



VAJIRAM & RAVI
Institute for IAS Examination

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CURRENT AFFAIRS - April 2024



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New Insurance Rules

Insurance Regulatory and Development Authority of India (IRDAI) (Insurance Products) Regulations, 2024, came into force on April 1. The new norms covering general & health insurance have generated considerable interest, particularly around a presumed change in the upper age limit to avail a new health cover.

What Do The New Regulations Address

- **Expanding Insurance Coverage:** The April 1 notification aims to *broaden insurance coverage*, aligning with the IRDAI's goal of 'Insurance for All by 2047'.
- **Aimed at Improving Insurance:** Also designed to help insurance companies better meet the changing needs of the market, simplify business operations & protecting interests of policyholders.
- **Emphasis on Good Governance:** To ensure policyholders are treated fairly, insurance companies are encouraged to follow good governance practices when creating and pricing their products.
 - This helps maintain transparency and fairness in insurance transactions.
- **Reduction of the waiting period** for specific diseases and treatments
 - Previously, policyholders had to wait for 4 years, but now they only need to wait 3 years to get coverage for specific diseases and treatments, except in cases of accidents.
 - This adjustment is expected to prompt most insurers to increase the cost of insurance by 10-15% across the board.
 - **Pre-Existing Conditions** are health conditions, injuries, or diseases diagnosed by a physician within three years before the policy's start date.
 - As long as the policy is renewed without interruption, these pre-existing conditions will be covered after the waiting period of three years
- **Focus on AYUSH Treatment Coverage:** The new regulations highlight the importance of covering AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy) treatments in health insurance policies.
 - Insurers are now required to offer policies approved by the **Board** that treat AYUSH methods equally with other medical treatments.
 - Previously (until March 31, 2024), insurers were encouraged to provide coverage for one or more AYUSH systems, as long as the treatments were administered in authorized hospitals or healthcare facilities, following specified guidelines from the Authority.
- **Renewal Assurance:** Regulator has advised insurance companies **against refusing to renew** health insurance policies solely because the insured made claims in previous policy years.
 - This guidance applies unless the *policy is of a benefit-based nature* where termination occurs after the covered benefit is paid out, such as in critical illness policies.

What Changes Are Relevant To Senior Citizens

- **Previous Regulations on Entry and Exit Age:** Under the Health Insurance Regulations of 2016, it was stipulated that health insurance policies must allow entry up to the age of 65 years.
 - Despite the regulatory minimum, insurers were not universally hesitant to provide health cover to those above 65 years. Several policies offered by different insurers had maximum entry ages of up to 99 years, demonstrating flexibility in coverage options.
- **New regulation skipped mentioning the 65-year age** of entry provision.
 - This has been interpreted as the IRDAI actually allowing insurers to sell medical policies to those above this age level.

- This in effect does not mean that IRDAI has expressly ordered that covers be made available to senior citizens.
 - Insurers even now have control over the issuing of policies.
 - So, if an insurer deems someone is too big a risk to issue a policy, they may well refuse to do so.
- **Special Focus on Senior Citizens:** The new regulations also mandate insurers to establish a separate channel to address health insurance claims & grievances specifically for senior citizens.

Challenges of Insurance Sector in India

- **Low Insurance Penetration and Awareness:** In FY23, India's overall insurance penetration was down at 4% from the level of 4.2% in FY22. This is much below the global insurance penetration of 6.8%.
 - As per IRDAI, the insurance density increased from \$78 in FY 21 to \$92 in FY23.
 - Insurance density is calculated by dividing the total insurance premium by the total population of a country.
- **Distribution Challenges:** Limited access to insurance products and services in rural and remote areas due to inadequate infrastructure and distribution networks.
- **Regulatory Constraints:** While regulations are essential for ensuring consumer protection and market stability, stringent regulatory requirements can sometimes be a barrier for innovation and growth.
- **Fraud and Mis-selling:** Unscrupulous practices by some agents can erode consumer trust and confidence in insurance products.
- **Technological Adaptation:** Adopting new technologies and digital platforms to enhance customer experience, streamline operations, and offer innovative products is a challenge for traditional insurance companies.
- **Underwriting Risks:** Assessing and pricing risks accurately is crucial for the sustainability of insurance companies. Inadequate data and analytics capabilities can lead to mispricing of risks, impacting profitability.
- **Competitive Landscape:** With the entry of new players, both domestic & foreign, the competitive landscape in the insurance sector has become intense. Established players need to differentiate their offerings & adapt to changing market dynamics to maintain their share.
- **Healthcare Inflation:** Rising healthcare costs and increasing prevalence of lifestyle-related diseases pose challenges for health insurance providers in managing claims and maintaining profitability.
- **Macro-economic Factors:** Economic downturns, inflation, and fluctuations in interest rates can impact investment returns and profitability of insurance companies



Global Plastic Treaty Talks

Global leaders will gather in Canada's capital -Ottawa- to discuss progress in drafting a first-ever global treaty to rein in soaring plastic pollution. This treaty is expected to be finalized by the end of this year.

If negotiated and agreed upon by members, this treaty could be the most significant deal relating to climate-warming emissions and environmental protection since the 2015 Paris Agreement.

Plastic Treaty Talks - Background

- At the UNEA in 2022, the world's nations agreed to develop a **legally binding** agreement by the end of 2024 to address the world's plastic pollution crisis.
- The treaty is meant to address plastics through their entire lifecycle - from when they are produced, to how they are used and then disposed of.

Negotiation in Ottawa

- According to the United Nations, **99% of plastics are made from polymers** derived from non-renewable hydrocarbons (crude oil and natural gas).

- Of the nearly 17 topics that countries are expected to deliberate upon, one of them involves “**problematic and avoidable plastic products including single-use plastics**”.
- Similar to the position on plastics, **there are 16 other issues that deal with the production of polymers** - the constituent chemicals of most plastics - waste management, trade, the use of alternative plastics, etc.
- **The aim of negotiating countries** is to implement global and national measures such as
 - Removing these products from the market,
 - Reducing production through alternate practices or non-plastic substitutes, and
 - Redesigning problematic items to meet criteria for sustainable and safe product design.
- **Challenges:** Countries have become divided on the issues during *three previous rounds of talks* - held in Punta del Este (Uruguay), Paris and most recently in Nairobi.
 - At the Nairobi talks, in November 2022, the draft treaty under review ballooned from 30 pages to 70 as some countries insisted on including their objections to more ambitious measures like **production limits and phase-outs**.
 - Countries are now under pressure to find common ground before the final negotiations are held in December in **Busan, South Korea**.

United Nations Environment Assembly (UNEA)

- It is the world's highest-level decision-making body on the environment.
- UNEA enjoys the universal membership of all 193 UN Member States and the full involvement of major groups and stakeholders.
- It gathers ministers of environment in Nairobi, Kenya every 2 years.
- UNEA was created in 2012, as an outcome of the UN Conference on Sustainable Development (Rio+20), held in Brazil.

Problem with Plastics

- **Source of pollution**
- **Contribution in global carbon emissions:** The plastic industry now accounts for 5% of global carbon emissions, which could grow to 20% by 2050 if current trends continue.
 - ◆ Producing plastics involves releasing greenhouse gas emissions.
- **Increased plastic production:** Plastic production is on track to triple by 2060 - unless the treaty sets production limits, as some have proposed. Most virgin plastic is derived from petroleum.

What Do Countries Want In The Treaty

Demands of group of Like-Minded Countries	Demands of High-Ambition Coalition
<p>Many plastic and petrochemical-producing countries have opposed mentioning production limits.</p> <p>These countries include Saudi Arabia, Iran and China and are known collectively as the group of Like-Minded Countries.</p>	<p>The 60-nation High-Ambition Coalition, which includes EU countries, island nations, Japan and UAE, <u>wants to end plastic pollution by 2040</u>.</p> <p>This coalition has called for common, legally binding provisions to restrain and reduce the production and consumption of primary plastic polymers to sustainable levels.</p> <p>They also are proposing measures such as phasing out problematic single-use plastics and banning certain chemical additives that could carry health risks.</p>

What Does Petrochemical Industry Want?

The major petrochemical producers argue that:

- production caps would lead to higher prices for consumers
- treaty should address plastics only after they are made

These companies want to focus on encouraging the reuse or recycling of plastics, and on developing the market for burning plastics as fuel. In terms of transparency about chemicals used in production, the group says companies should be allowed to disclose those chemicals voluntarily.

What Do Corporate Brands Want

More than 200 consumer-facing companies including Unilever, PepsiCo and Walmart have joined the so-called **Business Coalition** for a Plastics Treaty.

- These companies that rely on **plastic packaging** for their products.
- But they support a treaty that includes production caps, use restrictions and phase-outs, reuse policies, product design requirements, extended producer responsibility, and waste management.

India has opted for language in the current version of the negotiating document, called a ‘zero draft’. It vouches for “regulating” instead of “not allowing” the production, sale, import and export of problematic and avoidable plastic goods. It has, however, agreed to a “science-based criteria” for identifying such plastics.



Fall in Household Savings in India

The fall in household savings has been at the heart of recent debates in India, which is brought about by a drastic reduction in net financial savings.

Interpreting Lower Financial Savings

Net financial savings of the household = Gross financial savings - borrowing.

- **Gross financial savings** of a household is the extent to which its financial assets change during a period.
 - **The financial assets of households** typically comprise bank deposits, currency and financial investments in mutual funds, pension funds, etc.
 - Though household borrowing includes credit from non-bank financial corporations and housing corporations, **the bulk of the borrowing comprises credit from commercial banks.**
- **3 factors that can potentially bring about a reduction in household net financial savings:**

Factors	Analysis
Households typically finance their “ <u>additional consumption expenditure</u> ” by increasing their borrowing or depleting their gross financial savings.	This factor hardly played any role in the <i>sharp reduction in gross financial savings</i> in 2022-23 as the <u>consumption to GDP ratio remained largely unchanged</u> between 2021-22 (60.95%) and 2022-23 (60.93%).
When households finance “ <u>higher tangible (physical) investment</u> ” by increasing their borrowing or depleting their gross financial savings	This factor played only a limited role. While the <u>gross financial savings to GDP ratio</u> declined from 7.3% to 5.3% in 2022-23, household <u>physical investment to GDP ratio</u> increased only from 12.6% to 12.9%.
When “ <u>interest payment of a household increases</u> ”, say due to higher interest rates	Though higher borrowing is partly financed by interest income from financial assets, it can be largely attributed to “higher interest payments” of the household in the recent period.

Implication of Higher Debt Burden

- The rise in household debt burden has **two concerns for the macroeconomy** - (debt repayment and financial fragility) and (the implication on consumption demand).
- Since the repayment capacity depends on the income flow, a key criterion for evaluating a household’s debt sustainability is the **difference between interest rate and the income growth rate.**
 - On the flip side, **the interest payments from the households are the interest income of the financial sector.**
 - If households fail to meet their debt repayment commitments, then it reduces the **income of the financial sector** & deteriorates their balance sheets.

- This in turn can have a **cascading effect on macroeconomy** if the latter (**financial sector**) responds by reducing their credit disbursement to the non-financial sector.
- Over and above disposable income, **the consumption expenditure of the household** can be affected by their wealth, debt, and interest rate.
 - Reduction in household wealth can lead to **lower consumption expenditure** as households may attempt to preserve their wealth position by increasing their savings.

What Are The Macroeconomic Implications Of Fall In Household Savings?

- **The households are susceptible** since both the stock indicator of **debt to net worth** and the flow indication of **liabilities to disposable income** show an increasing tendency.
- Higher interest rates, which are used as a policy tool to combat inflation by lowering macroeconomic output and employment, **can cause households' debt levels to rise and even put them in danger of debt trap**.
- The implications of high interest rate on debt burden can have an **adverse impact on the consumption** of the households and consequently for **aggregate demand**.
- The household balance sheet trends indicate **a broader change in the structure of the economy**.
 - **A certain amount of financialisation of the economy** is indicated by the shift in the asset side of the household balance sheet from production-based to monetary or financial exchange-based.
 - **This will make the five trillion-dollar economy both fragile and jobless**.



Decline in Private Investment

- Private investment has witnessed a steady decline since **2011-12**.
- The failure of private investment, as measured by private Gross Fixed Capital Formation (GFCF) as a percentage of GDP at current prices, to accelerate has been one of the major issues hurting the Indian economy.
- The government has been hoping that large Indian corporations would step in and increase investment. In fact, in **2019**, the Centre slashed corporate taxes from **30% to 22%** hoping that the move would encourage private investment.

Trend In Private Investment In India

- Private investment began to pick up significantly mostly after the economic reforms of the late-1980s and the early-1990s that improved private sector confidence.
 - ✓ From independence to economic liberalisation, private investment largely remained either slightly below or above 10% of the GDP.
 - ✓ Public investment as a percentage of GDP, on the other hand, steadily rose over the decades from less than 3% of GDP in 1950-51 to overtake private investment as a percentage of GDP in the early 1980s. It, however, began to drop post-liberalisation with private investment taking on the leading role in fixed capital formation.

Gross Fixed Capital Formation (GFCF)

- 01 GFCF refers to the growth in the **size of fixed capital** in an economy. Fixed capital refers to things such as **buildings and machinery**, for instance, which require investment to be created.
- 02 So **private GFCF** can be a rough indicator of how much the private sector in an economy is willing to invest. **Overall GFCF** also includes capital formation as a result of investment by the government.
- 03 GFCF matters because fixed capital, by helping workers produce a greater amount of goods and services each year, helps to boost economic growth and improve living standards.
- 04 In other words, fixed capital is what largely determines the overall output of an economy and hence what consumers can actually purchase in the market.
- 05 Developed economies such as the U.S. possess more **fixed capital per capita** than developing economies such as India.

- The growth in private investment lasted until the global financial crisis of 2007-08. It rose from around 10% of GDP in the 1980s to around **27% in 2007-08.**
- From 2011-12 onwards, however, private investment began to drop and hit a low of **19.6% of the GDP in 2020-21.**

Reasons For The Decline In Private Investment

- Many economists in India have blamed **low private consumption expenditure** as the primary reason behind the failure of private investment to pick up over the last decade, and particularly since the pandemic.
- Their reasoning is that, strong consumption spending is required to give *businesses the confidence* that there will be sufficient demand for their output once they decide to invest in building fixed capital.
 - ✓ Hence these economists have advised that the government should put more money into the hands of the people to boost consumption expenditure, and thus help kick start private investment.
- Historically, **however**, an increase in private consumption has **not** led to a rise in private investment in India. In fact, a drop in consumption spending has boosted private investment rather than dampening it.
 - ✓ **Private consumption expenditure** dropped steadily from nearly 90% of GDP in 1950-51 to hit a low of 54.7% of GDP in 2010-11.
 - ✓ And since 2011-12, private consumption has risen while private investment has witnessed a worrying fall as a percentage of GDP.
 - ✓ The **inverse relationship** between consumption and investment is likely because the money that is allocated towards savings and investment, either by the government or by private businesses, comes at the cost of lower consumption expenditure.
- Other economists believe that **structural problems** may likely be the core reason behind the significant fall in private investment as a percentage of GDP over the last decade or so.
 - ✓ They have cited **unfavourable government policy and policy uncertainty** as major issues affecting private investment.
 - ✓ Rise in private investment in 1990s and 2000s correlated with the economic reforms programme started in 1991. The drop in private investment, on the other hand, correlated with the slowdown in the pace of reforms in last 2 decades.
 - ✓ Further, policy uncertainty can discourage private investment as investors expect stability to carry out risky long-term projects.



Kerala-Centre Dispute Over States' Borrowing Powers

The Supreme Court (SC) recently referred to a five-judge Constitution Bench- the question raised by Kerala whether a State has an “**enforceable right**” to raise its borrowing limits from the Union government and other sources.

Background

- Last year, Kerala filed a suit in the SC under **Article 131** of the Constitution accusing the Union government of arbitrarily imposing a **Net Borrowing Ceiling (NBC)** on the State, which brought it to the brink of a financial crisis as it could no longer pay salaries and pensions or fulfil other essential financial commitments.

Article 131 is original jurisdiction which empowers SC to settle disputes between-



One or more State Governments and the Central Government

Central Government and any State or States on one side & one or more other States on the other

Two or more States, if the dispute involves any question (of law or fact) on which the existence or extent of a legal right depends

- It also challenged letters issued by the Ministry of Finance in March and August 2023 and the amendments made to Section 4 of Fiscal Responsibility and Budgetary Management (FRBM) Act, 2003 through the Finance Act, 2018 that imposed the NBC, saying that these curtailed the constitutionally guaranteed fiscal autonomy of States.
 - ✓ The FRBM Act was introduced to ensure responsible fiscal management, long-term macro-economic stability by removing fiscal impediments in the effective conduct of monetary policy and prudential debt management through limits on borrowings, debt and deficits.
 - ✓ The Act's long-term objective is to give RBI flexibility to deal with inflation in India. RBI in a report titled 'State Finances: A Risk Analysis' said states' fiscal positions deteriorated sharply after COVID-19 with a sharp decline in revenue, an increase in spending and a sharp rise in debt to GSDP ratios.

About Net Borrowing Ceiling (NBC): It imposes a limit on a state's borrowing from all sources including open market borrowings.

How Is It Calculated

- Liabilities arising from the public account of the States were deducted to arrive at such a cap. Additionally, borrowings by State-owned enterprises, where the principal and/or interest are serviced out of the Budget or through assignment of taxes, cess or any other State revenue, are also deducted from the NBC.
 - ✓ Notably, no prior Finance Commission (FC) has recommended the inclusion of the debt of State-owned enterprises in the NBC.
- It is fixed at 3% of the Gross State Domestic Product (GSDP) for the states or ₹8,59,988 crore in absolute terms for the Financial Year (FY) 2023-24 as recommended by the 15th Finance Commission.
 - ✓ NBC for Kerala is pegged at ₹32,442 crore for FY 2023-24.

Kerala's Opposition to NBC

It has opposed the inclusion of debt of State-owned enterprises as its own debt. Kerala Infrastructure Investment Fund Board (KIIFB), a statutory body, primarily funds the infrastructure projects initiated by the state government through extra-budgetary borrowings. Including KIIFB's debt in NBC has made it difficult for the state to pay salaries and meet expenses for welfare schemes.

- ✓ Off-budget borrowing, also known as extra budget borrowing, is a way for the government to raise funds without reflecting the expenditures in the official budget. Off-budget borrowings are not subject to legislative scrutiny and are outside the budget.

Why is Kerala Facing a Financial Crunch

- Kerala spends the second-highest percentage of its total revenue expenditure on salaries, which are continuing to grow. Therefore, it often resorts to borrowing to pay for salaries and pensions.
- Kerala claims that the Centre is withholding its due share in taxes. As per an RBI report on state finances, Kerala has claimed that for every Rs 100 collected as tax, the Centre, on average, provides Rs 35 to the states but it has been receiving only Rs 21 for every Rs 100 in taxes sent to the Centre.
- Covid-19 pandemic and the cessation of GST compensation (given by the Centre to states for five years to make-up the losses) in 2022 has negatively impacted Kerala's revenue collection.

Fiscal Autonomy under the Constitution of India

Financial Relations between Center-State are dealt under Articles 264 to 293 in Constitution. Following Articles/Provisions are dealing with borrowing aspect of states:

- **Article 293 (1)**- allows the States to borrow only from within the territory of India on a guarantee from the consolidated fund of the State and within such limits as outlined by the respective state legislatures.
- **Article 293 (3)**- puts restrictions on the States for raising any loan without the Centre's consent if there is any outstanding part of a previous loan.
 - ✓ NBC has been imposed by invoking the powers of the Centre under this provision. In practice, the Centre has been exercising this power in accordance with the recommendations of the Finance Commission.
 - ✓ Every single state is currently indebted to the Centre and thus, all of them require the Centre's consent in order to borrow.
 - ✓ The Kerala government has argued that the scope of Article 293(3) is limited to "States" and cannot be extended to include the debt of government agencies, including companies and statutory bodies.
- **Entry 43 of State List**- mentions "Public Debt of the State" therefore the Parliament cannot legislate or administer upon such matters. If a State wishes to borrow from the Centre, then such a transaction will be regulated by the FRBM Act, 2003.
- **Article 266 (1)**- states that all revenues received by the Central/State Government, all loans raised by it though issuing treasury bills, loans or ways and money advances (WMA) and all moneys received by repayment of loans shall form the Consolidated Fund of India/State.
- **Article 266(2)**- All other public moneys received by or on behalf of the Central/State Government shall be credited to the public account of India/ State.
 - ✓ These include small savings, security deposits, provident funds, reserve funds and other treasury deposits. All activities pertaining to such public accounts fall squarely within the domain of the State legislature.

Kerala v/s Centre

Kerala's Arguments	Centre's Stand
<ol style="list-style-type: none"> 1. <i>Determining Borrowing Limits</i>: Only states can determine their borrowing limit to balance their budget and make up the fiscal deficit. 2. <i>Encroachment upon State Powers</i>: Union government cannot, under the pretext of "<u>sound public financial management</u>" violate or encroach upon the plenary powers of the States since "Public Debt of the State" is a state subject. 3. <i>Centre vs State Debt</i>: Centre accounts for approximately 60% of the total debt or outstanding liabilities of India whereas all the States put together account for the remaining ~40% of the total debt of the country. 	<ol style="list-style-type: none"> 1. <i>NBC Imposed by FC Recommendations</i>: It asserted that borrowing limits were set based on the recommendations of the Finance Commissions and applied to all States equally. 2. <i>Powers of Finance Commissions</i>: FCs can make recommendations keeping in mind the spirit of the FRBM Acts which aims to achieve a fiscal deficit target not exceeding 3% of the GDSP of a State. 3. <i>Crisis due to Fiscal Mismanagement</i>: Kerala's financial woes are a result of its "fiscal mismanagement" over the last 20 years instead of the Centre's actions. As per RBI data, its outstanding liabilities as a percentage of its GSDP rose from 31 % in 2018-19 to 39% by 2021-22 while the average for all States was 29.8% in 2021-22. Its interest payments as a percentage of its revenue receipts climbed to nearly 20% as against the 14th FC's recommended level of 10% and was designated as a "highly debt stressed" State by 15th FC. 4. The Union government argues that it wanted to prevent the use of off-budget borrowings to bypass the borrowing ceiling.

<p>4. <i>Financial Aid to avert Financial Crisis:</i> It demanded a sum of ₹26,000 crore from the Centre on an immediate basis to avert an impending financial crisis.</p> <p>5. <i>High Net-Negative Impact on State's Economy:</i> over the next 5 years it could be as high as ₹2 -3 lakhs crore.</p>	<p>Public finance management is a national issue that affects the country's credit rating.</p> <p>5. Crowding out Effect: The Central Government also asserts that unrestricted borrowing by State governments will lead to an increase in borrowing costs and crowd out private sector borrowers.</p>
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SC Ruling

- The court ruling in the favour of the Union Government refused to pass any interim order to lift the NBC for Kerala or to allow the State to borrow ₹26,226 crore on an immediate basis.
- It noted that there was a vacuum in the law concerning **Article 293** and therefore referred the matter to a five-judge Constitution Bench which would consider the following questions-
 1. What is the true import and interpretation of the expression “*if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends*” in Article 131?
 2. Does Article 293 of the Constitution vest a State with an enforceable right to raise borrowing from the Union government and/or other sources? If yes, to what extent can such rights be regulated by the Union government?
 3. Can the borrowing by State-owned enterprises and liabilities arising out of the Public Account be included under the purview of Article 293(3) of the Constitution?
 4. What is the scope and extent of Judicial Review exercisable by the Supreme Court with respect to a fiscal policy, which is purportedly in conflict with the object and spirit of Article 293 of the Constitution?



Candidate's Right to Privacy from Voters

The Supreme Court (SC) recently held that an **election candidate** has a right to privacy from voters. Non-disclosure of **each asset** owned by poll candidates would not amount to a *defect of a substantial character to invalidate their election*.

- ✓ In similar development, the Election Commission of India (ECI) asked the Central Board of Direct Taxes (CBDT) to verify the declaration with respect to yearly income in the affidavit filed by Rajeev Chandrashekar, the BJP candidate from Thiruvananthapuram.

Background: Verdict of a Gauhati High Court's (HC) & Challenge to Its Decision in SC

- **Basis of Gauhati High Court's Decision:** The judgment came in a petition filed by Arunachal Pradesh MLA Karikho Kri challenging a Gauhati High Court's (HC) last year decision in which the court declared the 2019 election to the 44-Tezu Assembly Constituency (represented by MLA Kri) of Arunachal Pradesh null and void for not declaring three vehicles as his assets with his nomination i.e. a Kinetic Zing Scooty, a Maruti Omni van used as an ambulance and a TVS Star City motorcycle, all the vehicles were already sold by the candidate.
- **Legal Interpretation of Non-disclosure:** The HC ruled that non-disclosure of a vehicle registered in the name of a candidate or a dependent constitutes corrupt practice of “**undue influence**” under Section 123(2) of the Representation of People's Act (RPA), 1951.
 - ✓ RPA,1951 governs the conduct of elections and the qualifications and disqualifications of elected representatives.

- ✓ Section 123 of RPA defines “corrupt practices” as bribery, **undue influence**, false information, and promotion or attempted promotion of “feelings of enmity or hatred between different classes of the citizens of India on grounds of religion, race, caste, community, or language” by a candidate for the furtherance of his prospects in the election.
- ✓ **Section 123(2) of RPA:** defines undue influence as any direct or indirect interference or attempt to *interference by the candidate or his agent with the free exercise of any electoral right*. This could include injury threats, social ostracism, and expulsion from any caste or community.
- ✓ Disqualification: Section 123(4) of RPA permits the disqualification of an elected official for specific offenses, corrupt activities, failure to disclose election expenses, or holding interests in government contracts or projects.

RPA Sections Related to Disclosure

- **Section 33** read with rule 4A of election rules mandates every contesting candidate to file their *nomination paper for elections along with an affidavit* disclosing their personal details such as- educational qualifications, bank account details, assets and liabilities, including those of their spouses and dependents etc.
- **Section 33A** requires details of criminal antecedents to be mentioned in the election affidavit. This section was added after the SC judgement in *Association of Democratic Reforms (ADR) Vs Union of India* (2002).
- **Section 125A** provides for imprisonment up to six months or fine or both for failure to furnish required information/ giving false information or concealing any information/ in the nomination paper.

Consequences of Omission-

Besides Section 125A of the RPA 1951, a candidate’s election can be challenged in a HC under Section 100 of the RPA for the following:

1. *Non-Compliance-* with the provisions of constitution/RPA by committing any corrupt practice such as bribery which may affect the election outcome.
2. *Furnishing False information in Nomination-* by the winning candidate can be questioned on the grounds of possible violation of any of the statutory disclosure requirements.

What Is The Issue Related To Nominations?

1. Alleged concealment of income and substantial assets in election affidavit that can have a potential impact on the decision of the voters as in the case of Rajeev Chandrasekhar.
2. Candidates with serious criminal charges contest the elections by leaving certain columns blank in the nomination and filing incomplete affidavits. According to a report by ADR, 19% of candidates in the 2019 Lok Sabha election faced charges of rape, murder or kidnapping.
 - ✓ SC in *Resurgence India Vs EC*, 2013 ruled that voters have fundamental right to know about their candidates and leaving columns blank in the nomination paper amounts to violation of their right. Therefore, the returning officer can reject a candidate’s nomination papers for non-disclosure and suppression of information, including that of assets and their criminal background.

Recommendations

- The Law Commission in its 244th report on ‘Electoral Disqualifications’ (2014) and EC in its memorandum on ‘Electoral reforms’ submitted in 2016 made following recommendations:
 - A conviction in case of a **false affidavit** will attract a minimum of two years imprisonment and disqualification.
- The Supreme Court in *Public Interest Foundation Vs Union of India* (2018) directed candidates as well as political parties to issue a declaration about criminal antecedents, at least three times before the election, in a newspaper in the locality and electronic media.

Key Takeaways from The Present Verdict

The SC ruled that-

- Non-disclosure in the present case was **neither of a substantial nature** warranting rejection of candidate's nomination nor did it amount to non-compliance with the law as it did not materially affect election outcome.
- A voter's right to know all particulars is **not absolute** and the candidate need not lay bare his entire life to the electorate.
- Declaring every item of movable property is **unnecessary** unless the same is of such value as to constitute a sizeable asset or reflect upon the candidate's lifestyle and thus be of interest to the voter. For example, if a candidate and his dependents own several high-priced watches aggregating to a large monetary value, then it constitutes "high value" assets and reflect a "lavish lifestyle", and therefore suppressing such information would amount to "undue influence".
- But what omission is of a substantial character or can affect the outcome depends on the **facts of each case**.

Extra Mile: Rights Of The Voters' In India

- **Right to Know about the candidates contesting the elections:** Voters have the right to get the details of the past records of the candidate (criminal records, if any), financial position of the candidate, their election manifesto, etc.
 - February 2024 judgment quashing the electoral bond scheme also sanctified the voters' right to know.
- **Voting rights of NRIs:** NRIs were not initially allowed to vote in the elections of the country. However, a subsequent amendment allowed the NRIs to vote for elections in India.
- **Voting rights of Prisoners:** The constitution of India and the guidelines of the ECI do not permit a person who is imprisoned to vote in the upcoming elections of the country.
 - Only those under preventive detention can cast their vote through postal ballots
- **NOTA (Right Not to Vote):** None of The Above (NOTA) is where the voter participates in the electoral process but does not choose any of the contesting candidates.
- **Tendered Voting Rights:** This right can be exercised by a voter when he/she realises that another person has wrongly voted on their behalf.
 - Such a person will need to provide a valid identity proof to authenticate their voting right and vote on a separate ballot paper as per ECI.
- **Voting rights of Disabled or Infirm Citizens:** ECI will provide assistance to such voters to cast their votes by taking their vote with the help of an Electoral Officer.

Right to Privacy at International Level

Article 12 of the Universal Declaration of Human Rights (UDHR), 1948 & Article 17 of the International Covenant on Civil and Political Rights (ICCPR), 1966, legally protect persons against "arbitrary interference" with one's privacy, family, home, correspondence and reputation.



Right to be Free from the Adverse Effects of Climate Change

The Supreme Court (SC) recently ruled that people have a "**right to be free from the adverse effects of climate change**" and this should be recognized by Articles 14 (Right to Equality) and 21 (Protection of Life and Personal Liberty) of the Constitution.

Background

- **Writ Petition for Saving the Great Indian Bustard (GIB):** In 2020, a conservationist filed a petition in the SC seeking protection for the GIB (state bird of Rajasthan) and the Lesser Florican- which are on the verge of extinction due to the overground powerlines primarily connected to wind and solar farms in Gujarat and Rajasthan as the GIB often gets entangled in these powerlines and be fatally injured.
- **Demands:** The plea sought-
 - Framing & implementation of an emergency response plan for the protection & recovery of GIB.
 - Directions for installation of bird diverters.
 - An embargo on the sanction of new projects and renewal of leases of existing projects.
 - Dismantling power lines, wind turbines, and solar panels in and around critical habitats.
- **2021 SC Ruling:** It ruled in the favour of the petitioner and ordered to-
 - Appoint a committee for assessing the possibility of laying underground power lines;
 - Installations of bird diverters in case of existing overground power lines; and
 - Convert overground powerlines into **underground powerlines** wherever feasible, within a year;
 - Restrict setting up of overhead transmission lines in a territory of about 99,000 sq km in the GIB habitat in Rajasthan and Gujarat.
- **Appeal Against the Ruling:** The Ministry of Environment, Forests, and Climate Change (MoEFCC), Ministry of Power, and Ministry of New and Renewable Energy (MNRE) approached the SC to modify its orders as it had significant implications for India's commitments on transition to non-fossil fuel energy sources vis-à-vis the Paris climate treaty and covered an unnecessarily large area for the conservation of the GIB. They also questioned the practical viability of SCs blanket suggestion of laying underground powerlines. The SC gave the recent ruling in this case.

Present SC Ruling

- **Modified 2021 Orders:** It directed an expert committee to assess and submit a report by July 31, 2024, on the feasibility of undergrounding power lines in specific areas after considering factors such as terrain, population density, and infrastructure requirements.
- **Acknowledged the Technical Challenges in its Previous Order:** Underground power transmission cables are available only in 400 KV with lengths of 250 meter, which would require more joints resulting in leaks. Transmission loss in such cables is about five times higher as they don't efficiently transmit AC power.
 - The Electricity Act, 2003 does not contemplate the acquisition of land for laying underground cables, while overhead transmission lines require only the right of way, and it may also result in environmental issues for many vulnerable species and forest fires.
 - ✓ Right of way is the legal right of passage over the land owned by another person.
- **Highlighted India's Commitment to Renewable Energy:** India aimed to achieve an installed renewable energy capacity (excluding large hydro) of 175 Gigawatts (GW) by 2022 (450 GW by 2030)
- **Directed States to Address Climate Impacts Through the Lens of Rights:** States owe a *duty of care* to citizens and the right to a healthy and clean environment is a part of this duty.
- Therefore, states are compelled to take effective measures to mitigate climate change and ensure that all individuals have the necessary capacity to adapt to the climate crisis.

Related Constitutional Provisions (Directive Principles of State Policy & Fundamental Duty)

- **Article 48A** which directs the States to protect and improve the environment and to safeguard the forests and wildlife of the country; and

- *Article 51A(g)* which makes it every Indian citizens duty to protect & improve the natural environment including forests, lakes, rivers & wildlife, and to have compassion for living creatures.

- **Recognized India's Urgent Need to Switch to Solar Power:** due to three reasons-
 1. India is likely to account for 25% of global energy demand growth over the next two decades, necessitating a move towards solar power for enhanced energy security and self-sufficiency while mitigating environmental impacts. Failure to do so may increase dependence on coal and oil, leading to economic and environmental costs.
 2. Rampant air pollution emphasizes the need for cleaner energy sources like solar.
 3. Declining groundwater levels and decreasing annual rainfall underscore the importance of diversifying energy sources. Solar power, unlike coal, does not strain groundwater supplies.
- **Expanded the Scope of Fundamental Right under Article 14 and 21:** to include *Right to Clean Environment* (initially included as a part of Article 21 in 1980s) and *Right Against Adverse Effects of Climate Change* and said that articles 14 and 21 are important sources of these rights. It also said that-
 - The right to life is not fully recognized without a clean environment which is stable and unimpacted by the vagaries of climate change.
 - The right to health (part of right to life under Article 21) is impacted due to air pollution, shifts in vector-borne diseases, rising temperatures, droughts, shortages in food supplies due to crop failure, storms and flooding.
 - The inability of underserved communities to adapt to climate change or cope with its effects violates the rights to life and equality under Article 21 and 14 respectively. For example, a person living in the Lakshadweep Islands will be in a disadvantageous position compared to a person living in Madhya Pradesh when sea levels rise, and oceanic problems ensue.

Interpretation of Article 21- The SC through its various judgements have expanded the scope of Article 21 to include- the right to education, the right to shelter (in the context of slum dwellers), the right to clean air, the right to livelihood (in the context of hawkers), right to privacy and the right to medical care.

Similar Judgements

1. ***Virender Gaur vs State of Haryana, 1995-*** SC while recognizing the right to clean environment, held that right to life with human dignity encompasses- *protection and preservation of environment, ecological balance free from pollution of air and water, sanitation*. Pollution in the terms of Environment, ecological, air, water etc. should be regarded as a violation of Article 21. There is a constitutional imperative on the State Government and the municipalities, to not only ensure and safeguard proper environment but also to take adequate measures to promote, protect and improve both the man-made and the natural environment.
2. ***T.N. Goda Varman Thirumulpad v. Union of India, 1995-*** Prior approval is necessary to carry out any non-forest activity within the area of any forest.
3. ***MC Mehta vs Kamal Nath, 2000-*** SC held that Articles 48A and 51A(g) must be interpreted considering Article 21 and any disturbance of the basic environment elements (air, water and soil), would be hazardous to "life" within the meaning of Article 21.
4. ***Karnataka Industrial Areas Development Board vs C Kenchappa, 2006-*** SC highlighted the adverse effects of rising sea levels and rising global temperatures.
5. ***Bombay Dyeing & Mfg. Co. Ltd. v. Bombay Environmental Action Group, 2006-*** SC recognized that climate change posed a "major threat" to the environment.

Critical Analysis of the Verdict: The judgement-

- **Focuses on Strengthening Environmental & Climate Justice and Influences Broader Public Discourse** - by elucidating the multiple impacts of climate change on a range of communities.

