an option for immediate trade-by-trade settlement (funds and securities). Trading in this phase will continue until **3:30 PM.**

3) SEBI proposes initially **introducing T+0 settlement for the top 500 listed equity shares**, categorized by market capitalization. This will be implemented in three phases of 200, 200, and 100 shares, progressing from the lowest to the highest market cap.

4) Securities under the trade-for-trade settlement will **not be permitted for T+0**.

What are the Benefits of the New Settlement Cycle?

1) An immediate settlement mechanism allows for the **instant receipt of funds and securities**, in contrast to the current T+1 day pay-out.

2) It will strengthen investor protection by enhancing the control of the investor over the securities and funds.

3) It can position Indian equities as a resilient, cost-effective, and time-efficient asset class, surpassing emerging contenders in alternative asset classes.

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Subject: Science & Technology

X-ray Polarimeter Satellite (XPoSat) Mission: ISRO is set to launch it

Why in the News?

The Indian Space Research Organisation (ISRO) has announced a plan to launch its first X-ray Polarimeter Satellite (XPoSat) Mission.

What is XPoSat Mission?

Specifications	Details
To be launched by	ISRO
Full Form	X-Ray Polarimeter Satellite (XPoSat)
Objectives	1)To measure X-ray polarization from X-ray sources. 2)To conduct long-term studies of the spectral and temporal characteristics of cosmic X-ray sources. 3)It will supplement the traditional time and frequency domain studies.
Launch Vehicle	Polar Satellite Launch Vehicle (PSLV)
Duration of Mission	Five Years
To be placed in	Low Earth Orbit
Payloads	1) **POLIX (Polarimeter Instrument in X-rays)**: It will measure the polarimetry parameters (degree and angle of polarization) in medium X-ray energy range of 8-30 keV photons of astronomical origin. 2) It is being developed by Raman Research Institute (RRI), Bangalore in collaboration with U R Rao Satellite Centre (URSC).
	1) **XSPECT (X-ray Spectroscopy and Timing)**: It will give spectroscopic information (on how light is absorbed and emitted by objects). It would observe several types of sources such as X-ray pulsars, blackhole binaries, low-magnetic field neutron stars etc. 2) It was developed by the U.R.Rao Satellite Centre,ISRO.
Significance	1)It is **India's first and the world's second polarimetry mission**. 2)The other such major mission is NASA's Imaging X-ray Polarimetry Explorer (IXPE) that was launched in 2021.

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Biotechnology Research and Innovation Council (BRIC)

Why in the News?

The Union Minister of Science and Technology has addressed the first ever meeting of the Biotechnology Research and Innovation Council (BRIC).

What is the Biotechnology Research and Innovation Council (BRIC)?

Specifications	Details
What is it	It is an apex autonomous society under the Department of Biotechnology (DBT), Ministry of Science and Technology.
Purpose	It was formed by subsuming 14 Autonomous Institutions (AIs) under it. This has been done to provide centralized and unified biotech governance across the country.
Functions of Institutions under BRIC	1) The institutions subsumed under BRIC will retain their distinct research mandates but governed by one body at BRIC. 2) Institutes can allocate up to one-third of their lab space for researchers from outside DBT institutes and their collaborators (from industry or other institutes). 3) The institutes will also have the **freedom to collaborate in public-private research initiatives and receive funding and endowments from non-governmental sources for their research activities**. 4) New Ph.D. programs will be launched across BRIC institutions with a shared curriculum.
Significance	1) Rationalization of Autonomous Bodies will ensure performance enhancement. 2) Function as nodal agency for promotion of biotechnology in India. 3) It will help bring together the best minds in the biotech sector on a unified platform.

World Malaria Report 2023

Why in the News?

According to the World Malaria Report 2023, released by WHO, malaria cases continue to dip in India despite an increasing trend globally.

What are the Key Highlights of the Report?

India Trend
1. **Reduction in Malaria cases and Fatalities in 2022**: India saw a decline of 30 per cent in malaria incidence and 34 per cent in mortality in 2022, compared to the previous year.
2. India accounted for 1.4% of total malaria cases in the world
3. **Reasons for decline**- Focus on primary healthcare in remote areas, digital data-backed surveillance,

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effective management of extreme weather events like cyclones, better preventive strategies, and point of care diagnostics have played crucial roles.

Global Trend

1. Globally, malaria cases have **witnessed an increasing trend since the pandemic**, rising by 5 million in 2022 to 249 million.
2. Of the 5 million additional cases, the highest 2.1 million was from Pakistan that had a flood in 2022

What is Malaria?

1. It is a disease **caused by parasites that are transmitted to people through the bites of infected female Anopheles mosquitoes.**
2. **There are five kinds of malarial parasites** — Plasmodium falciparum, Plasmodium vivax (the commonest one), Plasmodium malariae, Plasmodium ovale, and Plasmodium knowlesi.
3. The **first approved vaccine is RTS, S, also known as Mosquirix**. The WHO recommends two malaria vaccines: **RTS, S/AS01 and R21/Matrix-M**

Population-level genome sequencing

Why in the News?

The UK has announced the completion of half a million whole-genome sequences, almost 0.7% of its population, under its '100K Genome Project'

What is Population-level Genome sequencing?

Population-level genome sequencing involves **deciphering the complete genetic makeup of large populations**. This entails sequencing an organism's entire DNA. This offers unprecedented insights into human diversity and can be useful in the healthcare sector.

What are the benefits of population-level genome sequencing?

1. Understanding disease prevalence and biomarkers which allows discovery of novel therapeutic targets.
2. Genomic data can be used in decision-making and medical care to build scalable public-health initiatives.
3. It will also contribute significantly to our knowledge of human biology, human evolution, migration patterns, and adaptation to diverse environments.

What are some other population-level genome sequencing projects?

Genome Initiative	Origin Country
AllofUS program	U.S
1+ Million Genomes	The European Union
Three Million African Genomes	By Ambroise Wonkam (Professor) of Cape Town University in South Africa
deCODE initiatve	Iceland

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GenomeAsia Project	Several Asian countries and the USA

India's IndiGen Programme: Providing insights into genetic diseases and variants, with plans for a larger GenomeIndia initiative to sequence 10,000 genomes.

Artificial General Intelligence (AGI)

Why in the News?

This post discusses the various aspects of Artificial General intelligence and the related technological developments.

What is Artificial General Intelligence?

Artificial general intelligence (AGI) is defined as the **intelligence of machines that allows them to comprehend, learn, and perform intellectual tasks much like humans**. AGI emulates the human mind and behavior to solve any kind of complex problem. AGI is also known as strong AI or Human AI.

What is the difference between Narrow AI and General AI?

Narrow AI is concerned with only simulating human behavior based on a set of rules, parameters, and contexts that they are trained with. On the other hand, general AI mimics human intelligence by going a step beyond. It has the ability to learn and apply its intelligence to solve any problem.

Specifications	Narrow AI	General AI
Learning ability	Narrow AI focuses on a single task under various constraints and limitations.	AGI is envisioned to have the capacity for generalization and adaptation across diverse domains.
Operational domain	Fixed domain models provided by programmers	Self-learn and reasons with its operating environment
Data processing	Narrow AI analyses data by using ML, Natural Language Processing, Deep Learning, and Artificial Neural Networks	General AI uses an advanced version of these technologies for analysis.
Limitation	Limited to a single task, lacks broader intelligence	May lack depth in certain areas and have ethical concerns
Examples	Virtual assistant, spam filter, image recognition tools.	Self-driving cars, advanced chatbot.

What is Project Q* of OpenAI?

1. Project Q* refers to a new AI model being developed by the ChatGPT owner OpenAI.
2. Under this project, an **AI algorithm has been developed that is capable of solving elementary mathematical problems by itself**, including those that are not part of its training data.

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3. It demonstrates advanced reasoning capabilities similar to humans and is a significant step towards Artificial General Intelligence.

Chandrayaan-3 propulsion module retraces steps to Earth orbit: why it matters

Why in the News?

ISRO has successfully brought back the Propulsion Module (PM) of Chandrayaan-3 from a lunar orbit to an orbit around Earth after it completed its original mission objectives.

What is the Propulsion Module (PM)?

1. The propulsion module was a **part of Chandrayaan-3.**
2. The primary **objective of the module was to carry the Vikram Lander Module from launch vehicle injection till the final lunar 100 km circular polar orbit** and separate the Lander Module from the Propulsion Module.
3. The module also **carried a payload called the SpectroPolarimetry of Habitable Planet Earth (SHAPE)**. It is an experimental instrument to look back at Earth and study the signatures that make it habitable so as to identify habitable exoplanets.

What is the significance of successfully bringing back the Propulsion Module to earth orbit?

1. **Planning and execution of Moon-to-Earth trajectories**: ISRO gained insights into planning and executing the trajectory and maneuvers required for a small spacecraft to return from the Moon to Earth. This can prove useful for future lunar sample return missions.
2. **Software Modules**: This experiment helps in developing software modules for future missions that involve returning from the Moon.
3. **Gravity-assisted flybys**: The knowledge gained can be applied to plan and execute gravity-assisted flybys around other celestial bodies.

GEMINI: AI Model developed by Google

Why in the News?

Google has launched Project Gemini, its largest and most capable AI model.

What is GEMINI?

Specifications	Details
What is it	It is a Multimodal AI and a Large Language Model (LLM) **developed by Google.**
Features	1) **Multimodal:** It can understand different types of information including text, audio, images and video. 2) **Powerful**: It surpasses most human experts in various tasks, potentially making it the most powerful AI model to date. 3) **Types**: It will be available in three models: Ultra (for highly complex tasks), Pro (for scaling across a wide range of tasks) and Nano (on-device tasks). 4)The Nano and Pro models will be immediately incorporated into Google's AI-

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	powered chatbot Bard. The Ultra model will be launched next year.
Significance	1) It could revolutionize how we search for information online. 2) It could be used to create new forms of art and entertainment, pushing the boundaries of human creativity.
Concerns	1) Job displacement in certain sectors. 2) Amplification of misinformation or unintended consequences.

What is a Large Language Model (LLM)?

1. A large language model is an **advanced artificial intelligence system that processes, understands and generates human-like text based on massive amounts of data.**
2. These models are typically built using deep learning techniques such as neural networks and are trained on extensive datasets that include text from a broad range such as books and websites, for natural language processing.
3. One of the most well-known examples of LLMs is OpenAI's ChatGPT.

First WHO Global Clinical Trials Forum

Why in the News?

The First WHO Global Clinical Trials Forum was recently conducted. The objective of the forum was to develop a joint vision on strengthening clinical research capabilities.

What are Clinical Trials?

Clinical trials are a type of research that studies new tests and treatments and evaluates their effects on human health outcomes. These trials are an essential component of the drug development process and are necessary to determine the benefits and risks of new treatments.

How are Clinical Trials regulated in India?

Source: Wikipedia

1. In India, the Central Drug Standard Control Organisation (CDSCO) regulates clinical trials under Drugs and Cosmetics Act, 1940.

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2. **Clinical Trials Registry – India (CTRI)**:

Specifications	Details
Established in	2007
Hosted at	Indian Council of Medical Research (ICMR)'s National Institute of Medical Statistics.
Purpose	It is a free, online public-record system to register clinical trials being conducted in India.
Mandatory to register	It is mandatory to register for every clinical trial at CTRI before commencing as per the Drugs Controller General (India) (DCGI).

3. **New Drugs and Clinical Trial Rules**: These rules were notified in 2019 with the aim to promote clinical research in the country.

– In 2023, an amendment was made to the rules to allow the researchers to utilize non-animal and human-relevant, including technologies like 3D organoids, organs-on-chip, and advanced computational methods, to test the safety and efficacy of new drugs.

JT-60SA: World's biggest nuclear fusion reactor

Why in the News?

JT-60SA, the world's largest and most advanced nuclear fusion reactor started its official operations in Japan, marking a major milestone towards achieving the goal of clean energy.

What is JT-60SA?

1. JT-60SA is a **joint initiative between the European Union and Japan aiming to investigate the feasibility of nuclear fusion as a sustainable and near limitless power source.**
2. The JT-60SA reactor is a six-storey-high machine, which is kept in a hangar in Naka, north of Tokyo. It comprises a doughnut-shaped "tokamak" vessel set to contain the swirling plasma heated up to 200 million degrees Celsius.
3. One of the **main objectives of this project is to replicate nuclear fusion ignition (net surplus energy)**, a feat first achieved by scientists at the Lawrence Livermore National Laboratory in California.
4. The net energy gain was achieved by using lasers to fuse together two light atoms into a single denser one, releasing high amounts of energy. This net energy gain allows the nuclear fusion reaction to become self-sustaining.
5. A similar even **bigger nuclear fusion reactor is currently under construction in France and is expected to begin operations in 2025**.

What is the Significance of Nuclear Fusion Energy?

1. **Sustainable clean energy source**– It does not produce carbon dioxide – making it an important technology in the path to net zero emissions.
2. **No long-lived radioactive waste**– It stops when the fuel supply or power source is shut down. It generates no high-level long-lived radioactive waste.
3. **Limited risk of proliferation**– Fusion doesn't employ fissile materials like uranium and plutonium.

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4. **Near limitless power source**– Since nuclear fusion energy runs on hydrogen, the most abundant element in the universe, it's considered virtually limitless in its production potential, unlike the limited fossil fuels and other intermittent renewable energy sources.

GNoME: Google DeepMind's AI breakthrough could revolutionize chip, battery development

Why in the News?

Researchers at Google DeepMind have developed a new Deep Learning Artificial Intelligence (AI) tool called GNoME to discover new materials.

What is GNoME?

GNoME stands for Graph Networks for Materials Exploration. It is a Deep Learning AI tool developed by researchers at Google DeepMind.
Purpose: To discover new materials and predict material stability.

What has been discovered by GNoME till now?
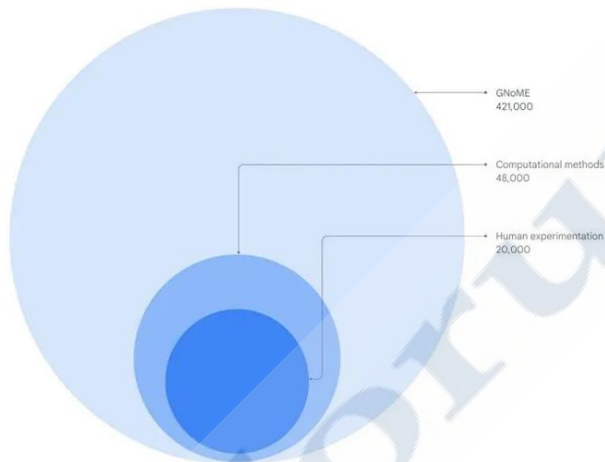
GNoME is said to have discovered over 2.2 million new materials including 380,000 materials that it predicts to be stable.This breakthrough could have wide-reaching applications in sectors such as renewable energy, battery research, semiconductor design and computing efficiency.

How does GNoME work?

Figure 1Source: Indian Express
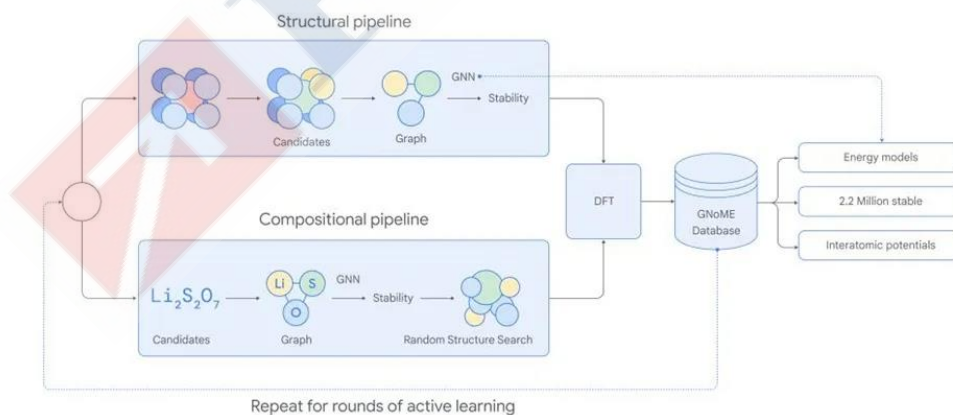
Source: Indian Express

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1. GNoME is a graph neural network model (GNN) where **the input data for the model takes the form of a graph that can then be likened to connections between atoms.**
2. It was trained using active learning (a type of machine learning technique used to scale up a model first trained on a small specialised dataset)
   – This **technique is great for discovering new materials because it can find patterns beyond what's in the original dataset.**

3. It then combines two pipelines to discover new stable materials :
a. **Structural**- creates candidates with structures similar to known crystals.
b. **Compositional**- a randomised approach based on chemical formulas .
4. The predictions made by it are then evaluated using Density Functional Theory (a technique used in physics, chemistry and materials science to understand atomic structures and assess crystal stability).

What is the significance of GNoME?

1. GNoME has significantly **improved the accuracy of predicting material stability from 50% to approximately 80%.**
2. It has **increased the number of known stable materials**. This could lead to the development of new technologies such as more efficient batteries and superconductors.
3. It uses filters to narrow down the list of potential materials. This saves time and money by avoiding the need to synthesize and test materials that are unlikely to be stable.

COP28 gets $777mn to fight Neglected Tropical Diseases

Why in the News?

The 2023 Reaching the Last Mile Forum at COP28 has secured over $777 million in pledges to address the growing challenge of neglected tropical diseases (NTDs).

What is Reaching the Last Mile Forum?

1. The Forum was hosted by Reaching the Last Mile (under the patronage of the President of the UAE), in collaboration with the Bill & Melinda Gates Foundation.
2. Held on the **sidelines of COP28 first ever 'Health Day ',** the forum serves as a platform to assess the effects of climate change on human health.
3. At the forum, the **expansion of the Reaching the Last Mile Fund (RLMF) from $100 million to $500 million was announced.**
   Note – It's a 10-year, multi-donor fund, aimed at eliminating lymphatic filariasis and onchocerciasis (river blindness) in sub-Saharan Africa.
4. The pledge holds significance as the incidence of NTDs are expected to rise with global warming.

What are Neglected Tropical Diseases?

1. NTDs are diseases that are **mainly prevalent in tropical areas, particularly among marginalized or isolated communities**. For example– dengue and chikungunya, lymphatic filariasis, leprosy, yaws, etc.
2. As these diseases have largely been wiped out in the more developed parts and persist mostly in the poorer countries, they are absent from the global health agenda and hence called 'neglected'.

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Lyfgenia and Casgevy: U.S FDA approves gene therapies for sickle cell disease

Why in the News?

The U.S Food and Drug Administration (FDA) has approved a pair of gene therapies named Lyfgenia and Casgevy for the treatment of sickle cell disease.

What is Lyfgenia?

Specifications	Details
What is it	Lyfgenia is a cell-based gene therapy developed for the treatment of sickle cell disease.
Developed by	Bluebird Bio
Eligibility	The therapy is approved for people aged 12 years and older.
Treatment process	1) The treatment involves removing stem cells out of bone marrow from a patient's blood. 2) The stem cells are then genetically modified to produce HbAT87Q. It is a gene-therapy-derived haemoglobin that functions similarly to haemoglobin A or the normal adult haemoglobin produced by those who do not have sickle cell disease. 3) The modified stem cells are then delivered to the patient in a one-time, single-dose infusion.

What is Sickle Cell Disease?

1. It is a **genetic red blood cell disorder** that affects the shape of the hemoglobin, a protein that carries oxygen through the body.
2. The RBCs become crescent- or "sickle"-shaped which makes the flow of hemoglobin through the blood vessels difficult, blocking the blood flow to the rest of the body.

DRESS Syndrome: Painkiller Meftal can have adverse reactions; govt issues drug safety alert

Why in the News?

The Indian Pharmacopoeia Commission (IPC) has warned about risks linked to the painkiller Meftal. They have cautioned about possible harmful reactions with the drug such as a severe condition called DRESS syndrome.

What is DRESS Syndrome?

1. DRESS syndrome stands for Drug Rash with Eosinophilia and Systemic Symptoms.
2. It is a **severe, idiosyncratic reaction to a drugs** such as such as abacavir, allopurinol, and lamotrigine.
3. **Note**- Idiosyncratic drug reaction is used for unpredictable reactions that occur in only a small percentage of patients receiving the drug
4. It is characterised by a delayed onset of symptoms including fever, skin rash, lymphadenopathy (swelling of lymph nodes), eosinophilia (an increase in a type of white blood cells) and various systemic manifestations.

