

WEEKLY CURRENT AFFAIRS MAGAZINE for



# U.P.S.C.-C.S.E.

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## Topic 1. JHARKHAND LAUNCHES DRIVE TO GRANT LAND TITLES UNDER FRA: WHY NOW, CHALLENGES

*Important for the subject: Polity*



### Forest Rights Act

Enacted in 2006, the Forest Rights Act came into effect in 2008. Considered a landmark piece of legislation as it attempts to correct historical injustices against forest dwellers in the colonial era and in independent India, it recognises forest dwellers' individual rights over their land and a village's rights to manage and conserve the forest:

**Individual Forest Rights:** Any person belonging to a scheduled tribe can claim rights to live in and cultivate up to 4 ha if he occupied it and depended on it as of December 13, 2005. A non-tribal, in addition, will have to prove his family's residence in the vicinity of the forest for 75 years prior to December 2005

**Community Forest Rights:** The Act recognises the rights of a gram sabha over forest land within the village boundaries or seasonal use of landscape for pastoral communities. This allows the villagers to own and collect, use and dispose of minor forest produce besides timber, including the right to use grazing land and water bodies and the right to protect and regenerate any community resource, among others

The Jharkhand government started a special drive, titled **Abua Bir Dishom Abhiyan**. The **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**, grants the **rights of self cultivation and habitation**, in the form of **Individual Forest Rights (IFR)** and **Community Forest Rights (CFR)**.

The titles cover areas such as grazing, fishing, access to water bodies, resource access, recognition of customary rights, among others.

### **About Abua Bir Dishom Abhiyan:**

- Initiative of: **Jharkhand state**
- **Aim:** To give **land title certificates** to **individuals** and **communities** under the **Forests Rights Act**.
- **Forest Rights Committee (FRC)** at the **village level** and a **monitoring committee** at the **sub-divisional** and **district level** will be formed.
- A special **Gram Sabha** will be held in all the villages, organised by the **Panchayat Secretary** and **Head of each Panchayat**, with the instruction that in addition to **new claims**, the **FRCs** will also need to consider **old pending claims or rejected claims**.
- Technological partner in this initiative is the **Foundation of Ecological Security (IES)**, with its **partner organisation Phia Foundation** in **Jharkhand**. Another partner is the **Indian School of Business (ISB)**.

### Challenges:

- Some forest officials view forest dwellers as encroachers.
- Policy implementation at the ground level.
- Lack of police personnel, mainly forest rangers.
- Lack of coordination among bureaucratic hierarch.

### **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) identify four types of rights:**

- **Title rights:** It gives **FDST** and **OTFD** the **right to ownership to land** farmed by tribals or forest dwellers Important for the subject to a maximum of 4 hectares. Ownership is only for land that is actually being cultivated by the concerned family and no new lands will be granted.
- **Use rights:** The **rights of the dwellers** extend to extracting Minor Forest Produce, grazing areas, to pastoralist routes, etc.
- **Relief and development rights:** To rehabilitation in case of illegal eviction or forced displacement and to basic amenities, Important for the subject to restrictions for forest protection
- **Forest management rights:** It includes the right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use.

## Topic 2. GOVT BEGINS PROCESS OF CONSTITUTING SIXTEENTH FINANCE COMMISSION

### *Important for the subject :Polity*

Govt begins process of constituting Sixteenth Finance Commission. The Indian government has **initiated the formation of the Sixteenth Finance Commission**, a body responsible for determining the tax-sharing formula between the central and state governments.

The commission is **expected to be constituted later** this year, with the **announcement of its Terms of Reference and members** to follow after state elections.

- States have **already submitted their suggestions for these terms**. **Ritvik Ranjanam Pandey, a 1998-batch IAS officer from the Karnataka cadre**, was appointed as the **Officer on Special Duty for the commission**.
- The **Sixteenth Finance Commission will operate over a five-year period starting from 2026-27**, and its **recommendations will be included in the 2026-27 budget**.
- The commission's role is to **address vertical imbalances in taxation powers and expenditure responsibilities** between the **central government and the states**, as well as to **equalize public services across the states**
- The **15th Finance Commission, led by NK Singh**, submitted **two reports, one for the financial year 2020-21 and the other for the 2021-26 period**, with the latter

recommending a 41% share of central taxes for the states, in contrast to the 42% share proposed by the 14th Finance Commission for the 2015-20 period.

### What is Finance Commission

- The Finance Commission is a **constitutional body** for the purpose of allocation of certain revenue resources between the Union and the State Governments
- It was established **under Article 280** of the Indian Constitution by the **Indian President**. It was **created to define the financial relations** between the Centre and the states. It shall be the **duty of the Commission to make recommendations** to the President in relation to the:
- the **distribution between the Union and the States** of the **net proceeds of taxes** which are to be, or maybe, divided between them and the allocation between the States of the respective shares of such proceeds;
- the **principles which should govern the grants in aid of the revenues of the States out of the Consolidated Fund of India; any other matter referred to the Commission by the President** in the interests of sound finance.
- The Commission **shall determine their procedure and shall have such powers in the performance of their functions as Parliament may by law confer on them.**
- The **recommendations made by the Finance Commission** are of an **advisory nature** only and therefore, **not binding upon the government.**
- The **first Finance Commission** was set up in **1951**. The **Fifteenth Finance Commission** was constituted on 27 November 2017 **under N.K.Singh.**

### What is the Composition of Finance Commission

- The President **shall constitute a Finance Commission** which shall consist of a **Chairman and four other members** to be appointed by the President.

**Qualifications for members of the Finance commission as per Finance commission act, 1951:**

- **Chairperson – Individual with experience of public affair**
- **Member 1 – High court judge or qualified to be one.**
- **Member 2 – special knowledge of finance and accounts of government**
- **Member 3 – special knowledge of economics**
- **Member 4 – wide experience in financial matters and administration.**

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### Topic 3. CENTRE TOLD SOCIAL MEDIA PLATFORMS TO TAKE DOWN MISLEADING AI CONTENT

*Important for the subject: Polity*

Centre issues advisory to social media platforms to take down misleading AI content.

The **Ministry of Electronics and IT (MeitY)** has issued **advisories to social media platforms, including Facebook, Instagram, and YouTube**, instructing them

to remove misleading content generated by artificial intelligence within 24 hours.

- This action follows the **recent viral spread of a deepfake video of actor Rashmika Mandanna** on social media.
- The advisory references existing legal provisions that platforms must adhere to as online intermediaries, including **Section 66D of the Information Technology Act and Rule 3(2)(b) of the Information Technology Rules**, which require the **removal of impersonation content, including artificially manipulated images, within 24 hours** of receiving a complaint.
- Deepfake technology poses a significant challenge, particularly for women, as it adds a new dimension to online harassment.

### What is deep fakes:

- A **deepfake is an artificially created image or video** that convincingly portrays one person as another. It represents an **advanced form of producing deceptive content**, harnessing the power of Artificial Intelligence (AI).
- **AI involves programming machines to emulate human intelligence**, enabling them to think and act like humans.
- With AI, it becomes possible to **generate entirely fictitious individuals and manipulate genuine individuals**, causing them to appear as if they said or did things they never actually did.
- The **term deepfake originated in 2017**, when an **anonymous Reddit user** called himself “Deepfakes.”
- This user **manipulated Google’s open-source, deep-learning technology to create and post pornographic videos.**

### What are the Global Efforts to regulate Deepfake technology:

#### European Union

- The EU has an **updated Code of Practice** to stop the spread of disinformation through deepfakes.
- The **revised Code requires tech companies** including Google, Meta, and Twitter to take **measures in countering deepfakes** and fake accounts on their platforms.
- They have **six months to implement their measures** once they have signed up to the Code. If **found non-compliant, these companies can face fines** as much as 6% of their annual global turnover.

#### United States

- In **July 2021**, the **US introduced the bipartisan Deepfake Task Force Act** to assist the **Department of Homeland Security (DHS)** to counter deepfake technology.
- The measure **directs the DHS to conduct an annual study of deepfakes** assess the technology used, **track its uses by foreign and domestic entities**, and come up with

available countermeasures to tackle the same.

### China:

- In China, it is **mandatory for deep synthesis** service providers and **users to ensure that any doctored content using the technology** is explicitly labelled and can be traced back to its source.
- The regulation **also mandates people** using the technology to **edit someone's image or voice, to notify and take the consent of the person in question.**
- When reposting news made by the technology, the **source can only be from the government-approved list of news outlets.**

### What is the Legal Framework Related to AI in India:

- In **India**, there are **currently no specific legal regulations** governing the use of **deepfake technology**. However, **existing laws can be applied to address the misuse of this technology**, covering aspects such as **Copyright Violation, Defamation, and cybercrimes.**
- For instance, the **Indian Penal Code**, which addresses **defamation**, and the **Information Technology Act of 2000**, which pertains to **sexually explicit material**, could **potentially be used** to combat malicious deepfake usage.
- **The Representation of the People Act of 1951** contains **provisions that prohibit the creation or dissemination of false or deceptive information** about candidates or political parties during election periods.
- Additionally, the **Election Commission of India** has established **regulations requiring registered political parties and candidates to obtain prior approval for all political advertisements on electronic media.**
- Despite these measures, **they may still be inadequate in fully addressing the multifaceted challenges arising from AI algorithms, including the potential risks associated with deepfake content.**

### What are the Recent Global Efforts to Regulate AI:

- The world's inaugural **AI Safety Summit**, hosted at **Bletchley Park** in the UK, saw **28 major nations, including the US, China, Japan, the UK, France, India, and the European Union, unite in signing a declaration** emphasizing the necessity for **global action to address the potential perils of AI.**
- The declaration **underscores the recognition of significant risks** stemming from potential deliberate **misuse and unintended control challenges** in advanced AI, particularly in **domains such as cybersecurity, biotechnology, and the spread of disinformation.**
- In response to these concerns, the **US President issued an executive order** aiming to **fortify defenses against AI-related threats and exercise regulatory oversight** over safety standards applied by companies in the assessment of **generative AI systems like ChatGPT and Google Bard.**

- During the G20 Leaders' Summit held in New Delhi, the Indian Prime Minister advocated for the creation of a global framework governing the development of "ethical" AI tools.
- This shift in New Delhi's stance signifies a transition from a position of non-interference in AI regulation to a proactive approach, involving the formulation of regulations grounded in a "risk-based, user-harm" perspective.

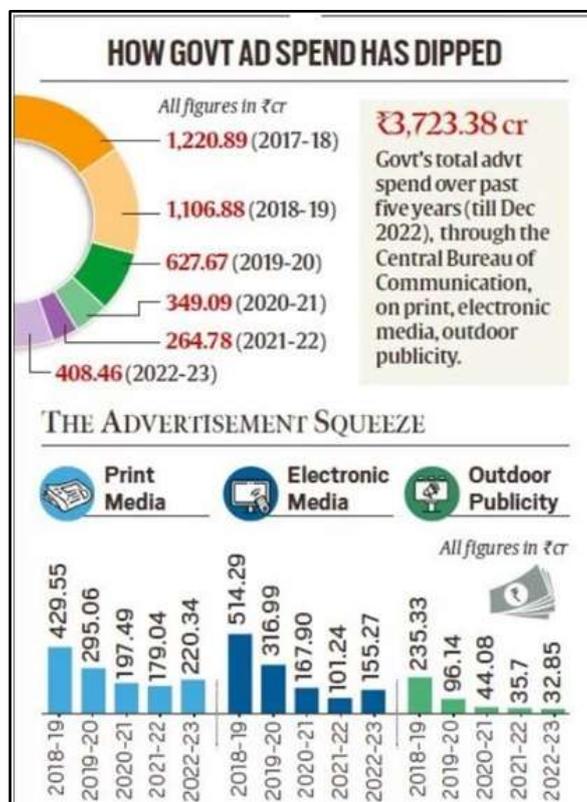
### What is Information Technology Rules, 2021

- IT Rules 2021 were released under section 87 of the IT Act, 2000 for Social-Media, Digital Media, and OTT platforms. It covers digitized content that can be transmitted over the internet or computer networks and includes intermediaries such as Twitter, Facebook, You-Tube. It also includes publishers of news and current affairs content and also curators of such content over online papers, news portals, news agencies and news aggregators.
- However, e-papers are not covered because print media comes under the purview of the Press Council of India. Newspapers and TV news channels are governed under the Press Council of India Act, 1978 and Cable Television Networks Regulation Act, 1995 respectively.
- Through the act the digital media is brought under the ambit of Section 69(A) of the Information Technology Act, 2000 which gives takedown powers to the government.
- The section allows the Centre to block public access to an intermediary in the interest of sovereignty and integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement to the commission of any cognisable offence relating to above".
- It also deprives the intermediaries of their "safe harbour protections under Section 79 of the IT Act, 2000. Safe Harbour provisions protect the intermediaries from liability for the acts of third parties who use their infrastructure for their own purposes.
- The act provides for three Tier Check Structure part III of the rules imposes three-tier complaints and adjudication structure on publishers.  
Level I: Self-regulation.
- Level II: Industry regulatory body headed by a former judge of the Supreme Court and High Court with additional members from a panel approved by the Ministry of Information and Broadcasting.
- Level III: Oversight mechanism that includes an inter ministerial committee with the authority to block access to content, which can also take suo moto cognisance of an issue and any grievance flagged by the Ministry.
- Social media companies are needed to appoint Content Moderation Officers who will be responsible for complying with content moderation orders.
- The New rules make it mandatory for platforms such as WhatsApp to aid in identifying the originator of unlawful messages.

- The rules mandate the **creation of a grievance redressal portal** as the **central repository** for receiving and processing all grievances. **Intermediaries are required to act on certain kinds of violations within 24 hours**, and on all concerns of a complainant within **15 days**.
- The rules also hold that Information Disclosure to Competent Authorities may demand **pertinent information for the purposes of prevention, detection, investigation, prosecution or punishment of crimes**. However, it excludes the intermediary from having to disclose the content of the personal message.

**Topic 4. TO TAKE SCHEMES TO TARGET AUDIENCE, GOVT TO ADVERTISE ON SOCIAL MEDIA**

*Important for the subject: Polity*



The government is planning to take schemes to target audience on social media. The **Indian government** is planning to **expand its advertising reach beyond traditional media outlets and include websites and social media** platforms like YouTube.

The **Central Bureau of Communication (CBC)**, part of the **Ministry of Information and Broadcasting**, is **preparing guidelines and rates for this new media**, with notifications expected in the coming weeks.

- **Traditional media spending by the government has decreased** significantly over the

past five years, **from Rs 1,200 crore in 2017-18 to Rs 264.78 crore in 2021-22.**

- The move to digital platforms is **driven by the potential for better targeting of specific audiences, tailoring campaigns for different groups** such as women and youth, and reaching urban or rural areas.
- In the **past five years, the government has spent over Rs 3,700 crore on advertisements across various media.**

#### **What is The Central Bureau of Communication (CBC):**

- The **Central Bureau of Communication** is the **nodal agency of the Government of India** for **advertising by various Ministries and organisations** of Government of India, including **public sector undertakings** and autonomous bodies.
- It **works under the administrative control of the Information and broadcasting ministry.** It is **headquartered in New Delhi.**
- It was **set up on 8th December, 2017** by **integration of three erstwhile media units** of Ministry of I&B, viz namely **Directorate of Advertising & Visual Publicity (DAVP), Directorate of Field Publicity (DFP) and Song & Drama Division(S&DD),** all involved in interpersonal communication.
- It **undertakes campaigns to inform and educate rural and urban people** about the Government's policies and programmes through **available vehicles of communication viz. Print, Audio Visual, Outdoor, Digital and New Media.**
- The CBC is **headed by a Director General (DG) with its headquarters at Soochana Bhawan, New Delhi.**
- CBC operating from Delhi, **ROBs from regions and FOBs at the field level are manned by officers of Indian Information Service and Ex-cadre personnel of erstwhile DAVP (Directorate of Advertisement Visual Publicity), Directorate of Field Publicity and Song & Drama Division.**

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#### **Topic 5. UGC NOTIFIES REGULATIONS FOR FOREIGN VARSITIES TO SET UP INDIA CAMPUS**

##### ***Important for the subject: Polity***

UGC notifies regulations for foreign varsities to set up India campus

**The University Grant Commission (UGC) has issued regulations allowing foreign universities ranked among the world's top 500 to establish branch campuses in India.**

These regulations, which come nearly ten months after the draft was published for feedback, **outline key aspects of foreign universities' operations in India.**

Each foreign university **may set up multiple campuses in India and collaborate with other institutions to establish these campuses,** provided they meet eligibility criteria individually.

- These **institutions will have control over their admission processes, fee structures,**

and the ability to repatriate funds to their parent campuses.

- However, they must ensure international faculty members appointed to teach in India stay in the country for at least one semester.
- Furthermore, these institutions cannot offer online or distance learning programs and must seek approval from the UGC for any new programs in India.
- The regulations also stipulate that foreign universities must not establish representative offices in India and are encouraged to provide merit-based or need-based scholarships to Indian students.

#### What is University Grants Commission:

- The University Grants Commission of India is a **statutory body under the provisions of UGC Act, 1956.**
- It is responsible for coordination, determination and maintenance of standards of higher education.
- It provides recognition to universities in India, and disburses funds to such recognized universities and colleges.
- The Department of Higher Education, Ministry of Education is the Nodal Ministry of UGC.

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#### Topic 6. SC REFUSE TO VACATE STATUS QUO ON PRIEST HIRING IN TAMIL NADU

##### *Important for the subject: Polity*

SC refuses to vacate its order on maintaining existing condition on appointment of priests in Tamil Nadu temples

The Supreme Court has rejected the Tamil Nadu government's request to vacate its September 25 order, which mandated the maintenance of the existing criteria for appointing 'archakas' (priests) in temples following the 'Agamic' tradition.

- The state government argued that the appointment of 'archakas' was a secular function in which it had the right to participate.
- However, the court did not concur, noting that the state government was not adhering to the prescribed procedures of 'agama' traditions for 'archaka' appointments in temples of a specific denomination.
- The Supreme Court has now set a hearing for January 25, 2024, and has decided not to halt the ongoing proceedings in the Madras High Court on a similar issue.
- The state government has sought the Supreme Court's order's vacation, claiming that the agama does not specify qualifications, age, selection procedures, or retirement criteria.
- Therefore, it should follow the Tamil Nadu Hindu Religious Institutions Employees (Conditions of Service) Rules, 2020.
- The state government order being challenged relates to sending individuals who have

completed 'Archakas Training schools' for practical training in temples under the guidance of senior 'Archakas' who work in those temples.

- If the status quo order issued on September 25 is enforced, the state government says that it would **hinder the filling of 2,405 vacant 'Archakaship' positions** in Agamic temples and **delay the required training for those** who have completed courses at **Archakas Training Schools**, thereby making it challenging to conduct worship in Agamic temples.

#### **What are Agamas and Tantras:**

- Agamas and Tantras constitute a vast body of spiritual knowledge and practices, transmitted through the oral tradition of **Guru-Shishya, similar to the Vedas.**
- They serve as the **foundational texts for various aspects of Hinduism, both mainstream and specialized.** The term "Agama" translates to "that which has come to us," while "Tantra" means "that which protects with detail."
- In the context of Sruti, the eternal word, two forms are recognized: **Nigama (Veda) and Agama.**
- Agama and Tantra are **generally categorized under the same literary class** but include distinct branches:
  1. **Vaishnava Agamas**
  2. **Saiva Agamas**
  3. **Sakta Tantras**
- **Vaishnava and Saiva** texts are typically referred to as Agamas, while the term "Tantra" usually pertains to Sakta texts.
- However, technically, **Tantra is a subset of Agama**, and these terms are often used interchangeably due to Tantra's central importance. **Agama Shastra** serves as a manual for Hindu worship, rituals, and temple construction.
- "Agama" means "handed down by tradition" in Sanskrit, and "shastra" signifies a commentary or treatise. The Agama texts are **highly authoritative and hold significance in the selection and training of temple priests.**
- **Agama Principles** stress the importance of **adhering to precise rituals and procedures to maintain the sanctity and spiritual efficacy** of the temple.
- Agamas encompass a wide array of **Important for the subjects**, serving as comprehensive guides to various Hindu practices, including **worship manuals, methods for salvation, Yoga, Devata, Yantra, Prayogas employing mantras, temple construction, town planning, iconometry, domestic practices, civil codes, social and public festivals, holy places, principles of the universe, creation and dissolution, spiritual philosophy, different realms, austerities, and numerous interconnected topics.**

#### **What are the Legal and Historical Aspects of Temple Priest Appointments:**

##### **Legal Aspects:**

- **Article 15** of the Indian Constitution expressly forbids discrimination based on **religion, race, caste, sex, or place of birth.** It mandates that **no citizen should face**

**discrimination by the State concerning employment opportunities or access to public facilities.**

- The Indian states **possess the legal authority to regulate religious institutions** and their internal matters, **encompassing the appointment of temple priests.**
- State legislation can stipulate **qualifications, procedures, and eligibility prerequisites for such appointments.**

#### **Historical Aspects:**

- Within many **Hindu temples, the tradition of hereditary appointments** has been a long-standing practice. Under this tradition, the **role of temple priest is typically inherited within specific families or castes.**
- Temples frequently **adhere to the guidance outlined in Agama scriptures**, which offer instructions for temple rituals and customs.
- This hereditary **practice is often rooted in the belief in the transmission of ancestral knowledge and the preservation of lineage purity.**
- It's important to note that **in certain regions, there is a prevalence of open competitions or selection based on qualifications** for the appointment of temple priests, in contrast to the hereditary system.

#### **What are few SC Judgements regarding Temple Priest Appointments:**

##### **In Seshammal & others vs. State of Tamil Nadu (1972):**

- The Supreme Court established that the **appointment of an Archaka constitutes a secular function**, while the **performance of religious services by these priests is an integral element of the religion.**
- The court **made a clear distinction between the secular and religious aspects** and clarified that the **guidelines provided in the Agamas are primarily relevant to the execution of religious services.**
- It was **determined that any individual, regardless of their caste or creed, could be appointed as an Archaka** as long as they **possessed the necessary knowledge and qualifications in the Agamas** and the associated temple worship rituals.
- Following this Supreme Court verdict, the **Madras High Court, in a related case, ruled that caste-based ancestry would not influence the appointment of an Archaka** if the selected person met the required criteria.

##### **In N. Adithayan vs. Travancore Devaswom Board (2002):**

- The **Supreme Court rejected the customary assertion that only Brahmins (in this instance, Malayala Brahmins) were entitled to perform temple rituals.**
- The court decreed that **individuals who were adequately trained and qualified to conduct the puja rituals** in an appropriate manner could undertake these religious practices. The **Supreme Court underscored that the practice of restricting ritual performances to Brahmins** in certain temples stemmed from historical factors, such as limited access to Vedic literature and sacred initiation.

## **Topic 7. UP GOVT MAY GIVE SENIOR CITIZEN RIGHT TO LEGALLY EVICT CHILDREN**

*Important for the subject: Polity*

The government of Uttar Pradesh is considering amending state rules under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007 to provide legal rights to parents and senior citizens.

- This amendment would **empower senior citizens to evict their children or relatives from their homes** if they **fail to provide financial support for their well-being**.
- The proposal has been **sent to the state Cabinet**, with expected approval. Under these **proposed changes**, senior citizens could take action to **forcibly evict individuals** residing in their homes, including children and relatives, if **they are not receiving the necessary financial support**.
- This **eviction process would be carried out by local tribunals** for senior citizens, **without requiring court intervention**, and a **30-day notice would be given** to the individuals to vacate the property.
- If **they fail to comply**, the **local police force will be employed** to assist with the eviction. These amendments **aim to strengthen the rights of senior citizens** to ensure their financial support and well-being.

**What is Maintenance and Welfare of Parents and Senior Citizens Act, 2007:**

- The Maintenance and Welfare of Parents and Senior Citizens Act, 2007 is a **legislative initiative of the Ministry of Social Justice and Empowerment**, Government of India.
- The **primary objective** of this legislation is to **establish more effective provisions** for the **maintenance and welfare of senior citizens** and parents. It **legally mandates that children and heirs are responsible for providing monthly allowances** as maintenance to senior citizens and parents.
- The Act **also aims to create a straightforward, expeditious, and cost-effective mechanism** for safeguarding the lives and property of older persons. Following approval by the Parliament of India, the Act received **Presidential assent on December 29, 2007**.
- The **first case under this Act was filed in November 2011** by **Siluvai (age 84) and his wife Arulammal (age 80) of Tuticorin**. They filed the case **against their son and daughter-in-law** for neglect, in addition to allegations of taking away their two homes and gold jewelry.
- The Act **establishes the Maintenance Tribunal to provide speedy and effective relief to elderly persons**. **Section 19** of the act also **mandates the establishment of an old age home in every district and provides for the protection of life and property of the elderly**.
- Parents can **opt to claim maintenance either under Section 125 of the Criminal Procedure Code, 1973** or under this Act but they cannot opt for both.
- **State governments shall set the maximum monthly maintenance allowance**. The Act

caps the maximum monthly allowance at **Rs 10,000 per month**. Punishment for not paying the required monthly allowance shall be **Rs 5,000 or up to three months imprisonment or both**.

- **India is a signatory party of the Vienna International Plan of Action on Ageing, 1982, and the United Nations Principles for Older Persons, 1991,** and All have advocated for legislative and policy measures to protect older individuals, including the **Madrid International Plan of Action on Ageing**, which was published in 2002 and enhance their well-being.

## Topic 8. MOVE TOWARDS eFIR, BUT WITH CAUTION

### *Important for the subject: Polity*

The **Law Commission of India**, in Report No. 282, recommended that “in cases where the accused is not known, **registration of an eFIR should be allowed for all cognisable offences**”.

If the accused is known, as a preliminary step, registration of an eFIR may be allowed for cognisable offences wherein the punishment provided under the Indian Penal Code (IPC) and other laws is up to three years.

### **Recommendations from law commissions report**

- **e-FIR Recommendation:** Proposal for e-FIR registration in all cognizable offenses with unknown accused. Verification through OTP and Aadhaar ID proof suggested by the Law Commission.
- **Verification Process:** Complainant verification through OTP for authenticity. Aadhaar ID proof mandated to confirm the complainant’s identity.
- **Information Deletion:** Automatic deletion of unverified information within two weeks. Complainant’s failure to sign the e-FIR within the prescribed time leads to deletion.
- **Timeframe for Physical Signing:** Complainants given three days to physically sign the e-FIR for formal registration. Failure to sign within the stipulated time results in non-registration.
- **Human Intervention:** The article emphasizes the importance of human interaction in certain cases, suggesting that electronic registration may be suitable only for offenses where immediate police interaction is not crucial.

### **An e-FIR**

- **Definition:** Digital system for reporting crimes to the police.
- **Process:** Information submitted online through a national portal. Complainant required to physically sign the report within a specified timeframe (usually three days).
- **Objective:** Streamline crime registration with initial electronic submission.

### **Cognisable offences**

- **Cognizable Offenses Definition:** Offenses for which police can make an arrest without a

warrant. Immediate police action is permissible upon receiving information or a complaint.

- **Serious Nature:** Generally involves more severe crimes. Examples include murder, robbery, kidnapping, and certain types of fraud.
- **No Court Permission Needed:** Law enforcement can initiate an investigation without court authorization. Immediate action can be taken by the police upon learning about the offense.
- **Jurisdictional Variations:** Classification as cognizable or non-cognizable may vary in different legal systems. The severity and nature of offenses determine their categorization.

#### Challenges:

- **Limited Efficacy:** The concept of e-FIR relies on obtaining information electronically but requires physical signatures within a prescribed time, limiting the effectiveness of the online process.
- **Lack of Discussion:** The article notes that the Law Commission did not discuss models adopted by states currently lodging e-FIRs, leading to potential gaps in understanding the practical implementation.

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### **Topic 9. OIL ADULTERATION: TAMIL NADU GOVT. RAISES LEGAL POINT**

#### *Important for the subject: Polity*

A Division Bench of the Supreme Court, has granted a special leave to the State of Tamil Nadu (petitioner) to appeal against a judgment and orders of Madras High Court holding that a sale of adulterated gingelly oil by a retail trader did not amount to an offence under the Prevention of Food Adulteration Act because there was a notice board put up in the shop that the oil was not fit for human consumption.

#### **About Food Adulteration**

- **Adulterant means any material which is or could be employed for making the food unsafe or substandard or misbranded or containing extraneous matter.** Adulterated food is dangerous because it may be toxic and can affect health and it could deprive nutrients essential for proper growth and development.

#### **Risks of Adulterated Food**

- Some companies adulterate food as a consequence of intentional actions, often designed to **increase profitability** or cut corners. Others end up adulterating food unintentionally **because of lax standards and regulations**. Either way, adulterated food **costs the Indian economy around 1.17 lakh crore in 2017-18 and comes with some significant risks for human consumption:**
- **Food Impurity** – First, food may end up being “impure” or may contain ingredients it wasn’t intended to contain. This could be anything from residue of pesticides to metal or

glass, or even a completely different substance.

- **Contamination** – Adulterated food may have a higher likelihood of becoming contaminated at a later date, such as decomposing or becoming infected with bacteria.
- **Allergens** – Mislabelled or misrepresented products may contain allergens that consumers aren't aware of. If the wrong person consumes one of these products, they may suffer a severe allergic reaction.
- **Nutritional Needs** – Adulterated food may also lead people to believe they're getting nutritional needs when they aren't. This is especially important for infants, children, and adolescents, who need adequate intake and sufficient vitamins and minerals for healthy growth.

### Effects of Food Adulteration

- **Increases the Impurity in Food:** Food adulteration increases the impurity in the food items thus making it imperfect to consume. Consumption of adulterated food for long will have both short term and long term impact on our health. Impure food is unsafe to consume so it is better to produce stuff as far as possible or to get stuff from organic centers or directly from the farmers.
- **Lack of Nutritional Value:** Adulterated food is of low quality and has no or very less nutritional values. Also, certain adulterated food has a different taste too. By purchasing and consuming adulterated food, we are compromising on our health and taste.
- **Leads to Various Diseases:** Due to the consumption of adulterated food, we can get various chronic diseases like liver disorder, diarrhoea, stomach disorder, leprosy, cancer, vomiting, dysentery, cancer, joint pain, heart diseases, food poisoning, etc.
- The minerals, chemicals, and poor quality substances added to the food are responsible for these health conditions which we might have to undergo in future. Some adulterated foods can even lead to abortion or a brain damage. Young children consuming adulterated food for long will have issues in conceiving.
- Currently, India not only has one of the highest rates of out-of-pocket expenditure for health expenses but also one of the highest levels of people susceptible to a debilitating health crisis.

### Related Laws in India

- In India, the **Ministry of Health and Family Welfare is completely responsible for providing safe food to the citizens.** Further, along with ministry, other laws are also taking care of food adulteration in India. These are given below:

#### The Prevention of Food Adulteration Act, 1954:

- It has laid down guidelines to provide pure and wholesome foods to consumers. The Act was last amended in 1986 to make punishments more stringent and to empower consumers further.

#### Food Safety and Standards (FSS) Act:

- The Food Safety and Standard Act passed by the parliament in 2006 but the regulations

were notified only in 2011. It repealed the previous law. Among the key amendments, the Food Safety and Standards Authority of India (FSSAI) has proposed to include a new section to crack down on food adulteration.

## **Topic 10. ELECTORAL TRUSTS**

*Important for the subject: Polity*

### **Electoral Trusts:**

Before the controversial Electoral Bonds (EB) Scheme was introduced in 2018, there was something called an Electoral Trusts (ET) Scheme, which was introduced by the UPA government in 2013.

### **What are electoral trusts?**

- These are trusts set up by companies with the objective to distribute the contributions received from other companies and individuals to the political parties. The companies which are registered under section 25 of the Companies Act, 1956 are only eligible to make an application for approval as an electoral trust

### **Who can and who cannot contribute to electoral trusts?**

#### **Who can:**

- An individual who is a citizen of India A company registered in India an association of persons (Indian residents)

#### **Who cannot:**

- An individual who is not a citizen of India Other electrotrusts (approved under the Electoral Trusts Scheme) Contributors without PAN NRIs without a passport number

### **How are funds distributed by electoral trusts?**

- For administrative expenses, the electoral trusts are permitted to set aside a maximum of 5 per cent of the total funds collected during a financial year. The remaining 95 per cent of total income of the trusts including any surplus from the previous financial year is required to be distributed to eligible political parties.

### **What Laws/Rules govern the creation and functioning of electoral trusts?**

- The Central Government amended the **Income Tax Rules, 1962** on January 31, 2013, to



insert Rule 17CA which lists the functions of electoral trusts approved by the Central Bureau of Direct Taxes (CBDT).

The Central Government, also launched 'The Electoral Trusts Scheme, 2013 which specified the eligibility and procedure for registration as an electoral trust apart from laying down the format for their registration.

### **And how does the working of this scheme differ from that of the EB Scheme?**

- The electoral trusts route is transparent on contributors and beneficiaries. Where there is only one contributor and one beneficiary of a particular trust, the public can know for sure who is funding whom.
- However, if there are multiple contributors and recipients of donations, it cannot be specified which company is funding which party. But it is difficult to pinpoint which donor gave to which party.
- Electoral bonds, on the other hand, are exempt from disclosure requirements. Parties inform the ECI of the aggregate donations received through EBs, but give no details of the donors, which they are required to do in case of donations in cash or by cheque or bank transactions over Rs.20,000 each.
- The government argues that this lack of transparency in donations through EBs is to maintain the privacy of donors.

### **How do donations through electoral trusts stack up against donations made through EBs?**

- Data from nine financial years (2013-14 to 2021-22) show that political funding through the two government schemes shot up after the introduction of EBs, with the bulk of donations coming through the newer scheme.
- Over this entire nine-year period, a total Rs 2,269 crore was routed to parties through the ETs, from Rs 85.37 crore in 2013-14 to Rs 464.81 crore in 2021-22.
- During the period 2017-18 — the financial year in which EBs were first made available — to 2021-22, however, the money donated through EBs was more than five times the amount that came through the Electoral Trusts.
- Thus, between 2017-18 and 2021-22, political parties got a total Rs 1,631 crore through ETs, while Rs 9,208 crore was donated through EBs.

## **Topic 11. NEED TO EXPEDITE TRIAL IN CASES AGAINST MPS AND MLAS**

### ***Important for the subject: Polity***

The Supreme Court has **issued guidelines to monitor the speedy disposal of criminal cases against Members of Parliament (MPs) and Members of Legislative Assemblies (MLAs).**

The Supreme Court has **directed High Courts to establish special benches for the expedited disposal of over 5,000 pending criminal cases against Members of Parliament**

(MPs) and Members of Legislative Assemblies (MLAs).

- Emphasizing the impact of such cases on political democracy, the **court ordered prioritization, giving preference to cases punishable by death or life imprisonment, followed by cases with imprisonment for five years or more.**
- The court stressed that **trials should not be adjourned except for compelling reasons.** As of November 2022, **there were 5,175 pending cases, with over 40% pending for more than five years.**
- The move **aims to bolster public trust** in political representatives and enhance the efficiency of parliamentary democracy.

**What is the Background of the case:**

- Advocate **Ashwini Kumar Upadhyay** filed a **plea in August 2016**, emphasizing the **need for expeditious resolution** of cases involving lawmakers.
- The petition put forth a **proposition for a lifetime ban on convicted politicians, including sitting legislators, barring them from contesting elections.**
- This proposal **presented an alternative to the current six-year ban** stipulated in **Section 8(3) of the Representation of People Act, 1951.** The existing provision enforces a six-year restriction on individuals convicted of offenses carrying a **minimum two-year sentence.**

**What was the judgment by the Supreme Court:**

- **Chief justices of various high courts are directed to initiate suo motu cases** to oversee the **swift resolution of pending criminal cases** involving legislators.
- **Such cases can be assigned to a special bench led by the Chief Justice or any designated bench. Regular listing of these cases may be undertaken as deemed necessary** by the special bench.
- The **special bench has the authority to seek assistance from the advocate general or prosecutor for legal insights. Priority should be accorded to cases against lawmakers carrying penalties of death or life imprisonment.**

**Cases with sentences of 5 years or more will also be prioritized for expeditious resolution.**

- **High courts are entrusted with the task of formulating effective measures to monitor and accelerate the disposition of such cases. High courts may issue pertinent orders and directions for the efficient handling** of these cases.
- High courts can **engage the Principal District and Sessions Judge** to manage the **allocation of “Important for the subject cases”** to appropriate courts.
- The Supreme Court has **kept the issue of replacing the existing 6-year ban with a lifetime ban, as suggested by altering Section 8(3) of the Representation of People**

**Act, open for consideration.**

### **What is Representation of the People Act, 1951:**

- **Representation of the People Act, 1951** was enacted before **first general elections**. The act provides for the **actual conduct of elections in India**. It deals with the following aspects of the election:
- **Actual conduct of elections; Administrative machinery for conducting elections; Poll; Election offences; Election disputes; By-elections; Registration of political parties.**

### **What are the Provisions that deal with disqualification under the Representation of the People Act:**

- There are **several provisions** that deal with disqualification under the Representation of the People Act.

#### **Section 8(1A): Specific Offenses**

- Addresses **disqualification for specific offenses** such as **promoting enmity between groups, bribery, and undue influence** or personation during elections.

#### **Section 8(2A): Offenses Related to Hoarding and Adulteration**

- Lists offenses **related to hoarding, profiteering, and adulteration of food or drugs**. Includes **convictions with a minimum six-month sentence** under the **Dowry Prohibition Act**.

#### **Section 8(3A): Duration of Disqualification for Imprisonment**

- **Disqualifies individuals sentenced to imprisonment for at least two years**. **Disqualification starts from the conviction date and continues for an additional six years post-release**.
- **Section 9: Disqualification for Corruption and Government Contracts** Deals with disqualification for **dismissal due to corruption, disloyalty, or engagement in government contracts** while holding a legislative position.

#### **Section 9(A): Disqualification for Government Contracts**

- Pertains to **disqualification for involvement in government contracts**.

#### **Section 10: Disqualification for Office in Government Company**

- Addresses disqualification for **holding office in a government company**.

#### **Section 10(A): Failure to Lodge Election Expense Accounts**

- Address **disqualification for failing to submit election expense accounts**.

#### **Section 11: Removal or Reduction of Disqualification**

- Covers the removal or reduction of disqualification periods.

**Sections 11(A) and 11(B): Disqualification Arising from Convictions and Corrupt Practices.** Address **disqualification arising from convictions and corrupt practices** and the **removal of such disqualifications**.

## **Topic 12. NAGALAND PASSES BILL RETAINING 33% WOMEN'S RESERVATION FOR ULB POLLS**

*Important for the subject : Polity*

Nagaland passes Bill retaining 33% women's reservation for ULB polls

The **Nagaland Assembly unanimously** passed the **Nagaland Municipal Bill 2023** in a special session, **retaining 33% reservation for women in urban local bodies**.

The Bill, which **addresses a longstanding issue that has delayed civic polls** for around two decades, **removes women's reservation for the post of chairperson in municipal bodies**.

- The legislation was **introduced in response to opposition** and calls for a boycott from civil society organizations and tribal bodies.
- Chief Minister Neiphiu Rio announced that the **apex tribal bodies, which had previously opposed the reservation, now accepted it**, and the **State Election Commission will soon announce dates for municipal polls**.
- The Bill **also eliminates taxes on immovable property**, addressing historical opposition to taxation by the **Naga people**. The **legislative changes aim to pave the way** for the **much-delayed municipal elections in the state**.

**What is the history of Nagaland Municipal Elections:**

- Civic body elections were **initially conducted in Nagaland in 2004** under the **Nagaland Municipal Act of 2001**.
- The **Nagaland Municipal Act of 2001** underwent an **amendment in 2006** to introduce a **33% reservation for women, aligning with the 1992 Constitutional amendment**.
- **Subsequent to the amendment, significant opposition emerged, primarily from Naga groups asserting that the reservations contradicted Naga customary laws** protected by **Article 371(A)** of the Constitution, which **grants the state special status and safeguards its traditional way of life**.
- Attempts to **implement the 33% reservation**, particularly during the **February 2017 elections** following a Supreme Court directive, resulted in **violent protests**. The unrest led to the **removal of the then Chief Minister T R Zeliang**.

**What are Urban Local Bodies (ULB):**

- Urban Local Bodies (ULBs) **refer to small local governing bodies** responsible for **administering a city or town** with a designated population.