- **Recognizes India's International Commitments on Climate**
- **Advanced the Case for a Healthy Environment** and healthy living by recognizing the right to be free of the adverse effects of climate change as a distinct fundamental right.
- **Judgement Weighs in Favour of Reducing Carbon Footprint-** The goal of reducing the country's carbon footprint and the need to protect a critically endangered species are at odds with each other and there is a desperate need to soon find a solution to this problem.
- **Highlights the absence of Single (or umbrella)Legislation on Climate**

Extra Mile

Climate Litigations: Global Climate Litigation 2023 Report

Globally

- **Increasing Cases-** Number of people seeking legal remedies for issues related to climate change is increasing day by day as government and corporate actions on climate remain woefully inadequate. According to the Global Climate Litigation 2023 Report (a periodic publication of UN Environment Programme)- 2,180 climate-related cases are being heard by courts, tribunals and other adjudicatory bodies in 65 countries. Majority of these cases have been filed in the developed countries, mainly the United States and Europe.
 - ✓ The most recent example is the judgment in the case of elderly Swiss women

In India

- **Courts Dealing with Various Aspects of Climate Change-** like Deforestation, habitat protection, urban development, air and water pollution- all linked to climate, even though they have not been categorized as climate litigation.
- **Latest SC Verdict Recognizing Right to be Free from Adverse Impacts of Climate Change-** has reinforced the critical nature of climate change paving the way for a new jurisprudence where people, socio-economic development, nature and climate are equally prioritized.



The EVM-VVPAT Case

The Supreme Court (SC) recently upheld the Electronic Voting Machine (EVM) polling system and declined the petitioners demand of 100% cross-verification of votes cast on EVMs with the accompanying Voter Verifiable Paper Audit Trail (VVPAT) paper slips.

Background	EVM Timeline
<p>The Case-</p> <ul style="list-style-type: none"> • Petition and Demands: Association for Democratic Reforms (ADR) had filed a petition in 2023 before the SC demanding 100 % cross-verification of EVM votes with VVPAT paper slips to ensure free and fair election process. ADR also suggested the use of barcodes on VVPAT slips to complete the process as fast as possible. • Allegations: The petitioners highlighted that- <ul style="list-style-type: none"> ○ ECI has failed to provide a foolproof procedure to verify that a voter's vote has been counted as recorded which is an indispensable part of voter verifiability. This can be attributed to 	<ul style="list-style-type: none"> • Prototype, 1979- Prototype was developed by Electronics Corporation of India Ltd. (ECIL- under Department of Atomic Energy). • Demonstration on EVM, 1980: ECI demonstrated EVMs. After consensus, the ECI issued directives under Article 324 for the use of EVMs. • First Use, 1982: EVMs were used at 50 polling stations during elections

the existing practice of a voter not being provided with a copy of their VVPAT slips.

- There exists a risk of manipulation as both EVMS and VVPATs have a “programmable chip” and the EVMs are assembled by two Public Sector Undertakings- the Electronics Corporation of India Limited (ECIL) and Bharat Electronics Limited (BEL), which have several members of the BJP as their directors.

✓ The ECI has previously denied sharing the “source code” of EVMs stating that they constitute the intellectual property of the manufacturers.

- **Examples of Count Mismatch:** They cited an example of 2019 general elections, when during mandatory verification of VVPAT paper slips of five randomly selected polling stations, the returning officer officially verified a discrepancy of 14 votes in EVM and VVPAT counts at a polling station of Andhra Pradesh’s Mydukur constituency.

ECI’s Response- The ECI said that there are-

- **No Discrepancies:** It has matched EVM votes with more than 4 crore VVPAT slips, and no discrepancies have been recorded so far. It however attributed “differences in count” - to human errors like non-deletion of mock poll votes from the control unit of the EVM or the VVPAT.
- **Tampering with EVMs Impossible:** at any stage as EVM manufacturers have no information about which button would be allocated to which candidate, or the constituency to which the machine would be sent, and the images of symbols are uploaded on the 4 MB flash memory of the VVPAT machine seven days before the polls, in the presence of candidates or their representatives.
- **Opposed the Demand for 100% Cross-verification:** of EVM votes with VVPAT slips citing it as a cumbersome and time-consuming task as there exists lakhs of polling booths

in **Kerala**. The SC ruled against the legality of EVMs' use.

- **Amendment to RPA, 1988:** to add a new section 61A empowering the EC to use EVMs.
- **Technical Examination of EVM’s, 1990:** An Electoral Reforms Committee under **Dinesh Goswami** recommended EVMs without any further loss of time, marking it technically sound, secure and transparent.
- **EVMs in Assembly Elections, 1998:** EVMs were used in 16 Assembly elections across Madhya Pradesh, Rajasthan and New Delhi.
- **Lok Sabha Elections, 2004:** only EVMs were used in all 543 Constituencies.
- **Introduction of VVPATs, 2013:** Conduct of Election Rules, 1961 were amended to introduce VVPAT machines.
- **Lok Sabha Elections, 2019:** For the first time, EVMs were used fully backed by VVPATs.

Key Takeaways from the Verdict

- 1. No Evidence to Doubt Current Polling System-** The court, while referring to a host of judicial precedents, ruled that there is “no cogent material and data” to doubt the current polling system, especially after the introduction of the VVPATs.
 - i. In Subramanian Swamy v. Election Commission of India, 2013 ruling, the Court held that a paper trail is an indispensable requirement of free and fair elections.
 - ii. In 2019, Chandrababu Naidu moved the SC seeking cross-verification of 50% randomized VVPAT slips with EVM votes in each assembly constituency. The EC, however, argued that this would delay the results by five to six days. The Court however favoured an increase in the number of polling stations for VVPAT verification from **one per Assembly constituency or segment to five**.
- 2. Unfounded Claims of EVM Tampering-** The court highlighted that the microcontrollers separately programmed by manufacturers in EVMs are agnostic as they do not recognize political parties or candidates but only the buttons pressed by voters. Also, any unauthorized attempt to access the microcontroller or memory of the EVM will result in permanent disablement of the machine through the Unauthorized Access Detection Mechanism (UADM).

- i. The programme loaded in the EVM18 is key hashed and burnt into a One Time Programmable microcontroller chip at the time of manufacturing, thus dispelling any possibility of tampering.
- ii. All three units of the EVM- ballot unit, control unit and VVPAT, have microcontrollers with the respective firmware.
- iii. The burnt programme/code is unalterable and cannot be modified after the EVM is delivered/supplied by the manufacturer to ECI.

3. 100% Cross-verification Not Feasible-

- Although the court acknowledged the voter’s fundamental right to ensure that their votes are accurately recorded, it asserted that such a right cannot be equated with the right to 100% cross-verification of EVM votes with VVPAT slips or the right to physically access the VVPAT slips.
- It reasoned that giving the voters physical access to VVPAT slips is impractical and can lead to misuse.
- It also highlighted various problems associated with complete cross-verification of EVM-VVPAT counts such as increased time for counting and delay in result declaration, requirement for double manpower, chances of human errors in manual counting and deliberate mischief.

4. Rejected the Paper-Ballot Suggestion-

- i. ADR had suggested (later withdrawn) that India should return to the paper ballot system, citing the example of countries like Germany and also recommended putting barcodes on VVPAT slips so that counting machines can be used thereby minimizing any delay.
- ii. The Court rejected the suggestion, terming it foible and unsound.
- iii. It highlighted that reintroducing paper ballots will undo the electoral reforms as EVMs offer significant advantages.
- iv. The EVMs have effectively eliminated booth capturing by restricting the rate of vote casting to 4 votes per minute; eliminated invalid votes (a major issue with paper ballots resulting in disputes during the counting process); reduced paper usage; alleviated logistical challenges and provided administrative convenience by expediting the counting process and minimizing errors.

5. **Exercise Caution while raising Aspersions on Electoral Process** as “repeated and persistent doubts” without any supporting evidence can lead to distrust resulting in reduced citizens’ participation in elections.

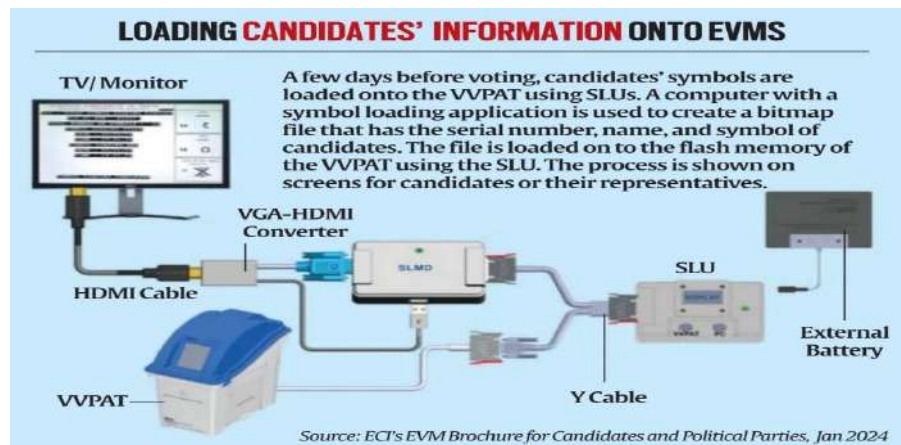
6. **EVM-VVPAT Discrepancy-** SC noted that except the Mydukur case, no other discrepancies were noticed while physically counting 20,687 VVPAT slips.

7. **Directions Issued-** to adopt new procedures post-polls included:

i. *Sealing and Storage of SLUs:* It ordered the sealing of Symbol Loading Units (SLUs) and storing them in the strong room along with the EVMs for 45 days post the declaration of results- on completion of symbol loading process in the VVPATs undertaken on or after May 1.

✓ Currently, only the three components of the EVM- the ballot unit, control unit, and VVPAT are stored for 45 days after the results.

✓ SLUs were introduced around the same time as the VVPATs. It is a matchbox sized device used to load the symbols of the candidates onto the VVPAT under the supervision of a District Election Officer (DEO). Once the SLU is used



to load symbols onto the VVPAT then it is of no relevance to the actual voting process.

- ii. *Permitted Candidates to Seek Verification*: Candidates securing second or third positions through a written request within 7 days of result declaration, can seek verification of burnt memory semi controllers in 5% of the EVMs per Assembly segment of each Parliamentary constituency. Expenses for this purpose will have to be borne by the candidates (cost would be refunded in case the EVM is found to be tampered with). This exercise will be carried out in the presence of all candidates or their representatives.
- iii. *Counting VVPAT slips using Counting Machines*: may be examined by the ECI, apart from the suggestion that barcoding of the symbols loaded in the VVPATs may be helpful in machine counting.

Extra Mile: VVPAT

When did the idea of VVPAT first emerge? It happened in 2010, when the ECI held a meeting with political parties to discuss how to make the EVM-based polling process more transparent. The idea was to allow for a physical verification of the electronically cast vote, so that both voters and political parties know that their vote is being recorded correctly.

When was it first used? It was used for the first time in all 21 polling stations of the Noksen Assembly constituency of Nagaland in 2013, after which the EC decided to introduce VVPATs in a phased manner. By June 2017, there was 100% adoption of VVPATs.

Can the voter take VVPAT slips home? No, voters cannot take the VVPAT slip back home, as it is later used to verify votes cast in five randomly selected polling booths.



Iran-Israel Tensions

- Recently, Iran launched hundreds of drones and missiles towards Israel. This attack was in retaliation for an Israeli attack on its consulate that occurred in Damascus, Syria. Several senior Iranian generals were killed and Iran had vowed to respond.
- Earlier, Iran's Islamic Revolutionary Guard Corps had seized a Nava Sheva-bound ship with 17 Indian nationals on board for its links with Israel.

India's Stand In Iran-Israel Tension

- India called for de-escalation in the aftermath of Iran's retaliatory strike against Israel.
- This approach is in contrast to India's instant expression of solidarity with Israel at the highest political level immediately after the October 7 terror attack by Hamas.

Significance Of India's Approach On Recent Iran-Israel Tension

- **Difference between terrorism perpetrated by non-state actors and direct confrontation between two states**
 - India's call to show restraint in the region highlights the contrast between dealing with terrorism from a non-government group and managing a conflict between two big countries with a history of rivalry.
 - Delhi has a lot at stake in its relationships with both Tehran and Tel Aviv, and it's never been about picking one over the other.
 - If India was seen as taking Israel's side on October 7 (Hamas attack), its position today urging restraint will be viewed as balanced and in favour of regional peace.
- **Complexity of the region's politics**
 - India's call for de-escalation between Israel and Iran is about recognising the complexity of the region's politics.

- Inter-state and intra-state conflicts in the Middle East are deep and pervasive.
- India will have to forever balance its engagement with key regional actors — Egypt, Iran, Israel, Qatar, Turkey, Saudi Arabia, and the UEE.
- Orientation and interests of these countries are different and often in conflict.
- **Shift in India’s approach towards this region**
 - In the past, India’s regional policy was framed in terms of contradictions between the West and the Middle East.
 - E.g., India’s steps to manage the fallout of US-Iran tensions.
 - Today, Delhi pays attention to the region’s internal contradictions.
 - E.g., India’s stand on Iran – Israel issue, Israel-Palestine issue etc.
- **Religion & associated vote-bank politics can’t be dominant factor in dealing with Middle East**
 - India’s response must be based on the merits of the issue at hand.
- **India’s expanding footprints in the Middle East**
 - India’s interests in the region are no longer limited to oil imports and labour exports.
 - The Gulf Arab states — especially Saudi Arabia and the UAE— have emerged as major economic and political partners for India.
 - Partnerships with Gulf Arab countries go beyond just two-way relationships and now have a broader impact across the Indian Ocean region.
 - These partnerships are crucial for making the **India Middle East Europe Corridor (IMEC)** a reality, which is currently a top priority for India’s trans-regional agenda.

How Iran and Israel Became Arch-Rivals?

1979 was a pivotal year

- While Iran was ruled by the **Pahlavi dynasty** for more than a half-century, Iranian-Israeli bilateral relations remained **cordial**. Iran was one of the first Muslim countries to recognise the new state of Israel.
- However, ties between the two countries collapsed **after Iran’s Islamic revolution in 1979**.
- Shah Mohammad Reza Pahlavi was ousted, and the new supreme leader of the Islamic Republic of Iran, Ayatollah Ruhollah Khomeini, **pursued a policy of standing up to “arrogant” world powers**.
- Still, **limited cooperation** between Israel and Iran continued into the 1980s. But later a hostile rivalry emerged as Iran built up and funded proxy militias in Syria, Iraq, Lebanon and Yemen.
- As a result, a **shadow war between Iran and Israel grew over the years**.



Iran’s nuclear program is a main target:

- Iran’s nuclear program (which it has always insisted is entirely peaceful) has been a primary focus of Israeli attacks.
- Tehran believes Israel and the U.S. introduced the **Stuxnet computer virus** in the early 2000s to target the centrifuges enriching uranium for Iran’s nuclear program.
- A series of sabotage attacks continued into the 2020s, as Israel sought to damage Iranian nuclear facilities.

War by proxy

- Iran has long backed armed groups around the region that target Israel as well as the U.S. military.
- The main one is **Hezbollah** in Lebanon, formed in the 1980s to fight the Israeli occupation in southern Lebanon.
- Hezbollah has been firing rockets into northern Israel since the Gaza war began in October 2023.

Conclusion

The Middle East is a demanding region and dealing with it is not for the simple-minded or the faint-hearted. As a large neighbour with growing stakes in the Middle East, Delhi is fast learning to navigate the region’s unending conflict.



Katchatheevu Island Controversy

Recently, the leader of the ruling political party attacked the main opposition party about its decision to “callously give away” the island of Katchatheevu.

Agreement on Katchatheevu Island

- **Indo-Sri Lankan Maritime agreement of 1974**

- The then Indian govt under Indira Gandhi made attempts to settle the maritime border between India and Sri Lanka, once and for all.
- As a part of this settlement, known as the '**Indo-Sri Lankan Maritime agreement**', Katchatheevu was ceded to Sri Lanka.
- At the time, she thought the island had little strategic value and that ceasing India's claim over the island would deepen its ties with its southern neighbour.

- **1974 Agreement and fishing rights of Indian fishermen**

- As per the agreement, Indian fishermen were still allowed to access Katchatheevu.
- Unfortunately, the issue of fishing rights was not ironed out by the agreement.
- Sri Lanka interpreted Indian fishermen's right to access Katchatheevu to be limited to rest, drying nets and for visit to the Catholic shrine without visa.

- **1976 agreement**

- Another agreement in 1976, during the period of Emergency in India, barred either country from fishing in the other's Exclusive Economic Zone.
- Again, Katchatheevu lay right at the edge of the EEZs of either country, retaining a degree of uncertainty with regards to fishing rights.

Island of Katchatheevu

Geographical location

- It is an uninhabited area in the Palk Strait, between India and Sri Lanka. It is no more than 1.6 km in length and slightly over 300 m wide at its broadest point.
- It lies northeast of Rameswaram, about 33 km from the Indian coast.
- It is about 62 km southwest of Jaffna, at the northern tip of Sri Lanka, and 24 km away from the inhabited Delft Island, belonging to Sri Lanka.

History

- Being the product of a 14-century volcanic eruption, Katchatheevu is relatively new in the geological timescale.
- In the early mediaeval period, it was controlled by the Jaffna kingdom of Sri Lanka.
- In the 17th century, control passed to the Ramnad zamindari based out of Ramanathapuram, about 55 km northwest of Rameswaram.

Dispute

- The Island became part of the Madras Presidency during the British Raj.
- But in 1921, both India and Sri Lanka, at the time British colonies, claimed Katchatheevu in order to determine fishing boundaries.
- A survey marked Katchatheevu in Sri Lanka, but a British delegation from India challenged this, citing ownership of the island by the Ramnad kingdom.
- This dispute was not settled until 1974.

Impact of the Sri Lankan Civil War on Katchatheevu

- **During a period between 1983 and 2009**

- The border dispute remained on back burner as a bloody civil war raged in Sri Lanka.
- As Sri Lankan naval forces focused on blocking LTTE supply lines from Jaffna, Indian fishermen often entered Sri Lankan waters.
- Larger Indian trawlers were particularly disliked for overfishing and damaging local fishing gear and boats.

- **After 2009**

- In 2009, the war with the LTTE ended, and things dramatically changed.
- Colombo beefed up its maritime defences, and turned focus to Indian fishermen.
- Facing a depletion of marine resources on the Indian side, they would frequently enter Sri Lankan waters as they had been doing for years, but finally began facing consequences.
- Till date, the Sri Lankan navy routinely arrests Indian fishermen and there have been many allegations of custodial torture and death.

- The demand for Katchatheevu is revived each time such an incident happens.

Stand of the Union Government on the Issue

- The successive Union government's position on Katchatheevu has largely remained unchanged.
- It has argued that since the island had always been under dispute, no territory belonging to India was ceded nor sovereignty relinquished.



Review of India's Human Rights Accreditation status

- The National Human Rights Commission (NHRC) is preparing to defend its human rights processes at a meeting to be held in Geneva.
- In this meeting a decision on whether India's human rights body will retain its "A status" is expected to be made.
- The meeting of the **Sub-Committee on Accreditation (SCA)** of the UN-recognised Global Alliance of National Human Rights Institutions (GANHRI) worldwide will be held on May 1.

Key Highlights

- **Observations made by the review committee in 2023**
 - According to a six-point submission by the SCA in March 2023, the NHRC has failed to create conditions required to be able to operate independent of government interference.
 - The committee had slammed India for the involvement of police officers in its investigative process, calling it a conflict of interest.
 - It also cited the lack of pluralism and gender representation, given the NHRC had only one woman in its top body, an institutional ex-officio representative of the National Commission for Women.
 - The SCA had also pointed out that the composition of the committee should reflect the diversity of the society it operated in.
 - It indicated the lack of any member representing India's largest minority religions.

Global Alliance for National Human Rights Institutions (GANHRI)

- **About**
 - It is an organisation affiliated to the UN High Commissioner for Human Rights.
 - It is a global network of *national human rights institutions (NHRIs)* that works to promote and protect human rights.
 - GANHRI represents 120 NHRIs from around the world.
 - GANHRI's mission is to unite, promote, and strengthen NHRIs to operate in line with the UN Paris Principles.
- **Accreditation by the GANHRI**
 - Sub-Committee on Accreditation (SCA) reviews NHRIs every five years, and there is an appeal process for NHRIs to ensure greater transparency and due process.
 - In a unique *peer-review-based* accreditation process, GANHRI ensures individual NHRIs' compliance with internationally recognised standards – **the Paris Principles** – to ensure their independence, pluralism and accountability.

- The **Paris Principles** set out internationally agreed minimum standards that NHRIs must meet to be considered credible.
- The six principles require a country's human rights agency to be independent from the government in its structure, composition, decision-making and method of operation.
- An NHRI is reviewed by the SCA when –
 - It applies for initial accreditation
 - It applies for re-accreditation every five years
 - The circumstances of the NHRI change in any way that may affect its compliance with the Paris Principles.
- NHRIs that are assessed as complying with the Paris Principles are accredited with '**A status**', while those that partially comply are accredited with '**B status**'.
 - This accreditation status affects a country's ability to vote at the UN Human Rights Council and some UNGA bodies.
- **India's accreditation:** India's NHRC got 'A' status of accreditation for the first time in 1999, which it retained in 2006, 2011, and in 2017 after it was deferred for a year.

National Human Rights Commission (NHRC)

- **About:** It is a **statutory body** established under the **Protection of Human Rights Act, 1993**.
- **Composition of NHRC:** It is a **multi-member body** consisting of a chairperson and five members.
 - The **chairperson should be a retired chief justice of India or a judge of the Supreme Court**.
 - Members should be a serving or retired judge of the Supreme Court, a serving or retired chief justice of a high court and three persons (out of which at least one should be a woman) having knowledge or practical experience with respect to human rights.
- **Appointment & Tenure**
 - The chairperson and members are appointed by the President on the recommendations of a six-member committee consisting of:
 - Prime Minister as its head; Speaker of the Lok Sabha; Deputy Chairman of the Rajya Sabha; Leaders of the Opposition in both the Houses of Parliament; Central Home Minister
 - The chairperson and members are appointed for the **term of 3 years or till the age of 70 years**, whichever is earlier.
 - The chairperson and members are **eligible for reappointment**.



Evolution of Stringency: Enhancements to PMLA

In its manifesto for the Lok Sabha election, one of the opposition party said that if voted to power, it will put an end to the weaponisation of the **Prevention of Money Laundering Act (PMLA)**.

Two Key Amendments in the PMLA

- Although the law has been changed multiple times over the years, it was through amendments made in the PMLA in **2009 and 2012** that the **ED acquired the powers to take coercive action against politicians**.
- **In 2009**, 'Criminal conspiracy' under (Section 120B) the Indian Penal Code (IPC) was added to the PMLA's schedule among various other offences.

- This allowed the ED to **enter any case** where a conspiracy is alleged, **even if the principal offence is not part of the PMLA's schedule**.
- **For example**, this helped ED to build its land-grabbing case against former Jharkhand CM, who is currently in Ranchi jail.
- In 2009, the ED also got **international jurisdiction** as far as tracking laundered money was concerned.
- **In 2012**, the PMLA was amended to move **the Prevention of Corruption Act, 1988** (PC Act) to Part A of the statute's schedule from Part B.
 - This was a significant move as **it applied stringent bail conditions** on those accused of corruption.
 - **For example**, if the public prosecutor opposes bail, the court must be convinced that there were reasonable grounds to believe that the accused was guilty and would commit an offence if granted bail.
 - **Part A** of the statute covered offences such as waging war against the nation, trafficking of drugs, the PC Act, the Wildlife (Protection) Act, the Immoral Traffic (Prevention) Act, the IT Act, etc.

Supreme Court's View on the Constitutional Validity of PMLA

Vijay Madanlal Choudhary & Ors vs Union of India (2022)

- A three-judge Bench of the SC **upheld** the constitutional validity of PMLA, which was **under challenge in a batch of more than 200 individual petitions**.
- The first challenge was against the **alternate criminal law system that the PMLA creates** since the ED is kept outside the purview of the Code of Criminal Procedure (CrPC).
- **The ED is not considered 'police'** and hence does not follow the provisions of CrPC for searches, seizures, arrests, and attachment of properties.
- This is significant and since the ED is **not a police agency**, **statements made by an accused to the ED are admissible in court**.
- The judgement upheld these sweeping powers of the ED.

Nikesh Tarachand Shah v Union of India (2017)

- The PMLA (like the *Unlawful Activities (Prevention) Act, UAPA*) **lays down a stringent standard for granting bail**.
 - ✓ **For example**, it bars courts from granting bail **unless the accused can prove that there is no "prima facie" case against them**, and that they will not commit any offence in the future.
- **The SC struck down these provisions as unconstitutional**. However, Parliament put them back in by amending the PMLA through the Finance Act, 2018. **This was upheld by the SC in 2021**.
- While some parts of the 2021 ruling - e.g. the ED is not obligated to disclose the ECIR (akin to an FIR in a criminal case) - are under review, **the ruling is now the law of the land** since there is no stay operating on the judgment itself.

A Short History of the PMLA:

Background:

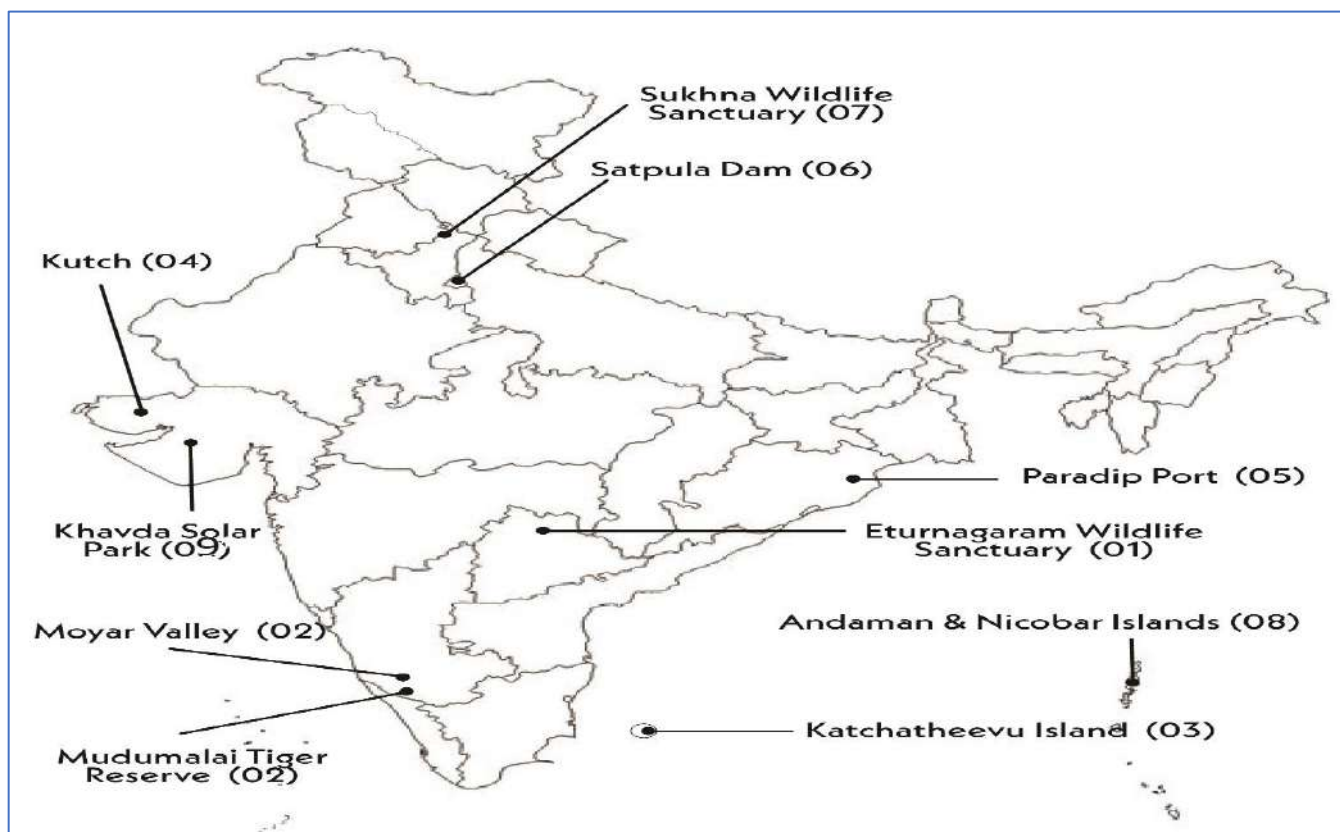
- With the **advent of global terrorism in the 1990s**, there was a focus internationally on choking terror financing and the movement of illicit money across borders.
- **Financial Action Task Force (FATF)** was created in 1989 to coordinate anti-money laundering efforts across the world and as a member, it was incumbent upon India to do its bit.
- The PMLA was enacted in response to the political declaration adopted by the **United Nations General Assembly** (1998), calling on member states to **put in place national anti-money laundering legislation**.

Enactment of the PMLA

- **The Prevention of Money-Laundering Bill 1998** was introduced by the Atal Bihari Vajpayee government. The proposed law was **focused on** -
 - **Preventing money laundering and connected activities**,
 - Confiscation of the proceeds of crime,
 - Setting up of agencies and mechanisms to coordinate measures to combat money laundering, etc.
- The parties across the political spectrum opposed what they said were **"draconian"** provisions, with concerns of governments misusing these provisions.
- The Congress backed the demand to refer the Bill to a **Select Committee** of Parliament.
- After being referred to the **Department-related Standing Committee on Finance**, the Bill was passed by the Parliament in **2002** and came into force only in **2005**, after Rules were framed by the UPA govt.

MAPS: PLACES IN NEWS

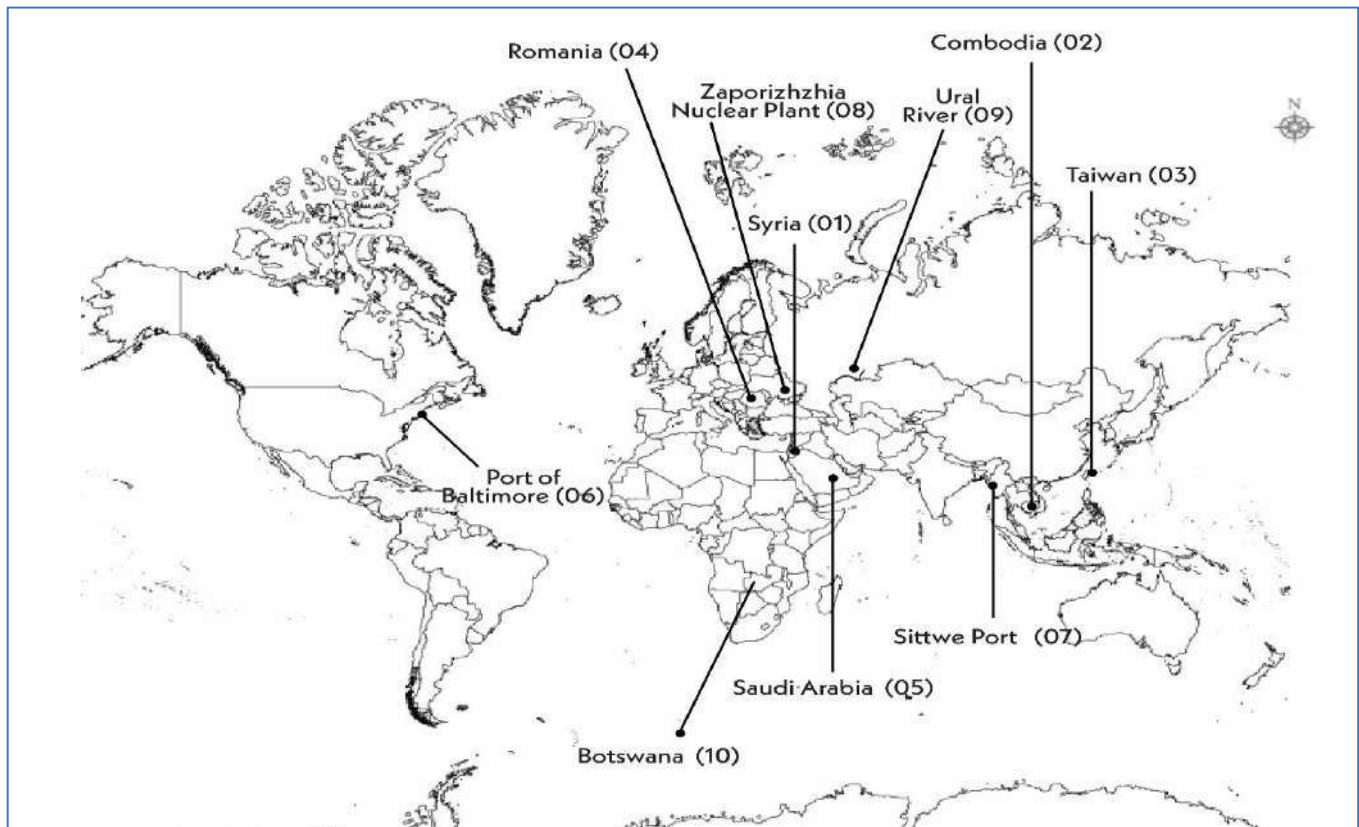
National Places In News



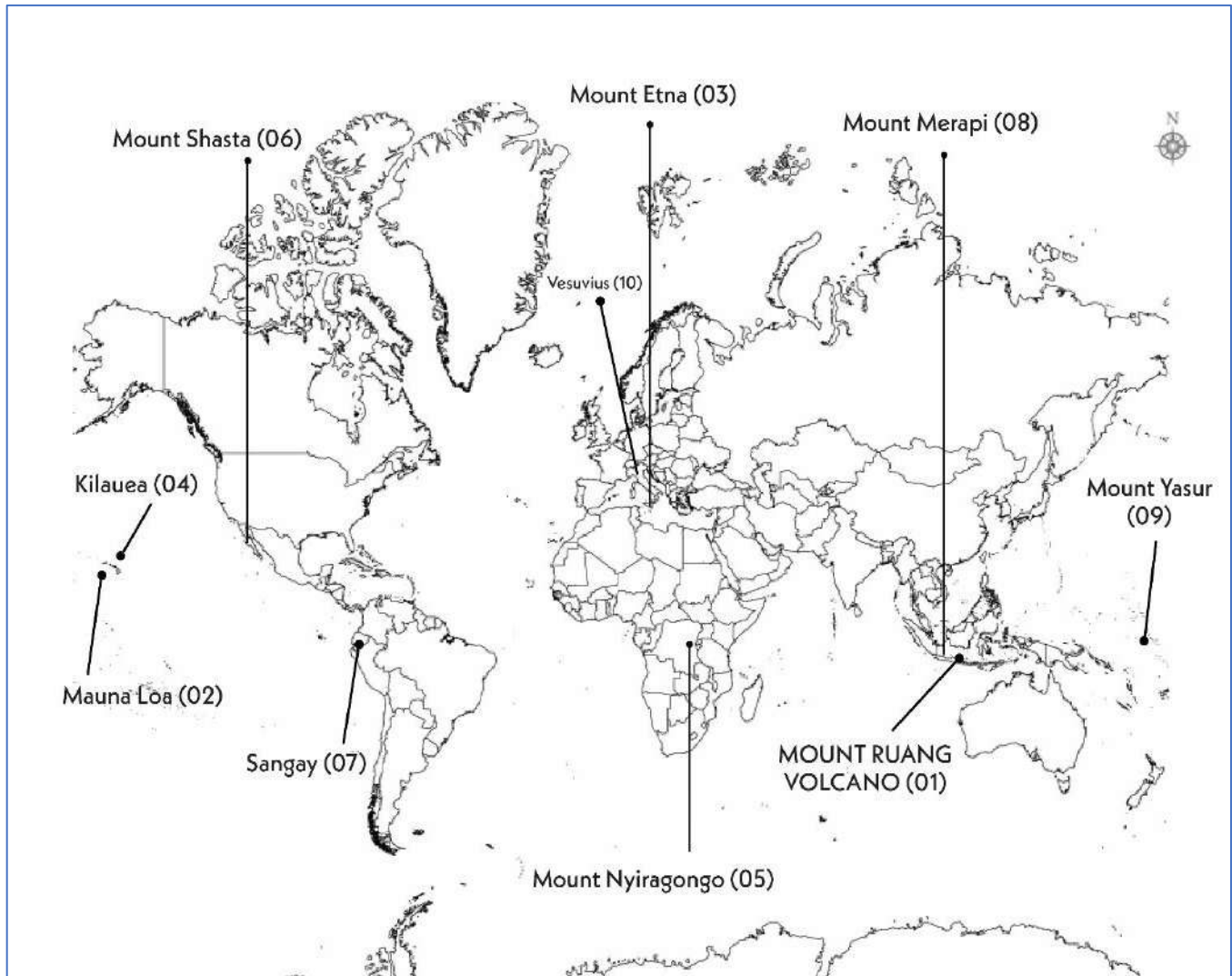
1	Eturnagaram Wildlife Sanctuary	Telangana is currently grappling with forest fires in Tadvai region of Eturnagaram Wildlife Sanctuary in Mulugu and Amrabad Tiger Reserve near Warangal. It lies on the border of Madhya Pradesh, Maharashtra, and Andhra Pradesh. It is traversed by the rivers Dayyam Vagu and Godavari. The sanctuary is home to various flora including bamboo, maddi, dry deciduous teak, thiruman, and madhuca.
2	Moyar Valley	It is the biggest nesting colony of critically endangered Gyps vultures in the wild, Also known as Maayar Valley, it stretches approximately 85 kms from Gudalur through the core area of the Mudumalai Tiger Reserve within the Nilgiri Biosphere Reserve in Tamil Nadu.
3	Katchatheevu Island	Recently PM have mentioned about it in public program. It is an uninhabited island in the Palk Strait. In 1921, both India and Sri Lanka, claimed Katchatheevu island as their own. Later as part of 'Indo-Sri Lankan Maritime agreement' Indian government, under Prime Minister Indira Gandhi, ceded the island to Sri Lanka in 1974
4	Kutch	A human skeleton, along with pottery artifacts and animal bones has been found on the slope of a hillock in Kutch, Gujarat. Archaeologists excavated a site called Padta Bet, it was 1.5 km from the mass burial ground of JunaKhatiya, an Early Harappan necropolis
5	Paradip port	Paradip Port Authority (PPA) has achieved a significant milestone by becoming the top cargo-handling major port in India, surpassing Deendayal Port, Kandla. It is located in Odisha and is a vital deep-water port on the East Coast of India, situated at the convergence of the Mahanadi River and the Bay of Bengal. It holds the

		distinction of being the first major port on the East Coast established after independence.
6	Satpula Dam	It was in news due to its unique character of reliable source of water and acting as a defence against possible intruders in mediaeval times. Satpula, a magnificent Tughlaq-era dam, is a historical marvel nestled in the heart of Delhi
7	Sukhna Wildlife Sanctuary	MoEFCC has issued a draft notification demarcating an eco-sensitive zone (ESZ) around the Sukhna Wildlife Sanctuary on the Haryana side. It is situated in the Chandigarh Union Territory and encompasses the Shivalik Hills' Sukhna Lake catchment area.
8	Andaman & Nicobar Islands	The Islands saw a major military infrastructure upgrade with revamped airfields to a robust surveillance infrastructure. They are a group of islands of India, located in the Bay of Bengal. These islands form an arcuate chain (convex to the west).
9	Khavda Solar Park	Khavda Solar Park in Gujarat's Kutch, is the world's largest renewable energy park. It boasts of 2 GW of commissioned capacity with plans to add 4 GW in the current fiscal year and 5 GW annually thereafter. The Khavda Solar Park is near Vighakot village in Gujarat's Kutch district. Situated near the Pakistan border, it aims to generate 30 gigawatts of electricity from solar panels and wind turbines across 72,600 hectares of land when fully operational
10	Mudumalai Tiger Reserve	Here Asiatic wild dogs are affected by mange disease, likely spread by feral dogs. Tiger Reserve is located in the Nilgiri District of Tamil Nadu state at the tri-junction of three states, viz, Karnataka, Kerala and Tamil Nadu. It is a part of the Nilgiri Biosphere Reserve (1 st Biosphere Reserve in India). The Reserve has tall grasses, commonly referred to as 'Elephant Grass'