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5. The syndrome has an estimated mortality rate of 10 per cent.

What is Meftal?

1. Meftal is an over-the-counter medication used to **treat pain and inflammation.**
2. It contains the active ingredient mefenamic acid, which belongs to a class of drugs known as nonsteroidal anti-inflammatory drugs (NSAIDs).
3. It is often prescribed for conditions like rheumatoid arthritis, menstrual pain, dental pain, inflammation, fever, etc.
4. Other commonly used NSAIDs include ibuprofen, naproxen, and aspirin

EU Artificial Intelligence Act: What does the world's first law on regulating AI propose?

Why in the News?

European Union (EU) lawmakers have reached a provisional deal on a comprehensive set of rules regulating the use of artificial intelligence (AI).

What is the proposed European Union (EU) Artificial Intelligence Act?

1. It is the world's first set of comprehensive laws to regulate the use of artificial intelligence (AI).
2. **Aim**: To ensure that fundamental rights, democracy, the rule of law and environment are protected from high-risk AI while boosting innovation.

Key Provisions of the AI Law:

Specifications	Details
Four Levels of Risks	1) **Unacceptable risk**: These are banned. Example- deployment of mass scale facial recognition. 2) **High risk**: These are allowed but are subject to certification. Example- AI tools for self-driving cars. 3) **Medium Risk**: They can be deployed without restrictions but require detailed documentation. Example- generative AI chatbots. 4) **Minimal risk**: There are no restrictions on this. Example- AI powered spam filters and video games.
Biometric Surveillance	Governments can only use real-time biometric surveillance in public areas only when there are serious threats involved such as terrorist attacks.
Empowering Consumers	Consumers can launch complaints against any perceived violations.
Penalties for Non-Compliance	The fines will be based on a percentage of their global annual turnover or a predetermined amount, whichever is higher.
EU AI Office	The EU will establish the EU AI Office, tasked with monitoring and fining violators of the law.

How are other countries planning to regulate Artificial Intelligence (AI)?

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1. **US**: Released an AI Bill of Rights and an Executive Order on AI.
2. **China**: Released its own set of AI regulations.
3. **India**: India wants to take the Digital Public Infrastructure (DPI) approach with AI where the underlying technology is sanctioned by the government and is later offered to private entities to develop various use cases.

Amrit Technology for Removal of Arsenic and Metal Ions from Water

Why in the News?

Minister of State for Jal Shakti has informed Rajya Sabha about AMRIT Technology.

What is AMRIT Technology?

Specifications	Details
Full Form	Arsenic and Metal Removal by Indian Technology (AMRIT)
Purpose	It is a water purifier developed for the removal of Arsenic and Metal ions from water.
Developed by	Indian Institute of Technology (IIT) Madras
Working Process	The technology uses nano-scale iron oxy-hydroxide which selectively removes arsenic when water is passed through it.
Used for	It can be used for both domestic and community levels.

Note: According to the Jal Jeevan Mission guidelines, rural areas with unsafe drinking water, like those affected by arsenic, should receive short term measures until permanent piped water systems with clean water sources are built.

What are the other facts covered in the article?
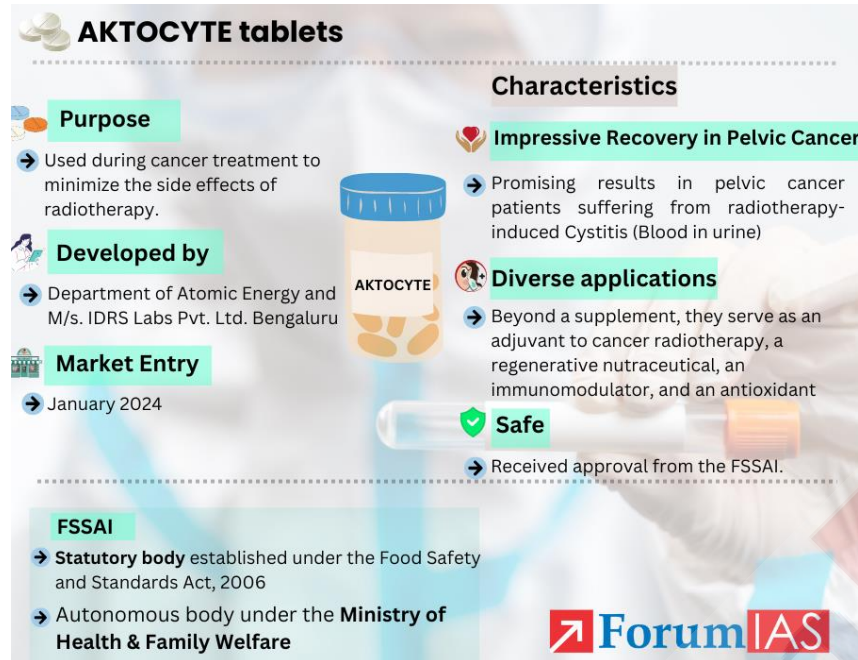
1. Drinking Water is a **State Subject**.
2. **Jal Jeevan Mission (JJM)**: It was launched in 2019 by the Ministry of Jal Shakti. It aims to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India.

AKTOCYTE tablets – Revolutionizing Cancer Care + Infographic

Why in the News?

AKTOCYTE tablets have been granted approval by the Food Safety and Standards Authority of India (FSSAI).

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What are AKTOCYTE tablets?

AKTOCYTE tablets

Purpose
→ Used during cancer treatment to minimize the side effects of radiotherapy.

Developed by
→ Department of Atomic Energy and M/s. IDRS Labs Pvt. Ltd. Bengaluru

Market Entry
→ January 2024

FSSAI
→ **Statutory body** established under the Food Safety and Standards Act, 2006
→ Autonomous body under the **Ministry of Health & Family Welfare**

Characteristics

Impressive Recovery in Pelvic Cancer
→ Promising results in pelvic cancer patients suffering from radiotherapy-induced Cystitis (Blood in urine)

Diverse applications
→ Beyond a supplement, they serve as an adjuvant to cancer radiotherapy, a regenerative nutraceutical, an immunomodulator, and an antioxidant

Safe
→ Received approval from the FSSAI.

Source- PIB

Specifications	Details
What is it?	Its a tablet used during cancer treatment to minimize the side effects of radiotherapy.
Developed by	Department of Atomic Energy and M/s. IDRS Labs Pvt. Ltd. Bengaluru
Characteristics	1) **Impressive Recovery in Pelvic Cancer**: AKTOCYTE Tablets show promise in pelvic cancer patients suffering from radiotherapy-induced Cystitis (Blood in urine). 2) **Versatile AKTOCYTE Tablets**: Beyond a supplement, they serve as an adjuvant to cancer radiotherapy, a regenerative nutraceutical, an immunomodulator, and an antioxidant, highlighting their diverse applications in cancer care. 3) **Safe**: AKTOCYTE has received approval from the FSSAI.
Market Entry	AKTOCYTE Tablets, set to debut in January 2024, promise to revolutionize cancer treatment protocols.

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What is FSSAI?

1. Food Safety and Standards Authority of India (FSSAI) is a **statutory body** established under the Food Safety and Standards Act, 2006 (FSS Act).
2. FSSAI is an autonomous body under the Ministry of Health & Family Welfare.

New Delhi Declaration on Artificial Intelligence Adopted

Why in the News?

The New Delhi Declaration has been adopted at the Global Partnership on Artificial Intelligence (GPAI) Summit. It is being hosted by India at the Bharat Mandapam, New Delhi.

What is Global Partnership on Artificial Intelligence (GPAI)?

1. GPAI is a multi-stakeholder effort aimed at steering the responsible development and application of artificial intelligence.
2. **Members**- 29 member countries.
3. India will be the lead chair for 2024.

What are the Key Highlights of the New Delhi Declaration?

1. **Responsible AI development and deployment:** This includes ensuring transparency, accountability, fairness, and non-discrimination in AI systems.
2. **Global framework on AI**: It states that such a framework should be rooted in democratic values and human rights, safeguarding dignity and well-being as well as ensuring personal data protection.
3. **Inclusive AI**: Ensuring equitable access to the benefits of AI for all countries and people.
4. **Address concerns around AI**: The declaration commits countries to work on addressing concerns around AI such as unemployment, lack of transparency and fairness, protection of intellectual property and personal data and threats to human rights and democratic values.
5. **Diverse membership**: GPAI will pursue a diverse membership with a particular focus on low and middle-income countries to ensure a broad range of expertise, national and regional views and experiences based on our shared values
6. **Agriculture as a priority**: The declaration acknowledges India's contribution in making agriculture a part of the AI agenda.

Cyberthreats: Centre sets up secure e-mail network for staff of critical departments

Why in the News?

In response to cyber-attacks, the Centre has implemented a secure email system for 10,000 users across critical ministries and departments.

How will it work?

1. **Designed by the National Informatics Centre (NIC),** the email system is **based on Zero Trust Authentication (ZTA)**
   – A zero trust architecture is a security approach that treats all systems, networks, and users as untrusted, necessitating ongoing authentication for devices, users, and applications.

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2. It **incorporates a two-factor authentication system that requires facial recognition or biometrics** in addition to passwords.
3. Additionally, it also **records log-in and log-out times for enhanced security**.

What are the other measures taken by the government to enhance Cyber Security?

1. **Digital India Corporation (DIC)** invited **bids from private players to select cloud service provider** to operate, manage and migrate existing projects as well as future projects.

– The DIC is currently working on various national importance projects which run on cloud services provided by Amazon Web Services. For example, Digilocker, Poshan Tracker, MyScheme, Umang, APISetu, NCW, Kisan Sarathi, Academic Bank of Credits etc.

Note- DIC is a **not-for-profit company set up by the Ministry of Electronics and Information Technology (MeitY)**. It is working towards the mission of Digital India by way of Capacity Building for e-Governance projects, promoting best practices, encouraging Public-Private Partnerships (PPP), nurturing innovation and technology in various domains.

2. The scope of the bid also included migrating the e-mail services of government employees to a private player, currently handled by the NIC.

What is the National Informatics Centre (NIC)?

1. Operating under the **Ministry of Electronics and Information Technology** (MeitY), it serves as the **technology partner** for the Government of India.
2. It was established in 1976.
3. Its primary objective is to **deliver technology-driven solutions to both Central and State Governments.**

Kakrapar-4 nuclear reactor attains criticality

Why in the News?

The Fourth unit of the Kakrapar Atomic Power Project (KAPP-4) in Gujarat has achieved criticality.

What is Criticality?

Criticality refers to the state where the chain reaction of nuclear fission in a nuclear reactor is self-sustaining. This means that each fission event produces enough neutrons to cause further fissions, maintaining a constant rate of fission and energy release. Its the first step in nuclear energy generation.

What is the Kakrapar Atomic Power Station (KAPS)?

1. Kakrapar Atomic Power Station (KAPS) is a nuclear power plant located in Surat, Gujarat.
2. It is operated by the Nuclear Power Corporation of India Limited (NPCIL).
3. The plant uses Pressurized Heavy Water Reactors (PHWRs) which use natural uranium as fuel and heavy water as coolant and moderator.
4. The plant has four reactors: two 220 MW units and two 700 MW units with a total capacity of 1,840 MW.
5. **Note-** The 700 MWe units are the largest indigenous nuclear power reactors to be built by NPCIL.
6. **Safety Features:** The Unit-3 and Unite 4 of KAPS have steel-lined inner containment systems that prevent any radioactive material from escaping in case of an accident.

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– They also have passive decay heat removal systems which safely cool down the reactor even when it is shut down.

What is the state of Nuclear Energy in India?

1) In 2022-23, nuclear energy formed around 2.8 percent of India's total energy production.

2) NPCIL presently operates 23 reactors with a total capacity of 7,480 MW.

3) With more projects under construction and accorded sanction, the existing nuclear power capacity is going to be increased to 22480 MW by the year 2031.

Emerging Threat: JN.1 Subvariant of COVID-19 Discovered in Kerala

Why in the News?

Recently a case of the JN.1 subvariant of COVID-19 has been identified in Kerala during the continuous routine surveillance conducted by INSACOG.

What is JN.1?

1. This virus is a **novel variant of Omicron subvariant BA.2.86 (also known as Pirola) with an additional spike protein mutation.**
2. The variant has the **capability to spread rapidly and evade immunity**, highlighting the need for continued monitoring and caution.
3. **Symptoms-** Reported symptoms include fever, runny nose, sore throat, headache, and mild gastrointestinal symptoms.

What is INSACOG?

1. INSACOG, the Indian SARS-CoV-2 Genomics Consortium, is a network of genomic laboratories dedicated to monitoring COVID-19 in India from a genomic perspective.
2. The ICMR is a participant in this consortium.

Noma added to WHO's list of Neglected Tropical Disease

Why in the News?

World Health Organisation (WHO) has recently added 'Noma' to its official list of neglected tropical diseases (NTD).

What is Noma?

1. It is a severe gangrenous (decaying because the blood has stopped flowing there) **disease affecting the mouth and face**. Noma eats away facial tissue and bones if not treated early.
2. It is caused by the **bacteria spirochete Borrelia vincenti**, commonly found in the mouth.
3. It typically begins as inflammation of gums but progresses rapidly, leading to extensive tissue destruction and eventually exposing facial bones.
4. It is also called cancrum oris or gangrenous stomatitis.
5. It has a **mortality rate of around 90%**.

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6. It primarily **affects children aged 2 to 6 years old** who are malnourished, infected with infectious diseases, living in extreme poverty with poor oral health, or who have weakened immune systems.
7. **Treatment-** Immediate action with antibiotics, rehydration, correcting electrolyte imbalances, and providing nutritional supplements can halt the disease's progression.
8. **Preventive measures-** Enhancing living conditions and healthcare access for vulnerable populations, ensuring proper nutrition, immunization, oral hygiene, and sanitation practices.
9. The illness's neglected nature is most likely due to the fact that it affects the world's most marginalised children.

Hydrogen cyanide found in Saturn's icy moon Enceladus

Why in the News?

Based on data from NASA's Cassini spacecraft, scientists have found Hydrogen Cyanide in the oceans of Saturn's moon Enceladus.

What have the scientists found on Saturn's moon Enceladus?

1. Researchers have re-analysed data from the Cassini spacecraft which orbited Saturn from 2004 to 2017.
2. They detected hydrogen cyanide along with methanol, ethane, and oxygen in the plumes of water vapour erupting from the surface of Enceladus.
3. This suggests that Enceladus subsurface oceans may possess more chemical energy than previously thought, potentially supporting the creation and persistence of complex organic compounds.
4. These findings also strengthen the case for the Enceladus habitability, indicating that it may contain essential molecules for life and provide insights into the formation of complex biomolecules.

What is Enceladus?

1. Enceladus is one of Saturn's 146 moons. It has a white, icy surface made of water ice covering a warmer, salty ocean underneath.
2. It's about 500 km wide and has a freezing surface temperature of -200°C.
3. Enceladus is also an active source of water volcanism, ejecting plumes of water, ice, dust and gases into space. These materials contribute to Saturn's rings.

What is Hydrogen cyanide (HCN)?

1. Hydrogen cyanide (HCN) is a colourless chemical compound composed of hydrogen, carbon, and nitrogen atoms.
2. It is highly toxic as it interferes with the body's use of oxygen and may cause harm to the brain, heart, blood vessels and lungs.
3. It is used commercially for fumigation, electroplating, mining, chemical synthesis, and the production of synthetic fibres, plastics, dyes and pesticides.

China bans export of rare earths processing tech over national security

Why in the News?

China expanded its export ban by including technology for manufacturing rare earth magnets, in addition to the existing prohibition on technology for extracting and separating these critical materials.

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What is the Decision by China to ban export of Rare Earth Processing Technology?

1. China has added this technology to its "**Catalogue of Technologies Prohibited and Restricted from Export** ". The list aims to restrict exports of certain technologies in order to protect national security and public interest.
2. The list also includes a **ban on technology for producing rare-earth calcium oxyborate and rare earth metals**, in addition to the previous prohibition on the production of rare earth alloy materials
3. Earlier in August 2023, it also implemented export permits for **chipmaking materials like gallium and germanium** and later similar requirements were extended to various types of graphite.
4. Such restrictions by China, the world's top processor of rare earths, raises concerns over **supply chain disruptions** in the availability of these critical minerals.

What are the rare earth magnets?

1. Rare earth magnets are powerful permanent magnets made from alloys of rare earth elements.
2. These magnets, particularly **neodymium magnets and samarium cobalt magnets,** are known for their **exceptional strength and magnetic properties.**

What are Rare Earths?

Rare earths consist of **17 metals** employed in creating magnets that convert power into motion, essential for applications in electric vehicles, wind turbines, and electronics.

National Geoscience Data Repository (NGDR) Portal

Why in the News?

The Ministry of Mines has launched the National Geoscience Data Repository Portal (NGDR).

What is the National Geoscience Data Repository Portal (NGDR)?

Specifications	Details
What is it	It is a comprehensive online platform for accessing, sharing and analyzing geospatial information.
Developed by	Geological Survey of India (GSI) and Bhaskarachaya Institute of Space Applications and Geoinformatics (BISAG-N)
Conceptualized by	Ministry of Mines (MoM) as part of the National Mineral Exploration Policy (NMEP) 2016.
Key Features	1) **Centralized Access**: Provides a centralized repository of diverse geoscience datasets, including geological maps, mineral resources, seismic data and environmental information. 2) **Open Access**: The data on the portal is available in a public domain.
Significance	1) The portal is a significant step towards democratizing critical geoscience data in India. 2) It has the potential to revolutionize mineral exploration, empower various stakeholders and drive innovation across diverse fields.

What is Bhaskarachaya Institute of Space Applications and Geoinformatics (BISAG-N)?

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1. It is an autonomous scientific society under the Ministry of Electronics & Information Technology (MeitY).
2. **Purpose-** To provide services and solutions in implementing map-based GeoSpatial Information Systems.
3. **Main areas of focus-** Satellite Communication, Geo-informatics and Geo-spatial technology.
4. **Located in-** Gandhinagar, Gujarat

Milli second burst detected by Astrosat

Why in the News?

Recently a study revealed that AstroSat (India's first multi-wavelength space observatory) has detected intense sub-second X-ray bursts from a new neutron star 'SGR J1830-0645'.

What is 'SGR J1830-0645'?

1) SGR J1830-0645 (a magnetar) is a relatively young and solitary neutron star, with an age of approximately 24,000 years.

2) It was first identified in October 2020 by NASA's Swift spacecraft

What are Magnetars?

1) Magnetars are **neutron stars with an ultrahigh magnetic field** that are much stronger than the terrestrial magnetic field.

2) The emission of high-energy electromagnetic radiation in magnetars is powered by the decay of their magnetic fields.

3) They also exhibit strong temporal variability, featuring slow rotation, rapid spin-down, and bright, short bursts, sometimes extending to months-long outbursts.

What are the findings of the study?

1) Researchers from Raman Research Institute (RRI) and the University of Delhi analyzed the timing and spectra of this magnetar using two instruments on AstroSat: **the Large Area X-Ray Proportional Counter (LAXPC) and the Soft X-Ray Telescope (SXT).**

2) A notable discovery included identifying **67 brief sub-second X-ray bursts, averaging a duration of 33 milliseconds.** The most luminous burst among them endured for approximately 90 milliseconds.

3) It detected **bright sub-second X-ray bursts** which can help understand the intriguing extreme astrophysical conditions of magnetars.

4) The study concluded that SGR J1830–0645 is a **unique magnetar that showcased emission line in its spectra**. The presence of emission lines and its potential origin — either due to fluorescence of iron, proton cyclotron line feature or an instrumental effect — remains a subject of consideration.

5) The research team intends to broaden their study to determine the origin of these energetic emissions, discerning whether they have an astrophysical origin or are instrumental in nature.

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SLIM: Japan's Moon Landing Mission

Why in the News?

Japan's SLIM spacecraft has entered lunar orbit, aiming for a moon landing on January 19, potentially marking it as the fifth country to achieve a soft landing on the moon.