- These bodies are **endowed with a comprehensive set of functions** delegated by state governments, encompassing various areas such as **public health, welfare, regulatory duties, public safety, infrastructure projects, and developmental initiatives.**
- The Urban Local Government **encompasses eight types of urban local bodies:**

**Municipal Corporation:**

- Municipal corporations are typically **present in large cities** like Bangalore, Delhi, Mumbai, Kolkata, etc.

**Municipality:**

- **Smaller cities** often have municipalities, also known by other names such as **municipal council, municipal committee, municipal board, etc.**

**Notified Area Committee:**

- Notified area committees are **established for rapidly developing towns and those lacking basic amenities. All committee members are nominated** by the state government.

**Town Area Committee:**

- Found in **small towns**, the town area committee has limited authority, focusing on areas such as street lighting, drainage, roads, and conservancy.

**Cantonment Board:**

- Set up for the **civilian population residing in cantonment areas**, it is created and managed by the central government.

**Township:**

- Townships serve as **another form of urban government**, providing essential facilities to **staff and workers in colonies near industrial plants. It lacks elected members and functions** as an **extension of the bureaucratic structure.**

**Port Trust:**

- **Established in port areas** like Mumbai, Chennai, Kolkata, etc., port trusts manage and oversee the ports while offering basic civic amenities to the local residents.

**Special Purpose Agency:**

- These agencies **undertake specific activities or functions designated for municipal corporations or municipalities.**

**What are some special provisions with respect to Nagaland:**

- **Article 371A** deals with the **special provisions with respect to the State of Nagaland.**
- **Article 371A (1) (b) – the Governor of Nagaland has special**

responsibility with respect to law and order in the state so long as internal disturbances caused by the hostile Nagas continue.

- For instance, under Article 371A (1) (b) of the Constitution, important functions like transfer and posting of officials entrusted with the maintenance of law and order of and above the district level will be with the approval of the Governor.

### Topic 13. MADRAS HC SETS ASIDE TAMIL NADU BAN ON ONLINE RUMMY AND POKER

*Important for the subject : Polity*

Madras HC sets aside TN ban on online rummy and poker

The Madras High Court upheld the Tamil Nadu Prohibition of Online Gambling and Regulation of Online Games Act, 2022, differentiating between skill-based and chance-based online games.

- Rummy and poker, considered games of skill, were excluded from the Act's prohibition. The court, led by Chief Justice Sanjay V Gangapurwala and Justice P D Audikesavalu, dismissed writ petitions challenging the Act's constitutionality.
- The legislation, enacted in response to a committee led by retired Justice K Chandru, was initially met with concerns and returned by the Governor.
- However, the court affirmed the state's authority to regulate online gambling while recognizing its role in overseeing online skill-based games, emphasizing the need for responsible regulation.

**Some facts about gambling in India:**

- The Gambling Act, also known as The Public Gambling Act of 1867, is the law governing gambling in India.
- Gambling is regulated by individual states, and they are responsible for crafting laws pertaining to gambling within their jurisdictions.
- Goa and Sikkim are exceptions, as they have legalized and regulated gambling and betting within their states, with Goa also permitting casinos.
- Some states, such as Sikkim, Meghalaya, and Nagaland, have enacted specific laws to regulate online gaming.
- However, only Nagaland and Meghalaya have separate regulations for "games of skill. Fantasy league betting, such as fantasy football and cricket, has generally remained unregulated across India, although Andhra Pradesh, Telangana, Odisha, and Assam have imposed bans on it.
- Additionally, Telangana and Karnataka have banned all forms of online gaming and gambling, and similar laws were passed in Kerala, Andhra Pradesh, and Tamil Nadu. However, the laws in Kerala and Tamil Nadu were challenged and subsequently overturned in court, exempting games of skill.

## Topic 14. MORE THAN 15 PRODUCTS FROM UTTARAKHAND BAG GI TAGS

*Important for the subject: Polity*

**From a local brick tea to textiles made from a Himalayan plant**, over 15 products from Uttarakhand have been given the coveted GI tag by the Geographical Indications Registry.

### Products which got GI Tag

- Uttarakhand's **Berinag tea**, highly sought-after by London tea houses and tea blenders, is made from the leaves of a plant that grows wild in the Himalayas, which are then compressed into a solid mass.
- **Bichhubuti fabrics**, made from Himalayan nettle fibres, was also on the list of products that bagged the GI tag. As the plant's fibres are hollow, they have the unique ability to accumulate air inside, thus creating a natural insulation and making an ideal clothing material for both winters and summers.
- The **Uttarakhand mandua, a finger millet** grown in Garhwal and Kumaon that is part of the staple diet in many parts of the State, was among the products granted GI tags.
- **Similarly, jhangora**, a home grown millet commonly cultivated in the rain-fed areas of the Himalayas in Uttarakhand, got a tag.
- **Gahat** is one of the most important pulses growing in the dry regions of the State, whose medicinal uses have been known to Ayurveda and traditional physicians for centuries.
- **Uttarakhand lal chawal**, a red rice organically grown in the Puroala region, was also on the list.
- Other products to receive GI tags included the **Uttarakhand kala bhat (black soybean); malta fruit; chaulai (ramdana)**, a grain used on fasting days; **buransh juice** obtained from the red flowers of the Rhododendron arboreum; **paharitoor dal; Uttarakhand likhai or wood carvings, Nainital mombatti (candles), the rangwalipichhoda of Kumaon, Ramnagar Nainital litchis, Ramgarh Nainital peaches, Chamoli wooden Ramman masks, and Almora Lakhormirchis, a chilli variant.**

### What is a GI Tag?

- A geographical indication (GI) tag is a **name or sign used on certain products that correspond to a specific geographical location or origin.**
- For example, **Darjeeling Tea, Kanchipuram Silk**, etc.
- The GI tag ensures that only the authorised users or those residing in the **geographical territory are allowed to use the popular product name.** It also protects the product from being copied or imitated by others. A registered GI is valid for **10 years.**

### Legal Framework and Obligations:

- The **Geographical Indications of Goods (Registration and Protection) Act, 1999** seeks to provide for the registration and better protection of geographical indications relating to goods in India.

- It is governed and directed by the **WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)**.
- Furthermore, the significance of **protecting industrial property** and geographical indications as integral components of intellectual property is acknowledged and emphasized in **Articles 1(2) and 10 of the Paris Convention**.

### **Topic 15. SC ATTAINS FULL STRENGTH AS CASE LOG NEARS 80000**

#### ***Important for the subject : Polity***

The Supreme Court welcomed three new judges on Thursday, taking the judicial strength to its **sanctioned capacity of 34**, even as the pendency clock on the National Judicial Data Grid (NJDG) dashboard threatens to hit a high of 80,000 cases in the next 24 hours.

#### **SC Strength**

- The original Constitution of 1950 envisaged a Supreme Court with a Chief Justice and 7 puisne Judges – leaving it to Parliament to increase this number. In the early years, all the Judges of the Supreme Court sat together to hear the cases presented before them.
- The sanctioned judge strength of the Supreme Court is 34 (including Chief Justice of India). The Supreme Court (Number of Judges) Act 1956, as originally enacted, provided for the maximum number of Judges (excluding the Chief Justice of India) to be 10.
- This number was increased to 13 by the Supreme Court (Number of Judges), Amendment Act, 1960, and to 17 by the Supreme Court (Number of Judges) Amendment Act, 1977. The Supreme Court (Number of Judges) Amendment Act, 1986 augmented the strength of the Supreme Court Judges from 17 to 25 excluding the Chief Justice of India. Subsequently, the Supreme Court (Number of Judges) Amendment Act, 2009 further augmented the strength of the Supreme Court Judges, from 25 to 30.

#### **What are the reasons for the high pendency of cases in the Indian Judiciary?**

- **Shortage of judges:** There is a shortage of judges in the Indian judiciary. This leads to delays in the resolution of cases, as there is a backlog of cases waiting to be heard.
- **Lack of infrastructure:** Many courts in India lack the necessary infrastructure and resources to deal with the many cases that are filed. This can contribute to delays in the resolution of cases.
- **Complexity of cases:** Some cases are complex and require a lot of time and resources to be resolved. This can contribute to delays in the resolution of cases.
- **Procedural delays:** There are often delays in the legal process due to procedural issues, such as the inability to locate witnesses or delays in obtaining evidence.
- **Weak enforcement of court orders:** In some cases, court orders are not enforced, which can lead to further delays in the resolution of cases.
- **Increased legal awareness:** Increased legal awareness has increased the number of cases filed. Further, new mechanisms like Public Interest Litigation (PIL) have also resulted in more cases being filed.



### What steps have been taken to reduce the pendency of cases?

- **Virtual court system:** In the virtual court system, regular court proceedings are conducted virtually through videoconferencing. It ensures easy access to justice and reduces the pendency of cases.
- **e-Courts portal:** It has been launched to improve access to justice using technology. It is a comprehensive platform for all stakeholders, such as litigants, advocates, government agencies, police, and citizens.
- **E-filing:** The facility of submitting court cases electronically through the internet, providing benefits such as saving time and money, not requiring physical presence in court, automatic digitization of case files, and reducing paper consumption.
- **e-Payment of court fees and fines:** The ability to make online payments for court fees and fines, reducing the need for cash, stamps, and cheques, and integrating with state-specific vendors for convenience.
- **Interoperable Criminal Justice System (ICJS):** ICJS is an initiative of the e-Committee, Supreme Court to enable the seamless transfer of data and information among different pillars of the criminal justice system, like courts, police, jails, and forensic science laboratories, from one platform.
- **Fast track courts :** Fast track courts are being set up by the government to expedite the justice delivery and reduce the pendency of cases.
- **Alternative Dispute Resolution:** ADR mechanisms like Lok Adalats, Gram Nyayalayas, Online Dispute Resolution, etc., ensure timely justice.

### What steps could further help reduce the judicial pendency in India?

- **Increase the number of judges:** One way to reduce the backlog of cases is to increase the number of judges in the Indian judiciary. This will allow more cases to be heard and decided more quickly.
- **The Law Commission of India (1987) recommended** increasing the number of **judges to 50 per million people**. This was reiterated by the Supreme Court (2001) and the Standing Committee on Home Affairs (2002).
- **Expand alternative dispute resolution methods:** Alternative dispute resolution methods, such as mediation and arbitration, can resolve disputes more quickly and efficiently than traditional court proceedings.
- **Streamline the legal process:** Efforts can be made to streamline the legal process, such as by using technology to manage cases and eliminate unnecessary steps. Example: e-courts projects.
- **Strengthen the enforcement of court orders:** Ensuring that court orders are enforced can help to reduce the backlog of cases, as individuals and institutions will be more likely to comply with court orders if they know that they will be held accountable for failing to do so.

## **Topic 16. CBI AN INDEPENDENT AGENCY, NOT A LIMB OF THE UNION GOVT**

### ***Important for the subject: Polity***

The Union government claimed in the Supreme Court on Thursday that the Central Bureau of Investigation (CBI) was its own boss and the government had no control whatsoever over the probe agency in the registration, investigation, and prosecution of cases.

### **What is CBI?**

- Central Bureau of Investigation (CBI) is the premier investigating police agency in India. It provides assistance to the Central Vigilance Commission and Lokpal.
- It functions under the superintendence of the Deptt. of Personnel, Ministry of Personnel, Pension & Public Grievances, Government of India – which falls under the prime minister’s office.
- However for investigations of offences under the Prevention of Corruption Act, its superintendence vests with the Central Vigilance Commission. It is also the nodal police agency in India which coordinates investigation on behalf of Interpol Member countries.
- Its conviction rate is as high as 65 to 70% and it is comparable to the best investigation agencies in the world. The CBI is not a statutory body but derives its power to investigate from the Delhi Special Police Establishment Act, 1946.
- The establishment of the CBI was recommended by the Santhanam Committee on Prevention of Corruption (1962–1964).

### **How is the Director of CBI Appointed?**

- Director, CBI as Inspector General of Police, Delhi Special Police Establishment, is responsible for the administration of the organisation.
- Till 2014, the CBI Director was appointed on the basis of the DSPE Act, 1946. In 2003, DSPE Act was revised on Supreme Court’s recommendation in the Vineet Narain case.
- A committee that had members from Central Vigilance Commission, Secretaries from Home Ministry, Ministry of Personnel and Public Grievances would send recommendations to Central Government for the appointment of CBI Director.
- In 2014, the Lokpal Act provided a committee for appointment of CBI Director:

### **Headed by Prime Minister**

- Other members – Leader of Opposition/ Leader of the single largest opposition party, Chief Justice of India/ a Supreme Court Judge.
- Home Ministry sends a list of eligible candidates to DoPT. Then, the DoPT prepares the final list on basis of seniority, integrity, and experience in the investigation of anti-corruption cases, and sends it to the committee.



- Director of CBI has been provided security of **two year tenure**, by the CVC Act, 2003.

### What Challenges are Faced by the CBI?

- **Political Interference:** The Supreme Court of India has criticised the CBI by calling it a “caged parrot speaking in its master’s voice”, due to excessive political interference in its functioning.
- It has often been used by the government of the day to cover up wrongdoing, keep coalition allies in line and political opponents at bay.
- **Delayed Investigations:** It has been accused of enormous delays in concluding investigations – For example, the inertia in its probe against the high dignitaries in Jain hawala diaries case [of the 1990s].
- **Loss of Credibility:** Improving the image of the agency is one of the biggest challenges till now as the agency has been criticised for its mismanagement of several cases involving prominent politicians and mishandling of several sensitive cases like Bofors scandal, Hawala scandal, Sant Singh Chatwal case, Bhopal gas tragedy, 2008 Noida double murder case(Aarushi Talwar).
- **Lack of Accountability:** CBI is exempted from the provisions of the Right to Information Act, thus, lacking public accountability.
- **Acute shortage of personnel:** A major cause of the shortfall is the government’s sheer mismanagement of CBI’s workforce, through a system of inefficient, and inexplicably biased, recruitment policies – used to bring in favoured officers, possibly to the detriment of the organisation.
- **Limited Powers:** The powers and jurisdiction of members of the CBI for investigation are Important for the subject to the consent of the State Govt., thus limiting the extent of investigation by CBI.
- **Restricted Access:** Prior approval of Central Government to conduct inquiry or investigation on the employees of the Central Government, of the level of Joint Secretary and above is a big obstacle in combating corruption at higher levels of bureaucracy.

### Topic 17. ETHICS PANEL ADOPTS REPORT FOR MOITRA’S EXPULSION

#### *Important for the subject: Polity*

Ethics panel adopts report for Moitra’s expulsion

The **Lok Sabha Ethics Committee** has adopted its **draft report**, recommending the **expulsion of TMC MP Mahua Moitra** from the **17th Lok Sabha** for alleged “**unethical conduct**” and “**serious misdemeanours**” in response to **cash-for-query allegations** by BJP MP Nishikant Dubey.

The committee further suggested an **intense legal inquiry by the government**, emphasizing Moitra’s “**highly objectionable, unethical, heinous, and criminal conduct.**”

- The report was **supported by six ruling NDA MPs and opposed by four from the**

### **Opposition.**

- Moitra, accused of sharing her Parliament login, **denies the allegations and criticizes the proceedings as a “kangaroo court.”**

### **Some facts about Ethics Committee:**

- Each of the **two Houses of Parliament** has an ethics committee. They deal with the members’
- Besides **overseeing the moral and ethical conduct** of members, ethics committee also **prepares a Code of Conduct** for members, which are amended from time to time.
- The **ethics committee in Lok Sabha has 15 members while in Rajya Sabha has 10 members.** The members of the **Ethics Committee** are appointed by the Speaker for a **period of one year.**
- The Committee is **currently headed by the BJP MP Vinod Kumar Sonkar**

### **What is the history of Ethics Committees:**

- A **Presiding Officers’ Conference** held in **Delhi in 1996** first mooted the idea of ethics panels for the two Houses.
- Then Vice President **K R Narayanan** constituted the **Ethics Committee of the Upper House on March 4, 1997**, and it was inaugurated that May to **oversee the moral and ethical conduct of members** and examine cases of misconduct referred to it. The **Rules applicable to the Committee of Privileges also apply to the ethics panel.**
- In the case of **Lok Sabha**, a study group of the **House Committee of Privileges**, after visiting **Australia, the UK, and the US in 1997** to look into practices pertaining to the conduct and ethics of legislators, **recommended the constitution of an Ethics Committee**, but it **could not be taken up** by Lok Sabha.
- The **Committee of Privileges** finally **recommended the constitution of an Ethics Committee** during the **13th Lok Sabha**. The late Speaker, **G M C Balayogi**, constituted an **ad hoc Ethics Committee in 2000**, which became a **permanent part of the House only in 2015.**

### **What is the Procedure for complaints:**

- **Any individual has the right to file a complaint** against a Member of Parliament (MP) by going through **another Lok Sabha MP**. This process **requires providing evidence of the alleged misconduct** and **submitting an affidavit affirming** that the complaint is not **“false, frivolous, or vexatious”**.
- If the **MP in question files the complaint**, there is **no need for an affidavit**. The **Speaker has the authority to forward any complaint against an MP to the Ethics Committee.**
- Notably, **the committee does not entertain complaints solely based on media reports or matters under judicial consideration.**
- Before **deciding to investigate a complaint**, the committee conducts a **prima facie inquiry and subsequently issues recommendations** based on its evaluation.

- The committee then presents its report to the Speaker, who seeks the House's opinion on whether to consider the report. Additionally, there is provision for a half-hour discussion on the report.

### Topic 18. GOVERNORS CANNOT SIT ON BILLS PASSED BY HOUSE: SC

#### *Important for the subject: Polity*

The Supreme Court on Friday laid down that a Governor cannot sit on key Bills passed by a State Legislature after casting doubts on the validity of the Assembly session in which the proposed laws were passed with overwhelming majority by the elected representatives of the people.

#### **The process of granting assent to Bills:**

- **Article 200 of the Constitution** covers the options before the Governor when a Bill passed by both Houses of the Legislature is presented to him.
- The **first provision to the Article** says the Governor could either: declare his **assent** to the Bill or **withhold** the assent (if it is not a Money Bill) or **reserve the law for the consideration of the President** if he thinks the Bill derogates from or endangers the power of judicial review of the High Court.
- In case the Governor chooses to withhold assent, he should return the Bill as soon as possible with a message requesting the Legislative Assembly to reconsider the proposed law or any specified provisions or suggest amendments.
- The **Assembly would reconsider and pass the Bill**, and this time, the Governor should not withhold his assent. In short, the constitutional head of the State would bow to the considered decision of the elected representatives of the people.

#### **Do Governors have discretion?**

- Governors did have a discretion to return Bills before the first provision in the draft **Article 175 (now Article 200)**.
- This was amended by the Constituent Assembly in 1949. The **first provision to Article 200** is thus a saving clause and retains the discretion over the fate of the Bill solely in the hands of the State Cabinet.
- **Article 163** makes it clear the Governor is not expected to act independently. The **Supreme Court in the Shamsher Singh case** verdict has held that a **Governor exercises all his powers and functions conferred on him by or under the Constitution on the aid and advice of his Council of Ministers** save in spheres where the Governor is required by or under the Constitution to exercise his functions in his discretion.
- The assent or return of the Bill does not involve the discretion of individuals occupying the Governor's post.

#### **By when should Bills be returned?**

- The first provision of **Article 200** says it should be “**as soon as possible**”. The **Constitution is silent on the time duration** of the bills to be returned to state legislative assembly by the Governor.
- The **Supreme Court has interpreted “as soon as possible”** in the provision to mean “as early as practicable without avoidable delay” in a 1972 judgment. The SC in its 2020 judgment in the **Keisham Megha Chandra Singh case**, said a ‘**reasonable time**’ would mean **three months**.

### **MSME Economic Activity Index – Sumpoorn**

- The collaboration **between Jocata and SIDBI has resulted in the launch of the MSME Economic Activity Index – Sumpoorn**.
- This high-frequency indicator is designed specifically for MSMEs (Micro, Small, and Medium Enterprises) and **aims to provide insights into India’s economic growth engine**.
- MSMEs contribute **significantly to the country’s Gross Value Added (GVA) and total exports**.

### **Key features of the MSME Economic Activity Index – Sumpoorn:**

- **MSME Focus:** This index is **tailored to capture the state of India’s MSMEs, which play a crucial role in the economy**.
- **High-Frequency Indicator:** The index is a **high-frequency indicator, allowing for more timely and frequent insights into the performance of MSMEs**.
- **Data Source:** It utilizes **consent-led and anonymized monthly sales data from over 50,000 credit-seeking MSMEs, reflected in official GSTN returns**.
- **Relative Amplitude-Adjusted Composite Diffusion Index:** The index is described as a **relative amplitude-adjusted composite diffusion index, suggesting a comprehensive measure that considers various factors**.
- **Development Team:** A team of **credit experts, data scientists, and senior economists have been involved in building and tracking the index over the past four years to ensure its accuracy in representing the MSME economy**.
- The MSME Economic Activity Index – Sumpoorn aims to **provide a more accurate and timely reflection of the MSME sector’s performance, capturing the impact of macroeconomic conditions**.

### **Small Industries Development Bank of India (SIDBI):**

- **Establishment:** SIDBI was established in 1990 as a wholly-owned subsidiary of the Industrial Development Bank of India (IDBI).
- **Statutory Body:** It operates as a statutory body under the Department of Financial Services, Ministry of Finance, Government of India.
- **Headquarters:** The headquarters of SIDBI is located in Lucknow, Uttar Pradesh, India.
- **Mandate:** SIDBI's primary mandate is to promote and develop Micro, Small, and Medium Enterprises (MSMEs) in India. It plays a crucial role in the growth and development of the MSME sector by providing various financial and support services.

#### **Functions:**

- Facilitating the flow of credit to MSMEs. Acting as a principal financial institution for coordinating the functions of institutions engaged in the financing of MSMEs. Implementing various promotional and developmental measures to strengthen the MSME sector.
- **Programs and Initiatives:** SIDBI runs several programs and initiatives to support MSMEs, including credit guarantee schemes, refinancing schemes, and venture capital programs.
- **Regulatory Role:** SIDBI is involved in the overall licensing and regulation of Micro, Small, and Medium Enterprise finance companies in India.
- SIDBI's efforts are crucial for the inclusive economic development of India by fostering the growth of small and medium-sized enterprises, which play a significant role in employment generation and industrialization.

#### **GDP v/s GVA**

- Gross Value Added (GVA) and Gross Domestic Product (GDP) are key indicators used to measure the economic performance of a country.

#### **Gross Value Added (GVA):**

- **Definition:** GVA is the total value of goods and services produced in an economy minus the cost of goods and services used up in production.
- **Calculation:**  $GVA = \text{Gross Output} - \text{Intermediate Consumption}$
- **Purpose:** GVA provides a measure of the contribution of individual sectors (agriculture, manufacturing, services, etc.) to the overall economy. It is often used to

analyze the performance of specific industries.

### Gross Domestic Product (GDP):

- **Definition:** GDP is the **total value of all goods and services produced in a country within a specific period. It includes the production by both domestic and foreign entities within the country's borders.**
- **Calculation:** GDP can be calculated using three approaches:
- **Production Approach:**  $GDP = GVA + Taxes\ on\ Products - Subsidies\ on\ Products$
- **Expenditure Approach:**  $GDP = Consumption + Investment + Government\ Spending + (Exports - Imports)$
- **Income Approach:**  $GDP = Compensation\ of\ Employees + Gross\ Operating\ Surplus + Gross\ Mixed\ Income + Taxes\ on\ Production\ and\ Imports - Subsidies$
- **Purpose:** GDP is a comprehensive measure of a country's economic performance. It reflects the total economic output and is widely used to compare the economic health of different countries.
- In summary, while **GVA focuses on the value generated by different sectors of the economy, GDP provides a broader measure of the overall economic activity within a country.**

### Topic 19. KERALA LOK AYUKTA REJECTS PLEA ALLEGING MISUSE OF CMDRF

#### *Important for the subject: Polity*

The Kerala Lok Ayukta on Monday dismissed a plea alleging that the previous LDF government led by Chief Minister Pinarayi Vijayan had misused the Chief Minister's Distress Relief Fund (CMDRF) to illegally gratify the next of kin of two late political allies and a deceased bodyguard of a departed ruling party leader.

#### **What is Lokayukta?**

- The Lokayukta is the Indian Parliamentary Ombudsman, executed into power, through and for, each of the State Governments of India.
- It is an anti-corruption authority. The object of Lokayukta system in a state is to make investigation of grievances, allegations against public servants.

#### **Origin:**

- The origin of the Lokayukta can be drawn to the Ombudsman in Scandinavian countries.
- In India, the Administrative Reforms Commission, (1966-70), had recommended the creation of the Lokpal at the Centre and Lokayukta in the states.
- Before the passing of the Lokpal and Lokayuktas Act in 2013, several states in India

passed laws for creating the Institution of 'Lokayukta'. Maharashtra was first in this respect with its Lokayukta body established in 1971.

**Appointment:**

- The lokayukta and upalokayukta are appointed by the Governor of the state. While appointing, the governor in most of the states consults (a) the chief justice of the state high court, and (b) the leader of Opposition in the state legislative assembly.

**Tenure:**

- In most of the states, the term of office fixed for lokayukta is of 5 years duration or 65 years of age, whichever is earlier. He is not eligible for reappointment for a second term.

**Issues Related to Lokayukta:**

- **No Clear Legislation:** The Lokpal and Lokayuktas Act 2013 only has one section on Lokayukta, which mandates that states must pass the Lokayukta Act within one year and there is no information about their makeup, powers, or other features. States, in fact, have complete autonomy over how their own Lokayuktas are appointed, how they work, and under what conditions they serve.
- **Delay in Resolution:** One of the major challenges faced by the Lokayukta is the delay in the investigation and resolution of complaints.
- The Lokayukta is also dependent on the state government for funding and infrastructure, which can lead to interference and lack of independence.

**CHIEF MINISTER'S DISTRESS RELIEF FUND (CMDRF)**

- The CMDRF is a public fund constituted for the purpose of giving relief in cases of privation and also to **those affected by fire, flood, cyclone, sea erosion and similar other calamities.**
- Educational Cultural and Charitable Institutions of a public nature, which are affected by such calamities and whose financial position does not enable them to repair the damage caused to their property and bring them to a normal condition are also eligible for financial assistance from the Fund.
- Relief may also be provided from the Distress Relief Fund for the **workers thrown out of employment** for reasons beyond their control, in units not covered by Employees State Insurance Schemes or Employees Provident Fund Schemes in the traditional sector alone.
- Financial Assistance from this Fund will be restricted to cases not covered by other special relief programs of the Government.



**Topic 20. INDIA'S APEX FOOD REGULATOR HAS NO DATA ON THE PRESENCE OF GMOS IN FRESH PRODUCE IMPORTED OVER THE PAST 5 YEARS**

*Important for the subject : Polity*

The **Food Safety and Standards Authority of India (FSSAI)**, the country's **nodal food regulatory body**, does not know if the fresh food produce **imported** in the past five years included **genetically modified (GM)** varieties. Neither does **FSSAI** have information on tests undertaken to check for the presence of such varieties.

These are the findings of a **Right To Information (RTI)** investigation by Down To Earth (DTE). This raises questions about whether the fruit and vegetables sold currently in the country are **free of GM varieties or not**.

**Genetically Modified Organism (GMO):**

- When a **new variety of plant** is created by inserting in it the **genes** of another plant, organism or bacteria, the variety becomes a **genetically modified organism (GMO)**.
- Since there is **not enough data or research** on the **long-term impacts of GMO** on human health, there is **no unanimity** in the scientific community on their regular consumption.

**Countries that has allowed the production of GM Crops:**

- Some **28 countries** allow large-scale farming of these **GMO crops**. In India, the **Food Safety and Standards Act, of 2006**, prohibits the import, manufacture, use or sale of GM food without FSSAI's approval.
- **India** has **allowed the cultivation and import of only one GMO — cotton**, a non-food crop. In **2022**, **India** also allowed **commercial cultivation of GM mustard**, but the move has been challenged and is pending at the Supreme Court.

**RTI quarry and response from FSSAI:**

- Do fresh fruit and vegetables imported to India include GM varieties; **FSSAI response:** Notification of regulations for **GM foods** is pending and to ensure only non-GM crops are imported into the county, an Order dated 21.08.2020 and subsequent Orders have been issued regarding the Requirement of non-GM cum GM Free certificate accompanied with imported food consignments.”
- It **mandated** that a **non-GM-cum-GM-free certificate**, issued by the exporting country's **“Competent National Authority”** shall accompany every consignment of **24 food crops** — alfalfa, apple, Argentina canola, egg plant, bean, chicory, cowpea, flax seed, maize, melon, papaya, pineapple, plum, Polish canola, potato, rice, safflower, soybean, squash, sugar beet, sugarcane, sweet pepper, tomato and wheat.
- In another order, **FSSAI** permitted a “tolerance limit for adventitious presence” of GMOs

in imported food crops at **1 per cent**.

- In a third order, **FSSAI** brought down the requirement of **non-GM-cum-GM-free certificates** from the exporting country's "**Competent National Authority**" to "**authorised regional government authorities**".
- Have any tests been done to confirm the presence of **GMOs** in fruit and vegetables imported in the last five years under Food Safety and Standards (Import) Regulations, 2017;
- **FSSAI response:** Required information is not available in this division. If fresh fruit and vegetables imported into India have been tested for GM, can a summary report be provided;
- **FSSAI response:** No such information is available in this division. List of exotic fruits and vegetables being imported to India, with the name of the exporting country.
- **FSSAI response:** No such information is available in this division.

#### Consequences:

- **India** has **no monitoring, surveillance or mechanism** to ensure that genetically modified crops are not imported into the country. It even does not have adequate infrastructure to test for **GMOs** and **only 2 per cent** of **food-testing laboratories** in **India** can check for the presence of GM products.
- There has been a **significant increase in India's fruit and vegetable imports**, especially from nations that produce **GMO varieties**. The **US, Brazil and Argentina** are the **top three countries** in terms of **land under GMO cultivation**. They are also **major exporters of foods to India**.
- In **2018-2022**, the **US exported apples** worth over **Rs 1,811 crore** to **India**. This is **17 per cent** of the total apples imported by India in the period.
- **Argentina and Brazil** are **India's top two sources of degummed soyabean oil** in **2022-23**. Overall, the **import of fresh fruit and vegetables in India** has **increased by 25 per cent** in the past decade.

#### Coalition for a GM-Free India:

- Established in **2006**, The **Coalition for a GM-Free India** is a loose, informal network of scores of organizations and individuals from across India, campaigning and advocating to **keep India GM-Free** and to shift our farming towards a sustainable path.
- Consisting of farmers', consumers', environmental, women's and other organizations, this network is opposed to the environmental release of **Genetically Modified Organisms (GMOs)** given the potential adverse health and environmental impacts, in addition to the fact that **GMOs** also are taking away valuable research and other resources from more lasting solutions.

#### Alliance for Sustainable and Holistic Agriculture (ASHA):

- **Alliance for Sustainable and Holistic Agriculture** or **ASHA-Kisan Swaraj network** is a volunteer-driven large **informal network of organisations and individuals** that initially came together in **2010** to organise a **Kisan Swaraj Yatra**, a nation-wide

mobilisation to draw attention to issues pertaining to our **FOOD, FARMERS, FREEDOM.**

- The network consists of farmers' organisations, consumer groups, women's organisations, environmental organisations, individual citizens and experts who are committed to the cause of sustainable and viable farm livelihoods in rural India including ensuring that **productive resources are in the control of farming communities and thereby, safe, nutritious, diverse and adequate food is available for all Indians.**

## Topic 21. THE MASSIVE DISPLACEMENT IN CONGO

*Important for the subject: International Relations*



The UN International Organization of Migration (IOM) reported that the number of people who have been internally displaced in the Democratic Republic of Congo (DRC) has risen to 6.9 million.

**What is the conflict in the DRC:**

- The **conflict in the Democratic Republic of the Congo (DRC)** traces its origins to the 1990s, characterized by **two civil wars in 1996 and 1998.**
- This conflict stemmed from the **aftermath of the Rwandan genocide in 1994, during which ethnic Hutu extremists killed nearly one million minority ethnic Tutsis and non-extremist Hutus.**

- Subsequently, the **eastern regions of the DRC, bordering Rwanda**, have been plagued by ongoing insurgencies carried out by various rebel militant groups
- The United Nations reports that in **addition to M23, over 120 insurgent groups** operate in the eastern provinces of **North Kivu, South Kivu, Ituri, and Tanganyika**.
- This **instability has resulted from violence over territorial control** and access to natural resources, extrajudicial killings by security forces, and escalating tensions with neighboring countries, leading to a high death toll.
- Notably, **tensions between the DRC and Rwanda continue** to escalate as both nations accuse each other of supporting ethnic Tutsi and Hutu-led rebel groups, respectively.
- The **resurgence of the Tutsi-led M23 rebel** campaign in November 2021 further **exacerbated the security situation** in the eastern DRC.
- This group **frequently launches attacks** and has seized control of numerous towns. In November 2022, a ceasefire was brokered between the DRC and Rwanda; however, it failed when M23 rebels declared non-compliance.
- The **East African Force and the UN peacekeeping mission**, deployed to oversee the **withdrawal of rebel groups**, were unable to achieve their objectives. Since January 2023, M23 has continued to make advances in the region.

#### Who are the major actors:

- **Prominent rebel groups** operating alongside **M23 in the Democratic Republic of the Congo (DRC)** include the **Allied Democratic Forces (ADF) and the Cooperative for Development of the Congo (CODECO)**.
- The **ADF, a rebel group based in Uganda**, has been active in eastern DRC since the mid-1990s and **declared its allegiance to the Islamic State** in 2019.
- **CODECO purports to safeguard the interests of the ethnic Lendu community against the Hemas and the Congolese army.**
- Additionally, the DRC accuses Rwanda of supporting the **Tutsi-led M23 group**, while Rwanda asserts that the **DRC backs Hutu militias** responsible for the **1994 Rwandan genocide** who fled to eastern DRC.
- **The East African Community (EAC)** entered the conflict in November 2022 by **deploying its troops in eastern DRC** to quell the violence. These **forces originated from Kenya, South Sudan, Burundi, and Uganda.**

#### What is UN International Organization of Migration (IOM):

- IOM stands as the **principal intergovernmental organization** specializing in the realm of **migration**, collaborating closely with governmental, intergovernmental, and non-governmental partners.
- Its **origins trace back to the aftermath of World War II** when Western Europe grappled with upheaval and displacement.
- It was **founded in 1951**. IOM achieved **Permanent Observer status to the UN General Assembly in 1992**, and a **collaborative agreement was formalized between IOM and the UN in 1996**

- The organization boasts a membership of 175 sovereign states, along with eight additional states holding observer status
- Operating across more than 100 countries, IOM maintains an unwavering commitment to promoting humane and well-organized migration that benefits all parties involved
- Its mission involves delivering services and counsel to governments and migrants. India is a member of IOM

IOM's efforts span four overarching areas of migration management, encompassing:

- Migration and development
- Facilitating migration
- Regulating migration
- Forced migration.
- The World Migration Report is published by IOM.

Some facts about Congo:

- The Democratic Republic of Congo (DRC) is a country located in Central Africa. It is the second-largest country in Africa and is known for its vast natural resources, including minerals and a significant portion of the Congo rainforest.
- The DRC is bordered by nine countries: Angola, Burundi, the Central African Republic, the Republic of the Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia.
- The Capital of DRC is Kinshasa. The Congo Basin rainforest, which is the second-largest rainforest in the world. The DRC is the world's largest producer of cobalt ore, and a major producer of copper and diamonds

## Topic 22. NATO FORMALLY SUSPENDS COLD WAR-ERA SECURITY TREATY AS RUSSIA PULLS OUT

*Important for the subject :International Relations*

NATO announces formal suspension of Cold War-era security treaty after Russia's pullout

NATO has formally suspended the Treaty of Conventional Armed Forces in Europe (CFE) in response to Russia's withdrawal from the agreement.

The CFE treaty, a key Cold War-era security pact aimed at preventing the massing of forces near mutual borders, had most NATO members as signatories

NATO stated that sustaining the treaty when Russia was not adhering to it would be untenable

- In response to Russia's finalization of its withdrawal, NATO members who had signed the treaty are suspending its operation

- This decision is supported by all NATO allies, with a commitment to reducing military risks and preventing misunderstandings and conflict

#### **What is Treaty of Conventional Armed Forces in Europe (CFE):**

- The Treaty on Conventional Armed Forces in Europe (CFE) was signed in Paris in November 1990, following the fall of the Berlin Wall.
- It established limitations on conventional arms and equipment with the primary goal of preventing Cold War adversaries from amassing forces suitable for rapid attacks.
- Its chief objective was to reduce the risk of surprise armed conflicts and the initiation of large-scale offensive operations in Europe

#### **The CFE treaty encompassed various key aspects**

- It established comprehensive restrictions on significant categories of conventional military equipment across Europe, ranging from the Atlantic to the Urals.
- The treaty required the destruction of surplus weaponry
- It effectively ended the Soviet Union's substantial quantitative advantage in conventional weapons in Europe.
- The treaty introduced verifiable limitations on the categories of conventional military equipment deployable by NATO and the former Warsaw Pact.
- It imposed constraints on conventional arms and equipment. The CFE treaty is often referred to as the "cornerstone of European security"

#### **Some facts about NATO**

- NATO is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949 also called the Washington Treaty between 30 countries across the world including the United States, Canada, and several Western European nations to provide collective security against the Soviet Union It was the first peacetime military alliance between the United States and non-western countries.
- Currently NATO consists of 31 member countries spanning North America and Europe. The most recent addition to this alliance came in April 2023 when Finland joined as its 31st member
- NATO's primary objective revolves around the preservation of the freedom and security of its member nations, achieved through a combination of political and military strategies. The core principle of NATO is collective defense, where independent member states pledge mutual protection in the face of external threats
- The cornerstone of this commitment is enshrined in Article 5 of the Washington Treaty, which states that an attack against any one member nation will be treated as an attack against all.
- The alliance's headquarters are situated in Brussels, Belgium, facilitating coordination and cooperation among its members.

## **Topic 23. INDIA HAD HIGHEST NUMBER OF TB CASES GLOBALLY IN 2022: WHO**

*Important for the subject: International Relations*

India had the highest number of TB cases globally in 2022 as per WHO.

In 2022, India reported the highest number of tuberculosis cases globally, accounting for a staggering 27 percent of the worldwide burden, according to the 2023 Global TB report by the World Health Organization (WHO). Among the top eight high burden countries, Indonesia, China, the Philippines, Pakistan, Nigeria, Bangladesh, and the Democratic Republic of Congo were also included, with India leading the list.

- India recorded 2.8 million TB cases in 2022, with a case fatality ratio of 12 percent, resulting in an estimated 342,000 deaths, including both HIV-negative and HIV-positive individuals.
- The report emphasizes that multidrug-resistant TB (MDR-TB) remains a public health crisis, with 110,000 cases recorded in India in 2022.
- Dr. Tereza Kasareva, Director of WHO's Global TB Programme, noted a positive global trend in the number of people diagnosed with TB and treated in 2022, following two years of COVID-related disruptions.
- The report also highlights a global recovery in TB diagnosis and treatment services, showing signs of reversing the adverse effects of COVID-19 disruptions on TB services.
- In 2022, 7.5 million people were diagnosed with TB, marking the highest number since WHO began global TB monitoring in 1995.
- The TB incidence rate increased by 3.9 percent between 2020 and 2022, reversing a two-decade-long decline of about 2 percent per year.

### **What is Tuberculosis:**

- Tuberculosis (TB) is an infectious airborne bacterial disease caused by *Mycobacterium tuberculosis*.
- TB commonly affects the lungs (pulmonary TB) but can also affect other parts (extrapulmonary TB)
- Tuberculosis spreads from person to person through the air, when people who are infected with TB infection cough, sneeze or otherwise transmit respiratory fluids through the air.

### **What is Multidrug-Resistant TB (MDR-TB):**

- In MDR-TB, the bacteria that cause TB develop resistance to antimicrobial drugs used to cure the disease. MDR-TB does not respond to at least isoniazid and rifampicin, the 2 most powerful anti-TB drugs.

- Treatment options for MDR-TB are limited and expensive. **CBNAAT (Cartridges Based Nucleic Acid Amplification Test)** is used for early diagnosis of MDR-TB.