International Places In News



1	Syria	Officially known as the Syrian Arab Republic, it is a country in West Asia located in the Eastern Mediterranean and the Levant. It is bounded by the Mediterranean Sea to the west, Turkey to the north, Iraq to the east and southeast, Jordan to the south, and Israel and Lebanon to the southwest. The capital and largest city is Damascus
2	Combodia	Hundreds of Indians were rescued from cyber-scam factories in Cambodia after being promised jobs but forced into illegal online work (ranging from money laundering to love scams). Cambodia is a Southeast Asian nation whose landscape spans low-lying plains, the Mekong Delta, mountains and the Gulf of Thailand coastline. In the country's northwest are the ruins of Angkor Wat, a massive stone temple complex built during the Khmer Empire.
3	Taiwan	Taiwan experienced its strongest earthquake of 7.2 magnitude in nearly 25 years. Taiwan has a long history of earthquakes due to its location along the 'Pacific Ring of Fire', a line of seismic faults encircling the Pacific Ocean where most of the world's earthquakes occur.
4	Romania	Research centre in Romania has developed the world's most powerful laser. It is located in the geographic centre of Europe. It neighbours Ukraine in North, Republic of Moldova, Ukraine, and the Black Sea in the east, Bulgaria in the south, Serbia and Hungary in the west.
5	Saudi Arabia	World's First 3D-Printed Mosque was built in Saudi Arabia. It is the largest country in the Arabian Peninsula. It is located in the southwest corner of Asia. It is surrounded by the Red Sea on the West, by Yemen and Oman on the South, the Arabian Gulf and the United Arab Emirates and Qatar on the East, and Jordan, Iraq and Kuwait on the North.
6	Port of Baltimore	Cargo ship leaving the Port of Baltimore struck the (I-695) Francis Scott Key Bridge which caused a collapse of the bridge. It is strategically located in the Mid-Atlantic region of the U.S. east coast. It is one of the busiest harbours in the U.S.
7	Sittwe Port	India has secured the rights to operate the Sittwe port in Myanmar, marking its second overseas port endeavour after Chabahar. It is a deepwater port situated at the Kaladan River's estuary in Myanmar's Rakhine State.
8	Zaporizhzhia Nuclear Plant	Drone attack damaged the Zaporizhzhia Nuclear Power Plant in Ukraine, with three hits on the main reactor containment. Zaporizhzhia, the largest nuclear plant in Europe, is located in southeast Ukraine, on the banks of the Dnipro or Dnieper River (which drains into the Black Sea). It is currently under the control of the Russian forces.
9	Ural River	Russia declared an emergency in the Orenburg region near Kazakhstan after the Ural River (Europe's third longest river) burst through a dam embankment in the city of Orsk. It originates in the southern Ural Mountains. It embarks on a journey of 2,428 kilometres, making it the third-longest river in Europe after the Volga and the Danube.
10	Botswana	Botswana's President recently made headlines by threatening to export 20,000 elephants to Germany in response to Germany's proposal for stricter limits on the import of hunting trophies. It is a landlocked country in Southern Africa, predominantly inhabited by the Tswana ethnic group. It borders South Africa, Namibia, and Zimbabwe, and is connected to Zambia via Kazungula Bridge. It is one of the world's most sparsely populated countries



1	Mount Ruang Volcano	It is situated in Indonesia’s North Sulawesi province. It is a strato-volcano, characterized by a tall, steep, cone-shaped structure. Stratovolcanoes are known for their explosive eruptions due to the build-up of gas pressures in their more viscous lavas
2	Mauna Loa	It is among Earth’s most active volcanoes. One of the largest single mountain masses in the world, Mauna Loa (meaning “Long Mountain” in Hawaiian) rises to 13,677 feet above sea level and constitutes half of the island’s area. It is located on the Pacific Ocean and rises from the sea bed. It is an active shield volcano formed by the eruption of highly fluid lava. It has gentle slopes formed by the flow of the thin layer of lava which is low in viscosity.
3	Mount Etna	It is an iconic site encompassing 19,237 uninhabited hectares on the highest part of Mount Etna, on the eastern coast of Sicily. Mount Etna is the highest Mediterranean island mountain and the most active stratovolcano in the world
4	Kilauea	World’s most active volcanic mass, located on the south-eastern part of the island of Hawaii,U.S. It is one of the most active volcanoes in the world and has been continuously erupting since 1983.

5	Mount Nyiragongo	It is an active volcano in the Virunga Mountains of east-central Africa. It lies in the volcano region of Virunga National Park, Congo (Kinshasa), near the border with Rwanda. Nyiragongo main crater contains a liquid lava pool. Some older craters on the mountain are noted for their plant life.
6	Mount Shasta	6.: It is the peak (14,162 feet) of the Cascade Range in the Shasta-Trinity National Forest, northern California, U.S. The peak lies 77 miles (124 km) north of the city of Redding. An impressive double-peaked dormant volcano, it dominates the landscape (a vast panorama of tumbled mountains and valleys) for a hundred miles and is a main feature of Whiskeytown-Shasta-Trinity National Recreation Area.
7	Sangay	It is one of Ecuador's most active ones. Sangay is the southernmost stratovolcano (a volcano built up of alternate layers of lava and ash) in the northern volcanic zone of the Andes. Sangay National Park is located in the central part of Ecuador on the Andes mountains' eastern side. It is a world heritage site.
8	Mount Merapi	It is located near the center of the island of Java, Indonesia. The volcano is located north of Yogyakarta and somewhat farther south of Semarang. Merapi ("Mountain of Fire") has steep slopes with dense vegetation on its lower flanks. It is the most active of Indonesia's 130 active volcanoes.
9	Mount Yasur	It is a volcano on Tanna Island (Vanuatu) 1,184 ft high above sea level, on the coast near Sulphur Bay, northeast of the taller Mount Tukasmera, which was active in the Pleistocene. It has a largely unvegetated pyroclastic cone with a nearly circular summit crater
10	Vesuvius	It is an active volcano that rises above the Bay of Naples on the plain of Campania in southern Italy. Its western base rests almost upon the bay. The height of the cone in 2013 was 4,203 feet but it varies considerably after each major eruption. At about 1,968 feet, a high semicircular ridge, called Mount Somma, begins, girding the cone on the north

SOCIAL ISSUES

Can Govt. Redistribute Privately Owned Property

As wealth distribution dominates news headlines in India, a nine-judge bench of the Supreme Court commenced the process for interpretation of **Article 39(b)** of the Indian Constitution.

This to determine whether this directive principle of state policy (**DPSP**) provision allows the govt. to treat and redistribute privately owned properties under the garb of "**material resources of the community**" for greater common good.

What is Article 39(b) of the Constitution?

- It falls under **Part IV** of the Constitution titled "Directive Principles of State Policy" (DPSP).
- It places an obligation on the state to create policy towards securing the ownership and control of the material resources of the community that are so distributed as best to promote the common good.

Why is the Apex Court Interpreting Article 39(b) Now

- The interpretation by a (9-judges) bench comprising Chief Justice D Y Chandrachud **stems from Justice V R Krishna Iyer's dissenting view** in Ranganatha Reddy case of 1977.
 - After subsequent judgements, confusion over this interpretation led to the matter being referred to a nine-judge bench in 2002.
- Though the question is old, it is reverberating in the current politically-surcharged atmosphere after Rahul Gandhi's promise to conduct a financial and institutional survey.
 - This survey will take up the historic assignment **to distribute the wealth of India, jobs and other welfare schemes** to vulnerable sections based on their population.

Views of Advocates on Interpretation of Article 39(b)

- According to Senior advocates, **community resources could never include privately owned properties.**
- The advocates **termed Justice Iyer's view a reflection of his Marxist socialist ideology** which had no place in a democratic country governed by a Constitution giving primacy to fundamental rights of citizens.
- Solicitor General Tushar Mehta said the sole question before the court was interpretation of Article 39(b) and **not Article 31C.**
 - **Article 31C provides safe harbour** to laws enacted in pursuance of directive principles.
 - Its validity as it existed prior to the 25th constitutional amendment in 1971 has been upheld by a 13-judge bench in Kesavananda Bharti case.
- **The bench asked** how excess agricultural land was distributed among poor peasants in the 1960s. **Replying to this, a senior advocate said -**
 - No one questioned the state's power to acquire land for public purposes after paying a fair compensation to the owner of the land.

What are the Different Case Laws Interpreting Article 39(b)?

'83 CASE RELIED ON DISSIDENTING VIEW

1977: In **Ranganatha Reddy case**, a five-judge SC bench, by 4-1 majority, had clarified that privately-owned resources did not come under 'material resources of the community' under Article 39(b). However, Justice Krishna Iyer said in his dissenting opinion that it would include private property

1983: In **Sanjeev Coke case**, a 5-judge bench relied on Justice Iyer, ignoring it was a minority view, and said private property was included in 'material resources of the community'

1997: **Mafatlal judgment** said interpretation of Article 39(b)

should be referred to a 9-judge bench

1997: **Mumbai-based Property Owners Association** filed appeal in SC challenging Chapter 8 provisions of Maharashtra Housing and Area Development Authority Act which allows taking over properties for redevelopment (based on Article 39(b) mandate)

Feb 2002: Seven-judge bench, hearing **Property Owners Association case**, referred interpretation of Article 39(b) to 9-judge bench, which took up case

- Land ceiling laws were passed by states to determine excess land accumulated by zamindars and such excess land was then redistributed.
- But if the government wants to take away my property and distribute it to the poor, then I would be left with no money as my fees would be taken away and paid to poor people.

Extra Mile: Idea To Impose An Inheritance Tax In India

Right after the controversy over Rahul Gandhi's promise to conduct a financial survey to undertake an exercise to redistribute the wealth, Sam Pitroda proposed **inheritance tax** as a way to redistribute wealth.

Why It Might Not Be A Good Idea To Impose An Inheritance Tax In India?

- For a developing country like India, incentivising entrepreneurial spirit to promote private investment should be the priority. **Such a tax can lead to the exodus of the high net worth individual to countries without this tax**, not only taking their money out but also their entrepreneurial skills, which India needs to consistently grow at higher rates.
- It is not difficult to dodge the inheritance tax. One such method is forming a family trust which insulates their assets, because there is no transfer in ownership of assets, only a change in trust shareholding.
- The tax also entails some practical problems. It may be very difficult to assess the value of some inherited assets such as family antiques.

About Inheritance Tax

Also known as estate tax, it is a tax levied on the total value of money and property of a deceased person before it is distributed to their legal heirs. The purpose of inheritance tax is often to generate revenue for the government and to redistribute wealth. It plays a significant role in shaping economic policies and social welfare systems, influencing decisions on wealth transfer and intergenerational equity.

Countries Levying Inheritance Tax

In Japan, the inheritance tax rate stands at 55%, making it one of the highest in the world. South Korea follows closely behind with a rate of 50%. France imposes an inheritance tax rate of 45%, while both the United Kingdom and the United States (certain states) have rates of 40%. In India, the Inheritance or Estate Tax was abolished in 1985.

IRDAI Prices Bima Vistaar At Rs 1,500 Per Policy

IRDAI has proposed to price Bima Vistaar at Rs 1,500 per policy. Bima Vistaar is an ambitious all-in-one affordable mass product aimed at the rural areas of the country.

About Bima Vistaar

- It is a **bundled policy** that covers life, health, property, and accidents. It provides defined benefits for each risk category, ensuring quick claim payouts without surveyors.
- As a social safety net product, Bima Vistaar targets the untapped geographies.

Features of Bima Vistaar

The Breakup of product Bima Vistaar includes

life cover with a premium of Rs 820	health cover at Rs 500	personal accident cover at Rs 100	property cover at Rs 80
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- If taken for the entire family on a floater basis, the policy will cost Rs 2,420, with an additional Rs 900 charged for the rest of the family members.
- The sum assured for life, personal accident and property covers is Rs 2 lakh each.
- The health cover, known as hospi cash, offers a sum assured of Rs 500 for 10 days, with a maximum amount of Rs 5,000 available without producing bills or documents.
- This initiative not only promotes financial inclusion but the competitive & reasonable pricing of Bima Vistaar is expected to benefit many individuals and families.

{For more about Bima trinity refer The Recitals, Feb 2024}

An Overview Of The PMAY-U Scheme

One of the flagship programmes of the current Union Government was Housing For All (HfA) by 2022, both in urban and rural areas, planned under the PMAY (Pradhan Mantri Awas Yojana) scheme in 2015.

Housing Scarcity In India

- Currently, according to the government's estimates, there is a shortage of around 20 million houses in rural areas and 3 million in urban centres.
- According to a study by the ICRIER, urban housing shortage increased by 54%, from 1.88 crore in 2012 to 2.9 crore in 2018.

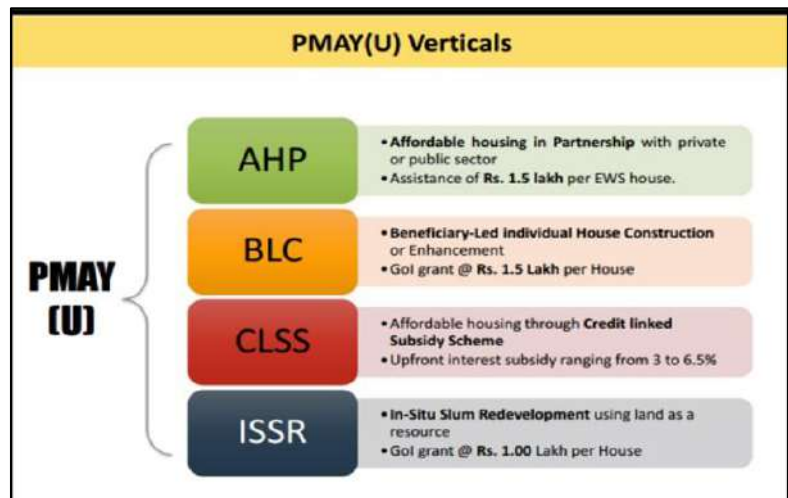
Pradhan Mantri Awas Yojana - Urban (PMAY)

• About

- Housing for All was launched in June **2015** and being implemented by the **Ministry of Housing and Urban Affairs (MoHUA)**.
- It will ensure **all weather pucca houses** to all eligible beneficiaries in the urban areas of the country through States or UTs or Central Nodal Agencies by the year 2022, when Nation completes 75 years of its independence.
- The scheme **covers the entire urban area of the country**, i.e., all statutory towns as per Census 2011 and towns notified subsequently, including Notified Planning or Development Areas.

• Funding

- It is implemented as a **Centrally Sponsored Scheme (CSS)** except for the component of credit linked subsidy scheme (CLSS) which is implemented as a **Central Sector Scheme**.
- While the Government of India provides financial assistance, State governments or UTs implement the scheme including selection of beneficiaries.



• Some Initiatives Under PMAY-U:

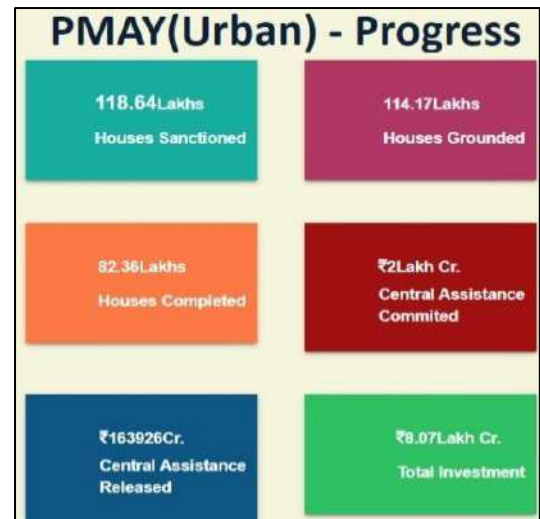
- **Affordable Rental Housing Complexes (ARHCs):** A sub-scheme under PMAY-U, it aims to provide ease of living to urban migrants or poor by giving access to dignified affordable rental housing close to their workplace.
- **Global Housing Technology Challenge - India (GHTC-India):** It aims to identify and mainstream innovative construction technologies from across the globe for the housing construction sector that are sustainable, eco-friendly and disaster-resilient.
- **CLSS Awas Portal (CLAP):** The portal facilitates processing of applications along with tracking of subsidy status by beneficiaries.
- **ANGIKAAR:** It is a campaign for social change management initiated by 'Housing for All' Mission in 2019. It has achieved the objective to build capacities of PMAY-U beneficiaries in adapting to change through door-to-door awareness on best practices.

- **Extension of timeline:** In August 2022, the government approved the continuation of the PMAY-U up to December 31, 2024, for the completion of already sanctioned houses till March 31, 2022.

Challenges

● Private Sector Participation in Social Housing: A Double-Edged Sword

- The initiative to involve the private sector in social housing aimed to bridge the gap in public investments, particularly in addressing the housing needs of slum dwellers in the Indian urban landscape.
- In some of the projects where spaces occupied by the slum dwellers were handed to private players, the vertical growth of such settlements created more problems for the residents rather than addressing them.
- E.g., Multi-storey buildings, while intended to provide housing solutions, imposed additional burdens on residents due to recurring costs of utilities such as water, electricity, and sewerage. Sometimes it exceeded residents' financial capacities.



● Land Ownership Hurdles

- Land ownership complexities, particularly parcels registered under airports, railways, forests, etc., posed significant obstacles to the implementation of Integrated Slum Development Projects (ISSR).
- The lack of accessible land hindered the effective execution of social housing initiatives.

● Lack of Community Involvement

- Plans for Integrated Slum Development Projects were often formulated by consultants without meaningful input or participation from the affected communities.
- This absence of community involvement may have contributed to mismatches between project goals and residents' needs and preferences.

● Discrepancies in Urban Development Strategies

- Disconnect between city master plans and the objectives of PMAY-U. Many cities' plans, influenced by large consultancy firms, prioritize capital-intensive technological solutions over social housing initiatives.

● Financial Dynamics of PMAY-U

- Financial structure of PMAY-U reveals a substantial reliance on beneficiary contributions.
- While the Centre's contribution amounts to only 25% (₹2.03 lakh crore) of the total investment, beneficiary households bear 60% (₹4.95 lakh crore) of the expenditure.
- State governments, along with Urban Local Bodies, contribute ₹1.33 lakh crore.

● Limited Government Role in Housing Solutions

- PMAY-U's architecture fails to adequately address the needs of the landless and impoverished segments of society.
- The majority of sanctioned houses (62%) fall under the Beneficiary Led Construction (BLC) vertical, where the government's involvement is confined to cost-sharing arrangements with beneficiaries.
- Additionally, beneficiaries of Credit Linked Subsidy Scheme (CLSS) constitute only 21%.
- In both cases, the government's role is limited, while beneficiaries own the land.

● Marginalized Role of Slum Rehabilitation

- ISSR component of PMAY-U, aimed at rehabilitating slum-dwelling families, accounts for a mere 2.5% of total beneficiaries.

- This marginal representation underscores a deficiency in addressing the needs of vulnerable populations within urban areas.

Ayushman Bharat To All Senior Citizens

While releasing its election manifesto for the 2024 Lok Sabha elections, a prominent political party promised to expand its Ayushman Bharat Health Insurance scheme to cover senior citizens.

Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PMJAY)

- **About:** Launched in September 2018, the scheme covers over ~ 40% of the population targeted towards poorest and the vulnerable.
 - It was launched as a second component of the 'Ayushman Bharat' scheme.
 - It aimed to offer medical coverage of Rs. 5 lakh **per family per year** for **secondary and tertiary care** hospitalisation to poor and vulnerable families.
- **Eligibility:** Earlier, the scheme targeted to cover 10.74 crore poor, deprived rural families and identified occupational category of urban worker's families.
 - However, states implementing AB-PMJAY have broadened their reach to encompass 13.44 crore families (65 crore people).
 - The beneficiaries are identified by latest Socio-Economic Caste Census (SECC) data.
- **Performance**



- **Benefits:** It provides cashless access to Health Benefit Packages which covers surgery, medical and day care treatments, cost of medicines and diagnostics.

Ayushman Bharat for Senior Citizens - Need

- **Ageing population**
 - India is reaping the benefits of the demographic dividend at present. However, the declining fertility rate and increasing life expectancy mean that India's population is growing old.
 - Only 8.6% of the country's population was over the age of 60 years at the time of the previous census in 2011. This proportion is expected to increase to 19.5% by 2050.
 - In terms of absolute numbers, the population over the age of 60 years will nearly triple from 103 million in 2011 to 319 million in 2050.
 - The aging population will mean increased expenditure on health and long-term care, labour force shortages, public dissaving, and old-age income insecurity.
- **Low insurance coverage**
 - As per India Ageing Report 2023, just over 20% of people over the age of 60 years are covered under health schemes such as Central Government Health Scheme, Employees State Insurance Scheme etc.
 - Coverage is higher in elderly men (19.7%) than elderly women (16.9%). There is not much rural-urban divide in the coverage.
 - The India Ageing Report found that the main reasons for a lack of coverage in elderly are low awareness (52.9%) and non-affordability (21.6%).
- **Diseases of the old:** The elderly are not only affected by chronic, non-communicable diseases and their complications, they are also more prone to infectious diseases.

- **Analysis of the expenditure incurred by the govt. under Ayushman Bharat**

- The government has incurred the most money for five key specialties under the scheme: cardiology, general medicine, general surgery, orthopedics, and medical & radiation oncology.
- This data show that the government already is incurring most of the money in providing treatment that is predominantly required for the elderly population.

Sugary Processed Foods

Over the past week, the spotlight has returned on high sugar content in flavoured malt-based milk powders and baby food.

- According to a recent report, Nestlé's products for babies in Asia, Africa and Latin America were found to contain added sugars, while the same products sold in Europe did not have it. Currently, Nestlé controls 20% of the baby-food market, valued at nearly \$70 billion.
- Government authorities are warning against branding such items as “**healthy**” and have called out the allegedly misleading promotion and marketing tactics while loading products with added sugar.

Food Safety and Standards Authority of India (FSSAI)'s Stand on Sugar Content

- According to FSSAI regulations (2018), a **product can only claim to be 'low on sugar' if it has less than 5g of sugar per 100g.** If a product meets this criteria, it can be considered 'healthy.'
- **World Health Organization's recommended daily limit of 25 grams or six teaspoons of sugar.**
- Additionally, many households in India add extra sugar to chocolate-powder drinks, making the sugar intake even higher.

Is Added Sugar Intake Harmful For Body

- **Weight Gain:** Sugary foods and drinks are often **high in calories but low in nutrients**, leading to excess calorie intake.
- **Increased Risk of Chronic Diseases** such as type 2 diabetes, heart disease, and certain cancers.
- **Tooth Decay & cavity:** Sugar promotes the growth of harmful bacteria in the mouth
- **Insulin Resistance:** Body's cells become less responsive to insulin, increasing the risk of developing type 2 diabetes.
- **Elevated Blood Sugar Levels** followed by sharp drops, leading to fluctuations in energy levels and mood swings.
- **Liver Overload:** When consumed in excess, fructose, a type of sugar, can overload the liver, leading to fatty liver disease and other liver-related problems.
- **Addictive Nature:** leading to cravings and overconsumption
- **Nutrient Imbalance:** Foods high in sugar often displace nutrient-dense foods in the diet.
- **Inflammation** which is associated with various health problems, including autoimmune diseases.
- **Mental Health:** Some studies suggest that high sugar intake may be linked to an increased risk of depression, anxiety, and other mental health disorders.

A drink like **Bournvita** has 86.7g of carbohydrates per 100g, with 49.8g being sugar. Out of this sugar, 37.4g is added sugar. (So, every 20g serving has 10g of sugar)

About Added Sugars

Sugar is a simple carbohydrate. Some food items have sugar that is naturally occurring.

For example, natural sugar is found in milk (lactose) and fruit (fructose) and any product that contains milk (such as yogurt or cream).

Free sugar or added sugar is added separately to a food item during preparation or processing.

It can include natural sugars such as white sugar, brown sugar and honey, as well as **other caloric sweeteners that are chemically manufactured** (such as high fructose corn syrup).

1 The process used to make Bournvita involves malting, which turns grains into sugar.

2 Malting is a technique used to make things like whiskey and malt-based milk drinks.

Way Forward

- FSSAI's regulations allow sugar in milk cereal-based foods for infants, but only certain types like lactose and glucose polymers are preferred.
- Sucrose and fructose can only be added if needed, and their total should not exceed 20% of the total carbohydrate content.
 - **These regulations need to be reviewed because they allow sugar in infant foods.**
- There should be clear regulations defining what is considered 'healthy' and 'unhealthy' for all food and beverage products.

Scope of Right to Sleep Under Indian Constitution

According to the Bombay HC, the 'right to sleep' / 'right to blink' is a basic human requirement, in as much as, non-providing of the same, violates a person's human rights.

Observations Made by the Bombay HC: While dismissing a plea by a 64-year-old businessman claiming 'illegal' arrest by ED, **the HC criticised the manner in which his statement was recorded in the ED office overnight.** This deprived him of '**right to sleep**' under **Article 21** (Right to life with dignity) of the Constitution. Deprivation of sleep **may affect a person's health**, impair his mental faculties, cognitive skills, etc.

Scope of Right to Sleep under the Indian Constitution: The right to sleep is **encompassed as a fundamental right under Article 21.** This means, nobody can infringe on others' right to sleep in a peaceful atmosphere at night. However, the right to sleep is an implied right, **it has some restrictions** like place of sleep, time of sleep, and manner of sleep. Nobody can do any unreasonable acts, like sleeping during the day, sleeping naked, sleeping in public places, etc.

Landmark Cases that Led to the Introduction of Right to Sleep as a Fundamental Right

- › **Sayed Maqsood Ali vs. State of Madhya Pradesh (2001):** MP HC ruled that every citizen is entitled under Article 21 of the Constitution to live in a decent environment and has the right to sleep peacefully at night.
- › **Re-Ramlila Maidan Incident vs. Home Secretary (2012):** SC ruled that sound sleep is associated with sound health, which is an inseparable facet of Article 21. It is an unavoidable right of the Indian Constitution.

Outlook on Women's Empowerment

ILO and the Institute of Human Development (IHD) have jointly published a report titled "**India Employment Report 2024**".

About India Employment Report 2024

- It is the third in the series of regular publications. The report examines the challenge of youth employment in the context of the emerging economic, educational and skills scenarios in India and the changes witnessed over the past two decades
- It highlights recent trends in the Indian labour market, which indicate improvements in some outcomes along with persisting and new challenges.

Key Highlights of the Report from Women Empowerment Perspective

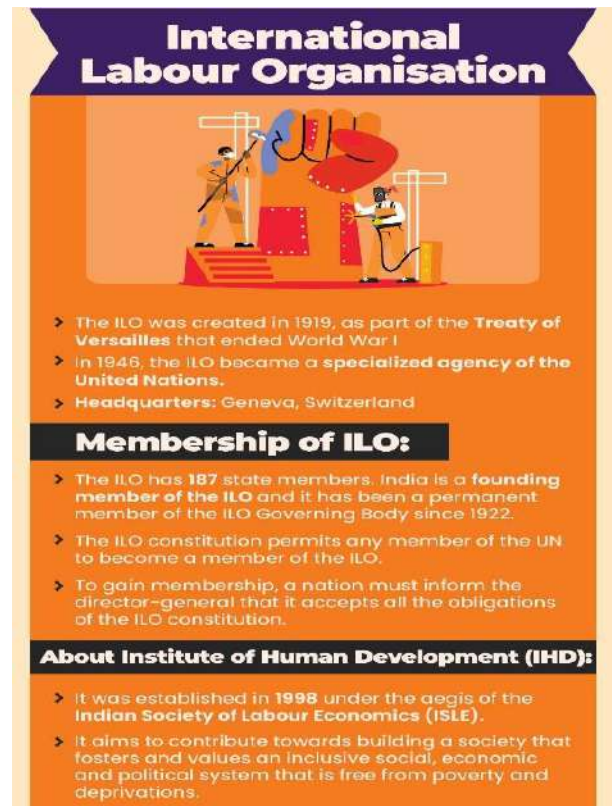
- **Female Labour Force Participation Rate (LFPR) is very low compared to the male counterparts.** In 2023, the male LFPR was pegged at 78.5 and the women LFPR was 37.
 - The world women LFPR rate is 49, according to the World Bank figures.
- The female LFPR had been steadily declining since 2000 and touched 24.5 in 2019, before inching up. The increase in labour force participation has come mostly in rural areas and mostly in self-employment & largely unpaid family work.
 - The share of regular work, which steadily increased after 2000, started declining after 2018.

Reasons for Low Female LFPR

- There are both *supply and demand side reasons* for the decline in women's LFPR. The supply factors such as:
 - Social norms: Women responsible for all care-giving duties plus cooking and cleaning,
 - Patriarchal mindsets
 - Safety issues & lack of transport.
- On the labour demand side, India's growth pattern has not been job intensive. (lack of jobs and low wages)

Way Ahead

- Interventions are needed on both the demand and supply side of the labour market.
- On the demand side, policies that promote labour intensive sectors in both manufacturing and relatively higher productivity services are needed.
- Public investment in safety, transport & affordable child and elderly care.



International Labour Organisation

- The ILO was created in 1919, as part of the **Treaty of Versailles** that ended World War I
- In 1946, the ILO became a **specialized agency of the United Nations**.
- **Headquarters:** Geneva, Switzerland

Membership of ILO:

- The ILO has **187** state members. India is a **founding member of the ILO** and it has been a permanent member of the ILO Governing Body since 1922.
- The ILO constitution permits any member of the UN to become a member of the ILO.
- To gain membership, a nation must inform the director-general that it accepts all the obligations of the ILO constitution.

About Institute of Human Development (IHD):

- It was established in **1998** under the aegis of the **Indian Society of Labour Economics (ISLE)**.
- It aims to contribute towards building a society that fosters and values an inclusive social, economic and political system that is free from poverty and deprivations.

Import Restrictions On Solar PV Cells

Ministry of New and Renewable Energy's (MNRE) ordered to re-implement its 2021 notification of an 'Approved List of Models and Manufacturers of Solar Photovoltaic [PV] Modules', also called the ALMM list from April 1st.

This order attempts to increase local sourcing of solar modules to support India's renewables manufacturing ecosystem. However, it is widely seen as import restrictions on solar PV cells.

Approved List of Models and Manufacturers of Solar Photovoltaic Modules (ALMM list)

- **About:** This list consists of manufacturers who "are eligible for use in Government Projects/Government assisted projects/ projects under Government schemes & programmes.
- **Rules were kept in abeyance**
 - The government did not implement this list without giving a clear reason. It's believed this pause came about because renewable energy producers, who had contracts to sell electricity to the government before these rules were made, were concerned.
 - Back then, most solar equipment was imported from China because it was cheaper.
 - India's own renewable energy sector couldn't keep up with the demand for solar equipment at the prices offered by Chinese manufacturers.
- **Govt. Re-introduced the rule in March 2024.**
 - They decided to bring back this list because they believe that measures like the Production Linked Incentive (PLI) scheme have helped Indian companies increase their production and become more competitive in pricing.
 - This scheme is part of Atmanirbhar Bharat ('Self-Reliant India') Programme.
 - Now, they think domestic companies can meet the demand for these products in India. This is an **import substitution effort**, & not an attempt to restrict imports.

Steps Taken By India To Promote Domestic Manufacturing

- **Notification of the ALMM order:** Govt. notified ALMM order in January 2019. But the issue attained centre stage in the wake of severe global supply chain disruptions during COVID-19 pandemic.
- **Announcement of PLI scheme:** Finance Minister Nirmala Sitharaman proposed the ₹19,500 crore PLI scheme in the Union Budget of 2022-23. This was to scale domestic manufacturing of the entire solar supply chain — from polysilicon to solar modules.
- **Introduction of steep custom duty** 40% customs duty on PV modules and 25% on PV cells.

Solar PV imports in India

- ▶ **Dependency on China and Vietnam:** India is overwhelmingly import dependent on China and Vietnam to meet its demand for solar cells and modules.
- ▶ **Import statistics:** As per the data submitted by the govt in Parliament in February 2023, India imported about \$11.17 billion worth solar cells and modules in the past five years.
 - And until January of 2023-24, data from the Ministry of Commerce's Import-Export showed that China accounted for 53% of India's solar cell imports, and 63% of solar PV modules.
- ▶ **Why is China a leading exporter?** China was the most cost-competitive location to manufacture all components of the solar PV supply chains.
 - This is mainly because of the **lower cost of power supplied** to the industry.
 - Electricity accounts for more than 40% of production costs for polysilicon and almost 20% for ingots and wafers.
 - Also, the **growing domestic demand** enabled economies of scale and supported continuous innovation throughout the supply chain.