What is SLIM (Smart Lander for Investigating Moon) Mission?
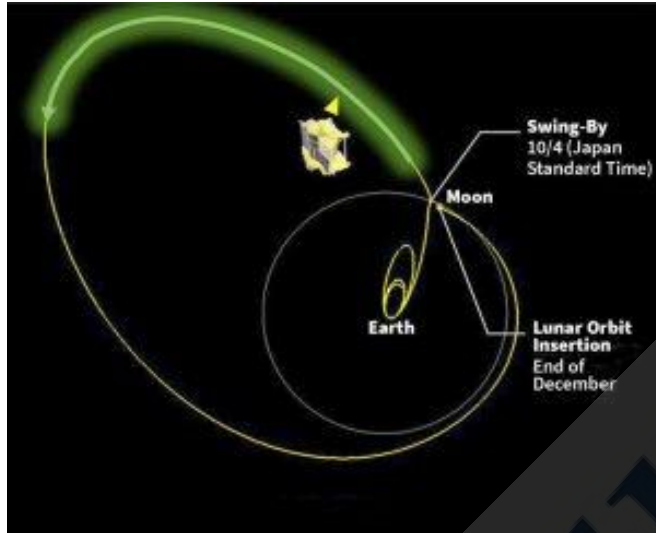
Source- The Hindu

Specifications	Details
What is it?	SLIM is Japan's first lunar surface mission.
Objective	To showcase precision landing capabilities on the Moon, **targeting a landing within 100 meters of its chosen site near the Shioli crater.** **Note-** Given that the mission aims to soft-land with the smallest ever area tolerance on the moon, it is **also being called as Moon Sniper.**
Launch	1) Built by Japan Aerospace Exploration Agency (**JAXA**). 2) It was launched on **September 7, 2023**, along with the X-Ray Imaging and Spectroscopy Mission (**XRISM**) space telescope.
Weight	It weighs a mere 590 kg, **nearly one-seventh of the weight of Chandrayaan-3** which launched at 3,900 kg.
Features	1) SLIM is lighter because it carries **much less fuel**. 2) **Orbital mechanics-** It utilized earth gravity to build kinetic energy, eventually aligning its trajectory with the moon for a slower approach and capture. 3) Once it gets close to the moon, it will get deflected into deeper space by the combined forces of Earth and Moon. 4) This larger, more loopy path that was designed to bring it back near the moon after it had slowed down further, allowing it to get captured by the Moon's orbit.

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	5) Upon soft landing, SLIM will deploy **two small rovers called Lunar Excursion Vehicle** (LEV) 1 and 2. They will study the lunar surface near the landing point, collect temperature and radiation readings, and attempt to study the moon's mantle.
Significance for Chandrayaan 4	Success of SLIM, especially with respect to its low weight and precision landing could play a crucial role in the Lunar Polar Exploration (LUPEX) Mission, a joint effort of ISRO and JAXA.

Note- XRISM mission objective is to investigate celestial X-ray objects in the Universe with high-throughput imaging and high-resolution spectroscopy.

MedTech Mitra

Why in the News?

Recently, the union Health minister has virtually launched 'MedTech Mitra' portal.

What is MedTech Mitra?
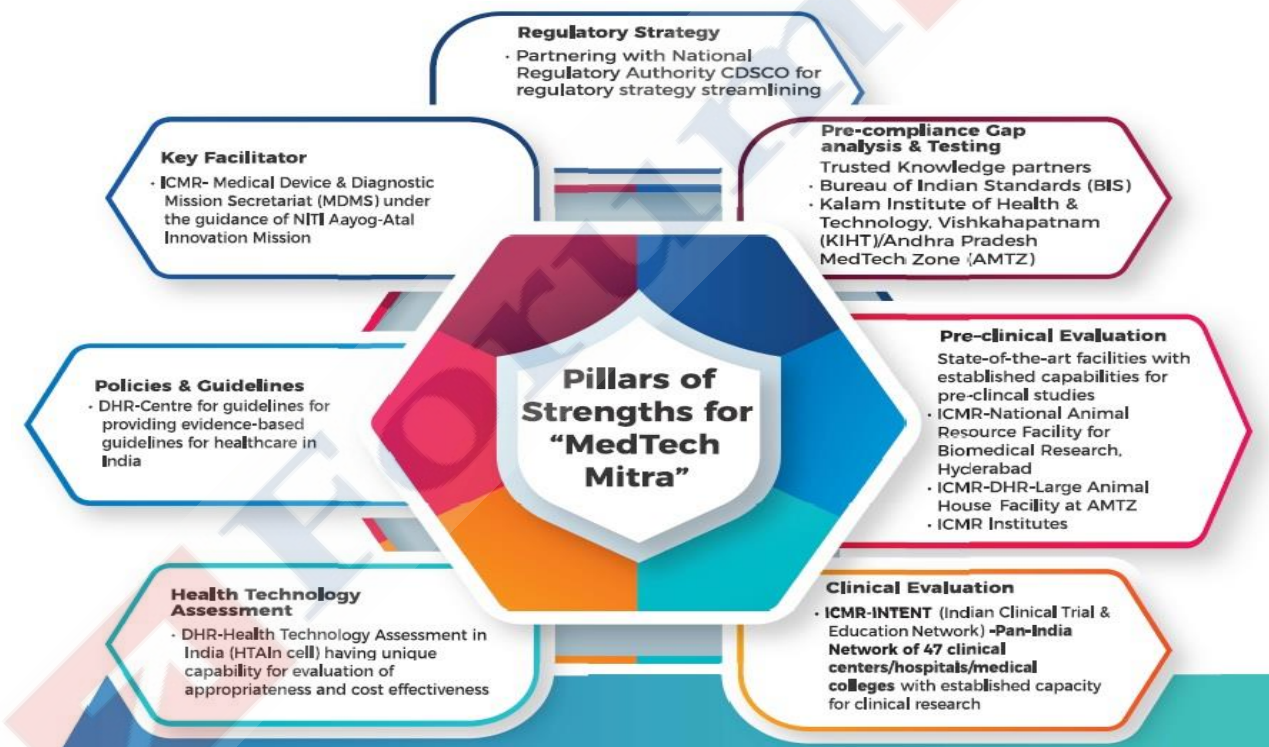
Source- ICMR

1) It's a web platform with an aim to **foster development of affordable and accessible indigenous medical devices**/ In-vitro diagnostics.

2) It is designed to provide strategic handholding **support to MedTech innovators** with assessing clinical viability, regulatory facilitation, and adopting new products.

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3) MedTech Mitra will address the queries of the innovators and provide personalized guidance in consultation with the Regulator and other relevant stakeholders.

4) The portal will be coordinated collaboratively by the **Indian Council of Medical Research (ICMR)** **and the** **Central Drugs Standard Control Organisation (CDSCO),** under the guidance of NITI Aayog's Atal Innovation Mission.

What is the Significance of this Portal?

1) It will enable the indigenous development of cost-effective, high-quality MedTech devices and diagnostics, thereby **reducing the current import dependence** of around 80% in MedTech.

2) It will **facilitate innovation and research and development** (R&D) for emerging startups in the field of medical technology.

'UPI Tap and Pay' Facility by NPCI

Why in the News?

The **National Payments Corporation of India (NPCI)** initiated the deployment of **'UPI Tap and Pay'** across various digital payment providers.

What are the Features of UPI Tap and Pay?

1) Instead of a camera, it employs **near-field communication (NFC) technology** (short-range wireless connectivity technology) to capture the payee's UPI ID or Virtual Payment Address (VPA).

2) This functionality is only available on phones or devices equipped with NFC capability.

3) Users are required to find the 'Tap & Pay' button within their UPI app, and the transaction is finalized by tapping the device on the UPI Smart Tag/ Smart QR.

4) If a user activates the tap feature for the UPI LITE account, transactions below Rs. 500 will be processed through UPI LITE. **For transactions exceeding Rs. 500, a UPI PIN will be necessary.**

5) The feature is available for **both Android and iOS and** is currently **live on two apps: BHIM and Paytm** (only for limited users).

Pegasus spyware

Why in the News?

The Washington Post and Amnesty International report alleges Pegasus spyware targeted journalists in India. The intrusion was discovered in October 2023 following Apple's warning to users, including MPs, about potential 'state-sponsored attacks' on their iPhones.

What is Pegasus Spyware?

1) Pegasus is a type of malicious software or **malware designed to secretly collect information**.

2) **Developed by** – Israeli security firm NSO Group.

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3) **Purpose:** Pegasus is designed for three main activities:

a. Collection of historic data on a device without user knowledge

b. Continuous monitoring of activity and gathering of personal information and

c. Transmission of this data to third parties.

How does Pegasus infiltrate devices?

1) Pegasus is part of a tier called "**zero click exploits**" whereby it takes advantage of bugs in popular apps such as iMessage and WhatsApp to infiltrate the system.

Note– A zero-click exploit, unlike most cyberattacks, doesn't require any interaction from the users they target, such as clicking on a link. It relies on vulnerabilities in devices and software to gain access.

2) Pegasus can also use unsecured websites to infiltrate a device. These are called **network injection attacks**. The device is infiltrated within milliseconds of visiting such a website.

Huntington's Disease

Why in the News?

Recently researchers have advanced their comprehension of Huntington's disease through the examination of fruit flies (Drosophila melanogaster)

What are the Findings of the Study?

1) Individuals with Huntington's disease harbor a **mutated form of the HTT gene**, responsible for encoding a **protein known as huntingtin (Htt)**.

2) Nerve cells require Htt protein for their normal functioning and survival. However, a mutated gene encoding for an abnormal Htt protein leads to the **destruction of neurons** controlling movement, cognition, and memory.

3) The mutant HTT gene is considered to be a **dominant gene** i.e the disease is triggered even if one copy of the gene, inherited from either parent, is mutated.

4) The scientists **genetically engineered fruit flies** to express the mutated human HTT gene into their nervous system.

5) The research found that **excessive expression of Yod1 gene removed all disease-like effects** in the flies, including neurodegeneration. This indicates a possible avenue for therapeutic intervention in humans.

What is Huntington's disease?

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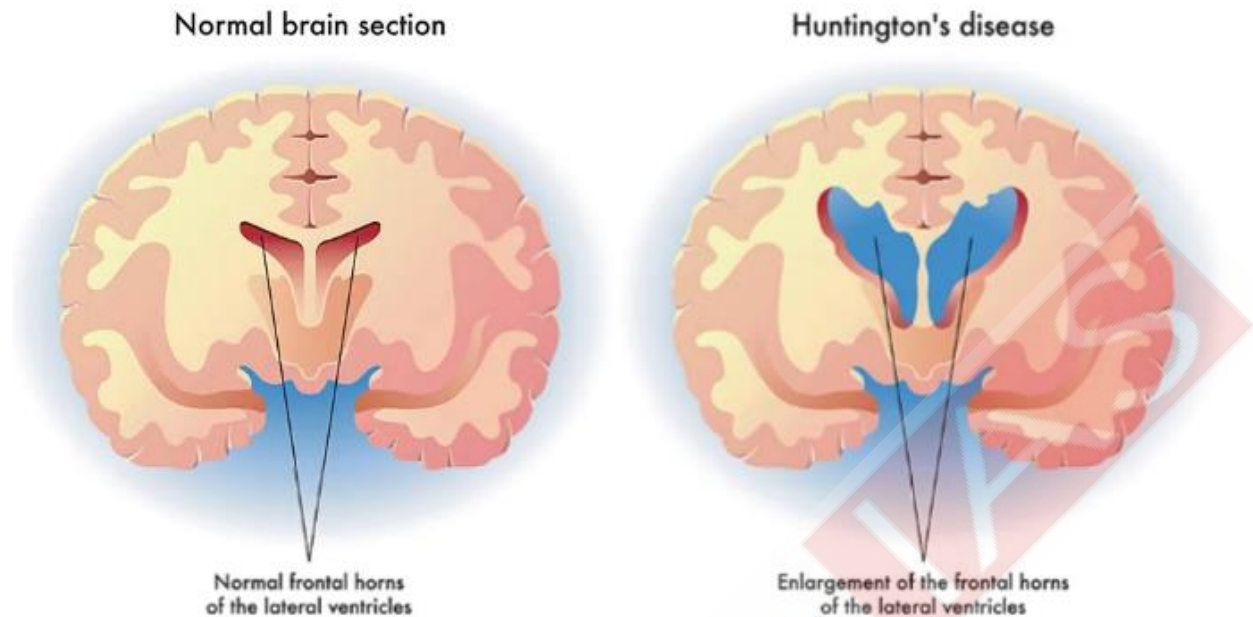
Source- Medium

1) Huntington's disease (HD) is a **hereditary neurodegenerative disorder** characterized by the progressive breakdown of nerve cells in the brain.

2) It is **caused by a mutation in the huntingtin gene (HTT)**, leading to the production of a defective form of the huntingtin protein which in turn affects the neurons in the brain.

3) **Symptoms:** includes involuntary movements, cognitive decline, and emotional disturbances and typically manifest in adulthood

4) **Treatment:** it is currently **incurable,** and treatment **cannot reverse its progression or slow it down**. However, health care providers can offer medications to help with certain symptoms.

Subject: Environment

Shettihalli Wildlife Sanctuary: Delay in Eco-Sensitive Zone (ESZ) tag for the sanctuary

Why in the News?

The National Green Tribunal (NGT) has instructed the Karnataka Government to resolve issues which are causing delay in declaring the Shettihalli Wildlife Sanctuary as an eco-sensitive zone (ESZ). This delay in determining the ESZ has led to more land use changes and encroachments in the sanctuary area.

Where is Shettihalli Wildlife Sanctuary?

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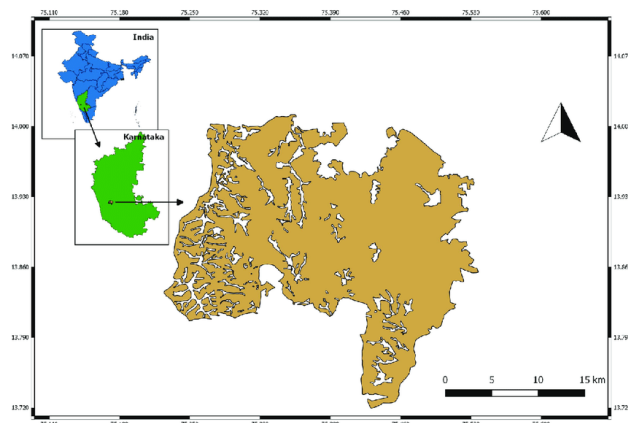
Source: ResearchGate

Specifications	Details
Located in	Shimoga District, Karnataka
Declared as a sanctuary in	1974
Bird Sanctuary	**Mandagadde Natural Bird Sanctuary is a part of the sanctuary.**
Dam	Tunga Anicut Dam is situated within the sanctuary. It provides shelter for otters and water birds.
Vegetation	Dry and Moist Deciduous Forests in the eastern and central parts. Towards the west, with an increase in rainfall, there are Semi-evergreen Forests.
Fauna	The sanctuary is home to species of animals such as white-backed vultures, Indian nightjar, white-bellied dingo, tiger, leopards, elephants among others.

What are Eco-Sensitive Zones (ESZ)?

These are transition zones around protected areas such as national parks and wildlife sanctuaries meant to act as shoch absorbers. They are notified by the Ministry of Environment, Forests and Climate Change (MoEFCC) under Environment (Protection) Act, 1986. Certain activities like commericial mining, major hydroelectric projects, discharge of untreated effluents etc are prohibited under ESZ.

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Loss and Damage Fund cleared on Day One of COP-28 summit

Why in the News?

At the 28th Conference of Parties (COP28) being held in Dubai, countries agreed to operationalise the Loss and Damage(L&D) Fund.

What is a Loss and Damage(L&D) Fund?

UNFCCC
Loss and Damage Financing proposed by Vanuatu and the AOSIS, but rejected by the US because of fears around liability

The Kyoto Protocol
Linking of loss and damage financing to the establishment of the Adaptation Fund

COP11: Montreal
Bangladesh calls for "compensation" for damages from climate change

COP19: Warsaw
Establishment of the Warsaw Mechanism to address "unavoidable loss and damage"

COP26: Glasgow
Calls for a separate loss and damage finance mechanism by G77 and China rejected

COP25: Madrid
Establishment of the Santiago Network to operationalize the Warsaw Mechanism

The Paris Agreement
Loss and Damage finally separated from Adaptation, as the "third pillar of climate change"

COP27: Sharm El Sheikh
Final Agreements and the establishment of the historic Loss and Damage Fund

Source: TERI

Specifications	Details
What is it	It is a fund created to provide financial assistance to nations most vulnerable and impacted by the effects of climate change.
Hosted by	The World Bank will be the interim host of the fund for a period of four years.
Funding	All countries can contribute to the fund voluntarily.Countries have already committed at least $450 million for the fund.
Eligibility to get funding	1)All developing countries are eligible to apply for the fund. 2)A certain percentage of the fund has been set apart for Least Developed Countries and Small Island developing states.
Criticism	There is no clear plan on how the money will be added to the fund regularly.This raises serious questions over the funds' long term sustainability.

What is the history of Loss and Damage (L&D) fund?

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Genesis of the LDF-

The movement of Loss and Damage Fund (LDF) is a three-decade old movement which was first initiated by the island nation of Vanuatu and the Alliance of Small Island States. The progress made at various UNFCCC Conference of Parties (COP) are as follows-

COP 19, 2013	At COP 19 in Warsaw, representatives of member countries formally agreed to establish the L&D fund.
COP 25, 2019	Santiago Network for L&D was set up, but the developed countries didn't commit any funds
COP 26, 2021	Glasgow Dialogue on finance for L&D was established to continue discussions over the next three years on the fund.
COP 27, 2022	At COP 27, the member states agreed to set up the L&D fund and a Transitional Committee (TC) to figure out how the new funding mechanisms under the fund would operate. The TC was also to prepare recommendations that countries would consider, deliberate on, and potentially adopt by COP 28.

ALTÉRRA Fund: UAE announces $30-bn fund to boost climate investments

Why in the News?

At COP-28, the United Arab Emirates (UAE) has announced a new USD 30 billion fund called ALTÉRRA for climate investments and transforming emerging markets and developing economies.

What is ALTÉRRA?

Specifications	Details
What	It is a privately managed fund focussed on climate investments in emerging markets and developing economies.
Established by	Lunate, an independent global investment manager based in UAE
Chair	COP-28 President Sultan Ahmed Al Jaber will chair the fund.
Targeted Corpus for the Fund	Aims to mobilise $250 billion by 2030. UAE has pledged $30 billion to the fund.
Key Verticals	The fund's investments will be guided by four key pillars: 1) Energy Transition 2) Industrial Decarbonization 3) Sustainable Living 4) Climate Technologies
Fund's Investment Plans for India	1) Initially, a portion of this fund will support development of over 6 GW of new clean energy capacity in India. 2) This includes creating 1,200 MW of wind and solar projects that will begin producing clean energy by 2025.
Significance	By 2030, emerging markets and developing economies will require $2.4 trillion every year to address climate change.

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Green Credits Initiative

Why in the News?

PM Narendra Modi launched the Global Green Credit Initiative at COP 28 in Dubai.

What is Global Green Credit (GGC) Initiative?

1. The GGC Initiative is conceptualized as a mechanism to incentivize voluntary pro-planet actions, as an effective response to the challenge of climate change.
2. It envisions the **issue of Green Credits for plantations on waste/degraded lands and river catchment areas, to rejuvenate and revive natural eco-systems.**
3. It aims to facilitate global cooperation and partnership through exchange of knowledge, experiences and best practices in planning, implementation and monitoring of environmental positive actions through programs/mechanisms like Green Credits.

What is India's Green Credit Programme (GCP)?

1. The India's Green Credits Programme is a **market-based mechanism** to incentivize voluntary environmental actions across diverse sectors, by various stakeholders like individuals, communities, private sector industries, and companies.
2. It was **first announced in the Union Budget 2023-24** and launched by the Environment Ministry in October 2023.
3. In its **initial phase, the GCP focuses on two key activities: water conservation and afforestation**.
4. **Private companies would buy these green credits as part of their CSR obligations**.
5. The Indian Council of Forestry Research and Education (ICFRE) is the administrator of the programme.
6. Such a market-based system already exists for carbon, at the national as well as international level, that allows trade in carbon credits in which companies or nation can claim carbon credits if they take action to reduce their carbon footprint. These credits can be traded for money. The Green Credits programme attempts to replicate this mechanism for other environmental actions, like water conservation or soil improvement.

Global Renewables and Energy Efficiency Pledge and Declaration on Climate and Health: India has not signed both

Why in the News?