#### **What is Extensively Drug-Resistant TB (XDR-TB):**

- XDR-TB is a form of multidrug-resistant TB with additional resistance to more anti-TB drugs.
- People who are resistant to isoniazid and rifampicin, plus any fluoroquinolone and at least one of three injectable second-line drugs i.e amikacin, kanamycin, capreomycin are said to have XDR-TB

#### **What is National Strategic Plan for TB Elimination:**

- It is a framework to guide the activities of all stakeholders whose work is relevant to TB elimination in India.
- It provides goals and strategies for the country's response to the disease during the period 2017 to 2025.
- It aims to direct the attention of all stakeholders on the most important interventions or activities that the RNTCP believes will bring about significant changes in the incidence, prevalence and mortality of TB.
- It will guide the development of the national project implementation plan (PIP) and state PIPs, as well as district health action plans (DHAP) under the national health mission (NHM).

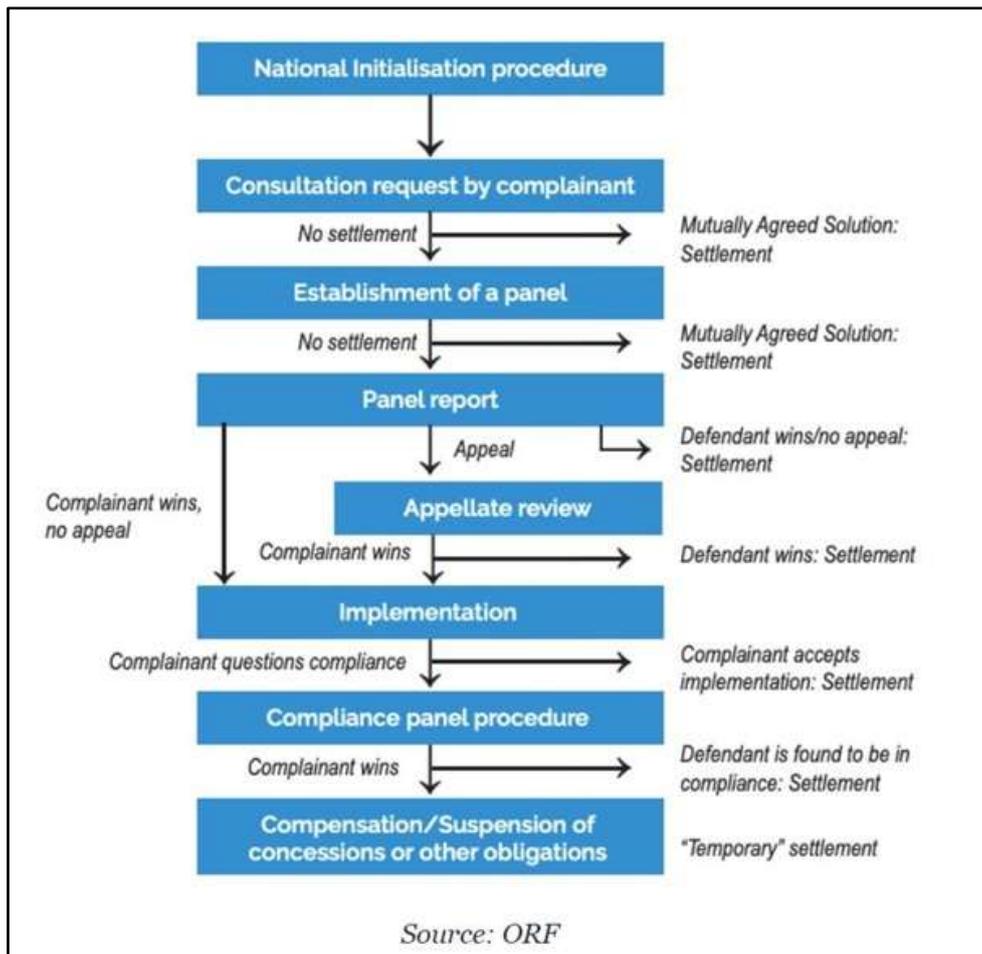
#### **What are some other government measures:**

- **The National Tuberculosis Elimination Programme(NTEP)** – Aims to strategically reduce TB burden in India . It was previously known as Revised National Tuberculosis Control Programme (RNTCP).
- **The National Strategic Plan for TB Elimination** – It was launched to achieve the target of ending TB by 2025 in a mission mode. It is a multi-pronged approach which aims to detect all TB patients with an emphasis on reaching TB patients seeking care from private providers and undiagnosed TB in high-risk populations
- **Ni-kshay Poshan Yojana(Nutritional Support to TB)**– It helps to meet the nutritional requirements of TB patients, especially the underserved. **Patient Provider Support Agencies (PPSA)**– To engage the private sector, **Patient Provider Support Agencies (PPSA)** have been rolled out across 250 districts through the domestic setup and **JEET initiative**
- **Universal Drug Susceptibility Testing (UDST)**– To ensure every diagnosed TB patient is tested to rule out drug resistance before or at the time of treatment initiation itself.
- **Pradhan Mantri TB Mukh Bharat Abhiyaan** – To bring together all community stakeholders to support those on TB treatment and accelerate the country's progress towards TB elimination.

- **Ayushman Bharat – Health and Wellness Centres** – To decentralize comprehensive primary healthcare including TB care services at the grassroots level. **Bedaquiline and Delamanid**-Newer drugs like **Bedaquiline and Delamanid** have also been made available for management of DR-TB.

**Topic 24. INDIA OPPOSES INCLUSION OF ‘ENVIRONMENT SUSTAINABILITY AND TRADE’ IN WTO MINISTERIAL AGENDA**

*Important for the subject: International Relations*



India opposes inclusion of ‘environment sustainability and trade’ in WTO Ministerial agenda.

**India, along with several developing nations, has opposed the introduction of discussions on environment sustainability and trade** at a recent senior officials meeting of the World Trade Organization (WTO).

India argued that the **matter was “too premature”** to be taken up by Ministers at the upcoming **13th WTO Ministerial Conference** in February 2024. India also **expressed**

concerns that linking sustainability issues to trade could be used as a barrier to trade.

- India has **consistently opposed global talks on environment issues at the WTO**, fearing that **these discussions could lead to unjustified trade restrictions**, such as the proposed **carbon taxes under the European Union's Carbon Border Adjustment Mechanism (CBAM)**.
- Many developing countries share these concerns and are not part of the discussions on trade and environmental sustainability at the WTO.

### Some facts about W.T.O

- W.T.O is an **international institution** that oversees the **rules for global trade among nations**.
- It **officially began operations on January 1, 1995**, in accordance with the **1994 Marrakesh Agreement**, thus replacing the **1948 General Agreement on Tariffs and Trade (GATT)**.
- WTO has **164 member countries** and **25 observer countries** and governments.

### What is the Structure of Governance of WTO

#### Ministerial Conference

- The **highest authority** within the WTO is the Ministerial Conference, which typically **convenes every two years**. This gathering **includes all WTO members**, which consist of countries or customs unions. The Ministerial Conference **holds the authority to make decisions concerning any aspect** of the multilateral trade agreements.

#### General Council

- **Situated in Geneva**, the General Council serves as the **WTO's primary decision-making body, convening regularly** to execute the WTO's functions.
- It **comprises representatives, often ambassadors or equivalent officials**, from all member governments and **possesses the mandate to act on behalf of the Ministerial Conference**, which holds infrequent sessions every two years.
- The General Council **also convenes, following different procedures**, as the **General Council, the Trade Policy Review Body, and the Dispute Settlement Body (DSU)**.
- Three councils, each **with jurisdiction over distinct areas of trade**, report to the General Council:

#### The Council for Trade in Goods (Goods Council)

#### The Council for Trade in Services (Services Council)

#### The Council for Trade-Related Aspects of Intellectual Property Rights (TRIPS Council)

- These councils are **responsible for overseeing the implementation of WTO agreements** pertaining to their respective trade domains and encompass all WTO members.

### Trade Policy Review Body (TPRB)

- The **General Council, in its capacity as the TPRB**, conducts **trade policy reviews of WTO Members** as part of the **Trade Policy Review Mechanism**) and considers regular reports on trade policy development **submitted by the Director-General**.
- This forum is **open to all WTO Members**.

### Dispute Settlement Body (DSB)

- The **General Council** assumes the role of the Dispute Settlement Body in **handling disputes among WTO members**. Such disputes may arise concerning any agreement outlined in the **Final Act of the Uruguay Round**, which is Important for the subject to the **Understanding on Rules and Procedures Governing the Settlement of Disputes**.

#### The DSB holds the authority to:

- **Establish dispute settlement panels**
- **Refer matters to arbitration**
- **Adopt reports from panels, the Appellate Body, and arbitration**
- **Monitor the implementation of recommendations and rulings outlined in these reports**
- **Authorize the suspension of trade concessions** in cases of non-compliance with these recommendations and rulings.

### Appellate Body

- **Established in 1995 under Article 17 of the Understanding on Rules and Procedures Governing the Settlement of Disputes**, the Appellate Body **comprises seven individuals and serves a four-year term**.
- This standing body **hears appeals from panel reports in disputes initiated by WTO Members**.
- The Appellate Body **may affirm, amend, or overturn the legal findings and conclusions presented by a panel**.
- Once the Appellate Body Reports are approved by the Dispute Settlement Body (DSB), **they must be accepted by the involved parties**.
- The Appellate Body is **headquartered in Geneva, Switzerland**.

#### What are the stages in WTO Dispute Settlement:

- Once a **complaint has been filed with the WTO**, there are **two main ways** to resolve a dispute:
- **Mutually Acceptable Solution:** The parties reach a **mutually acceptable solution**, particularly during the phase of bilateral consultations;
- **Adjudication:** It includes the **subsequent implementation of the panel and Appellate Body reports**, which are **binding on the parties once adopted by the DSB**.
- The WTO dispute settlement process is **divided into three stages**:

**Parties' discussions;**

- **Adjudication by panels and, if relevant, by the Appellate Body.**
- **Ruling implementation includes the potential of countermeasures if the losing party fails to implement the ruling.**

**Topic 25. NDB TO ASSESS INDIA PROJECTS PORTFOLIO NEXT YEAR**

*Important for the subject: International Relations*



NDB to assess impact of \$7.5-billion India projects portfolio

The **New Development Bank's Independent Evaluation Office (IEO)** is set to conduct an **evaluation of its project portfolio in India** since its inception in 2015.

With **approvals totaling \$7.5 billion**, of which \$4.2 billion has been disbursed, the **evaluation aims to assess the impact and effectiveness** of these projects.

- The **IEO plans to develop a country strategy for India**, helping identify **future engagement priorities, sectors, states, and partner institutions**. The NDB has already funded a range of projects in India, from transport and water sectors to rural roads and ecotourism.
- An **evaluation report also highlights the positive impact of NDB's Covid-19 response programs** in India, benefiting millions and generating employment opportunities.

**What is New Development Bank:**

- It is a **multilateral development bank** operated by the **BRICS states**. eBrazil, Russia, India, China and South Africa.

- The New Development Bank was agreed to by BRICS leaders at the 5th BRICS summit held in Durban, South Africa in 2013. It was established in 2014, at the 6th BRICS Summit at Fortaleza, Brazil.
- The bank is set up to foster greater financial and development cooperation among the five emerging markets.
- In the Fortaleza Declaration, the leaders stressed that the NDB will strengthen cooperation among BRICS and will supplement the efforts of multilateral and regional financial institutions for global development.
- The bank is headquartered in Shanghai, China. Unlike the World Bank, which assigns votes based on capital share, in the New Development Bank each participant country will be assigned one vote, and none of the countries will have veto power.
- The first regional office of the NDB was setup in Johannesburg, South Africa. The second regional office was established in 2019 in São Paulo, Brazil, followed by Moscow, Russia.
- The Bank has an initial authorized capital of 100 billion dollars and an initial subscribed capital of 50 billion dollars. Membership in NDB is open to any member of the United Nations. In 2018, the NDB received observer status in the United Nations General Assembly.

#### What is the Governance Structure of NDB:

- The Bank is governed by a Board of Governors made up of the finance ministers of the five BRICS countries, and a Board of Directors. Voting power within the Board is based on each country's shares in the bank.
- While new members can join the NDB, the five BRICS countries will retain a minimum of 55% of total shares.
- The NDB's management includes a presidency which rotates among BRICS members, and four vice presidents who are selected from the remaining BRICS countries.
- V. Kamath, from India, was the first elected president of the NDB. Egypt became the latest member of NDB.

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#### Topic 26. EU INVITES UKRAINE TO BEGIN MEMBERSHIP

##### *Important for the subject: International Relations*

EU invites Ukraine to begin membership

The European Commission has recommended inviting Ukraine to begin membership talks with the European Union (EU), provided it meets certain conditions related to corruption, lobbying laws, and national minority safeguards.

Ukrainian President Volodymyr Zelenskyy welcomed this recommendation as a “historic step” toward Western integration.

- The final decision on starting accession talks will be made by the 27 EU member states in mid-December, with Hungary being a potential obstacle. If approved, formal accession talks with Ukraine are expected to begin next year.
- Ukraine has faced significant challenges, including its ongoing conflict with Russia, but it has made progress in tackling corruption and is committed to post-war reconstruction efforts free from graft.

**What is the requirement for joining the EU:**

**Obligation:**

- According to Article 49 of the EU treaties, any European nation seeking to become an EU member must commit to upholding and promoting the EU's fundamental values outlined in Article 2.
- These values encompass principles such as freedom, democracy, equality, and the rule of law, among others.

**Consideration:**

- Following the submission of an application, EU member states assess the nation's suitability for membership based on these principles.

**Specific criteria:**

- The Copenhagen European Council meeting in 1993 established more detailed conditions known as the Copenhagen Criteria. These criteria outline the fundamental requirements that all candidate countries must meet.
- For instance, they encompass having a well-functioning market economy, maintaining a stable democracy and rule of law, and adhering to all EU legislation, including that related to the Euro.

**What is the process of joining the EU:**

- The process for achieving European Union membership involves three distinct stages, outlined as follows: **First stage:** The country is granted the status of an official candidate. In this initial phase, the candidate nation responds to inquiries to demonstrate its alignment with the membership criteria.
- **Second stage:** The formal negotiations for membership commence with the candidate. This phase encompasses the integration of EU law into national legislation and the fulfillment of a wide range of requirements, referred to as the accession criteria, which pertain to the legal, administrative, economic, and other aspects.
- **Third stage:** Upon the successful completion of negotiations and the fulfillment of all accession criteria, the candidate becomes eligible for EU membership. The final decision regarding membership is important for the subject to a unanimous vote by the existing EU member states, who must collectively endorse the new accession.

## **Topic 27. MAIDEN INDUS-X INVESTOR MEET HELD AHEAD OF 2+2 MINISTERIAL DIALOGUE**

*Important for the subject: International Relations*

India's Ministry of Defence and the US Department of Defence, organized the first ever INDUS-X investors' meet Before the **2+2 Indo-US ministerial dialogue**, an event called **INDUS-X investors' meet** was organized by **India's Innovations for Defence Excellence (iDEX)** and the **US Department of Defense**.

- During the event, the **INDUS-X Educational Series (Gurukul)** was launched. Additionally, two **defense innovation challenges** related to **underwater communications and oil spill detection** were launched under **INDUS-X**, with applications currently under review from startups of both nations.
- **INDUS-X aims to enhance strategic technology partnerships** and defense industrial cooperation between India and the US.

**What is INDUS-X:**

- It is a **major upcoming initiative** under the **Initiative on Critical and Emerging Technologies (iCET)**, with the aim to **promote partnerships and collaboration** between the **defence innovation ecosystems** of both countries.
- **INDUS-X is focused on advancing high-tech cooperation** and **exploring opportunities for joint research**, development, and production in the defence sector.
- **INDUS X event aimed to foster collaboration between Indian and US start-ups in deeptech innovations** especially in the **domains of Space and Artificial Intelligence**.

**What is iCET:**

- The **Initiative on Critical and Emerging Technologies (iCET)** is a **framework agreed upon by India and the U.S.** for cooperation on **critical and emerging technologies in areas** including **artificial intelligence, quantum computing, semiconductors and wireless telecommunication**.
- It was **first announced in May 2022**, alongside the **QUAD meeting in Tokyo, Japan**. Under **iCET, both countries have identified six areas of cooperation** which would include **co-development and co-production, that would gradually be expanded to QUAD, then to NATO, followed by Europe** and the rest of the world.
- **Focus Areas** of the Initiative:
  - **AI research** agency partnership.
  - **Defense industrial cooperation**, defense technological cooperation, and defense startups.

**Innovation Ecosystems.**

- **Semiconductor ecosystem** development. **Cooperation on human spaceflight**.
- **Advancement in 5G and 6G technologies**, and adoption of **OpenRAN network**

technology in India.

### What is Open RAN:

- **Open Radio Access Network**, or Open RAN, is a **key part of a mobile network system** that uses **cellular radio connections** to link individual devices to other parts of a network.
- It **comprises antennae, which transmits and receives signals to and from our smartphones or other compatible devices**. The signal is then **digitised in the RAN-base station and connected to the network**.
- O-RAN uses **software to make hardware manufactured** by different companies work together.

### Topic 28. IMF, IMF QUOTA SYSTEM, AND SDRS

*Important for the subject: International Relations*

#### Overview:

The **IMF Executive Board approved a 50% quota increase to provide critical resources to developing nations**.

The proposal emphasizes the **need for fair representation, safeguarding the poorest members' shares**.

#### **Quota Increase Proposal:**

- The proposal **advocates for a 50% quota increase to be distributed to members based on their current quotas**.
- If approved by the Board of Governors, it will **strengthen global financial stability** and minimize reliance on borrowed resources.
- The proposed increase is aimed at **preserving the IMF's robust, quota-based, and adequately funded structure within the Global Financial Safety Net**.

#### **Boosting Financial Stability:**

- **Quotas serve as the IMF's financial and governance foundation**, determining lending capacity and voting power.
- The plan is to decrease borrowed resources like **Bilateral Borrowing Agreements and New Arrangements to Borrow (NAB) to maintain the Fund's current lending capacity**.

#### **Future Quota Realignment:**

- The proposal acknowledges the importance of realigning quota shares to reflect members' relative positions in the world economy. The Executive Board is called upon to work on possible approaches for **further quota realignment by June 2025 under the 17th**

## General Review of Quotas.

### Expectations and Decision:

- The proposal seeks broad support from the membership and highlights the IMF's ability to **foster cooperative solutions amid global challenges.**
- The Board of Governors is scheduled to **vote on the proposal by December 15, 2023, requiring an 85% majority of the total voting power.**

### About International Monetary Fund (IMF) –

- **Founded in 1944, the IMF fosters global monetary cooperation and financial stability. Works to facilitate international trade, promote employment, sustainable economic growth, and reduce global poverty.**
- **World Economic Outlook, published by IMF, accompanied by lengthy discussions on the effect of fiscal, monetary, and trade policies on growth prospects and financial stability**

### Functions:

- **Surveillance: Gathers extensive economic data, providing updated economic forecasts globally.**
- **Capacity Building: Offers technical assistance, training, and policy advice to member countries.**
- **Lending: Provides loans with specific conditions to nations facing financial challenges.**

### Organization:

- **Board of Governors: Oversees IMF operations, advising the Managing Director.**
- **Executive Board: Consists of 24 directors representing member countries, responsible for day-to-day operations.**
- **Managing Director: Leads the IMF's staff and the Executive Board.**

### Voting Power and Quotas:

- Quotas determine **financial commitments and voting power of member countries.**

### Notable Contributions:

- The IMF has played a crucial role in **managing various global financial crises, including the Suez Crisis, OPEC oil embargo, and the Asian financial crisis, among others.**

### India and IMF:

- India holds a significant SDR quota and votes in the IMF, **benefiting from technical assistance and financial aid during crises. India currently holds 2.75% of SDR quota, and 2.63% of votes in the IMF**
- **The IMF has supported India during economic challenges, offering advice and**

financing assistance. SDR is one of the components of the Foreign Exchange Reserves (FER) of India.

#### Criticisms and Reforms:

- Criticisms include structural under-representation, undermining of democratic ownership, and weak learning from past mistakes. Calls for greater transparency, representation, and tailored policies for different countries have been made.

#### About Special Drawing Rights (SDR)

- **Meaning:** SDR is an international reserve asset created by the IMF in 1969 to supplement its member countries' official reserves.
- **Composition:** It is based on a basket of five major currencies: U.S. dollar, euro, Chinese renminbi, Japanese yen, and British pound sterling.
- **Allocation:** SDRs are allocated to member countries by the IMF as per their quota shares.
- **Review:** The SDR basket is reviewed every five years to ensure its reflection of the relative importance of currencies in the global economy.

#### Significance of SDRs:

- **Global Reserve Asset:** SDRs provide an additional liquidity cushion to countries during times of financial stress and economic uncertainty.
- **International Unit of Account:** SDR serves as a common unit of accounting for the IMF and certain other international organizations, facilitating international financial transactions.
- **Diversification of Reserves:** Helps in diversifying countries' reserves, reducing dependency on any single currency and promoting global financial stability.
- **Emergency Response:** Enables the IMF to provide liquidity to its members, assisting in managing balance of payments difficulties and supporting global economic stability.
- The International Monetary Fund (IMF) operates on a quota system and uses Special Drawing Rights (SDRs) as its unit of account.

#### IMF Quota System:

- IMF Quotas play a pivotal role in determining member countries' financial contributions, voting power, access to financing, and SDR allocations.
- IMF Quotas are the building blocks of the IMF's financial and governance structure, denominated in Special Drawing Rights (SDRs), and determined by a formula considering a member country's GDP, economic openness, economic variability, and international reserves.

- **Quota Subscription:** Each member contributes a sum known as a quota subscription upon joining the IMF.
- **Quota Formula:** It involves a **weighted average of GDP (50%), openness (30%), economic variability (15%), and international reserves (5%).**
- **GDP Measurement:** GDP is measured using **market exchange rates (60%) and purchasing power parity (PPP) exchange rates (40%).**
- **Quotas in SDRs:** Quotas are expressed in SDRs, representing member countries' contributions to the IMF.
- **Voting Power:** Voting power is linked to quotas, with larger quotas leading to greater influence in decision-making within the IMF.
- **Resource Contributions:** Quotas determine the maximum financial resources a member is obliged to provide to the IMF.
- **Voting Power:** Quotas are crucial in determining the voting power in IMF decisions, with votes based on a combination of quota size and basic votes.
- **Access to Financing:** The maximum financing a member can obtain from the IMF is based on its quota.
- **SDR Allocations:** Quotas determine a member's share in the general allocation of SDRs.
- **Quota Reviews:** The IMF conducts general quota reviews at regular intervals, and **any changes in quotas require approval by an 85% majority of the total voting power.** A member's quota cannot be changed without its consent.
- **Need for Reforms:** Calls for reforms in the IMF governance structure have been made **due to shifts in global economic and geopolitical power.** The disparity in quota shares has led to frustrations among some IMF members, with concerns about the **concentration of power among certain countries.**
- The recent decision to maintain IMF quotas without changes highlights the challenges in achieving governance reforms that **reflect the evolving dynamics of the global economy.**
- **Special Drawing Rights (SDRs):** SDRs are not a currency but an IMF unit of account, representing claims to currency held by IMF members.
- **Value Determination:** SDR value is calculated daily based on market exchange rates, and the **valuation basket includes major currencies such as the U.S. dollar, Euro, Japanese yen, pound sterling, and Chinese renminbi.**
- **Currency Exchange:** SDRs are exchangeable among IMF member countries, **providing liquidity and serving as a supplementary international reserve asset.**

### About New Arrangement to Borrow (NAB)

- The New Arrangement to Borrow (NAB) is an agreement established by the International Monetary Fund (IMF) that allows member countries and institutions to lend additional funds to the IMF.
- **Purpose:** The NAB was created as a fund mobilization arrangement for the IMF to have access to additional resources through borrowing from member countries.
- **Structure:** The NAB is set up as a series of credit arrangements between the IMF and a select group of 38 member countries and institutions. The list of participating countries and institutions can be Important for the subject to change.
- **Origins:** The concept of the NAB was initially proposed at the 1995 G-7 Halifax Summit in response to the Mexican financial crisis. Subsequently, the IMF's Executive Board adopted a decision to establish the NAB in January 1997, and it became effective in November 1998.
- **Revival during the Global Financial Crisis:** The NAB was reinvigorated amid the global financial crisis of 2009. Its purpose was to ensure that the IMF had sufficient lending resources to address the pressing financial challenges, particularly those arising from the Eurozone crisis.
- By allowing the IMF to access additional resources through borrowing from its member countries and institutions, the NAB serves as a critical mechanism to bolster the IMF's lending capacity during periods of economic and financial turmoil.

### Topic 29. INDIA TO BE IN UK SAFE LIST FOR ASYLUM SEEKERS

#### *Important for the subject: International Relations*

The UK government has announced that it will add India to a list of “safe states”. The UK government **plans to include India in an expanded list of safe states**, facilitating faster repatriation of Indians who enter the country illegally and preventing them from seeking asylum.

The move **aims to strengthen immigration controls and discourage unfounded protection claims**. Home Secretary Suella Braverman emphasized the **need to deter illegal journeys, aligning with Prime Minister Rishi Sunak's commitment to “stop the boats.”**

The draft legislation, **part of the Illegal Migration Act 2023**, designates India as a safe country, Important for the subject to **parliamentary scrutiny before implementation**. The **UK Home Office aims to tackle illegal migration** comprehensively, collaborating internationally and enhancing enforcement measures.

#### **What are the countries in in UK's safe states list**

- India, Georgia, Albania, Switzerland, as well as the **European Union (EU) and**

### European Economic Area (EEA) states

- The EEA links the EU member states and three EFTA states i.e Iceland, Liechtenstein, and Norway into an internal market governed by the same basic rules.

### When can a country be added to the UK's safe states list:

- A country can only be added to the UK's safe states list known legislatively as **Section 80AA** if the **Home Secretary is satisfied** that: There is, in **general, no serious risk of persecution** of its nationals, and;
- **Removal of nationals to that country cannot go against the UK's obligations** under the Human Rights Convention.

### Topic 30. MILLET SONG ON WHICH PM MODI, FALU COLLABORATED NOMINATED FOR GRAMMY:

#### *Important for the subject: International Relations*

Millet song on which PM Modi, Falu collaborated nominated for Grammy

The song “**Abundance in Millets,**” a collaboration **between Indian-American singer Falu and Prime Minister Narendra Modi,** has been **nominated for a Grammy award** in the **best global music performance category.**

The **song, released in June** to promote the **benefits of millets,** coincided with the designation of 2023 as the “**International Year of Millets.**” Falu **expressed her excitement, noting that Prime Minister Modi** had agreed to write the song with her.

The **nomination recognizes the creative effort to highlight the importance of millets and their nutritional benefits.**

#### Some facts about Grammy:

- Popularly known as **Grammy Award,** it is originally named **Gramophone Award,** presented annually in the **United States by the National Academy of Recording Arts & Sciences (NARAS;** commonly called the **Recording Academy)** to **honour artistes in the music industry for their exceptional work** in a year.
- It was **started in 1959 to respect the performers for the year 1958.** Once it was made, the **committee decided to call it Grammy as a tribute to Emile Berliner's gramophone.**
- The “**General Field**” are **four awards** that are **not restricted by genre:**
  1. **Album of the Year**
  2. **Record of the Year**
  3. **Song of the Year**
  4. **Best New Artiste**
- **Winners are selected from more than 25 fields,** which cover such **genres as pop, rock, rap, R&B, country, reggae, classical, gospel, and jazz,** as well as production and

postproduction work, **including packaging and album notes.**

- The honorees receive a **golden statuette of a gramophone.**
- The Grammys are the **first of the Big Three networks' major music awards** held annually and are considered **one of the four major annual American entertainment awards** with the **Academy Awards (for films), the Emmy Awards (for television), and the Tony Awards (for theater).**

### **Topic 31. AN UNIMAGINABLE HUMANITARIAN CRISIS IS UNFOLDING IN SUDAN**

*Important for the subject: International Relations*

**‘Corpses on streets’: Sudan’s RSF kills 1,300 in Darfur, monitors say**

**Why in news:**

Sudan’s Rapid Support Forces (RSF) besieged a camp for displaced people on November 2 after attacking a nearby army base in West Darfur. Over the next three days, the paramilitary group committed what may amount to the single largest mass killing since the civil war erupted in April.

Local monitors told about 1,300 people were killed, 2,000 injured and 310 remain missing. Mostly killed are Masalit people

The Masalit are an ethnic group who reside mainly in Chad and Darfur in Sudan.

**When did it start?**

- On April 15th, 2023, violent clashes erupted between the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF) in Sudan, resulting in the displacement of over 3.3 million people, including internally displaced people (IDPs), asylum seekers and refugees. This conflict exacerbated many of Sudan’s existing challenges, including ongoing conflicts, disease outbreaks, economic and political instability and climate emergencies.

**A history of ethnic cleansing**

- For decades, Sudan’s central government neglected non-Arab farmers and Arab pastoralists in Darfur, pushing them to compete for fertile land and dwindling water resources.
- Former President Omar al-Bashir exacerbated these tensions by pitting tribes against each other as part of a divide-and-rule strategy. In 2003, he armed Arab tribal militias and tasked them with crushing a mostly non-Arab rebellion, which started with protests against Darfur’s economic and political marginalisation.
- About 300,000 people died in combat as well as from famine and disease brought on by

the conflict. Rights groups and the UN accused these government-backed militias – known to victims as the Janjaweed, or “devils on horseback” – of carrying out ethnic cleansing.

- Between 2003 and 2008, Khartoum supported the Janjaweed Arab militias to put down rebel groups in Darfur, whose members included Masalits, leading to widespread abuses against civilians. Around 300,000 people were killed and over 2 million were displaced in the region in this time period.
- The RSF grew in large part out of the Janjaweed militias.

### **Displacement:**

- Within Sudan, 4.5 million people have been internally displaced since April, when the war began, while 1.2 million have fled to neighbouring countries like **Chad, Egypt, South Sudan, Ethiopia and the Central African Republic (CAR)**. The overwhelming majority of the refugees (in some cases, as in the CAR, nearly 90 per cent) are women and children.
- Recent fighting in the Darfur region has caused even more displacement with thousands of people struggling to find shelter and many sleeping under trees by the roadside. We are very concerned about them not having access to food, shelter, clean drinking water or other basic essentials.

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## **Topic 32. KENNETH BOULDING AWARD**

### *Important for the subject: International Relations*

Bina Agarwal wins Kenneth Boulding Award

**Development economist Bina Agarwal has been awarded the Kenneth Boulding Award for Ecological Economics.**

As a **Professor of Development Economics and Environment** at the **Global Development Institute, University of Manchester**, and **former director of the Institute of Economic Growth in Delhi**, Agarwal shares the award with **David Barkin**, a professor at the **Metropolitan University in Mexico City**.

- The **International Society for Ecological Economics** acknowledged Agarwal for her **substantial contributions to the field, particularly in the areas of environmental governance, agrarian change, and social equity** in developing countries.

### **Some facts about Kenneth E. Boulding Memorial Award for Ecological Economics**

- The **Kenneth Boulding Award for Ecological Economics** is named after **Kenneth E. Boulding (1910-1993)**, a **prominent systems thinker who integrated social theory with the natural sciences** and moral philosophy.
- Boulding, **recognized for his creativity and constructive engagement** with the

scientific community, served as **President of the American Economics Association and the American Association for the Advancement of Science.**

- Together with his wife, **Elise Boulding**, a renowned sociologist, he was actively involved in the international peace movement as **Quakers**.
- The award honors individuals who exemplify **Boulding's unique qualities**, aiming to perpetuate his wisdom and contributions to the **field of ecological economics**.

#### **Previously ISEE Boulding Award Recipients:**

1. **1994 | Robert Goodland and Herman Daly**
2. **1996 | Ann-Mari Jansson**
3. **1998 | Robert Costanza**
4. **2000 | C.S. Holling**
5. **2002 | Robert Ayres**
6. **2004 | Karl Goran-Maler and Partha Dasgupta**
7. **2006 | Richard Norgaard**
8. **2008 | Manfred Max Neef and Charles Perrings**
9. **2010 | Joan Martinez Alier and Ignacy Sachs**
10. **2012 | William Rees and Mathis Wackernagel**
11. **2014 | Peter Victor**
12. **2016 | Kanchan Chopra and Arild Vatn**
13. **2018 | Inge Røpke**
14. **2020 | Rashid Hassan**
15. **2023 | Bina Agarwal and David Barkin**

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#### **Topic 33. VIENNA CONVENTION ON CONSULAR RELATIONS 1963**

*Important for the subject: International Relations*

The Qatar death row and India options.

#### **What is Vienna Convention on Consular Relations, 1963:**

- The Vienna Convention on Consular Relations is an **international treaty that defines a framework for consular relations between sovereign states.**
- It **codifies many consular practices that originated from state custom and various bilateral agreements between states**
- The Convention was **adopted on 24 April 1963** following the **United Nations Conference on Consular Relations** in Vienna, Austria

#### **What are some key provisions of the convention:**

- The treaty consists of **79 articles**, with the preamble emphasizing the continued application of customary international law to matters not addressed in the Convention.

#### **The Key provisions include:**

- **Article 5** outlines thirteen functions of a consul, including protecting the interests of the sending State and its nationals, assisting nationals, and promoting relations between the sending and receiving States.
- **Article 23** allows the host nation to declare a consular staff member persona non grata at any time, with the sending state required to recall the individual promptly, or they may lose consular immunity.
- **Article 31** establishes the inviolability of consular premises, prohibiting the host nation from entering or damaging the premises.
- **Article 35** safeguards freedom of communication between the consul and their home country, ensuring that consular bags are not opened or detained, and consular couriers are not detained.
- **Article 36** addresses communication between consular officers and nationals of the sending state, granting consular officers the right to communicate with and visit nationals who are arrested or detained.
- **Article 37** mandates prompt notification to consular officers if a sending state's national dies, has a guardian appointed, or if a vessel or aircraft of the sending state is involved in an incident in the receiving state.
- **Article 40** requires the receiving state to treat consular officers with respect and prevent any attack on their person, freedom, or dignity.
- **Articles 58-68** cover honorary consular officers, detailing their powers and functions.

### **Topic 34. THE DIGITAL PUBLIC GOODS ALLIANCE**

*Important for the subject: International Relations*

#### **What is the Digital Public Goods Alliance**

The Digital Public Goods Alliance is a **multi-stakeholder initiative** with a **mission to accelerate the attainment** of the **sustainable development goals** in **low- and middle-income countries** by facilitating the discovery, development, use of, and investment in digital public goods.

DPGA is a **UN-endorsed initiative** facilitating the **discovery and deployment of open-source technologies**, fostering a **global ecosystem for digital public goods** to achieve sustainable development goals.

- The DPGA is governed by a board, including members like the **German Federal Ministry for Economic Cooperation and Development, EkStep Foundation, Government of Sierra Leone, Norwegian Agency for Development Cooperation (Norad), UNDP, and UNICEF.**
- The DPGA relies on a **broad membership and stakeholder community**, using a **roadmap for coordination**, alignment, engagement, and communication to advance its strategic objectives.
- The DPGA's **diverse membership**, including **governments, foundations, and**

**organizations**, collaborates to promote digital public goods and contribute to the alliance's strategic goals over a five-year strategy period.

### **What is Digital Public Goods Alliance Strategy 2021-2026:**

- The **five year objectives of the Digital Public Goods Alliance** are:
- **Ensure discoverability, sustainable management, and accessibility** of digital public goods **addressing critical development needs and urgent global challenges** for government institutions and relevant implementing organizations.
- **Enhance knowledge, capacity, and incentives of UN institutions, multilateral development banks**, and other institutions crucial for implementing digital technologies in countries, effectively promoting and supporting the adoption of digital public goods (DPGs).
- **Empower government institutions** with the **information, motivation, and capacity to implement DPGs** addressing critical development needs, facilitating effective planning, deployment, maintenance, and evolution of digital public infrastructures.
- **Foster vibrant commercial ecosystems** in countries, promoting the creation, maintenance, **implementation, and incubation of DPGs** at the local level.

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### **Topic 35. WHY ISRAEL IS ATTACKING GAZA'S AL-SHIFA HOSPITAL**

#### *Important for the subject: International Relations*

The Gaza Strip's largest and most advanced hospital, **al-Shifa**, is no longer functioning due to loss of power and water supply,

#### **Why is al-Shifa hospital important:**

- Al-Shifa used to be the **cornerstone of Gaza's healthcare system** before the Israel-Hamas war broke out. It is **located in Gaza City**, in the north of the tiny Palestinian enclave,
- The **hospital comprises a group of six-storey buildings** and had between **600 and 900 beds and thousands of staff**, and provided a **range of services that almost no other hospital in Gaza offered**.
- Since the start of the war, **al-Shifa has also been serving as a shelter for those displaced by the fighting and incessant Israeli bombing**.

#### **Why is al-Shifa in the crosshairs:**

- **Israel's forces have surrounded al-Shifa hospital**, alleging it sits **above an underground Hamas headquarters**, using patients and staff as human shields.
- **Hamas and Gaza's health ministry deny these claims**, dismissing them as **baseless**.

#### **What does international humanitarian law say:**

- Under **international humanitarian law**, **hospitals receive special protections during war**, but these **protections may be lost if combatants use the premises for**



**military** purposes.

- In such cases, **warnings must be given before attacks** to allow the **safe evacuation of patients and medical workers**, according to the **ICRC**.
- **Even if Israel proves al-Shifa is used by Hamas**, the **principles of international law require steps to protect the innocent** before any attack is authorized.

**What are the laws of war:**

- **Two fundamental aspects of international law govern conflicts.**
- **Jus ad Bellum:** This aspect of international law **addresses the conditions and justifications for countries to use force** in their international relations. It is **regulated by the United Nations (UN) Charter**.
- **Jus in Bello:** Jus in bello concerns the rules that **dictate how a war is to be fought, specifying what military actions** are permissible. Even if a country is justified under the UN Charter to use force, it **must adhere to these rules**.
- This law of war, known as **international humanitarian law (IHL)**, outlined in customary international law, the **1949 Geneva Conventions**, and the **1977 Additional Protocols**, prescribes rules **to protect civilians and minimize suffering during armed conflicts**. Regardless of the justness of their cause, **warring parties must abide by IHL**

**What are the Geneva Conventions (1949):**

- The Geneva Conventions, **established in 1949** along with their **Additional Protocols**, represent crucial international agreements that **set forth fundamental regulations to mitigate the cruelty of armed conflict**.
- These conventions **provide safeguards for non-combatants** i.e. civilians, medical personnel, humanitarian workers and individuals who are no longer able to participate in combat i.e. injured, sick, and shipwrecked military personnel, as well as prisoners of war.
- The **First Geneva Convention** protects **wounded and sick soldiers on land during war**. The **Second Geneva Convention** protects **wounded, sick and shipwrecked military personnel at sea during war**.
- The **Third Geneva Convention** applies to **prisoners of war, including a wide range of general protections such as humane treatment, maintenance and equality across prisoners, conditions of captivity, questioning and evacuation of prisoners, transit camps, food, clothing, medicines, hygiene and right to religious, intellectual, and physical activities of prisoners**.
- The **Fourth Geneva Convention** protects **civilians, including those in occupied territory**. The other Geneva Conventions were concerned mainly with combatants rather than civilians.
- **Two Protocols of 1977:** Additional to the four 1949 Geneva Conventions were adopted in 1977. They **strengthen the protection of victims of international (Protocol I) and non-international (Protocol II) armed conflicts** and place limits on the way wars are

fought.

- In 2005, a third Additional Protocol was adopted creating an additional emblem, the Red Crystal, which has the same international status as the Red Cross and Red Crescent emblems.

### Topic 36. CYPRUS

*Important for the subject: International Relations*

Cyprus Confidential

Cyprus Confidential” is a comprehensive offshore investigation featuring 3.6 million documents in English and Greek. It unveils a detailed paper trail of companies established in the tax haven of Cyprus by influential individuals globally.

In collaboration with the International Consortium of Investigative Journalists (ICIJ), over 270 journalists from 60 media outlets in 55 countries participated in the investigation.

- The documents, obtained from six offshore service providers in Cyprus, reveal insights into Indian investors acquiring Cypriot citizenship through the Golden Passport scheme and showcase entities formed by prominent businesses to leverage Cyprus’s favorable tax regime in the Eastern Mediterranean.

**What are Tax Havens.**

- A tax haven is a country that offers foreign businesses and individuals minimal or no tax liability for their bank deposits in a politically and economically stable environment.
- Usually, countries engage in upholding such a low rate of taxation in order to increase foreign investment as well as the cash flow in their economy.