SCORES 2.0

- The Securities and Exchange Board of India (SEBI) has launched **SCORES 2.0 - SEBI Complaint Redress System** - a new and more user-friendly version of its complaint redress system.

- SCORES is a web-based centralized grievance redress system of SEBI launched in 2011.
- Complaints can be lodged on SCORES for any issues covered under the Sebi Act, Securities Contract Regulation Act, Depositories Act, and rules and regulations of the Companies Act, 2013.
- The new version will make the process more efficient through auto-routing, auto-escalation, monitoring by the designated bodies and reduction of timelines.
- The timeline for redressal of complaints in SCORES 2.0 has been **reduced to 21 days** from the receipt of the complaint. Currently, entities are required to submit the action taken report not later than 30 days.
- Besides, there will be **two levels of review**, first by the 'Designated Body' and if the investor is dissatisfied, SEBI will undertake a second review.
- Further, the regulator has introduced **auto-escalation of complaint** to the next level in case of non-adherence to the prescribed timelines by the regulated entity or the designated body.
- SCORES 2.0 will be integrated with KYC Registration Agency database for easy registration of the investor on to SCORES.

Nimmu Padam Darcha Road

- The Border Roads Organisation (BRO) recently connected the strategic Nimmu-Padam-Darcha road in Ladakh. The 298-km road will connect Manali to Leh through Darcha and Nimmu on Kargil – Leh Highway.
- The road is now the third axis apart from Manali-Leh and Srinagar-Leh which connects Ladakh to the hinterland.
- The road derives its strategic importance from the fact that it is not only shorter compared to the other two axes, but crosses only one pass; **Shinkun La (16,558 feet)** on which tunnel work is about to commence by the BRO.
- This will result in the road having all weather connectivity to the Ladakh region. The connectivity will strengthen the defence preparedness and provide a boost to the economic development in the Zaskar valley.

Hurun Global Rich List

- The Hurun Research Institute released the 2024 Hurun Global Rich List.
- Despite a reduction of 155 billionaires, **China maintains its lead as the global hub for billionaires**, with 814 billionaires.
- The USA was just behind with 800 billionaires, adding 109. Together, **China and the US account for 49%** of the global billionaire population, a decrease of 4%.
- Brazil, Indonesia, and Japan have experienced positive growth, in contrast to China's decline.
- On the city front, New York has reclaimed its position as the premier city for billionaires, with London in the second place.

Indian Scenario

- India saw a significant increase, adding 94 billionaires, the highest by any nation except the United States, bringing the total to **271** ultra-high-net-worth individuals.
- Mumbai emerged as the city with the quickest growth in billionaire numbers, adding 26 over the year, making it **third globally** and the leading city for billionaires in Asia. New Delhi has entered the Top 10 for the first time.
- The report highlighted the dominance of specific industries in contributing to India's billionaire boom, with the pharmaceutical sector leading with 39 billionaires, followed by the automobile and auto components industry (27), and the chemicals sector (24).

- Collectively, the wealth of Indian billionaires amounts to \$1 trillion, accounting for 7% of the global billionaire wealth, emphasizing the nation's substantial economic influence.

Anti-dumping Duty On Sodium Cyanide

- The Directorate General of Trade Remedies (DGTR) has recommended imposition of anti-dumping duty on import of sodium cyanide from China, European Union, Japan and Korea for a period of 5 years.
- Sodium cyanide is used in the extraction of **gold and silver** from their respective ores, in electroplating and the heat treatment of metals, and in manufacturing insecticides, dyes, pigments, and bulk drugs, etc.
- An **anti-dumping duty** is a protectionist tariff that a domestic government imposes on foreign imports that it *believes are priced below fair market value*.
 - ✓ **Dumping** is a process in which a company exports a product at a price that is significantly lower than the price it normally charges in its home (domestic) market.
- Anti-dumping duty is imposed with the rationale that these imported products have the potential to undercut local businesses and the local economy.
- While the intention of anti-dumping duties is to save domestic jobs, these tariffs can also lead to higher prices for domestic consumers.
- In the long-term, anti-dumping duties can reduce the international competition of domestic companies producing similar goods.

Directorate General of Trade Remedies (DGTR)

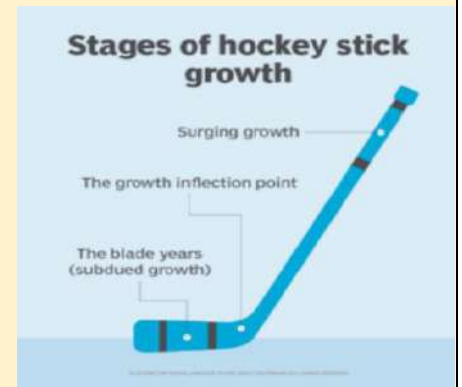
- 01** DGTR, earlier known as Directorate General of Anti-Dumping & Allied Duties (DGAD), is an attached office of the Department of Commerce, Ministry of Commerce & Industry.
- 02** DGAD was formed in 1997 and was later restructured as DGTR in **2018**, as a single national entity dealing with all kinds of Trade Remedial measures (anti-dumping, countervailing, safeguard).
- 03** It provides a level playing field to the domestic industry against the unfair trade practices like dumping, subsidization and surge in imports.

Price to Earnings Ratio

- The chairperson of Securities and Exchange Board of India (SEBI) recently shared that despite **high price-to-earnings (PE) ratio**, overseas investors are *being drawn to* (investing) the Indian capital markets.
- This is due to the rapid economic growth, which reflects global optimism and trust in Indian economy, highlighted by the **hockey-stick effect**.
- **Price-to-earnings (P/E) ratio = Company's share price / Earnings per share (EPS)**.
- It gives investors a better sense of the value of the company.
 - ✓ Earnings are important when valuing a company's stock because investors want to know how profitable a company is and how profitable it will be in the future.
- The P/E ratio is useful for **comparing a company's valuation** against its **historical performance**, against other firms within its industry, or the overall market.
- A high P/E ratio could signal that a **stock's price is high** relative to earnings and is **overvalued**.
 - ✓ Conversely, a low P/E could indicate that stock price is low relative to earnings.
- Companies with no earnings or are losing money don't have a P/E ratio because there's nothing to put in the denominator.
- There are two types of P/E: **trailing and forward**.
 - ✓ Trailing is based on previous periods of EPS, while a *leading or forward* P/E ratio is when EPS calculations are based on future estimates.

Hockey-stick Effect

- Hockey stick effect is a pattern in a graph that shows sudden and extremely rapid growth after a relatively **flat or quiet period**.
- The line connecting the data points resembles the shape of an ice hockey stick.
- Initially, there's a period of **little growth or stagnation**, which is followed by an **inflection point** that turns into rapid growth.

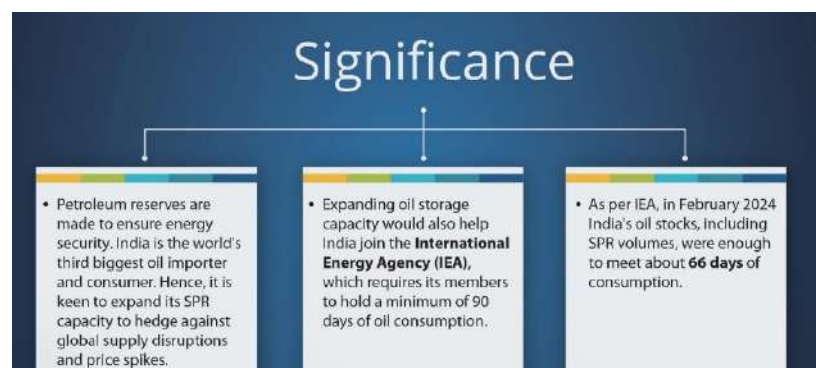


Stages Of Hockey Stick Growth

- **The blade years** are a period of subdued growth. In a startup example, this is where the business is trying to establish itself in the market.
- **The growth inflection point** is the point where the **data or revenue growth begins rising drastically**. It's the sharp upward growth curve in the hockey stick chart.
- **Surging growth** is characterized by data trending upward in a straight diagonal line. In a chart, it comes right after the growth inflection point.

India's First Privately Managed Strategic Petroleum Reserve

- India plans to build its first **privately managed** strategic petroleum reserve (SPR) by **2029-30**, granting the operator the freedom to trade all of the stored oil.
- For this, **Indian Strategic Petroleum Reserves Ltd (ISPRL)** has invited bids for constructing **2.5 million tonnes** of **underground** storage at **Padur** in Karnataka.
 - ISPRL is a special purpose vehicle (SPV) created by the government for building and operating strategic petroleum reserves in the country.
 - ISPRL had in the first phase built SPR for storage of **5.33 million tonnes** of crude oil at three locations **Visakhapatnam** (1.33 million tonnes) in Andhra Pradesh and **Mangalore** (1.5 million tonnes) and **Padur** (2.5 million tonnes) in Karnataka.
 - Now, under Phase-II, it intends to build a **commercial cum strategic petroleum reserve** along with associated **above ground facilities**, including associated pipelines for storage of crude oil at Padur-II.
- Allowing a fully commercial SPR follows the model adopted by countries such as Japan and South Korea, which allow **private lessees**, mostly oil majors, to trade the crude.
- So far, India has allowed **only partial commercialization** for its **three existing SPRs** in southern India, which have a combined capacity of 36.7 million barrels.
- Under the privately managed SPRs, the private partners will be allowed to trade all of the oil locally. However, the government will have the first right to the oil in the event of an emergency.
- Padur-II will be constructed in a **PPP (public-private partnership) model** where private parties will *design, build, finance, and operate* the storage.
- ISPRL estimates the Padur SPR and linked pipeline and oil import facility would cost about **Rs 5514 crore (\$659 million)**, with the **federal government providing up to 60% of the total**.
- The bidder requiring the lowest federal financing or paying the highest premium for the 60-year lease would be awarded the rights for the SPR.



KABIL - CSIR-IMMT MoU

- Khanij Bidesh India Limited (KABIL) has signed an MoU with the *Council of Scientific and Industrial Research - Institute of Minerals and Materials Technology (CSIR-IMMT)* related to critical minerals.
- Under the MoU, KABIL will utilise the *technical expertise and services* of CSIR-IMMT to undertake various projects, including the design and analysis of metallurgical test work-plans, selection of process technologies for mineral processing and metal extraction.
- Furthermore, the agreement will also lead to joint research and facilitate the exchange of scientific information between the two entities.
- Advancing scientific research and technology development in the mineral and metallurgical sectors are essential to the growth and sustainability of the Indian mining industry. It will ultimately play a pivotal role in meeting mineral security of the nation.

The infographic is divided into two main sections. The top section, titled 'KABIL', features a red header with the name in white. Below it, three white boxes with black text provide details: 1) 'Formed in 2019, KABIL is a joint venture company of National Aluminium Company Limited (NALCO), Hindustan Copper Limited (HCL) and Mineral Exploration and Consultancy Limited (MECL), under the aegis of Ministry of Mines.' 2) 'Its goal is to identify, explore, acquire, develop, mine, process and procure critical and strategic minerals outside India for supplying to India, to ensure mineral security of the nation and give a push to Make in India.' The bottom section, titled 'CSIR-IMMT', features a green header with the name in white. Below it, three white boxes with black text provide details: 1) 'CSIR-IMMT was established by in 1964 as Regional Research Laboratory, Bhubaneswar under CSIR.' 2) 'The institute has expertise in conducting basic research and technology-oriented programs to address the R&D problems of mining, mineral and metals industries and ensure their sustainable development.' 3) 'Its mission is to develop globally competitive, innovative & sustainable mineral & material resource processing technology that delivers maximum socio-economic benefits.'

CDP-SURAKSHA

- The government has come up with a new platform CDP-SURAKSHA to *disburse subsidies to horticulture farmers* under the **Cluster Development Programme (CDP)** — the Centre’s initiative to promote horticulture crops.
- The move seeks to push the growth of India’s horticulture sector, which contributes nearly one-third to the agriculture gross value addition (GVA).

CDP-SURAKSHA (System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance)

- This **digital platform** will allow an **instant disbursal of subsidies to farmers** in their bank account by utilising the **e-RUPI voucher** from the National Payments Corporation of India (NPCI).
- CDP-SURAKSHA has features like database integration with PM-KISAN, cloud-based server space from NIC, UIDAI validation, eRUPI integration, local government directory (LGD), content management system, geotagging, and geo-fencing.
- The platform allows access to farmers, vendors, implementing agencies (IA), and cluster development agencies (CDAs), and officials of the National Horticulture Board (NHB).

Functioning of CDP-SURAKSHA

- A farmer can login using their mobile number and place an order for *planting material such as seeds, seedlings, and plants based on their requirement.*
- Once the demand has been raised by the farmer, the system will ask them to contribute their share of the cost of planting material. The subsidy amount paid by the government will appear on the screen automatically.

The infographic has a blue header with the title 'Horticulture is a branch of plant agriculture dealing with garden crops, generally fruits, vegetables, and ornamental plants. The word is derived from the Latin hortus, "garden," and colere, "to cultivate".' Below the header, there are two orange boxes with white text. The first box states: 'It is the science of development, sustainable production, marketing and use of high-value, intensively cultivated food and ornamental plants.' The second box states: 'Total production of horticulture crops has increased in recent years. While in 2010-11, it stood at 240.53 million tonnes, the number rose to 334.60 million tonnes in 2020-21.'

- After the farmer pays their contribution, an **e-RUPI voucher** will be generated. This voucher will then be received by a vendor, who will provide the required planting material to the farmer.
- Once the ordered planting material is delivered to the farmer, they have to **verify** the delivery through geo-tagged photos and videos of their field.
- It is only after the verification that the IA will release the money to the vendor for the e-RUPI voucher.
- In the old system, a farmer had to buy planting materials on their own. They would then have to approach the officials concerned for the release of the subsidy.
- However, under CDP-SURAKSHA subsidies to farmers will be provided at the time of purchasing the planting material.

India Gains Access Of Sittwe Port

- India recently secured rights to operate its **second overseas port at Sittwe in Myanmar**, following the Chabahar Port in Iran.
- The Ministry of External Affairs (MEA) has approved a proposal for **India Ports Global Ltd (IPGL)** to take over the operations of the entire port located on the **Kaladan River**.
 - IPGL is a joint venture between Jawaharlal Nehru Port Trust (JNPT) and Deendayal Port Trust (earlier Kandla Port Trust).
 - IPGL is a company 100% owned by the Ministry of Ports, Shipping and Waterways.
 - It was incorporated in 2015 under the Companies Act, 2013, as per directions of Ministry of Shipping for development of **ports overseas**.
 - Ministry of Shipping has **presently assigned IPGL** the task of equipping and operation of container/multi-purpose terminals at Chabahar Port in Iran.

Hush Money

- The historic hush money trial of Donald Trump recently got underway with the process of selecting a jury to hear the case. This is the first criminal trial of any former U.S. President.

e-RUPI



The voucher is a **one-time payment mechanism** that can be redeemed without a card, digital payments app or internet banking access, at the merchants accepting e-RUPI.



e-RUPI can be shared with the beneficiaries for a **specific purpose/ activity** by organisations or government via SMS/ QR code.

Cluster Development Program (CDP)

- CDP is a central sector programme implemented by the **National Horticulture Board (NHB)**.
- It is aimed at leveraging the geographical specialisation of horticulture clusters and promoting integrated and market-led development of pre-production, production, post-harvest, logistics, branding, and marketing activities.
- So far, 55 horticulture clusters have been identified, out of which 12 have been selected for the pilot. These clusters are in different stages of development.
- Four more clusters — a floriculture cluster in West Bengal, coconut clusters in Kerala and Tamil Nadu, and white onion clusters in Gujarat — are also in the pipeline. Each cluster will have an implementing agency and a cluster development agency (CDA).
- According to the government, about 9 lakh hectares of area will be covered through all 55 clusters, covering 10 lakh farmers.
- It is estimated that the initiative will attract private investment of Rs 8,250 crore, in addition to the government's assistance.
- The government assistance is fixed according to the size of the cluster:

up to Rs 25 crore for mini cluster (size up to 5,000 ha)

up to Rs 50 crore for medium clusters (5,000 to 15,000)

up to Rs 100 crore for mega clusters (more than 15,000 ha)

Sittwe Port

- 01

The Sittwe Port located on the Rakhine State of Myanmar, on the Bay of Bengal, is part of the **Kaladan multi-modal transit transport project**.
- 02

The project connects seaport of Kolkata with Sittwe seaport in Myanmar by sea.
- 03

It further links Sittwe Port to Paletwa in Myanmar via Kaladan **river waterway**, and connects Paletwa to Zorinpui in Mizoram through a road component
- 04

The link will not only offer an alternative route for shipping goods to the northeastern states, but will significantly reduce the cost and distance from **Kolkata to Mizoram** and beyond.
- 05

It will also reduce dependency on the Siliguri Corridor, known as the chicken's neck, which is squeezed between Bhutan and Bangladesh.

- **Hush money** is a term for an arrangement in which one person or party offers another a sum of money in exchange for remaining silent about some illegal, stigmatized, or shameful action or other fact about the person or party who has made the offer.
- Alternatively, it can be money paid to a displeased opponent who may disclose embarrassing information, even if untrue.
- This is to save the intended person the harm and hassle of dealing with defamation.

Shrinkflation

As input prices rise, the phenomenon of shrinkflation can be seen in the fast moving consumer goods (FMCG) industry.

- Shrinkflation is a term made up of Shrink and Inflation. It is the practice of reducing the size of the product while maintaining its price. It is also referred to as **package downsizing**. The absolute price of the product doesn't go up, but the price per unit of weight or volume increases.
- In some cases the term may indicate lowering the quality of a product or its ingredients while the price remains the same.

Reasons for Shrinkflation

Higher Production Costs	Intense Market Competition
<ul style="list-style-type: none"> • Increases in the cost of raw materials, energy commodities, and labour increase production costs and subsequently diminish producers' profit margins. 	<ul style="list-style-type: none"> • In a competitive industry, lifting prices can lead customers to switch to another brand. • At the same time, introducing small reductions in the size of goods, can boost profitability while keeping the prices competitive.

Drawbacks

- Negative impact on the consumer sentiment, leading to a loss of trust and confidence.
- Moreover, shrinkflation makes it harder to accurately measure price changes or inflation. The price point becomes misleading since the product size cannot always be considered in terms of measuring the basket of goods.

Foreign Investors Allowed to Invest in Sovereign Green Bonds

- RBI a recently allowed foreign investors operating within the *International Financial Services Centre (IFSC)* to invest in Sovereign Green Bonds (SGrBs).
 - IFSC located in Gujarat, serves as a special economic zone for financial services, providing a conducive environment for foreign investors to participate in India's financial market easily.
- Sovereign Green Bonds are a type of *government bonds* specifically designated to finance environmentally sustainable projects.
- Unlike traditional government bonds, where the funds raised may be allocated to general expenses or initiatives, SGrBs are exclusively dedicated to green causes.
- These projects typically include investments in renewable energy sources such as solar and wind power, sustainable infrastructure development and clean transportation initiatives.

Benefits

- RBI's decision will **expand the pool of investors** interested in these green bonds.
- Moreover, it will **deepen the Climate Bond Market**

- The money raised through SGrBs will provide much-needed capital for the govt. to invest in public sector projects that aim to **reduce the carbon footprint of Indian economy**.
- It will help to fund the country's ambitious 2070 net zero goals, ensuring 50% of India's energy comes from non-fossil fuel-based sources and to reduce the carbon intensity of the nation's economy by 45% by 2030 from 2005 level, as pledged by India at COP26 in Glasgow 2021.
- The move promotes the **growth of green finance** in India and supports the country's transition towards sustainability
- The funds can be used for initiatives that **contribute to India's Sustainable Development Goals (SDGs)**

Imported Inflation

- The Asian Development Bank recently warned that India could face imported inflation as the rupee could depreciate amid the rise in interest rates in the West.
- A rise in interest rates in the West tends to cause the currencies of developing countries to depreciate against western currencies, which in turns can lead to **higher import costs for these countries**.
- Imported inflation refers to the rise in the prices of goods and services in a country that is caused by an increase in *price/cost of imports* into the country.
- It is believed that a rise in input costs pushes producers to raise the price they charge from their local customers, thus boosting inflation.
- Thus, the idea of imported inflation is simply a variant of **cost-push inflation** which states that a rise in the cost of inputs can lead to an inflation in the prices of final goods and services.

Causes

- When a country's currency depreciates, people in the country will have to pay more of their local currency to purchase the necessary foreign currency required to buy any foreign goods or services.
- A **rise in import costs even without depreciation** in the value of a country's currency is also believed to lead to import inflation.
- So, a rise in international crude oil prices due to fall in oil output, for instance, is expected to cause prices to rise across an economy which imports oil to produce goods and services.

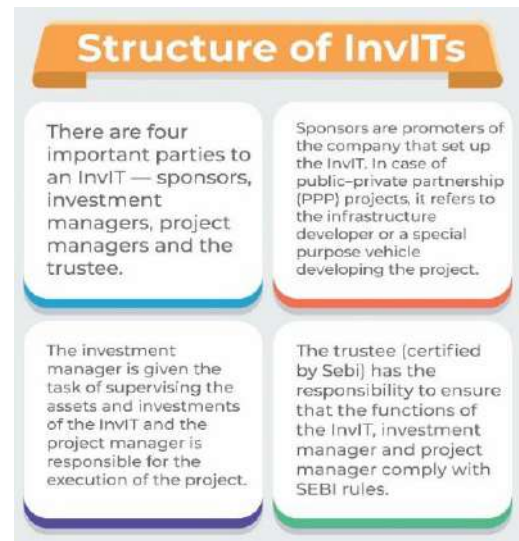
Nifty Next 50 Index

- The National Stock Exchange (NSE) has introduced derivative contracts on *Nifty Next 50 index* (from April 24).
- Currently, four indices — Nifty 50 Index, Nifty Bank Index, Nifty Financial Services Index and Nifty Midcap Select Index — are available for trading in the derivative segment.
- Launched in 1997, the Nifty Next 50 index **represents 50 companies from Nifty 100 after excluding the Nifty 50 companies**.
- The Nifty Next 50 index will represent the space between the Nifty 50 index comprising the top large & liquid stocks and the Nifty Midcap Select index comprising the top large & liquid mid-capitalised stocks.
- The market capitalisation of Nifty Next 50 index constituents stands at ₹70 trillion representing about 18% of the total market capital of the stocks listed on NSE as of March 2024.
- As of March 2024, the index had top sector representation from the financial services sector with 23.76% weight followed by the capital goods sector with 11.91% and consumer services with 11.57%.
- **Derivatives** in terms of financial markets refers to financial contracts between two or more parties and derive their value from an underlying asset or benchmark.

- Broadly, there are two types of derivative contracts -- futures and options.
- A **futures contract** means a **legally binding agreement to buy or sell** the underlying security on a future date.
- An **options contract** gives the buyer or holder of the contract the right (but not the obligation) to buy or sell the underlying asset at a predetermined price within or at the end of a specified period.

Infrastructure Investment Trusts

- IndoSpace, which develops and manages industrial and logistics parks in India, will soon launch an infrastructure investment trust (InvIT) and raise around \$700-800 million.
- InvIT will be the third in the warehousing space and will be the **largest InvIT in India**.
- IndoSpace owns 52 industrial logistics parks in 11 cities of India spread across 58 million sq ft (msf).



Infrastructure Investment Trusts (InvIT)

- InvITs are institutions similar to mutual funds. Its objective is to facilitate investment into the infrastructure sector in India.
- InvITs collect investment from various categories of investors and invest them into completed and revenue-generating infrastructure projects.
- It thus enables investment of money from individual and institutional investors in infrastructure projects to earn a small portion of the income as return.
- InvITs are regulated by Securities and Exchange Board of India (SEBI). SEBI had notified the SEBI (Infrastructure Investment Trusts) Regulations, 2014 for registration and regulation of InvITs in India.

Highest Advance Pricing Agreements Signed

- The Central Board of Direct Taxes (CBDT) has entered into a record 125 Advance Pricing Agreements (APAs) in FY 2023-24 with Indian taxpayers.
- It represents a 31% increase compared to the 95 APAs signed during the preceding financial year.
- This marks the highest ever APA signings in any financial year since the launch of the APA programme. It includes 86 Unilateral APAs

Advance Pricing Agreements (APA)

- ▶ An APA is an agreement between a taxpayer and tax authority determining the **transfer pricing methodology** for pricing the taxpayer's international transactions for future years.
- ▶ The aim of the **APA scheme** is to **provide clarity and predictability** to taxpayers regarding transfer pricing by outlining the methods for pricing and determining the arm's length price of international transactions in advance for up to five years.
- ▶ Taxpayers can also opt to apply the APA to the previous four years, resulting in tax certainty for a total of nine years. Additionally, signing bilateral APAs can protect taxpayers from anticipated or actual double taxation.
- ▶ This program has significantly contributed to the Indian government's mission of promoting ease of doing business, particularly for multinational enterprises with numerous cross-border transactions between their group entities.

Types of APA

- ▶ **Unilateral APA:** An APA that involves only the tax payer and the tax authority of the country where the tax payer is located.
- ▶ **Bilateral APA (BAPA):** An APA that involves the taxpayer, associated enterprise (AE) of the taxpayer in the foreign country, tax authority of the country where the taxpayer is located, and the foreign tax authority.
- ▶ **Multilateral APA (MAPA):** An APA that involves the taxpayer, two or more AEs of the taxpayer in different foreign countries, tax authority of the country where the taxpayer is located, and the tax authorities of AEs.

Central Board of Direct Taxes (CBDT)

- ▶ The Central Board of Direct Taxes is a **statutory authority** functioning under the **Central Board of Revenue Act, 1963**. CBDT is a part of **Department of Revenue in the Ministry of Finance**.
- ▶ On one hand, CBDT provides essential inputs for policy and planning of direct taxes in India, at the same time it is also responsible for administration of direct tax laws through the Income Tax Department.
- ▶ The CBDT is headed by Chairman and comprises six members, all of whom are ex-officio Special Secretary to Union Government.

(UAPAs) and 39 Bilateral APAs (BAPAs).

- BAPAs were signed as a consequence of entering into Mutual Agreements with India's treaty partners namely Australia, Canada, Denmark, Japan, Singapore, UK and US.
- With this, the total number of APAs since inception of the APA programme has gone up to 641, comprising 506 UAPAs and 135 BAPAs.

Direct Tax Collections

- The provisional figures of direct tax collections for the Financial Year (FY) 2023-24 show that **Net collections are at Rs 19.58 lakh crore, compared to Rs 16.64 lakh crore** in the preceding year i.e. FY 2022-23, an **increase of 17.70%**.
- The Budget Estimates (BE) for direct tax revenue in the Union Budget for FY 2023-24 were fixed at Rs 18.23 lakh crore which were revised, and the Revised Estimates (RE) were fixed at Rs 19.45 lakh crore.
- The provisional direct tax collections (net of the refunds) have exceeded the BE by **7.40%** and RE by **0.67%**.
- The **gross collection** of direct taxes (before adjusting for refunds) for the FY 2023-24 stands at **Rs 23.37 lakh crore** showing a growth of **18.48%** over the gross collection of **Rs 19.72 lakh crore** in FY 2022-23.

Corporate Tax

- The **Gross Corporate Tax collection** in FY 2023-24 is at **Rs 11.32 lakh crore** and has shown a growth of **13.06%** over Rs. 10 lakh crores for the preceding year.
- The **Net Corporate Tax collection** in FY 2023-24 is at **Rs 9.11 lakh crore** and has shown a growth of **10.26%** over Rs. 8.26 lakh crore for the preceding year.

Personal Income Tax

- The **Gross Personal Income Tax collection** (including STT) in FY 2023-24 is at **Rs 12.01 lakh crore** and has shown a growth of **24.26%** over Rs 9.67 lakh crore for the preceding year.
- The **Net Personal Income Tax collection** (including STT) in FY 2023-24 is at **Rs 10.44 lakh crore** and has shown a growth of **25.23%** over Rs. 8.33 lakh crore of the preceding year.
- **Refunds of Rs 3.79 lakh crore** have been issued in the FY 2023-24 showing an increase of **22.74%** over the refunds of Rs 3.09 lakh crore issued in FY 2022-23.

Direct Taxes

- Direct tax is a type of tax that is levied directly on taxpayers. Thus, it is a tax paid directly by an individual to the government.
- It is levied directly on the income of the individuals, corporations and other entities without any intermediary.
- Direct taxes in India are overseen by the Central Board of Direct Taxes (CBDT).
- In contrast, indirect tax is not paid directly by a person to the government but collected by an intermediary and passed on to the government.



Examples of Direct Tax

- >> **Personal Income tax:** It is levied on an individual's wages, salaries, and other types of income such as pensions, interest, and dividends.
- >> **Corporation Tax:** It is imposed on the net income or profit that companies make from their businesses. Companies, both private and public which are registered in India under the Companies Act 1956, are liable to pay corporate tax.
- >> **Securities Transaction Tax (STT):** It is levied at the time of purchase and sale of securities listed on stock exchanges in India. Securities are tradable investment instruments such as *shares, bonds, debentures, equity-oriented mutual funds (MFs), etc.*
- >> **Capital Gains Tax:** It is a tax that individuals have to pay on benefit or gain arising from the sale of capital assets such as investments in the stock market and real estate.
- >> **Dividend Distribution Tax (DDT):** It is a levy imposed on dividends distributed by the companies to their shareholders. Income from dividends is added to the taxable income of the recipient and taxed as per the applicable slab rate. Before April 2020, it was levied on the company distributing dividends instead of the recipient.
- >> **Gift Tax:** It was a direct tax imposed on the transfer of certain specified assets without consideration. However, gift tax was abolished in India, and any income arising from gifts is now subject to income tax.
- >> **Estate Tax:** Estate tax, also known as inheritance tax, is a tax on transferring an individual's estate or assets upon their death. Currently, India does not have a specific estate tax provision at the national level.

Decline In Foreign Exchange Reserves

- India's forex reserves decreased USD 2.282 billion to USD 640.334 billion, in the second consecutive week of drop.
- This ended a multi-week trend of an increase, which also saw the overall reserves touching a new all-time high of **USD 648.562 billion**.
- In September 2021, the country's forex reserves had reached a high of USD 642.453 billion, which was breached in March this year.
- The reserves took a hit as the central bank *deployed the reserves* to defend the rupee amid pressures caused majorly by global events.

Foreign Exchange Reserves

- Foreign exchange reserves are the foreign currencies held by a country's central bank. The **reserves in India are managed by the RBI** for the Indian government and the main component is foreign currency assets.
- RBI accumulates foreign currency reserves by purchasing from authorized dealers in open market operations.
- **RBI Act and the Foreign Exchange Management Act (FEMA), 1999** set the legal provisions for governing the foreign exchange reserves.

Components: The Foreign exchange reserves of India consist of



Foreign Currency Assets: This is the largest component of the Forex Reserves consisting of US dollar and other major non-US global currencies. Additionally, it also comprises investments in *US Treasury bonds, bonds of other selected governments, deposits with foreign central and commercial banks*.

Gold: Gold reserve is the gold held by the RBI with the intention to serve as a guarantee to redeem promises to pay depositors, note holders (e.g. paper money), or trading peers, or to secure a currency.

Special Drawing Rights (SDR)

- SDR refer to an international type of monetary reserve currency created by the International Monetary Fund (IMF) in 1969 that operates as a supplement to the existing money reserves of member countries.
- Created in response to concerns about the limitations of gold and dollars as the sole means of settling international accounts, SDRs augment international liquidity by supplementing the standard reserve currencies.
- SDRs are allocated by the IMF to its member countries and are backed by the full faith and credit of the member countries' governments.

Value of SDR

- The value of the SDR is calculated from a weighted basket of major currencies, including U.S. dollar, euro, Japanese yen, Chinese yuan, and British pound.
- The SDR basket is reviewed every five years, and sometimes earlier if necessary. Reviews take place to ensure that the SDR reflects the relative importance of currencies in the world's trading and financial systems.

Currency	Weights determined in the 2022 review
US dollar	43.38
Euro	29.31
Chinese Renminbi	12.28
Japanese Yen	7.59
Pound Sterling	7.44

Reserve Tranche Position

- The primary means of financing the IMF is through members' quotas. Each member of the IMF is assigned a quota, part of which is payable in SDRs or specified usable currencies ("reserve assets"), and part in the member's own currency.
- The difference between a member's quota and the IMF's holdings of its currency is a country's Reserve Tranche Position (RTP).
- It is basically an emergency account that IMF members can access at any time without agreeing to conditions or paying a service fee. In other words, a portion of a member country's quota can be withdrawn free of charge at its own discretion.
- The reserve tranches that countries hold with the IMF are considered their facilities of first resort, meaning they will tap into them before seeking a formal credit tranche that charges interest.

Outward Foreign Direct Investment

- India's outward foreign direct investment (OFDI), or overseas direct investment, declined by 39 per cent to **\$28.64 billion** in the year ended March 2024, amid uncertain global economic conditions.
- As per RBI, in the year ended March 2023, outward FDI stood at \$46.96 billion.
- Of the total overseas direct investment, commitments through the **equity route** stood at \$9.62 billion in fiscal 2024, compared to \$19.13 billion in FY2023. The equity contributed around 34 per cent of the total financial commitment made in FY2024.
- In FY2024, the loan commitments stood at \$5.24 billion as against \$7.73 billion made in FY2023.
- As per experts, the dip in overseas direct investment last year was because overseas acquisitions by the Indian companies were not very large.

Foreign Direct Investment (FDI)

- FDI is a category of cross-border investment in which an investor resident in one country establishes a lasting interest in an enterprise in another country.
- With FDI, foreign companies are directly involved with day-to-day operations in the other country. This means they aren't just bringing money with them, but also knowledge, skills and technology.

Outward Foreign Direct Investment (OFDI)

- An OFDI is a business strategy in which a domestic firm expands its operations to a foreign country.
- Employing ODI is a natural progression for firms if their domestic markets become saturated and better business opportunities are available abroad.
- American, European, and Japanese firms have long made extensive investments outside their domestic markets. China has emerged as a large ODI player in recent years.

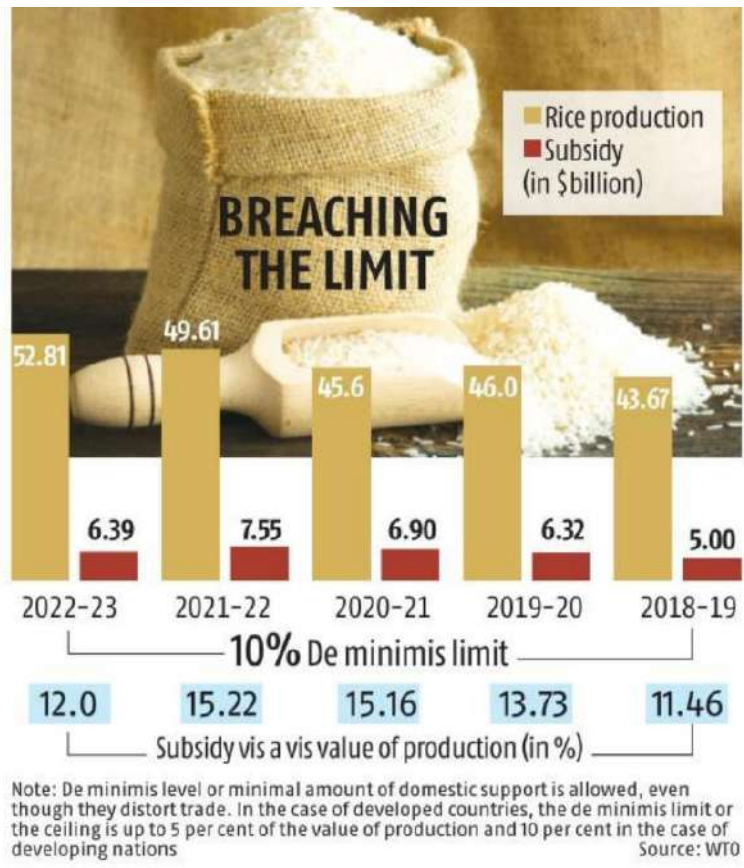
Securities Appellate Tribunal

- The Centre recently appointed justice PS Dinesh Kumar as the presiding officer of the Securities Appellate Tribunal (SAT).
- SAT is a **statutory body** established under the provisions of Section 15K of the **Securities and Exchange Board of India Act, 1992**.
- SAT hears and disposes of appeals against orders passed by SEBI, Insurance Regulatory and Development Authority of India (IRDAI) and Pension Fund Regulatory and Development Authority (PFRDA).
- The jurisdiction of SAT extends to whole of India.