During the ongoing COP28 climate summit in Dubai, India did not sign the Global Renewables and Energy Efficiency Pledge as well as the Declaration on Climate and Health. However, both these pledges are still in the draft stage and are far from having legal sanctity.

What is the Global Renewables and Energy Efficiency Pledge?

1. The Global Renewables and Energy Efficiency Pledge has **committed to tripling worldwide installed renewable energy generation capacity by 2030.**
2. **Signed by 118 countries. India has not signed the pledge.**

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3. **Reason for India not signing the pledge**: The pledge states that renewables deployment must be accompanied by phase down of unabated coal power.
   – This is contrary to India's longstanding position that it needs to rely on coal to rapidly improve living standards for its people.
   – India also claims that it has the right to use coal because its historical carbon emissions per person have been negligible.

What is the Declaration on Climate and Health?

1. The declaration encourages governments to protect communities and prepare healthcare systems to handle health issues caused by climate-related impacts like extreme heat, air pollution, and infectious diseases.
2. **Signed by**: The declaration has been signed by 123 countries. **India is not the one among these countries.**
3. **Reason for India not signing the declaration**: India has not signed the declaration as the **draft talks about going beyond health sector and ensuring de-carbonisation to reduce emissions**. This links certain aspects of our healthcare system such as cold storage for vaccines to carbon emissions, which India   opposes.

Green Industrialisation Initiative

Why in the News?

African leaders launched the Green Industrialisation Initiative during the third day of COP28, aiming to accelerate green growth in African industries and attract finance and investments.

What are the key features of the Green Industrialisation Initiative?

1. The initiative builds upon the existing $4.5 billion Africa green investment from the United Arab Emirates (UAE)
2. The leaders emphasized developing long-term plans for green industrialization.
3. **Significance** –
   a. It highlights Africa's priorities for industrial transition and the need for just and equitable partnerships.
   b. The initiative underscores the importance of green industrialisation to harness Africa's vast and quality resources to secure prosperity for all.
   c. It aims to position Africa as a global supplier of green energy and resources.

Biological Diversity Act, 2002

Why in the News?

Recently the Union Minister of State for Environment, Forest and Climate Change stated the conservation efforts and measures taken for Biodiversity Heritage Sites.

What are Biodiversity Heritage sites?

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1. **Biodiversity Heritage Sites (BHS) are areas that are unique, ecologically fragile ecosystems that have rich biodiversity.**
2. BHS must comprise of any one or more of the following components– species richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species etc.
3. They are **recognised under Section 37 of the Biological Diversity Act, 2002.**
4. They are **notified by the State Government in consultation with the local bodies**.
5. Currently, there are 44 Biodiversity Heritage Sites in 16 States.

What is the Biological Diversity Act, 2002?

The act aims at the conservation of biological resources, managing its sustainable use and enabling fair and equitable sharing benefits arising out of the use and knowledge of biological resources with the local communities.

Ethanol Blending: Government directs sugar mills to not use sugarcane juice for ethanol production

Why in the News?

The Government of India has directed all sugar mills not to use sugarcane juice or syrup for making ethanol for 2023-24. But it has allowed the production of ethanol from B-heavy molasses.

Why has the Government directed not to use sugarcane juice for making ethanol?

Ethanol production from sugarcane juice directly diverts actual sugar from the market. Given the low sugarcane production this year, the government has made this decision to avoid shortage of sugar availability and the resultant rise in sugar prices.

Heat Action Plans (HAPs)

Why in the News?

The Union Minister of Earth Sciences has informed about the steps taken by the Government of India against Heat Waves.

What are the Steps taken by the Government against Heat Waves?

1. **Climate Hazards and Vulnerability Atlas of India:**

Specifications	Details
Prepared by	India Meteorological Department (IMD)
Purpose	It is a web-based atlas that provides information on the hazard and vulnerability of 13 disastrous meteorological events including heat waves.
Key Features	1) The atlas is depicted using Geographic Information System (GIS) tools.

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	2) The atlas offers district-level maps showcasing hazard events and vulnerability for all months and annually. 3) The maps are prepared based on the disaster data from the annual publication of IMD "Annual Disastrous Weather Reports".
Key Findings of Atlas on Heat waves	1) **Vulnerability districts**: 13% of districts and 15% of population are moderately to very highly vulnerable to heat waves. 2) **Most vulnerable states**: Rajasthan (15 districts) and Andhra Pradesh (13 districts) are the states most susceptible to heat waves.

2. **Heat Action Plans (HAP)**: IMD has collaborated with National Disaster Management Authority (NDMA) and local health departments to start Heat Action Plans (HAPs) in many parts of the country to warn and advise about heat waves.

– At present, HAPs have been implemented in 23 States that are prone to high temperatures leading to heat-wave conditions.

– In these states, daily heat wave bulletins are issued with 5-day forecasts and color-coded impacts (green, yellow, orange, red).

Note: State governments are responsible for implementing and monitoring HAP.

3. **Awareness generation through various platforms**: IMD is conveying heat wave information with the help of daily and weekly video messages on social media platforms like YouTube, Facebook, WhatsApp, etc.

Global Cooling Pledge at COP28: How refrigerators and ACs contribute to global warming

Why in the News?

At the ongoing COP28 climate summit, 63 countries signed the Global Cooling Pledge to drastically cut cooling emissions.

What is the Global Cooling Pledge?
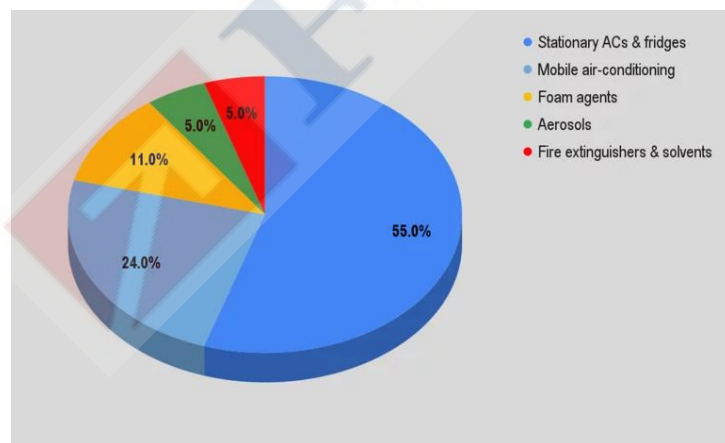
Figure 2.2Source: Indian Express

1. Global Cooling Pledge was **signed during the ongoing COP28 climate summit.**

2. The pledge commits the countries to reduce their cooling emissions by at least 68% by 2050 and outlines several strategies to tackle them.

3. Signed by 63 countries including the US, Canada and Kenya. **India has not signed the pledge yet.**

What are Cooling Emissions?

Cooling emissions are essentially emissions generated from refrigerants used in

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appliances like ACs and refrigerators and the energy used for cooling.
Sources of Cooling Emissions:

1. **Refrigerants**: In the past, most of the cooling appliances used chlorofluorocarbons (CFCs) as refrigerants. But it was found to be responsible for abnormally low ozone concentrations in Antarctica.
– As such, 1987 Montreal Protocol was signed to stop the production of ozone-depleting substances, including CFCs.
– CFCs were then replaced by hydrofluorocarbons (HFCs) and hydrochlorofluorocarbons (HCFCs). Although HFCs and HCFCs don't damage the ozone layer, they are powerful greenhouse gases.
– **In 2016, the Kigali Amendment to the Montreal Protocol was signed to reduce HFC consumption by 80% by 2047**. If achieved, this could avoid more than 0.5 degree Celsius of global warming by 2100.

2. **Cooling Appliances:** Running cooling appliances requires electricity, which is often produced by burning fossil fuels. This releases additional greenhouse gases like CO_2.
– Since 1990, the energy used for space cooling (the process of cooling indoors) has tripled and is expected to continue increasing significantly.

What is the contribution of cooling emissions to greenhouse gas emissions?

1. Cooling emissions currently account for about 7% of global greenhouse gas emissions.
2. But as global warming worsens, the demand for cooling will increase dramatically, which will create more warming in a destructive vicious cycle.
3. According to a report by the United Nations Environment Programme (UNEP) and the IEA, the number of global cooling devices is expected to jump from 3.6 billion to 9.5 billion by 2050.

Dodo De-extinction Project: Why scientists are planning to bring back the bird to Mauritius

Why in the News?

Scientists have launched an ambitious Dodo De-extinction Project to bring the dodo back to life and also re-introduce it in its once-native habitat in Mauritius.

What is Dodo?

Source: Indian Express

Specifications	Details
What is it	Dodo was a flightless bird endemic to the Island of Mauritius in the Indian Ocean.

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IUCN Status	Extinct
Reason for extinction	Dodos went extinct in 17th century. Reasons include hunting by humans as well as dogs, cats, etc.

What is the Dodo De-extinction project?

1. The Dodo Extinction Project is an ambitious project to bring back the extinct dodo bird to life.
2. The project is a collaboration between **genetic engineering company Colossal Biosciences and the Mauritian Wildlife Foundation**
3. Scientists will edit the primordial germ cells (PGCs) of the Nicobar pigeon, the dodo's closest living relative, to express the physical traits of a dodo. These edited PGCs will then be inserted into the embryos of a sterile chicken and rooster, who will act as 'interspecies surrogates. In theory, when the chicken and rooster reproduce, they will give birth to a dodo offspring.
   Note- PGCs are basically embryonic precursors of a species' sperm and egg.

What are the benefits of the Dodo De-extinction project?

1. **Ecological Restoration**: The dodo played a crucial role in seed dispersal and its return could help restore the island's ecosystem.
2. **Inspires Conservation Efforts**: The project's symbolism could inspire people and promote global conservation efforts.
3. **Technology Advancement**: The de-extinction technology being used to revive the dodo would help to conserve and restore other avian populations.

Olive Ridley Sea Turtles: Missile testing paused in Odisha to save sea turtles

Why in the News?

To help protect Olive Ridley Sea turtles during their nesting season, Defence Research Development Organisation (DRDO) has decided to stop testing missiles at Wheeler Island near Odisha's coast from January to March, 2024.

What are Olive Ridley Turtles?

Source: Wikipedia

Specifications	Details
What is it	These are the smallest and most abundant of all sea turtles found in the world.

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Habitat	They are found in warm waters of the Pacific, Atlantic and Indian oceans.
Diet	They are **carnivores.**
Mass Nesting	1) They are best known for their unique mass nesting called Arribada where thousands of females come together on the same beach to lay eggs. 2) The coast of Odisha in India is the largest mass nesting site for the Olive Ridley. 3) Odisha's Gahirmatha Marine Sanctuary is the world's largest known rookery (breeding colony) of the Olive Ridley Sea turtles.
IUCN Red List	Vulnerable
CITES	Appendix I
Wildlife Protection Act, 1972	Schedule I
Threats	1) Poor fishing practices. 2) Hunted for food and their oil. Unhatched eggs and shells on the sand are used as fertilizers. 3) Missile testing, mechanized boats and movement of people adversely impact the mass nesting and breeding.
Initiatives	Indian Coast Guard undertakes "Operation Olivia" every year. It is an Olive Ridley Turtle protection program.

Where is Wheeler Island?

Figure 3.Source: The Hindu

1. Abdul Kalam Island, formerly known as Wheeler Island, is an **island off the coast of Odisha, India.**
2. The island was originally named after English commandant Lieutenant Wheeler.
3. The Integrated Test Range missile testing facility is located on the island and serves as the test facility for most of India's missiles such as the Agni, Prithvi, etc.

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Santiago Network

Why in the News?

The draft text on the Santiago Network has been adopted at COP28.

What is Santiago network?

1. The Santiago Network was **established at COP 25 in Madrid**
2. It was established as part of the Warsaw International Mechanism for Loss and Damage (WIM) under the United Nations Framework Convention on Climate Change (UNFCCC)
3. **Objective**- It aims to catalyze technical assistance for vulnerable developing countries in order to address loss and damage.
4. **Significance of this initiative**-
    a. Enhanced capacity of developing countries to address loss and damage.
    b. Increased access to finance and technology.
    c. More effective implementation of climate change adaptation and mitigation strategies.

What are the other initiatives discussed on the sidelines of COP 28?

1. **The Global Goal on Adaptation (GGA)**- it is a collective commitment under the Paris Agreement aimed at "enhancing [the world's] adaptive capacity, strengthening resilience and reducing vulnerability to climate change.
2. **Dairy Methane Alliance**- Six of the world's largest food companies, including Nestle, have come together to accelerate food industry action to drive down methane emissions from the sector.

Urban Flood Mitigation Project

Why in the News?

PM Shri Narendra Modi has approved the India's first urban flood mitigation project.

What is 'Integrated Urban Flood Management activities for Chennai Basin Project'?

Specification	Details
What is it?	It is India's first project to tackle urban floods after Chennai heavy floods.
Funding	This project will be implemented through the financial assistance of Asian Development Bank.
Key features	1) It boosts Chennai's resilience to natural disasters through effective flood management strategies. 2) This project proactively tackles urban flooding challenges

Note- Under the impact of Cyclone Michaung, Chennai is facing major floods. This is the third such occurring in the last eight years.

What is the National Disaster Mitigation Fund (NDMF)?

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1. NDMF is constituted **under Section 47(1)** of the Disaster Management Act, 2005.
2. This fund is **exclusively** for the purpose of mitigation projects in respect of disasters covered in National Disaster Response Fund (NDMF) guidelines only.
3. The Mitigation Fund supports local and community interventions that minimize risks and encourage eco-friendly settlements and livelihood practices.
4. **Major mitigation efforts** like building coastal walls and flood embankments will be undertaken through standard development schemes, **not through the mitigation fund**.

Global Cooling Watch 2023

Why in the News?

Recently, the Global Cooling Watch 2023 Report titled "Keeping it Chill: How to meet cooling demands while cutting emissions" was released.

What is the Global Cooling Watch Report?

1. The report was **released by UN Environment Programme (UNEP)**-led Cool Coalition.
2. It has been released in support of the Global Cooling Pledge.
3. It is a comprehensive analysis of the global cooling sector and focuses not only on space cooling but also on cold chains for food and health.

What are the Key Highlights of the Report?

1. Currently, cooling equipment currently **accounts for 20% of total electricity consumption** and is expected to more than double by 2050.
2. Under a business-as-usual scenario, emissions from cooling are predicted to account for more than 10 per cent of global emissions in 2050.
3. **The report focuses on three key measures for sustainable cooling**–
   a. Passive cooling
   b. Higher-energy efficiency standards
   c. Faster phase down of climate-warming hydrofluorocarbon (HFC) refrigerants through the Kigali Amendment to the Montreal Protocol.
4. These measures could lead to 60 per cent cut off predicted 2050 sectoral emissions.

What is the Global Cooling Pledge?

1. Signed at COP28, the pledge aims to address the growing demand for cooling while mitigating its climate impacts.
2. 63 countries have signed the pledge. However, India has not signed it yet.

Indian Forest & Wood Certification Scheme

Why in the News?

The Ministry of Environment has launched the Indian Forest & Wood Certification Scheme.

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What is Indian Forest & Wood Certification Scheme?

Indian Forest & Wood Certification Scheme

Purpose

» Promotes sustainable forest management and agroforestry in India through voluntary third-party certification.

Implementing agency

» Indian Institute of Forest Management, Bhopal (**Responsible for overall management of the Scheme.**)

Key features of the scheme

» Offers **market incentives** to various entities such as state forest departments, individual farmers, FPOs etc.

» **Comprises** forest management certification, tree outside forest management certification, and chain of custody certification

» A **distinct Trees Outside Forests Standard** is introduced in this newly launched Scheme

Supervised by

» Indian Forest and Wood Certification Council (**Act as a multistakeholder advisory body**)

💡 **Do you know?**

The **Forest Management certification aligns with the Indian Forest Management Standard**, incorporating 8 criteria, 69 indicators, and 254 verifiers within the National Working Plan Code 2023.

Specification	Details
Purpose	This national certification scheme **promotes sustainable forest management and agroforestry** in India through voluntary third-party certification.
Supervised by	Indian Forest and Wood Certification Council (Act as a multistakeholder advisory body)
Implementing agency	Indian Institute of Forest Management, Bhopal (Responsible for overall management of the Indian Forest and Wood Certification Scheme.)
Key features of the scheme	1) **Market incentives** – This Scheme offers market incentives to various entities such as state forest departments, individual farmers, FPOs, and wood-based industries, that practice responsible forest management and agroforestry. 2) The scheme comprises forest management certification, tree outside forest management certification, and chain of custody certification. 3) A distinct Trees Outside Forests Standard is **introduced** in the newly launched Indian Forest & Wood Certification Scheme.

Note: The Forest Management certification is aligned with the Indian Forest Management Standard. It features 8 criteria, 69 indicators, and 254 verifiers, integrated into the National Working Plan Code 2023.

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Kambalakonda Wildlife Sanctuary: Eastern Ghats Nature Interpretation Centre in Visakhapatnam

Why in the News?

The Eastern Ghats Nature Interpretation Centre is being opened in the Kambalakonda Wildlife Sanctuary.

What is the Eastern Ghats Nature Interpretation Centre?

1. Eastern Ghats Nature Interpretation Centre (EG-NIC) is a unique project located in the Kambalakonda Wildlife Sanctuary in Visakhapatnam, Andhra Pradesh.
2. The center offers an immersive experience highlighting the diverse ecosystems of the Eastern Ghats stretching from Odisha to Tamil Nadu.
3. It aims to inform, educate and inspire visitors to care about the rich biodiversity of the Eastern Ghats Mountain range.
4. The center is a collaboration between wildlife artists, illustrators, sculptors, architects, wildlife biologists, translators and content creators.

Where is Kambalakonda Wildlife Sanctuary?

Specifications	Details
Location	Visakhapatnam, Andhra Pradesh
Named after	A local hill named Kambalakonda
Forest Type	Dry evergreen forest mixed with scrub and meadows
Terrain	The terrain is hilly with steep slopes

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Flora	Indian screw tree, Bush plum tree, Jungle berry bunches
Fauna	1)Animals: Indian leopard, Indian pangolin, Madras treeshrew, Barking Deer, Jackal 2)Snake: Russel's viper or Daboia russelii; 3)Birds: Indian Golden oriole, Indian peafowl, Banded Bay Cuckoo

The Reintroduction of Cheetahs in Banni grassland

Why in the News?

The central government has approved a proposal to set up a cheetah conservation breeding centre in Banni grasslands of Kutch district in Gujarat.

What is Project Cheetah?

1. Project Cheetah is India's ambitious cheetah relocation program aimed at establishing a self-sustaining population of cheetahs, which had become extinct in 1950s in the country.
2. It is the **world's first intercontinental large wild carnivore translocation project.**
3. Under this, **20 cheetahs** brought from Namibia and South Africa were introduced in the Kuno National Park in Madhya Pradesh.
4. With the setting up of a cheetah conservation breeding centre in Gujarat, cheetahs brought from Africa could start roaming Banni grasslands in the near future.

What are the Key Features of Banni Grassland?

Banni Grassland

Size ➔ Covering **2,618 km²**, it represents nearly 45% of Gujarat's grazing land.
➔ Considered to be the **largest Grassland in Asia**

📍**Location**
➔ **Kutch district** of Gujarat

🌿**Ecosystem**
➔ **Wetlands and grasslands** coexist in Banni.

🌾 **Vegetation**
➔ Salt tolerant varieties, with scattered trees and scrub like **Salvadora spp, Cressa cretica, Prosopis juliflora etc.**

🐾**Flora and Fauna**
➔ Area is rich in flora and fauna with **species of plants like Prosopis juliflora, Bird species like flamingo,cranes**, and several species of mammals such as Nilgai, Chinkara etc

⚒️ **Protection Efforts**
➔ In 1955, the court notified the **grassland will be a reserve forest.**

➔ In 2019, the NGT ordered to demarcate the boundaries of the Banni grassland and **restricted non-forest activities.**

🧍**Maldhari Tribe**
➔ **Pastoralist tribal group, living in the Gir National Park**, in the Banni Grasslands Reserve area.
➔ In 2021, the National Green Tribunal (NGT) recognized their **right to conserve the community forests** in the Banni Grasslands area under the **Forest Rights Act, 2006**

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Specification	Details
Location	Kutch district of Gujarat
Size	1) Covering 2,618 km^2, it represents nearly 45% of Gujarat's grazing land. 2) It is considered to be the largest Grassland in Asia.
Ecosystem	Wetlands and grasslands coexist in Banni.
Vegetation	Features sparse growth dominated by low forbs and graminoids, including salt-tolerant varieties, along with scattered trees and scrub.
Flora and Fauna	The area is rich in flora and fauna with 192 species of plants, 273 species of birds, several species of mammals, reptiles, and amphibians.
Protection Efforts	1) In 1955, the court notified the grassland will be a reserve forest. 2) In 2019, the NGT ordered to demarcate the boundaries of the Banni grassland and restricted non-forest activities.