**What is the Tax Haven Criteria by OECD.**

- The Organization for Economic Co-operation and Development (OECD) outlines four crucial criteria to assess if a jurisdiction qualifies as a tax haven:

**Imposition of no or minimal taxes.**

**Lack of transparency.**

- Presence of laws or practices hindering effective information exchange for tax purposes. Absence of a requirement for substantial economic activity.

**What are the various type of tax heavens:**

- Pure Havens: No charges on Income or Capital gains like, Bermuda, Cayman Islands, Vanuatu.

- **Tax Havens with low state-approved rates through international tax agreements like Liechtenstein, Switzerland, Republic of Ireland.**
- **Tax Havens exempting taxpayers from cross-border transaction taxes like Costa Rica, The Philippines, Panama.**
- **Tax Havens favoring offshore and holding companies like Austria, Luxembourg, Thailand.**
- **Tax Havens granting exemptions for export-oriented industries like Ireland, Madeira in Portugal.**
- **Tax Havens offering benefits to ‘Offshore Companies’ like Bahamas, Antigua & Barbuda, British Virgin Islands.**
- **Tax Havens providing privileges to banking or financial firms in offshore activities like Anguilla, Grenada, Jamaica.**

### Issues related to Taxation around the world

#### Cyprus Confidential: Unveiling Offshore Strategies

##### Investigation Overview:

- 6 million documents in English and Greek.
- Collaboration with ICIJ, involving 270+ journalists from 60+ media houses globally.
- **Reveals offshore companies in Cyprus used by global elite.**

##### India Investigation Highlights:

- **Secrecy Unveiled:** Lifts secrecy veil for government and regulatory agencies.
- **Control from India:** Documents reveal **offshore entities controlled from India.**

##### Setting Up Offshore Entities in Cyprus:

- **Legal Perspective:** Not illegal; **India has double-taxation avoidance agreements.**
- **Tax Residency Certificates:** Used for legal tax benefits.
- **Regulatory Oversight:** Generally characterized by lax oversight and strong secrecy laws.

##### Evolution of India-Cyprus Tax Treaty:

- **Pre-2013:** Exemption from capital gains tax.
- **Since 2013:** Cyprus labeled **Notified Jurisdictional Area (NJA).**
- **Since 2016:** Revised DTAA signed, rescinding NJA status.

##### Tax Benefits in Cyprus:

- **Tax Rates:** 25% for offshore companies.
- **Dividends and Profits:** No withholding tax, exempt from additional tax.
- **Capital Gains and Estate Duty:** No tax on sale of shares, no estate duty.

##### India-Cyprus DTAA Dynamics:

- **Tax Planning Hub:** Cyprus used for tax planning due to low tax regime.
- **Alternative to Mauritius:** Cyprus becomes an alternative for offshore investments in India.

### **Offshore Trusts in Cyprus:**

- **Definition:** Trusts with property and income outside Cyprus.
- **Tax Exemptions:** Exempt from estate duty; no tax on income and gains.
- **Confidentiality:** No registration, maintains beneficiary confidentiality.

### **Challenges for Indian Tax Authorities:**

- **DTAA Limitations:** Does not prevent scrutiny if transactions aimed solely at tax avoidance.
- **Tax Treaty Benefits Denial:** Possible if ownership setup solely for tax avoidance.

### **Offshore Leaks to Cyprus Confidential: A Decade of Investigations**

- **Offshore Leaks (2013):** 5 million documents, 612 Indians exposed.
- **Swiss Leaks (2015):** HSBC's Swiss private banking leaks, 1,195 Indian clients.
- **Panama Papers (2016):** 5 million files exposing shell entities for fraud, tax evasion.
- **Paradise Papers (2017):** 4 million files revealing tax avoidance structures, India control.
- **Mauritius Leaks (2019):** Exposing tax avoidance via Mauritius by multinational companies.
- **FinCEN Files (2020):** Revealing suspicious activity reports filed by global banks.
- **Pandora Papers (2021):** Exposing offshore structures for estate planning, global elite.
- **Cyprus Confidential (2023):** 6 million documents unveiling offshore strategies in Cyprus.

### **Double Taxation Avoidance Agreement (DTAA):**

#### **Definition:**

- DTAA is a tax treaty between two or more countries, including India, designed to prevent taxpayers from being taxed twice on the same income—once in the source country and again in the residence country.

#### **Purpose:**

- Aims to eliminate or reduce the instances of double taxation, providing clarity on tax liabilities for individuals and businesses operating in multiple countries.

#### **Bilateral Agreements:**

- Countries enter into bilateral agreements to address issues related to cross-border taxation, ensuring fair treatment of taxpayers and fostering international economic

cooperation.

### **Income Tax Avoidance:**

- DTAA facilitates the **avoidance of income tax duplication by specifying the rules for allocating taxing rights between the source and residence countries.**

### **Permanent Normal Trade Relations (PNTR):**

#### **Definition:**

- PNTR is a **legal status in the United States denoting a country's eligibility for free trade relations on a permanent basis.** It is essentially the same concept as Most Favoured Nation (MFN) status.

#### **Free Trade Designation:**

- Indicates that a **foreign nation is granted the same trade privileges and terms as the most favoured trading partner, ensuring equal and non-discriminatory treatment.**

#### **Equivalent to MFN:**

- In the U.S. context, **PNTR is equivalent to the international concept of Most Favoured Nation, emphasizing fairness and equality in trade relations.**

#### **Legislation:**

- PNTR status is often granted through specific legislation, **signaling a commitment to open and unrestricted trade with the designated nation.**

#### **China and PNTR:**

- A notable example is the **S. granting PNTR status to China, a move that normalized trade relations and played a role in China's accession to the World Trade Organization (WTO).**

#### **Benefits of PNTR:**

- **Provides stability and predictability in trade relations,** encouraging economic cooperation and facilitating the growth of international commerce.

#### **Trade Promotion:**

- PNTR status is seen as a means of **promoting global trade, reducing trade barriers, and fostering positive diplomatic and economic ties between nations.**

### **Most Favoured Nation (MFN) in International Trade:**

#### **Definition:**

- MFN is a principle in international trade **ensuring equal and non-discriminatory treatment among trading partners.**

**Principle:**

- When a country grants MFN status to another, **it commits to providing the same trade privileges and terms to that partner as its most favoured trading partner.**

**Equal Treatment:**

- For instance, **if Country A grants MFN status to Country B, it must extend the same trade benefits to Country B as it does to its best trading partner, Country C.**

**International Agreements:**

- Article 1 of the General Agreement on Tariffs and Trade (GATT) 1994, under the World Trade Organization (WTO), mandates member countries to grant MFN status to each other.

**Exceptions:**

- While the MFN principle is generally upheld, **exceptions exist, such as bilateral trade agreements and special access provisions for developing nations.**

**India-Pakistan Example:**

- **India initially granted MFN status to all WTO members, including Pakistan. However, in 2019, India suspended Pakistan's MFN status citing security concerns, and Pakistan did not reciprocate the status for India.**

**Tax Evasion:**

- Tax evasion is the **illegal practice of not paying owed taxes to the government through fraudulent means, such as underreporting income, utilizing offshore accounts, or inflating deductions to decrease tax liability.**

**Tax Haven:**

- A tax haven is a **jurisdiction or country that offers favorable tax rates and other financial benefits to individuals and businesses, attracting them to establish residency or conduct financial activities to minimize their tax liability.**

**Automatic Exchange of Information:**

- Introduced to **combat offshore tax evasion by wealthy individuals, promoting transparency and information sharing among countries.**

**Base Erosion and Profit Shifting (BEPS):**

- BEPS, coined by OECD, refers to **tax planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to artificially shift profits to**

low or no-tax locations, thus eroding the tax base of the higher-tax jurisdictions.

### Shell Company:

- A shell company is a **business entity without active business operations or significant assets**. Often, it exists only on paper and is used for various financial purposes, **including reducing tax liability, avoiding regulations, or conducting financial transactions anonymously**.

### P-Notes (Participatory Notes):

- Participatory Notes are **financial instruments used by investors to invest in Indian securities without direct registration with regulatory authorities**. They are issued by registered foreign institutional investors (FII) to overseas investors, **providing an indirect route to participate in the Indian stock market**, especially in the context of **international finance and taxation**.

### Roundtripping:

- Roundtripping is a **financial practice where funds are routed, often through a series of transactions or intermediary entities, to conceal the original source of the funds**.
- This can involve **sending money offshore and then bringing it back through a complex route to make it appear as if it's a legitimate investment**.

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## Topic 37. SUPREME COURT JUDGEMENT IN THE NESTLE INCOME TAX CASE SETS BAD PRECEDENT

*Important for the subject: Economy*

**In News:** Supreme Court's (SC) recent ruling states that **no automatic international treaty benefit**, including a lower withholding tax, is available to foreign companies operating in India.

The issue involves Nestle and some other EU companies **claiming lower withholding tax of 5% instead of the 10%** based on the **Double Taxation Avoidance Agreements (DTAAs)** that India had signed with Switzerland and other EU countries.

- This was done on the basis of invoking the **most favoured nation (MFN) clause** in the tax treaties.

**What do the DTAAs mean for taxation?**

- India's bilateral DTAA with the Netherlands, France, and Switzerland — all three countries are members of the Organization for Economic Co-operation and Development (OECD) — require imposing a **10% withholding tax** (tax on dividends paid by Indian entities of foreign companies to the residents of Netherlands, France, and Switzerland).
- This provision allows India to sign tax treaties with other countries to avoid an income being taxed twice.
- These DTAA also contain an MFN provision.

#### **What does the MFN clause say?**

- If India extends a **preferential tax treatment to any third country “which is a member of the OECD”**, the **same treatment should be accorded** to the Netherlands, France, and Switzerland under their respective DTAA.
- Now India's DTAA with Slovenia, Colombia, and Lithuania have a lower withholding tax requirement of 5%. Hence the other countries are claiming the 5% rate as per the terms of MFN clause.

#### **What was the issue before the courts?**

- When India signed DTAA with these countries, they **were not OECD members** but joined the group later.
- When the matter initially came before the **Delhi High Court**, it held that under the MFN provision, the preferential tax in, say, the India-Slovenia DTAA **should extend to the India-Netherlands DTAA**.

#### **What does the Supreme Court ruling say?**

- The Supreme Court overruled the HC order and held that when the India-Netherlands DTAA was signed, **Slovenia was not an OECD member**. Thus, the **benefits given to Slovenia**, which became an OECD member later, **do not apply to the India-Netherlands DTAA**.
- Further SC noted that for MFN clause to come in effect, a separate notification for the same under Section 90 of the Income-Tax Act needs to be issued.
- This ruling will impose a tax burden estimated to be ₹11,000 crore on foreign investors. It may also lead to opening past cases.

#### **Why is the judgement problematic?**

- One of the foremost challenges foreign investors face in India is the uncertainty in taxation measures.
- Taxation-related improbabilities arise not just due to the actions of the executive but also the judiciary. This **makes doing business in India difficult** for foreign players.
- The critical question here is why the MFN clause could not be given effect in India without notification for the same under Section 90 of the Income-Tax Act.
- The SC judgement freezes the provisions of a treaty in time when **there is nothing in the DTAA treaties that says** that it applies only to countries that were members **on the day**

**the treaty was signed.**

- SC has used domestic interpretative techniques to interpret a term in an international treaty. Such an interpretation **defeats the purpose of including non-discrimination standards such as MFN** in economic treaties.
- MFN in a treaty ensures that future benefits given to a third country by one of the treaty-signing countries become automatically available to its treaty partners.

### **Dualism doctrine**

- Supreme Court has held a dualist view of law when it ruled that to give effect to the MFN provision in the DTAA, notification under Section 90(1) of the Income Tax Act is necessary and mandatory.
- Thus, the Court advocated the doctrine of dualism wherein international law is not enforceable domestically till it is transformed into municipal law through enabling legislation.
- While it is true that the Indian Constitution provides for such formal dualism, the Supreme Court has moved away from this principle toward the monist tradition of incorporating international law in the domestic legal regime, even if it is not explicitly incorporated, **provided the international law is not inconsistent with domestic law.**

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## **Topic 38. SEZ POLICY AND ISSUES IN INDIA**

*Important for the subject: Economy*

### **Government's Focus on SEZs:**

Commerce Minister Piyush Goyal is exploring ways to **relax certain restrictions for Special Economic Zone (SEZ) units to promote growth.** There is a **proposal to allow SEZ units to sell products in the domestic market without import duties.**

This **proposal aims to align SEZ practices with those of India's Free Trade Agreement (FTA) partner countries.**

### **WTO Compliance Considerations:**

- **Benefits of input duty remission schemes for exports to SEZs** are Important for the subject to ensuring adherence to World Trade Organization (WTO) regulations. Emphasized the cautious examination **needed to avoid potential violations of WTO rules.**

### **SEZs and Export Dynamics:**

- **SEZs are majorly engaged in exporting petroleum products and software,** which are currently not covered under the **Remission of Duties or Taxes on Export Products (RoDTEP) Scheme.**
- The proposed **liberalization for SEZs** aims to bring them in line with industry practices

in India's FTA partner countries.

### **Industry-Government Collaboration:**

- Minister Goyal highlighted the collaborative approach between the government and the industry to **elevate the national initiative for ease of doing business to the next level.**
- Continuous feedback from businesses through the **National Single Window System is encouraged to identify gaps and suggest measures for improvement.**

### **Special Economic Zones (SEZs):**

- SEZs are **delineated 'enclaves' with unique regulations and trade practices compared to the rest of the country**, providing special privileges to the units operating within them.
- They **serve as efficient zones to address infrastructural and business environment** issues in a shorter timeframe. Special Economic Zones Act was passed in 2005. However, **SEZs were operational in India from 2000 to 2006 (under the Foreign Trade Policy).**

### **Objectives of the SEZ Act:**

- Creation of additional economic activity.

### **Promotion of goods and services export.**

### **Generation of employment.**

- Facilitation of domestic and foreign investments.
- Development of infrastructure facilities.

### **Facilities and Incentives for SEZs:**

- **Duty-free import/domestic procurement of goods for SEZ unit development and operation. 100% Income tax exemption for the initial 5 years, 50% for the subsequent 5 years, and 50% of the ploughed back export profit for the following 5 years.**

### **Exemption from Minimum Alternate Tax (MAT).**

- **Exemption from Central Sales Tax, Service Tax, and State sales tax (subsumed into GST, supplies to SEZs are zero-rated under IGST Act, 2017).** Single window clearance for central and state-level approvals.

### **Concerns with Present SEZs:**

- **India's SEZs have not been as successful** as those in several other countries, such as China, Korea, Malaysia, and Singapore.
- Many SEZs in India were **established to avoid taxes rather than for export purposes.** Weak linkages with the rest of the economy have limited the performance of most manufacturing SEZs in India.
- **Ineffective coordination between the central SEZ Act and state-level legislation has**

**undermined the effectiveness** of the single window system.

- Inadequate policy design, implementation, and monitoring have hindered India's industrialization efforts through SEZs.

#### **Revamp of SEZ Policy to Meet Export Challenges:**

- Review the recommendations of the **Baba Kalyani committee on the SEZ policy of India.**
- Discussions focused on **addressing global challenges faced by Indian exporters and facilitating the ease of doing business** in the current global market scenario.

#### **Completed Recommendations:**

- **Review of specific exclusions proposed in NFE computation** in light of the Make in India initiative.
- **Sharing of duty-exempted assets/infrastructure between units allowed** with specific approval.
- Formalization of the de-notification process for enclaves and delinking its present mandatory usage for SEZs purpose only.

#### **Other Implemented Recommendations:**

- Support to servicification of manufacturing zone. Allowing manufacturing enabling services companies.
- Flexibility to enter into a long-term lease agreement with stakeholders in Zones in line with the State policies. Additional Changes and Initiatives for SEZs:

#### **Delegation of powers to Development Commissioner for shifting of SEZ unit from one zone to another.**

- Supplies of services in DTA **against foreign exchange or Indian Rupees to be counted towards NFE.** Setting up cafeteria, gymnasium, creche, and other similar facilities/amenities.

#### **Objectives of the Committee:**

- **Evaluation of the SEZ policy and making it WTO compatible. Suggesting measures for maximizing utilization of vacant land in SEZs.**
- **Merging the SEZ policy with other Government schemes like coastal economic zones and national industrial manufacturing zones.**
- **India's target of becoming a USD 5 trillion economy by 2025 necessitates a paradigm shift in manufacturing competitiveness and services,** requiring policy evaluation and compliance with WTO regulations.

## **Topic 39. IMF WARNS EUROPE AGAINST PREMATURELY DECLARING VICTORY OVER INFLATION**

*Important for the subject: Economy*

The European Central Bank and other policymakers across Europe need to keep interest rates at current elevated levels until they're sure inflation is under control despite sluggish growth, the International Monetary Fund (IMF) said on Wednesday, warning against premature celebration as inflation declines from its peak.

The Washington-based IMF said that the cost of underestimating inflation's persistence could be painfully high and result in another painful round of rate hikes that could rob the economy of a large chunk of growth.

- The European Central Bank, the Bank of England and the other central banks that aren't part of the 20-country eurozone are reaching the peak of their interest rate cycles, while some have started to reduce policy rates, the IMF said in its twice-yearly regional economic outlook for Europe. Nonetheless, a prolonged restrictive stance is still necessary to ensure that inflation moves back to target.
- Historically, it takes an average of three years to return inflation to lower levels, while some anti-inflation campaigns have taken even longer, the IMF said.
- While central banks appear to have ended their series of hikes, a failure to finish the job and the resulting return to rate hikes could cost as much as a full percentage point of annual economic output.
- Alfred Kammer, director of the IMF's Europe department, warned against premature celebration as he spoke to journalists in connection with the outlook. It is less costly to be too tight than too loose with interest-rate policy, Kammer said. The ECB, which halted its rate increases at its October 26 for the first time in over a year, is in a good spot, he said.
- Inflation in the eurozone peaked at 10.6 per cent in October 2022, and has steadily fallen to 2.9 per cent in October. The European Central Bank has raised its benchmark deposit rate by fully 4.5 percentage points between July 2022 and September 2023, from minus 0.5 per cent to 4 per cent.
- Higher rates are the typical tool central banks use to control inflation, since higher rates mean higher borrowing costs for consumer purchases and financing new officials and factory equipment. That reduces demand for goods and eases pressure on prices, but can also hurt growth – a difficult tightrope act for the ECB.
- The Bank of England left its benchmark rate unchanged at 5.25 per cent at a policy meeting last week.
- The IMF said Europe was headed for a soft landing after the impact of the rate hikes and did not foresee a recession, while growth forecasts remained uncertain and could turn out better or worse than expected.
- It forecast growth for the region – including the UK and Switzerland as well as the 27-country European Union – of 1.3 per cent this year and 1.5 per cent next year. For

the **eurozone**, the outlook is for **0.7 per cent growth for this year and 1.2 per cent next year**.

- If **inflation falls faster than expected**, it will **boost consumer real income and spending and growth might improve**. But an **escalation of Russia's war against Ukraine** and accompanying **increased sanctions and disruptions to trade** could mean **weaker growth**.

### **Inflation in India**

- **Inflation:** Inflation refers to the **general increase in prices and the fall in the purchasing power of money**. It occurs when the **demand for goods and services surpasses their supply, leading to an increase in their prices**. High inflation can erode the value of savings and income, leading to reduced consumer spending and economic instability.

#### **Types of inflation include:**

- **Demand-pull inflation:** **Caused by increased consumer demand that outpaces supply**.  
**Cost-push inflation:** **Caused by an increase in production costs, such as wages or raw materials, leading to higher prices**.
- **Deflation:** Deflation is the **opposite of inflation and refers to a sustained decrease in the general price level of goods and services**. It occurs when the supply of goods exceeds demand, leading to reduced prices. **Deflation can discourage spending, as consumers may delay purchases in anticipation of lower prices, which can further slow down economic growth and potentially lead to recession**.
- **Hyperinflation:** Hyperinflation is an **extremely high and typically accelerating inflation**. It occurs when the price levels rise rapidly, eroding the value of the currency. This phenomenon often results from a collapse in the currency **and is detrimental to the economy, leading to a loss of confidence in the currency and undermining economic stability**.
- **Stagflation:** Stagflation is a situation characterized by a **combination of stagnant economic growth, high unemployment, and high inflation**. It presents a challenge for policymakers, as traditional measures to **stimulate economic growth, such as increasing the money supply, may exacerbate inflation**.
- **Reflation:** Reflation is an **attempt to stimulate an economy that is experiencing deflation**. It involves the implementation of monetary or fiscal policies **to increase the money supply and boost aggregate demand, with the aim of reversing deflation and stabilizing prices**.
- **Disinflation** refers to a **slowdown in the rate of inflation**. While prices may still be rising, they are doing so at a slower pace compared to the previous period. **Disinflation does not imply a decrease in prices, as is the case with deflation, but rather a**

**reduction in the rate of increase of the general price level in an economy.** Disinflation can occur for various reasons, such as **increased productivity, reduced consumer demand, or a drop in the prices of commodities.**

### **Core Inflation:**

- Core inflation represents the **long-term trend in the price level and factors out short-term volatility caused by external factors such as energy and food prices.** It excludes **highly volatile commodities like food and energy,** which can undergo rapid price fluctuations due to seasonal and market conditions. By eliminating these volatile elements, **core inflation provides a more accurate reflection of the underlying inflationary trends in the economy.**
- **Central banks often use core inflation as a key indicator** when formulating monetary policies and making adjustments to interest rates. It allows policymakers to focus on the persistent inflationary pressures in the economy, **enabling them to make informed decisions that can maintain price stability and promote sustainable economic growth.**

### **Headline Inflation,**

- Headline Inflation refers to the **complete inflation figure including all goods and services within the consumer price index basket.** It encompasses all items, including those that are highly volatile, such as food and energy. **Headline inflation is the most commonly reported measure of inflation and is what is typically referenced in the news and by the general public.** While headline inflation provides a comprehensive view of the overall price levels, **it can be influenced by temporary factors that do not reflect the underlying inflationary pressures.**

### **Types of Inflation:**

- **Demand-pull inflation occurs when aggregate demand surpasses aggregate supply,** while **cost-push inflation results from reduced aggregate supply due to factors like labor, land, and capital shortages or hoarding.**

### **Factors Causing Inflation:**

- Demand-side inflation arises from **increased consumption, high exports leading to a devalued currency, and excessive money circulation** that reduces the purchasing power of money.
- **Cost-push inflation is influenced by shortages in factors of production and artificial**

scarcity due to hoarding.

- **Measurement of Inflation:** In India, inflation is primarily measured through two indices: the **Wholesale Price Index (WPI)** and the **Consumer Price Index (CPI)**, which track changes in wholesale and retail-level prices, respectively.

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### **Topic 40. ABOUT NATIONAL COAL INDEX (NCI)**

*Important for the subject: Economy*

The **National Coal Index (NCI)** has observed a slight increase of **3.83 points**, reaching **143.91** in **September 2023**, marking the first surge since April 2023. This upturn can be attributed to the **temporary escalation of coal prices in the global markets**.

The upward movement of the NCI signals a growing demand for coal, likely due to the **approaching festive season and winter in the country**. This development is expected to encourage coal producers to expand domestic coal production to meet the increasing energy requirements.

- The National Coal Index (NCI) is a **critical price index that serves to reflect the changes in the price level of coal during a specific month in comparison to the fixed base year, which is FY 2017-18**. Rolled out on June 4, 2020, the NCI was conceptualized with the primary objective of providing an accurate representation of the market price of coal.
- **Launched by the Ministry of Coal on June 4, 2020**, the NCI serves as a price index that reflects the fluctuations in the price of coal in a particular month compared to the fixed base year. It plays a crucial role in **determining the Premium (per tonne) or Revenue Share (as a percentage) through a market-based mechanism**.
- Ministry of Coal has started Commercial Auction of coal mines on revenue share basis. The NCI is designed to **encompass all transactions of raw coal in the Indian market, covering various grades of coking and non-coking coal traded in both regulated (power and fertilizer) and non-regulated sectors**. It includes transactions at the **notified price, coal auctions, and coal imports**.
- The implementation of the NCI brings forth several benefits, **including its role as a foundational indicator for taxation purposes**.
- The NCI encompasses prices from various sales channels, **such as Notified Prices, Auction Prices, and Import Prices, and is updated on a monthly basis**.

**Components of NCI:**

- **Sub-indices:** The NCI is composed of five sub-indices, including three for Non-Coking Coal and two for Coking Coal. The three sub-indices for Non-Coking Coal are combined to derive the Non-Coking Coal Index, while the two sub-indices for Coking Coal contribute to the Coking Coal Index. Each sub-index accounts for specific grades of coal.

#### **Implementation of NCI:**

- **Revenue Share Calculation:** The NCI is used to determine the revenue share per tonne of coal produced from auctioned blocks, calculated using a predefined formula. **The index covers all transactions of raw coal in the Indian market, encompassing various grades of coking and non-coking coal in both regulated (power and fertilizer) and non-regulated sectors. Washed coal and coal products are excluded from the index.**

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### **Topic 41. TARIFF AND NON-TARIFF BARRIERS – STEEL SECTOR – INDIA**

*Important for the subject: Economy*

#### **India's Vulnerability to Imports:**

According to Dilip Oommen, CEO of ArcelorMittal Nippon Steel India, **India is highly vulnerable to imports, particularly in the steel sector.** He emphasized the need for trade barriers as a safeguard against the rising influx of steel imports.

#### **Quality Control Measures:**

- Oommen suggested exploring **various trade barriers to tackle the issue**, emphasizing the need to assess whether the imported steel can be manufactured domestically.
- **Strengthening quality control norms and enforcing stringent Bureau of Indian Standards (BIS) norms were highlighted** as potential solutions.

#### **Dumping Concerns:**

- Oommen expressed concerns **about dumping, particularly by certain countries offering steel at lower prices than the prevailing domestic rates.**
- The steel industry in India has been **adversely affected by increased imports**, primarily from China, in recent months.

#### **Threat from China:**

- Oommen highlighted that the **dumping of steel by China is not just a threat to India but to the world as a whole.** Despite expectations of reduced production in China, **steel exports from the country have risen significantly, creating concerns in the global steel market.**

#### **Brief on Steel Sector (India)**

- **India's Steel Sector:** The steel industry in India has a **significant economic**

contribution, amounting to over 2% of the country's GDP, and its growth is pivotal for the development of the nation's **infrastructure and construction sectors**.

- **Employment and Production:** The sector directly employs 6 lakh individuals and indirectly supports 13 lakh jobs. **India has emerged as the third-largest steel producer globally, surpassing the United States in 2015**, with a total production of 89 million tonnes.
- **Challenges Faced:** Despite these achievements, the **Indian steel sector faces significant challenges, including an increase in steel imports, global steel glut leading to predatory pricing, and a surge in cheap imports from countries like China, Korea, and Japan.**
- **Impact of Global Factors:** The **global slowdown** in steel demand has adversely affected the domestic market, making it challenging for Indian producers to **compete with countries like China, which are selling steel at discounted prices. Anti-dumping measures have been implemented** but haven't entirely mitigated the challenges.
- **Raw Material Challenges:** The closure of iron ore mines in Goa, production constraints in Karnataka and Odisha, and the **poor quality of domestically produced metallurgical coke** present challenges for the sector.
- **Path to Competitiveness:** Enhancing research and development, **improving the quality of raw materials, setting up washeries for coal, and strategizing the use of iron ore and coke can significantly improve the competitiveness** of the Indian steel industry.

#### **Tariff Barriers:**

- Tariff barriers **involve the imposition of taxes or duties on imports and exports**. These duties can be **specific (based on the quantity of goods) or ad valorem (based on the value of goods)**.
- They are primarily used to **control the flow of goods between countries, allowing governments to raise revenue, protect domestic industries, and regulate trade.**

#### **Non-Tariff Barriers:**

- Non-tariff barriers refer to various restrictions and obstacles to trade that do not involve the imposition of tariffs. **These barriers are more diverse and include various policy measures and regulations.**
- Non-tariff barriers can **take the form of quotas, embargoes, sanctions, licensing requirements, product standards, subsidies, customs and administrative procedures, and other regulatory mechanisms.**
- They are often implemented to **protect domestic industries, ensure product quality and safety, and prevent the entry of foreign goods** that may pose risks or unfair competition to domestic producers.
- Both tariff and non-tariff barriers can significantly impact international trade **by influencing the cost, availability, and competitiveness of goods and services in the global market.** Governments often use a combination of both types of barriers to achieve

various economic and policy objectives.

### **Summary of the Tariff and Non-Tariff Barriers: –**

#### **Subsidies:**

- **Direct payments made by the government to domestic producers, which can take the form of cash, low-interest loans, tax incentives, etc.**
- **Helps lower the cost of production for domestic goods, making them more competitive in international markets.** Export subsidies are considered unfair trade practices and can be countered by countervailing duties.

#### **Quantity Controls:**

- **Quotas:** Direct restrictions on the **quantity of goods that can be imported**, often enforced through import licenses.
- **Voluntary Export Restraints (VERs):** Bilateral agreements limiting a country's export of specific goods voluntarily.
- **Local Content Requirements:** Mandate that a portion of the product must be produced domestically, favoring local producers.

#### **Legislation:**

- **Government purchases are exclusively from domestic producers**, prohibiting the use of imported goods.

#### **Labelling and Testing Standards:**

- **Countries require imported goods to meet specific packaging, labeling, and testing standards before being sold** in their markets.

#### **Sanitary and Phytosanitary (SPS) Measures:**

- Measures to **protect against risks associated with food safety, animal health, and plant protection.**

#### **Specific Permission Requirements:**

- Potential importers or exporters must obtain permission from governmental authorities **through costly and time-consuming licensing procedures.**

#### **Countertrade:**

- Exchange of goods between countries **due to currency constraints or other factors.**

#### **Administrative Barriers to Trade:**

- **Delays and restrictions resulting from administrative regulations and procedures related to international trade.**

## Tariff Barriers:

### Anti-dumping & Countervailing Duty (CVD):

- Anti-dumping duties are imposed to **counteract the practice of exporting goods at prices lower than the domestic market price or production cost.**
- Countervailing duties **nullify the adverse effects of subsidies on imported products and are imposed under the World Trade Organisation rules.**

### Sanitary and Phytosanitary (SPS) Measures:

- Sanitary and Phytosanitary (SPS) measures are a **set of regulations implemented by governments to protect human, animal, or plant life or health from various risks associated with the importation of certain products.** These measures ensure that imported goods meet specific standards **related to food safety, animal and plant health, and disease control.**
- SPS measures can include regulations on the **use of additives, pesticides, maximum residue levels, and product testing procedures, among others.** The aim is to prevent the **spread of diseases, pests, or contaminants that could harm human, animal, or plant health within the importing country.**

### Technical Barriers to Trade (TBT) Measures:

- Technical Barriers to Trade (TBT) measures refer to **various standards, regulations, and conformity assessment procedures that are used to ensure the safety, quality, and technical compatibility of products in the market.** These measures can include product specifications, labeling requirements, packaging standards, and testing and certification procedures.
- TBT measures aim to **protect consumer health and safety, preserve the environment, and meet other societal objectives.** However, they can also be used as a form of trade protection by creating obstacles for foreign products to enter the market. **To comply with TBT measures, exporters may need to invest in product adaptation, testing, and certification processes.**

### Inverted Duty structure

- An inverted duty structure refers to a situation in which the **import duty on finished goods is lower than the import duty on the inputs used for producing those finished goods.** In other words, **it occurs when the tax on raw materials or intermediate goods is higher than the tax on finished products.**
- This can create an anomaly where the import of finished goods becomes cheaper

compared to the import of raw materials, **leading to adverse impacts on domestic manufacturing and industries.**

- An inverted duty structure can distort the market and **make it more favorable for imports rather than domestic production, potentially harming local manufacturers' competitiveness.**
- It may also discourage the development of domestic industries and disincentivize local production, affecting the overall economic growth and industrial development. **Resolving an inverted duty structure often involves a re-evaluation of the tax structure to ensure that the duties on inputs and finished products are appropriately aligned to encourage domestic production and industrial growth.**

### Duty Structure in India

- The recent developments in the **steel industry indicate growing concerns about cheaper imports, particularly from China, leading to an increased focus on trade remedies and measures to protect the domestic market.**
- **Antidumping Duty Consideration:** The Steel Ministry has forwarded a **request for imposing antidumping duty on specific steel products to the Finance Ministry**, which is currently under consideration. The ministry is also prepared to intervene if necessary to safeguard the interests of the domestic industry.
- **Increase in Chinese Imports:** Investigations revealed a **significant surge in Chinese steel imports, reaching 44 percent on an annualized basis following the suspension of countervailing duty (CVD) since February 2021.** The DGTR recommended a 19 percent CVD on these imports to the Finance Ministry.
- **Import-Export Imbalance:** India has recently **become a net importer of finished steel, including non-alloyed and alloyed products, and stainless steel, with imports surpassing exports by 0.28 million tonnes.** This development has raised concerns within the industry and is being closely monitored by the authorities.
- **Challenges in Raw Material Supply Chains:** Securing coking coal, a vital raw material for steel production, has become challenging due to geopolitical factors. **India is exploring alternate sources for coking coal, with a focus on countries such as Russia and Mongolia to ensure a stable supply.**
- **Impact of Scrap Trade Restrictions:** The limitations on scrap trade, driven by **countries securing their own supplies and promoting low-carbon steelmaking, have the potential to affect the Indian steel industry.** While EU regulations might impact scrap imports, the overall impact is not expected to be significant.
- These developments underscore the ongoing efforts to **protect the Indian steel industry from unfair trade practices and maintain a stable supply of essential raw materials.** The government remains committed to **addressing challenges in the industry, including**

trade imbalances and supply chain disruptions.

### About Directorate General of Trade Remedies (DGTR)

- DGTR, or the Directorate General of Trade Remedies, is a **key entity established by the Government of India to safeguard the interests of domestic industries and mitigate the impact of unfair trade practices**. It is responsible for overseeing various trade remedial measures, including the **imposition of anti-dumping duties and countervailing duties**.

### Functions and significance of the DGTR:

- **Formation and Integration:** Established in 1998 as the **Directorate General of Anti-Dumping & Allied Duties**, it was **renamed as the Directorate General of Trade Remedies (DGTR) in 2018**. The DGTR was formed by merging the functions of DGAD, DGS, and the Safeguards (QR) functions of DGFT, **creating an integrated single-window national authority**.
- **Trade Remedial Measures:** The primary responsibilities of the DGTR include administering various trade remedial measures such as **Anti-Dumping Duties, Countervailing Duties, and other Safeguard Measures**. These measures are crucial in **ensuring fair competition** in the Indian market and **protecting domestic industries from unfair trade practices**.
- **Efficiency and Governance:** The consolidation of these entities into the DGTR has led to significant improvements in **terms of streamlined processes and quicker decision-making, resulting in reduced time frames for providing relief to the domestic industry**. This move aligns with the government's aim of **"Minimum government and maximum governance."**
- **Expertise and Support:** The DGTR is composed of officers with diverse skill sets in fields such as Law, Costing, Economics, Finance, Customs, Revenue, and International Trade. **This diversity enables the organization to provide comprehensive support to domestic industries and exporters in handling trade remedy investigations initiated by foreign countries**.
- **Transparency and Compliance:** The DGTR operates within the framework provided by the **World Trade Organization (WTO) and various international agreements related to trade remedial measures**. It ensures transparency and timeliness in its operations, providing a level playing field for the Indian domestic industries in the global trade arena.

### Who imposes the Anti-Dumping duty in India?

- The Directorate General of Trade Remedies (DGTR) is **responsible for the imposition of anti-dumping duties in India**. It assesses the **necessity and validity of imposing**

such duties to prevent the impact of dumping practices on domestic industries.

### What is the Countervailing Duties (CVD) rate?

- **Countervailing duties (CVDs) are tariffs imposed on imports to counteract the negative effects of subsidies provided to foreign producers.** The specific rate of countervailing duties can vary depending on the nature of the subsidy and the products involved. These duties are in accordance with the rules set by the World Trade Organization (WTO) and are also known as **anti-subsidy duties**.

### Dumping:

- **Dumping** is the practice of exporting goods at a price lower than the price in the home market. It can negatively impact international trade and local manufacturers' profits.
- Dumping is considered illegal under the **World Trade Organization (WTO)** rules if it adversely affects the domestic producers of the importing country.
- Countries often use **tariffs and quotas** to protect their domestic producers from the practice of dumping.

### Anti-dumping:

- **Anti-dumping** is a protective tariff imposed on foreign imports that are sold at prices significantly lower than their normal value in the home market.
- **It is used as a remedy for the distortive trade caused by dumping and is permitted by the WTO.**
- **Anti-dumping duties can reduce international competition for domestic companies in the long term.**

### Countervailing Duty (CVD):

- **Countervailing duty is imposed on goods that have received government subsidies in the originating or exporting country. It is designed to counter the adverse effects of subsidies and ensure fair trade practices.**

### Sunset Clause for Anti-Dumping Duty:

- **The validity of anti-dumping duty is typically for five years from the date of imposition, unless revoked earlier.**
- It can be extended for an additional period of five years through a **sunset or expiry review investigation**.

### Authority Administering Trade Remedial Measures in India:

- The **Directorate General of Trade Remedies (DGTR)** under the Ministry of Commerce and Industry administers various trade remedial measures, **including anti-dumping**

duties, countervailing duties, and safeguard measures.

- It provides **trade defense support to the domestic industry and safeguards the interests of exporters in trade remedy investigations initiated by other countries.**

### **Topic 42. RISING TREND OF BANK FINANCING FOR NON-BANKING FINANCIAL COMPANIES (NBFCs)**

*Important for the subject :Economy*

The rising trend of **bank financing for non-banking financial companies (NBFCs)** has **raised concerns about the potential for systemic contagion**, prompting the need for tighter preventive measures, as emphasized by the **Centre for Advanced Financial Research and Learning (CAFRAL)**. This independent body, established by the Reserve Bank of India (RBI), has urged caution and the implementation of checks and balances to mitigate the possible systemic fallout.

- The **India Finance Report 2023**, unveiled by RBI Governor Shaktikanta Das, underscored the dangers of inter-linkages within the financial sector. Notably, **larger NBFCs have been borrowing from banks and subsequently lending to smaller NBFCs, leveraging regulatory arbitrage**. This close integration has necessitated enhanced monitoring to avert potential systemic repercussions.
- The report further cautioned that the growing reliance of NBFCs on scheduled commercial banks for funding, along with banks' increased cross-lending within the sector, has heightened systemic risks. Additionally, **it highlighted the consequences of a contractionary monetary policy, leading to increased risk in NBFCs' portfolios, especially in terms of unsecured loans.**
- Observations revealed that bank borrowing constituted a significant portion of NBFCs' total borrowings, with public sector banks emerging as the primary lenders, followed by private sector and foreign banks. The **study emphasized the buildup of systemic risk during tranquil financial periods, emphasizing the potential negative spillovers during crises.**
- The researchers at CAFRAL stressed the **positive correlation between the NBFC index and the bank NIFTY index**, emphasizing the crucial role of banks as a vital funding source for NBFCs. They also warned that the increasing interconnectedness within the sector, **coupled with reliance on regulatory arbitrage, may have significant systemic implications**. Regulatory authorities were urged to exercise caution and establish effective checks and balances to mitigate potential risks in the medium term.

### **Monetary Policy**

- Monetary policies are **tools used by central banks to manage and control the money supply in an economy, which in turn influences interest rates and inflation.** They can

be broadly categorized into two main types: contractionary and expansionary.