- SAT comprises a presiding officer who is a **retired judge** and two members – one judicial and one technical.
- The appointment of the presiding officer and the other members is done by a **committee headed by the Prime Minister of India**.

Peace Clause at WTO

- India has invoked the peace clause at the World Trade Organization (WTO) for the **fifth consecutive time** for the marketing year 2022-23 (October-September) due to breaching the prescribed subsidy limit for rice offered to its farmers.
- While the value of India's production of rice was **\$52.8 billion** in 2022-23, a subsidy worth **\$6.39 billion** was given to farmers during the year.
- Thus, the rice subsidy was **12%** of the value of production, thereby breaching the 10% domestic support ceiling, which is in accordance with global trade rules.
- However, there is no immediate repercussion for the breach since India has invoked the "peace clause", agreed upon at the Bali ministerial of WTO in 2013.
- This provides immunity to developing countries from challenges for breaching the ceiling for wheat and rice until a permanent solution is found.
- India defended by stating that stocks were acquired and released in order to meet the domestic food security needs of India's poor and vulnerable population, and not to distort trade or adversely affect the food security of other members.
- Through its **public stockholding programme**, the government procures food grains at a **predetermined price** and then provides it free of cost to around 80 million through the public distribution system (PDS).
- India has been seeking amendments to the formula for calculating the food subsidy cap and has been pushing hard to fast track its long-pending demand for a **permanent solution** to the issue of public stockholding.
- India has been complaining the 10 per cent subsidy ceiling is calculated on the basis of the reference price of 1986-88, which became outdated long ago.



New Features In UPI

- RBI has announced two new features or measures for Unified Payments Interface (UPI) users, with an aim to enhance **ease of transactions and cash deposits**.
- The two new UPI features allow users to deposit cash at **Cash Deposit Machines** using UPI and also make UPI payments from **Prepaid Payment Instruments (PPIs)** using third party apps.

Cash Deposit through UPI

- Cash Deposit Machines (CDMs) are ATMs that allow customers to deposit cash directly into their bank account. They are a convenient way to deposit cash without having to visit a teller during branch hours.
- Unlike ATMs, which only dispense cash, CDMs or Cash Recycler Machines (CRMs) can both dispense and accept cash deposits.
- Thus, CDMs deployed by banks enhance customer convenience while reducing the cash-handling load on bank branches. The facility of cash deposit is presently available only through the use of debit cards.

UPI payments from PPI

- At present, UPI payments from PPIs can be made only by using the web or mobile app provided by the **PPI issuer**.
- However, the new feature will permit the use of **third-party UPI apps** for making UPI payments from PPI wallets.
- Thus, individuals can now utilize PPIs such as digital wallets to make payments via UPI using any third-party app.
- This allows PPI wallet holders (such as PhonePe, Freecharge, etc.) to link their wallets with third-party UPI apps for transactions.
- This will elevate PPIs to the level of bank accounts for customers to conduct UPI transactions via third-party applications.

Paradox of Thrift

The paradox of savings, also known as the paradox of thrift, refers to the theory that a rise in the **savings rate of individuals** can surprisingly cause a *fall rather than a rise* in the **overall savings in an economy**.

Keynesian Theory

- The concept was popularised by British economist John Maynard Keynes in his book *The General Theory of Employment, Interest, and Money*.
- Keynesian economics believe that higher savings is bad for the wider economy, and that boosting consumer spending is the way to grow an economy.
- They argue that savings are invested by **capitalists** with the ultimate aim of selling their output in the form of final goods and services to consumers.
- So, if consumers fail to spend enough money on the output that capitalists bring to the market to sell, it can cause *losses to capitalists and discourage further investment*.
 - On the other hand, a *rise in consumer demand for final goods and services* is expected to encourage people (*capitalist*) to save more and invest.
- In fact, many economists today believe that fluctuations in consumer spending are the primary reason behind the business cycle.
- They recommend that the government should take various measures, including increasing government spending, to put more money in the hands of consumers during economic downturns.

Criticisms Of The Idea

- Critics of the idea argue that saving more is not bad for the economy and that a fall in consumer spending does not actually cause a fall in investment.
- In fact, they argue that a fall in consumer spending leads to a rise in savings and investment. This is simply because any money that people don't spend on consumer goods has to go towards their savings, *which in turn gets invested*.
- A rise in savings causes an increase in **entrepreneurial demand** from capitalists for various **factors of production** (*land, labor, entrepreneurship, and capital*)

- So, lower consumer demand for final goods and services gets offset by higher demand for **factors of production**, and hence there is no drop in aggregate demand in the economy as a result of higher savings.
- Moreover, when people spend less on consumer goods and save more, this will cause capitalists to invest a greater amount of available savings to satisfy consumer demand in the more distant future.

REER and NEER

- Over the last decade (April 2014-April 2024) the rupee has depreciated by **27.6%** against the US dollar, from Rs 60.34 to Rs 83.38.
- However, India trades not only with the US. It exports goods and services to other countries as well, while also importing from them.
- The **strength or weakness of the rupee** is, hence, a function of its exchange rate with not just the US dollar, but also with other global currencies.
- In this case, it would be against a basket of currencies of the country's most important trading partners – called the rupee's "**effective exchange rate**" or EER.

Effective Exchange Rate

- The EER is an index of the **weighted average** of the rupee's exchange rates vis-à-vis the **currencies of India's major trading partners.**
- The currency weights are derived from the **share** of the individual countries to India's total foreign trade.
- There are two measures of EER: **NEER and REER**

Nominal EER (NEER)	Real EER (REER)
<ul style="list-style-type: none"> • RBI has constructed NEER indices of the rupee against a basket of six and also of 40 currencies. • The former is a trade-weighted average rate at which the rupee is exchangeable with a basic currency basket, comprising the US dollar, euro, Chinese yuan, British pound, Japanese yen and Hong Kong dollar. • The latter index covers a bigger basket of 40 currencies of countries that account for about 88% of India's annual trade flows. • The NEER indices are with reference to a base year value of 100 for 2015-16. • Increases indicate the rupee's effective appreciation against these currencies and decreases point to overall exchange rate depreciation. 	<ul style="list-style-type: none"> • The NEER is an index that captures movements in the external value of the rupee against a basket of global currencies. However, the NEER does not factor in inflation, which reflects changes in the internal value of the rupee. • For example, the Indonesian rupiah has fallen 8.5% against the US dollar in the last one year. The Indian rupee has depreciated much less, by 1.7%, during this period. But India's annual CPI inflation rate, at 4.9% for March, stood above Indonesia's 3.1%. • Thus, the Indonesian currency's domestic purchasing power has suffered less erosion relative to its international purchasing power, whereas it has been the reverse for the rupee. • REER is basically the NEER that is adjusted for the inflation differentials between the home country and its trading partners. • If a country's nominal exchange rate falls less than its domestic inflation rate – as with India – the currency has actually appreciated in "real" terms. • Any increase in REER means that the cost of products being exported from India are rising more than the prices of imports into the country. That translates into a loss of trade competitiveness – which may not be quite a good thing in the long run.

POLITY AND GOVERNANCE

Power of States to Impose Excise Duty on Industrial Alcohol

A supreme Court's (SC) 9-judge Bench began hearing arguments whether state governments can regulate and control the sale, distribution, pricing and other factors relating to 'industrial' alcohol and levy excise duty on it or whether the Centre exercises exclusive control over it.

- ✓ Industrial alcohol is used as a raw material to create products like cleaners, cosmetics, fuels, pharmaceuticals, textiles, dyes etc. and is not meant for human consumption.

About Excise Duty

- It is a form of tax imposed on goods for their production, licensing and sale.
- At the central level, excise duty earlier used to be levied as Central Excise Duty, Additional Excise Duty, etc. But Goods and Services Tax (GST) introduced in 2017 subsumed many types of excise duty. At present, excise duty applies to petroleum and liquor products.
- Excise duty levied on alcohol is a key component of a state's revenue, with states often adding an additional excise duty on alcohol consumption to drive its income up. Karnataka hiked the Additional Excise Duty (AED) on Indian Made Liquor (IML) by 20% in 2023.

Power of States to Regulate Alcohol

- Entry 8 in the State List under the Seventh Schedule allows the states to legislate on the production, manufacture, possession, transport, purchase and sale of "intoxicating liquors".
- But **Entry 52 of Union List**, and **Entry 33 of Concurrent List** mention industries whose control is "declared by Parliament by law to be expedient in public interest"
 - ✓ Industries (Development and Regulation) Act, 1951 (IDRA) regulates *Industrial alcohol*.
 - ✓ **IRDA empowers the Central Government** to make rules for regulation and development of certain industries.

Background: How Did This Lead To The Case Now Before The SC?

- The lead petition by the UP government challenged the Allahabad High Court order of 2004 which struck down a **1999 notification** "imposing a 15% fee for any sale made to license holders under the UP-Excise Act, 1910 for alcohol used directly or as a solvent" and directed the state to refund any fees collected with a 10% per annum interest from the date the fee was deposited.
- In 2007, the court referred the case to a 5 judge bench (which gave final decision in 2010), noting that the Tika Ramji case "had not been brought to the notice of the 7-Judge Bench which decided the Synthetics and Chemicals case".
- In 2024, 9-judge bench is **hearing** a batch of appeals referred to it by a five-judge bench in 2010 which doubted the correctness of the *Synthetics & Chemicals Ltd v. State of Uttar Pradesh, 1989* judgment stating that it failed to consider its previous judgement in Tika Ram case while giving the judgement.

Tika Ramji v State of UP (1956) case	Synthetics & Chemicals Ltd v. State of Uttar Pradesh (1989-7 Judge Bench Case)
<p>SC's Observations: SC upheld a legislation enacted by UP government to regulate the supply and purchase of sugarcane was challenged on the grounds of Section 18-G of the IDRA.</p> <p>Final Verdict: Affirmed states' authority to legislate in industries even in the presence</p>	<p>SC's Observations: as per Entry 8 of the State List, state's powers were limited to regulating "intoxicating liquors" (Different from Industrial Alcohol)</p> <p>Final Verdict: Only the Centre can impose levies or taxes on industrial alcohol (which is not meant for human consumption)</p>

of central laws (eg IRDA), setting a crucial precedent for cooperative federalism.

** The SC overruled its own prior Constitution Bench decision in Tika Ramji v State of UP Case, 1956.

UP State Arguments

- The states argued that the phrase “intoxicating liquors” in Entry 8 of the State List includes all liquids containing alcohol and liquor, spirit.
- *Intoxicants* were used in excise laws before the Constitution came into force.
- Union’s power under Entry 52 of Union List does not include control over finished products (such as industrial alcohol after the denaturation process).
 - ✓ Denatured alcohol is ethanol (alcohol) that has been rendered undrinkable by adding substances known as denaturants. These denaturants are typically added to ethanol to make it unfit for human consumption
- To exercise exclusive control over regulation of industrial alcohol, the Centre would first have to issue an order to that effect under **Section 18-G of the IDRA**. Without such an order, that control would vest with the states.
 - ✓ Section 18-G of IDRA empowers the central government to control supply, distribution, price, etc., of certain articles.

Right to Unilateral Divorce Through Khula

Recently, the Supreme Court (SC) issued notice in an appeal against two Kerala High Court (HC) verdicts that held that Muslim women have the **absolute right to unilateral and extra-judicial divorce** through **Khula** under Islamic law.

- ✓ SC will now reconsider, whether Muslim women lost their right to extrajudicial divorce after the passage of the *Dissolution of Muslim Marriages Act, 1939*.
 - The 1939 Act was passed to clarify and *consolidate the provisions* of the law relating to the dissolution of marriage by Muslim women, and the effect of married Muslim women renouncing their faith.

About Khula (Explicitly Mentioned In Quran)

This practice under Islamic law empowers Muslim women to unilaterally seek separation from their husbands. (not subject to the acceptance or will of her husband)

Need- To safeguard women's rights and operate within the parameters of Islamic law

How Can One Initiate Divorce Under Khula

- The wife may formally request it from the court, providing a valid reason such as incompatibility, abuse, or neglect.
- During this process, the wife might return the 'Mehr' or reach a financial settlement with her husband as part of the agreement for ending the marriage.
 - ✓ Mehr is a gift given by the husband as a mark of respect to his wife at the time of marriage. It is mandatory and is the legal right of the wife. It can be cash or kind.
- The responsibility for the education and financial support of the children lies upon the husband post-divorce.

How Is It Different From Talaq

- As per Muslim law, Talaq occurs when the **husband initiates divorce** and once the man pronounces ‘talaq’ three times, the marriage is terminated immediately.
- There is no specific procedure required (and need not cite any reason) to be followed for talaq unlike khula and post talaq, the husband is obligated to return the wife’s dowry.

Extra Mile: Besides khula, what other forms of extrajudicial divorce are available to Muslim women?

- **TALAQ-E-TAFWIZ** (contract-based divorce): If a husband violates any condition agreed upon at the time of marriage, the wife will be entitled to divorce without the court's intervention.
- **MUBARA'AT** (separation by mutual consent): Once both parties enter into mubara'at, all mutual rights and obligations of the spouses come to an end. Both Shi'a and Sunni sects deem this form of divorce to be irrevocable.
- **FASKH**: This is divorce through the intervention of the court, or an authority like a Qazi. While khula is given by one of the spouses and mubara'at by both spouses, faskh is decided by a third party or external authority like an arbitrator, mediator, or judge.

SUVIDHA Portal

Since the announcement of Lok Sabha elections, the SUVIDHA platform received around 73000 permission requests from political parties and candidates for campaigning activities.

About SUVIDHA Portal (Single window clearance for permission related to campaigning)

It is a technological solution developed by Election Commission of India (ECI) where political parties and candidates can seamlessly submit various permission requests online/offline. The permission requests are catered transparently on the First in First Out principle (FIFO).

Key Features

- This system is put in place at every RO level (Returning Officer) in each sub-division. It provides for applying, processing, granting and monitoring permissions.
- All the digitized permission and online received permission request will be sent to the *concerned officer and nodal officer of different departments* for approval through the ENCORE system.
 - ✓ ENCORE (Enabling Communications on Real-time Environment) is an in-house software designed by the ECI for candidate and election management.



Benefits

- **Efficient Processing of Permission Requests:** as it is supported by a robust IT platform
- **Status Tracking:** Its app enables applicants to track the status of their requests in real time, adding further convenience and transparency to the process.
- **Transparency and Accountability:** by providing real-time tracking of applications, status updates, timestamped submissions, and communication via SMS. The permission data available on the portal helps in scrutinizing election expenditures, contributing to greater accountability and integrity in the electoral process.
- **Free and Fair Opportunity & Ensures Inclusivity:** offline request submission options ensure inclusivity and equal opportunity for all stakeholders to the necessary permissions and clearances.

{For ICT Innovations of ECI, kindly refer The Recitals (November 2023)}

Voluntary Code of Ethics for Social Media Platforms

Recently, X Platform (formerly Twitter) announced that it had withheld four posts by various political parties acting on takedown requests by the Election Commission of India (ECI) due to its commitment to Voluntary Code of Ethics for Social Media Platforms (SMP).

About the 'Voluntary Code of Ethics' for Social Media Platforms

The Voluntary Code of Ethics is a set of rules to be followed by SMPs during elections to ensure free, fair & ethical usage and maintain the integrity of the electoral process.

Evolution

- As political parties increasingly took to social media, ECI, in January 2019, set up a committee under Deputy Election Commissioner Umesh Sinha to ideate on the matter which suggested changes to the Representation of People Act (RPA), 1951 (deals with the conduct of Lok Sabha and state assembly elections) to cover social media posts in the 48-hour period before polling, when conventional campaigning is banned.
- Acting on these suggestions, SMPs including Facebook, WhatsApp, Twitter, Google, ShareChat and TikTok etc. and the Internet and Mobile Association of India (IAMAI), presented a “Voluntary Code of Ethics for the General Election 2019” to the ECI which was adopted immediately and applied to all future elections.

What do the Rules Say? As per these rules, the SMPs should-

- Voluntarily undertake information, education and communication campaigns to build awareness including electoral laws and other related instructions.
- Create a high priority dedicated grievance redressal channel for acting on the cases reported by the ECI. (Content removal aligns with various laws including the Model Code of Conduct, Representation of People's Act, and Indian Penal Code.)
- Acknowledge and/or process valid legal orders by EC within three hours for violations reported under Section 126 of the RPA, 1951, and act upon other valid legal requests “expeditiously”.
 - ✓ Section 126 refers to the curbs on campaigning in the last 48 hours before polling.
 - ✓ It means No political campaign will be allowed to be run on social media platforms in the last 48 hours before polling ends. This period is referred to as “silence period” to allow voters take a considered decision without the heat and dust of campaign on whom to vote.
- Ensure that all political advertisements on their platforms are pre-certified from the Media Certification and Monitoring Committees as per the directions of Supreme Court (SC).
- Facilitate transparency in paid political advertisements, including utilizing their pre-existing labels/disclosure technology for such advertisements.

Why Did The EC Order The Removal Of Posts

The ECI cited provisions of the Model Code of Conduct (MCC) against criticism of political parties and private lives of candidates based on unverified allegations. It also cited its March 1 advisory that warned political parties to follow the MCC and maintain decorum during the Lok Sabha campaign.

- ✓ MCC is a set of rules declared by ECI to be followed by parties and their candidates during elections. It comes in to force the day the elections are announced till the declaration of results. The present MCC has been in place since March 16, and will remain in force till June 4.

Reaction of X Platform

Although it complied with EC orders, it disagreed with taking such actions and maintained that freedom of expression should extend to all posts and political speech in general. It also asked the EC to publish all future takedown orders.

Special Olympics Bharat

Special Olympics Bharat (SOB), a National Sports Federation of India recently formed district units across Tamil Nadu through elections.

About Special Olympics Bharat (Logo- An Ability Rather Than a Disability)

- It is a National Sports Federation (recognized by Ministry of Youth Affairs & Sports in Priority Category) registered under the Indian Trust Act 1882 in 2001 and accredited by Special Olympics International to conduct Special Olympics Programs in India for development of Sports for Persons with Intellectual Disabilities.
 - ✓ Intellectual disability is characterized by significantly below-average intellectual functioning (with IQ<70) combined with impairment in carrying out varying aspects of daily life and adapting to the normal social environment.
- It is the designated Nodal Agency for all disabilities and is a social inclusion movement using sports, health, education and leadership programs to empower people with intellectual disabilities.
- SOB aims to reach out to over 100,000 people with intellectual disabilities in India every year.

Objectives

- Focus on holistic development (school and extra-curricular activities) and training children with disabilities to motivate them to join and remain in school;
- Train teachers to sensitize them to needs of special children and create a cadre of physical education teachers from among the disabled to work with schools and community centers;
- Ensure all Special Olympics Bharat activities (local, state, national and international) reflect the Olympic movement values, standards, ceremonies and events.

Extra Mile

Special Olympics International (SOI) (Headquarters- Washington, D.C. USA)

- Inaugurated in 1968, SOI was officially recognized by the International Olympic Committee in 1988.
- It aims to provide individuals (eight years or older) with intellectual disabilities with year-round sports training and athletic competition in more than 20 Olympic-type summer and winter sports, thus giving them continuing opportunities to develop physical fitness, improve their health and well-being, demonstrate courage and experience joy of participation.

Athletics Federation of India

The Athletics Federation of India (AFI), for the first time has disaffiliated 16 district associations across the country for failing to send their teams for the National inter-district junior athletics meet held in Ahmedabad.

About Athletics Federation of India (AFI/Earlier as the Amateur Athletic Federation of India (AAFI))

What? (established in 1946 as the apex body for running and managing athletics in India)

- It is a non-governmental and non-profitable autonomous body and affiliated to the World Athletics, Asian Athletics Association (AAA) and Indian Olympic Association.
- At present, it has as many as 32 affiliated state units and institutional units.

Functions

- **Team Selection:** It organizes National Championships, trains the Indian Athletics National Campers, selects the Indian Athletics Teams for various international competitions, including the Olympics, Asian Games, CWG (Commonwealth Games), World Championships, Asian Championships and other international meets, conducts the National Championships for various age categories.

- **International and National Promotion:** It conducts international and national championships and various meets to promote sports and make athletics commercially attractive.
- **State Unit Supervision and Assistance:** It also supervises and assists its state units in their activities, plans and sets up special coaching camps, coaches training and takes initiatives for development programme and grass root promotion of athletics in India.

Extra Mile: Indian Olympic Association

What? The Indian Olympic Association (IOA)- recognized by the Ministry of Youth Affairs and Sports, IOA is the governing body for the Olympic Movement and the Commonwealth Games in India.

Foundation- It was established in 1927 as a Non-Profit Organization under the Societies Registration Act of 1860 by Sir Dorabjee Tata (1st President) and Dr. A.G. Nohren (Secretary General).

Affiliation- It is affiliated to the International Olympic Committee (IOC), Commonwealth Games Federation (CGF), Olympic Council of Asia (OCA) and Association of National Olympic Committees (ANOC).

Membership- The members of IOA include National Sports Federations, State Olympic Associations, IOC Members and other select multi-sport organizations.

Governance- It is governed by a 32-member executive council headed by a President (Now P.T. Usha- 2022–2026). Elections to the executive council are held every four years.

Functions- IOA administers various aspects of sports governance and athletes' welfare in the country like monitoring the representation of athletes or teams participating in the Olympic Games, Commonwealth Games, Asian Games and other international multi-sport competitions of IOC, CGF, OCA and ANOC.

Andhra Pradesh's Muslim Quota

Recently, the Prime Minister (PM) raised the issue of reservation for Muslims during an election rally by accusing the congress of reducing the quota meant for Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs)- to Muslims and that the Pilot Project in Andhra Pradesh was Congress's first attempt in this direction.

OBC Reservation for Muslims

- OBC reservation is based on social and educational backwardness and several Muslim communities are included in the OBC reservation at central and state levels (Under Articles 15(4) and 16(4)) of the Constitution.
 - ✓ Article 15(4) of the Indian Constitution allows the state to make special provisions for the advancement of socially and educationally backward classes of citizens.
 - ✓ Article 16(4) of the Constitution (Equality of opportunity in matters of public employment): empowers the state to provide reservation in favour of any backward class of citizens which, in its opinion, are inadequately represented in the State services.
- But the OBC quota is different for every state. For example, in Karnataka, Muslims had a 4% sub-quota within the 32% OBC quota (Concept of Horizontal reservation: Quota within Quota), which was redistributed to Vokkaligas and Lingayats by the Basavaraj Bommai government in 2023.
- **The 2006 Sachar Committee report** noted that "the Muslim community as a whole is lagging behind Hindu-OBCs" and recommended different affirmative action methods for Muslims. Based on this report, Kerala gave an 8% Muslim quota in its 30% OBC quota.
- There are other states such as Bihar that have bifurcated OBCs into backward and most backward classes and most of the Muslim communities fall under the most backward category.

Andhra Pradesh Quota

- **Data:** As per 2011 census, Muslims constitute about 9.5% of Andhra Pradesh's population and groups like Dudekula, Laddaf, Pinjari/ Noorbash, and Mehtar are included in the state OBC lists with 7%-10% quota.
- **Push for All Muslim Quota:** Efforts were made to introduce all Muslim quota in the undivided state following the Karnataka and Kerala model.
- **First Attempt:**
 - The Congress Government after coming to power in the state in 2004 gave "5% reservation to Muslim Minorities in employment, educational and other fields on par with OBCs in the State" on the recommendation of Committee of Minority Welfare.
 - But a five-judge Bench of the Andhra Pradesh (AP) High Court (HC) struck down the quota as unsustainable based on two grounds-
 - ✓ The quota was brought without being referred to the Backward Classes Commission (BCC).
 - ✓ The quota did not exclude the "creamy layer" and allowed reservation to Muslims as a whole.
 - The HC also directed to the state government to reconstitute the Commission for Backward Classes, and based on its recommendation, initiate the process of consultation regarding the Muslim quota.
 - The court also faced the question of whether "the Muslims as a group are entitled to affirmative action/social reservations within the constitutional dispensation?" to which the court said that Reservations for Muslims or its sub-sections does not go against secularism (a part of the basic structure of the Constitution) as the concept of secularism is based on a benign neutrality to benefit all including religious groups and it seeks to advance "good" for all including religious groups.
- **Second Attempt:** was made in 2005 when the state government brought a legislation (By Muslim Community Act, 2005.), which gave a 5% quota to Muslims on the recommendation of BCC.
 - The BCC had recommended reservation for entire Muslim Community categorizing it as socially, educationally and economically backward and to improve their social, educational and economic conditions.
 - The new law stated that OBCs constitute more than 77% of state's total population, therefore a further reservation of 5% to Muslims in addition to existing 46% of social reservation (SC+ST+OBC) is just and reasonable.
 - But the HC once again struck down the quota stating that the BCC failed to rely on objective criteria (Empirical Data) to conclude that Muslims as a group were backward in AP i.e. it failed to proceed on data collection, statistical, social, educational and economic analyses of the data so collected. It didn't exclude those classes/groups that have been already identified and recognized as backward classes.
 - This ruling was challenged before the SC which through a 2020 interim order directed to maintain status quo till the court had heard the issue.
 - ✓ Before the HC decision to ban 5% quota, some colleges had given admissions allowing the 5% quota. SC's interim order ensured no prejudice to these admissions.
 - The final hearing in SC is still pending as one of the issues involved was on the Indra Sawhney 50% limit on quotas which the SC said that would be heard after the Economically Weaker Section (EWS) quota issue was decided. The EWS quota (also exceeds the 50% ceiling) was cleared by the SC in November 2022. However, the AP quota issue is yet to be heard.

When Is A Candidate Elected Unopposed

BJP won its first seat from Surat in Lok Sabha elections as its candidate was elected unopposed after the nomination papers of Congress candidates (main and substitute nominees) were rejected and the other nominees withdrew their names.

Nomination Laws as per Representation of the People Act (RPA), 1951

- **Section 33** deals with the presentation of nomination papers and requirements for a valid nomination.
- **Elector and Proposers**- An elector above 25 years of age can contest Lok Sabha election from any constituency in India, but the proposer(s) of the candidate should be the elector(s) from that respective constituency. A candidate can file up to four nomination papers with different sets of proposers to enable the acceptance of nomination of a candidate even if one set of nomination papers is in order.
- **Prescribed Number of Proposers**-

For Recognized Party Candidates- 1 Proposer

For All Other Candidates- 10 Proposers

- **Nomination Process**- Nomination can be filed only by candidate or any of the proposers. It cannot be sent by post or filed through any other person and is to be filed only at the prescribed place(s). Nomination to be signed by the candidate and the prescribed number of proposers. Cannot be filed on a public holiday.
- **Requirements for Valid Nomination**- As per Section 33(4) of the RPA, when the nomination papers are presented to the RO (Returning Officer), he should satisfy himself that the names and electoral roll numbers of the candidate and his proposers as entered in the nomination paper are the same as those entered in the electoral rolls.
- **Scrutiny of Nominations**- Section 36 of RPA deals with the scrutiny of nominations by the RO and provides that the RO shall not reject any nomination for a defect that is not of a substantial character. However, it specifies that the signature of the candidate or proposer found not genuine is grounds for rejection.

How Is A Candidate Declared Elected Before Polling

- According to Section 53(3) of the Representation of the People Act (RPA), 1951 (which deals with the procedure in uncontested elections), if the number of candidate nominations is less than the number of seats to be filled, the returning officer (RO) can forthwith declare all such candidates as elected.
- Also, according to the second edition of the Handbook for Returning Officers (by the Election Commission (EC)), if in any constituency, there is only one contesting candidate, that candidate should be declared a winner immediately after the last hour for withdrawal of candidature, a poll is not necessary in such cases. Also, all those candidates, who are returned as uncontested and [who] have criminal antecedents, must publicize the details in the prescribed format as per timeline.”

Why Were Nomination Papers Of Congress Candidates Rejected

1. **Fake Signatures of Proposers**- There were objections to the three nominations filed by congress candidate that the signatures of his proposers were not genuine. The RO also received affidavits from the proposers claiming that they had not signed the nomination papers of the candidate. Therefore, the RO sought reply/clarification from the candidate within a day on the objections raised. As the proposers could not be produced before the RO within the stipulated time for scrutiny, all three sets of nomination papers were rejected.
2. **Rejection of Substitute Candidates**- The election rules allow for a substitute candidate to be fielded by a political party; his nomination is accepted if the nomination of the original candidate is rejected. But in the present case, the nomination paper of the substitute candidate was also rejected as the proposer’s signature was not genuine.

Have there been Similar Instances in the Past? Yes, there have been at least 35 candidates who have been elected unopposed to the Lok Sabha. The majority of them were in the first two decades after independence i.e., in 1952, 1957, and 1967, with the last being in 2012.

- ✓ In the first election of 1952, Anand Chand became the first & only independent candidate to be elected unopposed. He was the 44th ruler of the erstwhile kingdom of Bilaspur (Himachal Pradesh).

Is There any Legal Recourse Available with Congress Party

- Yes, Article 329(b) of the Constitution read with RP Act states that no election can be questioned except by an election petition before the concerned High Court (HC).

- Therefore, Congress can file an election petition in the Gujarat HC on the grounds of improper rejection of nomination papers.
 - ✓ The RP Act provides that HCs shall endeavour to conclude such trials within six months, which has mostly not been followed in the past.

Extra Mile: Negative Voting in Election System

- It means voting against the candidate. Although it is similar to NOTA (None-of-the-Above) option (in force since 2013), Rule 49 O of the Conduct of Election Rules, 1961, allows the electors to decide not to vote.
 - ✓ NOTA was introduced as a result of a Supreme Court (SC) verdict in a petition filed by the People’s Union for Civil Liberties (PUCL) which said that “giving right to a voter not to vote for any candidate while protecting his right of secrecy is extremely important in a democracy as it gives the voter the right to express his disapproval of the kind of candidates being put up by the parties.”
- As per the rule, if any elector decides not to record his/her vote, then a remark will have to be made in the “remarks column” against the entry relating to the elector in the Register of Voters by the Presiding Officer, along with their signature or thumb impression.

Negative Voting vs NOTA- In case of negative voting, secrecy of the elector is compromised as there is a procedure to be followed manually at a polling booth but there is no such problem in case of NOTA.

Judicial Verdict on Karnataka’s Ban on Hookah

Recently, the Karnataka High Court (HC) upheld the state government’s ban on hookahs as being in the interest of the general public and ruled that hookah bars were an illegal “service” under India’s anti-tobacco law.

Background

- **The Ban-** The Karnataka health department issued a notification in February 2024 banning the sale, consumption and advertising of Hookah products known as hookah tobacco or nicotine- containing nicotine-free tobacco-free, flavored, unflavored hookah molasses, shisha and other similar names and the producing, procuring, trading of the same with immediate effect.
 - ✓ *The Karnataka Legislative Assembly also adopted the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) (Karnataka Amendment) Bill, 2024 in February this year which seeks to impose a blanket ban on hookah bars as well as sale of cigarettes and other tobacco products to those below 21 years of age and prescribes a jail term of one to three years with a penalty of up to ₹ 1 lakh for violation of these norms.*
- **Reasons/ How Did The Karnataka Government Justify The Hookah Ban?**
 - The state government claimed that they have the authority to issue this notification as it falls under the heading of “Public health and sanitation; hospitals and dispensaries” under Entry 6 of the State List
 - Moreover, the government referred to Article 162 of the Constitution which gives state government “executive power” in matters where the legislature can make laws, thereby giving it the power to issue the notification banning hookah sale and consumption.
 - **Violation of Fire Safety Laws-** The ban was introduced in the backdrop of a fire accident at a hookah bar last year which did not comply with fire and safety regulations.
 - **Protecting Public Health-** Government highlighted that consumption of hookah in hotels, bars and restaurants makes food items unsafe for public consumption, has adverse effect on public health, spreads infectious diseases like herpes, tuberculosis, hepatitis, Covid-19 etc. Studies show that 45 minutes of hookah smoking is equivalent to smoking 100 cigarettes
 - ✓ *According to WHO, hookah is an addictive substance that contains high amounts of nicotine or tobacco and molasses or flavouring substances containing the chemical carbon monoxide.*

- **Punishment-** Violators will be booked under COTPA (Cigarette and Tobacco Products Act) 2003, Childcare and Protection Act 2015, Food Safety and Quality Act 2006, Karnataka Poisons (Possession and Sale) Rules 2015 and Indian Penal Code (IPC) and Fire Control and Fire Protection Act.
- **Petitions Against the Ban-** A batch of petitions was filed by several hookah bar owners questioning the legality of the above notification which has now been rejected by the court.

The Judicial Verdict

- **Article 47 Intrinsically Linked to Article 21-** The court held that Article 47 was intrinsically linked with the right to life with dignity under Article 21 as it directs the States to achieve appropriate level of protection to human life and health which is a fundamental right guaranteed to the citizens under Article 21.
 - ✓ Article 47 (**In Part IV:** one of the Directive Principles of State Policy) places a duty on the State to “raise the level of nutrition and the standard of living and to improve public health”.
 - ✓ Karnataka Government argued that “prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health” is a part of Article 47.
- **Freedom of Profession is Subject to Restrictions-** The Court held that the fundamental right to “practice any profession, or to carry on any occupation, trade or business” guaranteed by Article 19(1)(g) can be subjected to certain reasonable restrictions including the prohibition of certain occupations, trades and businesses, if it is “in the general interest of the public” and Article 47 can be used to justify these restrictions.
- **Illegal ‘service’ under tobacco law COTPA-**
 - Relying on Rule 4(3) of Cigarettes and other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COTPA), the court compared hookah smoking to cigarette smoking.
 - ✓ Rule 4(3) of COTPA states that no service shall be allowed in any smoking area or space provided for smoking.
 - It found that while “smoking zones created in designated places do not give any other service except creation of a smoking zone”, hookah smoking “needs rendering of services in the designated area, as it requires external human hand to place all the apparatus on the tables like food or alcohol would be served on those tables”.
 - Thus, the court termed the act of hookah smoking as a service and upheld the ban on hookah smoking.
- **Extended the Scope of Ban-** The court also extended the ban to “herbal hookah”, which too requires an “instrument” and is categorized as a service. (As “herbal” hookahs contain molasses, a prohibited substance under the Karnataka Prohibition Act of 1961)

Extra Mile: National Level Initiatives for Tobacco Control

- **The National Health Policy (NHP), 2017** stipulates the target of relative reduction of 15% in tobacco use by 2020 and of 30 % by 2025, from the baseline levels of 2010.
- **Warnings on OTT Platforms-** are displayed when actors are seen using tobacco products. India is the first country in the world to do so.
- **COTPA-** It aims to regulate the advertisement, promotion, and sponsorship of tobacco products, prohibits smoking in public places, mandates pictorial health warnings on tobacco product packaging, and sets rules for the sale of tobacco products to minors.
- **Tobacco Cessation Centres (TCCs)** exist almost in every State/Union Territory apart from the hospitals providing cessation facilities. There is a National Tobacco Quit Line with a toll-free number **(1800-11-2356)** and a pan-India, “**m-cessation**” initiative to reach out to tobacco users who are willing to quit tobacco use.
- **Pictorial Health Warnings-** India has implemented prominent and graphic pictorial health warnings on tobacco product packaging. With 85% of cigarette packs carrying health warnings both on the front and back,

India figures among the top 10 countries in terms of the size of health warnings. The cigarette packets also carry a toll-free quit-line number.

- **Tobacco Advertising and Promotion-** Direct and indirect advertising of tobacco products, as well as tobacco sponsorship of events, are restricted to discourage tobacco consumption.
- **Tobacco Taxation-** Taxes on tobacco products have been increased to make them less affordable and discourage their consumption. (As of now, **the sin tax** on cigarettes in India is 52.7%)
- **National Tobacco Control Program (NTCP launched in 2007-08)-** Focuses on awareness generation, capacity-building, and strengthening enforcement mechanisms at the national, state, and district levels for controlling tobacco use. (**Validity of NTCP:** 2021-2026 under Continuation of National Programme for Tertiary Care Program)
- The Global Tobacco Surveillance System (GTSS) aims to enhance country capacity to design, implement, and evaluate tobacco control interventions, and monitor key articles of the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC).
- **WHO Framework Convention on Tobacco Control (FCTC)-** India ratified the WHO FCTC in 2004. India played a leading role in FCTC negotiations to finalize its provisions and was the regional coordinator for the South-East Asian countries.
 - ✓ FCTC is the first international (legally-binding) treaty negotiated under the auspices of WHO and consists of 181 Parties at present. It was adopted by the World Health Assembly in 2003 and is the first ever international public health treaty focusing on the global public health issue of tobacco control and aims to tackle issues such as tobacco advertising, promotion and sponsorship beyond national borders, and illicit trade in tobacco products.