About Maldhari Tribe

1. The Maldharis is a pastoralist tribal group, **living in the Gir National Park, in the Banni Grasslands Reserve area.**
2. In 2021, the National Green Tribunal (NGT) recognized their right to conserve the community forests in the Banni Grasslands area under the **Forest Rights Act, 2006.**

Global River Cities Alliance (GRCA) Launched at COP28

Why in the News?

The Global River Cities Alliance (GRCA), led by the National Mission for Clean Ganga (NMCG), was launched at COP28 in Dubai.

What is Global River Cities Alliance?

What is it?	1) The GRCA is a unique alliance to propagate river-sensitive development in cities around the world. 2) It **extends the River Cities Alliance**, initially established by NMCG in 2021.
Aim	To foster global collaboration for river conservation and sustainable water management.
Members	Includes over 275 river-cities worldwide across 11 countries (India, Australia, Japan, Bhutan, Egypt, etc), along with international funding agencies (World Bank, AIIB, ADB) Note- River cities of Den Haag, from the Netherlands, Adelaide from Australia, and Szolnok of Hungary joined the GRCA.

What is River Cities Alliance?

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1. **Purpose**: It is a dedicated platform for river cities in India to ideate, discuss and exchange information for the sustainable management of urban rivers.
2. **Launched by**: NMCG in association with National Institute of Urban Affairs (NIUA)

Diel Vertical Migration: A Key Player in Carbon Sequestration

Why in the News?

Diel Vertical Migration (DVM) has garnered attention in recent news for its involvement in carbon sequestration.

What is Diel Vertical Migration?
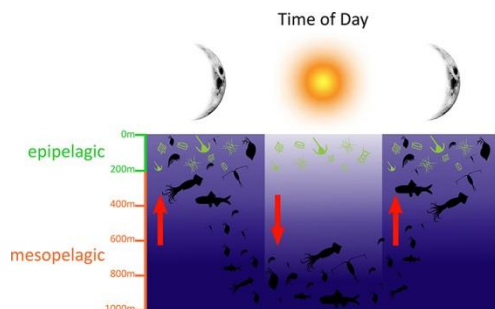
Source- Frontiers

1. Diel Vertical Migration (DVM) is the coordinated **daily movement of marine organisms (particularly zooplankton)** between the ocean's surface and deeper layers.
2. At sunset, deep-sea organisms ascend from the mesopelagic layer (200-1,000 m deep) to the epipelagic layer (topmost zone from the surface to 200 m), driven by the need for food.

What is the Significance of DVM?

1. This nighttime migration allows deep sea marine organisms to feed on phytoplankton while evading diurnal predators.
2. It is the **largest daily biomass migration on Earth,** occurring daily in all oceans.
3. **Serves as an Important Carbon Sink–** As the mesopelagic creatures feed on surface plankton, they extract carbon from the upper surface and carry it with them when they migrate back to the deeper oceans.
   Some of these creatures may get consumed by other predators, passing on the consumed carbon to them. When the predator produces carbon-rich waste, it sinks to the ocean floor and remains trapped for millennia.

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ENACT Partnership

Why in the News?

The ENACT (Enhancing Nature-based Solutions for an Accelerated Climate Transformation) Partnership has welcomed six new countries and UNEP into its collaboration at COP 28.

What is the ENACT Partnership?

Aspect	Details
What is it?	Global initiative aiming to synchronize global endeavors in tackling climate change, land and ecosystem degradation, and biodiversity loss by employing Nature-based Solutions.
Aim	1) To boost climate resilience for over 1 billion vulnerable people. 2) Safeguard 2.4 billion hectares of healthy ecosystems. 3) Intensify global mitigation efforts by protecting and restoring carbon-rich ecosystems.
Launched at	COP27 at Sharm el-Sheikh, Egypt in December 2022
Launched by	Germany and Egypt, along with the International Union for Conservation of Nature (IUCN).
Other founding members	Canada, European Union, Spain, Malawi, Norway, South Korea, Japan and Slovenia.
New partners	France, U.S.A., Belgium, Netherlands, Switzerland, Pakistan, and the UN

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	Environment Programme (UNEP) have joined during the COP28
First State of Nature-based Solutions report	1) Deliver a comprehensive quantitative overview of global progress in implementing Nature-based Solutions commitments by state and non-state actors. 2) The initial report, launching in early 2024, will kick start the annual series on ENACT's NbS Goals.

Note- According to IUCN, Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature.

Barracuda: India's fastest' solar-electric boat launched

Why in the News?

India's fastest solar-electric boat named Barracuda has been launched.

What is Barracuda?

Specifications	Details
What is it	It is India's fastest solar-electric boat
Developed jointly by	Navalt Solar and Electric Boats and Mazagon Dock Shipbuilders Ltd
Named after	A swift, long fish named Barracuda
Key Features	1) The boat can attain a top speed of 12 knots and has a range of 7 hours in a single charge. 2) The vessel harnesses twin 50 kW electric motors, a marine-grade LFP battery, and 6 kW solar power. 3) It is an eco-friendly vessel. 4) It produces no noise and vibrations. 5) It can accommodate upto 12 passengers and cargo.
Deployed at	The boat will be deployed at Mazagon Dock at the Mumbai dock under the name Saur Sakthi.

India achieves two targets of Nationally Determined Contribution well ahead of the time

Why in the News?

India has achieved its two initial Nationally Determined Contribution (NDC) Targets well ahead of time.

What is a Nationally Determined Contribution (NDC)?

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1. NDC or Nationally Determined Contribution is a climate action plan to cut emissions and adapt to climate impacts.
2. Each Party to the Paris Agreement is required to provide its NDC and update it every five years.

Which are the two initial NDC Targets achieved by India?

India had submitted its first NDCs in the year 2015 comprising following two targets:

1. To **reduce the emissions' intensity** of its GDP by 33 to 35 percent by 2030 from 2005 level.
2. To achieve about 40 percent cumulative electric power installed capacity from **non-fossil fuel-based energy** resources by 2030.

These two targets have been achieved well ahead of the time. By October 2023, Non-fossil fuel power capacity has reached 43.81%.

What are the updated NDC Targets?

In August 2022, India updated its NDC according to which target is to:

1. Reduce the emission intensity of its GDP by 45% by 2030, compared to the 2005 level.
2. To meet 50% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.

Provisions for Conservation of Marine Species

Why in the News?

The Union Minister of State for Environment, Forest and Climate Change has informed Lok Sabha about the measures taken for the conservation of marine species.

What are the steps taken by the government for the conservation of marine species?

1. **Protected Areas:** India has designated 130 Marine Protected Areas and identified 106 Important Coastal and Marine Biodiversity Areas (ICMBAs) to safeguard marine species.
2. Many threatened marine species have been listed as **Scheduled animals in Indian Wildlife Protection Act 1972.**
3. **Under the scheme of Integrated Development of Wildlife Habitat (IDWH),** threatened species like marine turtles, humpback whales and Dugongs are prioritized for assessment and monitoring of their populations.
4. **Dugong Conservation Reserve** has been established in Palk Bay for conservation of Dugongs and seagrass associated marine species.
5. **National Marine Turtle Action Plan** has been released with the aim to conserve marine turtles and their habitats in India.
6. **Project Dolphin** is the Government initiative to conserve both oceanic and riverine dolphin species launched in 2021.
7. **Coastal Regulation Zone (CRZ) Notification, 2019:** It was promulgated under the Environment (Protection) Act 1986. It has specific focus on conservation and management plans of Ecologically Sensitive Areas (ESAs) like Mangroves, Seagrasses, Sand dunes, Corals and Coral reefs, Turtle nesting grounds among others.
8. **Biological Diversity Act 2002** and associated rules ensure protection, conservation, and sustainable use of marine species.

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9. **Financial Assistance:** MoEFCC is granting funds under the centrally sponsored schemes to maritime States for the conservation of Corals and Mangroves.For instance, CAMPA funds are being provided for Dugong conservation.
10. **Centre for Marine Living Resources and Ecology (CMLRE):** It is an attached office under the Ministry of Earth Sciences (MoES). It is mandated with the management strategies development for marine living resources through ecosystem monitoring and modelling activities.
11. **Marine Megafauna Stranding Management Guidelines,2021**: It has been released for actions to be taken during stranding and entanglement events as well as to improve coordination between various stakeholders.

2024 is the International Year of Camelids

Why in the News?

The United Nations has named 2024 the International Year of Camelids to emphasize their vital role in the lives of global communities.

What is the objective of The International Year of Camelids 2024?

1) To raise awareness about the untapped potential of camelids and advocate for increased investment in the camelid sector.

2) Promote research and capacity development as well as the adoption of innovative practices and technologies.

What are Camelids?

Source- ResearchGate

Aspect	Details
What is it?	1) Camelids are a **family of mammals** belonging to the Camelidae family. 2) This family **includes various species**, notably Bactrian camels, dromedaries, llamas, alpacas, vicuñas, and guanacos.
Characteristics	1) They are large animals with **long necks, slender legs**, and in some cases, a hump on their back. 2) They are **strictly herbivores**, feeding on vegetation. 3) They have a **three-chambered stomach**, split upper lips allowing separate mobility, and elliptical red blood cells, setting them apart from other mammals. 4) They are usually found in herds.

What is the Importance of Camelids?

1. They help ensuring food security, nutrition and economic growth in more than 90 countries, particularly benefiting indigenous peoples and local communities.
2. They are instrumental in achieving Sustainable Development Goals (SDGs) by supplying milk and meat for fighting hunger as well as fiber for clothing and shelter.
3. People use them for transportation and also benefit from the organic fertilizer they provide for agriculture.
4. They are **known to survive in harsh conditions**. Inhabitants rely significantly on camelids for their livelihoods in the Andes Mountain ranges, as well as in arid and semi-arid lands across Africa and Asia.
5. Camelids represent strength in adversity thus can be **ambassadors to raise awareness about climate change.**

Protection of Black Tiger

Why in the News?

Recently the Union Minister of State for Environment filed a reply in the parliament regarding the conservation efforts of the Black tigers.

What are Black Tigers?

Source- The Indian Express

Aspect	Details
What is it?	1) Black Tigers are a rare colour variant of the Bengal tiger and are not a distinct species or geographic subspecies. 2) Also **known as Melanistic Royal Bengal Tiger.**

IUCN status	Endangered
Population in India	1) Recorded **only in the Similipal Tiger Reserve** in Odisha. 2) In the 2022 All India Tiger Estimation, Similipal Tiger Reserve reported 16 tigers, with 10 being melanistic.
What causes the black colour?	1) The broadened or spread black stripes in these tigers is caused by a **single mutation** in the **Transmembrane Aminopeptidase Q (Taqpep) gene.** 2) As the phenomenon is related to mutation and not the high deposition of melanin, it is considered **pseudo-melanism**. 3) Since this mutation is caused by a recessive gene, it is rare. But the **geographical isolation** of these tigers in Simlipal Tiger Reserve has **led to inbreeding**, offering the recessive gene frequent chances to show up.

What are the Conservation Efforts taken by the Government for Black Tigers?

1) The **National Tiger Conservation Authority (NTCA)** issued a **Standard Operating Procedure** for active management of tiger rehabilitation in source areas.

2) Recognized as a unique genetic cluster, Similipal Tiger Reserve obtains **funding through Centrally Sponsored Scheme of Integrated Development of Wildlife Habitats (CSS-IDWH)** for conservation of tigers, raising awareness on tiger & other wildlife conservation, habitat management, etc under the Tiger Conservation Plan.

What is Integrated Development of Wildlife Habitats (IDWH)?

1) It's a centrally sponsored scheme to **provide technical and financial states to states for protection of wildlife habitat.**

2) The scheme has the following **three components**:
a. Support to Protected Areas (National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves).
b. Protection of Wildlife Outside Protected Areas.
c. Recovery programmes for saving critically endangered species and habitats.

Valmiki Tiger Reserve

Why in the News?

The increase in tiger numbers in the Valmiki Tiger Reserve in Bihar was facilitated by diminished human activity, including bans on mining.

What is the status of Tiger Conservation in VTR?

1. A complete **prohibition of sand and stone mining** within VTR, coupled with stringent restrictions on mining in its **eco-sensitive zone**, helped increase grassland cover.
2. As a result, tiger numbers in the protected area rose to **54 in 2023**, up from 31 in 2018 and 28 in 2014.
3. The Reserve received **National Tiger Conservation Authority (NTCA)** acclaim for the **75% rise in tiger numbers**, also earning a 'Very Good' categorization.

Note– Bihar aims to establish its second tiger reserve in the Kaimur district by 2024.

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What are the Key Features of Valmiki Tiger Reserve?

Source- ResearchGate

Specifications	Details
Location	1) Located at the India-Nepal border in the **West Champaran district of Bihar.** 2) It is situated **on the bank of the river Gandak,** in the Gangetic Plains. 3) It is surrounded by the Royal Chitwan National Park of Nepal in the north. 4) It is the **sole tiger reserve in Bihar**.
Rivers	Gandak, Pandai, Manor, Harha, Masan, and Bhapsa flow through various parts of the reserve.
Vegetation	**Moist mixed deciduous**, open-land vegetation, sub-mountainous semi-evergreen formations, freshwater swamps, riparian fringes, alluvial grasslands, high hill savannah, and wetlands.
Flora	Sal, Karam, Asan, Bahera, Asidh, Simal, Jamun, Gular, Satsal, etc.
Fauna	1) **Large Animals-** Bengal tigers, Indian rhinoceros, Asiatic elephants, Asiatic black bears, Indian sloth bears, otters, Indian leopards, wild dogs, wild water buffalo, Indian bison (Gaur), Nilgai etc. 2) Currently, VTR **hosts 241 bird species**, notable birds include the Nepal kalij pheasant, three-toed quail, and paradise flycatcher.

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Pong Dam Eco-Sensitive Zone

Why in the News?

The Himachal Pradesh state government is reviewing eco-sensitive zone boundaries around Pong Dam to address challenges for locals and support agriculture activities during low water levels.

What are Eco Sensitive Zones?

1) Eco-Sensitive Zones (ESZ) or Ecologically Fragile Areas (EFAs) are areas in India **notified by the Ministry of Environment** around protected areas such as national parks and wildlife sanctuaries.

2) The objective of declaring an area as ESZ is to create some kind of "**shock absorbers**" to the protected areas by regulating and managing the activities around such areas.

What is Pong Dam Wildlife Sanctuary?
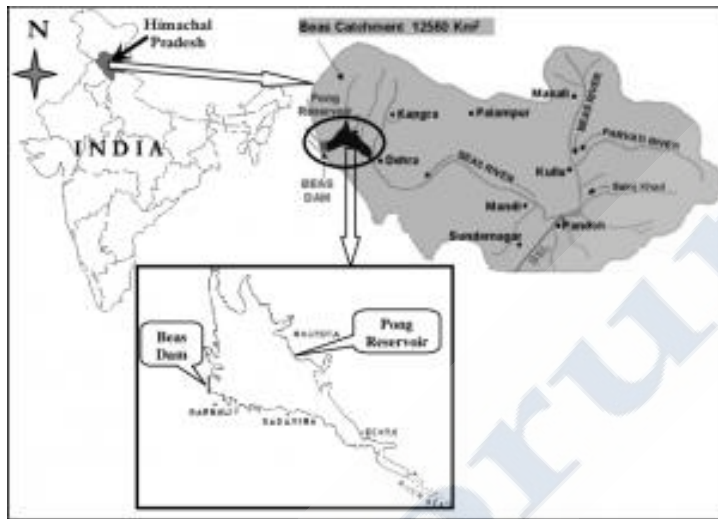
Source- research gate

Aspect	Details
Location	1) It is located in **Kangra district of Himachal Pradesh**. 2) It is also known as Pong Dam Reservoir or Pong Dam Lake.
Created in	The dam was created in 1975 and was **declared as a wildlife sanctuary in 1983.**
Ramsar site	The lake was declared a **Ramsar Site in 2002.**
Rivers	1) The lake is **fed by the Beas River**. 2) Its numerous perennial tributaries are Gaj, Neogal, Binwa, Uhl, Bangana, and Baner.
Vegetation	The sanctuary area is covered with **tropical and subtropical forests.**
Flora	Acacia, Jamun, Shisham, Mango, Mulberry, Ficus Kachnar, Amla, and Prunus.
Fauna	1) It includes animals like Sambhar, Barking Deer, Wild Bear, Nilgai, Clawless Otter, and Leopards. 2) The lake's flagship species is the Bar Headed Geese, with other prominent

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	species including Eurasian Coot, Northern Pintail, Common Teal, Great Cormorant, GreyLag Goose, and more.

Note- There is a **Vulture Café** in Pong wherein cattle carcasses are dumped for Vultures.

Achievements of NTCA

Why in the News?

This article explores the accomplishments of the National Tiger Conservation Authority in the year 2023.

What are the Achievements of the NTCA in 2023?

1) The Centrally Sponsored Scheme – **Project Tiger** that has put the **endangered** wild tigers of India on assured path of recovery has **completed 50 years** of successful implementation.

2) **India now hosts over 70% of the global wild tiger population**, with a minimum of 3,167 tigers, according to the 5th cycle of the All-India Tiger Estimation 2022 summary report.

3) The Prime Minister inaugurated the **International Big Cat Alliance (IBCA)** during a special program, aiming to **conserve seven major big cat species**—Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma through collaborative efforts of the range countries.

4) **Successful reintroduction of the cheetah**– Project for translocation of cheetahs from South Africa and Namibia to Kuno National Park, Madhya Pradesh was launched. **Work is also under progress at Gandhi Sagar Wildlife Sanctuary, Madhya Pradesh** for establishing the second home for cheetah meta population.

5) **Tiger Reserves undergo Management Effectiveness Evaluation (MEE) every four years** by NTCA following the IUCN framework. It is a crucial tool to enhance the management of Tiger Reserves and their landscape connectivity.

6) With the declaration of the **new "Rani Durgavati" Tiger Reserve in Madhya Pradesh,** India now has a **total of 54 tiger reserves**, covering more than 2.30% of its geographical area.

7) Currently, **23 tiger reserves** in India have received CA|TS accreditation. **Conservation Assured Tiger Standards (CA|TS)** is criteria set ensuring that tiger sites **meet international standards** for successful conservation.

8) In 2022-23, **Pench Tiger Reserves in Madhya Pradesh and Maharashtra, along with Satpura Tiger Reserve in Madhya Pradesh**, jointly received the **Tx2 award**. This international recognition is bestowed by a consortium of organizations including GEF, UNDP, IUCN, WWF, and GTF.

What is NTCA?

The National Tiger Conservation Authority is a **statutory body** established under the **Wildlife (Protection) Act, 1972**.

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eSoil

Why in the News?

A recent study by Linköping University's on 'electronic soil' (eSoil) and hydroponics (soil-less cultivation) presents hope for sustainable urban agriculture and food security.

What is eSoil?

1) eSoil serves as a low-power bioelectronic growth substrate capable of **electrically stimulating both the root system and the growth environment of plants.**

2) This innovative substrate has been **derived from cellulose and the conductive polymer PEDOT**.

3) Its **active material** is an organic mixed-ionic electronic conductor.

4) Advantages:
a. It is **environmentally friendly**.
b. It provides a **safe alternative** to previous methods that relied on high voltage and non-biodegradable materials.
c. eSoil employs **minimal energy** and reduces resource consumption.

What is the Significance of eSoil?

1) The finding holds significance for hydroponics cultivation and will promote its associated benefits such as **vertical farming**.

2) It will ensure the **viability of urban agriculture** and ensure food security.

3) It's **low energy consumption offers a sustainable solution** for growing food needs.

Subject: Schemes & Programmes

Aspirational Blocks Programme (ABP): NITI Aayog releases the 1st Delta Ranking of ABP

Why in the News?

NITI Aayog has released the first Delta Ranking of the Aspirational Blocks Programme (ABP).