### **Contractionary Monetary Policy:**

- **Aim:** Aims to **reduce the money supply, curb inflation, and slow down economic growth.**
- **Methods:** Central banks implement this policy by **increasing interest rates, selling government securities, and raising reserve requirements for banks.**
- **Impact:** This policy can **lead to reduced borrowing and spending, higher cost of borrowing, decreased business investments, and a slowdown in the overall economic activity.**

### **Expansionary Monetary Policy:**

- **Aim:** Aims to **stimulate economic growth and increase the money supply in the economy.** **Methods:** Central banks implement this policy by **decreasing interest rates, buying government securities, and lowering reserve requirements for banks.**
- **Impact:** This policy **encourages borrowing and spending, reduces the cost of borrowing, promotes business investments, and stimulates overall economic activity.**
- The choice between a contractionary or expansionary policy **depends on the current state of the economy, the central bank's goals, and the prevailing economic conditions, including the level of inflation, employment, and overall economic growth.**

### **About CAFRAL –**

- CAFRAL stands for the Centre for Advanced Financial Research and Learning. **It is an independent body established by the Reserve Bank of India (RBI) to conduct research, training, and knowledge dissemination in the fields of banking and finance.**
- CAFRAL's primary goal is to **support the development and stability of the Indian financial sector through comprehensive research, policy analysis, and training programs** for professionals in the industry. It operates as a think tank and a hub for generating insights and promoting understanding of **various aspects of the financial system, contributing to informed policy decisions and effective regulation.**

### **NBFC and Bank NIFTY Index**

- **The NBFC index and the bank NIFTY index are two separate financial indicators that provide insights into different aspects of the financial sector, specifically related to non-banking financial companies (NBFCs) and banking institutions.**

**NBFC Index:**

- The NBFC index is a financial indicator **that tracks the performance and trends of the non-banking financial companies in the market.**
- It provides a snapshot of **the overall performance of the NBFC sector**, including factors such as growth, profitability, and risk exposure.
- The index helps investors and analysts assess the health and stability of the non-banking financial sector, enabling them to **make informed investment decisions.**

**Bank NIFTY Index:**

- The **Bank NIFTY index is a market index that represents the performance of the banking sector in India.**
- It comprises the **most liquid and large Indian banking stocks listed on the National Stock Exchange (NSE).**
- The index is an **important benchmark for investors, providing insights into the overall performance and trends of the banking industry, including both public and private sector banks.**

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**Topic 43. INDIA'S MONETARY POLICY MUST REMAIN 'ACTIVELY DISINFLATIONARY'*****Important for the subject: Economy***

In the current situation, RBI Governor said monetary policy must remain actively disinflationary to ensure that ongoing disinflation process progresses smoothly

**What is Disinflation?**

- Disinflation is a **decline in the rate of inflation.** The inflation rate is declining over time, but it remains positive.
- Disinflation should not be confused with deflation, which is fall in price level. Disinflation accompanied by higher economic growth, is a favourable position for economy. Deflation occurs when asset and consumer prices fall over time. It is the opposite of the often-encountered inflation.
- A reduction in money supply or credit availability is the reason for deflation in most cases. Reduced investment spending by government or individuals may also lead to this situation. **Impact:** Deflation leads to a problem of increased unemployment due to slack in demand.
- **Is deflation similar to disinflation?**  
Deflation is different from disinflation as the latter implies decrease in the level of inflation whereas on the other hand deflation implies **negative inflation.**

## **Topic 44. FOOD PRICE SHOCKS, A RISK TO INFLATION**

### ***Important for the subject: Economy***

Even though CPI inflation has been projected at 5.4% for 2023-24 by the Monetary Policy Committee (MPC), a moderation from 6.7% in 2022-23, headline inflation remains vulnerable to recurring and overlapping food price shocks.

Core inflation has also moderated by 170 basis points since its recent peak in January 2023

### **Core Inflation:**

- Core inflation represents the **long-term trend in the price level and factors out short-term volatility caused by external factors such as energy and food prices**. It excludes **highly volatile commodities like food and energy**, which can undergo rapid price fluctuations due to seasonal and market conditions. By eliminating these volatile elements, **core inflation provides a more accurate reflection of the underlying inflationary trends in the economy**.
- **Central banks often use core inflation as a key indicator** when formulating monetary policies and making adjustments to interest rates. It allows policymakers to focus on the persistent inflationary pressures in the economy, **enabling them to make informed decisions that can maintain price stability and promote sustainable economic growth**.

### **Headline Inflation**

- Headline Inflation refers to the **complete inflation figure including all goods and services within the consumer price index basket**. It encompasses all items, including those that are highly volatile, such as food and energy.
- **Headline inflation is the most commonly reported measure of inflation and is what is typically referenced in the news and by the general public**. While headline inflation provides a comprehensive view of the overall price levels, **it can be influenced by temporary factors that do not reflect the underlying inflationary pressures**.

## Topic 45. ROLE OF IBC AND IBBI IN INSOLVENCY PROCESS OF INDIA

*Important for the subject: Economy*

**Significant Supreme Court ruling:** Upheld the constitutionality of **IBC provisions on Personal Guarantors' Insolvency Resolution.**

**Dismissed over 200 petitions:** Challenged the legal validity of the IBC provisions related to personal guarantors' insolvency.

**Decision Summary:** Insolvency and Bankruptcy Code provisions (Sections 95 to 100) on **personal guarantors' insolvency process** were deemed **non-arbitrary** by the court.

- **Implications:** Likely to aid lenders, especially banks, **in recovering dues of corporate debtors from personal guarantors, often promoters of companies.**
- **Removal of Obstacles:** The ruling effectively removes procedural obstacles to the **progress of insolvency motions against personal guarantors** pending before the **National Company Law Tribunal (NCLT) and the National Company Law Appellate Tribunal (NCLAT).**
- **Insolvency Applications:** 2,289 insolvency applications involving corporate debt of ₹1, 63, 916 crore have been filed since 2019 **against personal guarantors under the IBC.**
- **Principles of Natural Justice: Variability of their application based on the situation was affirmed.** Sufficient safeguards were highlighted regarding the resolution professional's functioning during insolvency processes.
- **Resolution Professional's Role:** Not intended to perform an **adjudicatory function**, as the petitioners contended. The court emphasized that the RP does not possess adjudicatory powers.
- **Introduction of Provisions:** The provisions related to personal guarantors were introduced under the IBC in 2019, **facing subsequent challenges in various courts and ultimately moving to the Supreme Court.**
- **Encouragement from Finance Ministry:** Public sector banks were urged by the **Finance Ministry in 2020 to enhance their initiatives in initiating insolvency processes against personal guarantors.**
- **Contentious Point:** Concerns were raised about the **lack of opportunity for personal guarantors to dispute the initiation of the insolvency resolution process** against them before the petition is admitted.
- **Legal Expert's Comments:** highlighted that the Supreme Court's decision clarifies the **legal landscape concerning personal guarantors within the context of the IBC and emphasizes the need for careful consideration before assuming such responsibilities.**

**Insolvency and Bankruptcy: Key Concepts**

**Insolvency:**

- A state where individuals or companies cannot repay their outstanding debts.
- Situation: Inability to meet financial obligations.

**Bankruptcy:**

- Definition: A legal declaration of insolvency by a competent court.
- Outcome: **Court orders to resolve insolvency and protect creditors' rights.**

**Insolvency and Bankruptcy Code (IBC):**

- Enacted: In 2016 to **streamline and expedite the resolution of failed businesses.**
- Objective: Provide a **common forum for debtors and creditors** of all classes to resolve insolvency.
- Timeline: **Resolution process for a stressed company must be completed in a maximum of 270 days.**

**Threshold Adjustment:**

- Change: In March, the government raised the threshold for invoking insolvency under IBC to Rs 1 crore from Rs 1 lakh.
- Purpose: **Prevent triggering insolvency proceedings against small and medium enterprises affected by the coronavirus pandemic.**

**Institutions under IBC:**

- **Insolvency Professionals:** Licensed professionals administering the **resolution process, managing debtor assets, and providing information to creditors.**
- **Insolvency Professional Agencies:** Register and certify **insolvency professionals, enforce a code of conduct.**
- **Information Utilities:** Creditors report financial information, **including debt records, liabilities, and defaults.**
- **Adjudicating Authorities:** **National Companies Law Tribunal (NCLT) for companies; Debt Recovery Tribunal (DRT) for individuals.** Responsibilities include approving the resolution process, appointing insolvency professionals, and approving creditors' decisions.
- **Insolvency and Bankruptcy Board:** **Regulates professionals, agencies, and utilities under the Code. Comprises representatives from the Reserve Bank of India, Ministries of Finance, Corporate Affairs, and Law.**
- **About National Company Law Tribunal (NCLT) and the National Company Law Appellate Tribunal (NCLAT)**

- The National Company Law Tribunal (NCLT) and the National Company Law Appellate Tribunal (NCLAT) are key judicial bodies in India that deal with matters related to companies and corporate affairs.

#### **National Company Law Tribunal (NCLT):**

- The **NCLT is a quasi-judicial body that was established under the Companies Act, 2013.** It was set up to **handle matters related to company law in India, including disputes, insolvency, liquidation, mergers, and amalgamations.**
- NCLT exercises powers **that were earlier vested in various judicial forums such as the Company Law Board, the Board for Industrial and Financial Reconstruction (BIFR), and the Appellate Authority for Industrial and Financial Reconstruction (AAIFR).**

#### **National Company Law Appellate Tribunal (NCLAT):**

- The NCLAT is a **higher appellate authority that was established under the Companies Act, 2013.** It serves as an **appellate body for appeals against the orders passed by the NCLT.**
- NCLAT has the jurisdiction to hear appeals against the orders of NCLT **related to insolvency, liquidation, and other company-related matters.** It plays a crucial role in **ensuring transparency and efficiency in the adjudication of company law cases and disputes** in India.
- Both the NCLT and NCLAT were created to streamline the legal processes and **provide a single platform for resolving corporate disputes and insolvency cases, thereby contributing to the ease of doing business in India.**

#### **About Debt Recovery Tribunal (DRT)**

- The **Debt Recovery Tribunal (DRT) is a specialized legal body in India that handles cases related to the recovery of debts primarily by banks and financial institutions.**

#### **Establishment:**

- DRTs were established under the **Recovery of Debts Due to Banks and Financial Institutions Act, 1993 (RDDBFI Act).**

#### **Objective:**

- The primary objective of DRTs is **to provide a speedy and efficient mechanism for the recovery of debts.**

#### **Jurisdiction:**

- DRTs have jurisdiction over cases where the claim by banks and financial institutions against a borrower is more than Rs 20 lakhs.

**Applicability:**

- DRTs handle cases related to the recovery of debts due to banks and financial institutions and are not involved in other civil or criminal matters.

**Powers:**

- DRTs have the authority to adjudicate debt recovery cases, examine witnesses, and pass orders for the recovery of debts.

**Appeals:**

- Appeals against the orders of DRTs lie before the Debt Recovery Appellate Tribunals (DRATs).

**Speedy Resolution:**

- One of the main features of DRTs is to ensure the speedy resolution of debt recovery cases, which is crucial for the financial health of banks and financial institutions.

**Secured and Unsecured Debts:**

- DRTs handle both secured and unsecured debts, providing a forum for creditors to recover their dues.

**Recovery Certificate:**

- Once a DRT passes an order in favor of the bank or financial institution, it issues a Recovery Certificate, which empowers the creditor to recover the debt as arrears of land revenue.

**Debt Recovery Appellate Tribunal (DRAT):**

- DRATs serve as appellate authorities for appeals against the orders of DRTs.

**Cross-Border Insolvency****Definition:**

- Cross-border insolvency involves cases where a debtor has operations or creditors in multiple countries, requiring coordination among different courts for an efficient resolution.

**UNCITRAL Model Law:**

- The United Nations Commission on International Trade Law (UNCITRAL) Model Law on Cross-Border Insolvency (1997) provides a widely accepted legal framework for addressing cross-border insolvency issues.

**India's Decision:**

- The Indian government has decided to **halt the adoption of a cross-border insolvency regime**. This regime would have **allowed foreign lenders to initiate bankruptcy proceedings against defaulting Indian businesses in local tribunals**.

**Reason for Halt:**

- India's decision is based on the limited adoption of the UN model globally, **with only around 50 countries implementing it, and many having stringent restrictions**.

**Government Priorities:**

1. Instead of focusing on cross-border insolvency, the government prioritizes:
2. Expanding the informal debt resolution scheme for larger corporations.
3. Implementing a new regime for handling group company insolvencies.
4. Creating a special regime for the real estate sector.
5. Addressing lacunas in the operation of the Insolvency and Bankruptcy Code. Reducing delays in case admission and approval of rescue plans.
6. Preventing inappropriate transactions by the management of defaulting companies.

**Topic 46. RUPEE'S DECLINE*****Important for the subject: Economy***

RBI probing Refinitiv's forex outage

The Indian rupee plunging to a life-time low of ₹83.33 against the US dollar may partly be on account of massive volatility caused by an outage in Refinitiv, an electronic trading platform authorised to offer forex products.

Refinitiv is a subsidiary of LSEG or London Stock Exchange Group. It is among the five non-bank entities authorised by the RBI to operate electronic trading platforms for spot foreign exchange market.

**Rupee Decline:**

- The Indian rupee experienced a **significant drop to a lifetime low of ₹83.33 against the US dollar**.

**Market Disruptions:**

- The brief outage on Refinitiv is reported to have caused disruptions in the currency market. **Market participants were reportedly unable to log in to the platform during the outage, leading to a drying up of orders and volume on the trading terminal**.

**Volatility and Investigation:**

- The incident resulted in increased uncertainty in the money market, **contributing to excess volatility in the movement of the rupee**. The central bank, RBI, is said to be investigating the matter, seeking information on the circumstances of the disruption

and whether standard operating procedures for business continuity were followed.

### Rupee Movement:

- The rupee opened at 83.28 against the US dollar on the day of the incident and touched a high of 83.49 during intraday trading.
- **Possible intervention from the central bank influenced the closing rate, with the rupee ending at Rs 83.33 against the US dollar.**

### Regulatory Response:

- The RBI has reportedly sought an explanation from Refinitiv regarding the disruption.
- **The regulator is seeking information on the circumstances of the outage, adherence to standard operating procedures, and the root cause analysis to determine whether the disruption resulted from a system failure or human error.**
- In summary, the **Refinitiv outage is identified as a factor contributing to increased volatility in the rupee's exchange rate, leading to regulatory scrutiny and investigation by the RBI.**

### Currency Appreciation:

#### Definition:

- **Currency appreciation** refers to an **increase in the value of a country's currency relative to other currencies in the foreign exchange market.**

#### Causes:

- **Higher Demand:** If there is an increased demand for a country's currency, its value tends to rise.
- **Economic Strength:** A strong and growing economy, coupled with positive economic indicators, can lead to currency appreciation.
- **Interest Rates:** Higher interest rates in a country can attract foreign capital, leading to an appreciation of its currency.
- **Trade Surplus:** If a country consistently exports more than it imports, it creates higher demand for its currency, contributing to appreciation.

#### Effects:

- **Import Prices:** Appreciation makes imports cheaper for domestic consumers.
- **Inflation:** It may contribute to lower inflation due to cheaper imports.
- **Exports:** It can negatively impact exports as they become more expensive for foreign buyers.

### Central Bank Intervention:

- **Central banks may intervene to manage the currency's value through buying/selling in the foreign exchange market.**

## Currency Depreciation:

### Definition:

- **Currency depreciation** occurs when a country's currency loses value compared to other currencies.

### Causes:

- **Lower Demand:** Reduced demand for a currency can lead to depreciation.
- **Economic Weakness:** Economic downturns, high unemployment, or weak economic indicators can contribute to depreciation.
- **Low Interest Rates:** Lower interest rates may discourage foreign investment, leading to currency depreciation.
- **Trade Deficit:** Persistent trade deficits can result in a depreciation as more of the currency is needed to pay for imports.

### Effects:

- **Export Competitiveness:** Depreciation can boost exports by making them more affordable for foreign buyers.
- **Import Prices:** Imports become more expensive, potentially contributing to higher domestic inflation.
- **Debt:** Countries with significant foreign debt may face increased repayment costs.

## Managed Depreciation:

- In some cases, countries intentionally allow or manage depreciation to support exports and economic growth.

## Floating Exchange Rates vs. Fixed Exchange Rates:

- **Floating Rates:** Most major currencies have floating exchange rates that fluctuate based on market forces.
- **Fixed Rates:** Some countries peg their currency to another (or a basket of) currency, aiming to maintain a stable exchange rate.

## Capital Account Convertibility:

### Definition:

- **Capital account convertibility (CAC)** refers to the freedom to convert local financial assets into foreign financial assets and vice versa. It involves the ability to conduct transactions related to capital flows without restrictions.

### Components:

- **Foreign Direct Investment (FDI):** Unrestricted flow of investment in physical assets in another country.
- **Foreign Portfolio Investment (FPI):** Unrestricted flow of investment in financial assets

like stocks and bonds.

- **Borrowing and Lending:** Freedom for residents to borrow and lend money internationally.

#### **Implications:**

- CAC allows for greater flexibility in managing capital flows. It **attracts foreign investment and enhances the integration of a country** into the global financial system.

#### **Risks:**

- While CAC offers benefits, it also **exposes a country to risks such as sudden capital outflows, which can impact exchange rates and financial stability.**

#### **Current Account Convertibility:**

##### **Definition:**

- **Current account convertibility (CAC)** involves the **freedom to convert local currency for international trade in goods and services. It ensures that transactions related to the trade of goods, services, income, and transfers can be conducted without restrictions.**

##### **Components:**

- **Trade Transactions:** Unrestricted movement of funds for importing and exporting goods and services.
- **Income Transactions:** Unrestricted flow of income earned from investments and labor.
- **Transfer Transactions:** Unrestricted movement of gifts, remittances, and other transfers.

##### **Implications:**

- CAC facilitates **international trade and ensures smooth transactions** related to income and transfers.
- It promotes economic openness and fosters international economic relations.

##### **Risks:**

- **Excessive current account deficits may lead to external debt accumulation and vulnerability to external shocks.**

##### **Difference:**

##### **Nature of Transactions:**

- **Capital Account deals with capital flows, including investments and borrowing.**
- **Current Account deals with transactions related to the current account, such as trade and income.**

##### **Flexibility:**

- **Capital Account provides flexibility in managing capital movements. Current**

**Account provides flexibility in conducting transactions related to the current account.**

#### **Risks:**

- Risks associated with Capital Account include financial instability due to rapid capital movements.
- Risks associated with Current Account include the accumulation of external debt and potential imbalances.
- Both convertibilities are crucial aspects of a country's economic policies. **Striking a balance between liberalizing capital flows and ensuring stability in the current account is essential for sustainable economic growth and stability. Central banks and policymakers often implement convertibility measures gradually, taking into account the country's economic conditions and vulnerabilities.**

#### **Current Account Balance:**

##### **Definition:**

- **The current account is a part of a country's balance of payments that records its transactions with the rest of the world in goods, services, primary income, and secondary income.**

##### **Components:**

- **Goods and Services:** Includes exports and imports of tangible goods and services.
- **Primary Income:** Represents income earned and paid on investments (e.g., interest, dividends).
- **Secondary Income:** Involves transfers of money, such as foreign aid or remittances.

##### **Surplus and Deficit:**

- **A current account surplus occurs when a country exports more goods and services and receives more income than it imports and pays out. It indicates a net inflow of funds.**
- **A current account deficit occurs when a country imports more goods and services and pays more income than it exports and receives. It indicates a net outflow of funds.**

##### **Implications:**

- **A surplus contributes to an accumulation of foreign assets, while a deficit leads to increased foreign liabilities.**
- Persistent deficits may require financing through capital account transactions.

#### **Capital Account Balance:**

**Definition:**

- The **capital account** is another component of the balance of payments that records financial transactions. It includes capital transfers and the acquisition or disposal of non-produced, non-financial assets.

**Components:**

- **Foreign Direct Investment (FDI):** Investments in physical assets, such as factories or real estate, in another country.
- **Foreign Portfolio Investment (FPI):** Investments in financial assets like stocks and bonds in another country.
- **Changes in Reserves:** Movements in a country's official reserves, including gold and foreign exchange reserves.

**Surplus and Deficit:**

- A **capital account surplus** occurs when a country receives more financial resources from other countries than it invests abroad.
- A **capital account deficit** occurs when a country invests more abroad than it receives from other countries.

**Implications:**

- A surplus in the capital account means **the country is a net lender to the rest of the world**. A deficit implies **the country is a net borrower**.

**Topic 47. NHAI'S USE OF INSURANCE SURETY BOND IN MONETISATION BID**

*Important for the subject: Economy*

**Introduction:**

The **National Highways Authority of India (NHAI)** has adopted an innovative approach by accepting an insurance surety bond for the Toll Operate Transfer (TOT) Bundle 14 monetisation program.

**Nature of Instrument:**

- An insurance surety bond serves as a form of bank guarantee (BG) in the road infrastructure sector for the monetisation of bids.
- This marks the first instance of **utilizing this innovative financial instrument** in the road infrastructure sector for monetisation purposes.

**Collaboration and Implementation:**

- NHAI collaborated with the Highway Operators Association of India (HOAI), SBI General Insurance, and AON India Insurance to implement this initiative.
- The insurance surety bond has been issued for **NHAI's monetisation bid of TOT**

**Bundle 14 at a rate of 0.25%, and it does not require any margin money.**

### **Benefits and Savings:**

- The use of an insurance surety bond at a low rate translates into significant cost savings for concessionaires.
- These savings enhance liquidity in the market and create a favorable environment for the growth and development of the road sector.

### **Industry Benchmark:**

- NHAI's adoption of insurance surety bonds sets a new benchmark for the industry, emphasizing the importance of innovative financial solutions in the evolving landscape of road infrastructure development.

### **Encouraging Private Participation:**

- The move is expected to encourage greater private participation in the highway sector, contributing to the overall "Ease of Doing Business."

### **NHAI's BG Statistics:**

- NHAI has received a substantial volume of Bank Guarantees (BGs) since 2022, amounting to ₹15,000 crore.
- The large volume of BGs offers significant potential for insurance companies, and the wider adoption of surety bonds is poised to boost capital availability for road projects.

### **Additional Security and Adoption Appeal:**

- NHAI has urged insurance companies and contractors to consider insurance surety bonds as an additional mode of submitting bid security and/or performance security.
- Over 40 surety bonds have already been issued for various NHAI contracts, showcasing the appeal and adoption of this financial instrument.

### **Government Recognition:**

The Ministry of Finance has equated **electronic Bank Guarantees (eBG) and insurance surety bonds with bank guarantees for all government procurements.**

#### **Impact on Infrastructure Development:**

- Instruments like **insurance surety bonds contribute to strengthening national highway infrastructure development, with positive cascading effects on the economy.**

### **Surety Bond**

#### **Definition:**

- A surety bond is a **written agreement that guarantees the compliance, payment, or performance of a specified act.** It operates as a **unique form of insurance involving three parties: Principal, Surety, and Oblige.**

**Three Parties Involved:**

- **Principal:** The entity purchasing the bond and committing to performing a promised act.
- **Surety:** The insurance company guaranteeing the performance, assuming liability if the principal fails.
- **Obligee:** The party requiring and benefiting from the surety bond, often a government organization.

**Purpose and Provider:**

- Surety bonds are provided by insurance companies **on behalf of contractors to the entity awarding a project.**
- It **facilitates financial closure for contractors**, offering an alternative to bank guarantees.

**Aim in Infrastructure Development:**

- Aimed at infrastructure development to **reduce indirect costs for suppliers and contractors, diversifying options.**
- Acts as a substitute for bank guarantees, enhancing efficiency in project financial closure.

**Benefits:**

- Protects the beneficiary against acts or events that compromise the principal's obligations. Ensures the performance of various obligations, from construction contracts to licensing agreements.

**Boost to Infrastructure Projects:**

- Framing rules for surety contracts addresses liquidity and funding needs in infrastructure. Creates a level playing field for contractors of different sizes.
- Assists in developing an alternative to bank guarantees, optimizing working capital and reducing collateral requirements.
- Encourages collaboration between insurers and financial institutions for risk information sharing.

**Issues with Surety Bonds:**

- New concept in India; **insurers lack expertise in risk assessment.**
- **Lack of clarity on pricing, recourse against defaulting contractors**, and reinsurance options.

**Requires extensive reinsurance support, and primary insurers cannot issue policies without proper backup.**

- **Legal enforcement of tripartite contracts and recognition of insurers' rights under Indian Contract Act** and Insolvency and Bankruptcy Code are challenges.

**Overall Impact:**

- Despite challenges, **surety bonds have the potential to release liquidity in the infrastructure space while managing risks effectively.**
- Addressing issues and **building expertise can make surety bonds a valuable tool for contractors and project stakeholders.**

**About National Highways Authority of India (NHAI)**

- National Highways Authority of India (NHAI) is an **autonomous agency under the Ministry of Road Transport and Highways (MoRTH), Government of India.**
- **Established in 1988, NHAI is responsible for the development, maintenance, and management of national highways and road networks in India.**

**Key Functions of NHAI:**

- **Highway Development:** NHAI is involved in the planning and implementation of highway development projects across the country. This includes the construction of new highways, widening and improvement of existing highways, and the development of expressways.
- **Monetization of Highways:** NHAI explores various models for monetizing operational highways, such as **Toll-Operate-Transfer (TOT) and Infrastructure Investment Trusts (InvITs)**. These initiatives aim to attract private investment and generate revenue for further infrastructure development.

**Different models related to infrastructure development and public-private partnerships (PPP)****Lease Contract Model:**

- Asset is leased to **either the private or public entity.**
- The private entity can earn revenue from operations.

**Build-Lease-Transfer Model:**

- The **private entity owns the asset and leases it to the public entity.**
- **Public entity makes the capital investment.**

**Build-Operate-Transfer (BOT) Model:**

- Public entity retains ownership.
- **Private entity is responsible for construction (typically greenfield projects).**

**BOT Annuity:**

- Adopted for highway projects with limited revenue potential.

- Private entity designs, builds, manages, and maintains the asset.
- Receives a fixed annuity from the public entity at regular intervals.
- **Engineering-Procurement-Construction (EPC) Model:**
- Private entity designs, finances, and builds the asset.
- Ownership is transferred to the public entity.
- Private entity does not handle operations and management.

#### Hybrid Annuity Model (HAM):

- Public entity finances 40%, private entity finances 60% of the project cost.
- Ownership and operations remain the responsibility of the public entity.
- Private entity provide engineering expertise.

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### Topic 48. SMALL SAVING SCHEMES/INSTRUMENTS IN INDIA

*Important for the subject: Economy*

#### About Senior Citizen Savings Scheme (SCSS)

The Senior Citizen Savings Scheme (SCSS) is a government-backed savings scheme designed for individuals aged 60 years and above, or those aged 55 to less than 60 who have retired.

#### Basic Features:

- **Eligibility:** Individuals aged 60 years and above, or those aged 55 to less than 60 who have retired.
- **Account Opening:** Can be opened in a post office or scheduled commercial bank.
- **Investment Amount:** Minimum of ₹1,000 and a maximum of ₹30 lakh.
- **Interest Rate:** The interest rate is 8.2% per annum, revised quarterly based on factors like inflation and market conditions.
- **Tenure:** The initial tenure is five years, extendable.

#### Latest Changes (November 7, 2023):

- **Spouse Provision:** The spouse of a government employee, who has attained the age of 50 years and has died in service, is allowed to open an account under this scheme.
- **Account Opening Time:** The account can be opened within three months from the date of receipt of retirement benefits for a living employee, or admissible financial assistance to an eligible government employee who died in service.
- **Extension:** The account can be extended for a further block period of three years, and this facility can be used more than once.
- **Interest on Extension:** In case of an account extended after maturity, the deposit will earn interest at the rate applicable on the date of maturity.
- **Premature Closure:** If the account is closed before one year, interest will be recovered. For closure after two years, an amount equal to 1% of the deposit will be

deducted.

- **Budgetary Change (April 1, 2023):** The maximum deposit limit was enhanced to ₹30 lakh from ₹15 lakh.

#### **Tax Implications:**

- **Tax Deduction:** Individuals can claim up to ₹1.5 lakh in a financial year under **Section 80C** of the Income Tax Act.
- **Tax on Interest:** Interest payments are Important for the subject to taxation as per the individual's tax slab rates.

**TDS:** If the interest income exceeds ₹50,000 in a year, TDS is applicable.

- These changes aim to make the scheme more flexible and beneficial for senior citizens, providing additional provisions and an increased deposit limit.

#### **Small Saving Schemes/Instruments in India**

- Small Saving Schemes form a **crucial part of the central government's strategy to promote regular savings among citizens, offering attractive returns, sovereign guarantees, and tax benefits.** These schemes are instrumental in **mobilizing household savings and contribute significantly to financing government deficits.**

#### **Key Features:**

- **Variety of Instruments:** There are 12 small saving instruments, **classified into Postal Deposits, Savings Certificates, and Social Security Schemes.**
- **Assured Interest:** Depositors receive a **guaranteed interest rate on their investments,** providing financial security.
- **National Small Savings Fund (NSSF):** Collections from all small savings instruments are channeled into the **National Small Savings Fund, contributing to government finances.**
- **Yield Calculation:** Interest rates on these schemes are **determined based on the yields on government securities (G-secs), ensuring stability and alignment with market conditions.**
- **Government Deficit Financing:** Small savings have become a significant source for financing government deficits.

#### **Classification of Small Saving Instruments:**

##### **Postal Deposits:**

- **Savings Account:** Offers a secure and interest-bearing savings option.
- **Recurring Deposits:** Regular monthly savings with fixed tenure.
- **Time Deposits:** Fixed deposits with varying maturities.

- **Monthly Income Scheme:** Provides monthly income to investors.

#### Savings Certificates:

- **National Small Savings Certificate (NSC):** Long-term savings instrument with assured returns.
- **Kisan Vikas Patra (KVP):** A scheme aimed at farmers, promoting long-term savings.

#### Social Security Schemes:

- **Sukanya Samridhhi Scheme:** Launched under the **Beti Bachao Beti Padhao** campaign, exclusively for girl children, with a guaranteed return and tax benefits.
- **Public Provident Fund (PPF):** Public Provident Fund is a government-backed savings scheme that encourages small savings for individuals. It offers safety with attractive interest rates and returns that are fully exempt from tax.
- **Eligibility:** Open to all Indian residents.
- **Features:** Has a lock-in period of 15 years, with partial withdrawals allowed after the 7th year. Provides tax benefits under Section 80C of the Income Tax Act.

**Senior Citizens Savings Scheme (SCSS):** Tailored for senior citizens, offering regular interest payments.

#### Sukanya Samridhhi Yojana (SSY):

- **Description:** Sukanya Samridhhi Yojana is a government-backed savings scheme specifically designed for the financial needs of the girl child. It was introduced in 2015 as part of the 'Beti Bachao, Beti Padhao' campaign.
- **Eligibility:** Parents or legal guardians can open an account for a girl child below ten years of age. Offers a guaranteed return of 7.6% per annum. Eligible for tax benefits under Section 80C of the Income Tax Act.
- The tenure of the deposit is 21 years from the date of opening, with a maximum annual investment limit of Rs 1.5 lakh.

#### About National Small Savings Fund (NSSF)

- The National Small Savings Fund (NSSF) is a fund created by the Indian government to manage the proceeds from various small saving schemes. It serves as the repository for collections from these schemes and plays a crucial role in financing the government's fiscal deficit.
- **Objective:** The primary purpose of establishing the NSSF is to pool funds from small savings schemes and utilize them for meeting the fiscal requirements of the government.
- **Source of Funding:** Collections from different small savings instruments, such as postal

deposits, savings certificates, and social security schemes, are credited to the NSSF.

- **Utilization:** The funds collected in the NSSF are utilized by the government for various developmental and welfare activities. **They contribute to financing the fiscal deficit, which is the gap between government expenditure and revenue.**
- **Sovereign Guarantee:** The investments made through small saving schemes come with a sovereign guarantee, assuring depositors of the safety of their investments.
- **Interest Rates:** The interest rates offered on small savings schemes are **determined, in part, by the yields on government securities (G-secs).** The NSSF plays a role in aligning these rates with market conditions.
- **Contribution to Government Finances:** Small savings, managed through the NSSF, constitute a significant source of funding for the government. The interest paid on these savings contributes to the overall revenue.
- **Stability:** The NSSF provides stability to the small savings system by ensuring that funds are available for government projects and welfare schemes.
- **Government Securities:** The NSSF may invest in government securities, contributing to the overall liquidity and stability of the financial markets.

#### Other important Schemes

##### APY – Atal Pension Yojana:

- **Description:** Atal Pension Yojana is a social security scheme initiated by the Indian government. It aims to **provide a defined pension to individuals working in the unorganized sector.**
- **Eligibility:** Individuals aged 18 to 40 years **who are not income tax payers.**
- **Features:** Offers a fixed pension amount of Rs. 1000, 2000, 3000, 4000 and 5000/- based on the subscriber's contribution and age. **The pension is provided from the age of 60.**

##### NPS – National Pension Scheme:

- **Description:** The National Pension Scheme is a voluntary, long-term retirement savings scheme designed to enable systematic savings. It **allows individuals to contribute regularly in a pension account during their working life.**
- **Eligibility:** Open to all citizens of India, including NRIs (between 18 and 70 years of age). **Features:** Provides a mix of equity, fixed deposits, corporate bonds, liquid funds, and government funds. **Subscribers receive a Permanent Retirement Account Number (PRAN).**

##### SGBs – Sovereign Gold Bonds:

- **Description:** Sovereign Gold Bonds are **government securities denominated in grams of gold. They provide an alternative to holding physical gold.**
- **Eligibility:** Open to all Indian residents and eligible entities, including trusts, universities, and charitable institutions. **Features:** Offers a **fixed interest rate along with potential capital appreciation.** Bonds have a maturity period of eight years, with an exit option after the fifth year.

## **Topic 49. AI (ARTIFICIAL INTELLIGENCE) AND WORK**

*Important for the subject: Economy*

### **Introduction:**

**Elon Musk's vision** of a future where **AI replaces all human labor**.

Exploration of contrasting views on work from **economists Keynes and Marx**.

### **Keynesian Perspective:**

- Keynes, a capitalist supporter, **believed work often represented drudgery. Envisioned a future with reduced working hours through technological advancements.**
- Musk's vision aligns with Keynes, **suggesting technology eliminating the need for work.**

### **Marxian Perspective:**

- Marx viewed **work as essential, providing meaning to human life.**
- **Criticized capitalism for exploiting labor** and causing individuals to lose connection with fulfilling work. Marx's ideal state **involves using AI to enhance work without exploitation.**

### **Importance of Economic System:**

- Under capitalism, **individuals access resources through income derived from work. A world without work under capitalism poses challenges for those unable to find employment.**

### **Imagining an Alternative Economy:**

- Hypothetical scenario where **AI-generated surplus is transferred to individuals for basic needs.** Requires different institutional arrangements, such as **universal basic income.**

**Challenges the existing capitalist structure.**

### **Consideration of Disruptions:**

- Need to **understand potential disruptions caused by technological innovations.**
- Emphasis on examining the impact **within the context of prevailing economic institutions.**

- Artificial Intelligence refers to the **simulation of human intelligence in machines designed to perform tasks that typically require human intelligence.**

### **Capabilities:**

- **Learning:** AI systems can learn from data and improve their performance over time.
- **Reasoning:** They can make sense of information and draw logical conclusions.
- **Problem-Solving:** AI can analyze diverse data sets to solve complex problems.
- **Perception:** AI systems can interpret and understand the world through vision, speech, and other sensory inputs.

### Types of AI:

- **Narrow AI (Weak AI):** Designed for a **specific task, such as virtual personal assistants.**
- **General AI (Strong AI):** Possesses the ability to **understand, learn, and apply knowledge across diverse tasks.**

### Applications:

- **Natural Language Processing (NLP):** Enables machines to understand and respond to human language.
- **Machine Learning:** Algorithms that allow systems to learn patterns and make predictions.
- **Computer Vision:** Empowers machines to interpret and make decisions based on visual data.
- **Robotics:** Integrating AI into robotic systems for autonomous decision-making.

### Examples:

- **Chatbots:** AI-powered virtual assistants for customer support.
- **Self-Driving Cars:** AI systems enabling vehicles to navigate without human intervention.
- **Recommendation Systems:** AI algorithms suggesting content based on user preferences.

### AI in Society:

- **Impact on Jobs:** Debate on the balance between job automation and job creation.
- **Accessibility:** Ensuring equitable access to AI technologies for societal benefit.

### Ongoing Developments:

- **Deep Learning: Advancements in neural networks** for complex pattern recognition.
- **Explainable AI:** Focus on **making AI systems more transparent and understandable.**

### Classification of AI: AGI vs. ANI

#### Artificial General Intelligence (AGI):

- Flexible and adaptable, **designed for various intellectual tasks without human intervention.**
- **Unsupervised learning allows learning from data without explicit programming.**

- Lack of control, can make decisions beyond human prediction.
- **Primarily in theoretical research and development.**

#### **Artificial Narrow Intelligence (ANI):**

- Designed for **specific or narrow tasks.**
- **May lack human-like reasoning** or learning capabilities.
- Trained using **machine learning algorithms like supervised, unsupervised, or reinforcement learning.**
- Widespread use in various industries, g., **ChatGPT for conversations.**

#### **IndiaAI: National AI Portal of India**

##### **Launch and Collaborators:**

- Launched in May 2020, by Union Minister for Electronics and IT.
- Collaboration between **MeitY, NeGD, NASSCOM, DoSE&L, and Ministry of Human Resource Development.** ‘Responsible AI for Youth’ program launched concurrently.

##### **Content and Database:**

- **Diverse Content:** 1151 articles, 701 news stories, 98 reports, 95 case studies, and 213 videos. **Government Initiatives:** Features **121 government initiatives and 281 startups in the AI ecosystem.**

##### **‘AI for Everyone’ Book:**

- Released in May 2022, covering fundamental aspects of AI. An additional effort to **disseminate knowledge on artificial intelligence.**

##### **Objectives and Features:**

- **One-Stop Portal:** Aims to be a **comprehensive platform for all AI-related developments** in India.
- **Resource Publication:** Offers articles, news, interviews, investment funding updates, and events for AI stakeholders.
- **Educational Resources:** Distributes documents, case studies, research reports, and provides AI courses.
- **Employment Opportunities:** **Highlights education and job opportunities related to AI.**

##### **Collaborative Initiatives:**

- Joint efforts from **key government bodies, industry associations, and educational departments.**
- Serves as a **collaborative platform fostering AI-related initiatives in India.**

**Vision and Significance:**

- Envisions being the **National AI Portal**, aligning with the government's AI development vision.
- Plays a crucial role in **disseminating information, fostering collaboration, and promoting AI education and employment.**
- INDIAai stands as a pivotal platform in **India's AI landscape, contributing significantly to awareness, education, and collaboration in the field of artificial intelligence.**

**IndiaAI Program Report Overview:****Vision and Alignment:**

- Aligns with Prime Minister's vision of "**India for AI and AI for India.**"
- Aims to **catalyze a 1 trillion-dollar digital economy.**

**Program Components:**

- **Holistic Approach:** Covers **compute infrastructure, data, AI financing, research, innovation, skilling, and institutional capacity.**
- **Focus Areas:** **Start-ups, entrepreneurship, India datasets program, and India AI Compute Platform.**

**Operational Aspects:**

- **Centers of Excellence (CoEs):** Operational details outlined for establishment.
- **Institutional Framework:** Governs data collection, management, processing, and storage.

**Recommendations:**

- **Demographic Dividend:** Leverage India's demographic advantage.
- **AI Skills Enhancement:** Focus on skilling for AI.
- **Public-Private Partnerships:** Strengthen AI compute infrastructure.
- **Design Linked Incentive (DLI) Scheme:** Support for domestic companies and start-ups.

**Implementation Strategy:**

- **Data Governance:** Outlines strategies for effective data governance.
- **Research and Innovation:** Encourages research initiatives.
- **Start-up Support:** Emphasizes support for AI start-ups.
- **Compute Infrastructure:** Public-private partnerships for infrastructure development.

**Coordinated Efforts:**

- **Interconnected Initiatives:** Promotes synergy among different aspects of the AI

ecosystem.

- **MeitY Working Groups:** Collaborative efforts from seven working groups.

### **Universal Basic Income (UBI) in India:**

#### **Introduction:**

- UBI is an **unconditional and uniform cash transfer from the government to every adult, regardless of financial status.**

#### **Need for UBI:**

- Despite economic growth, **one-third of Indians live below the poverty line.** Existing welfare schemes **face inefficiencies, leakages, and corruption.** Global interest in UBI grows **due to concerns about job loss from automation.**

#### **Characteristics of UBI:**

- **Universal:** Every adult receives it.
- **Cash transfer:** No need for in-kind transfers or subsidies.
- **Unconditional:** Not contingent on specific behaviors.

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### **Topic 50. PM 2.5, SULPHUR DIOXIDE, AND MORE: WHAT ARE THE POLLUTANTS IN OUR AIR, AND HOW THEY IMPACT HEALTH**

#### *Important for the subject: Environment*

Rising pollution levels in north India have led to focus returning on the **Air Quality Index (AQI) score**, a measure of air pollution.