Article 244(A)

In Assam's tribal-majority Diphu Lok Sabha constituency, which voted on April 26, candidates of all parties promised the implementation of Article 244(A) of the Constitution to create an autonomous 'state within a state' after coming to power.

- ✓ Diphu is the most sparsely populated Lok Sabha constituency of Assam, with just 8.9 lakh voters. It is reserved for Scheduled Tribes (STs) and covers six legislative Assembly segments in three tribal-majority hill districts of Assam: Karbi Anglong, West Karbi Anglong, and Dima Hasao (all three are administered under sixth schedule).

About Article 244(A) (Inserted by Twenty-second Amendment Act of 1969)

- It allows the Parliament to form an autonomous State, by a law comprising certain tribal areas in **Assam** and creation of local Legislature or Council of Ministers or both with such constitution, powers and functions as may be specified in the law.

How is Article 244(A) different from the Sixth Schedule of the Constitution?

- The autonomous states formed through Article 244(A) are different from the autonomous councils formed under Sixth Schedule of the constitution as the autonomous councils have limited legislative powers, do not have control over law and order, and have only limited financial powers.
 - ✓ The Sixth Schedule of the Constitution — Articles 244(2) and 275(1) — is a special provision that allows for greater political autonomy and decentralized governance in certain tribal areas of the Northeast through autonomous councils that are administered by elected representatives.
 - ✓ Sixth Schedule covers provisions relating to the administration of tribal areas in the states of Assam, Meghalaya, Tripura and Mizoram.

View of The State Reorganization Commission (SRC-submitted report in 1956)

- The SRC was against the idea of creating separate hill states out of Assam;

- It was felt that the reorganization of the regions would accentuate the process of isolation of the hill region which was initiated due to the colonial policy of Inner Line Permit and demarcating “excluded” and “partially excluded” areas.

Demand for Autonomy

- **The Beginning:** This demand is as old as the movement in the hill areas of undivided Assam, which began in the 1950s, seeking a separate hill state and resulted in the creation of the full-fledged state of Meghalaya in 1972 but due to the promise extended through Article 244(A), the leaders of the Karbi Anglong region opted to remain with Assam.
 - ✓ In northeast India, there are two kinds of movements for reorganizations of power relations within the constitutional framework of India: one, the autonomy movement; two, and statehood movements.
 - ✓ The SRC argued that if hill states were created out of Assam, they would not be economically viable. However, Nagaland became a state in 1963; Meghalaya, Manipur and Tripura in 1972; Arunachal Pradesh and Mizoram became states from Union Territories in 1985; and Sikkim was annexed into India in 1975.
- **Memorandum of Settlement:** was signed by the Autonomous State Demand Committee (ASDC- set up as a mass organization to press for the region’s autonomy) with the state and central governments in 1995 for enhancing the powers of the two autonomous councils in the region by increasing the number of departments to 30 from 10.
- **Demand for Implementation of Article 244(A):** Over the years, as the autonomy for the region remained elusive, demand for implementation of Article 244(A) took the form of an armed insurgency. Several peace accords have been signed between the government and militant groups since then, including with the Karbi and Dimasa.
- **Peace Settlement:** In one of the peace accords signed in 2021 greater autonomy and a special development package of Rs 1,000 crore over five years were promised. But these peace agreements have failed to silence the demand for an autonomous state.

What Election Promises are being made now and What is the issue?

All the candidates and their parties are focused on the implementation of Article 244(A) as their primary campaign plank. BJP has even presented a constituency-specific manifesto, the first promise of which is the implementation of Article 244(A). But the issue is once the elections are over, everyone (including the Centre and State) forgets about the promise of implementing Article 244(A).

Copyright Over Textbooks

The Andhra Pradesh (AP) High Court (HC) recently ruled that textbooks dealing with mathematical equations and science subjects do not come under copyright law, as their content is **non-literary** in nature and not original.

Background

- **The Case-** The court was dealing with a petition filed by the owner of the Guntur-based Deepthi Publications (publisher of math and science books which sought to quash a 2010 AP government order.
- **2010 AP Government Order-** restricted private schools and colleges from publishing their books to tackle “piracy” and directed all private colleges to purchase books prescribed by the CBSE and ICSE from Telugu Akademi.
 - ✓ Telugu Akademi is a government-controlled body under the State Higher Education Department

What is Copyright and How is it Infringed?

- Copyright refers to the right to protect the original work of the creators of literary, dramatic, musical, and artistic works and producers cinematograph films and sound recordings.
 - ✓ These rights are protected under the Copyright Act of 1957.

- A copyrighted work is “infringed” if a substantial part of the original work is used without authorization.

About The Copyright Act 1957

What? It aims to safeguard the creative works considered to be a creator’s intellectual property and to encourage others to build freely upon the ideas and information conveyed by a work.

- ✓ Unlike the case with patents, copyright *protects the expressions and not the ideas. There is no copyright in an idea or concept.*

Evolution- It was first passed in 1958 and has since undergone five revisions with the most recent amendment in 2012.

- In addition to the act, the Copyright (Amendment) Rules 2021, were brought into effect to bring the copyrights in line with other relevant laws.
 - ✓ The amendments aim to ensure smooth and flawless compliance in the light of the technological advancement in digital era by adopting electronic means as primary mode of communication and working in the Copyright Office.
 - ✓ The amendments have harmonized the Copyright Rules with the provisions of Finance Act, 2017 whereby the **Copyright Board** has been merged with **Appellate Board**.
 - ✓ The compliance requirements for registration of software works have been largely reduced, as now the applicant has the liberty to file the first 10 and last 10 pages of source code, or the entire source code if less than 20 pages, with no blocked out or redacted portions.

Key Sections

1. **Section 52:** It exempts “a fair dealing with any work” from being termed “infringement” if it’s for *private or personal use, like research, criticism or review, or reporting of current events and affairs and the publication of short passages from published literary or dramatic works in a collection intended for bona fide or genuine instructional use.*
2. **Section 63 (a criminal offence):** provides for the punishment for infringement of copyright in a work & prescribes a jail term of six months to three years along with a fine of 50,000 to 1 lakh rupees. (No court inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the first class shall try any offence under the Copyright Act.)
3. **Section 64:** empower the police to seize infringing copies and allows any police officer “not below the rank of a sub-inspector” to seize without a warrant if satisfied that an infringement has occurred.

Copyright of Foreign Work in India

Copyright of nationals of countries who are members of the **Berne Convention** for the Protection of Literary and Artistic Works, **Universal Copyright Convention** and the **TRIPS Agreement** (Trade Related Aspects of Intellectual Property Rights) are protected in India through the International Copyright Order.

Judgement in Present Case

- **Fair Use Doctrine:** The court ruled that the *publisher’s actions fell under the fair use doctrine* even if the books printed by it are assumed to be pirated copies of Akademi’s books, their actions would fall under the **exception under Sections 52** of the Act as the books are for the benefit of students and institutions.
- **Textbooks Not Covered Under Copyright Act:** The court held that textbooks don’t fall under the copyright act as only an original work can be copyrighted like an original literary, artistic, dramatic, or musical work. The books in question printed are **non-literary in nature** and hence, they don’t fall under the ambit of the Copyright Act.
- **Upheld the 2010 AP Government Order:** The court refrained from the order reasoning that the order was passed to protect the Akademi from piracy and save the future of millions of students.

- **Order not Applicable to Publishing House:** The court held that the order didn't apply to the petitioner as it was intended for private "schools and colleges" rather than a publishing house.

Can There Ever Be Copyright On Textbooks

- **NCERT's Stand-** Recently issued a warning against copyright infringement of its educational materials and said that anyone publishing NCERT textbooks (in whole or in part) or uses the NCERT textbook content for **commercial sale** without obtaining the copyright permission from NCERT, shall be proceeded against in accordance with the Copyright Act 1957.
- **Court's Opinion-** The courts going by its earlier precedents have sided with the publishers. For example, in-
 - *Chancellor Masters & Scholars of the University of Oxford vs. Narendra Publishing House, 2008:*
 - **Plea-** *University of Oxford* claimed that their textbook, based on the class 11 syllabus prescribed by the J&K Board of Education was being imitated in a book series published by one Narendra Publishing House.
 - **Verdict-** The Delhi HC held that "Mathematical questions are expressions of laws of nature. The discovery of such laws cannot confer a monopoly to those who describe it as the language is a limited medium and enables the description of such laws in only a few ways.
 - **Challenge in SC-** The HC judgement was challenged in SC but the court upheld the earlier decision.
 - *Eastern Book Company v. D.B. Modak, 2008:* SC held that work done by virtue of selection, co-ordination, or arrangement of pre-existing data contained in the work, a work somewhat different in character is produced by the author can be considered original.

Shift In EC's Response to Model Code Violations

For the first time, the Election Commission (EC) has sent notices to BJP and Congress for alleged Model Code of Conduct (MCC) violations by their star campaigners (Prime Minister Narendra Modi and Rahul Gandhi), marking a significant shift in its response to such complaints.

- ✓ Earlier, whenever there was an MCC violation complaint against an individual, the notice went to the individual rather than the party.
- ✓ The complaint is related to Prime Minister's (PM) "malicious election speech delivered at Banswara (Rajasthan)" and Rahul Gandhi's speech in Kottayam (Kerala) where he made "false allegations" against the PM.
- ✓ As per MCC guidelines, parties and candidates shall refrain from criticizing all aspects of private life, not connected with the public activities of the leaders or workers of other parties. Also, unverified allegations or distortion should be avoided.

What Did The Notice Say

In the notices, the EC has underlined that individual star campaigners are responsible for their own speeches and the EC may, on a case-by-case basis hold political parties accountable for any MCC violations by their campaigners and campaign speeches made by those holding high positions will have more serious consequences.

Significance of Change in Stance by EC

- Many high-profile political leaders have been served notices directly by the EC for MCC breaches in the past. Be it Sonia Gandhi in 2007 during the Gujarat Assembly election or Modi in November 2013, or Amit Shah in 2014 when he was BJP General Secretary, all were issued notices directly by the EC.
- But no sitting Prime Minister has been issued a notice on a MCC violation complaint till date. This is the first time that the EC has taken cognizance of complaints against the Prime Minister.
- By serving the notice to the party rather than the individual, the EC is trying to raise the level of responsibility as well as legally linking it to the party to which the star campaigner belongs.

Extra Mile: Plea Against PM Dismissed

- Recently, the Delhi High Court (HC) dismissed a plea seeking disqualification of Prime Minister (PM) Narendra Modi for six years for allegedly seeking votes for his party BJP in the name of God and place of worship.
 - ✓ As per MCC guidelines, no party or candidate can participate in any activity which may aggravate existing differences or create mutual hatred or cause tension between different castes or communities, religious or linguistic; No appeal can be made to caste or community feelings for securing votes; and places of worship cannot be used as forum for election propaganda”.
- **The Plea-** The petitioner in the plea claimed that the PM has committed an offence under Section 153A of the Indian Penal Code (IPC) and attracted disqualification under the Representation of the People Act.
 - ✓ IPC Section 153A- provides for punishment to individuals responsible for promoting enmity between different groups based on religion, race etc., and doing acts prejudicial to the maintenance of harmony.
 - ✓ Section 8 of RPA 1951 provides for the disqualification of a person convicted of any offence and sentenced to imprisonment for not less than two years. The disqualification will start from the date of such conviction and shall continue to be disqualified for a further period of six years since his release.

What Election Commission Can Do If Normal Polling Process Is Disrupted?

Recently, the Election Commission of India (ECI) declared void the poll on April 19, in 11 polling stations of Manipur, and 8 polling stations of Arunachal Pradesh and adjourned elections in Madhya Pradesh's Betul Lok Sabha constituency due to the death of a candidate on April 9.

Steps Taken By EC When Polling Gets Disrupted Due To-

1. Intentional Destruction (Section 58A of RPA)

Situation- If an unauthorized person unlawfully takes away any EVM; any EVM gets accidentally or intentionally destroyed, or lost, or damaged, or tampered with; or a mechanical failure develops in any EVM during the recording of votes.

Action Taken by ECI- The Returning Officer (RO) immediately informs the EC and the Chief Electoral Officer of the state about the relevant facts and material circumstances, after considering which, the EC can declare the poll void and formally fix the date and time for a new poll. During the repoll, the voters' left middle fingers are inked to distinguish between the mark made during the original poll (on their left forefinger).

2. Booth capturing (Section 135A of RPA)

Situation- Seizure of a polling station, affecting the conduct of elections; taking possession of a polling station, allowing only his or their supporters to vote; intimidating or threatening any elector and preventing him from voting; seizure of a counting place affecting the counting of votes.

Action Taken by ECI- The Presiding Officer of a polling station immediately closes the Control Unit of EVM and detaches the Ballot Unit(s) from the Control Unit and then informs the RO, who reports the full facts to the EC through the fastest means of communication. The EC, based on the material facts, may declare the poll void and direct a fresh poll on a new date; or countermand the election in the constituency if booth capturing has taken place in many polling stations.

**** Booth capturing attracts imprisonment of not less than one year, which may extend to three years for lay people, and not less than three years, extending to five years for government servants.**

3. Natural disasters (Section 57(1) of RPA)

Situation- Natural calamity like a flood, a severe storm; non-receipt or loss or damage to essential polling materials like EVM, electoral roll etc.; interruption or obstruction due to any riot or, open violence; non-arrival of the polling party due to obstruction or any other serious difficulty; non-commencement of the poll within two hours from the scheduled time due to malfunctioning of EVM.

Action Taken by ECI- The Presiding Officer can adjourn the poll and after seeking EC's approval on date and hours, the adjourned poll recommences from the stage at which it was left immediately before the adjournment. Only the electors who have not already voted before the poll was adjourned are permitted to vote.

4. Death of a candidate (Section 52 of RPA)

Situation- In case of the death of a recognized political party's candidate.

Action Taken by ECI- The polls are adjourned, and the EC then calls upon the concerned political party to nominate another candidate in place of the deceased candidate within seven days.

Indelible Ink- Classic Symbol of Indian Polls

As the polling for 2024 Lok Sabha elections commenced, the classic symbol of Indian polls- a purple-black indelible ink (Voter's ink) is visible everywhere on the index finger of the left hand of voters.

Purpose

- Indelible ink in India serves as a crucial tool during elections to prevent voter fraud and ensure the integrity of the electoral process and free & fair elections in the country.
- This serves as a reliable method to prevent individuals from attempting to vote multiple times in different polling stations.

What Makes The Ink Indelible

- The indelible ink contains silver nitrate, a colourless compound which becomes visible when exposed to ultraviolet light, including sunlight. The higher the silver nitrate's concentration, higher the ink's quality will be.
- This ink also contains a solvent like alcohol to allow faster drying (premium ink dries in less than 40 seconds). It remains resistant to soap, liquids, home-cleansing, detergents, etc. for up to 72 hours after application.

When Was It First Used

- It was first applied using a glass rod during the first general elections in 1951-52 after then President Rajendra Prasad gave assent to the Representation of People Bill, the main electoral legislation.
 - ✓ Section 61 of the Representation of People Act, 1951 (RPA) says that each voter will be marked with an indelible ink on his or her thumb.

Why Is The Ink Applied On Index Finger?

Until third general elections in 1962, the ink was applied on the base of the forefinger and not on the nail but as the ink mark could be removed with rigorous rubbing, this led to fake voting therefore, the ECI in 1971 came up with the idea to mark the ink on the root of the nail so that once dried it could disappear only as the nail grows.

Who Makes The Indelible Ink?

It was first manufactured by the Council of Scientific & Industrial Research (CSIR). The manufacturing license was later given to Mysore Paints & Varnish Ltd./MPVL (erstwhile Mysore Lac & Paint Works Ltd).

- ✓ MPVL was founded in 1937 by Krishna Raja Wadiyar IV, the Maharaja of Mysore. It is only permitted company in India to produce indelible ink since 1962.

Export Status

Currently, each phial or small bottles (with a capacity of 10 ml each) is sold at a fixed rate of Rs 174 and is exported to more than 25 countries including Canada, Ghana, Nigeria, Mongolia, Malaysia, Nepal, South Africa and the Maldives. But the procedure of application varies for each country. For example, in Cambodia and the Maldives, voters need to dip his/her finger into the ink while in Burkina Faso the ink is applied with a brush, and nozzles are used for its use in Turkey.

INTERNATIONAL REALTIONS

Russia Fired Hypersonic Missiles At Kyiv

- As per the Ukraine's military administration, Russia has used five of its **new hypersonic Zircon missiles** to attack Kyiv since the start of the year.
- Russia also fired 11 Kinzhal missiles, another hypersonic weapon which travels at several times the speed of sound.

Hypersonic Weapon

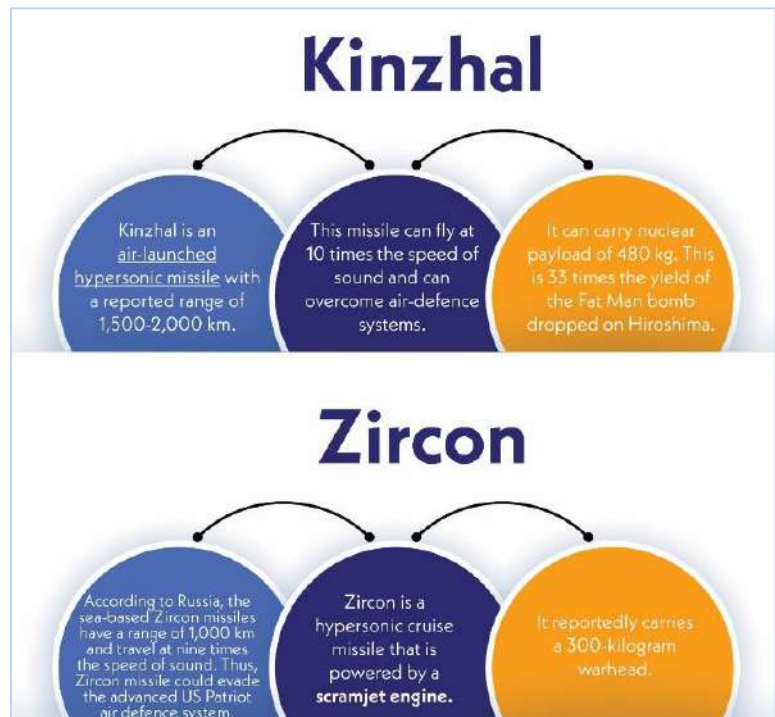
• About

- They are normally defined as fast, low-flying, and highly manoeuvrable weapons designed to be quick and agile for traditional missile defence systems to detect in time.
- Unlike ballistic missiles, hypersonic weapons don't follow a predetermined, arched trajectory and can manoeuvre on the way to their destination.
- The term hypersonic describes **any speed faster than five times that of sound**, which is roughly 760 miles (1,220 km) per hour at sea level.
 - On the other hand, a supersonic missile travels at speed between Mach 1-5.
- At hypersonic speeds, the air molecules around the flight vehicle start to change, breaking apart or gaining a charge in a process called *ionization*.

• India and hypersonic weapon

- India is closing in on having such weapons in its arsenal.
- In 2020, India successfully tested its hypersonic technology demonstrator vehicle (HSTDV), powered by a scramjet engine.
 - ✓ Scramjet engine uses the flow of air at supersonic speeds, compressed by the forward motion of the missile, to drive it forward.

- The HSTDV will serve in the development of long-range hypersonic weapons, which will take another four to five years to become a reality.



New National Defence Strategy (NDS) 2024 of Australia

- Australia has released its new National Defence Strategy (NDS) 2024. In this document, the country has stated that India is a top-tier security partner for Australia.
- It states that through the **Comprehensive Strategic Partnership** with India, the govt. is continuing to prioritize practical and tangible cooperation that directly contributes to Indo-Pacific stability.

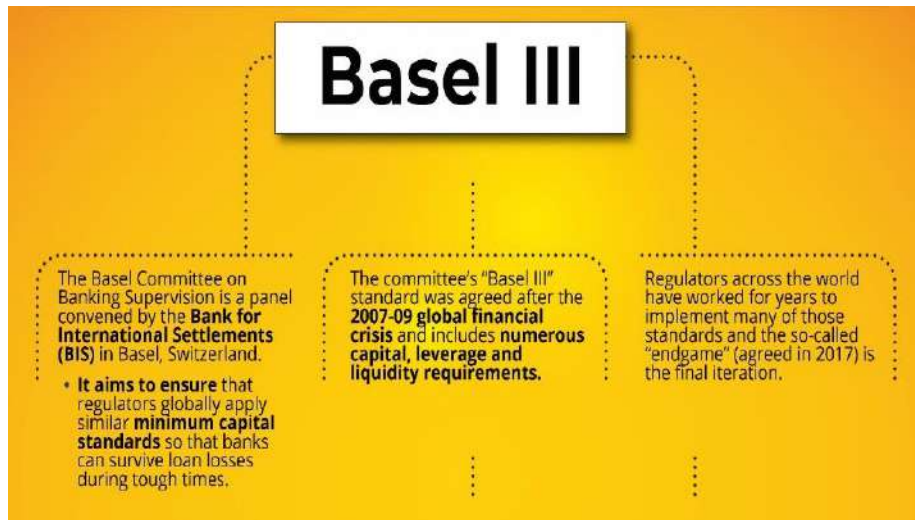
- Under this, Australia will support India’s role in the region and seek to drive practical bilateral and multilateral cooperation, defence industry opportunities and information sharing.
 - Defence and strategic cooperation between India and Australia has been transformative in recent years with series of exchanges, high-level visits and exercises, both bilateral and multilateral.
 - India and Australia signed a mutual logistics support agreement in 2020 and the two Navies had signed the ‘Joint Guidance for *Navy to Navy Relationship*’ document in August 2021.

Basel III Endgame

Recently, the US Federal Reserve announced major changes to a proposal for stronger bank capital requirements known as the Basel III endgame.

Basel III Endgame (The “Endgame” Proposal of US)

- The “endgame” proposal **refines Basel’s approach** to setting capital based on the riskiness of banks’ activities.
 - It was unveiled in July 2023 after the failure of three lenders in 2023.
- The U.S. proposal **would overhaul how banks gauge their risk**, and in turn, how much capital they should set aside as a cushion against potential losses.
- **The main areas of focus are -**



Credit risk	•To gauge credit risk, regulators are seeking to end banks’ ability to use their own internal risk models when determining how much capital should be held against lending activities.
Market risk	•Similarly, the proposal would establish new requirements for how banks gauge the risk posed by swings in the markets and potential losses from trading
Operational risk	•This refers to the potential losses banks could face from unexpected sources, such as failed internal policies, management mistakes, litigation costs or external events

- The rules, **which would apply to banks with over \$100 billion in assets**, would overhaul the way the biggest banks manage their capital, with implications for lending and trading activities.
 - However, banks say additional capital is *unnecessary* and will hurt the economy, and have aggressively lobbied against the project.

Swiss Women Win Landmark Climate Change Case

- Recently, Europe’s highest human rights court sided with a group of 2,000 Swiss women. These women had sued their government for violating their human rights by failing to do enough to combat the adverse effects of climate change.

- The landmark ruling by the **European Court of Human Rights (ECHR)** might change how courts in Europe and other places handle cases where people say climate change hurts their rights.
- This is significant as the verdict has come just days after the Supreme Court of India expanded the scope of **Articles 14** (right to equality) and **21** (protection of life and personal liberty).

European Court of Human Rights (ECHR)

About

- › ECHR is an international court that interprets the European Convention on Human Rights.
- › It was established in **1959** and is based in **Strasbourg, France**.
- › It consists of a number of judges equal to the number of member States of the Council of Europe that have **ratified** the *Convention for the Protection of Human Rights and Fundamental Freedoms* – **currently 46**.

Functions

- › The ECHR rules on applications from individuals, groups of individuals, or other contracting states that **allege violations of the European Convention on Human Rights**
 - The Convention primarily concerns civil and political rights.
- › The court can issue judgments and advisory opinions.

Rise in climate litigation across the globe

- › Recently, there has been an increase in climate litigation — a form of legal action that is being used to hold countries and companies accountable for their climate mitigation efforts and historical contributions to climate change.
- › As per a report, as of December 2022, there have been 2,180 climate-related cases filed in 65 jurisdictions.
- › Children and youth, women's groups, local communities, and Indigenous Peoples, among others, are taking a prominent role in bringing these cases.

- SC said that people have a right to be free from the adverse effects of climate change.

UK Passes Bill To Deport Asylum Seekers To Rwanda

- The UK parliament has finally passed a bill that will allow the government to send asylum seekers to Rwanda for their claims to be considered by the East African nation.
- UK Prime Minister Rishi Sunak had often emphasised the need for stopping the inflow of small boats coming to the country.
 - These boats carry migrants who attempt to escape violence, persecution and instability in a range of countries.

Rwanda (Asylum and Immigration) Bill

- **Need**
 - The number of migrants arriving in Britain on small boats soared to 45,774 in 2022 from just 299 four years earlier. This is because as people seeking refuge pay criminal gangs thousands of pounds (dollars) to ferry them across the channel.
- **About**
 - The House of Lords, which is the upper house of parliament, passed the Safety of Rwanda (Asylum and Immigration) Bill.
 - It essentially says that Rwanda is a safe third country for the purposes of removing its individuals to Rwanda.
 - Under the new law, any asylum seekers who arrive illegally in Britain will be sent to Rwanda.
- **Bill is an attempt to circumvent the Supreme Court ruling**
 - This bill is an attempt to circumvent the Supreme Court ruling by designating Rwanda as a safe destination. In its ruling last year, Supreme Court of UK said that Rwanda couldn't be relied upon to not mistreat asylum-seekers.
 - The court cited Rwanda's abysmal human rights record, including enforced disappearances and torture.
 - In response to this argument, the Safety of Rwanda Bill was passed after the UK government signed a new treaty with Rwanda to beef up protections for migrants in December 2023.

Criticism of UK's Rwanda plan

- The United Nations Refugee Agency (UNHCR) had said that the asylum seekers must not be traded like commodities and transferred abroad for processing.
 - It highlighted the dangers of transferring refugees and asylum seekers to third countries without sufficient safeguards.
- In 2022, the European Court of Human Rights (ECHR) stopped the first plane from departing the UK for Rwanda.
- The opposition parties of UK have said that the Rwanda plan was costly and it did not focus on most of the immigrants coming in.

EU Eases Schengen Visa Rules For Indians

- The European Union will now offer multiple entry Schengen visas with longer validity to Indian travellers.
- As EU eases the visa norms, frequent Indian travellers will now be able to apply for five-year multiple entry visas, which puts them at par with visa-free nationals.
- This regime enables Indians to obtain two-year multi-entry Schengen visas after using two visas within three years.

Schengen Area

- It is a **border-free area in Europe** that allows the free movement for EU citizens and non-EU nationals who are legally present in the EU.
- The Schengen Area includes 29 European countries, including 25 of the 27 EU member states, as well as Iceland, Liechtenstein, Norway, and Switzerland.
 - The Schengen Area does not include Cyprus and Ireland.
- The Schengen Agreement, signed in **1985**, near the town of Schengen, Luxembourg, led to the creation of the Schengen Area.

Pakistan's New Hangor Class Submarines

- The first Hangor class submarine, **built by China for Pakistan**, was launched recently at a Wuhan shipyard.
- This was the first of eight submarines of this class that the Pakistan Navy is set to induct into its fleet by 2028.
- The Hangor-class, an export variant of the Chinese Type 039A Yuan class, is a **diesel-electric attack submarine**.
 - It has been named after the now decommissioned PNS Hangor, which famously sank Indian frigate INS Khukri during the 1971 war.
- Pakistan's Hangor class is the direct counterpart of India's Kalavari class of submarines, based on the French Scorpene-class.
 - India currently operates six Kalavari class submarines, with three more set to be inducted into service by the early 2030s.

Humza Yousaf Resigns As Scottish First Minister

- The First Minister of Scotland Humza Yousaf resigned. Yousaf had taken over as first minister and leader of the Scottish National Party (SNP) from Nicola Sturgeon just over a year ago.
- As head of the Scottish Government, the First Minister is responsible for the overall development, implementation and presentation of the administration's policies and for promoting and representing Scotland at home and overseas.

- Unlike at Westminster, where a Prime Minister is appointed by the Monarch under the royal prerogative, the First Minister of Scotland is nominated for appointment by Members of the Scottish Parliament (MSPs).
 - Once a First Minister has tendered their resignation to the King, the Scottish Parliament has a period of 28 days in which to nominate one of its members for appointment as their successor.

New Trade Fight Between the US-China

- According to the International Energy Agency (IEA), after more than a decade of subsidising its automakers, **China has built a substantial car industry that accounts for 60% of global electric vehicle (EV) sales.**
- Chinese companies are producing as many as **10 million more EVs** annually than they can sell domestically, driving them to **sell more cars overseas.**
 - Similar dynamics exist in other industries, such as **solar panels, batteries, and more traditional areas such as steel.**
- As the Chinese are building up a lot of capacity in many industries, **they are going to be looking for markets outside the country**, if domestic demand does not pick up.
 - **For example**, leading Chinese automaker BYD had recently introduced an electric SUV at the “astonishingly low” price of \$14,000, posing an “**existential threat**” to U.S. carmakers.
- The U.S. currently has **25% tariffs on cars from China** that has largely blocked vehicles from that country, **but Mexico has a free trade agreement with the US.**
- The new trade fight is quite similar to the previous one. **What’s new is that the concerns around overcapacity in some cutting-edge sectors have become acute.**

India – Mauritius Revise Tax Treaty

- India has signed a protocol amending its tax treaty with Mauritius with an aim to fill the loopholes in the treaty which were being abused for tax evasion and avoidance.
- However, the text of the amended treaty has raised concerns of greater scrutiny on investments. This has led to a sell-off in stock markets by Foreign Portfolio Investors (FPIs).

Amended Tax Treaty Between India And Mauritius

- India and Mauritius in March 2024 had signed an amendment to the **DTAA**. The amendments allow the authorities to move beyond the *residency certificate* and assess the **principal purpose** of an arrangement or transaction.
- **Introduction of principal purpose test (PPT)**
 - The PPT aims to **curtail tax avoidance by ensuring that treaty benefits are only granted for transactions with a bona fide purpose.**
 - PPT states that tax benefits from a treaty will not apply if it's proven that the main reason for a transaction or arrangement was to get those tax benefits.
- **Introduction of Article 27B**
 - In the updated protocol, a new Article 27B has been added to the treaty, explaining who qualifies for benefits.
 - According to the PPT, if it's clear that getting treaty benefits, like lower withholding tax on interest, royalties, and dividends, is one of the main reasons for a party in a transaction, those benefits can be denied.
- **Changes in the Preamble**

- This revision also amended the preamble of the treaty to incorporate the thrust on tax avoidance and evasion.

Concerns Over The Amendment:

- Following the amendment, there were concerns that FPI coming via Mauritius would face increased scrutiny by tax authorities.
- Also, there were apprehensions that past investments could be covered by the amended protocol.
- This led to **Sensex and Nifty falling by 1 per cent** on April 12, 2024.

Key Features of the DTAA Between India and Mauritius

- **Residency Based Taxation:**
 - A resident of Mauritius is not subject to tax in India on income from sources in India.
 - Similarly, a resident of India is not subject to tax in Mauritius on income from sources in Mauritius.
- **Capital Gains Tax:**
 - One of the significant benefits of the DTAA is the exemption or reduction of capital gains tax on investments made by residents of one country in the other country.
 - For instance, capital gains arising from the sale of shares of an Indian company by a Mauritian resident may be taxed only in Mauritius, subject to certain conditions.
- **Interest, Royalties, and Fees for Technical Services:**
 - The DTAA provides for reduced withholding tax rates on interest, royalties, and fees for technical services paid by residents of one country to residents of the other country.
- **Permanent Establishment:**
 - The agreement contains provisions to determine the existence of a permanent establishment, which is a fixed place of business through which the business of an enterprise is wholly or partly carried on.
 - This is important for determining the tax liability of a foreign enterprise in the source country.
- **Exchange of Information:**
 - The DTAA includes provisions for the exchange of information between the tax authorities of India and Mauritius to prevent tax evasion and ensure compliance with the tax laws of both countries.

Double Tax Avoidance Agreement (DTAA)

It is a treaty signed between two countries so that non-residents can avoid paying double taxes.

if an Indian works in a company situated in Mauritius, they might have to pay taxes twice in both countries, which is something that the DTAA wants to prevent.

- ➔ India has signed DTAA with 85 nations in total to safeguard non-resident Indians from double taxation.
- ➔ This agreement ensures that countries involved have agreed upon tax rates on income arising from their country.

Double Tax Avoidance Agreement (DTAA) Between India and Mauritius:

- ➔ Both the Governments came to this unanimous decision in 1983
- ➔ The conventions of DTAA signed between India and Mauritius will be applicable to residents of one or both contracting states.
- ➔ Objective: To promote bilateral economic relations and investment between India and Mauritius by providing tax certainty and reducing tax barriers.

India Posts Defence Attaches To Several New Nations For 1st Time

- India has begun to post *military and defence attachés (DA)* to several new African countries. This highlights India's increased focus on military diplomacy.
- It is part of a larger adjustment of the DA in Indian missions scattered across continents and regions and is being implemented as India deals with dynamic situations in Indo-Pacific, Red Sea-Indian Ocean and Eurasia.
- The African countries include:
 - Djibouti: A small African country that's a key maritime gateway for the Red Sea and Gulf of Aden, and is considered a desirable location for military bases
 - Francophone western Africa: One DA is likely to be sent to this region
 - Eastern and southeastern Africa: Three DAs are expected to be sent to three countries in this region

- India is also planning to send defense attaches to other countries, including: Ethiopia, Mozambique, Ivory Coast, Philippines, Armenia, and Poland.
- India's relations with Africa have increased significantly as China has tried to expand its influence in African countries.
- India is also considering increasing defense cooperation with the Philippines due to global concerns about China's growing military presence in the South China Sea.
 - Recently, in April 2024, India delivered the BrahMos supersonic cruise missiles to the Philippines as part of a \$375-million deal signed in 2022.

India's Trade Relationship with China

- India's imports from China crossed \$101 billion in 2023-24 from about \$70 billion in 2018-19. Also, China's share of India's industrial goods imports has risen from 21% to 30% over 15 years.
- According to the Global Trade Research Initiative (GTRI), which released the above-mentioned data, Chinese imports to India will rise sharply in coming years.
- China is the top supplier in eight major industrial sectors, including machinery, chemicals, pharmaceuticals, and textiles.
- **India's total merchandise imports stood at \$677.2 billion in 2023-24, of which 15% or \$101.8 billion worth goods were sourced from China.**
 - Of these, \$100 billions of imports were in major industrial product categories, amounting to **30% of such imports**, and that share stood over 70% for some products.
 - Fifteen years ago, China's share of the same goods' imports was 21%.
- China also accounted for 29.2% of chemicals and pharmaceuticals imports into India, 25.8% of plastic product imports and 23.3% of automobile sector inbound shipments.
- A lower dependence on China was seen in the case of iron, steel and base metal imports.

USTR Places India On Priority Watch List

- The US has once again included India in the 'priority watch list' of countries for alleged problems related to IP protection and enforcement.
 - No action is threatened by the US against countries on the **priority watch list**, but if a country slips further and is categorised as a priority country, US may impose retaliatory measures.
- As per the US Trade Representative's Special 301 Report, released recently, there has been progress under the US-India **Trade Policy Forum** in addressing issues with trademark infringement investigations and pre-grant opposition proceedings. However, numerous long-standing concerns remain.
 - The USTR releases the Special 301 Report annually, highlighting the state of IP protection and enforcement regimes in various countries it trades with.
- **Challenges as mentioned in the report are:**
 - inadequate IP enforcement, including high rates of online piracy, an extensive trademark opposition backlog, and insufficient legal means to protect trade secrets.
 - Among other things, India still needs to fully implement the WIPO Internet Treaties and ensure that copyright statutory licences do not extend to interactive transmissions.

- **India's stance**

- India, however, has always maintained that its intellectual property laws were in strict adherence to the WTO's Trade Related Intellectual Property Rights (TRIPS) Agreement and that it was not bound by any global rules to make changes in its laws.