Note- It has also released the Aspirational District Programme (ADP) rankings for the month of October 2023. Rayagada (Odisha) and Jamui (Bihar) have achieved the first and second ranks respectively.

What is the Delta Ranking of the Aspirational Blocks Programme (ABP)?

1. The Delta Ranking is a core strategy of the Programme based on the spirit of **competitive and cooperative federalism.**
2. It is calculated on the basis of performance of blocks and progress achieved in the Key Performance Indicators (KPIs).
3. Tiriyani Block in Telangana has secured the top position and Kaushambi Block in Uttar Pradesh ranked second.

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4. The top rankers of ABP and ADP will be displayed on the Wall of Fame at NITI Aayog. It will display the projects undertaken by the blocks and districts to improve their indicators.

What is the Aspirational Blocks Programme (ABP)?

Specifications	Details
Launched in	January 2023
Launched by	NITI Aayog
Inspired from	Aspirational District Programme
Purpose	The programme focuses on improving governance to enhance the quality of life of citizens and service delivery in the remotest and less developed blocks of India.
Blocks covered	500 blocks from 329 districts in 27 states and 4 Union Territories.
Themes	**Each block will be monitored based on the following themes**: 1) Health and Nutrition 2) Education 3) Agriculture and Allied Services 4) Basic Infrastructure and 5) Social Development.
Implementation strategy	The program strategy is based on three levels: 1) Convergence (of Central & State Schemes) 2) Collaboration (of NITI Aayog, Central Ministries and Departments, State Governments and District and Block Administration) and 3) Competition among blocks driven by a spirit of mass Movement.
Nodal Officers	1) Block Officials are identified as Leaders of Change. They will be equipped with skills to drive transformation in blocks. 2) They will work under the guidance of their respective state and district administrations.
Rankings	NITI Aayog in partnership with the states will release a quarterly ranking of these blocks.

Dare To Dream (D2D) Scheme

Why in the News?

Recently Minister of State for Defence has filed a reply in Parliament regarding the successful implementation of the Dare to Dream (D2D) scheme.

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What is Dare to Dream (D2D) Scheme?

Aspect	Details
What is it?	1) Under this, **annual Dare to Dream Contests** are organised to promote innovations by individuals and start-ups for advancements in defence and aerospace technologies. 2) It was initiated in memory of the former President of India, Dr APJ Abdul Kalam. 3) This is the **4th edition of the contest**.
Launched on	2019
Launched by	Defence Research and Development Organisation (DRDO)
Eligibility	Indian citizens above 18 years and startups registered with the Department for Promotion of Industry & Internal Trade, led by Indian founders.
Shortlisting and Ranking	The winners will be decided after due evaluation by an independent expert committee.
Selection Criteria	Entries will be evaluated based on criteria such as novelty, applicability, implementability, technical merit and maturity.
Benefits to Winners	1) **Cash award of up to 10 lakhs for Start-ups and 5 lakhs for individual**s. 2) Winners are also eligible to secure funding through DRDO's TDF scheme for realizing prototypes, contingent on merit and feasibility.

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Amrit Dharohar Scheme training conducted in Indore

Why in the News?

The Ministry of Tourism (MoT) has joined hands with the Ministry of Environment, Forest & Climate Change (MoEFCC) for conducting training under Amrit Dharohar Scheme 2023.

What is the Amrit Dharohar Scheme?

Specifications	Details
Launched in	June, 2023
Nodal Ministry	Ministry of Environment, Forest & Climate Change (MoEFCC)
Announced in	Union Budget 2023-24
Aim	To promote unique conservation values of the Ramsar Sites in the country while generating employment opportunities and supporting local livelihoods.
Components of the scheme	1) Species and Habitat Conservation 2) Nature Tourism 3) Wetlands Livelihoods 4) Wetlands Carbon
Implementation	The scheme is being implemented in convergence with various Central Government ministries and agencies, State Wetland Authorities and a network of formal and informal institutions.

What is the Nature Tourism component of the Amrit Dharohar Scheme?

1. The Nature Tourism component is being implemented jointly by the Ministry of Environment, Forest & Climate Change (MoEFCC) and the Ministry of Tourism (MoT).
2. Aim: To enhance livelihood opportunities for local communities through harnessing the nature-tourism potential of the Ramsar Sites across the country.
3. Sites selected for implementing this component: Sirpur (MP), Yashwant Sagar (MP), Bhitarkanika (Odisha), Chilika lake (Odisha) and Sultanpur (Haryana).
4. MoT and MoEFCC for taking up training programmes for local communities under the Alternative Livelihood Programme (ALP).

Khelo India Para Games

Why in the News?

The inaugural edition of Khelo India Para Games has concluded recently. **Haryana claimed top** honors in the competition, while Uttar Pradesh finished second.

What are Khelo India Para games 2023?

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Aspect	Details
About	1) The Khelo India Para Games (KIPG) aims to **empower para-athletes** in the country. 2) This is the **first edition of KIPG**. 3) It is part of the **Khelo India Initiative**, which also includes Khelo India Youth Games, Khelo India University Games, and Khelo India Winter Games.
Organised by	Ministry of Youth Affairs & Sports, Sports Authority of India, National Sports Federation (NSF), Paralympic Committee of India (PCI,) Cerebral Palsy Sports Federation of India (CPSFI) and organizing committee
Venue	Delhi
Mascot	Ujjwala – a sparrow
Total sports disciplines	**Seven** (para-athletics, para shooting, para-archery, para football, para badminton, para table tennis and para weightlifting)
Features	1) Expected to meet the high standards of technical conduct, athlete experience, and overall execution seen in other Khelo India events like the Youth and University Games. 2) The Games will be live telecast on television and OTT platforms 3) Participants will represent only States & Union Territories. 4) There will be a single medal tally of States.

Note- CPSFI, Cerebral Palsy Sports Federation of India is an apex body promoting Cerebral Palsy Sports. Cerebral Palsy (CP) is the leading cause of chronic disability in children, making them physically and mentally handicapped and socially aloof

New Swarnima Loan Scheme

Why in the News?

Recently government has filed a reply in the Lok Sabha regarding the implementation of the Swarnima loan scheme.

What is New Swarnima Loan Scheme?

Aspect	Details
What is it?	Loan scheme to provide financial assistance to women entrepreneurs from backward classes.
Aim	Inculcating the spirit of self-dependence among the women of Backward Classes under Term Loan.
Nodal Ministry	Ministry of Social Justice and Empowerment
Introduced by	National Backward Classes Finance and Development Corporation (NBCFDC)
Implemented by	State Channelising Agencies (SCAs) which act as the nodal agency.
Eligibility	1) Women belonging to Backward Classes, aged between 18 and 55 years. 2) Total annual family income should not be more than ₹3 lakh.
Benefits	1) A loan of maximum ₹2,00,000 per beneficiary is provided. 2) The rate of interest on the amount of loan is less as compared to the general

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	loan scheme of the Corporation. 3) Loan is to be repaid in quarterly instalments with maximum 8 years.

What is NBCFDC?

1. NBCFDC is a Government of India undertaking under the Ministry of Social Justice and Empowerment
2. It was established on January 13, 1992, under Section 25 of the Companies Act 1956 (now section 8 of Company Act, 2013).
3. Aim- To foster economic and developmental initiatives for the benefit of Backward Classes and support skill development and self-employment ventures for the economically disadvantaged within these groups.

Smart India Hackathon (SIH) 2023

Why in the News?

Recently PM Narendra Modi engaged in discussions with the participants during the Grand Finale of Smart India Hackathon 2023.

What is Smart India Hackathon (SIH)?

Aspect	Details
What is it?	It is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives.
Aim	It aims to foster a culture of product innovation, problem-solving, and out-of-the-box thinking in students.
Launched in	2017
Nodal Ministry	Ministry of Education
Who can participate?	1) **SIH JUNIOR**– Class 6th-12th Students 2) **SIH SENIOR**– Higher Educational Students like Graduate/Postgraduate/PH. D
Key features	1) **SIH is being run in two formats**: SIH Software and SIH Hardware Editions for higher education students. 2) Participants propose solutions across various themes such as Space Technology, Smart Education, Disaster Management, Robotics and Drones, Heritage, and Culture. 3) SIH 2023 offers a total prize pool exceeding Rs 2 crore, with **each winning team receiving a cash prize of Rs 1 lakh per problem statement.**

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SVEEP Programme: Electoral literacy in classrooms

Why in the News?

The Ministry of Education and the Election Commission of India have signed a Memorandum of Understanding (MoU) to incorporate electoral literacy formally into the school and college education system.

What is the MoU to Achieve Electoral Literacy in Classrooms?

Objectives of the MoU:

1. To incorporate voter education and electoral literacy formally into the school and college education system.
2. To extend ECI's flagship Systematic Voters' Education and Electoral Participation (SVEEP) in schools and colleges.

Activities to be undertaken:

1) **School curriculum**: Electoral literacy will be added to NCERT textbooks as part of the National Curriculum Framework (NCF) for classes 6-12.

2) **College/University**: Voter education will be integrated into existing courses.

3) **Teacher training:** Training to teachers will be provided by way of inclusion of the subject matter in teacher education course materials

4) **Beyond the classroom:** Spread awareness among students through Electoral Literacy Clubs in schools/colleges and Democracy Rooms in every senior secondary school, administering a pledge to vote by students, organising mock polls, EVM-VVPAT demonstrations, etc.

What is Systematic Voters Education and Electoral Participation (SVEEP)?

1) SVEEP is a flagship program of the Election Commission of India (ECI).
2) It is aimed at voter education, spreading voter awareness and promoting voter literacy in India.

3) **SVEEP Strategy document (2022-25)**: It aims to a) Increase voter turnout to 75% in Lok Sabha elections 2024 and b) Enhance the quality of electoral participation in terms of informed and ethical voting through continuous electoral and democracy education.

PM-DevINE scheme: Ministry holds meet with CMs of northeast States over lag in scheme

Why in the News?

Recently the Ministry of Development of North Eastern Region (DoNER) convened a meeting with the Chief Ministers of the States in the region regarding the **hurdles in implementation of the projects under the PM-Devine scheme**.

What is PM-DevINE scheme?

1. The Prime Minister's Development Initiative for North-East (PM-DevINE) Scheme is a **central sector scheme** (100 per cent funded by the Union Government) introduced in the **2022-23 Union Budget** with an initial allocation of ₹1,500 crore.

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2. **Aim-** The scheme is designed for the rapid and comprehensive development of the northeast region by funding infrastructure and social development projects, based on felt needs of the States.
3. It also aims to **fill sectoral gaps without replacing the current Central and State Schemes.**

What are the hurdles faced by Northeastern States in implementation of the projects under the scheme?

1. **Delay in approvals-** The total approved outlay for PM-DevINE scheme for the period 2022-23 to 2025-26 is ₹6,600 crore. But only nine projects worth ₹855.85 crore had been approved so far. Several projects still pending for approval from the centre.
2. **Law and order situation–** Prevailing law and order situation in northeastern states like Manipur has created hurdles in taking up new projects under the scheme.

DAY-NRLM SHGs: Ministry of Rural Development signs MOU with JioMart

Why in the News?

The Ministry of Rural Development (MoRD) has entered into a Memorandum of Understanding (MoU) with JioMart to onboard DAY-NRLM's Self Help Groups (SHGs).

What is the objective of this partnership?

1) This collaboration will enable **SHGs** operating under the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) to be **on-boarded as sellers onto the e-commerce fold on JioMart**.

2) Once on-boarded, all SHG sellers associated with the DAY-NRLM will also get to avail benefits and guidance in growing their businesses online.

3) **Significance:**
a. Amplify the visibility of their products and **widen their market**.
b. **Increase the income of SHGs** on a sustainable basis.
c. Boost MoRD's provision under the SARAS Collection to be available to a larger consumer base.
Note- the Saras Collection showcases **daily utility products made by rural SHGs** and aims to provide SHGs in rural areas with market access to Central and State Government buyers.

Palna Scheme: Government aims to set up 17,000 creches across India

Why in the News?

The Union Women and Child Development Ministry aims to establish 17,000 creches in Anganwadi Centres across the country. This is being done as part of **Palna Scheme.**

What is the Palna Scheme?

Specifications	Details
Nodal Ministry	Ministry of Women and Child Development
Earlier Name	National Creche Scheme
Type	Centrally Sponsored Scheme
Aim	1) To address the urgent need for quality day-care facilities /creches for the children of working women.

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	2) To improve nutrition and health status of children.
Component of	Samarthya which is a sub-component under Mission Shakti.
Focus of the scheme	The scheme focuses on two types of creches 1) **Anganwadi-cum-Crèches:** These centers combine existing Anganwadi services with dedicated crèche facilities. This approach aims to holistically address the needs of both mothers and children in one convenient location. 2) **Stand-alone creches:** The crèches which were running under the erstwhile National Creche Scheme have been included as Stand Alone Creches.
Target Group	The scheme focuses on children of 6 months to 6 years of working women in rural and urban areas who are employed for a minimum period of 15 days in a month, or six months in a year.

What is Creche?

A crèche is a facility which enables parents to leave their children while they are at work and where children are provided a stimulating environment for their holistic development.

SHRESHTA Scheme

Why in the News?

Under the SHRESHTA Scheme, a total of 2,564 students from Scheduled Castes have enrolled in 142 private residential schools affiliated with CBSE/State Boards for the academic session 2023-24.

What is the SHRESTHA Scheme?

Specifications	Details
Full form	The Scheme for Residential Education for Students in High Schools in Targeted Areas (SHRESHTA)
Objective	To provide high-quality education for meritorious but poor Scheduled Castes (SC) students in CBSE-affiliated reputed residential schools across the country.
Nodal Ministry	Ministry of Social Justice & Empowerment.
Eligibility	SC students studying in class 8th and 10th in the current academic year.

How is the Scheme being Implemented?

The scheme is being implemented in two Modes:

1) **Mode 1:** SHRESHTA schools
a. Under this, around 3000 SC students are admitted in the best private residential schools affiliated by CBSE/State Boards in **classes 9ᵗʰ and 11ᵗʰ** for completion of education till 12ᵗʰ standard.

b. SC students, with **parents' annual income up to 2.5 lakh**, are selected through the **National Entrance Test for SHRESHTA (NETS)** to be conducted by the National Testing Agency (NTA).

c. **Total fee for the student would be borne by the Department**, including the school fee (including tuition fees) and hostel fee (including mess charges).

2) **Mode 2**: NGO operated Schools/ Hostels
a. Schools/ Hostels operated by NGOs and other voluntary organizations with classes up to 12, receiving Grant-in-aid from government, will persist based on satisfactory performance.

b. **Grants under the scheme will be provided for School fee and residential charges** for the SC admitted in the schools with a condition that if other than those are admitted, the school shall be allowed to collect the fee from such students.

Subject: Reports & Indices

Dynamic Ground Water Resource Assessment Report 2023

Why in the News?

The Union Minister of Jal Shakti has released the Dynamic Ground Water Resource Assessment Report for the entire country for the year 2023.

What is Dynamic Ground Water Resource Assessment Report?

1. **Aim**– To determine the prevailing status of groundwater resources and the impact of ongoing groundwater management practices.
2. Conducted jointly by Central Ground Water Board (CGWB) and States/UTs.
3. Previously carried out in 1980, 1995, 2004, 2009, 2011, 2013, 2017, 2020 and 2022

What are the Highlights of Dynamic Ground Water Resource Assessment Report 2023?

1. **Increase in ground water recharge**: Total annual ground water recharge is 449.08 billion cubic meters (BCM), marking an increase of 11.48 BCM compared to 2022.
2. **Increase in annual ground water extraction**: Total annual ground water extraction for the entire country is 241.34 BCM.
3. **Decrease in stage of groundwater extraction level**: Currently stands at 59.23%.
4. **Note**- Stage of groundwater extraction is a measure of annual ground water extraction for all uses (irrigation, industrial and domestic uses) over annual extractable ground water resource
5. **Out of total 6553 assessment units**–
   – **736 units (11.23%) have been categorized as 'Over-exploited'** (where the annual ground water extraction is more than annual extractable ground water resource), witnessing a decline.
   – 4793 units categorized as 'Safe'

NCRB Report 2022

Why in the News?

Recently, NCRB has released the annual Crime in India report and the Accidental Deaths and Suicides in India (ADSI) report for 2022.

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What are the Major Findings of the Crime in India report?

Increase in Cyber Crimes

1. It indicated a **24% surge in cyber-crimes across India** compared to 2021.
2. **Bengaluru ranked the highest in cyber-crimes**. OTP and online bank frauds were the most common cybercrimes reported in the city
3. **Cybercrime cases in Delhi almost tripled in 2022.** Most of the crimes related to offences such as publication and transmission of content depicting children in sexually explicit acts in electronic form.

Increase in crimes against SC and ST

1. It showed overall increase in crimes and atrocities committed upon Scheduled Castes (SC) and Scheduled Tribes (ST)
2. **Madhya Pradesh and Rajasthan continued to figure at the top** with the highest incidents of crimes and atrocities committed upon SCs and STs.
3. Mizoram, which had reported no cases of atrocities against either SCs or STs in 2021, reported 34 cases of atrocities in 2022.

Increase in UAPA cases

1. A 25% increase in cases registered under the Unlawful Activities Prevention Act (UAPA) suggests an increase in offences against the State.
2. It also shows dip in sedition cases after Supreme Court 2022 Judgement to keep sedition cases in abeyance.

Fake currency notes crimes

Government authorities seized counterfeit Indian currency notes worth over ₹342 crore in 2022, most of which are Rs.2000 currency notes, followed by Rs.500 notes.

What are the Major Findings of the Accidental Deaths and Suicides in India report?

Increase in suicide rate

1. India reported a total of over 1.7 lakh suicides in 2022, nearly **one-third of whom were daily wage earners, agricultural labourers, and farmers**.
2. The **maximum suicides in the year were reported from Maharashtra** (22,746), Tamil Nadu (19,834), Madhya Pradesh (15,386), Karnataka (13,606), Kerala (10,162), and Telangana (9,980).

Common causes of suicides–

The report pointed out that the **most common causes for suicides reported in 2022 were "family problems" and "illness"**, which together accounted for almost half of all suicides in the year. This was followed by drug abuse, alcohol addiction, and marriage related issues.

Glaciers shrank 1 meter a year in a decade: WMO

Why in the News?

A recent report by World Meteorological Organisation 'The Global Climate 2011-2020: A Decade of Acceleration' highlights the impact of climate change from 2011-2020.

What are the Key highlights of the report?

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1. The 2011-2020 decade, **despite being the warmest recorded, saw the lowest number of deaths** from extreme events. The decade marked the first since 1950 without a single short-term event causing 10,000 deaths or more.
2. Improved early warning systems, forecasting, and disaster management contributed to the decrease in casualties. India benefited from improved cyclone forecasting, enhancing preparedness and evacuation measures
3. The **ozone hole visibly showed signs of recovery for the first time during this decade**.
4. **Glaciers globally shrank by approximately 1 meter per year on average** from 2011 to 2020. – Greenland and Antarctica lost 38% more ice from 2011 to 2020 compared to the 2001-2010 period.
5. While heatwaves were responsible for the highest number of human casualties, tropical cyclones caused the most economic damage.
6. **Public and private climate finance nearly doubled during the decade**. But it needed to increase by at least seven times by the end of 2011-20 to achieve climate objectives, including limiting global temperature rise to 1.5 degrees Celsius.

Food Security and Nutrition Report 2023: 74% Indians could not afford healthy diet in 2021

Why in the News?

The Food and Agriculture Organization (FAO) has released a report titled "Asia Pacific Regional Overview of Food Security and Nutrition 2023: Statistics and Trends".

What is the Asia Pacific Regional Overview of Food Security and Nutrition 2023 Report?

1. **Released by**: Food and Agriculture Organization (FAO)
2. **Aim**: To inform stakeholders on progress towards ending hunger, achieving food security and improving nutrition.
   – The report is a glimpse of the progress in meeting Sustainable Development Goals and World Health Assembly (WHA) Global Nutrition Targets 2025.

Key Findings of the report:

Asia-Pacific Region:

1. During the pandemic and the "5Fs" crisis (food, feed, fuel, fertiliser, and finance), the Asia Pacific region experienced troubling statistics.
2. About half of the world's undernourished people live in the Asia-Pacific region, with more women than men being food insecure.
3. Southern Asia has the highest prevalence of undernourishment at 15.6 percent.