#### **AQI Index score:**

- The **AQI** transforms complex air quality data of various pollutants into a single number for ease of understanding. The pollutants include **PM 10, PM 2.5, Nitrogen Dioxide, Ozone, Carbon, etc.**



Pollutants	Description
PM 2.5 and PM 10	<ul style="list-style-type: none"> <li>• These are extremely fine particulate matter (PM) particles.</li> <li>• PM 10 and PM 2.5 are smaller than 10 and 2.5 microns in their diameter, respectively.</li> <li>• The PM 2.5 particles can easily bypass the nose and throat and can enter the circulatory system.</li> <li>• The particles can also lead to chronic diseases such as asthma, heart attack, bronchitis and other respiratory problems.</li> <li>• By products of emissions from factories, vehicular pollution, construction activities and road dust, such particles are not dispersed and stay suspended in the air that we breathe.</li> </ul>
Nitrogen Oxides (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>• It gets in the air from the burning of fuel, with sources including emissions from vehicles and power plants.</li> <li>• Short-term exposure to high levels of NO<sub>2</sub> can aggravate respiratory diseases like asthma, and lead to other problems such as coughing or difficulty in breathing. Long-term exposure may also contribute to the development of asthma and could increase susceptibility to respiratory infections.</li> </ul>
Ozone	<ul style="list-style-type: none"> <li>• The surface-level ozone is among the most significant air pollutants. It is formed by the reaction of atmospheric pollutants in the presence of sunlight.</li> <li>• Related health hazards include: Chronic Obstructive Pulmonary Disease (COPD), and cardiovascular and respiratory deaths.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• The largest source of SO<sub>2</sub> in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities. Additional sources are industrial processes and natural sources such as volcanoes.</li> <li>• Health hazards include: Damage to the cardiovascular system and respiratory illnesses.</li> <li>• SO<sub>2</sub> can also react with other compounds to form particulate matter.</li> <li>• At high concentrations, gaseous SO<sub>x</sub> can harm trees and plants by damaging foliage and decreasing growth.</li> </ul>



<p>Ammonia (NH<sub>3</sub>)</p>	<ul style="list-style-type: none"> <li>• A broad increase in fertilizer use coupled with large contributions from livestock waste have resulted in the world's highest concentrations of atmospheric ammonia in India.</li> <li>• While gaseous ammonia is a natural part of Earth's nitrogen cycle, excess ammonia is harmful to plants and reduces air and water quality.</li> <li>• In the troposphere ammonia gas reacts with nitric and sulfuric acids to form nitrate-containing particles. Those particles contribute to aerosol pollution that is damaging to human health. Ammonia gas can also fall back to Earth and enter lakes, streams and oceans, where it contributes to harmful algal blooms and dead zones with dangerously low oxygen levels</li> </ul>
<p>Lead (Pb)</p>	<ul style="list-style-type: none"> <li>• It is a naturally occurring toxic metal found in the Earth's crust.</li> <li>• But in increased quantities, exposure to it becomes extremely dangerous to health.</li> <li>• Important sources of environmental contamination come from mining, smelting, manufacturing and even recycling activities.</li> <li>• Young children are particularly vulnerable to lead poisoning because they absorb four to five times as much ingested lead as adults from a given source.</li> <li>• Children who survive severe lead poisoning may be left with permanent intellectual disability and behavioural disorders. At lower levels of exposure that cause no obvious symptoms, lead is now known to produce a spectrum of injury across multiple body systems.</li> <li>• There is no known safe level of exposure to lead contamination.</li> </ul>
<p>Carbon Monoxide (CO)</p>	<ul style="list-style-type: none"> <li>• A toxic, colourless and odourless gas, it is given off when fuel containing carbon, such as wood, coal and petrol, is burned.</li> <li>• If CO levels are high enough, a person may become unconscious and die.</li> <li>• Long-term exposure has been linked with an increased risk of heart disease.</li> </ul>

## Topic 51. CURBS ON FIREWORKS BINDING ON ALL STATES: SUPREME COURT

*Important for the subject: Environment*

The **Supreme Court** clarified that its orders to **minimise air and noise pollution** caused by firecrackers **bind States across the country** and not just Delhi National Capital Region.

The desire to protect the environment has to be a part of the “**collective consciousness of society**”.

**Green crackers:**

- ‘**Green crackers**’ are **low-emission fireworks** that is developed by **CSIR-NEERI** (Council of Scientific & Industrial Research – National Environmental Engineering Research Institute).
- **Green Crackers** do not comprise of harmful chemicals like **arsenic, lithium, barium, and lead**. They **release water vapour** which **does not allow the dust to rise** and thereby **reducing the emissions**.
- The **manufacturing cost of these crackers** will almost be the same, or may even cost less than the traditional crackers. To differentiate **green crackers** from the regular ones, the system of **Quick Response (QR) coding** has been developed.
- These crackers are believed to cause **30 per cent less particulate matter pollution** as compared to traditional crackers
- The **approval** for these crackers is given by **Petroleum and Explosives Safety Organisation (PESO), Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industries**.

**These green crackers have been named as:**

**Safe Water Releaser (SWAS)-**

- They will discharge water vapour into the atmosphere, which will dampen the discharged dust.
- It won't contain sulphur or potassium nitrate. There will be a release of a diluent for gaseous emissions. There will be a 30% reduction in the amount of particle dust emitted.

**Safe Thermite Cracker (STAR)-**

- Does not contain sulphur and potassium nitrate.
- Discharge of less particulate matter. Lowered noise level.

**Safe Minimal Aluminium (SAFAL)-**

- Does not contain sulphur and potassium nitrate. Discharge of less particulate matter.
- Lowered noise level as compared to traditional ones.

**Topic 52. INDIA'S ENERGY CONSERVATION BUILDING CODE, 2017**

*Important for the subject: Environment*

The International Energy Agency (IEA) appreciated about **India's Energy Conservation Building Code (ECBC), 2017** in its **World Energy Outlook 2023** report.

The **International Energy Agency** has recognized **India** as a noteworthy example of an **emerging market and developing economy** with **energy efficiency building codes**.

- In its **World Energy Outlook 2023** report, the **IEA highlighted India's Energy Conservation Building Code (ECBC) of 2017** for commercial buildings, distinguishing it from other developing economies where energy efficiency in buildings is less emphasized.
- The ECBC was **originally introduced by the Ministry of Power's Bureau of Energy Efficiency (BEE) in 2007** and was updated in 2017. Currently, **23 Indian states have implemented rules for enforcing ECBC compliance**, while larger states like **Maharashtra and Gujarat are in the process of drafting such regulations**.
- Implementing energy efficiency building codes is **crucial because buildings in India account for 30% of total electricity consumption**, a figure expected to rise to 50% by 2042.
- Additionally, the **BEE notes that 40% of the buildings to be constructed in the next two decades provide a unique opportunity** for policymakers and builders to ensure their sustainability

**What is Energy Conservation Building Code (ECBC), 2017:**

- The **Energy Conservation Building Code (ECBC)** was **first introduced by the Bureau of Energy Efficiency (BEE)**, a part of the Ministry of Power, in 2007. It **underwent a revision in 2017**.
- While ECBC serves as a **national standard**, **individual states in India have the flexibility to adapt and modify the code** to address specific regional needs.
- To **enforce ECBC**, each state must **draft and notify rules** to establish it as a state law. Currently, **23 states in India have established regulations** to enforce compliance with the ECBC. Some larger states like **Maharashtra and Gujarat are in the process of formulating their rules for ECBC compliance**.
- The **primary objective of ECBC** is to **establish minimum energy standards for commercial buildings**, with the aim of achieving **energy savings between 25% and 50% in compliant buildings**.
- ECBC is **applicable to commercial structures** such as **hospitals, hotels, schools, shopping complexes, and multiplexes** with a **connected load of 100 kW or more or a contract demand of 120 kVA or more**.
- ECBC is designed to be applied to **both new building constructions and the retrofitting of existing structures**. **Compliant buildings receive one of three tags** in

ascending order of energy efficiency:

**ECBC,**

**ECBC Plus**

**Super ECBC.**

- The **updated 2017 version of ECBC** introduced several additional priorities, including **renewable energy integration, simplified compliance procedures, inclusion of passive building design strategies, and greater flexibility for designers** when compared to the 2007 version.

**Where do states stand in ECBC implementation:**

**State Implementation:**

- While **23 out of 28 states** in India have notified **Energy Conservation Building Code (ECBC) rules**, only **15 states have officially adopted the latest ECBC version from 2017**. Notable among these are **Uttar Pradesh, Punjab, Karnataka, Andhra Pradesh, Telangana, and Kerala**.
- **Five states, namely Gujarat, Maharashtra, Jammu and Kashmir, Ladakh, and Manipur, are yet to notify ECBC rules.**

**State Energy Efficiency Index:**

- The **Bureau of Energy Efficiency** released the **State Energy Efficiency Index (SEEI) in 2022**, which assessed states on various aspects of energy efficiency.
- In accordance with the SEEI, **Karnataka secured the highest rank** among states in terms of **energy efficiency** in buildings.
- **The top five large states** with the best scores in energy efficiency were **Karnataka, Telangana, Haryana, Andhra Pradesh, and Punjab**. **Bihar** received the lowest score of **0.5 points in the index**.

**What is Energy Conservation (Amendment) Act in 2022**

- In **2022**, India enacted the **Energy Conservation (Amendment) Act**, which brings **significant changes to the country's building codes**.
- This amendment **introduces the transformation of the Energy Conservation Building Code (ECBC) into the Energy Conservation and Sustainability Building Code**.
- This transformation involves the **inclusion of provisions related to embedded carbon, achieving net zero emissions, enhancing materials and resource efficiency, promoting clean energy deployment, and fostering circular practices**.
- The amendment also **mandates the adoption of ECO Niwas Samhita, the residential building energy code**, which is pivotal since residential buildings account for **75 percent** of the total electricity consumption in the building sector.
- In the near future, the **government is anticipated to revise and modernize ECO Niwas Samhita**, after which states will proceed to implement rules based on the updated code.

## **Topic 53. KERALA FORMS ORGANIC FARMING MISSION TO BOOST AGRICULTURE**

*Important for the subject: Environment*

The Kerala government has created an Organic Farming Mission to encourage the adoption of **sustainable organic and climate smart farming practices in the State**. The mission aims at **expanding organic farming to 5,000 hectares in the next five years through an annual target of 1,000 ha**.

### **What is organic farming?**

- It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to **keep the soil alive and in good health by use of organic wastes** (crop, animal and farm wastes, aquatic wastes) and other biological materials along with **beneficial microbes (biofertilizers)** to release nutrients to crops for increased sustainable production in an eco friendly pollution free environment.

### **The key characteristics of organic farming include**

- Protecting the long term fertility of soils by **maintaining organic matter levels**, encouraging soil biological activity, and careful mechanical intervention. Providing crop nutrients indirectly using relatively insoluble nutrient sources which are made available to the plant by the action of **soil microorganisms**.
- **Nitrogen self-sufficiency through the use of legumes and biological nitrogen fixation**, as well as effective recycling of organic materials including crop residues and livestock manures.
- Weed, disease and pest control relying primarily on crop rotations, natural predators, diversity, organic manuring, resistant varieties and limited (preferably minimal) thermal, biological and chemical intervention.
- The extensive management of livestock, paying full regard to their evolutionary adaptations, behavioral needs and animal welfare issues with respect to nutrition, housing, health, breeding and rearing.
- Careful attention to the impact of the farming system on the wider environment and the conservation of wildlife and natural habitats.

### **Steps taken by the Government to promote organic farming in India**

- National Project on Organic Farming (**NPOF**)
- National Horticulture Mission (**NHM**)
- Horticulture Mission for North East and Himalayan States (**HMNEH**)
- Rashtriya Krishi Vikas Yojana (**RKVY**)
- Network Project on Organic Farming of Indian Council Agricultural Research (**ICAR**).
- In addition to this, Government is implementing a Cluster based programme to encourage the farmer for promoting organic farming called **Paramparagat Krishi Vikas**

## Yojana (PKVY).

### Key features of PKVY

- Groups of farmers would be motivated to take up organic farming under Paramparagat Krishi Vikas Yojana (PKVY). Fifty or more farmers will form a **cluster having 50 acre land** to take up the organic farming under the scheme.
- In this way **during three years 10,000 clusters will be formed** covering 5.0 lakh acre area under organic farming. There will be no liability on the farmers for expenditure on certification.
- **Every farmer will be provided Rs.20,000 per acre in three years** for seed harvesting of crops and to transport produce to the market.
- Organic farming will be promoted by using traditional resources and the organic products will be linked with the market.
- It will increase domestic production and certification of organic produce by involving farmers.

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## Topic 54. HOW CLIMATE CHANGE IS DISPLACING ANIMALS

### *Important for the subject: Environment*

A new analysis suggests that **extreme weather** linked to **climate change** might be much **harder on native species** than on non-native ones.

As the planet warms, **extreme weather events**—heat waves, cold snaps, droughts and floods—are becoming more common and destructive.

These **sudden, violent changes in conditions** could be helping to fundamentally reshape ecosystems.

### Findings of the report:

- **Non-native species** are more adaptable to extreme weather than native species.
- While populations of non-native species may take a hit, the impact on native species is far-reaching, who will lose geographic distribution and struggle to recover.
- The **native terrestrial animals** tended to be hit hard by **heat waves, cold spells** and **droughts**, while **native freshwater animals** were susceptible to most events apart from **cold spells**.
- Non-native terrestrial animals were only affected by **heat waves**, while **non-native freshwater animals** tended to suffer **only from storms**. **Non-native marine animals** were largely **indifferent to most disturbances**.

### Why do non-native animals fare better?

- They are able to rapidly establish populations in alien environments, have more adaptable behaviour and physiology, and have a higher tolerance for disturbances.

- They are able to take advantage when extreme weather wipes out a chunk of native animals.

### Need to protect native species:

- According to a report prepared by the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services** for the **United Nations**, thousands of **invasive species** introduced to **new ecosystems** around the world are causing more than **\$423 billion** in estimated **losses to the global economy every year** by harming nature, damaging food systems and threatening human health.
- Monitoring areas recently hit by extreme weather events and focusing management efforts can help in the quick recovery of native species.
- **Promoting recovery, avoiding disappearance or helping native species** that are known to be vulnerable to **extreme events** could give native species enough time to evolve and adapt to novel weather patterns driven by climate change.

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## Topic 55. STUBBLE TROUBLE

### *Important for the subject: Environment*

Every year, in October November, pollution levels spike in north India. While many factors come together to create smog, stubble burning remains a significant one, despite fewer incidents being recorded this year.

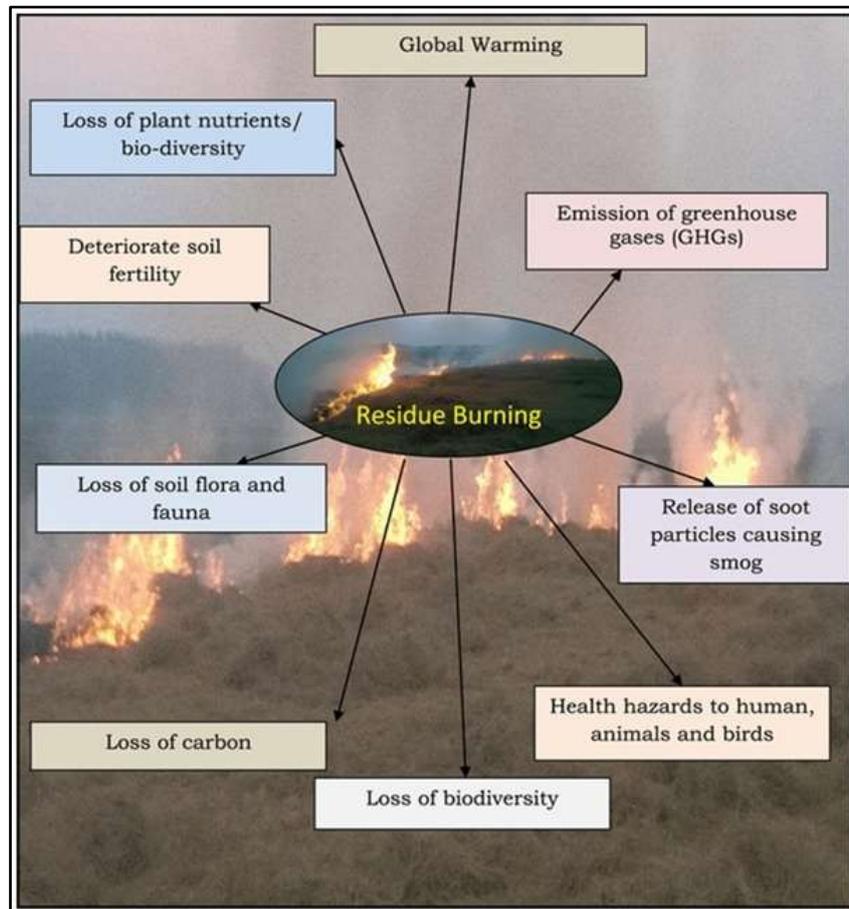
### What is stubble burning?

- A **Practice of removing agricultural waste from the field by setting on fire the straw stubble (parali)** that is left on the land after harvesting of grains like paddy, wheat etc.
- **Region:** Mainly in the Indo-Gangetic plains of Punjab, Haryana, and Uttar Pradesh.
- **A Crime:** Burning crop residue is a crime under Section 188 of the IPC and under the Air (Prevention and Control of Pollution) Act.

### Problems related to stubble burning

- **Air Pollution:** Each year, air pollution levels rise due to stubble burning and the Air Quality Index (AQI) reaches a 'severe' and 'hazardous' level.
- **Heat Penetration:** Stubble burning generates heat that penetrates the soil, causing an increase in soil erosion, loss of useful microbes and moisture, leading to soil degradation and its fertility.
- **Lack of Political Will:** As farmers are an important political constituency, the state government adopted a soft approach.
- **Lack of Viable Alternatives:** Although farmer outfits in Punjab are against the burning of stubble, they would continue it without a viable alternative or financial incentive.
- **Harmful Health Impacts:** Stubble burning emits toxic pollutants in the atmosphere containing harmful gasses like Carbon Monoxide (CO), methane (CH<sub>4</sub>), carcinogenic polycyclic aromatic hydrocarbons, and volatile organic compounds (VOC).

- **Global Warming:** Pollution and greenhouse gas emissions (GHG) lead to global warming. These are also responsible for the haze in Delhi and the melting of Himalayan glaciers.



### Solution for stubble burning issue

- **Need to subsidize innovative farm technologies like happy seeder, rotavator, baler, paddy straw chopper, etc.** are costly but they could help farmers to manage crop residues effectively.
- It's time to use new and improved seed varieties like **Pusa Basmati-1509** and PR-126, which mature quickly and also improve the quality of the soil. Using **Bio-Waste Decomposers** which increase the Feed Conversion Ratio (FCR).
- **Sustainable farm management practices**, which could not only manage the crop residues but also help control GreenHouse Gases emissions.
- Educating and Empowering the Stakeholders is important for better utilization of agricultural waste for financial and environmental gains.

### Need to adopt best practices of other state governments like:

- The Punjab government instructed **brick kiln** owners to replace at least 20 percent of coal with **paddy straw pellets for fuel**.

- In Chhattisgarh Gauthans Model, the paddy growers donate the crop residues in thousands of Gauthans (cattle shed premises for conservation and augmenting livestock) where it is used as fodder.

### Government's action to tackle the problems associated with stubble burning?

- National Policy for Management of Crop Residues for control of burning of crop residue by promotion of in-situ management (incorporation in soil, mulching) of crop residue.
- **Waste to Energy Programme** under the **National Bioenergy Programme** for the generation of biogas, bioCNG, power, and syngas from urban, industrial and agricultural residues. **Crop Residue Management Guidelines** for efficient ex-situ management of paddy straw e.g. **Pusa bio-decomposer**.

### What is the 'Pusa Decomposer'?

- It is essentially a fungi-based liquid solution that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as compost. This would then rule out the need to burn the stubble, and also help in retaining the essential microbes and nutrients in soil that are otherwise damaged when the residue is burned.

### How long does it take for the decomposer to work?

- The window of time required for the solution to work, which is currently the main concern of farmers, is around 20 to 25 days, as per the IARI. Farmers argue that this window is too long for them, as they ideally wait about a week or 10 days after harvesting the non-basmati variety of rice — which leaves hard stubble — to sow the wheat crop. IARI scientists, however, say that farmers do not necessarily have to plant the next crop in a rush — and that 20-25 days is enough waiting time.

### Conclusion

- Addressing the challenge of stubble burning requires a collaborative effort, emphasizing innovative technologies, government initiatives, and sustainable farming practices.
- In 2014, the Union government released the National Policy for Management of Crop Residue. Since then, crop residue management has helped make the soil more fertile, thereby resulting in savings of Rs 2,000/hectare from the farmer's manure cost.
- Farmers can also manage crop residues effectively by employing agricultural machines like: Happy Seeder (used for sowing of crop in standing stubble). Rotavator (used for land preparation and incorporation of crop stubble in the soil). Zero till seed drill (used for land preparations directly sowing of seeds in the previous crop stubble)
- Baler (used for collection of straw and making bales of the paddy stubble). Paddy Straw Chopper (cutting of paddy stubble for easily mixing with the soil). Reaper Binder (used for harvesting paddy stubble and making into bundles)

## Topic 56. COMMUNITY RIGHTS AND FOREST CONSERVATION

*Important for the subject: Environment*

From the colonial **forest law in 1865** to the **Forest Conservation Amendment Act, of 2023**, more than fifteen laws, Acts, and policies have been formulated interlinking forests with legal and policy frameworks. However, there is little to no recognition of the **rights of indigenous communities** in these Acts, who are the rightful inhabitants of forest lands.

### **Provisions that hamper community rights and forest rights:**

- The amendment primarily **aims** to tackle the critical issues of **climate change** and **deforestation's** adverse effects, focusing on effective management and afforestation. It **aims** to determine how forests can be utilised for **economic gain**.
- As per the amendment, the law will now apply exclusively to **areas categorised under the 1927 Forest Act** and those **designated as such on or after October 25, 1980**.
- The Act will **not be applicable to forests that were converted for non-forest use on or after December 12, 1996**, and **land which falls under 100 kilometres from the China and Pakistan border** where the central government can build linear projects.
- To establish **security infrastructure and facilities for surveillance**, the **central government** is authorised to **construct security measures** in areas up to **ten hectares**. This provision also applies to **areas (up to five hectares) which are designated as vulnerable**.
- Initiatives like **ecotourism, safari, environmental entertainment**, and more may be implemented in these areas.

### **Removal of the 'Prior Consent' clause:**

- The **Forest Conservation Act** stipulated that **prior consent** from the **tribal grama sabha** was **mandatory** for any alterations to forests for non-forest purposes. However, the recent revisions to the legislation have **removed the necessity for such consent**.
- It contradicts the **concept of decentralised forest governance** as forests in the country fall under the concurrent list.

### **Why was the amendment brought in?**

- The Godavarman Thirumulkpad case in 1996 led to an **interpretation of forest land** in accordance with its 'dictionary meaning'. Subsequently, **all private forests were brought under the ambit of the 1980 law**. Thus emerges the debate on 'environment vs Industry'.
- After the act was passed, the **Odisha government** revoked the "**deemed forest**" status in the State but had to later cancel the order due to public outrage.

### **What is compensatory afforestation (CA)?**

- Compensatory afforestation encompasses various projects and schemes that can be

undertaken by both private individuals and organisations (including large corporations) for afforestation or reforestation purposes.

### Challenges in CA are:

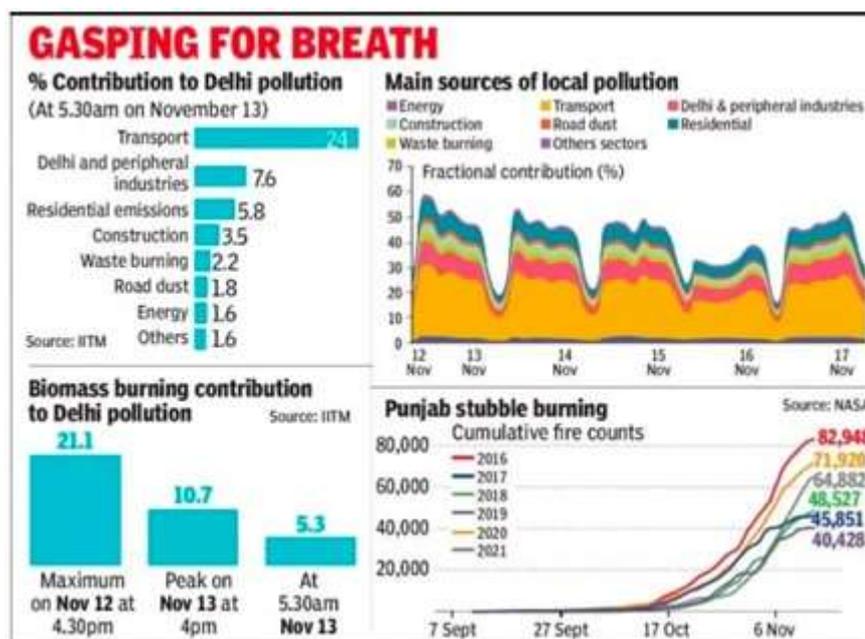
- Ambiguities in the original legislation
- Shortage of available land.
- The law **mandates** that for every parcel of land that is lost due to afforestation efforts, an equivalent amount of land must be afforested elsewhere. It **does not specify the type of trees** that should be planted, leaving room for discretion.

### How does this affect the Forest Rights Act (FRA)?

- The amendment has had notable impacts in Mendha-Lekha in Maharashtra, Loyendi in Odisha, and Malakkappara in Kerala among others.
- The Act is considered an impediment to converting forest land for non-forest purposes. The State governments hold the view that **granting community rights under the FRA could weaken the State's authority over the forest.**
- The amendment fails to address the growing issue of **human-animal conflicts** in forest areas.

## Topic 57. 'BREATHING TOXIC AIR IS EQUIVALENT TO SMOKING AT LEAST 10 CIGARETTES A DAY': AIIMS DOCTOR

*Important for the subject: Environment*



Two cities joined **New Delhi** to be among the **world's worst 10 for pollution** with smoke heavy in the air a day after revellers let loose with firecrackers for Deepavali.

The other two cities are: **Kolkata** (at rank 10) and **Mumbai** (rank 8). It is equivalent to

smoking at least 10 cigarettes a day.

- An **AQI level of 400-500** impacts healthy people and is dangerous to those with existing diseases, while a level of **150-200** brings discomfort to people with **asthma, lung and heart problems**. Levels of **0-50** are considered **good**.
- Air pollution in parts of Delhi was **30 times** the **safe limits** prescribed by the World Health Organisation (WHO).

### Causes of air pollution in Delhi:

#### Geographical reasons:

- During winter, the air is not that hot. The pollutants are trapped and tend to get concentrated at lower levels of the atmosphere (due to temperature inversion), resulting in the smoke and haze situation.
- As winds arrive from the coasts, bringing with them pollutants picked up along the way, they get **'trapped'** right before the Himalayas. Causing pollution in Delhi. The **average wind speed** in winter in the Delhi NCR region is one-third of the summer months. This increases the **pollutant concentration** in the region.

#### Anthropogenic reasons:

- Vehicular and industrial emissions, Stubble burning, Fireworks in the run-up to Diwali, Construction Activities, Open Waste Burning, High Population

#### How does air pollution affect health?

- **Air pollution increases the risk of-** Stroke, cognitive impairment, COPD [chronic obstructive pulmonary disease], cancer, asthma or ILDs [interstitial lung diseases].

#### Long-term exposure can lead to pneumonia.

- Due to long-term exposure to air pollution, even the **lungs of a non-smoker** are **visibly darker and carbon-loaded** in Delhi

#### Precautions include:

- Avoid exercising early in the morning and late in the evening.
- Use N95 masks and air purifiers.

### About IQAir:

#### Founded in 1963

- **IQAir** is a **Swiss air quality technology company**, specializing in protection against airborne pollutants, developing air quality monitoring and air cleaning products.
- IQAir also operates **AirVisual**, a real-time air quality information platform. Headquarters- **Goldach, Switzerland**

## **Topic 58. GWP100 OR GWP\*: MEAT, DAIRY LOBBY PUSHING FOR NEW METHANE METRIC. HOW THIS WILL ENABLE GREENWASHING**

*Important for the subject: Environment*

Some of the world's big, industrialised meat and dairy companies have been promoting a **new metric for measuring methane emissions**, called **GWP\*** (pronounced as **GWP star**), which they argue is a **more accurate way to calculate emissions** from the **greenhouse gas (GHG)**.

However, by adopting this new method, they can **manipulate their overall GHG emissions** and **escape accountability by falsely claiming climate neutrality**, a new report has revealed.

- The **established metric** under the **2015 Paris Agreement** for measuring the global warming potential of a gas over a **100-year period** is **GWP100**, which is the **global warming potential evaluated over a 100-year timeline**. It focuses on the **absolute level of emissions**.
- **GWP100** measures the **warming effect** of a quantity of a **non-carbon dioxide (CO<sub>2</sub>) GHG**, emitted at a given point in time, relative to an **equal amount of CO<sub>2</sub>**.

### **About GWP\*:**

- **GWP\*** was developed in **2016** by a team of researchers from **Oxford University**, led by two academics who argued it was more accurate than the current systems used to report **national methane emissions** at the **international level**.
- It was then **introduced in 2018** at the **24th Conference of Parties (COP24)** to the **United Nations Framework Convention on Climate Change (UNFCCC)**. **GWP\*** focuses on **changes in emissions over decadal timescales rather than absolute levels**.
- By taking current levels of methane emissions as their baseline, **high-polluting countries and companies** can use **GWP\*** to present even minor reductions in methane as negative emissions or cooling.
- **New Zealand**, where **half of all emissions come from agriculture**, mostly methane, showed that with a **modest 10 per cent reduction in methane emissions**, the country could report **negative methane** using **GWP\*** by **2038**.

### **Efforts to push for GWP\*:**

- The big agriculture lobby is pushing the **GWP\* methodology** in **New Zealand, Ireland, the United States** and other regions.
- At least **16 industry groups** across the **UK** and **New Zealand** have jointly urged the IPCC in 2020 to adopt **GWP\*** for assessing warming impacts.

### **Why GWP\* is contentious:**

- The ability to easily compare the contributions of different gases to climate change to assign accountability and set fair goals is crucial for global climate commitments.
- The time horizon used to determine the GWP is important because it affects how much weight is given to short-term warming.
- **GWP\*** has been **criticized** on a global policy level because it has the **potential to reward the highest historically polluting countries or companies** for their past GHG emissions by giving them credit for slight decreases from a high baseline.
- The methodology will also penalise countries with historically low levels of methane emissions for small increases.

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### **Topic 59. ODISHA READIES DRAFT OF PESA ACT RULES, SEEKS SUGGESTIONS**

#### ***Important for the subject: Environment***

Close to 27 years after the enactment of the **Panchayat (Extension to Scheduled Areas) Act, 1996**, Odisha has come up with the draft of the Odisha Gram Panchayats Extension to Scheduled Areas Rules, 2023, to bring clarity in its implementation.

#### **What is the PESA Act?**

- The PESA Act was enacted in 1996 “**to provide for the extension of the provisions of Part IX of the Constitution relating to the Panchayats to the Scheduled Areas**”.
- Part IX, comprising **Articles 243-243ZT** of the Constitution, contains provisions relating to municipalities and cooperative societies.

#### **Provisions:**

- Under the Act, Scheduled Areas are those referred to in **Article 244(1)**, which says that the provisions of the **Fifth Schedule** shall apply to the Scheduled Areas and Scheduled Tribes in states other than Assam, Meghalaya, Tripura, and Mizoram. The Fifth Schedule provides for a range of special provisions for these areas.
- **Ten states** — Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana — have notified Fifth Schedule areas that cover (partially or fully) several districts in each of these states.

#### **Objectives:**

- To **ensure self-governance through Gram Sabhas** (village assemblies) for people living in the Scheduled Areas.
- It **recognises the right of tribal communities**, who are residents of the Scheduled Areas, to govern themselves through their own systems of self-government, and also acknowledges their traditional rights over natural resources.
- Empowers Gram Sabhas to play a key role in approving development plans and controlling all social sectors.

### What is the Significance of Implementing the Act?

- **Democratic Decentralisation:** PESA empowers gram sabhas to play a key role in approving development plans and controlling all social sectors. This includes management of:
  - Resources over jal, jangal, zameen (water, forest and land)
  - Minor forest produce
  - Human resources: Processes and personnel who implement policies
  - Managing local markets
  - Preventing land alienation
  - Regulating intoxicants among other things
- **Preserving Identity:** The powers of gram sabhas include maintenance of cultural identity and tradition, control over schemes affecting the tribals, and control over natural resources within the area of a village.
- **Conflict Resolution:** The PESA Act thus enables gram sabhas to maintain a safety net over their rights and surroundings against external or internal conflicts.
- **Public Watchdog:** The gram sabha would have the powers to monitor and prohibit the manufacturing, transport, sale and consumption of intoxicants within their village limits.

### What are the Issues Related to PESA?

- **Partial Implementation:** The state governments are supposed to enact state laws for their Scheduled Areas in consonance with this national law.
- This has resulted in the **partially implemented PESA**. The partial implementation has worsened self-governance in Adivasi areas, like in Jharkhand.
- **Administrative Hurdles:** Many experts have asserted that PESA did not deliver due to the lack of clarity, legal infirmity, bureaucratic apathy, absence of political will, resistance to change in the hierarchy of power, and so on.
- **Followed in Letter Rather than Spirit:** Social audits conducted across the state have also pointed out that in reality different developmental schemes were being approved on paper by Gram Sabha, without actually having any meeting for discussion and decision making.

### How are Tribals and their Rights Protected in India?

- In India, most of the tribes are collectively identified under **Article 342 (1&2)** as “Scheduled Tribes”.
- **Their right to self-determination is guaranteed by Part X:** The Scheduled and Tribal Areas – Article 244: Administration of Scheduled Areas and Tribal Areas.
- That is, **Fifth and Sixth Schedules** of the Indian Constitution. The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA.
- The **Tribal Panchsheel Policy** Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 concerns the rights of forest-dwelling communities to land and other resources.



**Topic 60. WHERE DO DOMESTICATED SILKWORM COCOONS GET THEIR WILD COLOURS FROM?**

*Important for the subject: Science and Technology*

Silk, the queen of fibres, is drawn or reeled from cocoons of the silk moth (**Bombyx mori**). Humans domesticated it more than 5,000 years ago in China, from the wild moth (*Bombyx mandarina*). **India is the world's second largest producer of raw silk after China.**

**Silkworms**

- **Caterpillars, also known as silkworms**, of both these species feed exclusively on leaves of mulberry plants (genus *Morus*).
- The domesticated moth is much larger than its wild progenitor, and thus extrudes a longer silk fibre to build its larger cocoon, up to 900 meters long. But it depends wholly on human care for its survival and reproduction.
- **Since having been domesticated, it has lost the ability to fly, and since its need for camouflage no longer exists, it has also lost its caterpillar and adult-stage pigmentation.**

**Carotenoids and flavonoids**

- **'Wild' silks – which include the muga, tasar, and eri silks** – are obtained from other moth species: namely, *Antheraea assama*, *Antheraea mylitta*, and *Samia cynthia ricini*.
- These moths survive relatively independently of human care, and their caterpillars forage on a wider variety of trees.

**Non-mulberry silks comprise about 30% of all silk produced in India.**

- These silks have shorter, coarser, and harder threads compared to the long, fine, and smooth threads of the mulberry silks.
- The ancestral mulberry moth makes brown-yellow cocoons. In contrast, domesticated silk moth cocoons come in an eye-catching palette of yellow-red, gold, flesh, pink, pale green, deep green or white.
- Human handlers selected the differently coloured cocoons whenever they emerged, possibly in the hope of breeding for coloured silks.
- We know today that the cocoon's pigments are derived from chemical compounds called carotenoids and flavonoids, which are made by the mulberry leaves.
- Silkworms feed voraciously on the leaves, absorb the chemicals in their midgut, transport them via the hemolymph – arthropods' analogue of blood – to the silk glands, where they are taken up and bound to the silk protein.
- Mature caterpillars then spin out the silk proteins and associated pigment into a single fibre. The caterpillar wraps the fibre around itself to build the cocoon.

**Mutant strains**

- The adult moth hatches from the cocoon. In this process, the fibre is broken in many places. Superior quality silk however comes from an unbroken fibre, so unhatched cocoons are used for reeling.
- The **differently coloured cocoons arise from mutations in genes responsible for the uptake, transport, and modification of carotenoids and flavonoids.**
- The mutant strains have become a valuable resource for scientists to study the molecular basis of how, in a relatively short span of 5,000 years, artificial selection generated such spectacular diversity.

### The gene called apontic-like

- Domesticated and ancestral mulberry silk moths can be interbred to produce hybrid offspring. The hybrid caterpillars, like their wild parent, made the pigment called melanin.
- But when the *B. mandarina*-derived copy of apontic-like was mutated, the hybrid failed to make melanin.
- Both versions of the apontic-like gene make the same protein. Therefore, the **difference between them was attributable to differences in sequences that regulate when and where the gene was turned ‘on’ or ‘off’.**

### Conclusion

- Silk is an acme of domestication, comparable in its success to basmati rice, alphonso mangoes, and the golden retriever. Today, the tools are at hand for scientists to make and compare genetically identical hybrid silk moths that differ only in which of a gene’s two parental versions is inactivated: domesticated or ancestral.
- This paves the way for scientists to work out – gene by gene – all the key steps that led to silk moth domestication. Hopefully, someday soon, similar techniques will become available for us to analyse domestication in rice, mangoes, and dogs.

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## Topic 61. ADITYA-L1 CAPTURES FIRST GLIMPSE OF SOLAR FLARES

### *Important for the subject: Science and Technology*

The High Energy L1 Orbiting X-ray Spectrometer (**HELIOS**) payload, onboard the AdityaL1 spacecraft, has captured the first glimpse of solar flares

### **About Aditya-L1 Mission**

- Aditya-L1 is the first space based observatory class Indian solar mission to study the Sun from a substantial distance of 1.5 million kilometers. It will take approximately 125 days to reach the L1 point.
- Aditya-L1 is also ISRO’s **second astronomy observatory-class mission after AstroSat (2015)**. The spacecraft is planned to be placed in a halo orbit around the Lagrangian point

1 (L1) of the Sun-Earth system.

### Objective:

- The mission aims to provide valuable **insights into the solar corona, photosphere, chromosphere, and solar wind.**
- The primary objective of Aditya-L1 is to gain a deeper understanding of the Sun's behavior, including its radiation, heat, particle flow, and magnetic fields, and how they impact Earth.

### Payloads and its Objectives

#### Visible Emission Line Coronagraph (VELC)

- Studies the solar corona.
- Observe dynamics of Coronal Mass Ejections.

#### Solar Ultra-violet Imaging Telescope (SUIT)

- Captures images of the Solar Photosphere and Chromosphere in near Ultraviolet (UV).
- Measures solar irradiance variations in near UV.

#### Solar Low Energy X-ray Spectrometer (SoLEXS)

- Functions as a Soft X-ray spectrometer.
- Studies X-ray flares from the Sun across a wide X-ray energy range.

#### High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)

- Acts as a Hard X-ray spectrometer.
- Investigates X-ray flares from the Sun across a wide X-ray energy range.

#### Aditya Solar Wind Particle Experiment (ASPEX)

- Studies solar wind and energetic ions.
- Analyze their energy distribution.

#### Plasma Analyser Package for Aditya (PAPA)

- Gather data on plasma characteristics and composition in the interplanetary space.
- Provides insights into solar wind interactions with the environment.

#### Advanced Tri-axial High-Resolution Digital Magnetometers (MAG)

- To measure the low-intensity interplanetary magnetic field in space.
- It has two sets of Magnetic Sensors:

### What are Lagrange Points?

- Lagrange points are **special positions in space where the gravitational forces of two large orbiting bodies, such as the Sun and the Earth, balance each other out.**
- This means that a small object, such as a spacecraft, can stay at these points **without**

using much fuel to maintain its orbit.

- There are **five Lagrange Points**, each with distinct characteristics. These points enable a small mass to orbit in a stable pattern amid two larger masses.

#### Lagrange Points in the Sun-Earth System:

- **L1:** L1 is considered the **most significant of the Lagrange points for solar observations**. A satellite placed in the halo orbit around the L1 has the major advantage of continuously viewing the Sun without any occultation/ eclipses. It is currently home to the Solar and Heliospheric Observatory Satellite (SOHO).
- **L2:** Positioned directly **‘behind’ Earth** as viewed from the Sun, L2 is excellent for observing the larger Universe without Earth’s shadow interference. The **James Webb Space Telescope orbits the Sun near L2**.
- **L3:** Positioned **behind the Sun**, opposite Earth, and just beyond Earth’s orbit, it offers potential observations of the far side of the Sun.
- **L4 and L5:** Objects at L4 and L5 maintain stable positions, forming an **equilateral triangle with the two larger bodies**. They are often used for space observatories, such as those studying asteroids.