Germany Lifts Curbs On Sale Of Small Arms To India

- Germany has recently lifted restrictions on the sale of small arms to India as an exception to the country reflecting the growing strategic and military ties between the two countries.
- Germany had earlier put restrictions over the sale of small arms to non-NATO countries.
- It is Heckler & Koch, the German firm, that makes the **MP5 submachine guns** that are currently in use by the NSG and Indian Navy's marine commandos (MARCOS).

US Rejects 1/3rd of MDH Exports Since October Over Salmonella

- The United States customs authorities refused 31 per cent of all spice-related shipments exported by Mahashian Di Hatti (MDH) Pvt Ltd over **salmonella contamination** in the last six months.
 - When consumed, foods contaminated with the bacteria salmonella can cause a severe stomach infection that affects the intestinal tract if not cooked properly.
- The surge in refusal rate comes at a time when both Singapore and Hong Kong have suspended sales of certain MDH and Everest Food Products Pvt Ltd products after the alleged detection of a carcinogenic pesticide (ethylene oxide) in spice mixes.

SUMMITS AND ORGANISATIONS

India's Trade Reliance on China and EU Rising: UNCTAD

India's trade reliance on China & European Union is rising as global trade is witnessing a marked shift along geopolitical lines, says a report by the United Nations Conference on Trade and Development (UNCTAD).

Key Highlights Of The UNCTAD Report

- **Observation with respect to global trade**
 - The UNCTAD in its Global Trade Report has highlighted that after facing declines over several quarters, international trade is poised for a rebound in 2024.
 - **In 2023, global trade saw a 3% contraction, equalling roughly \$1 trillion**, compared to the record high of \$32 trillion in 2022.
 - Available data for the first quarter of 2024 suggests a continued improvement in global trade, especially considering moderating global inflation and improving economic growth forecasts.
 - Additionally, rising demand for environmental goods, particularly electric vehicles, is expected to bolster trade this year.
 - UNCTAD's estimates showed a major shift in trade due to the ongoing Russia-Ukraine war.
 - While Russia's trade dependence on China surged by a record 7.1 per cent, its reliance on the EU slid by 5.3 per cent.
 - This was largely a result of Russian oil shifting from the EU to China and India.
- **Observations with respect to India:**
 - It showed that **India's dependence on China and the European Union (EU) grew by 1.2 per cent while its reliance on Saudi Arabia slid by 0.6 per cent.**
 - This came despite India's efforts to cut reliance on China by implementing its flagship Production-Linked Incentive (PLI) scheme and Quality Control Orders (QCOs) largely to limit entry of cheap Chinese products.

UNITED NATIONS CONFERENCE ON TRADE & DEVELOPMENT (UNCTAD):

- It is a permanent inter-governmental body established by the United Nations General Assembly in 1964.
- It is responsible for dealing with development issues, particularly international trade.
- Framing policies in various domains such as trade, technology, finance, aid, and transport are the most important priorities of UNCTAD.
- The Conference ordinarily meets once in four years.
 - The second UNCTAD Conference took place in New Delhi, India in 1968.
- Members: 195 countries; Headquarters: Geneva, Switzerland

REPORTS PUBLISHED BY UNCTAD:

- 
- ➔ Trade and Development Report
 - ➔ Trade and Environment Review
 - ➔ World Investment Report
 - ➔ Least Developed Countries Report

Switzerland's Peace Deal

- With the Russia-Ukraine war in its third year, Switzerland will host a peace conference on June 15-16, immediately after the G7 Summit in Italy.
- Switzerland has taken this initiative at the request of Ukraine's President Zelenskyy, who visited Bern (Switzerland's capital) earlier in January this year.
- The conference will aim to "create a common understanding of the framework conducive to this goal and a concrete roadmap for the peace process".
- Switzerland has invited 120 countries, including India, to participate in the conference.

Over 70% Workers Globally Exposed to Excessive Heat: ILO

ILO has published a report title "*Ensuring safety and health at work in a changing climate*". ILO published this report to bring attention to the global health threat workers are currently facing.

About the Report

- A scoping exercise was conducted to identify the most recent trends and priorities for climate change and worker safety and health.
- Based on the available evidence, the report addresses the following key issues:



Key Highlights of the Report

- Billions of workers are exposed to hazards exacerbated by climate change. The share of global workers impacted by climate change hazards has increased by about from 65% in 2020 to 70% in 2024
- Workers across different sectors are exposed to these hazards but some workers, such as agricultural workers and other outdoor workers carrying out heavy labour in hot climates are particularly at risk.
- Strong evidence demonstrates that numerous health conditions in workers have been linked to climate change, including cancer, cardiovascular disease, respiratory illnesses, kidney dysfunction and mental health conditions, among many others.
- Out of a global workforce of 3.4 billion, over 2.4 billion workers are likely to be exposed to **excessive heat** at some point during their work. This is an increase of 34.7% in exposure estimates in the 20-year period between 2000 and 2020
 - ✓ Every year, an **estimated 22.85 million occupational injuries, 18,960 deaths and 2.09 million disability-adjusted life years (DALYs) are attributable to excessive heat alone.**
- Thousands more die from pesticide poisoning (>300,000), workplace air pollution (>860,000), solar UV radiation (>18,960 due to non-melanoma skin cancer alone) and parasitic and vector-borne diseases.



Peru-based Top Potato Research Centre To Set Up India Wing

- The International Potato Center (CIP), a Peru-based research-for-development organization, is set to establish a regional center in India to focus on potato and sweetpotato research.
- The center is expected to be located in Agra.
- CIP is a research institution that focuses on roots and tubers to provide sustainable solutions to issues like hunger, poverty, and natural resource degradation.

- CIP was founded in 1971 and is headquartered in Lima, Peru. CIP has research activities in more than 20 countries in Africa, Asia, and Latin America.

World Crafts Council International (WCCI)

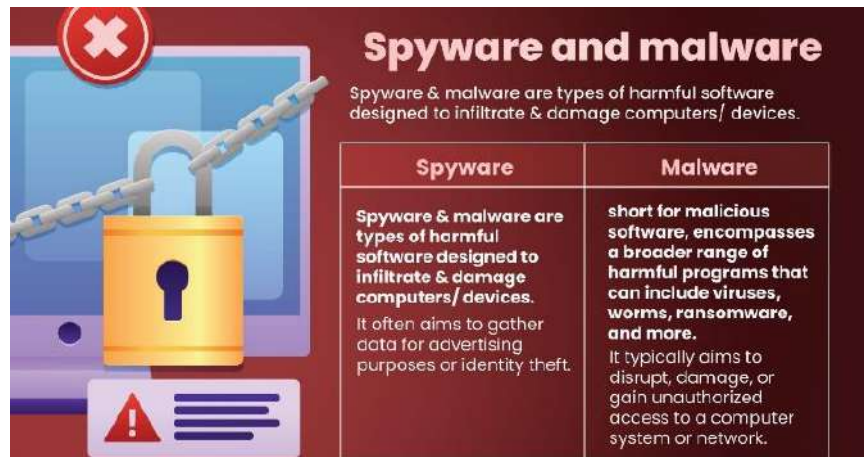
- The World Crafts Council International (WCCI) has picked Srinagar for mapping its craft clusters before its final nomination as the World Craft City (WCC) from India this year.
- WCC is a Kuwait-based organisation working on the recognition and preservation of traditional crafts across the globe.
- It was founded by Ms. Aileen Osborn Vanderbilt Webb, Ms. Margaret M. Patch, and Smt Kamaladevi Chattopadhyay at the 1st World Crafts Council General Assembly in New York in June 1964.
- Since its inception, the World Crafts Council AISBL has been affiliated with **UNESCO** under Consultative Status for many years.

Apple's Mercenary Spyware Alert

- Apple recently sent out warnings to iPhone users in India and 91 other countries. The company informed users saying that their iPhones might be under attack by a type of **spyware** called **mercenary spyware**, including one called Pegasus.
- In October 2023, they sent similar warnings to politicians from different parties in India, suggesting a possible state-sponsored spyware attack on their iPhones.
 - However, Apple later said they could not pinpoint any specific attacker.

Mercenary Spyware Attacks

- **About:** Mercenary spyware attacks are highly complex, targeting specific individuals with exceptional resources, surpassing regular cybercriminal activity and consumer malware.
 - They are difficult to detect and prevent due to their substantial investment and **short lifespan**.
 - These attacks represent some of the most sophisticated digital threats globally, prompting Apple to abstain from assigning them to specific attackers or regions.
- **Aim:** Mercenary spyware is designed to remotely infiltrate and compromise smartphones and other devices without the knowledge or consent of the users.
 - These surveillance tools could be used to monitor movements and communications, steal private data, etc.
 - In some cases, governments, intelligence agencies, and law enforcement bodies have reportedly bought mercenary spyware wherein political opponents and activists are often targeted.
- **Examples:** Companies producing mercenary spyware include the NSO Group, FinFisher, and Hacking Team.
 - NSO Group's flagship spyware Pegasus helps infiltrate devices remotely and access calls, emails, messages, and other files.
 - Finfisher's products like FinSpy can capture keystrokes and access data besides activating microphones and cameras without permission.
 - Hacking Team's Galileo aka Remote Control System (RCS) also can capture keystrokes and record video calls besides accessing the camera and microphone.



Pegasus Spyware

- It is developed by Israel's NSO Group. The spyware suite is designed to access any smartphone through **zero-click vulnerabilities** remotely.
- Once a phone is infiltrated, the spyware can access entire data on that particular phone.
- It also has real-time access to emails, texts, phone calls, as well as the camera and sound recording capabilities of the smartphone.

Zero-click Exploit

- **About**

- A zero-click exploit refers to malicious installed on a device without the device owner's consent.
- More importantly, it does not require the device owner to perform any actions to initiate or complete the installation.
- **Specific exploit used in the present case involving Indian journalists**
 - It is called **BLASTPAST** (previously identified as BLASTPASS). It plays out in two phases.
 - In the first, the attack attempts to establish a link with the Apple HomeKit - which gives users a way to control multiple smart devices - on the target's device.
 - The purpose of the first phase could be to determine how the device can be exploited or to keep it in sight for further exploitation in the future.
 - In the second, some malicious content is sent via the iMessage app to the target.
 - This phase delivers the full spyware payload.

New Army Division With A Focus On Eastern Ladakh

- The govt is planning to create a new **Army** division for possible deployment of troops to **eastern Ladakh** this year. This is part of some changes being made for Jammu and Kashmir (J&K) and the Ladakh area.
- This is significant as India is commemorating the 40th year of Operation Meghdoot, under which it took control of the Siachen Glacier.

Key Highlights: News Army Division

- **Creation of 72 Division**
 - The Army is considering raising the **72 Division** for possible deployment in eastern Ladakh under the Northern Command.
 - The 72 Division was to originally function under the **17 Mountain Strike Corps (MSC)** based in Panagarh (West Bengal).
 - A division has approximately 14,000 to 15,000 troops.
- **Restructuring of Army corps in the backdrop of the military standoff with China**
 - Currently, the Army has **4 strike corps**:

Operation Meghdoot

- It was the code name for a military operation conducted by the Indian Armed Forces on 13 April 1984.
- Its objective was to secure control over the strategically important **Siachen Glacier** in the eastern Karakoram Range of the Himalayas, located in Kashmir.
- The operation involved Indian troops airlifting to key positions along the glacier and establishing military posts to prevent Pakistan from gaining control over the area.
 - On April 13, 1984, a fleet of Indian Air Force (IAF) helicopters flew an Indian Army platoon, **one soldier at a time**, to the Bilafondla Pass on the Saltoro Ridge, towering over the Siachen Glacier at an altitude of 5,450 metres (17,880 ft).
 - Simultaneously, a platoon of Ladakh Scouts was airlifted to Sia La, in the northern glacier, at an altitude of 5,589 metres (18,336 ft).
 - Soon, about 300-odd Indian troops were positioned on the strategically important peaks and passes of the Saltoro Ridge.
- The operation was successful in achieving its objectives, and India has since maintained a military presence in the Siachen Glacier region.
 - This is seen as India's bold military response to what New Delhi calls Pakistan's aggression in the uncharted territory of Ladakh, north of map reference NJ9842.
 - Both New Delhi and Islamabad had agreed that the Line of Control (LoC) stopped at point NJ9842 on the map.
 - Beyond this was an uncharted territory and Pakistan wanted to occupy this region to gain strategic advantage which was thwarted by India.

Mathura-based 1 Corps

Ambala-based 2 Corps

Bhopal-based 21 Corps

17 MSC in Panagarh

- However, till 2021, only the 17 MSC was focused on China. The other three were focused on Pakistan.
- But in the backdrop of the military standoff with China which began in 2020, a restructuring was carried out in 2021 to keep **2 of the strike corps** for the mountains facing China.
- ✓ The 1 Corps and 17 Corps were restructured to focus on the northern and eastern borders to tackle Chinese threats.

- **Part of 2-pronged strategy**

- This decision is part of overall redeployment changes being planned in the Northern Command, with a **two-pronged strategy** focused on:
 - eastern Ladakh amid the standoff along the LAC with China, and
 - on ensuring no gap in training of strike corps elements.

India Successfully Tests New-Gen N-Capable Agni-Prime Missile

- India successfully tested the new generation *nuclear capable* Agni-Prime ballistic missile.
- The 'Agni Prime' or 'Agni-P' is an advanced variant of the Agni class of missiles. It is a two-stage canisterised missile with a maximum range of 1,000 to 2,000 km.
- Since the missile is canisterised, it can be transported by road and rail and stored for longer periods, significantly reducing the time required for preparation and launch.
- The 'Agni Prime' missile is lighter than all the earlier Agni series of missiles.
 - It weighs at least 50% less than Agni 3 missile & has new guidance & propulsion systems.

Army Inducts Indigenous Akashteer System

- The Army has started the induction of control and reporting systems under 'Project Akashteer' to bolster its air defence capabilities.
- The automated **air defence control and reporting system** has been prepared by Bharat Electronics Limited (BEL).
- It will enable the army to monitor low-level airspace over battle areas and effectively control the ground-based air defence weapon systems.
- It will enhance the operational efficiency and integration of the army's air defence mechanisms by digitising the entire process.

India's Defence Exports Crossed All-Time High

- Defence exports have touched a record Rs 21,083 crore (approx. US\$ 2.63 Billion) in the Financial Year (FY) 2023-24, a growth of 32.5% over the last fiscal when the figure was Rs 15,920 crore.
- The defence Industry, including the private sector and Defence Public Sector Undertakings (DPSUs), have made tremendous efforts in achieving the highest-ever defence exports.
- The private sector and the DPSUs have contributed about 60% and 40% respectively.
- The remarkable growth has been achieved due to the policy reforms and 'Ease of Doing Business' initiatives brought in by the Government, in addition to the end-to-end digital solution provided to the Indian industries for promoting defence exports.

All-weather Road Gives A Strategic Fillip To Ladakh

- The Nimmu-Padam-Darcha road is the first all-weather road that will connect Ladakh to the rest of India.
- This road allows surface movement from Leh to Lahaul-Spiti through the world's highest tunnel at Shinku La Pass at 16,580 feet, which is under construction.
- The road is under construction and is expected to be completed by 2025.

- The road is strategic for the Indian Army as it is set back from the international border and can facilitate safe troop movements.
- It will also reduce reliance on aerial routes during winters when the Manali-Leh highway remains closed. The road is estimated to reduce travel time from Manali to Leh from 14-16 hours to 10-12 hours.

India 4th Largest Military Spender In 2023: SIPRI

- With military expenditure worth \$83.6 billion in 2023, India was the fourth largest spender globally in 2023.
 - This was a result of growing personnel and operations costs that comprised about 80 per cent of the total military budget.
- This has been revealed by the latest report by Stockholm International Peace Research Institute (SIPRI).
- The latest data showed that the United States, China and Russia remained the top three military spenders globally followed by India and Saudi Arabia.

ENVIRONMENT AND GEOGRAPHY

Green Credit Programme (GCP)

Amid concerns that the GCP may encourage tree planting for financial gains, the MoEFCC has issued *guidelines that States must rely on to calculate what it would cost to restore a degraded forest landscape.*

- **The Ministry has changed the earlier requirement** that there be a minimum of 1,100 trees per hectare to qualify as *reforested landscape* and left it to **States** to specify them.

What Is Green Credit Programme (GCP)

- Green Credit Initiative was launched by Indian PM on the side-lines of **COP 28** (held in 2023, Dubai, United Arab Emirates).
- It is an initiative within the government's **Lifestyle for Environment (LiFE) movement**.
 - The concept of LiFE was introduced by the Indian PM at COP26 (Glasgow) in 2021, to drive an international mass movement towards “**mindful and deliberate utilisation**” to protect and preserve the environment.
- **GCP introduces a market-based approach** to incentivise 8 identified environmental activities.
- The main objective was to establish a mechanism where **participants could earn incentives in the form of ‘Green Credits’**.
- The proposed GCP will be implemented in phases, with the **initial phase** focusing on **water management and afforestation**.
- **Subsequent phases** will cover activities such as

Sustainable agriculture

Waste management

Air pollution reduction

Mangrove conservation and restoration

Eco mark label development

Sustainable building and infrastructure

What Are Green Credit Rules, 2023?

- These rules were notified on 12th October 2023 under **the Environment Protection Act 1986**.
- These rules **put in place a mechanism to encourage voluntary environmental positive actions** resulting in issuance of green credits.
- **In its initial phase**, voluntary tree plantation is envisaged on degraded land, waste land, watershed area, etc., under the control and management of Forest departments.

Implementation of the GCP

- So far, forest departments of 13 States have offered 387 land parcels of degraded forest land - worth nearly 10,983 hectares.
- **Individuals and companies can apply** to the Indian Council of Forestry Research and Education (ICFRE) - an autonomous body of the MoEFCC, **to pay to restore these forests**.
 - **The actual afforestation will be carried out by State Forest departments.**
- Two years after planting and following an evaluation by the ICFRE, each such planted tree could be worth **one ‘green credit.’**
- These credits can be claimed by the financing organisation and **used in two ways**:
 - **Either using it to comply with existing forest laws** that require organisations, which divert forest land for non-forestry purposes, to compensate by providing an equivalent amount of land elsewhere.
 - Or be used **for reporting** under environmental, social and governance leadership norms or to meet corporate social responsibility(CSR) requirements.

Concerns Regarding the GCP

According to sources, **the green credits were not tradeable.**

- However, the notified 2023 rules of the GCP says that the programme aims to **incentivise environmental positive actions through market-based mechanisms.**
- **Green credit shall be tradable** and made available for trading on a domestic market platform.
- It adds that if generating green credits led to measurably reducing or removing carbon emissions, it could also be used to get **carbon credits**, which are currently traded via several other independent markets.

How Invasive Species Threaten Natural Ecosystems?

Andaman & Nicobar Islands administration has sought help from Wildlife Institute of India (WII) to tackle the teeming population of Chital (Spotted Deer) in Ross Island.

Is Chital an IAS

Wildlife Protection Act 1972 defines IAS as a species which is **not native to India**. This leaves out species within India which might be invasive to a particular region like the Chital in Andamans. Chitals, native to mainland India, are protected in India and were introduced there by the British in early 20th century. Having no natural predators or competitors and being good swimmers- Chitals spread swiftly across the Andamans.

What are Invasive Alien Species (IAS)?

Convention on Biological Diversity (CBD) defines IAS as the species which on introduction (either naturally or through human intervention)-*thrive and survive* outside their natural habitat and threaten biological diversity by edging out native species in competition over resources. African catfish, Nile tilapia, red-bellied piranha, alligator gar, red-eared slider (turtle species) are some IAS in India.

Impact of IAS on Native Flora And Fauna

IAS disrupt the food chain and the ecosystem balance. In habitats where there is no competition, they can dominate the entire ecosystem. For example, in Keoladeo National Park, the African catfish preys on water fowls as well as migratory birds. Proliferation of Chital in Andamans has affected the regeneration of native vegetation, as they consume seeds and seedlings.

Afar Triangle/Depression

Geologists have found that the African continent's rift in the Afar Triangle could lead to the formation of a new ocean in 5 to 10 million years.

About Afar Triangle (Located in the Horn of Africa)

Geographical Location

- Spans across parts of Ethiopia, Eritrea, and Djibouti, with its lowest point lying below sea level. It is situated where three tectonic plates (Nubian, Somali, and Arabian) meet, forming part of the Great Rift Valley system that stretches across East Africa.

Geological Significance

- The convergence of three tectonic plates results in significant tectonic activity, including volcanic eruptions, earthquakes, and the formation of new crust. This junction is vital for understanding the dynamics of plate tectonics and continental drift.
- The Afar Triangle holds a rich paleontological history, disclosing fossil specimens of some of the earliest hominins. Radiometric dating of underlying volcanic rocks placed Lucy's age at 3.2 million years old. One of the few places on Earth where a mid-ocean ridge can be studied on land, Iceland being the other.

Link With Formation Of New Ocean

- Over millions of years (estimates range from 5 to 10 million), this ongoing rifting and seafloor spreading are expected to widen the gap between the plates significantly.

- Eventually, the Red Sea will breach the land barrier and flood the Afar Depression, creating a new ocean basin potentially as large as the Red Sea today.
- This new body of water would effectively split the Horn of Africa from the rest of the continent.

Notable Features of Afar Triangle

- **Danakil Depression:** Within the Afar Triangle lies the Danakil Depression, characterized by its extreme heat and barren landscapes. It includes the Danakil Desert and salt flats, which form one of the lowest and hottest places on Earth.
 - ✓ The lowest point in Africa lies here: Lake Assal in Djibouti, at 155 meters (509 feet) below sea level.
- **Volcanic Activity:** The region is home to several active volcanoes, including Erta Ale, known for its persistent lava lake, and Dallol, renowned for its colorful hydrothermal fields.
- **Salt Flats:** The salt flats of the Danakil Depression are famous for their vast expanses of salt, which have been harvested by local communities for centuries.
- **Climate:** The Afar Triangle experiences a harsh desert climate, with temperatures often exceeding 40 degrees Celsius (104 degrees Fahrenheit).
- **Human Presence:** Despite its harsh environment, the Afar Triangle is inhabited by the Afar people, who have adapted to the challenging conditions over generations. They engage in pastoralism, salt mining, and trade, utilizing the resources of the region for their livelihoods.
- **Scientific Research:** The unique geological features and tectonic activity of the Afar Triangle make it a hotspot for scientific research.

INTERACT

INTERACT research stations in the Arctic observed that more than 1,000 billion Tonnes of ice have been lost in the past four decades.

About INTERACT (International Network for Terrestrial Research and Monitoring in the Arctic)

- INTERACT is an infrastructure project under the auspices of SCANNET, an arctic network of 74 terrestrial field bases in northern Europe, Russia, US, Canada, Greenland, Iceland, the Faroe Islands and Scotland as well as stations in northern alpine areas.
- It is a crucial network for studying environmental changes in the Arctic.
- INTERACT is pan-Arctic, multidisciplinary (Glaciology, Climate change, Ecology & Biogeochemical cycling) and crosses all domains by linking to forest, coastal, marine & atmospheric communities.

Carbon Fibre

India plans to produce carbon fibre in response to EU carbon tax.

About Carbon fibre (graphite fiber)

- It is thin but a strong, lightweight material composed primarily of carbon atoms. It is about 5-10 micrometers in diameter, which is about 5 to 10 times thinner than a human hair.
- **Properties:** High strength-to-weight ratio; High stiffness; High chemical resistance; High-temperature tolerance and Low thermal expansion.
- **Applications:** Aerospace; Automotive; Civil engineering; Military and Consumer goods.

NICES PROGRAM

NICES program is inviting Indian researchers to join in combating climate change.

About NICES (National Information System for Climate and Environment Studies)

- NICES was established in 2012 and operated by the ISRO and the Department of Space (DoS) along with other ministries and institutions under the framework of the National Action Plan on Climate Change (NAPCC).
- It has been functioning under the overall guidance of NICES-Programme Management Council (PMC) under the Chairmanship of Director, NRSC (National Remote Sensing Center).
- NICES has built an information base with more than 64 geophysical variables pertaining to land, ocean and atmosphere; the information is being regularly disseminated through a NICES portal developed over Bhuvan, a geo-portal of ISRO.
- It was established with the active involvement of existing programmes of ISRO viz., ISRO Geosphere-Biosphere Programme (IGBP), EO (Earth Observation) applications in environmental studies.

Objectives

- To create a national database on climate and environmental factors using information from Indian and international Earth Observation (EO) satellites.
- Generation of spatial & temporal blended ECV products based on Indian and foreign satellites and in situ observations through multi-institutional participation.

This data will be used to assess the impact of climate change and develop mitigation strategies.

Key Areas : Space-based ECVs (Essential Climate Variables) and Climate Indicators, Climate Change Challenges, Weather Extremes, Climate Services, etc.

Clean Energy Transition Programme

The International Energy Agency (IEA) launched the Clean Energy Transitions Programme (CETP) annual report 2023.

- ✓ IEA is an autonomous inter-governmental organisation within the OECD framework. It was founded in 1974 to ensure the security of oil supplies (on the backdrop of the 1973-1974 oil crisis). India became an associate member of IEA in 2017.

About CETP (IEA's flagship programme launched in 2017)

What is the CETP & it's Report?

- It aims at accelerating progress toward a global **net-zero energy system**.
- It leverages the insights and influence of the world's leading energy authority to accelerate clean energy transitions, particularly in emerging and developing economies.
- CETP Builds upon existing IEA collaborations with major emerging economies, including the Energy Efficiency in Emerging Economies (E4) programme, the Grid Integration of Variable Renewables (GIVAR) programme

What Does CETP do? (Three Pillars of Activity)

1. **Setting Transition Goals:** assists emerging and developing countries in establishing clean energy transition goals aligned with the Paris Agreement and UN Sustainable Development Goals (SDGs 7: Affordable and clean energy).
2. **Multilateral Coordination:** facilitates collaboration among organizations like the Group of 20 (G20) and UN-affiliated bodies.
3. **Global-Level Support:** enables and accelerates clean energy transitions globally.

India & CETP

The CETP aims to support countries in turn commitments into practical actions that decouple growth from growth in greenhouse gas emissions.

- India has announced Achieving the target of net zero emissions by 2070 in Glasgow summit (COP 26 of UNFCCC) under 'Panchamrit Pledge (Five Vows)'.
- CETP does policy support for incentivising rooftop PV in collaboration with Ministry of New & Renewable Energy (MNRE).
- It also works with MNRE and Niti Aayog on bioenergy and biofuels.

SWELL WAVES

Recently, Swell waves locally known as Kallakkadal have inundated coastal areas in central and southern districts of Kerala.

About SWELL WAVES (occurs when the ocean surges into the land, causing flooding in coastal area)

- Swell waves are ocean surface waves that have traveled long distances (Long wavelength with Smoother appearance) across the open ocean, originating from distant storms or wind patterns.
- These waves can carry a considerable amount of energy and can travel thousands of kilometers without losing their power (Less affected by local winds).

Factors Influencing Swell Waves in Kerala

Monsoon Seasons; Ocean Currents; Wind Patterns and Topography are the main factors which influence the formation and propagation of swell waves along the Kerala coastline.

Mitigation and Adaptation Strategies

- Early warning systems like the Swell Surge Forecast System launched by the Indian National Centre for Ocean Information Services (INCOIS) gives forewarning seven days in advance.

Why is Kallakkadal Different From Tsunami?

- Kallakkadal came in the news after the 2004 tsunami that killed more than 10,000 people.
- However, Kallakkadal is often mistaken to be a tsunami, which is a series of enormous waves created by an underwater disturbance usually associated with earthquakes occurring below or near the ocean.
- Usually, Kallakkadal is a consequence of the strong winds in the southern part of the Indian Ocean, where an ocean swell is generated, and the waves then travel north to reach the coast in two or three days.

Plankton Crash

The panel formed by the National Green Tribunal (NGT) to probe the cause of the sea turning red in Puducherry in 2023 has attributed the phenomenon to plankton crash.

About Plankton Crash

- Plankton crash refers to a significant decline in the population of planktonic organisms in a marine or freshwater ecosystem.
- A plankton crash can have profound ecological consequences, affecting marine biodiversity, fisheries, and the health of entire ecosystems.
 - ✓ Plankton are microscopic organisms that play a crucial role in marine food webs, serving as primary producers and forming the base of the marine food chain.

Causes of Plankton Crash	Consequences of Plankton Crash
<p>1) Environmental changes: sea surface temperature, salinity, pH, and dissolved oxygen were found conducive to the proliferation of this species.</p> <p>2) Nutrient Imbalance: Excessive nutrient input, often from agriculture runoff or wastewater discharge, can lead to eutrophication which can ultimately result in oxygen depletion and harmful algal blooms, leading to a crash in plankton populations.</p> <p>3) Predation Pressure: Increased predation pressure from zooplankton grazers, fish, or other marine organisms can reduce plankton abundance.</p> <p>4) Ocean Acidification: Rising levels of atmospheric carbon dioxide can lead to ocean acidification, which can negatively impact plankton species</p>	<p>1) Impact on Food Webs: A plankton crash can disrupt the entire food web, affecting the abundance and distribution of fish, marine mammals, and seabirds that rely on plankton as a food source.</p> <p>2) Harmful Algal Blooms: In some cases, a plankton crash can trigger the proliferation of harmful algal blooms (HABs), which can release toxins into the water and pose serious threats to human health, marine life, and coastal ecosystems.</p> <p>3) Carbon Cycling: A decline in plankton populations could disrupt this important carbon sequestration process, potentially exacerbating climate change.</p>

Gape Limitation

In ecology, gape limitation refers to the constraint imposed on an organism's feeding ability that an animal's mouth size places on the size of its prey.

- Predators can only eat prey that will fit into their mouths. This plays a significant role in predator-prey interactions and shapes the dynamics of ecosystems.
- **Examples:** Fish Predation, Snakes and Lizards, Birds

Consequences of Gape Limitation

- Limiting Prey Size: restricts the maximum size of prey it can capture, handle, and swallow
- Impact on Feeding Strategy: can influence how a predator forages for food.
- Evolutionary Pressures: can drive evolutionary adaptations in both predators and prey.

Honeycomb Clouds

Scientists have observed that honeycomb-shaped clouds are the reason for having the cleanest air on Earth

About Honeycomb Clouds (or Altocumulus Clouds)

- They are a type of cloud formation characterized by a distinctive pattern of small, regularly spaced, and interconnected cloud cells resembling the hexagonal shape of a honeycomb.
- These clouds typically occur at middle altitudes, ranging from 2,000 to 6,000 meters above sea level, and are composed of water droplets or ice crystals.

Characteristics (Best observed from satellites)

- Size: ranging from 20 to 60 kilometers (12 to 37 miles) in diameter.
- Can appear as open or closed cells. Open cells look like clear centers surrounded by cloud edges, while closed cells appear completely filled with clouds.
- Play a role in regulating Earth's temperature.
- Helps to understand air-sea interaction and improve weather forecasting models.

Bactolime, Bactogypsum, and Trichogypsum

The Indian Institute of Spices Research (IISR), Kozhikode has developed three new Microbials Bactolime, Bactogypsum, and Trichogypsum to improve agricultural productivity for farmers.

About Three Microbials

- Bactolime (Bacteria + Lime) attaches beneficial bacteria with liming material to address soil pH issues and deliver microorganisms beneficial for plant growth. It's applied in agriculture to boost crop growth and in remediation projects to clean up contaminated soil and water.
- Bactogypsum (gypsum and bacteria) and Trichogypsum work to balance soil pH to a neutral level boosting the establishment of beneficial microbes, thereby improving soil quality and nutrient availability.
 - ✓ Trichogypsum, a byproduct of coal-fired power plants, provides calcium and sulfur for soil amendment.
 - ✓ Gypsum, a naturally occurring mineral composed of calcium sulfate dihydrate, serves several important purposes in agriculture like Soil pH Adjustment; Aluminum Toxicity Reduction In acidic soils; essential nutrient source etc.

Baobab Trees

Global Society for the Preservation of Baobabs and Mangroves (GSPBM) has launched an initiative to revive Madagascar's iconic baobab trees.

About Baobab Tree (or Adansonia Tree: Icons of the African Landscape)

- They are a genus of medium-to-large deciduous trees that are native to Africa, Australia, and Madagascar. They are also known as boab, boaboa, tabaldi, bottle tree, and monkey bread tree.
- Baobabs can grow to be over 100 feet tall and live up to 3,000 years.
- These trees are famous for their massive trunks that resemble upside-down trees and exceptional longevity. These trunks can store vast quantities of water, allowing them to thrive in dry savanna environments.



** Madhya Pradesh government has decided that the forest department cannot give permission to translocate Dhar's famed Baobab trees. Also, MP government have applied for GI tags for same.

Significance of Baobab Tree

Cultural	Ecological	Economic
They are often referred to as " <u>the tree of life</u> " for their ability to provide food, water, shelter, and medicinal resources to both humans and wildlife during harsh environmental conditions.	Their large, hollow trunks can store thousands of liters of water, serving as reservoirs during the dry season and providing sustenance to wildlife and local communities.	Various parts of the baobab tree are utilized for economic purposes by local communities across Africa. The fruit, leaves, bark, and seeds are harvested for food, traditional medicine, crafts, and commercial products.

Volcanic Vortex Rings

Recently the phenomenon of Volcanic Vortex Rings has appeared with Mount Etna, one of the most active volcanoes in the world.

About the Volcanic Vortex Rings (volcanic smoke rings or volcanic toroidal vortices)

- They are mesmerizing atmospheric natural phenomena observed during volcanic eruptions.

- **Formation:** These rings are formed when a burst of gas or ash is expelled from a volcanic vent in a circular or toroidal pattern, creating a visible ring-shaped structure that can persist for several minutes or even hours.
- **Significance:** Volcanic vortex rings provide valuable insights into the complex dynamics of fluid flow, turbulence, and vortex formation in volcanic plumes and atmospheric environments.
- Volcanic vortex rings serve as powerful educational tools for raising awareness about volcanic processes, natural hazards, and the importance of volcano monitoring and research.

Mount Etna (a UNESCO World Heritage Site since 2013)

- An active volcano on the east coast of Sicily, the largest island in the Mediterranean Sea.
- It is Europe's largest and one of the most active volcanoes.
- It is in almost constant activity, and has seen, since the year 1600, at least 60 flank eruptions

Sustainable Hydrogel

Researchers at the Indian Institute of Science (IISc) have designed a sustainable hydrogel that can effectively remove microplastics from water.

About Sustainable Hydrogel

- It's composed of three different natural polymers (renewable sources such as cellulose, starch, chitosan, or alginate.) that creates a special intertwined network. This network allows the hydrogel to bind to microplastics in the water.
- It can also degrade microplastics using UV light irradiation. After reaching their capacity for microplastic removal, they can be regenerated and used again.
- Sustainable hydrogel synthesis follows green chemistry principles, minimizing the use of toxic solvents, reducing energy consumption, and generating minimal waste.
- They can be employed for environmental remediation purposes, such as soil stabilization, erosion control, and pollutant sequestration.

Ringwoodite

Geologists have found a gigantic reservoir of water *700 km beneath* the planet's surface in a rock known as ringwoodite, which is triple the volume of all the planet's surface oceans combined.

About Ringwoodite (Water Rich Mineral composed mainly of magnesium, iron, silicon, and oxygen)

- A high-pressure polymorph of olivine or magnesium silicate (Mg_2SiO_4) formed at high temperatures and pressures of the Earth's mantle between 525 and 660-kilometers depth.
 - ✓ Ringwoodite's unique properties allow it to trap water like a sponge.
- Its Thought to be the most abundant mineral phase in the lower part of Earth's transition zone, a zone between the upper and lower mantle. (Where pressures and temperatures are high enough to induce the transformation of olivine into ringwoodite.)

Implications for Earth's Water Cycle

- The presence of water in the mantle has important implications for processes such as mantle convection, magma generation, and the recycling of water between the mantle and the Earth's surface through processes like subduction.

Science Based Targets initiative (SBTi)

Recently SBTi has suffered through serious Criticisms over declaration of allowing companies to utilize carbon offsets to fulfill their climate commitments.

About SBTi (Established in 2015)

- It is a non-profit organization that works with companies & financial institutions to set ambitious greenhouse gas (GHGs) emissions reduction targets aligned with the latest climate science. (Particularly the goals outlined in the *Paris Climate Agreement, 2015.*)
- It's a collaborative effort between four organizations (formerly the Carbon Disclosure Project), The United Nations Global Compact, World Resources Institute (WRI), World Wide Fund for Nature (WWF).
- SBTi's goal is to help the global economy halve emissions by 2030 & achieve net-zero by 2050.