India:

1. **Affordability of Healthy Diet**: In 2021, over 74% of Indians (76.2% in 2020) could not afford a healthy diet.
2. **Undernourishment**: 16.6% of India's population is undernourished, facing economic and social costs.
3. **Prevalence of Child Malnutrition:**
   a. **Stunting (low height for age)**: 31.7% of children under the age of five.
   b. **Wasting (low weight for height)**: 18.7% (the highest rate in the region)
   c. **Overweight**: 2.8%.
4. **Low Birth Weight**: 27.4% (highest regional prevalence in the region)

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5. **Anaemia**: 53% of women aged 15-49 had anaemia in 2019 (largest prevalence in the region)

Exclusive Breastfeeding: India has a higher prevalence (63.7%) of exclusive breastfeeding in infants (0-5 months) compared to the world average (47.7%).

Logistics Ease Across Different State (LEADS) 2023 ranking

Why in the News?

The Ministry of Commerce and Industry (MoCI) has released the Fifth edition of the LEADS annual exercise.

What is LEADS ranking?

Specifications	Details
What is it?	1) Its an annual ranking exercise providing insights into improvement of logistics performance at State/UT level. 2) It was **inspired by the Logistics Performance Index of the World Bank** and has undergone continuous development since its inception. 3) Unlike the LPI, which relies solely on perception-based surveys, LEADS incorporates both subjective and objective measures.
Launched in	2018
Launched by	Ministry of Commerce and Industry (MoCI)
Parameters	The survey parameters are based on three key pillars—infra-structure, services, and operating and regulatory environment.

What are the Key Highlights of the 2023 LEADS Report?

The report includes 11 states and 2 UTs encompassing coastal, landlocked, Northeastern States and UTs.

Performance Highlights from LEADS 2023:

Specifications	Details
Coastal Group	**Achievers:** Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu **Fast Movers:** Kerala, Maharashtra **Aspirers:** Goa, Odisha, West Bengal
Landlocked Group	**Achievers:** Haryana, Punjab, Telangana, Uttar Pradesh **Fast Movers**: Madhya Pradesh, Rajasthan, Uttarakhand **Aspirers:** Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand
North-East Group	**Achievers**: Assam, Sikkim, Tripura **Fast Movers:** Arunachal Pradesh, Nagaland **Aspirers**: Manipur, Meghalaya, Mizoram
Union Territories	**Achievers:** Chandigarh, Delhi **Fast Movers:** Andaman & Nicobar, Lakshadweep, Puducherry **Aspirers**: Daman & Diu/ Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh

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Subject: Art & Culture

The art of Tantric Buddhism

Why in the News?

The recently published book 'Buddhism: A journey through art', written by R. M. Woodward, looks at Asia's Buddhist art traditions, especially Tantric Buddhist painting and sculpture.

What is Tantric Buddhism?

Tantric Buddhism, **also known as Vajrayana Buddhism**, is a form of Buddhism that developed in India and later spread to Tibet, Bhutan, Mongolia, and other regions.

Key aspects of Tantric Buddhism–

1. Vajrayana Buddhism is regarded as the **third turning of the wheel of Dharma**
2. It views enlightenment as something that can be attained in a single lifetime.
3. It draws upon elements of Mahayana Buddhism but also includes unique practices and teachings, such as tantra, deity yoga, meditative techniques, and esoteric rituals.
4. This school claims that Tantras, Mantras, and Yantras are superior vehicles to liberation since they contain numerous sophisticated tantric ritual practices.
5. **Schools of Tantric Buddhism**– The four main schools are **Nyingma, Kagyu, Sakya and Gelug** (Gelug is the newest and most dominant school of the Vajrayana schools and Nyingma is the oldest)
6. **Dieties**
   – Tantric Buddhism incorporates a rich pantheon of deities, each representing different aspects of the enlightened mind. Common deities include **Tara**, **Avalokiteshvara, Manjushri, and Vajrapani**.
7. This tradition is also **known for its colourful and intricate mandalas, as well as its association with the Dalai Lama** (considered the highest lama of the Gelug school)

What is the significance of art in Tantric buddhism?

Tantric Buddhism uses art for teaching, healing, and meditation. In tantrism, art is seen as a powerful instrument for aiding spiritual development through rituals. Paintings of deities are used as a tool to evoke the subject or in some cases to make contact directly.

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Navy of Ancient India

Why in the News?

PM Narendra Modi, on the occasion of Navy Day (December 4), highlighted Shivaji's naval power.

What is the history of Shivaji's Naval Power?

1. Chhatrapati Shivaji Maharaj, the great Maratha ruler, is considered by many as the 'Father of the Indian Navy'. It is him who laid the foundation of a modern navy in India.
2. **Birth of the Maratha Navy (1661-1663)**: Between 1661 and 1663, the Maratha Navy came into existence, and at its peak included 400-odd ships of various kinds and sizes.
3. **Philosophy of Naval Dominance:** Historians note that his vision for the navy was based in his belief – "**Jalameva yasya, balameva tasya**", which translates to "He who rules over the seas is all powerful"
4. **Construction of multiple naval forts–** Between 1653 and 1680, Shivaji ordered the construction of multiple naval forts, starting with the Vijaydurg in 1653, and followed by the likes of Sindhudurg and Kolaba. They were used to keep a watch on enemies approaching via the seas.
5. **Limitation of this navy:** While the Marathas could hold their own in littoral waters but could not challenge European naval power in the high seas.

Garba of Gujarat makes it to UNESCO Intangible Cultural Heritage list

Why in the News?

Garba has been included in the UNESCO list of Intangible Cultural Heritage. It is the 15th cultural item from India to make it to the UNESCO list of Intangible Cultural Heritage.
Note: Kolkata's Durga Puja was the last one added two years ago.

What is Garba?

- Navratri is central to cultural identity of Gujaratis and Indians at large
- Unesco's ICH tag will ensure better protection of this cultural heritage
- The tag will also demonstrate the diversity of this heritage and raise awareness globally
- Garba forms a centuries-old tradition going back to the time of Lord Krishna
- The word 'garba' is derived from the word 'garbh deep'
- The dance celebrates fertility and is performed as a tribute to femininity - Shakti

Garba is also known as 'garbha', 'garbha deep' and 'garbhi' varying with local dialects

Source: TOI

Specifications	Details

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What is it	Garba is a ritualistic and devotional dance performed in Gujarat and across India.
Performed during	It is performed on the occasion of the festival of Navratri which is **dedicated to the worship of feminine energy or 'Shakti '**.
Features	1) The word Garba means womb, with the dance signifying life. 2) The dance is traditionally performed around a centrally lit clay lantern called the Gabra, which represents the goddess of power who remains constant throughout time. 3) The dancers form a ring around the central lamp and revolve in circles. It represents the cycle of time from birth to death and rebirth
Attire	The garba dancers wear colourful traditional costumes. Women dress up in Chaniya choli and men wear kafni pyjamas and Ghagra.
Significance	The dance is inclusive, attracting people of all ages and backgrounds and emphasizes community participation.

Mera Gaon Meri Dharohar Project

Why in the News?

The Ministry of Culture has launched the 'Mera Gaon Meri Dharohar' (MGMD) project for cultural mapping and documentation of villages across India.

What is Mera Gaon Meri Dharohar (MGMD) Project?

1. It is a pan-India initiative **under National Mission on Cultural Mapping.**
2. It has been initiated by the Ministry of Culture in coordination with Indira Gandhi National Centre for the Arts (IGNCA).
3. The main objective of project is to culturally map India's 6.5 lakh villages, spanning 29 States and 7 Union Territories, on a comprehensive virtual platform.
4. **Web portal**– A web portal on MGMD has also been launched, showcasing essential information about each village, including its geographical location, demographic aspects, and description of traditional dresses, ornaments, arts and crafts, temples, fairs, festivals, etc.
5. This will **allow users to take virtual village tours and immerse themselves in the diverse and rich culture of India.**
6. The core idea behind this project is to encourage appreciation for India's culture and traditions, paving way for economic growth, social harmony, and artistic development in rural communities.
7. Under the MGMD, information is collected under following broad categories –

a) Arts and Crafts Village.
b) Ecologically Oriented Village, **for example- Bishnoi village in Rajasthan (famous for living in harmony with Blackbucks).**
c) Scholastic Village linked with Textual and Scriptural Traditions of India.
d) Epic Village linked with Ramayana, Mahabharata and/or Puranic legends and oral epics.
e) Historical Village linked with Local and National History, **for example- Kandel (Madhya Pradesh) is**

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famous for 'Jal Satyagraha', Suketi in Himachal Pradesh has Asia's oldest fossil park.
f) Architectural Heritage Village.

Lakadong turmeric from Meghalaya gets Geographical Indication tag

Why in the News?

Meghalaya's Lakadong turmeric, Garo Dakmanda (traditional dress), Larnai pottery and Garo Chubitchi (alcoholic beverage) has been awarded the Geographical Indication (GI) tag.

What is Lakadong Turmeric?

Specifications	Details
What is it	A variety of turmeric **grown in the Lakadong area of Jaintia Hills, Meghalaya**
Key Characteristics	1) It is darker in colour. 2) It is known for its high curcumin content of aorund 6.8% to 7.5% compared to the 2-5% found in regular turmeric varieties. 3) It is grown organically without the use of fertilisers.
Recognition	Lakadong Turmeric **Farmer Trinity Saioo was awarded the Padma Shri in 2021** for encouraging farmers in the state to take up cultivation of the turmeric.
Significance	1) Boost the competitiveness of Lakadong farmers in domestic and international markets. 2) Will give access to customers to the authentic product. 3) It will provide farmers with a better market price.

What are the other products that received GI Tag from Meghalaya?

1. **Garo Dakmanda**: It is a hand-woven lower garment which is part of the traditional attire of Garo women in Meghalaya.
2. **Garo Chubitchi:** It is an alcoholic beverage consumed by the Garo community during feasts and ceremonies. It is a rice-based fermented drink.
3. **Larnai Pottery**: It is a type of pottery made of black clay. The art form has been passed down through generations.

First India Art, Architecture and Design Biennale (IAADB) 2023

Why in the News?

The Prime Minister has inaugurated the First Indian Art, Architecture & Design Biennale (IAADB) 2023 being held at Red Fort.
Note: A Biennale is a large-scale art exhibition or cultural event that typically occurs every two years.

What is the Indian Art, Architecture & Design Biennale (IAADB)?

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Specifications	Details
What is it	It is India's first Global Cultural Initiative to showcase Indian art, architecture and designs.
Organized by	Ministry of Culture
Aim	1) To institutionalise a global cultural initiative in India, similar to the ones organised at places like Venice, Sao Paulo, Singapore, Sydney and Sharjah. 2) To initiate a conversation between artists, architects, designers and others to strengthen the cultural dialogue.
Partners	1) Ministry of Education 2) National Gallery of Modern Art (NGMA) 3) Archaeological Survey of India 4) National Council of Science Museums 5) Lalit Kala Akademi
Themes	The exhibitions will be based on seven themes – Doors of India, Gardens of India, Baolis (step-wells) of India, Temples of India, Architectural Wonders of Independent India, Indigenous Design and Women in Architecture and Design.
Significance	1) The initiative would serve as a warm-up for India's participation in the Venice Biennale in 2024. 2) Provides a platform to the creators of art, architecture and design to collaborate.

What is Aatmanirbhar Bharat Centre for Design (ABCD)?

1. **Named Project Aatman**, it is a centre setup to to pave the way for a sustainable cultural economy derived from the indigenous crafts.
2. **Aim:**
   a. To promote unique and rare crafts of India and
   b. To bring together artisans and designers to help them innovate according to the market.

3. **Setup by**: Indira Gandhi National Centre for the Arts, Ministry of Culture
4. **Housed at the Red Fort premises**, it was inaugurated along with IAADB.

Koya tribe

Why in the News?

In an effort to conserve the Indian Bison, the Koya tribe of Andhra Pradesh, India, is switching from traditional bison horns to palm leaves for crafting their traditional flute.

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What are the Key Features of Koya tribe?

🦅 **Koya tribe**

ℹ️ **About**
- ✅ **Found in the Papikonda hill range**, near the Godavari and Sabari rivers in **Andhra Pradesh**.
- ✅ **Also present in Telangana** as the second-largest tribal community.
- ✅ Call themselves **Dorala Sattam (Lords group) and Putta Dora (Original lords)**

🔊 **Language**
- ✅ Telegu, **Koya language (Koyi)**

Traditional Dance
- ✅ **Permakok ata**, also known as the Bison Horn Dance, is performed at festivals and weddings

🙏 **Religion**
- ✅ Many Koya deities are female, with the **most significant being "mother earth"**

Permakore
- ✅ **Traditional flute made of Bison horn** played at a set time and place, signaling the entire village to commence a hunting expedition.

Festivals
- ✅ **Medaram Jathara** – Second-largest fair of India, after the Kumbh Mela and the largest tribal festival in Asia
- ✅ **Vijji Pandum** (seed charming festival)
- ✅ **Kondala Kolupu**(dedicated to appeasing Hill deities)
- ✅ **Bhumi Panduga** (commencement of the agricultural season)

Aspect	Details
Who are they?	1) Koya tribe is a tribe **found in the Papikonda hill range, near the Godavari and Sabari rivers in Andhra Pradesh.** 2) They are also found in Telangana where they are the second largest tribal community. 3) The Koyas commonly refer to themselves as **Dorala Sattam** (Lords group) and Putta Dora (Original lords).
Language	Telegu, Koya language (Koyi)
Livelihood	1) Earlier they were engaged in shifting cultivation. But have started practicing settled cultivation, cultivating crops such as Jowar, Ragi, Bajra, and other millets. 2) They also resort to hunting and foraging.
Religion	1) Many Koya deities are female, the most important being the "mother earth ". 2) They also worship a number of Hindu gods Lord Bhima, Korra Rajulu, Mamili, and Potaraju.
Festivals	1) **Medaram Jathara** – It is conducted in honour of the goddesses Sammakka and Saralamma. **Note**- It is the second-largest fair of India, after the Kumbh Mela and the largest tribal festival in Asia. 2) **Other major festivals include**: a. Vijji Pandum (seed-charming festival) b. Kondala Kolupu (festival dedicated to appeasing Hill deities) c. Bhumi Panduga (commencement of the agricultural season)

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Traditional Dance	**Permakok ata**, also called the Bison Horn Dance, is practiced during festivals and marriage ceremonies.
Permakore	It is the **traditional flute made of Bison hor**n. Permakore is played at a designated time and place to give a call to the entire village to go hunting in the forest

About Papikonda hill range

1. It is the habitat of the Indian Bison and hence is also known as the 'Bison hill range'.
2. Papikonda National park- Declared in 2008, the Papikonda National Park is spread across East and West Godavari districts of Andhra Pradesh. It lies on the left and right banks of the river Godavari.
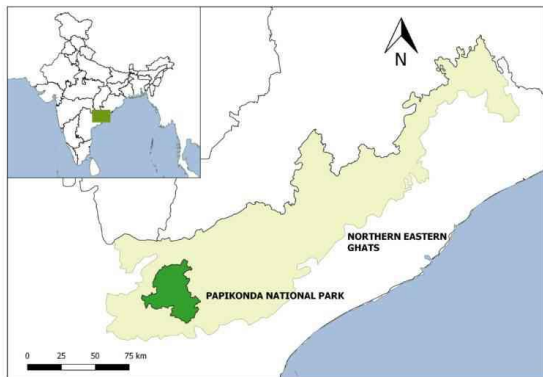
Source- Scroll

Mohiniyattam: Johannes Kepler's Science Fiction Novel, World's Oldest, To Be Adapted into Mohiniyattam

Why in the News?

Somnium, the world's first science fiction novel, will be adapted into Mohiniyattam, a classical dance form. The adaptation will be titled "Nilakkanavu" (Moonlit Chronicle).

What is Nilakkanavu?

1. Nilakkanavu is a Mohiniyattam dance performance **based on the world's first science fiction novel, Somnium**, written by 17th century German Scientist Johannes Kepler.
2. The performance will be performed at the Samanwayam 2023 national dance-music festival in Palakkad, Kerala.
3. The artistic endeavor was **conceptualised by Mankara** and is executed by the well-known danseuse Gayathri Madhusudan. The musical landscape of Nilakkanavu is crafted by national award-winning composer Ramesh Narayan.
4. The performance will also pay tribute to the scientists who worked hard to make India's Chandrayaan Mission a success.

What is Mohiniyattam?

Specifications	Details

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What is it	It is a classical dance that **originated in Kerala**. It derives its name from the word 'Mohini', the female avatar of Lord Vishnu.
Also known as	Dasiattam, as earlier the dance was practiced by devadasis or temple dancers
Flourished under	1) Chera kings between the 9th and the 12th century CE. 2) In the 19th century, the dance form gained prominence under rulers of Travancore and Tanjore Quartets (Ponnayya, Chinnayya, Sivananda and Vadivelu).
Key Characteristics	1) It is a solo dance performed by female artists 2) The dance is characterized by graceful, swaying body movements with no abrupt jerks or sudden leaps. 3) It belongs to the lasya style which is feminine, tender and graceful.
Attire	1) Plain white or off-white sari with golden or gold-laced brocade embroidery. 2) Golden waist belt and various jewellery pieces. 3) Musical anklets (ghungroo) for rhythmic footwork.
Musical Instruments	1) **Carnatic style music**. 2) **Instruments used**: Kuzhitalam (cymbals), Veena, Idakka (hourglass-shaped drum), Mridangam (barrel-shaped drum) and flute.
Important Personalities associated	1) The dance form was revived by Malayali Poet VN Menon and Kalyani Amma. 2) Other important personalities include Mukundraja, Appiradeth Krishna Panicker, Sunanda Nair among others.

Sahitya Akademi announces awards

Why in the News?

Sahitya Akademi has announced the annual Sahitya Akademi Awards 2023 in 24 languages. The awards are for books published between January 2017 and December 31, 2021.

What is the Sahitya Akademi Awards?

Specifications	Details
What is it?	1) It is a literary honour that is **conferred annually by Sahitya Akademi.** 2) Awarded to the most outstanding books of literary merit **published in any of the 24 major Indian languages** (22 languages of the 8th Schedule of the Constitution, Rajasthani and English.). 3) The awards are given to books first published during the five years immediately preceding the year of the award
Purpose	To recognise and promote excellence in Indian writing and also acknowledge new trends.
Instituted in	1954
Prize	Consists of an engraved copper plaque, a shawl, and a prize money of Rs. 1 lakh.
Criteria for awardee	1) Author must be an Indian national. 2) The award is **conferred to living writers** and not awarded posthumously.

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	3) Eligible works must be outstanding contributions to their respective language and literature. 4) If books exhibit equal merit, criteria such as overall literary contribution and the standing of authors will be considered for the award.
Key Features	1) It is the **second highest literary honour** by the Government of India, after Jnanpith award. 2) **Other Sahitya Akademi Awards**: a. **Sahitya Akademi Bal Sahitya Puraskar-** Awarded based on the author's overall contribution to children's literature. b. **Sahitya Akademi Yuva Puraskar-** Applies to books published by authors aged 35 and below.

What are Jnanpith award?

1) The Jnanpith Award is an Indian literary award **presented annually by the Bhartiya Jnanpith** to an author for their outstanding contribution towards literature.

2) The award was instituted in 1961.

3) It's awarded exclusively to Indian writers in languages listed in the Eighth Schedule to the Constitution of India and English, with no posthumous awards.

Bihar to develop Sita's birthplace

Why in the News?

The bihar Chief minister has launched a Rs 72-crore development plan for Goddess Sita's birthplace at Punaura Dham in Sitamarhi, Bihar.

What is Bihar's Government plan for Punaura?

Punaura Development plan includes:

1. Renovate the existing temple dedicated to Sita and prepare a roofed pradakshina path (path for circumambulation) around it.
2. Developing the Luv Kush Vatika, Sita Vatika, and Sita Kund
3. Showcasing Sita's life story through a 3D film experience.
4. The Sita temple within Sitakund will be built after the completion of the Ram temple in Ayodhya (January 2024).

Where is the birthplace of Sita?

1. Earlier, the Janaki temple in Sitamarhi was believed to be the birthplace of Sita. But now Punaura Dham is recognized as Sita's birthplace in Sitamarhi by both the Centre and State.
2. Researchers have found that the Janaki temple is only about 200 years old, while Punaura Dham aligns with references in the Ramayana and has historical structures like Sitakund and dedicated gardens.