#### What is the Significance of Exploring the Sun?

- **Understanding Our Solar System:** The Sun is the center of our solar system, and its characteristics greatly influence the behavior of all other celestial bodies. Studying the Sun enhances our understanding of the dynamics of our solar neighborhood.
- **Space Weather Prediction:** Solar activities, such as solar flares and coronal mass ejections, can impact Earth’s space environment.
- Understanding these phenomena is crucial for predicting and mitigating potential disruptions to communication systems, navigation, and power grids.
- **Advancing Solar Physics:** Exploring the Sun’s complex behavior, including its magnetic fields, heating mechanisms, and plasma dynamics, contributes to advances in fundamental physics and astrophysics.
- **Enhancing Energy Research:** The Sun is a natural fusion reactor. Insights gained from studying its core and nuclear reactions can inform our pursuit of clean and sustainable fusion energy on Earth.
- **Improving Satellite Operations:** Solar radiation and solar wind affect the functioning of satellites and spacecraft. Understanding these solar interactions allows for better spacecraft *design and operation*.

### Topic 62. UNDERSTANDING THE FUNDAMENTALS OF HOW ELECTRICITY IS TRANSMITTED

#### *Important for the subject: Science and Technology*

Energy exists in many forms, like light, sound, heat, etc., power and power transmission also exist in many forms. However, electric power transmission is more complicated because of

the multiple phases of electric current, and factors like voltage, impedance, frequency, etc.

### Basics of Power supply

- Any power supply system has three broad components: **generation, transmission, and distribution.** Electricity is generated at power plants as well as at smaller renewable-energy installations.
- Then it is transmitted using a distributed network of stations, substations, switches, overhead and underground cables, and transformers, among other elements.
- Finally, it is distributed to consumers in a standardized way, befitting the needs of various machines and applications.

### How electricity is transmitted?

- **First**, in any conductor that transports electric current, the **transmission efficiency is higher at lower current and higher voltage.**
- This is because the energy loss during transmission increases as the square of the current, whereas the amount of voltage increase corresponds on a 1:1 basis with the amount of current decreased.
- That is, if voltage is increased by five units, the amount of current will drop by five units, but the amount of energy lost will be reduced by 25 units.
- This is the purpose of **transformers: they increase the voltage and reduce the current before feeding into transmission lines, and the reverse when receiving current to be supplied to consumers.**
- **Second**, the cables that move the current still have some resistance, which results in some energy loss.
- The amount of loss can be controlled by adjusting the cable's thickness: the thicker it is, the less energy is lost, but the cost increases. So when the cost of the cable's material is high, the cables are thinner.
- **Third**, the longer the distance of transmission, the lower the transmission cost. All these factors are further complicated by the use of alternating current (AC).
- AC can be modified more easily in transformers than direct currents (DC) and also has higher transmission efficiency.
- But when the AC frequency is higher, the amount of resistance the current encounters in the material increases.
- Engineers model all these factors for a given network to understand how much electrical energy will be lost between generation and consumption.

### Power transmission

- **In a three-phase AC circuit, each wire transmits an AC current in a different phase. From a power station,** the wires are routed to transformers that **step-up** their voltage.
- Then, they are suspended from transmission towers, which must be stable and properly wired, as they travel long distances.

- Insulators in contact with the wires draw away some current if there is a surge in the line; circuit-breakers ‘break’ the circuit if there is too much.
- The towers are also grounded and equipped with arresters that prevent sudden increases in voltage — such as due to a lightning strike — from affecting the wires.
- Similarly, dampers prevent vibrations in the wires from affecting the towers’ stability. Switches are used to control the availability of current and to move currents between different lines.

### Operation of grids

- As mentioned earlier, **transmission is situated between production and distribution.**
- A national grid includes all three components, and as a result transmission also has to account for the particulars of power production at different types of sources, at various locations, and how and where that power is consumed.
- For example, some sources — like coal-fired or nuclear reactors — can produce energy continuously, whereas renewable energy sources are intermittent.
- So grids also have storage facilities that store electrical energy when there’s a surplus supply and release it in times of deficit.
- Grids also need to respond to failure in different parts of the network and prevent them from carrying over to other parts, adjust voltages in response to demand, control the AC frequency, improve the power factor etc.

### Conclusion

- A grid becomes a wide-area synchronous grid if all the generators connected to it are producing an AC current at the same frequency. India’s national grid is also a wide-area synchronous grid. Such grids result in lower power cost but also require measures to prevent cascading power-supply failures.

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## Topic 63. EUCLID TELESCOPE

### *Important for the subject: Science and Technology*

Euclid mission for investigating dark matter & dark energy shares its first images

### **Some facts about Euclid Space Telescope:**

- It **derives its name** from the **Greek mathematician Euclid of Alexandria**. This mission was **part of ESA’s Cosmic Vision programme**, aimed at **exploring the origin and components of the Universe** and the fundamental laws that govern it.

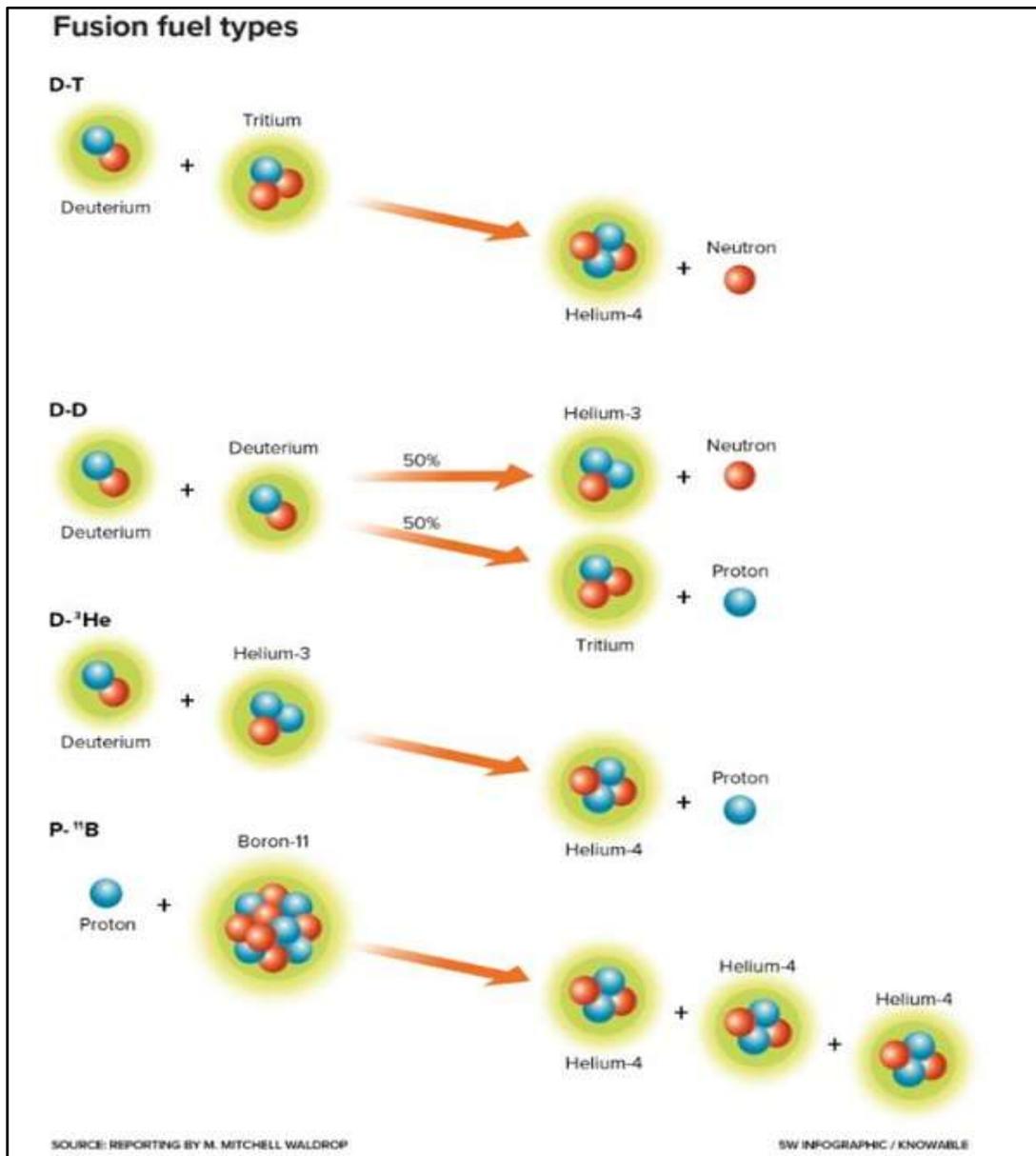
### **The spacecraft was equipped with a 1.2-metre-wide telescope and two instruments:**

- A **visible-wavelength camera (the VISible instrument)**: It **sought tiny distortions** in the shapes of distant galaxies **from different points in time to highlight the interplay** between the pull of gravity and the push of dark energy.



**Topic 64. PURSUING FUSION POWER**

*Important for the subject : Science and Technology*



**What is Nuclear Fusion:**

The **process of nuclear fusion** involves the **fusion of two atomic nuclei to create a single, heavier nucleus**, resulting in a **substantial release of energy**.

These reactions **necessitate conditions beyond room temperature**, requiring **significant energy input to facilitate the generation** of fusion-powered energy.

This fundamental reaction is the **same process that fuels the sun and other celestial bodies**.

### **Different Fusion Fuel Types:**

#### **How is Fusion better than Fission:**

- **Both fission and fusion harness the binding energy within atomic nuclei**, unleashing a significant amount of energy.
- **Fission, however, faces challenges due to long-lasting radioactive by-products** that necessitate specialized disposal. Accidents, as seen in **Three Mile Island (1979) and Chernobyl (1986)**, can release radioactive material.
- **In contrast, fusion reactors, relying on abundant hydrogen, can be established anywhere, eliminating the need for rare radioactive substances.**
- **Fusion yields substantial energy four times more than fission making it a promising source for future power reactors, offering virtually carbon-free electricity without persistent radioactive residues once commercialized.**

#### **Why is Fusion Energy so challenging to achieve:**

- **The primary challenge in achieving nuclear fusion is initiating and sustaining the fusion reaction.**
- **Overcoming the repulsion between positively charged atomic nuclei requires achieving high speeds, typically a plasma temperature of at least 100 million degrees Celsius.** Researchers employ external energy sources while combating the plasma's attempts to radiate energy away.
- **The second challenge involves confining the superheated nuclei to sustain collisions for an extended period, often using magnetic fields.**
- **Extracting fusion energy and converting it into electricity, tailored to the fuel mix, forms the final challenge, with potential solutions like neutron-absorbing blankets in deuterium-tritium reactions.**

#### **What is International Thermonuclear Experimental Reactor( ITER)**

- It is an **international nuclear fusion research and engineering megaproject** aimed at **creating energy by replicating on Earth the fusion processes of the Sun.**
- When operational it would **become the biggest machine anywhere** in the world which would be more complex than the Large Hadron Collider at CERN or the LIGO project to detect gravitational waves.
- **India joined the ITER project in 2005.** The Institute for Plasma Research in Ahmedabad, a laboratory under the Department of Atomic Energy, is the **lead institution from the Indian side** participating in the project.
- **35 nations are collaborating to build the world's largest tokamak, a magnetic fusion device that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy**
- The ITER Members are **China, the European Union, India, Japan, Korea, Russia and the United States**

## **Topic 65. WORLD'S BIGGEST BANK, CHINA'S ICBC, HIT BY RANSOMWARE**

*Important for the subject: Science and Technology*

World's biggest bank, China's ICBC, hit by ransom ware

The **US branch of the Industrial and Commercial Bank of China (ICBC)** experienced a **ransomware attack**, causing **minimal disruption** to trades in the **US Treasury market**.

**Lockbit 3.0** was **behind the attack**.

The bank is **investigating the incident and taking steps to recover**, including isolating impacted systems.

**What is ICBC:**

- ICBC, a **Chinese state-owned** commercial bank, is **China's and the world's largest lender in terms of assets** over **\$ 6 trillion**, and one of the most profitable companies in the world, according to Forbes.
- It is also the **3rd largest bank** in the world **behind JPMorgan Chase and Bank of America** by **market capitalization**, at **\$ 194.57** billion, according to a Fobes

**What are ransomware attacks:**

- A ransomware attack is a **cyberattack using malware that encrypts the victim's files and requires users to pay a ransom** to decrypt the files.
- It is **often designed to spread across a network and target database and file servers**, and can **thus quickly paralyze** an entire organization.
- Unlike other cyber-attacks, in this form of attack, the **user is notified of the attack**. Ransomware **spreads easily when it encounters unpatched or outdated software**.

**What is Lockbit 3.0:**

- LockBit 3.0, **developed by the Lockbit group**, is a **prevalent strain of ransomware, constituting** approximately **28% of known attacks** from **July 2022 to June 2023**.
- The group, **which markets its malware on the dark web**, has executed over 1,400 attacks globally, with ransom demands exceeding \$100 million.
- While **LockBit has Russian origins**, confirmation is lacking.

**Why is this attack such a big deal:**

- The **ransomware attack on the US arm of the Industrial and Commercial Bank of China (ICBC)** is considered **unusual for a bank** of its size, given the **robust cybersecurity measures typically** employed by financial institutions.
- Banks, **particularly large ones, invest significantly in cybersecurity** to protect against **cyber threats**.
- The **attack on ICBC, a major player in the global financial system, raises concerns**

about potential consequences, highlighting the evolving and sophisticated nature of cyber threats in the financial sector

#### What has the impact of this attack been:

- Despite the **ransomware attack on the US arm of the Industrial and Commercial Bank of China (ICBC)**, US Treasury Secretary Janet Yellen stated that the **incident only had minimal disruptions** to the Treasury market.
- Market participants mentioned issues with settlements, **affecting market liquidity**. However, ICBC reported **successfully clearing Treasury trades** from Wednesday and **repurchase agreements (repo) financing trades** from Thursday.
- The **Treasury market seemed to operate normally** on Thursday, **indicating a swift recovery** from the disruption.

#### Some history of Ransomware attack:

- The **first ever recorded use of ransomware** occurred as early as **1989 in the form of the AIDS Trojan**,
- However, this **method gained prominence** only after the unleashing of the **WannaCry Ransomware in 2017**. This was a massive attack that affected more than 200,000 systems in some 150 countries and accounted for a loss of several million dollars.
- Since then, the use of ransomware attacks has seen an upward trend for committing cyber-crime.

#### What are some safeguards available in India against Cyber Threats

- **Information Technology Act, 2000 (Amended in 2008)**: It is the **main law for dealing with cybercrime** and digital commerce in India.
- **National Critical Information Infrastructure Protection Centre (NCIIPC)** was created under **Section 70A of IT Act 2000** to protect Cyber infrastructure.
- **CERT-In (Cyber Emergency Response Team, India)**: It is **National Nodal Agency for Cyber Security and is Operational since 2004**
- **National Cyber Security Policy, 2013**: The policy provides the **vision and strategic direction** to protect the national cyberspace.
- **Cyber Swachhta Kendra**: Cyber Swachhta Kendra helps users to **analyse and keep their systems free of various viruses, bots/ malware, Trojans**,
- **Indian Cyber Crime Coordination Centre (I4C)**: Launched in **2018**, It is an **apex coordination center** to deal with cybercrimes.
- **Cyber Surakshit Bharat**: It was **launched by the Ministry of Electronics and Information Technology in 2018** with the aim to spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers and frontline IT staff across all government departments.
- **The Cyber Warrior Police Force**: It was **organised on the lines of the Central Armed Police Force in 2018**.

## **Topic 66. REMISSION OF DIABETES, DESIRABLE, BUT NOT ESSENTIAL**

### *Important for the subject: Science and Technology*

It may not be possible to make India ‘diabetes free’, but a ‘**diabetes complications free India**’ is within reach.

### **Introduction**

- Recently, the concept of a reversal of diabetes has become very popular. Several commercial organisations have jumped on the bandwagon of a ‘reversal of diabetes’ and are making tall claims. Therefore, it is important to consider the pros and cons of a reversal of diabetes.

### **About Diabetes**

- Diabetes is a **chronic disease** that occurs either when the pancreas does not produce **enough insulin** or when the body cannot effectively use the insulin it produces.
- **Insulin is a hormone that regulates blood glucose.** Hyperglycaemia, also called raised blood glucose or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body’s systems, especially the nerves and blood vessels.

### **Type 1 diabetes**

- Type 1 diabetes (previously known as **insulin-dependent**, juvenile or childhood-onset) is characterized by deficient insulin production and requires daily administration of insulin. In 2017 there were 9 million people with type 1 diabetes; the majority of them live in high-income countries. Neither its cause nor the means to prevent it are known.

### **Type 2 diabetes**

- Type 2 diabetes affects how your body uses sugar (glucose) for energy. It **stops the body from using insulin properly**, which can lead to high levels of blood sugar if not treated.
- Over time, type 2 diabetes can cause serious damage to the body, especially nerves and blood vessels. Type 2 diabetes is often preventable. Factors that contribute to developing type 2 diabetes include being **overweight, not getting enough exercise, and genetics.**

### **Remission’ of diabetes**

- First, the term ‘**reversal**’ of diabetes is scientifically incorrect; the appropriate term is ‘remission’ of diabetes. Reversal implies that the condition has permanently reverted to normal and a cure has been achieved. ‘**Remission**’ implies that **diabetes has only gone away temporarily.** We know for instance that cancer can go into remission, but can come back in a more virulent form.

### **Remission and type 2 diabetes**

- **Diabetes is not a single condition but consists of several types.** When we talk of remission of diabetes, we are referring most often to type 2 diabetes. However, there are other forms of diabetes such as type 1 diabetes where long-term remission is very unlikely to occur.
- There are certain individuals with type 2 diabetes who are more likely to achieve remission. This can be identified by the letters **ABCDE**.
- A refers to **A1c (glycated haemoglobin)** which should not be very high.
- B refers to Body Mass Index (BMI) or body weight. If it is high, you are more likely to achieve remission due to weight loss.
- C stands for C-Peptide, a measure of insulin secretion. If it is good, you can achieve remission more easily.
- D stands for Duration of diabetes; the shorter the duration, the greater the chances of remission.
- E stands for an Enthusiastic individual who is keen to achieve remission.

### **Good Legacy Effect**

- One should remember that even if one achieves remission of diabetes only for a few months or years, it is still worthwhile because it leads to a good ‘legacy effect’ which provides protection from complications caused by diabetes.

### **Data on India**

- According to our recent Indian Council of Medical Research–India Diabetes (**ICMR-INDIAB**) study, **there are currently 101 million people with diabetes** and 136 million people with prediabetes in India.
- In those with prediabetes, preventing the majority of these individuals from developing diabetes for a considerable number of years is possible with just lifestyle modifications.
- **In those who already have diabetes, we should, of course, try to achieve remission of diabetes.** But if this is not possible, meeting the ABCD guidelines of the treatment of diabetes will ensure that they can all live a long and **healthy life without any diabetes-linked complications.**

### **Conclusion**

- Although we may not be able to make India ‘diabetes free’, but we can at least have a ‘diabetes complications-free India’. On the occasion of **World Diabetes Day (November 14)**, let us rededicate ourselves to achieve this dream.

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## **Topic 67. HOW GPS ANKLET WORK**

### ***Important for the subject: Science and Technology***

For the first time in India, a prisoner in J&K has been given bail on condition that his movements are monitored constantly.

In a **first-of-its-kind** initiative in India, a **prisoner in Jammu and Kashmir, Ghulam Mohammad Bhat**, accused under the **Unlawful Activities (Prevention) Act**, has been **released on bail with a Global Positioning System (GPS) tracking device** attached to monitor his movements.

- The release **followed a special National Investigation Agency (NIA) court's decision** in Jammu, **upholding the prosecution's plea and instructing the police to place a GPS tracker anklet on Bhat's foot.**
- Bhat, **associated with the late Hurriyat chairman Syed Ali Geelani**, was **arrested in 2011** on charges of **being a hawala operator financing separatists.**
- The use of a GPS tracker in this context marks a novel approach to monitoring the activities of individuals on bail.

#### **What is a GPS tracker, and how does it work:**

- A **GPS tracker is a compact, wearable gadget** similar to **GPS collars** commonly used to **track animal movements.**
- This device **constantly provides the precise location** of the wearer, **enabling real-time monitoring** by law enforcement and security agencies.

#### **Characteristics:**

- The GPS tracker is **designed to be tamper-proof, triggering an alarm if any attempt is made to interfere with it.**
- Additionally, **it cannot be removed without causing damage**, ensuring its security.
- The device can be affixed to either the ankle or arm, resulting in **variations such as GPS anklets and GPS bracelets.**

#### **Applications:**

- These **trackers are utilized for monitoring** the movements of wildlife, such as **rogue elephants in Kerala or cheetahs in Kuno.**
- In addition, **they find application in modern automobiles**, where they are **integrated to facilitate tracing** in case of theft, or **owners can opt for separate installations.**

#### **What is the legal position on the use of GPS Anklet:**

- In the **Indian context**, the **court authorized the use of a GPS anklet** on Bhat. However, **human rights activists have raised concerns** about the **lack of specific legal provisions** permitting such measures.
- Contrastingly, **in various other countries, including the United States, the United Kingdom, and Malaysia**, the use of **GPS trackers is a prerequisite for bail.**
- In the **UK**, **electronic monitoring may fall under the Terrorism Prevention and Investigation Measures Act of 2011.**
- In **Malaysia**, the **legal framework for electronic monitoring** has been established through **amendments to existing legislation** and the introduction of new laws, such as

- The **Prevention of Crime Act, 1959**,
- Security Offences Act, 2012**,
- Dangerous Drugs (Special Prevention Measures) Act**,
- Criminal Procedure Code.**

**Topic 68. HOW DOES AN ELECTRIC BATTERY WORK AND WHAT ARE THE DIFFERENT TYPES?**

*Important for the subject: Science and Technology*

Electric batteries have become an integral part of modern life, enabling the widespread use of motorization and wireless technology.

Batteries are devices that store and release electrical energy, acquired by converting other forms of energy, primarily through chemical reactions.

**Genesis of Electric Batteries**

- **Galvani's Exploration:** In 1780, Luigi Galvani conducted an experiment involving two metal plates and a frog's leg, marking an early exploration of electricity's effects on biological systems.
- **Volta's Voltaic Pile:** Alessandro Volta's voltaic pile in 1800 consisted of alternating copper and zinc plates separated by electrolyte-soaked paper. It produced a steady current but lacked a comprehensive explanation.
- **John Daniel's Research:** British chemist John Daniel improved on Volta's design with a more efficient cell that generated electric current for extended periods.
- **Faraday's Experiments:** In the early 19th century, Michael Faraday elucidated the principles of electrochemical cells, including naming components like anode, cathode, and electrolyte.

**Basics of Electric Batteries**

- **Voltaic Cells:** Electric batteries, also known as voltaic or galvanic cells, utilize redox reactions to produce an electric current. They consist of two half-cells, each with a metal electrode immersed in an electrolyte of the same metal.
- **Electron Transfer:** In one half-cell, metal ions dissolve into the electrolyte, releasing electrons. In the other half-cell, the reverse occurs, as metal ions deposit onto the electrode and require electrons.
- **External Circuit:** A wire connects the two electrodes, allowing electron flow from the anode to the cathode. A salt bridge connects the two electrolytes, enabling ion exchange.
- **Components:** Key components include the cathode (positive electrode), anode (negative electrode), and the electrolyte. The source voltage and terminal voltage are important concepts.
- **Source Voltage:** It represents the energy imparted to electrons and is equal to the

terminal voltage in ideal conditions.

- **Issues:** Corrosion is a common issue in electrochemical cells, caused by factors like moisture and galvanic corrosion.

### Various Types of Batteries

- **Lithium-Ion (Li-ion) Batteries:** Li-ion batteries are rechargeable and have revolutionized technology. They consist of a cathode, anode, and an electrolyte. During discharge, lithium ions move between electrodes, facilitating energy storage.
- **Electric Vehicle (EV) Batteries:** EV batteries, such as those used in Tesla's Model S, are composed of numerous Li-ion cells and are critical for powering electric vehicles.
- **Hydrogen Fuel Cells:** Hydrogen fuel cells are gaining interest, especially in the context of green energy. They use hydrogen as a fuel source and produce electricity through a chemical reaction with oxygen, emitting water as a byproduct.

### Further Evolutions in Batteries

- **Ongoing Research:** Li-ion batteries and hydrogen fuel cells continue to be areas of extensive research, with diverse configurations and advantages.
- **Hydrogen Economy:** Hydrogen fuel cells are expected to play a pivotal role in the emerging hydrogen economy, and countries like India are investing in green hydrogen production.

### Conclusion

- Thus, Electric batteries, rooted in the principles of electrochemistry, have undergone significant evolution, transforming the way we live and utilize energy.
- Their development and improvement remain central to advancing convenience and sustainability in industrialized societies, shaping the future of technology and transportation.

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## **Topic 69. CENTRE CONSIDERS ACCESS TO ANONYMISED DATA OF BIG TECH FIRMS**

### *Important for the subject: Science and Technology*

Centre is considering issuing a directive to big tech companies to share anonymised personal data in their possession with a government-backed database.

The Indian government is **reportedly considering a directive requiring major tech companies** like Facebook, Google, and Amazon **to share anonymized personal data with a government-backed database.**

- The move is **part of the upcoming Digital India Bill** that aims to address the **ownership of non-personal data, a key component for artificial intelligence (AI) models.**

- The provision in the bill would mandate tech companies to deposit all non-personal data they hold into the India datasets platform.
- The government argues that these companies, having benefited from algorithms based on Indians' non-personal data, cannot claim exclusive ownership.
- The India datasets platform could also play a role in boosting the country's AI ecosystem.
- The Digital India Bill is part of a broader legal framework that includes measures like the Digital Personal Data Protection Act, 2023, and a policy on non-personal data governance.

#### What are the key Provisions of the Digital India Bill:

- The Bill is a key part of a comprehensive legal framework which encompasses various legislative measures such as

#### The recently-notified Digital Personal Data Protection Act 2023

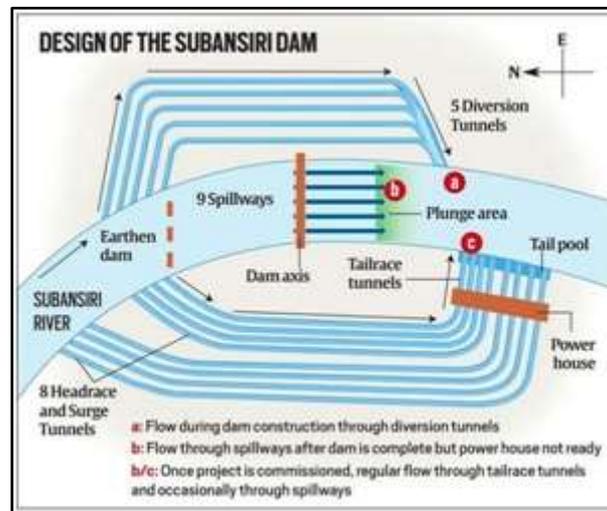
#### The draft Indian Telecommunication Bill 2022, and

#### A policy addressing the governance of non-personal data.

- The Bill prioritizes online safety and trust, aiming to protect citizens' digital rights while remaining adaptable to market changes and international legal principles.
- Recognizing the significance of new technologies like artificial intelligence (AI) and block chain, the Bill provides guidelines for their responsible use.
- It upholds the idea of an open internet, balancing accessibility with necessary regulations to maintain order and protect users.
- The Bill introduces stringent Know Your Customer (KYC) requirements for wearable devices, backed by criminal law sanctions.
- Contemplating a review of the "safe harbour" principle, the Bill suggests a potential shift in online accountability standards, presently shielding online platforms from liability related to user-generated content.

## Topic 70. HOW IGNORED LANDSLIDE WARNINGS LED TO SUBANSIRI RUNNING DRY

*Important for the subject: Geography*



A large part of the hill on the left side of the **Subansiri Lower Hydroelectric Project** collapsed into its reservoir.

The deposits blocked the only functional diversion tunnel and **stopped the flow of water** downstream of the dam into the **Subansiri River**, a major tributary of the **Brahmaputra**.

It will be **India's largest HPP** when completed.

**How a dammed river flows:**

- Typically, once a location is selected for a dam, a temporary **earthen barrier (coffer dam)** and a few **diversion tunnels** are built immediately upstream to bypass the dam construction site.
- Once the dam is ready, the **diversion tunnels (DTs)** are closed, and water starts to flow through the multiple **spillways**.
- In a **hydel project**, a set of **tunnels** are also built to carry water from the reservoir to the powerhouse. The water turns the **turbines** and then goes back into the river. Once the powerhouse is operational, this becomes the **main path of the water**, and the spillways are used occasionally.

**What happens to Subansiri?**

- The flow downstream was highly reduced after a **landslide blocked the only DT in use**.

**The 'mistake' NHPC committed:**

- The **Central Electricity Authority (CEA)**, the **statutory body** that advises the government on policy relating to electricity systems, **recommended in April 2022** that the **impact of the DTs** on the **slope stability** of the project site should be examined.
- **NHPC Ltd**, which is **implementing the Subansiri Lower Project**, ignored the recommendation.

#### The site's history of landslides:

- This is the sixth landslide event on the lower Subhansiri project site.

#### What will NHPC do now?

- The project will now focus on **slope stabilisation**. The likely option would be to build a temporary **sheet pile dyke** — a **metallic barrier with steel bracing** — inside the reservoir to isolate the **under-construction spillway gates**, and to finish the work after the slope stabilisation process is over.

#### About Subhansiri river:

- It is a **trans-Himalayan river** and a **tributary** of the **Brahmaputra River** that flows through **Tibet's Lhuntse County** in the **Shannan Prefecture**, and the **Indian states of Arunachal Pradesh** and **Assam**.
- It is approximately 518 kilometres (322 mi) long, with a drainage basin 32,640 square kilometres (12,600 sq mi).
- It is the **largest tributary of the Brahmaputra** contributing 7.92% of the Brahmaputra's total flow.
- It enters **India** near the town of **Taksing** and flows east and southeast through **Miri Hills**, then south to the **Assam Valley** at **Dulangmukh** in **Dhemaji district**, where it joins the **Brahmaputra River** at **Jamurighat** in **Lakhimpur district**. Small tributaries of the Subansiri include **Rangandi, Dikrong and Kamle**.

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### Topic 71. THE EARTH'S INTERIOR MAY HOLD RELICS OF MOON-FORMING MEGA IMPACT

#### *Important for the subject: Geography*

**Seismologists** have identified **two large blobs** in the **earth's mantle**, one under **Africa** and the other under the **South Pacific region**.

These **blobs** may be **remnants** from a **collision** between the **early Earth** and a **Mars-sized object** called **Theia**, believed to have formed the **moon** over **4.46 billion years ago**.

- The **impact** released **molten rock** into **space**, which later coalesced to form the **moon**. Some fragments of **Theia** may have **sunk into the earth**, forming the **mantle blobs**.
- Computer simulations supported this hypothesis, suggesting that most of **Theia** became part of the **earth**, while **residual debris** formed the **moon**.



- The **blobs** are located about **2,900 kilometers** below the earth's surface and account for about **2% of the earth's mass**, with each being **twice the mass of the moon**.
- If confirmed, these **blobs** could serve as **evidence of the moon-forming collision on Earth**. The **increased density of the blobs** is attributed to their **high iron content**, and future lunar missions may help verify the model.

**Significance:**

- Understanding the **moon-forming impact** can provide insights into the **evolution of Earth** and other rocky planets in our solar system, contributing to our understanding of **Earth's uniqueness as a habitable planet**.

**Topic 72. POSSIBLE ANSWER TO FARM FIRES: NEW RICE VARIETY CAN REPLACE PUSA-44**

*Important for the subject : Geography*

In its order directing the **Punjab, Haryana, Uttar Pradesh and Rajasthan** governments to ensure that the **burning of crop stubble** be “**stopped forthwith**”, the Supreme Court mentioned a “**particular kind of paddy grown mostly in Punjab**”.

**Pusa-44 variety of paddy:**

- This variety (possibly the **Pusa-44**) and “the time period in which it is grown” were seen as **major causes of stubble burning** and the resultant **pollution** problems in the **National Capital Region**.
- Bred by the New **Delhi-based Indian Agricultural Research Institute (IARI)**. It is a **long-duration variety** that takes **155-160 days to mature**, from the time of nursery sowing of seeds to harvesting of grain. Thus, farmers resort to **burning the standing stubble** and **loose straw** that remains after harvesting using combine machines.
- It is a **high-yielding variety** — **35-36 quintals an acre**, with some farmers even harvesting **40 quintals an acre**. It is the **standing stubble** from this variety that is largely being burnt since the start of November.
- The variety, **PR-126**, has been bred by the **Punjab Agricultural University**. Although it takes just **125 days** to mature (from seed-to-grain), **paddy yields** from **PR-126** are just **30-32 quintals per acre**, lower than the **35-36 quintals** from **Pusa-44**.

**Pusa 2090:**

- It is a **high-yielding and early maturing variety** developed by **IARI**. It is a **cross** between **PUSA-44** and **CB-501**. **Pusa-2090** yields equal to **Pusa-44** and **matures in only 120-125 days**.
- **CB-501** was one of the **256-odd Japonica lines** (extensively grown in **East Asia**) that **IARI** obtained from the **International Rice Research Institute** at **Los Baños** in the **Philippines**. **CB-501** contributes to **stronger culm** (rice stem) and **produces more number of grains per panicle** (grain-bearing ear-heads).

**Topic 73. GUJARAT MARITIME BOARD (GMB) TO PREPARE MASTER PLAN FOR ITS NON-MAJOR PORTS**

*Important for the subject :Geography*



**Gujarat** is taking its **non-major ports (NMPs)** operated by the **Gujarat Maritime Board (GMB)** to the next level with plans to enhance the **capacity, efficiency, safety, and sustainability** of port operations.

**About the development of non-major ports of Gujarat:**

- A **master plan** and **implementation plan** are to be prepared for the **NMPs** up to the year **2047**. The plan will help **streamline operations, minimise risks** and ensure ports **remain competitive** and **resilient in a dynamic global trade environment**.
- The **aim** of developing a master plan for ports is to ensure the **efficient, safe and sustainable functioning** of the ports while considering the broader **economic, environmental, and social factors** that influence its operations and development.
- The master plan will include **key components for green ports** such as environmental impact assessment, energy efficiency, emissions reduction, water quality and conservation, waste management, green infrastructure, noise reduction, regulatory compliance, monitoring and reporting, research and innovation, certifications and recognition.

**Major and Minor ports in Gujarat:**

**About Gujarat Maritime Board (GMB):**

- Founded in **1982**
- It is responsible for the management, control and administration of **48 ports**, including **Bedi, Bhavnagar, Dahej** and **Porbandar**.
- **Gujarat's non-major ports** handled **416 million tonne (mt ) of cargo** in **2022-23** which

was about **30 per cent** of total traffic handled by **all Indian ports**, and **65 per cent** of traffic for **all NMPs of India**. The **capacity of Gujarat's non-major ports** during **2023** was **593.01 mt**.

- **Gujarat** has a coastline of **1,600 km**, the longest in the country. Gujarat has the advantage of being near to the **Middle East, Africa and Europe** having the highest number of commercial cargo ports.

**Major and Non-major ports regulation:**

- Ports in India are classified as **Major and Minor (non-major) Ports** according to the jurisdiction of the **Central and State governments** as defined under the **Indian Ports Act, of 1908**.
- **All the 13 Major Ports** are governed under the **Major Port Trusts Act, of 1963** and are **owned and managed by the Central Government**. **All the Minor Ports** are governed under the **Indian Port Act, of 1908** and are **owned and managed by the State Governments**.

**List of Major Ports in India:**

Coast	State	Port
Eastern Coast	Tamil Nadu	Chennai
Western Coast	Kerala	Kochi (Cochin)
Eastern Coast	Tamil Nadu	Ennore
Eastern Coast	West Bengal	Kolkata (Haldia)
Western Coast	Gujarat	Kandla
Western Coast	Karnataka	Mangalore
Western Coast	Goa	Mormugao
Western Coast	Maharashtra	Mumbai Port Trust
Western Coast	Maharashtra	Jawaharlal Nehru Port Trust (JNPT)

Western Coast	Maharashtra	Vadhavan Port
Eastern Coast	Odisha	Paradip
Eastern Coast	Tamil Nadu	Tuticorin
Eastern Coast	Andhra Pradesh	Visakhapatnam

**Cheetah reintroduction in India:**

**About Cheetah:**

<b>African Cheetah</b>	<b>Asian Cheetah</b>
Physical Characteristics– Bigger in size as compared to Asiatic Cheetah.	Physical Characteristics – Smaller and paler than the African cheetah. Has more fur, a smaller head and a longer neck. Usually have red eyes and they have a more cat-like appearance.
Habitat – Around 6,500-7,000 African cheetahs present in the wild.	Habitat – 40-50 found only in Iran.
IUCN status– Vulnerable	IUCN Status– Critically Endangered.
CITES status– Appendix-I of the List. This List comprises of migratory species that have been assessed as being in danger of extinction throughout all or a significant portion of their range.	CITES– Appendix I of the list

**About Project Cheetah:**

- Launched in **2022**. It is **India's** ambitious attempt to introduce **African cats into the wild** in the country.
- Recently it has claimed to have achieved **short-term success on four counts**: 50% survival of introduced cheetahs, establishment of home ranges, birth of cubs in Kuno, and revenue generation for local communities.

**The claims assessed:**

- **SURVIVAL:** According to **India's official Cheetah Action Plan**, the male and female



- cats from both **Namibia** and **South Africa** were to spend **two and three months** respectively inside bomas (enclosures) before being released in the wild. **No cheetah** spent the targeted months in the wild.
- Yet, the **project lost 40% of its functional adult population**. Of the **20 cats** that arrived in **India**, **six died** (Dhatri and Sasha from Namibia; Suraj, Uday, Daksha, and Tejas from South Africa), and **two were unfit for the wild**, **Four cubs were born in India**, **three of which died**, and the fourth is being raised in captivity.
  - **HOME RANGE:** Only **three cheetahs** – Namibian imports Asha, Gaurav, and Shaurya have spent **more than three months at a stretch** in the wild. It is unlikely any of the cats would have established “**home ranges**” in **Kuno**.
  - **REPRODUCTION:** The goal, as per the Action Plan, was: “**Cheetah successfully reproduce in the wild**”, However, **Siyaya aka Jwala**, the **Namibian** female that gave birth to four cubs in Kuno, was captive raised herself. She was unfit for the wild and her cubs were born inside a hunting boma.
  - **LIVELIHOOD:** The project has indeed **generated a number of jobs and contracts for the local communities**, and the price of land has appreciated significantly around Kuno.

**No human-cheetah conflict has been reported in the area.**

#### **Compromises and mistakes:**

- To get the cheetahs, **India** promised to support **Namibia** for “**sustainable utilisation and management of biodiversity at international forums**”.
- After the cheetahs arrived, **India** abandoned its decades-old stand by **abstaining at the CITES vote against trade in elephant ivory**.
- The **two South African males** killed the female **Phinda** alias **Daksha** in May. The **three cubs** succumbed to acute dehydration in May. **Maggot infestation** due to radio collars- which would have affected their gait – killed two in July.
- **Seasonal variation** as a factor was **not considered** while sourcing animals from the southern hemisphere. The animals grew **winter coats during the Indian monsoon**, leading to **prolonged wetness and infection**.

#### **Kuno’s carrying capacity:**

- The project’s original goal is to **establish a free-ranging breeding population of cheetahs in and around Kuno** but has been diluted to “**managing**” a **metapopulation** through assisted dispersal.
- The **Cheetah Action Plan** estimated a “**high probability of long-term cheetah persistence within populations that exceed 50 individuals**”.
- **Cheetal** is the **cheetah’s prime prey** in **Kuno** where project scientists reported per-sq-km cheetal density of 5 (2006), 36 (2011), 52 (2012) and 69 (2013).

#### **Paradigm shift ahead**

- Since **Kuno** cannot support a **genetically self-sustaining population**, the project’s only option is a **meta-population** scattered over **central and western India**. But unlike

leopards, which dominate this landscape, cheetahs cannot travel the distances between these pocket populations on their own.

- A solution would be to periodically translocate animals from one fenced reserve to another to maintain genetic viability.