Carbon Offsets

- It is a mechanism for compensating for carbon dioxide (CO₂) emissions by supporting projects that reduce or remove greenhouse gas emissions elsewhere.
- Carbon offset projects can take various forms, including renewable energy projects like wind or solar farms, reforestation efforts, methane capture at landfills or agricultural facilities, or energy efficiency initiatives.
- The idea is to quantify the amount of carbon dioxide or its equivalent (in CO₂e) that a project reduces or removes from the atmosphere, and then issue carbon credits based on that reduction. These credits can then be bought and sold on carbon markets.

Global Forest Watch

Global forest watch in recent report predicted that India lost 2.33 million hectares of tree cover since 2000.

About Global Forest Watch (an online Platform & Anyone can explore GFW's data and maps)

- GFW offers a wide range of data sets on forests, including types of forest cover, tree cover loss and gain statistics, and information on protected areas.
- It is a collaborative effort led by the World Resources Institute (WRI), with partners like Google, USAID, and universities.
- GFW uses satellite data and advanced technology to monitor forests in near real-time It Acts as an early warning system for potential deforestation.
- Five states (all are North-Eastern States) accounted for 60% of all tree cover loss between 2001 and 2023. Assam experienced the highest tree cover loss at 324,000 hectares (compared to an average of 66,600 hectares).
- Mizoram, Arunachal Pradesh, Nagaland, and Manipur also lost tree cover significantly.
 - ✓ As per the recent in ISFR (India State of Forest Report) 2021, India's total forest and tree cover stands for 24.62% of the country's geographical area.

Global Alliance for Incinerator Alternatives (GAIA) Asia Pacific

The Global Alliance for Incinerator Alternatives (GAIA) Asia Pacific has called on the Association of Southeast Asian Nations (ASEAN) to take decisive action in response to plastic pollution ahead of the Intergovernmental Negotiating Committee (INC-4) session.

About GAIA

- GAIA is a worldwide alliance of more than 1,000 grassroots groups, non-governmental organizations, and individuals in over 90 countries.
- It Works to prevent the construction of new incinerators and advocates for the closure of existing ones. It has four primary points of intervention: incineration, zero waste, plastic, and climate.
 - ✓ **Incineration** is a waste management process that involves the combustion of solid, liquid, or gaseous waste materials at high temperatures. However, Incineration releases various pollutants into the atmosphere, including particulate matter (PM), heavy metals, dioxins, and volatile organic compounds (VOC).
- It Champions zero waste strategies, aim to eliminate waste generation through practices like recycling, composting, and product reuse reducing reliance on incineration and landfills.
- It Works to reduce plastic use and promote plastic waste management solutions that don't involve incineration.


Paro Statement






The Sustainable Finance for Tiger Landscapes (SFTL) Conference held in Paro, Bhutan concluded with Paro Statement.





About Paro Statement

- It Refers to an international commitment focused on tiger conservation, with an aim to raise an additional \$1 billion over the next decade (by 2034).
 - ✓ Over the last 10 years, the global tiger population has rebounded from a historic low of around 3,200 tigers to some 5,500 tigers in the wild.
 - ✓ As per Tiger Census 2022, India currently harbors 3682 Tigers (almost 75% of the world's wild tiger population).
- Signatories: Ten Tiger Range Countries, including Bangladesh, Bhutan, Cambodia, China, India, Kazakhstan, Malaysia, Nepal, Thailand, and Vietnam
- Focus Areas: Increasing tiger populations in the wild, expanding tiger habitats and their ecological health, supporting communities living alongside tigers.
- It also recognized the importance of targeted species conservation to achieving the ambition of the Kunming-Montreal Global Biodiversity Framework to address biodiversity loss & extinctions by 2030.

Species in News

1.	Bugun Liocichla 	<ul style="list-style-type: none">• The Bugun tribe in Arunachal Pradesh donated 1,470 hectares of forest land to the state forest department for the protection of the critically endangered songbird Bugun Liocichla.• The bird is small babbler with olive-grey plumage, a black cap, and a yellow-orange eyebrow.• IUCN status: Critically endangered
2.	Right Whales	<ul style="list-style-type: none">• North Atlantic right whales face a grave threat due to entanglement in fishing gear, contributing to their critically endangered status.• Right whales inhabit temperate and sub-polar waters of the North Atlantic, North Pacific, and Southern Hemisphere.

		<ul style="list-style-type: none"> • They are often found in coastal areas during their feeding and breeding seasons but may migrate over long distances. • IUCN status: <ul style="list-style-type: none"> ○ Southern Right Whales (Least Concern), ○ North Atlantic Right Whales (Critically Endangered) ○ North Pacific Right Whales (Endangered).
3.	Gyps Vulture 	<ul style="list-style-type: none"> • Moyar valley is the biggest nesting colony of critically endangered Gyps vultures in the wild. • Gyps vultures, including the White-rumped Vulture, Indian Vulture and Slender-billed Vulture have faced rapid population declines since the mid-1990s in India. • Endemic to South Asia and play a crucial role in the ecosystem by scavenging carcasses. • IUCN status: Critically Endangered
4.	Butterfly Cicada 	<ul style="list-style-type: none"> • A new species of cicada, informally named the “Butterfly Cicada,” has been discovered in Meghalaya, marking the first-ever record of the genus <i>Becquartina</i> in India. • Genus <i>Becquartina</i> is represented by six species found distributed in China, Thailand, and Vietnam, often referred to as “Butterfly cicadas” due to their colourful wings. • Stout, green or brown in colour with black markings, and have four clear wings that resemble a fly.
5.	Pelagia noctiluca 	<ul style="list-style-type: none"> • <i>Pelagia noctiluca</i> a venomous specie of jellyfish was reported by marine researchers across the Visakhapatnam coast • These are bioluminescent, having an ability to produce light in the dark. • Venomous jellyfish blooms have in the past been known to have caused massive damage to the fishing industry and impacted tourism. • It is mainly found in the Indo-Pacific, Atlantic Ocean, and the Mediterranean Sea.
6.	Cicadas 	<ul style="list-style-type: none"> • Trillion cicadas from two different broods are expected to begin appearing in the Midwest and Southeast regions of the United States at the end of April. • Cicadas are insects and members of the superfamily Cicadoidea. • Cicadas have prominent eyes set wide apart, short antennae, and membranous front wings. • Cicadas are found in tropical and temperate areas worldwide and occur in deserts, grasslands, and forests.
7.	Spotted Deer	<ul style="list-style-type: none"> • The spotted deer, or chital/ cheetal is a deer species native to the Indian subcontinent. • It is widely distributed in Asia, especially in India, Sri Lanka, Bangladesh, Bhutan, and a small group in Pakistan.

		<ul style="list-style-type: none"> • Characterized by their reddish-brown coat with white spots, which gives them their name. • Medium-sized herbivores, typically weighing between 50 to 100 kilograms. • IUCN status: Least concern
<p>8.</p>	<p>Eurasian Otter</p> 	<ul style="list-style-type: none"> • The first Eurasian otter in India was radio-tagged in the Satpura Tiger Reserve (STR) in Madhya Pradesh. • Elusive solitary otter species , • Habitat: Asia, Africa and Europe, India- Southern, Eastern and North Eastern • IUCN status: Nearly Threatened
<p>9.</p>	<p>Wild Bluebells</p> 	<ul style="list-style-type: none"> • Wild Bluebells have bloomed in the Hallerbos, a forest near the Belgian city of Halle, near Brussels in Belgium. • A perennial flowering plant that is native to Europe and Western Asia • A member of the Asparagaceae family and is closely related to other members of the Hyacinthoides genus • Attractive to pollinators and is a popular nectar source for bees, butterflies, and other insects. • Used to treat a variety of ailments, including respiratory problems and skin irritation.
<p>10.</p>	<p>Slender Lori's</p> 	<ul style="list-style-type: none"> • A Gray Slender Loris was rescued by forest officials in North Goa. • A small primate native to India and Sri Lanka that lives in subtropical and tropical forests. • Gray slender lorises are nocturnal hunters and foragers that use their large, forward-facing eyes to detect prey. • They are insectivores that eat mostly ants and termites, but also eat beetles, spiders, mollusks, and other small vertebrates. • IUCN status: Endangered

White Rabbit Collaboration

CERN (the European Organization for Nuclear Research) has launched the White Rabbit Collaboration.

White Rabbit Collaboration

- It is a **global community** formed in 2024 to support & develop the White Rabbit (WR) technology.
- The WR Collaboration will provide dedicated support & training, facilitate R&D projects between entities with common interests and complementary expertise. It establishes a testing ecosystem fostering trust in products that incorporate the open-source technology.
- **Membership:** Research institutions, companies, and individuals
- **Benefits of Collaboration:** Faster Innovation (Maintains high-performance open-source WR core technology), Industry Adoption, Standardization

White Rabbit (WR) Technology

- WR is an **open-source** timing technology which has applications far beyond **particle physics**.
- Its aim is to synchronise devices in the accelerators down to **sub-nanoseconds** and solve the challenge of establishing a common notion of time across a network.
- First used in 2012, the application of this fully open-source technology has quickly expanded outside the field of particle physics.
- In 2020, it was included in the worldwide industry standard known as *Precision Time Protocol (PTP)*, governed by the Institute of Electrical and Electronics Engineers (IEEE).
- White Rabbit is used in the finance sector as well as in many research infrastructures, and it is currently being evaluated for application in the future quantum internet.

X- CLASS SOLAR FLARE

Recently Earth was hit by an X-class solar flare that was strong enough to ionize part of the planet's atmosphere.

About X-class Solar Flare

- An X-class solar flare is the most powerful explosion in our solar system, releasing tremendous energy in the form of electromagnetic radiation and charged particles.
 - ✓ Solar flares are classified by their strength: 1) B-class: The smallest; 2) C-class; 3) M-class and 4) X-class: The largest (Similar to the Richter scale, each step up on the ladder represents a ten-time increase in energy output.)
 - ✓ Solar flares are sudden eruptions of energy on the Sun's surface that release vast amounts of electromagnetic radiation, including X-rays and ultraviolet light and charged particles

Characteristics of X-Class Solar Flares and Their Impact on Earth

- **Highest Intensity & Communication Disruptions:** They can disrupt radio communications (Mainly High Frequency). This interference can affect aviation, maritime, and military communications.
- **Geomagnetic storms of X Flares & Power Grid Vulnerability:** They can induce electrical currents in power grids, potentially causing transformers to overload & lead to widespread blackouts.
- **X-Ray Emission & Satellite Damage:** The increased radiation from X-class flares can damage satellite electronics, affecting navigation systems, weather forecasting, and telecommunications.

- **Geomagnetic Storms & Auroras:** X-class solar flares often trigger geomagnetic storms when they interact with the Earth's magnetosphere which causes auroras (northern and southern lights)

Ozone on Callisto

An international team of scientists, including from India, has discovered evidence indicating the presence of ozone on **Jupiter's moon Callisto**.

- ✓ This discovery is consistent with observations made by the Hubble Space Telescope in 1997, which indicated the existence of sulfur dioxide and ozone on Callisto.

About the study

- The study reveals the chemical evolution of Sulphur dioxide ice under ultraviolet irradiation, leading to ozone formation.
 - ✓ The discovery of ozone (O₃) on Callisto suggests the presence of oxygen and stable atmospheric conditions, which could potentially support life.

About Callisto (Third-largest moon in the Solar System after Ganymede and Titan.)

- Callisto was discovered by the Italian astronomer Galileo Galilei in 1610, along with the other three largest moons of Jupiter (Io, Europa, and Ganymede)
- Data from the Galileo spacecraft suggests that Callisto may have a subsurface ocean that is 155 miles (250 kilometers) below the surface.
- Callisto also contains large amounts of ammonia ice, which is a source of nitrogen and a powerful greenhouse gas.
- Surface is heavily cratered, indicating a long history of being struck by asteroids and comets.
- It doesn't exhibit significant seismic activity found on certain other moons of Jupiter (Europa).

Atomic clock for One Nation One Time

India will join an exclusive group of four other countries, (US, UK, Japan, and South Korea) which uses the Rubidium Atomic Clock in their own GPS Satellites.

About Atomic Clock

- Atomic clocks are advanced timekeeping devices that provide extremely accurate measurements of time by utilizing the natural oscillations or vibrations of atoms.
- Typically, cesium (cesium-133: most common types) or rubidium-87 atoms (smaller & more compact than cesium clocks) are used in atomic clocks due to their stable atomic properties.
- **Applications:** International Atomic Time (TAI); Global Navigation Satellite Systems (GNSS); Scientific Research and Financial Transactions.

India & its Atomic Clocks

- The project of Atomic Clock was initiated after the Kargil war when India was denied information on the GPS location of Pakistani intruders.
- India is deploying several atomic clocks across the country to ensure that all devices, such as smartphones, digital watches, and laptops, are truly based on the Indian standard time (IST).
- The installation of these atomic clocks is being carried out by the National Physical Laboratory (NPL) under the purview of the Ministry of Science and Technology.
 - ✓ Presently, Atomic Clocks are located in Faridabad and Ahmedabad. Efforts are underway to install atomic clocks in Bhubaneswar, Jaipur, and Hyderabad.

PRATUSH: Radio Telescope

Astronomers are considering putting India's PRATUSH telescope around the moon's far side.

About PRATUSH telescope (Probing Reionization of the Universe using Signal from Hydrogen)

- Built by the Raman Research Institute (RRI) in Bengaluru with collaboration from the ISRO.
- Initially, ISRO will deploy PRATUSH into orbit around the Earth. Following some adjustments, the space agency will then launch it towards the Moon.
- It aims to detect signals from the earliest stars and galaxies, unveiling the cosmic dawn of the universe. This will address questions regarding when the first stars emerged, the characteristics of these initial stars, and the nature of the light emitted by them.

Kodaikanal Solar Observatory

Kodaikanal Solar Observatory (KSO) has successfully completed 125 years of operations.

About KSO (Operated by the Indian Institute of Astrophysics (IIA), Established in 1899)

- It is located on the southern tip of the Palani Hills Kodaikanal, Tamil Nadu
- Great Drought of 1875-1877 was the background behind its inception

Research Areas

- Solar Activity & Cycle: The observatory monitors the solar cycle, which refers to the 11-year cycle of sunspot activity on the Sun's surface & investigates its impact on space weather phenomena.
- Atmospheric Studies: Scientists also conduct atmospheric research, including the measurement of atmospheric ozone levels & the study of cosmic rays & their interaction with Earth's atmosphere.

Achievements

- Starting with chasing eclipses, discovering Helium in 1868, to understanding the plasma process in the Sun and the production of prominences and flares.
- The first detection of the Evershed effect (observing the flow of gases across sunspots) in 1909
- Observations of the equatorial electrojet due to the unique location of Kodaikanal.
- Regular measurements of ionospheric soundings, geomagnetic field, F region vertical drift, and surface observations.

Mother of Dragons Comet

The "Mother of Dragons" comet, also known as 12P/Pons-Brooks, is making appearance in the Northern Hemisphere skies.

About It (A "Halley-type" comet-orbits the Sun roughly every 71 years. Next Event in 2095)

- It was first discovered in the early 19th century and is known for its distinctive green glow. This hue is due to the presence of diatomic carbon molecules within the comet.
- Comet has a city-sized nucleus, about 17 kilometers wide. It has a distinctive elliptical orbit and is known for occasional outbursts that can make it appear horned.
- It's a cryovolcanic, or cold volcano comet, meaning that it regularly erupts, spewing the contents of its icy core into space, making the comet look brighter than normal.
- It falls into the category of Jupiter-family comets, indicating that its trajectory is affected by the gravitational force of Jupiter.

About Comets

- Comets are celestial objects composed primarily of ice, dust, rock, and organic compounds. They are often referred to as "dirty snowballs" or "icy dirtballs" due to their composition.
- Comets are known for their distinctive appearance, featuring a bright coma (a cloud of gas and dust) and a trailing tail that stretches millions of kilometers through space.

Types of Comets

- **Short-Period Comets:** These comets have orbital periods of less than 200 years and originate from the Kuiper Belt, a region of icy bodies beyond Neptune.
- **Long-Period Comets:** These comets have orbital periods of more than 200 years and originate from the Oort Cloud, a vast reservoir of icy bodies surrounding the solar system.

Perfluoroalkyl Substances and Polyfluoroalkyl Substances (PFAS)

IIT Madras study revealed that PFAS concentration in Chennai waters is around 20000 times more than American safety level standards.

About PFAS

- Large group of man-made chemicals containing carbon and fluorine atoms widely used for various industrial and consumer applications. Strong carbon-fluorine bond makes them extremely stable and resistant to degradation.
- PFAS are known for their exceptional chemical stability and resistance to heat, water, and oil.
- **Applications:** PFAS has been used in various products, including non-stick cookware, waterproof clothing, food packaging, firefighting foams, and industrial processes such as electronics manufacturing and oil extraction.

Environmental and Health Concerns

- **Persistence:** PFAS are highly persistent in the environment and can bioaccumulate in organisms, leading to long-term exposure and potential health risks. (Don't break down easily in the environment due to strong chemical bonds)
- **Health Effects:** Exposure to PFAS has been linked to adverse effects in humans, including developmental effects, immune system dysfunction, liver toxicity & risk of certain cancers.
- **Contamination:** PFAS contamination of air, water, soil, and food has been reported in various regions worldwide, raising concerns about human and environmental exposure.

Punnett Square

- Tool in genetics used to predict the possible offspring genotypes (genetic makeup) from parents with specific genotypes for a single trait
- A square-shaped grid divided into smaller squares.
- Represented at the top (father) and side (mother) of the grid. Each parent contributes one allele (version) of a gene for the trait being studied.
- Along the top and side of the grid, the possible genetic traits of one parent on one side and the other parent on the other side are listed. Then these squares are filled by combining the traits from each parent.

Magnesium-Copper / Cupric Oxide Fuel Cell

An eco-friendly fuel Magnesium-Copper / Cupric Oxide Fuel Cell have been developed by researchers at Kerala University.

About It

- The Magnesium-Copper / Cupric Oxide fuel cell is a type of chemical battery that generates electricity through reaction between magnesium, copper, and cupric oxide.
- Unlike traditional fuel cells that rely on hydrogen, the Mg-Cu/CuO fuel cell uses readily available and much safer materials like Magnesium (Mg) and Air
- **Anode (Negative Electrode):** The anode consists of magnesium metal (Mg), which serves as the fuel source. (reacting with water to generate electricity & Oxygen from the surrounding air)
- **Cathode (Positive Electrode):** The cathode is made of cupric oxide (CuO), a compound containing copper and oxygen.
- **Electrolyte:** An electrolyte solution (usually a salt solution) separates the anode and cathode, allowing ions to move between them while preventing direct contact between the reactants.
- Byproduct of this reaction is simply water vapor, making it an environmentally friendly process

Advantages	Limitations
1) High Energy Density: Magnesium is a highly energy-dense fuel, hence Compared to Lithium-ion batteries, the Mg-Cu/CuO fuel cell is reported to deliver a higher electrical power output. 2) Use of cupric oxide (CuO) grown over a copper substrate instead of expensive platinum makes the cell more cost-competitive	1) Safety: Magnesium can react violently with water or moisture, requiring careful handling to prevent accidents. 2) Reversibility: Reversing the reaction to recharge the cell can be challenging and may lead to degradation of electrodes over time.

** Cell can function using seawater as a source of magnesium, making it even more versatile.

{For more about Fuel Cell, kindly refer The Recitals (January 2024) Page 109}

TSAT-1A SATELLITE

Tata Advanced Systems Limited (TASL) have successfully launched TSAT-1A satellite into space by SpaceX's Falcon 9 rocket.

About Satellite TSAT-1A

- Launched into a low-earth orbit (LEO) to provide high-resolution (with sub-meter resolution) military-grade optical imagery by TASL, a private Indian aerospace company.
 - ✓ This is the first military grade geospatial satellite manufactured in the Indian private sector.

Capabilities

- Multispectral and hyperspectral imaging for detailed analysis of land, water & natural resources.
- TSAT-1A has a wider dynamic range (the ability to capture detail in both very bright and very dark areas), and low-latency delivery of data.

Time Standards For Moon

The US government has asked NASA to create a time standard for the Moon to set international norms in space as a new space race has started with many more countries and even private companies.

Need of Time Standards for Moon

- **Multiple Time Zones: Lunar** missions from various countries use their own time zones on the moon
- **Challenges with Earth Time:** While Earth time zones could be used, the slightly slower passage of time on the moon (due to weaker gravity) creates discrepancies over longer durations.
- Growing need for a unified lunar time standard due to increased lunar exploration by multiple countries and private companies.

Geroscience

Several groups are working on drugs and other related methods to modulate the gerozyme, and how these efforts affect his/her aging.

What is Geroscience

Geroscience is an interdisciplinary field that focuses on understanding the biological processes of aging and their relationship to age-related diseases. It aims to elucidate the underlying mechanisms of aging at the molecular, cellular, and organismal levels.

Mechanisms of Aging

Research in geroscience identifies key biological processes that contribute to aging, such as telomere shortening, cellular senescence, mitochondrial dysfunction, and genomic instability. Understanding these mechanisms helps elucidate the root causes of age-related diseases.

Relationship to Age-Related Diseases

- Geroscience emphasizes the interconnectedness of aging and age-related diseases, such as cancer, Alzheimer's disease, cardiovascular disease, and diabetes.
- It Aims to prevent or delay the onset of multiple chronic diseases associated with aging.

Researchers Have Identified Several Pillars Of Geroscience

1. **Chronic inflammation:** Low-grade, persistent inflammation is a hallmark of aging and can contribute to various diseases like cardiovascular disease and cancer.
2. **Cellular senescence:** Senescent cells are dysfunctional cells that resist cell death but accumulate and disrupt tissue function.
3. **DNA damage and repair:** Accumulation of DNA damage and impaired repair mechanisms are linked to aging and increased risk of diseases.
4. **Mitochondrial dysfunction:** Mitochondria are the cell's powerhouses, and their decline with age can contribute to cellular stress and disease.
5. **Stem cell dysfunction:** Reduced function and regenerative capacity of stem cells can hinder tissue repair and regeneration.
6. **Protein homeostasis (proteostasis):** The ability of cells to maintain proper protein folding and degradation declines with age, leading to the accumulation of misfolded proteins that contribute to disease

Inter-Agency Space Debris Coordination Committee (IADC)

At the 42nd Inter-Agency Space Debris Coordination Committee (IADC) annual meet, India through ISRO, aims to achieve debris-free space missions by 2030.

About IADC (An international governmental forum established in 1993)

- IADC aims to coordinate efforts to address the growing problem of space debris in Earth orbit.

- **Goals:** To exchange information on space debris research activities among member space agencies, Identify debris mitigation options.

India & IADC

India intends Debris Free Space Missions (DFSM) which was launched at IADC, 2024.

- Department of Space to ensure space missions with Zero Debris (Debris Free Space Missions – DFSM) by all Indian Space actors, governmental and non-governmental by 2030.
- The ISRO system for safe and sustainable space operations management (IS4OM) will be the nodal point in implementing the DFSM.

Nitroplast

Researchers have discovered a type of organelle, Nitroplast, a fundamental cellular structure that can turn nitrogen gas into a form that is useful for cell growth.

About Nitroplast

- A nitroplast is a nitrogen-fixing organelle found in certain types of algae, especially in the marine algae *Braarudosphaera bigelowii*. (considered the first nitrogen-fixing organelle in eukaryotes).
- It plays a key role in nitrogen fixation, a process that was previously thought to be exclusive to bacteria and archaea. It evolved from a symbiotic relationship between the algae and a bacterium called UCYN-A around 100 million years ago.

Significance of Discovery

- Understanding how nitroplasts work could allow scientists to introduce the genes responsible for nitrogen fixation into crops, potentially reducing the need for nitrogen-based fertilizers and mitigating environmental damage caused by excess fertilizer use.

Gaia BH3: Sleeping Giant Black Hole

Astronomers discovered a “sleeping giant” black hole named Gaia BH3 in the Milky Way galaxy by European Space Agency’s Gaia mission.

About Gaia BH3 (located in the constellation Aquila and is about 1,926 light-years from Earth.)

- It is the most massive stellar-mass black hole ever found in the Milky Way, with a mass 33 times greater than our Sun.
 - ✓ In a black hole, matter is so densely packed that nothing can escape its colossal gravitational pull, not even light. While some black holes actively consume nearby matter and emit intense radiation, others may be relatively quiet, with little or no infalling material.
 - ✓ These dormant black holes are often referred to as "sleeping giants."

Discovery is important because:

1. It challenges our understanding of how black holes form and evolve.
 2. It Suggests that there may be many more black holes lurking in our galaxy than we previously thought.
- ** Most Massive Black Hole in our Milky Way galaxy is Sagittarius A*, the supermassive black hole located at the center of the Milky Way.

Tachyons

New research suggests that the universe may be dominated by particles called tachyons, which move faster than light.

About Tachyons (Hypothetical subatomic particles)

- The concept of tachyons originates from certain solutions to the equations of relativistic physics, but they have not been observed in experiments, and their existence remains purely theoretical.
 - ✓ The concept of tachyons was first proposed by physicist Arnold Sommerfeld in 1904, but it gained more attention with the development of special relativity by Albert Einstein.
- According to special relativity, particles with mass cannot reach or exceed the speed of light, as it would require an infinite amount of energy. However, tachyons, if they exist, would have imaginary mass and would always travel faster than light.

Yellow Phosphorus

States prominently including Tamil Nadu are grappling with a significant number of deaths related to the ingestion of yellow phosphorus-based rat poison.

About Yellow Phosphorus (sometimes referred to as white phosphorus)

- Yellow phosphorus is a highly reactive, waxy, translucent solid that emits a faint glow in the dark and is highly toxic (if ingested or inhaled). It is one of the allotropes of phosphorus, alongside red phosphorus & black phosphorus.
- **Physical Properties:** At room temperature, It is soft and malleable, but it becomes brittle when cooled below its melting point. It is insoluble in water but soluble in carbon disulfide.
- **Chemical Properties and Reactivity:** Highly inflammable Upon contact with air. It should be stored underwater or in an inert atmosphere to prevent fires.
- Several industrial applications: Matches, Rodenticides, Fertilizers, Chemical Warfare etc.

Ethylene Oxide

Red flags have raised by food regulators in Hong Kong and Singapore regarding the presence of a cancer-causing ingredient ethylene oxide in certain Indian spice products.

About Ethylene Oxide (Mostly used as a sterilizing agent and insecticide)

- Ethylene oxide is utilized in the spice industry to control microbial contamination & extend the shelf life of products. It effectively kills bacteria, fungi, and insects, making it a popular choice for sterilization.
- Classified as a 'Group 1 carcinogen' by the International Agency for Research on Cancer (IARC) Chronic exposure, even at low levels, can increase the risk of lymphoid cancer and breast cancer. It's banned for use in food items in India.

Sodium-ion Battery (SIB)

Researchers have developed a high-power hybrid sodium-ion battery capable of charging in short time.

- SIBs are rechargeable batteries that use sodium ions as charge carriers. They are a promising alternative to lithium-ion batteries (LIBs) because they are inexpensive, eco-friendly, and sodium is naturally abundant. (naturally found in seawater and the Earth's crust)
- **Comparison of SIB with LIBs:** lithium-ion batteries remain dominant in many applications due to their high energy density and long cycle life; sodium-ion batteries offer potential advantages in terms of cost, safety, charging speed and resource availability.

Pink Hydrogen

Recent study claims that pink hydrogen can have wider and more effective use.

About Pink hydrogen

- It's Generated through electrolysis, which is the process of splitting water molecules (H₂O) into hydrogen (H₂) and oxygen (O₂) using electricity powered from Nuclear Energy.
- Pink hydrogen is considered environmentally friendly because it doesn't produce carbon emissions during production. It's also a promising replacement for fossil fuels in the cement industry and could help reach net zero emissions by 2050.

TYPES OF HYDROGEN



Extra mile: Colour coding in Hydrogen

It is used to differentiate hydrogen based on the environmental impact of its production method.

Nephrotic Syndrome

Researchers from Kerala have studied cases where the regular use of fairness creams has been linked to nephrotic syndrome (Kidney Disorder).

- ✓ Fairness creams contain high levels of mercury, detrimental to the kidneys; Mercury is absorbed through the skin resulting in development of membranous nephropathy.

About Nephrotic syndrome

- It's a kidney disorder characterized by excessive protein excretion in the urine. It is often caused by damage to small blood vessels in the kidneys that filter waste & excess water from the blood.
- Symptoms: Severe Swelling (Edema) especially around the eyes, ankles, and feet, Foamy urine due to excess protein, Weight gain caused by fluid retention, Fatigue and loss of appetite.
- Prolonged & severe nephrotic syndrome can lead to progressive kidney damage and the development of Chronic Kidney Disease (CKD), eventually requiring renal replacement therapy such as dialysis or kidney transplantation.

Llama 3 & Phi-3-mini

Meta introduced its most capable Large Language Model (LLM), the Meta Llama 3. A few days after Microsoft came up with the latest version of its 'lightweight' AI model – the Phi-3-Mini (Small Language Model (SLM)).

About Llama3 (Large Language Model Meta AI)

- Its Family of LLMs is the latest iteration of its LLM and has been released in two sizes, 8B and 70B parameters.
- Parameters are a measure of the size and complexity of an AI model and generally, a larger number of parameters means an AI model is more complex and powerful.
- It Surpasses previous benchmarks, outperforming competitors like Google's Gemma 7B and Mistral's Mistral 7B in various evaluations

{For more information about LLMs; Kindly refer The Recitals (February 2024) Page 107}

About Phi-3-mini (Its Small Language Model (SLM))

- Phi-3-Mini is believed to be the first among the three small models that Microsoft is planning to release. It has Size of 3.8 billion parameters (smaller than Large Language Models (LLMs) which can have trillions)

How is Phi-3-mini (SLMs) different from LLMs?

- Phi-3-mini is an SLM. Simply put, SLMs are more streamlined versions of large language models.
- When compared to LLMs, smaller AI models are also cost-effective to develop and operate, and they perform better on smaller devices like laptops and smartphones.
- LLMs are trained on massive general data, SLMs stand out with their specialization. Through fine-tuning, SLMs can be customized for specific tasks & achieve accuracy and efficiency.
- Most SLMs undergo targeted training, demanding considerably less computing power with quicker processing and energy compared to LLMs.

Venice Biennale

- The 60th edition of the Venice Biennale, known as the **Olympics of the art world**, was recently inaugurated.
- It will showcase various artists under the central theme “Stranieri Ovunque” or “Foreigners Everywhere”.

Biennale	Origin of Venice Biennale
<ul style="list-style-type: none"> • Biennale is an Italian word which means ‘every other year’. Over the years, however, it has come to mean a large international exhibition that takes place every two years. • A biennale exhibition is different from a regular exhibition as it is organised on a large scale and involves multiple venues. • Biennales feature contemporary art by artists from various countries that are usually linked by a common theme, providing a framework for exploring contemporary social, economic and political ideas in an international context. 	<ul style="list-style-type: none"> • In 1893, Venice’s city government proposed to mark the silver anniversary of King Umberto I of Italy and Margherita of Savoy by establishing a national biennial exhibition of art. • The Biennale was scheduled to open in 1894 but due to some delays, it was finally inaugurated on April 30, 1895. • Although initially the Biennale displayed only selected works of artists and there were no overarching themes or concepts, this changed in the following years

Format of the Venice Biennale

- The seven-month-long Biennale comprises three parts, including the central pavilion, national pavilions, and collateral events.
- The central pavilion is the focal point. It features the main exhibition that showcases artworks and artists selected by the curator.
- National pavilions are usually the property of individual countries and are managed by their ministries of culture, with many also involving private funding.
- The first foreign nation to build a pavilion was Belgium in 1907, followed by Germany, Britain and Hungary in the same decade.
- Although India doesn’t have a permanent national pavilion, the country officially organised exhibitions in 1954, 2011, and 2019.

Thrissur Pooram

- The Kerala High Court recently ordered to ensure the safety of the elephants and the artistes during the Thrissur Pooram festival.
- Thrissur Pooram, celebrated in the **Malayalam month of Medam** (April-May), is a grand assembly of Gods and Goddesses, at **Thekkinkadu Maidanam in Thrissur**, Kerala.
- It was started by the Maharaja of Cochin (1790–1805), **Raja Rama Varma**, also known by the name **Sakthan Thampuran**. He organised the festival with the participation of 10 temples.
- There are other Pooram festivals celebrated in and around central Kerala but Thrissur Pooram is considered to be the **Mother of all Poorams**.
- The Gods and Goddesses make their visit to the **Vadakumnathan (Shiva)** temple premises on elephants at Thekkinkadu Maidanam.
- A huge attraction is the **ilanjithara melam**, a performance of chenda, kurumkuzhal, combu and elathalam (traditional instruments of Kerala).

Geographical Indication Tag

- Two items from Tripura recently received the Geographical Indication (GI) tag - **Matabari Pera and Pachra**.
- Matabari Pera is a dairy-based confectionary item traditionally served as prasada at the **Tripurasundari temple in Gomati district**.
- Pachra is a handwoven cloth used by the state's indigenous communities.
- The GI tag is expected to boost the declining number of traditional weavers and provide an impetus to the rich art form.
- A year earlier, Tripura's iconic queen pineapple had also received a GI tag.

Sulthan Bathery

- Recently renaming of the Sulthan Bathery to Ganapathyvattam was in the news.
- Sulthan Bathery is a municipal town in Wayanad. It has a stone temple that was once known as Ganapathyvattam.
- The temple was built in the architectural style of the Vijayanagar dynasty. It was constructed by Jains who migrated to Wayanad from areas in present day Tamil Nadu and Karnataka in the 13th century.
- The temple was partly destroyed during the invasions of Tipu Sultan, the ruler of Mysuru in the second half of the 18th century.
- During the invasion of Malabar by Tipu Sultan, the town was used by the Mysore army as the *storeroom or battery* for its ammunition and used the Ganapathi Temple located here as a battery.
- Thus, the town known as Sultan's Battery in British records later got to be called as Sultan Bathery.

Indian Historical Records Commission

- Recently, the Indian Historical Records Commission (IHRC) adopted a new logo and motto.
- In the logo, the pages in the shape of lotus petals represent IHRC as the nodal institution for maintaining historical records.
- The Sarnath pillar in the middle represents India's glorious past. Brown as the colour theme reinforces the organization's mission of preserving, studying and honouring India's historical records.
- The motto translates as "Where history is preserved for the future."
- The IHRC plays a vital role in identifying, collecting, cataloguing and maintaining historical documents, manuscripts other sources of historical information.
- By doing so the Commission ensures that valuable historical knowledge is conserved for future generations.
- The motto, therefore, reflects the Commission's commitment to ensuring the safeguarding of historical documents and making these accessible for the benefit of present and future generations.



AWARDS/ PERSONALITIES IN NEWS

Dinesh Kumar Tripathi To Take Over As Navy Chief

- Admiral Dinesh K Tripathi has assumed command of the Indian Navy on 30 April 2024 as the 26th Chief of the Naval Staff. He succeeds Admiral R Hari Kumar.
- He was the Vice Chief of Naval Staff, prior taking over the helm as Chief of the Naval Staff.

Nalin Prabhat Appointed D-G of National Security Guard

- Senior Indian Police Service (IPS) officer Nalin Prabhat has been appointed as the Director-General of National Security Guard (NSG), the country's counter-terrorism and counter-hijack force.
- Mr. Prabhat is a 1992 batch IPS officer of the Andhra Pradesh cadre. He is currently posted as Additional Director-General, Central Reserve Police Force (CRPF) in Jammu and Kashmir.

Lindy Cameron To Be New British Envoy To India

- The United Kingdom has appointed Lindy Cameron as the first woman British High Commissioner to India.
- While Cameron is UK's first woman envoy to India, Delhi has had three women envoys in London since the 1950s.
- Her appointment comes at a time when India and the UK are negotiating the Free Trade Agreement, and both sides have expressed intent and interest to wrap up the negotiations by the end of the year.

Peter Higgs

Nobel prize-winning physicist Peter Higgs, who proposed the existence of the Higgs boson particle, has died at age 94. Higgs predicted the existence of a new particle - Higgs boson - in 1964. But it would be almost 50 years before the particle's existence could be confirmed at the Large Hadron Collider.

- Higgs won the **2013 Nobel Prize in Physics** for his work, alongside Francois Englert of Belgium.