Veer Bal Diwas

Why in the News?

Veer Bal Diwas is observed on December 26 to honor the martyrdom of Guru Gobind Singh's youngest sons Sahibzada Baba Zorawar Singh Ji and Sahibzada Baba Fateh Singh Ji. They were only 7 and 9 years old, respectively, at the time of their deaths.

How were the Sons of Guru Gobind Singh Martyred?

1) During the **Battle of Chamkaur (1704)** fought between the Sikhs and Mughals, Guru Gobind Singh's youngest sons, **Sahibzada Baba Zorawar Singh Ji and Sahibzada Baba Fateh Singh Ji were captured by the Mughals.**

2) Refusing to convert or to bow to Wazir Khan, the two were **sentenced to death** and were soon martyred by execution.

3) The Guru's mother Mata Gujari and his two elder sons, Sahibzaada Ajit Singh (18) and Sahibzaada Jujhar Singh (14), were also killed within a week.

4) A few years later **Baba Banda Singh Bahadur avenged the execution of the Sahibzade**, by attacking, capturing Sirhind and executing Wazir Khan.

Divya Kala Mela 2023

Why in the News?

The government is organising the 12th 'Divya Kala Mela' from 29th December 2023 – 7th January 2024 in Surat, Gujrat. So far 11 Divya kala melas have been organised starting from 2022 in Delhi.

What is Divya Kala Mela?

Aspect	Details
What is it?	It is a unique event **showcasing the products and craftsmanship of Divyang entrepreneurs and artisans** from across the country.
Nodal Ministry	Ministry of Social Justice and Empowerement (MoSJ&E)
Organised by	Department of Empowerment of Persons with Disabilities (Divyangjan) {DEPwD}, MoSJ&E, GoI through **National Divyangjan Finance and Development Corporation** (NDFDC)
Aims	1) Strengthen economic empowerment of PwD/Divyangjan. 2) Provide a bigger platform for marketing and showcasing the products and skills of Divyangjan (PwD)
Product Category	Home Décor & Lifestyle, Clothing, Stationery and eco-friendly products, packaged food and organic products, Toys & Gifts, Personal Accessories – Jewellery, Clutch Bags.
Significance	It provides a chance for everyone to support local products, particularly those crafted by determined individuals with disabilities.

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What is National Divyangjan Finance and Development Corporation (NDFDC)?

1) NDFDC is a Company wholly owned by Government of India, under the **DEPwD of MoSJ&E**.

2) It functions as an apex institution for the **benefit of Persons with Disabilities**.

3) **Financial assistance** is extended by the Corporation at concessional interest rate for starting/ augmenting any activity contributing directly or indirectly in the income generation of Persons with Disabilities, thus helping them in their overall process of empowerment.

Subject: Geography and Places in News

Cyclone Michaung: A.P. braces for heavy rainfall as Michaung intensifies

Why in the News?

Andhra Pradesh and Tamil Nadu are preparing for heavy rainfall in their coastal districts as Cyclone Michaung intensified over the Bay of Bengal.

What is Cyclone Michaung?

1. Cyclone Michaung is the **fourth tropical cyclone of the year over the Bay of Bengal**. The other three were- Mocha, Hamoon, Midhili.
2. India Meteorological Department (IMD) classified it as a **severe cyclonic storm.**
3. The name of the cyclone **'Michaung' was proposed by Myanma**r, which signifies resilience and fortitude.

What are Tropical Cyclones?

1. Tropical cyclones are violent storms that originate over oceans in tropical areas and move over to the coastal areas.
2. The **winds circulate in an anti-clockwise direction in the Northern Hemisphere and in a clockwise direction in the Southern Hemisphere.**
3. They are associated with large-scale destruction caused by violent winds, very heavy rainfall, and storm surges.

Indonesia's Volcano Mount Marapi erupts: 11 of 26 hikers dead, 3 rescued

Why in the News?

Mount Marapi, an active volcano situated on Sumatra Island in Indonesia, has erupted again, causing deaths of many.

What is Mount Marapi?

1. Mount Marapi, is an active stratovolcano **located in Central Java, Indonesi**a that has erupted regularly since 1548.

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Figure 4.Source– researchgate

2.   It stands 2,891m (9,485ft) high and is situated at a subduction zone, where the Indo-Australian Plate is subducting under the Eurasian Plate.

3.   Indonesia, **part of the Pacific Ring of Fir**e, experiences significant volcanic and seismic activity, boasting nearly 130 active volcanoes.

Critical minerals: Auction and its importance

Why in the News?

In November 2023, the Government started the first ever critical minerals auction process for commercial mining by the private sector. **This is the first time that rights related to the mining of lithium ore are also being auctioned to private parties**.

What are Critical Minerals?

1. These are minerals that are essential for economic development and national security, and the lack of availability of these minerals could potentially lead to supply chain vulnerabilities.
2. **In July 2023, the Government listed 30 minerals as 'Critical Minerals'.** This includes lithium, rare earth elements, graphite, etc.

How are these Critical Minerals being Auctioned?

1. The auctions **involve 20 blocks are spread over eight states** (Tamil Nadu, Odisha, Bihar, Uttar Pradesh, Gujarat, Jharkhand, Chhattisgarh, and Jammu & Kashmir)
2. Of these, 4 blocks are being auctioned for a Mining Licence (ML) and the remaining 16 blocks for a Composite Licence (CL).
    Note-
    a. **Mining Licence**: once the licence is granted, the licensee can begin mining operations after obtaining the requisite clearances.
    b. **Composite Licence**: allows the licensee to conduct further geological exploration of the area to ascertain evidence of mineral contents. Based on its findings,they can make an application to the relevant state government to convert their CL to an ML.

Pangolakha Wildlife Sanctuary: Tiger spotted at record high elevation of 3,640m in Sikkim

Why in the News?

A tiger has been spotted at an elevation of 3,640 meters in the Pangolakha Wildlife Sanctuary in Sikkim.This marks the highest elevation in India where tigers have been observed, surpassing the previous record of 3,630 meters in Arunachal Pradesh.

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What is Pangolakha Wildlife Sanctuary?

Specifications	Details
Location	Sikkim
Geographical Features	1) The sanctuary is situated at the tri-junction of Sikkim, Bengal and Bhutan. 2) The Pangolakha range in the east separates Sikkim from Bhutan.
National Park	The sanctuary is linked to Neora Valley National Park of West Bengal, forests of Samtse and Haa district in Bhutan.
Significance	It is the **largest wildlife sanctuary in Sikkim**.
Vegetation	Alpine-temperate-subtropical
Lakes	Features high-altitude lakes like Lake Tsongmo, a biodiversity hotspot for migratory birds.
Rivers	Rivers like Rangpo and Jaldhaka originate from nearby lakes within the sanctuary.
Flora	R hododendrons, silver fir, juniper and moss-covered oaks.
Fauna	The sanctuary is **home to Red Panda (Sikkim's state animal)**, Himalayan Black Bear, Musk Deer among others.
Eco-regions	The sanctuary encompasses various eco-regions like Terai-Duar savanna, Eastern Himalayan broadleaf forests, Himalayan subtropical pine forests among others.

Surat Diamond Bourse inaugurated in Gujarat

Why in the News?

The Prime Minister has inaugurated Surat Diamond Bourse (SDB) in Gujarat.

What is Surat Diamond Bourse (SDB)?

1. Surat Diamond Bourse (SDB) is a global centre for trading of both rough and polished diamonds as well as jewellery.
2. **Designed by:** An architecture firm named Morphogenesis.
3. **Aim:** To shift the diamond trading business from Mumbai to Surat, which is the hub of diamond cutting and polishing with thousands of factories across the city.
4. **Features:** It will consist of-
    a) State-of-the-art 'Customs Clearance House' for import and export.
    b) Jewellery mall for the retail jewellery business.
    c) Facility for international banking and safe vaults.
5. **Significance:** It is the world's largest diamond trading hub. It is also the world's largest office building ahead of The Pentagon.

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India's First Winter Arctic Expedition

Why in the News?

India has launched its first winter expedition to arctic region. The team from Raman Research Institute (RRI) was chosen as the initial group of scientists to conduct various experiments in the region.

What are the details of the expedition?

Funded by: The Earth Sciences Ministry.

Nodal Agency: The National Centre for Polar and Ocean Research in Goa.

What are the objectives of the expedition?

1. Researchers will **assess the radio frequency environment in Norway's Arctic Svalbard region to determine its suitability for precise astronomy measurements.**
2. It seeks to **establish India's continuous year-round presence at the Himadri station**.
3. Scientists at RRI are developing the SARAS series, to study the faint cosmological signal from hydrogen emerging from the cosmic dawn.

Note – Cosmic dawn signifies the era when the first stars and galaxies emerged in the universe.

Significance of the experiments – It could open possibilities for deploying low-frequency radio telescopes in the region.

What are the research initiatives of India in Arctic?

1) **Himadri**

a) It is India's first permanent Arctic research station, located at Spitsbergen, Svalbard, Norway.

b) It was inaugurated on the 1st of July 2008 by the Minister of Earth Sciences.

c) It is located at a distance of 1,200 kilometers from the North Pole.

2) **IndARC**

a) India's first underwater moored observatory in the Arctic region.

b) It was deployed in 2014 at Kongsfjorden fjord, Svalbard, Norway.

c) Its research goal is to study the Arctic climate and its influence on the monsoon

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Subject: Miscellaneous

Mahe Class Ships: Three anti-submarine warfare ships for Indian Navy launched

Why in the News?

Cochin Shipyard Limited has launched three ships in the series of eight Mahe class Anti-Submarine Warfare Shallow Watercrafts (ASW SWC) for the Indian Navy. **These three ships have been named INS Mahe, INS Malvan and INS Mangrol.**

What are Mahe Class Ships?

Source: TOI

Specifications	Details
What is it?	These are Anti-Submarine Warfare Shallow Watercrafts (ASW SWC).
Purpose	To undertake anti-submarine operations in coastal waters, Low Intensity Maritime Operations (LIMO) and Mine Laying Operations.
Built by	Cochin Shipyard Limited
Built for	Indian Navy
Replaces	Abhay class Anti-Submarine Warfare (ASW) corvettes
Number of ships being built	Eight
Named after	Ports of strategic importance along the coast of India
Features	1)The ships are 78 m long with a maximum speed of 25 knots. 2)They can carry 57 personnel. 3)The ships have over 80% indigenous content.This ensures that large scale defense production is executed by Indian manufacturing units.

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MAHASAGAR: Indian Navy's outreach initiative between Maritime Heads

Why in the News?

Indian Navy has successfully conducted the first edition of the MAHASAGAR: Indian Navy's outreach initiative between Maritime Heads.

What is MAHASAGAR?

Specifications	Details
Hosted by	Indian Navy
Purpose	It is a high-level interaction between the Maritime Heads of the Indian Ocean Region.
Full Form	Maritime Heads for Active Security and Growth for All in the Region.
Aim	To promote security and growth for all in the Indian Ocean Region
Participating countries	Bangladesh, Comoros, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Sri Lanka and Tanzania
Theme	'Collective Maritime Approach towards Countering Common Challenges'
Significance	This interaction is in line with the Government of India's vision of SAGAR(Security and Growth for All in the Region).

SANDHAYAK

Why in the News?

Sandhayak, the first of four Survey Vessel (Large) ships, was delivered to the Indian Navy.

What is Sandhayak?

Specification	Details
What is it?	Survey Vessel (Large)
Built by	Garden Reach Shipbuilders & Engineers (GRSE), Kolkata
Zone of Operation	Its zone of operation **includes maritime limits upto EEZ/** extended continental shelf
Functions	1) The primary role of the ship would be **full scale coastal and deep-water Hydrographic Survey of Port/ Harbour approaches and determination of navigational channels/ route**s 2) The ships will collect oceanographic and geophysical data for defence and civil applications. 3) In their secondary role, ships will provide limited defence and function as

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	Hospital ship during war/ emergencies
Features	1) It has a displacement of about 3400 tons and an overall length of 110 meters 2) Sandhayak is fitted with state of the art hydrographic equipment such as Data Acquisition and Processing System, Autonomous Underwater Vehicle, Remotely Operated Vehicle etc. 3) Powered by two Diesel Engines, the ship is capable of achieving speeds in excess of 18 knots. 4) **Sandhayak has an indigenous content of over 80% by cost**

VINBAX-2023: Joint Military Exercise

Why in the News?

The Indian Armed Forces contingent arrived in Hanoi, Vietnam for the fourth edition of Joint Military Exercise VINBAX-2023.

What is Exercise VINBAX?

Specification	Details
What is it?	It's an annual training event held alternately in India and Vietnam.
Participating Nations	India and Vietnam
Type	Military Exercise
Started in	2018 (First edition-Jabalpur, Madhya Pradesh)
Aim	To enhance collaboration, promote interoperability, and share best practices under Chapter VII of the United Nations Charter on Peacekeeping Operations.

What are the key features of the 2023 edition of Exercise VINBAX?

1. The joint exercise promotes idea exchange and collaborative rehearsal of tactics, techniques, and procedures.
2. They will perform technical military operations aligned with scenarios resembling global deployment of United Nations' contingents.
3. This joint effort enhances understanding, interoperability, and strengthens defense cooperation between the friendly armies.

Indira Gandhi Peace Prize: Activist Ali Abu Awwad and pianist Daniel Barenboim wins

Why in the News?

The Indira Gandhi Peace Prize for Peace, Disarmament and Development 2023 has been jointly awarded to Daniel Barenboim and Ali Abu Awwad.

What is the Indira Gandhi Peace Prize?

Specifications	Details
Established in	1986 in memory of Indira Gandhi, the former Prime Minister of India.
Purpose	The award is given to individuals or organisations in recognition of their efforts towards: 1) Promoting international peace, development, and a new international economic order. 2) Ensuring that scientific discoveries are used for the larger good of humanity. 3) Enlarging the scope of freedom.
Given by	Indira Gandhi Memorial Trust
Prize	The award consists of a monetary award of 25 lakh rupees along with a citation.
Past Recipients	UNICEF, ISRO (2014), Pratham NGO (2021) among others.

Who has been awarded the Indira Gandhi Peace Prize 2023?

1. **Daniel Barenboim and Ali Abu Awwad** have been jointly awarded Indira Gandhi Peace Prize 2023 for their efforts in bringing together the people of Israel and the Arab World for a non-violent resolution of the Israel-Palestine conflict.
2. Daniel Barenboim is an Argentine-born distinguished classical pianist, known for his relentless endeavor in using music to foster harmony in West Asia.
3. Ali Awwad co-founded a local Palestinian-Israeli initiative called Roots promoting understanding, non-violence and transformation.

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Bengaluru airport wins award at UNESCO's 2023 Prix Versailles

Why in the News?

Terminal 2 (T2) of Kempegowda International Airport (KIA) in Bengaluru has been awarded the Special Prize for an Interior at the UNESCO's 2023 Prix Versailles Awards.

Note- Kempegowda International Airport (KIA) is the only Indian airport to receive this award.

What is the Prix Versailles Awards?

1. The Prix Versailles awards were established in 2015. It is announced each year at UNESCO.
2. The award is given for outstanding achievements in architecture and design on a global scale.
3. The award focuses on intelligent sustainability as a cultural driver, acknowledging innovation, creativity, reflection of local heritage, ecological efficiency and values of social interaction.
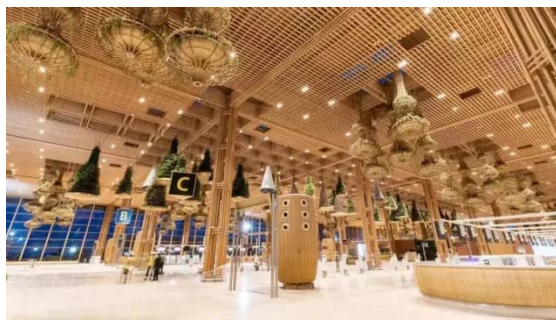

Figure 5.Source: TOI

Why was Terminal 2 (T2) of Kempegowda International Airport (KIA) given this award?

1. T2 called a "Terminal in a Garden", was inaugurated in 2022. The terminal can accommodate 25 million passengers annually.
2. The terminal features a spacious indoor garden with waterfalls and hanging planted bells enhancing its aesthetics.
3. It had previously earned the prestigious IGBC platinum certification from the Indian Green Building Council.

Note- Green building ratings bring together a host of sustainable practices and solutions to reduce the environmental impacts.

4. It is also the world's largest terminal pre-certified with a platinum LEED rating by the US Green Building Council (UGBC) even before commencing operations, reflecting its sustainable design.

INS Imphal

Why in the News?

INS Imphal, the third warship of Project 15B that together form the **Visakhapatnam class stealth-guided missile destroyers**, has been commissioned into the Indian Navy.

What is Project 15B?

It is a project that aims to construct **four guided missile destroyers** namely Visakhapatnam, Mormugao, Imphal and Surat.

What is INS Imphal?

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Source- Wikipedia

Specifications	Details
What is it?	Vishakhapatnam class stealth-guided missile destroyer
Built by	Mazagon Dock Shipbuilders Limited (MDSL)
Designed by	Indian Navy's Warship Design Bureau
Key Features	1) **Size**– 163 meters in length, 17.4 meters in width, and have a displacement of 7,400 tonnes. 2) It has a **maximum speed of 30 knots** and a **range of 4000 nautical miles**. 3) It is built with **75 per cent indigenous content.** 4) Arsenal includes **BrahMos surface-to-surface cruise missiles** and vertically launched **Barak-8 surface-to-air missiles.** 5) It is well-equipped for network-centric warfare, leveraging information technology and computer networking tools.

Indian Navy unveils new epaulettes for admirals

Why in the News?

The new design of epaulettes for admirals has been unveiled by the Navy, following Prime Minister Narendra Modi's announcement during the Navy Day celebrations in Sindhudurg, Maharashtra.

What new changes have been made in the design?

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Source- The Hindu

1) The newly designed epaulettes features **a golden Navy button at the top, followed by an octagon, a crossed Indian sword and telescope, and stars denoting the ranks**.

2) The octagon in the new design has been **drawn from the naval ensign** and inspired by rajmudra of Chhatrapati Shivaji.

What is the Significance of the New Design?

Adopting the new design reaffirms their commitment to the two pillars of Panch Pran (Five Resolves) given by PM Narendra Modi during the 76th Independence Day-

1) Take Pride in our Roots

2) Remove any Trace of Colonial Mindset.

Note- The Navy is also set to rename some of the ranks now in British nomenclature to reflect an Indian connection.

Centre, Assam sign peace pact with ULFA faction

Why in the News?

The **Central Government, Assam government, and the United Liberation Front of Assam (ULFA) have entered into a tripartite agreement** aiming for enduring peace, prosperity, and comprehensive development in Assam.

What are the Key Points of this Agreement?

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1) ULFA representatives agree to **renounce violence, surrender weapons**, vacate camps, participate in democratic process, and uphold national integrity.

2) Out of the 126 Assembly seats in Assam, **97 seats would be reserved for indigenous people**, and future delimitation exercises will adhere to this principle.

3) The government has pledged **investment of ₹1.5 lakh crore**, staggered through the years.

4) A time-bound program will be made by the Ministry of Home Affairs, Government of India, to fulfill the demands of ULFA and a **committee will also be formed for its monitoring**.

5) The agreement was signed with the pro-talk's faction of ULFA under Arabinda Rajkhowa while the **other faction led by Paresh Baruah (known as ULFA-I) has not joined** the peace process.

6) The settlement is likely to take care of a host of long-standing political, economic and social issues concerning Assam, besides providing cultural safeguards and land rights to the indigenous people.

What is ULFA?

1) The United Liberation Front of Asom (ULFA) is a **militant outfit operating in Assam**.

2) It was **founded in 1979** by Paresh Baruah during anti-foreigners' movement. Subsequent to internal conflicts, the organization splintered into various factions.

3) It advocated for a sovereign state for the Assamese people in response to an influx of Bengali-speaking individuals following the 1971 Bangladesh Liberation War.

4) The Government of India **banned the organisation** in 1990 under the Unlawful Activities (Prevention) Act citing it as a terrorist organisation.

5) **Rajkhowa faction of the ULFA signed a ceasefire agreement** with the United Progressive Alliance (UPA) government only in 2011 and has since been in negotiations with the Centre for a peace deal.

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