## Optimal Work Hours

### Introduction

- The debate on optimal work hours continues without a consensus, **sparking discussions on work-life balance and productivity.**

### Narayana Murthy's Advice

- Infosys cofounder, NR Narayana Murthy, advised **young Indians to work 70 hours a week for nation-building, triggering debate and diverse opinions.**

### Legislation in India

- Legislation in India **restricts adult workers to 48 hours a week (Indian Factories Act, 1948).** Some states have extended working hours to 12 per day.
- The **Occupational Safety, Health and Working Conditions Code (OSHWC), 2020 limits daily work to eight hours, with a proposal for amendment to 12 hours.**

### International Perspective

- ILO's "**Hours of Work (Industry) Convention, 1919 (No. 1)**" aligns with India's existing provisions, limiting working hours.

### Empirical Data

- National Sample Survey Office's 2019 Time Use Survey **reveals variations in daily work hours across occupations and genders.**
- **Male workers spend more time in services-related activities than agriculture, while commuting time and breaks add to working hours.**
- On average, excluding agriculture, male workers spend over 10 hours a day at work, with commuting and breaks included.

### Analysis

- Cumulatively, **workers in activities other than agriculture spend around 47-48 hours per week at work,** in line with ILO data.
- Even those aged 60 and above spend significant hours at work.

### Key Factors

- Determining an optimum work hour is complex **but should align with productivity and fair compensation.** John Maynard Keynes' 1930 speculation **about a 15-hour work week remains a distant dream.**

## Conclusion

- The **alignment of working hours, productivity, and compensation is crucial**, emphasizing the need for a balanced approach in the ongoing discourse.

## Overview of Labour Codes in India

### Introduction to Labour Codes:

- The new set of regulations **consolidates 44 labour laws into four comprehensive Codes**.
- These Codes are categorized as:

### Wage Code

### Social Security Code

- **Occupational Safety, Health & Working Conditions Code**
- **Industrial Relations Code**

### Codes Breakdown:

#### Code on Wages, 2019:

##### Scope:

- Applicable to employees in both organized and unorganized sectors.

##### Objectives:

- Regulate wage and bonus payments across all employments. Ensure equal remuneration for employees performing similar work in any industry, trade, business, or manufacture.

#### Code on Occupational Safety, Health and Working Conditions, 2020:

##### Scope:

- Covers establishments with 10 or more workers, and all mines and docks.

##### Objectives:

- Regulate health and safety conditions for workers.

#### Code on Social Security, 2020:

##### Scope:

- Consolidates nine laws related to social security and maternity benefits.

##### Objectives:

- Streamline social security provisions for workers.

#### Code on Industrial Relations, 2020:

**Scope:**

- Consolidates The Industrial Disputes Act, 1947; The Trade Unions Act, 1926; and The Industrial Employment (Standing Orders) Act, 1946.

**Objectives:**

- Improve the business environment by reducing the labour compliance burden.
- Enhance industrial relations.

**Objectives of Labour Codes:**

- Simplification and consolidation of existing labour laws.
- Facilitation of ease of doing business.
- Ensure welfare and protection of workers.
- Streamline social security and maternity benefits.
- Create a conducive environment for industrial relations.

**Understanding Moonlighting: A Dual Employment Scenario****Definition of Moonlighting**

- Moonlighting refers to **having a second job or engaging in additional projects, gigs, or employment outside one's primary working hours.**

**Debate around Moonlighting****Proponents:**

**Moonlighting allows for extra income, skill development, personal choice, and profile building.**

**Opponents:**

- Rishad Premji criticizes moonlighting in the tech industry, considering it cheating. Arguments against moonlighting include the expectation of full dedication to the primary job, legal and ethical concerns, and potential productivity loss.

**For Moonlighting**

- Workers can engage in side projects without compromising their primary employment. Extra profits and skill development opportunities. Personal choice after official working hours.
- Adds value to profiles for professional courses.

**Against Moonlighting**

- Employees are expected to dedicate their entire working time and energy to their primary job. Legal but may pose ethical concerns, especially regarding confidentiality. Not legally allowed in some states, depending on labor laws.
- Potential productivity loss and fear of leaking confidential information. Some companies

introduce moonlighting clauses to restrict dual employment. Understanding “Quiet Quitting” in the Workplace

### Definition of “Quiet Quitting”

- “Quiet Quitting” refers to the **situation when an employee deliberately chooses not to take on additional work beyond their job description or refuses to engage in work-related activities outside their scheduled work hours.**

### Perception of “Quiet Quitting”

- Not Inefficient Working:
- It shouldn't necessarily be perceived as inefficient working.
- Employees might be prioritizing a work-personal life balance.

### Key Aspects of “Quiet Quitting”

#### Selective Work Approach:

- Employees consciously limit their involvement to tasks within their defined role. They may avoid taking on extra responsibilities or tasks that go beyond their job description.

#### Boundaries and Work-Life Balance:

- Employees set clear boundaries to maintain a healthy work-personal life balance. Refusal to answer work-related queries outside scheduled hours may indicate a commitment to personal time.

#### Reasons Behind “Quiet Quitting”

#### Work-Life Balance Prioritization:

- Employees prioritize maintaining a balance between work and personal life. Avoiding additional work may be a strategy to prevent burnout and maintain well-being.

#### Communication Issues:

- It could result from communication gaps between employees and management regarding workload expectations.

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## **Topic 74. TREMORS REVEAL GAPS IN EMERGENCY ALERT SYSTEM**

### *Important for the subject: Geography*

When **tremors hit Delhi and surrounding areas** following the **6.4 magnitude** earthquake in **Nepal** and the **5.6 magnitude** aftershock, the government and private **early alert systems** did not reach many of the people who could feel palpable tremors.

#### Emergency alert systems:

#### National Disaster Management Authority (NDMA)'s Cell Broadcast Alert System

**(CBAS):**

- A joint effort of the **Department of Telecommunication (DOT)** and It represents a **cutting-edge technology** that empowers us to disseminate **critical and time-sensitive disaster management messages to all mobile devices within specified geographical areas**, regardless of whether the recipients are residents or visitors.
- This ensures that **crucial emergency information** reaches as many individuals as possible promptly.
- **Government agencies and emergency services** employ **Cell Broadcasts** to keep the public informed about potential threats and to provide vital updates during critical situations.
- **Common applications of Cell Broadcast** include delivering emergency alerts such as severe weather warnings (eg, Tsunamis, Flash Floods, Earthquakes), public safety messages, evacuation notices, and other critical information.

**Google's Android Earthquake Early Warning System:**

- It is a free service that detects earthquakes around the world and can alert Android users before shaking starts.
- To receive alerts, users must have Wi-Fi and/or cellular data connectivity, and both Android Earthquake Alerts and location settings enabled.
- The **gov.in website** operated by the **Ministry of Earth Science's National Centre for Seismology** crashed moments after the tremors.

**Measurement of the earthquake:****Richter Scale:**

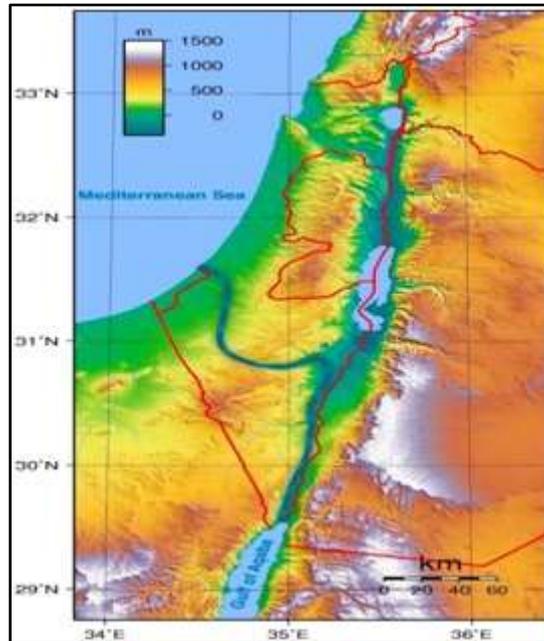
- This scale, developed by **Charles Richter**, measures the magnitude of the energy released during the Earthquake.
- This scale is **open-ended** i.e. there is not any end of the scale but, it has never measured any Earthquake of magnitude greater than **8.9**. The **Richter scale**, in nature, is **logarithmic** based on **10**.

**Mercalli Scale:**

- The **Mercalli Intensity Scale**, developed by **Giuseppe Mercalli**, and expanded to include **12 degrees of intensity** by **Adolfo Can** It was further modified again by **Harry O. Wood** and **Frank Neumann** and is today known as the **Modified Mercalli Intensity Scale**.
- It **measures the intensity of an earthquake** based on its actual impacts on people, the environment and the Earth's surface.
- It is a **closed-ended linear Scale**, scaled from **1-12** or **I-XII** with **zero effect in the Intensity 1 Earthquake** and **total destruction in the Intensity 12 Earthquake**.

**Topic 75. A PLAN TO JOIN THE RED SEA WITH MEDITERRANEAN — AN ALTERNATIVE TO THE SUEZ CANAL**

*Important for the subject: Geography*



**Ben Gurion Canal Project:**

First envisioned in the **1960s**.

Named after **Israel's founding father David Ben-Gurion** (1886-1973).

**Aim:** To develop an alternate canal system that ends the monopoly of the Suez Canal.

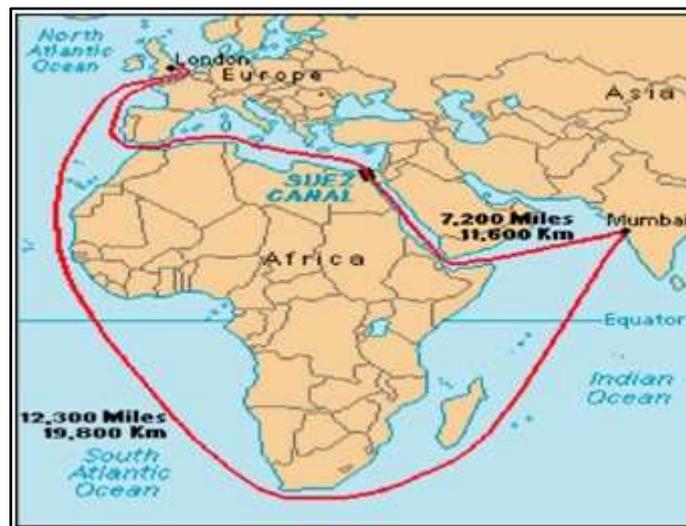
- It is over **100 km** longer than the Suez Canal.
- The idea is to **cut a canal** through the **Israeli-controlled Negev Desert** from the tip of the **Gulf of Aqaba** — the **eastern arm of the Red Sea** that juts into **Israel's southern tip** and **south-western Jordan** — to the **Eastern Mediterranean coast**, thus creating an alternative to the **Egyptian-controlled Suez Canal** that starts from the western arm of the **Red Sea** and passes to the **southeastern Mediterranean** through the **northern Sinai peninsula**.

**Challenges in developing this canal project:**

- Huge logistical, political, and funding challenges
- Israel- Palestine conflict
- The estimated cost of such a project may be as high as **\$ 100 billion**.

**About the Suez Canal:**

- Opened in **1869**. It revolutionised global maritime trade.
- By connecting the **Mediterranean** and **Red Seas** through the **Isthmus of Suez**, it ensured that ships travelling between Europe and Asia would not have to travel all the way around the continent of Africa.
- The canal cut the distance between **London** and **Mumbai** by more than **41 per cent**. In the **2022-23 fiscal year**, around **26,000 vessels** crossed the **Suez Canal**, accounting for approximately **13 per cent** of global shipping.



### Challenges with the Suez Canal:

- The **193 km-long, 205 m-wide, and 24 m-deep Suez Canal** is the world's biggest shipping bottleneck.
- In March 2021, the **mammoth cargo ship Ever Given** got stuck in the canal, blocking passage for more than a week.
- It was estimated that the resulting "traffic jam" held up an estimated **\$ 9.6 billion of goods every day**.
- In **1956**, after **President Gamal Abdel Nasser (1918-70)** decided to **nationalise** the canal, war broke out, with the **UK, France, and Israel** attacking **Egypt** in order to regain control. In the end, **Egypt** got **control** over the canal.
- It was also the focal point of both the **1967 and 1973 Arab-Israeli wars** and was **shut from 1967-75**. **Egypt** collects all the **toll revenue** generated, in addition to the benefits it brings to its local economy.
- In the **2022-23 fiscal year**, **Egypt's Suez Canal Authority** saw **toll revenues** reach a record **\$ 9.4 billion** — accounting for nearly **2 per cent** of **Egypt's GDP** of **\$ 476.8 billion**.



**Topic 76. AS THOUSANDS OF EARTHQUAKES ROCK ICELAND, A VOLCANIC ERUPTION TO FOLLOW?**

*Important for the subject: Geography*



A swarm of 800 earthquakes rocked Iceland's southwestern Reykjanes peninsula in under 14 hours.

The most powerful of these quakes had a **magnitude of 5.2** and hit about **40 km** from Reykjavík, Iceland's capital.

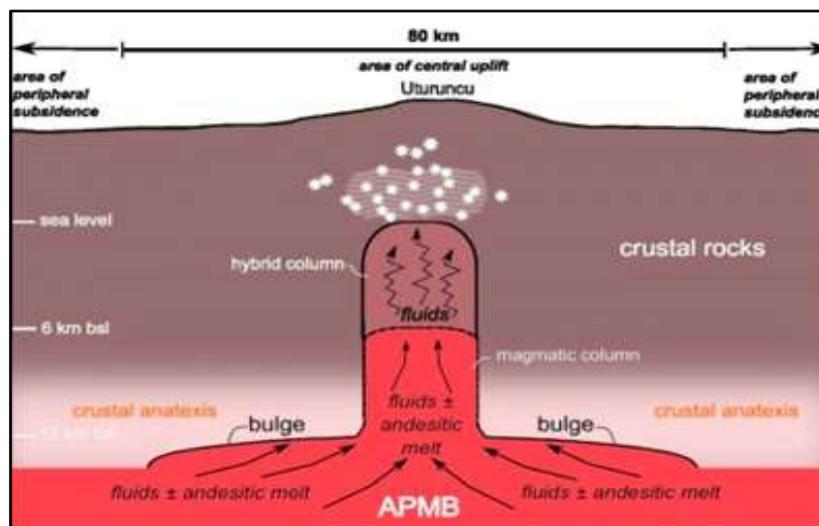
**Perlan** is a Reykjavik-based natural history museum.

**What is happening to Iceland?**

- Iceland is located on the **Mid-Atlantic Ridge**, technically the **longest mountain range** in the world, but on the floor of the **Atlantic Ocean**.
- The ridge separates the **Eurasian and North American tectonic plates** — making it a hotbed of seismic activity.
- On average, **Iceland** experiences around **26000** earthquakes a year. Sometimes, a **swarm of earthquakes** — a sequence of mostly small earthquakes with no identifiable mainshock — is a troubling precursor to a **volcanic eruption**.

### How can earthquake swarms be portents of volcanic activity?

- Deep under the Earth's surface, **intense heat melts rocks to form magma**, a thick flowing substance lighter than solid rock.
- This drives it upwards and most of it gets trapped in magma chambers deep underground. Over time, this **viscous liquid cools and solidifies** once again. However, a **tiny fraction erupts** through **vents and fissures** on the surface, causing **volcanic eruptions**.
- The **movement of magma** close to the Earth's surface exerts a **force on the surrounding rock**, which often causes **earthquake swarms**.
- The **underground movement of magma does not necessarily** lead to an eruption. But the closer it gets to the surface, the more likely an eruption is, and the more frequent symptomatic **earthquake swarms** get.



### Fagradalsfjall volcanic system:

- **Fagradalsfjall** lies about 40 km to the **southwest of Reykjavík** and is the “world’s newest baby volcano.”
- It had been **dormant for eight centuries** before erupting in **2021, 2022 and 2023**.

### How many active volcanos does Iceland currently have?

- Iceland has **33 active volcanoes** which have erupted over 180 times in the past 1,000 years.

- **Active volcanos** are those which have **erupted within the Holocene** (the current geologic epoch, which began at the end of the most recent ice age about 11,650 years ago) or which have the **potential to erupt again in the future**.
- One of **Iceland's** most famous volcanoes is **Eyjafjallajökull**. Other famous volcanoes include **Hekla, Grímsvötn, Hóluhraun**, and **Litli-Hrútur** (part of the **Fagradalsfjall** system).

## **Topic 77. WHAT WE KNOW OF THE UTTARAKHAND TUNNEL COLLAPSE**

### ***Important for the subject: Geography***

An under-construction tunnel in northern Uttarakhand collapsed.

**Silkyara Tunnel** (or **Silkyara- Barkot tunnel**) is located on the **Uttarkashi-Yamnotri road**.

The tunnel is a part of the **Char Dham all-weather road project** which commenced in **2016**. The **Rs 12,000-crore highway expansion project** in **Uttarakhand** is a flagship initiative of the Centre.

Build by: **NHIDCL** through **Navyuga Engineering Company**.

- Cost of the project: **853 crore**.
- Tunnel length: **4.5 km**
- The tunnel **aims** to reduce the distance between **Gangotri** and **Yamunotri** from **26 km** to **4.1 km**.

### **About the Char Dham Project**

- **Chardham Pariyojana** aims to “improve the connectivity to the Chardham pilgrimage centres (Badrinath, Kedarnath, Gangotri, Yamunotri) in the Himalayas, making journeys to these centres safer, faster and more convenient.
- It will **widen almost 900 km of highways** connecting the pilgrimage sites and the **Tanakpur-Pithoragarh stretch** of **National Highway (NH) 125**, a part of the **Kailash Mansarovar Yatra route**.
- The **Char Dham project** will cover **Uttarakhand's four major shrines** — **Badrinath, Kedarnath, Gangotri** and **Yamunotri** — in the upper Himalayas by widening 889 km of hill roads. This project can act as the **strategic feeder roads** which connect the **India-China border** with the **Army camps** in **Dehradun** and **Meerut** where missile bases and heavy machinery are located.
- **Implementing Agencies:** Uttarakhand State Public Works Department (PWD), Border Roads Organisation (BRO) and the National Highway & Infrastructure Development Corporation Limited (NHIDCL).
- **NHIDCL** is a fully owned company of the **Ministry of Road Transport & Highways**.

## **Topic 78. WHO HAILED INDIA'S SUCCESS IN MANAGING TB: MINISTRY**

### *Important for the subject: Schemes*

India has made tremendous progress in improving case detection and reversed the impact of COVID19 on the tuberculosis(TB) programme, noted the **World Health Organization's (WHO)'Global TB Report 2023'** released earlier this week, the Union Health Ministry said on Wednesday.

### **India's Alarming TB Burden:**

- India accounts for **27% of the world's TB burden**. Recorded 2.8 million TB cases with a 12% case fatality ratio, estimating 342,000 TB-related deaths.
- **MDR-TB Crisis:** India recorded 1.1 lakh cases of multidrug-resistant TB (MDR-TB) in 2022.

### **About Tuberculosis (TB):**

#### **Causal Agent: Mycobacterium tuberculosis**

- **Bacille Calmette-Guérin (BCG) vaccine** is given to babies or small children to prevent TB.
- **Transmission:** Airborne infection, spreads through close contact in poorly ventilated, crowded spaces.
- **Symptoms of Active Lung TB:** Cough with sputum, sometimes containing blood, Chest pains, Weakness, Weight loss, Fever, Night sweats.

### **India's Initiatives to Eliminate TB:**

- Under the **Pradhan Mantri TB Mukht Bharat Abhiyan, India aims to eliminate TB from the country by 2025** (5 years earlier than the global target of 2030).
- The **national strategic plan 2017-2025** sets the target of India reporting no more than 44 new TB cases or 65 total cases per lakh population by 2025. An online **Ni-kshay portal** has been set up to track the notified TB cases.
- In 2018 **Nikshay Poshan Yojna** was launched, which aimed to support every Tuberculosis (TB) Patient by providing a Direct Benefit Transfer (DBT) of **Rs 500 per month** for nutritional needs.

### **Treatment:**

- **TB is a treatable and curable disease.** It is treated with a standard 6-month course of 4 antimicrobial drugs that are provided with information, supervision and support to the patient by a health worker or trained volunteer.
- **Anti-TB medicines** have been used for decades and strains that are resistant to 1 or more of the medicines have been documented in every country surveyed.
- **Multidrug-resistant tuberculosis (MDR-TB)** is a form of TB caused by bacteria that do

- not respond to isoniazid and rifampicin, the 2 most powerful, first-line anti-TB drugs.
- MDR-TB is treatable and curable by using second-line drugs such as **Bedaquiline**.
  - **Extensively drug-resistant TB (XDR-TB) is a more serious form of MDR-TB caused by bacteria that do not respond to the most effective second-line anti-TB drugs, often leaving patients without any further treatment options.**

### **Global Efforts to Combat TB?**

- The WHO has launched a joint initiative “**Find. Treat. All. #EndTB**” with the Global Fund and Stop TB Partnership.
- WHO also releases the **Global Tuberculosis Report**.

### **About Global Tuberculosis Programme:**

- The WHO Global Tuberculosis Programme works towards the goal of a **world free of TB, with zero deaths, disease and suffering due to the disease. The team’s mission is to lead and guide the global effort to end the TB epidemic through universal access to people-centred prevention and care, multisectoral action and innovation.**

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## **Topic 79. RODTEP**

### *Important for the subject: Schemes*

The Centre has notified the **rates and norms for the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme.**

### **About the scheme:**

- **Announced in 2020 as a replacement for the Merchandise Export from India Scheme (MEIS), it ensures compliance with the rules of the World Trade Organisation.**
- **Aims to refund embedded central, state, and local duties or taxes, thus removing the disadvantage faced by Indian exports.**

### **Key features:**

- Aims for **zero rating of exports by refunding all domestic taxes**, including those levied by States and local bodies.
- **Refunds under RoDTEP, deemed WTO-compliant**, range from 0.5% to 4.3% of the Free On Board value of outbound consignments.
- Certain sectors like **steel, pharma, and chemicals excluded due to their strong export performance.**

### **Significance:**

- **Helps exporters meet international standards for exports with affordable testing and certification within the country.**
- Aims to make tax assessment fully automatic, **granting businesses access to GST**

refunds via an automatic route, thereby increasing the economy and working capital.

### Free Trade Agreement (FTA):

- An arrangement between two or more countries or trading blocs aimed at reducing or eliminating customs tariffs and non-tariff barriers on substantial trade between them.

### Categories of FTAs:

1. Preferential Trade Agreement (PTA)
2. Comprehensive Economic Cooperation Agreement (CECA)
3. Comprehensive Economic Partnership Agreement (CEPA)

### Spaghetti Bowl Effect:

- The multiplication of free trade agreements (FTAs), supplanting multilateral World Trade Organization negotiations as an alternative path toward globalization.
- Coined by Jagdish Bhagwati in 1995. Criticized as counter-productive in promoting freer and more open global trades due to the proliferation of crisscrossing FTAs.
- According to Bhagwati, the proliferation of FTAs can lead to the adoption of discriminatory trade policies, reducing the economic benefits of trade.

### Ease of Doing Business

- World Bank's Ease of Doing Business Report assesses business regulation across 190 economies.
- India became the top-ranked country in South Asia for the first time and third among the BRICS.
- Ease of doing business index annually released by World Bank in its Ease of Doing Business Report since 2004.
- 10 indicators include starting a business, dealing with construction permits, paying taxes, and more.

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## Topic 80. GEM PROCUREMENT CROSSES ₹2 LAKH CRORE ON BUYING ACTIVITY

### *Important for the subject: Schemes*

The procurement of goods and services from the government portal GeM has crossed ₹2 lakh crore so far this fiscal due to higher buying activity by different ministries and departments.

### What is GeM?

- GeM facilitates online procurement of common use Goods & Services required by

various **Government Departments / Organisations / PSUs**. The initiative was launched in August 2016, by the Ministry of Commerce and Industry, Government of India.

- The current version of GeM, i.e., **GeM 3.0** was launched on January 26, 2018. It provides the **tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users**, achieve the best value for their money and aims to enhance transparency, efficiency and speed in public procurement.

#### **Significance:**

- GeM **eliminates human interface** in vendor registration, order placement and payment processing, thereby reducing delays and corruption.
- It provides **complete visibility of all transactions** on its platform, ensuring fair and equal opportunity for all sellers. It enables **price comparison and selection of competitive and quality products**.
- It ensures compliance with standards and specifications for all its listed products and services and offers a user-friendly online feedback system.
- It promotes innovation by providing **opportunities for startups, MSMEs, women entrepreneurs and artisans** to showcase their products and services.

#### **Major Developments on GeM:**

- **GeM Outlet Stores:** GeM has launched outlet stores for various categories of products such as **SARAS, Ajeevika, Tribes India, Startup Runway, Khadi India, India Handloom, India Handicraft, Divyangjan** etc.
- **GeM-CII MoU:** GeM has signed a memorandum of understanding (MoU) with Confederation of Indian Industry (CII) to establish a GeM-CII Centre of Excellence (CoE), which will provide training, research and advocacy support to GeM.
- **GeM, CSC and India Post:** The integration of India's postal system India Post and Common Service Center (CSC) with the GeM is operational across the country. This allows India Post to provide logistics service into the remotest parts of the country to sellers and buyers transacting via GeM.
- **Bamboo Market Window:** The National Bamboo Mission and GeM have created a dedicated window on the GeM portal for marketing Bamboo Goods.

### **Topic 81. MODI TO RELEASE PM KISAN FUNDS TODAY; OPPOSITION PROTESTS**

#### ***Important for the subject : Schemes***

Prime Minister Narendra Modi will release the 15th instalment of the **Pradhan Mantri Kisan Samman Nidhi (PMKISAN) scheme** at a function in Jharkhand on Wednesday. The Opposition has alleged that the instalment was deliberately delayed to coincide with the ongoing Assembly elections in five States and it is a violation of the Model Code of Conduct (MCC).

**About PM KISAN:**

- Under the scheme, the Centre transfers an amount of Rs 6,000 per year, in three equal instalments, directly into the bank accounts of all landholding farmers irrespective of the size of their land holdings.
- It was launched in February 2019.

**Funding and Implementation:**

- It is a **Central Sector Scheme** with 100% funding from the Government of India. It is being implemented by the Ministry of Agriculture and Farmers Welfare.

**Identification of Beneficiaries:**

- The entire responsibility of identification of beneficiary farmer families rests with the State / UT Governments.

**Objective:**

- To supplement the financial needs of the **Small and Marginal Farmers in procuring various inputs to ensure proper crop health and appropriate yields**, commensurate with the anticipated farm income at the end of each crop cycle.
- To protect them from falling in the clutches of moneylenders for meeting such expenses and ensure their continuance in the farming activities.

**PM-KISAN Mobile App:**

- The PM-KISAN Mobile App developed and designed by the **National Informatics Centre in collaboration with the Ministry of Electronics and Information Technology** has been launched.
- The farmers can view the status of their application, update or carry out corrections of their Aadhaar cards and also check the history of credits to their bank accounts.

**What is Model Code Of Conduct (MCC)?**

- The **MCC is a set of guidelines issued by the ECI to regulate political parties and candidates prior to elections.**
- It helps EC in keeping with the mandate it has been given under Article 324 of the Constitution, which gives it the power to supervise and conduct free and fair elections to the Parliament and State Legislatures.
- The MCC is operational from the date on which the election schedule is announced until the date of the result announcement.

**Evolution:**

- The **origin of the MCC lies in the Assembly elections of Kerala in 1960**, when the State administration prepared a 'Code of Conduct' for political actors.
- Subsequently, in the Lok Sabha elections in 1962, the ECI circulated the code to all

recognized political parties and State governments, and it was wholeheartedly followed.

- It was in 1991 after repeated flouting of the election norms and continued corruption, the EC decided to enforce the MCC more strictly.

### **MCC for Political Parties and Candidates:**

#### **Prohibitions:**

- Criticism of political parties must be limited to their policies and programmes, past record, and work.
- Activities such as using caste and communal feelings to secure votes, criticizing candidates on the basis of unverified reports, bribing or intimidation of voters, etc. are prohibited.

#### **Meetings:**

- Parties must inform the local police authorities of the venue and time of any meeting in time to enable the police to make adequate security arrangements.

#### **Processions:**

- **If two or more candidates plan processions along the same route**, the political parties must establish contact in advance to ensure that the **processions do not clash**.
- Carrying and burning effigies representing members of other political parties is not allowed.

#### **Polling Day:**

- **Only voters and those with a valid pass from the EC are allowed to enter polling booths.**
- All authorized party workers at polling booths should be given suitable badges or identity cards.
- Identity slips supplied by them to voters shall be on plain (white) paper and shall not contain any symbol, name of the candidate or the name of the party.

#### **Observers:**

- The EC will appoint observers to whom any candidates may report problems regarding the conduct of the election.

#### **Party in Power:**

- The MCC incorporated certain restrictions in 1979, regulating the conduct of the party in power. Ministers must not combine official visits with election work or use official machinery for the same.
- The party must avoid advertising at the cost of the public exchequer or using official mass media for publicity on achievements to improve chances of victory in the elections.
- From the time elections are announced by Commission, the ministers and other

authorities must not announce any financial grants, or promise any construction of roads, provision of drinking water, etc.

- Other parties must be allowed to use public spaces and rest houses, and these must not be monopolized by the party in power.

### **Election Manifestos:**

- The **ECI directs that political parties and candidates must adhere to the following guidelines** while releasing election manifestos for any election (Parliament/State Legislatures):
- The **election manifesto shall not contain anything against the ideals and principles enshrined in the Constitution.**
- **Political parties should avoid making promises that are likely to vitiate the purity of the election process** or exert undue influence on voters.
- Manifestos should reflect the rationale for promises and broadly indicate the ways and means to meet the financial requirements for it.
- Manifestos shall not be released during the prohibitory period, as prescribed under Section 126 of the Representation of the People Act 1951, for single or multi-phase elections.

### **Some Recent Additions to the MCC:**

- The regulation of **opinion polls and exit polls** during the period notified by the ECI. The **prohibition of advertisements in print media on polling day and one day prior to it** unless the contents are pre-certified by screening committees.
- The **restriction on government advertisements featuring political functionaries during the election period.**

### **Is the MCC Legally Enforceable?**

- Though the **MCC does not have any statutory backing**, it has come to acquire strength in the past decade because of its strict enforcement by the EC.
- Certain provisions of the MCC may be enforced through invoking corresponding provisions in other statutes such as the IPC 1860, CrPC 1973, and RPA 1951.
- In 2013, the Standing Committee on Personnel, Public Grievances, Law and Justice recommended making the MCC legally binding and recommended that the MCC be made a part of the RPA 1951.
- However, the ECI argues against making it legally binding. According to it, elections must be completed within a relatively short time or close to 45 days and judicial proceedings typically take longer, therefore it is not feasible to make it enforceable by law.

## Topic 82. WHAT INDIA CAN EXPECT FROM THE 'RASHTRIYA VIGYAN PURASKAR' AWARDS

*Important for the subject: Schemes*

Recently, the Council of Scientific and Industrial Research announced the winners of the **Shanti Swarup Bhatnagar (SSB) awards for 2022**.

### **Categories of Recognition:**

- The awards will encompass **four categories**:
- **Vigyan Ratna**: Recognizing lifetime achievements of scientists.
- **Vigyan Shri**: Acknowledging distinguished contributions to a specific field.
- **Vigyan Yuva–Shanti Swarup Bhatnagar**: Encouraging young scientists who have made exceptional contributions.
- **Vigyan Team**: Recognizing collaborative efforts of teams comprising three or more individuals.

### **Recognition Domains:**

- The Rashtriya Vigyan Puraskar will be conferred across **13 domains**, encompassing areas such as Physics, Chemistry, Biological Sciences, Mathematics and Computer Science, Earth Science, Medicine, Engineering Sciences, Agricultural Science, Environmental Science, Technology and Innovation, Atomic Energy, Space Science and Technology.
- The government **emphasizes the importance of ensuring adequate representation of women in these domains**.

### **Annual Awards Distribution:**

- Annually, there will be **three Vigyan Ratnas, 25 Vigyan Shris, 25 Vigyan Yuvas, and 3 Vigyan Teams**. Only the Vigyan Yuva category will have an age limit of 45 years.

### **Rationalizing Science Awards:**

- The introduction of the Rashtriya Vigyan Puraskar aligns with the government's effort to rationalize awards in the field of science and technology. It seeks to enhance the prestige and value of these awards by reducing their numbers and eliminating endowments.

### **Key Differences from Older Awards**

- **Inclusivity**: Open to innovators, technologists, and those in the industry with diverse affiliations.

- **Expanded Eligibility:** Includes technology-led innovations or products alongside discovery-based research.
- **Team Awards:** Acknowledges the collaborative and interdisciplinary nature of scientific research.
- **No Age Limit:** Except for the Vigyan Yuva-SSB award, eliminating age barriers and ensuring gender representation.
- **Global Recognition:** Open to Persons of Indian Origin abroad, recognizing the global footprint of modern science.
- **Elimination of Cash Prizes:** Awards focus on certificates and medals.

### Intent and Processes

- **Notable Contributions:** Emphasise that recognized contributions go beyond standard job descriptions.
- **Comprehensive Citations:** Include dedicated citations for teaching, mentoring, science communication, public engagement, leadership, and administration.
- **Age Limit Considerations:** Reconsider age limits for the Vigyan Yuva-SSB award to ensure gender parity and consider personal circumstances.
- **Transparent Selection Process:** Adhere to predetermined timelines, publicise shortlisted applicants, and ensure diverse selection committees.
- **Diversity and Inclusivity:** Pledge to ensure socioeconomic and demographic representation among awardees.
- **Continuous Evaluation:** Regularly assess the impact of the new award system on scientific work, diversity, and inclusivity.

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### Topic 83. RARE DISCOVERY IN GOA: CASHEW FARMER UNEARTHES 832 COPPER COINS FROM PORTUGUESE ERA

#### *Important for the subject: History*

Rare Discovery in Goa as Cashew Farmer Unearths 832 Copper Coins from Portuguese Era

A Goan cashew farmer, **Vishnu Shridhar Joshi**, accidentally discovered a **buried pot containing 832 copper coins** dating back to the **16th or 17th century**, believed to be from the **Portuguese era**.

The find, now part of an **archaeological study**, may provide **insights into Goa's economic history, trade relations, and commerce** during the early Portuguese rule.

- The state's **Department of Archaeology is examining the coins to determine their origin, circulation period, and metal composition.**
- The coins will **eventually be displayed in the state museum** after a thorough examination.



### Some facts about Portuguese rule of Goa:

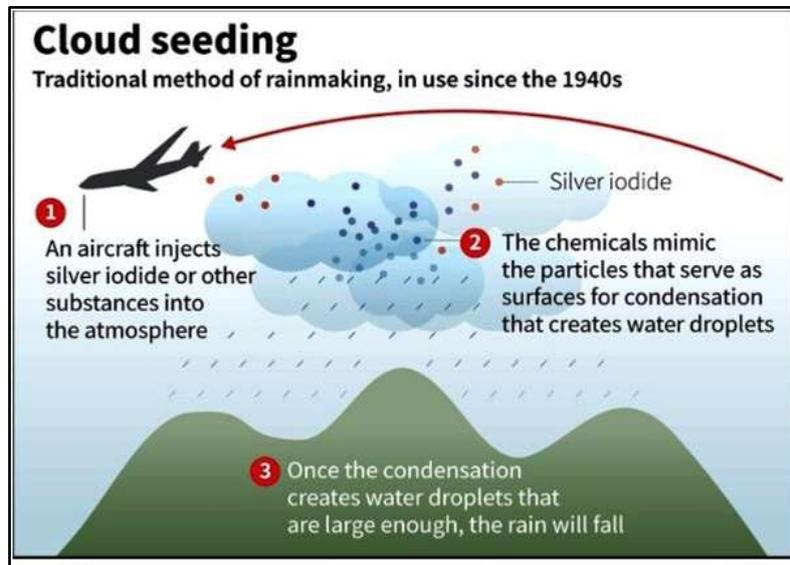
- In **1510**, under the **leadership of Afonso de Albuquerque**, the Portuguese launched a **military expedition** to seize control of Goa from the **ruling Sultanate of Bijapur**.
- The Portuguese **established a viceroyalty in Goa in 1530**, which oversaw Portuguese possessions in India, Africa, and Southeast Asia. Goa **remained the capital of Portuguese India until 1961**.
- The Portuguese also **introduced many new crops and technologies to Goa, such as potatoes, tomatoes, and chilies**. The Portuguese constructed forts, churches, and other structures, leaving an architectural legacy that blends European and Indian influences.
- **Manuel António Vassalo e Silva** was the **128th and the last Governor-General of Portuguese India**.

### Some prominent Portuguese-influenced structures in Goa:

- **Basilica of Bom Jesus:** Recognized as a **UNESCO World Heritage Site**, this structure stands as a **prominent illustration of Portuguese-influenced architecture** in Goa. The magnificent facade, intricate reliefs, and **lavish interiors vividly portray the splendor and richness of the Portuguese colonial period**.
- **Se Cathedral:** Positioned in **Old Goa**, the **Se Cathedral ranks among the largest churches in Asia**, showcasing architectural brilliance. Constructed in the **Portuguese Manueline style**, it seamlessly **blends Gothic, Renaissance, and Portuguese design elements**.
- **Church of St. Francis of Assisi:** Located in **Old Goa**, this church's **adorned entrance, decorative motifs, and tranquil interiors** serve as a testament to Portuguese influences on Goan religious architecture.
- **Fort Aguada:** Situated in **North Goa**, this Portuguese fort is a **fusion of military and architectural prowess**. Its **imposing presence and strategic positioning** underscore the defensive architectural concepts introduced by the Portuguese.
- **Fontainhas:** Renowned for its **well-preserved Portuguese colonial architecture**, Fontainhas provides a **glimpse into the architectural allure of Goa's Portuguese heritage**.

## Topic 84. SEEDING CLOUD TO CLEAN THE AIR

*Important for the subject: History*



Delhi govt plans 'cloud seeding' to induce rains amid pollution

**What is cloud seeding:**

- **Cloud seeding** involves **injecting clouds** with substances like **silver iodide, potassium iodide, or sodium chloride** to **accelerate cloud microphysical processes**.
- These substances serve as **nuclei** around which **cloud droplets can form**. The **process aims to create larger droplets** that can reach the **Earth's surface** without evaporating.
- **Different salts** are used to provide **cloud condensation nuclei** and **ice nuclei**, essential for **forming cloud droplets and ice crystals**, respectively.
- Cloud seeding is **intended to enhance precipitation** by **promoting** the growth of **droplets and increasing** the likelihood of rainfall.

**What are the conditions required for cloud seeding to be done:**

- **Cloud seeding** is **dependent** on the presence of a **sufficient number of clouds and specific cloud types**.
- **Effective cloud seeding** requires **clouds with an adequate depth and an ample number of cloud droplets**.
- The **process aims to increase the size of cloud droplets**, leading to their growth and eventual precipitation. **In winter**, clouds typically form over Delhi when influenced by western disturbances originating in the Caspian or Mediterranean Sea.
- While **radar systems can help assess the likelihood of cloud formation**, the **height**

and liquid water content of the clouds also need to be considered for successful cloud seeding.

**Has cloud seeding been done before in India, and has it been successful:**

- Cloud seeding experiments in India have **primarily been conducted during the monsoon season** in states like **Karnataka, Maharashtra, and Tamil Nadu**.
- A **notable experiment, CAIPEEX-IV**, conducted in **drought-prone Solapur, Maharashtra**, during the **2018 and 2019** monsoon seasons, showed a **relative enhancement of 18% in rainfall**.
- While there have **been attempts in pre-monsoon months**, such as **IIT Kanpur's trials in April and May 2018**, the **success of cloud seeding remains uncertain and complex due to various factors** influencing precipitation, making further research necessary for **potential applications** in winter or other seasons.

**How it is expected to help with pollution levels**

- **Cloud seeding** in India has **primarily focused on addressing drought conditions**, and there **haven't been attempts specifically aimed at reducing pollution**.
- While **China has explored weather management options**, the **complex and non-linear nature of cloud processes** makes it **challenging to predict the outcomes** of cloud seeding accurately.
- The **impact of cloud seeding on pollution reduction** would require dedicated studies, **considering India's unique conditions**.
- The **initiative to use cloud seeding for air pollution control** is a **novel approach, aiming to induce rainfall that can temporarily wash away pollutants**, although the **long-term effectiveness remains uncertain**.