

Current Affairs Update (Dec 1-8)

National

Status of women in Judiciary

- **SC:** Only 11 women judges have been appointed till now
- **HC:** 25 HC has 81 women out of 677 judges
- **Lawyer:** Only 15% are women
- **Bar Council:** Only 2% of the elected representatives are women.

Reasons for Low Women Representation:

- Deeply ingrained **patriarchy** in society
- More women tend to enter the lower judiciary, however, the **opaque working of the Collegium system** has been sometimes blamed for their poor representation at a higher level.
- **No Women Reservation** in higher judiciary although many states have a reservation policy for women in the lower judiciary.
- **The number of women advocates is still low**, reducing the pool from which women judges can be selected.
- **Lack of proper Judicial infrastructure**, women's washrooms, is another barrier to women in the profession.

Personality rights

Personality rights refer to **the right of a person to protect his/her personality under the right to privacy or property**. These rights are important to celebrities as their names, photographs or even voices can **easily be misused in various advertisements by different companies to boost their sales**.

Personality rights consist of two types of rights —

- Firstly, the **right of publicity, or the right to keep one's image and likeness from being commercially exploited without permission or contractual compensation** and
- Secondly, **the right to privacy or the right to not have one's personality represented publicly without permission**.

Statutes like the **Trademarks Act 1999** and the **Copyright Act 1957** govern publicity rights.

Role played by the Returning Officer (RO) in elections

- The RO is **appointed for each constituency** by the Election Commission and is the **highest authority** (during the course of the election) in the constituency to peacefully and impartially conduct elections.
- Generally, the **District Magistrate** is the **ex-officio RO** in Lok Sabha elections while the Sub-Divisional Magistrate is the RO in state assembly elections.
- With respect to the counting of votes, the **RO has the following duties:**
 - To designate the counting centres and get them approved by the Commission well in advance;
 - To send notice to the candidates about the place, date and time of counting of votes;
 - To appoint and train counting staff;
 - To count the votes and declare the result. However, ROs themselves do not count all votes but verify the counting at multiple stages.
- They are the **final authority** in the matter of vote counting in an election. The EC also appoints AROs to assist the RO in carrying out all the duties.

National Commission for Backward Classes (NCBC)

Why in news? Hansraj Ahir assumes charge as NCBC chairperson.

Following the **102nd Constitutional Amendment Act, 2018**, NCBC became a constitutional body, established under **Article 338B** of the Indian Constitution. The commission was the outcome of the **Indra Sawhney case (1992)** and was a statutory body.

About NCBC

- The Chairperson, Vice-Chairperson and other Members of the Commission shall be appointed by the **President**
- The conditions of service and tenure of office shall be decided by President.
- The Commission shall have the **power to regulate** its own procedure.
- The commission considers **inclusions and exclusions** from the lists of communities.
- The commission has the same powers as a **Civil Court**

Red sand dunes of Vizag

- It spread across an area of about **20 sq km and** is popularly known as 'Erra Matti Dibbalu'.
- Declared as a **geo-heritage site by the Geological Survey** of India in 2014.
- It is about **18,500 years old** and is a lively scientific evolution site, which depicts the real-time effects of climate change. It represents the late quaternary geologic age.

- **Red sand dunes** have been reported only from three places in the tropical regions in south Asia such as Teri Sands in Tamil Nadu, Visakhapatnam and one more site in Sri Lanka.

Hornbill festival

- Hornbill Festival is celebrated to encourage **inter-tribal interaction** and to **promote the cultural heritage of Nagaland**.
- The **Government of Nagaland** organizes the Hornbill Festival **every year** in the **first week of December**.
- It is also called the **‘Festival of Festivals’**.
- The festival is named after the hornbill, the globally respected bird which is displayed in folklore in most of the state’s tribes.

Ahom King Sukapha – the Great Unifier

- Chaolung Sukaphaa (Chao means Lord and Lung means Great).
- He was the founder of the Ahom kingdom established in 1228.
- He is called “the Great Unifier” as he unified the various tribal and non-tribal peoples of the region.
- Since 1996, December 2 has been celebrated in Assam as the Sukaphaa Divox, or Axom Divox (Assam Day), to commemorate the advent of the first king of the Ahom kingdom in Assam.

New Indian Navy Crest

President of India has approved the introduction of a new design for the President’s Standard and Color and **Indian Navy Crest** for the Indian Navy on Navy Day on 04 Dec 2022.

The new design of the President’s Standard and Colour comprises three main constituents –

1. **National Flag** in the upper left canton adjacent to the staff,
2. **State Emblem underscribed with ‘Satyamev Jayate’** in Golden Colour on the upper right canton on the fly side
3. **Navy Blue – Gold Octagon** below the Golden State Emblem.

The new design of the **President’s Standard and Colour** highlights India’s **glorious maritime heritage** and also symbolises a powerful, courageous, confident and proud Indian Navy. The Indian Navy Crest has been amended to replace the **foul anchor with a Clear Anchor**

India Inequality Report 2022

According to **‘India Inequality Report 2022: Digital Divide’** released by the **NGO Oxfam India** – growing inequalities based on caste, religion, gender, class, and geographic location are **being worryingly replicated in the digital space in India**.

Key Highlights of the report:

- **Gender Divide:**
 - Women constitute **only one-third of internet users in India**
 - 61% of men-owned **mobile phones** compared to just **31 % of women in 2021**
- **Rural-Urban Divide:**
 - Only **31 per cent of the rural population** uses the Internet compared to **67 per cent of their urban counterparts**
 - **Maharashtra has the highest internet** penetration, while **Bihar** has the lowest.
- **Religion and Caste wise Divide:**
 - **Sikhs** have the **highest** likelihood of **having a computer** followed by Christians, Hindus and lastly Muslims.
 - The tendency to **use formal financial services** is **lowest for ST households**, followed by SC households and OBC households.
- **Division because of poverty:**
 - The chances of having a computer are higher with **higher levels of education as well as income**.
 - The likelihood of a **digital payment by the richest 60 per cent is four times** more than the poorest 40 per cent in India.

‘Calling Name Presentation (CNP)’

TRAI has floated a consultation paper seeking comments on the ‘Calling Name Presentation (CNP)’ feature.

Calling Name Presentation feature: Provides individual, information about the calling party (like Truecaller), to ensure that subscribers can make an informed choice about incoming calls, thus avoiding harassment by unknown or spam callers.

Concerns:

- Regarding balancing the caller’s right to remain anonymous (Right to Privacy under Articles 14,19 and 21 as per the Puttaswamy judgement)
- Threaten Whistleblowers

International

India assumes the monthly presidency of the UNSC

India assumed the Presidency of the UN Security Council in December. India had earlier assumed the Presidency of the UNSC in August 2021. The presidency of the Security Council is held **by each of the members in turn for one month**, following the **English alphabetical** order of the Member States' names.

India's priority issues have been guided by the "Five S" approach:

- **Samman** (Respect)
- **Samvad** (Dialogue)
- **Sahyog** (Cooperation)
- **Shanti** (Peace)
- **Samriddhi** (Prosperity)

Items on Agenda:

- Reformed Multilateralism
- Counter-Terrorism
- Maintenance of International Peace and Security
- **New Orientation for Reformed Multilateralism (NORMS):** NORMS envisages reforms in the current multilateral architecture, with the UN at its centre, to make it more representative and fit for purpose.

Gas lighting – Merriam-Webster's word of the year

Merriam-Webster dictionary said gas lighting saw a **'1740% increase in lookups, with high interest throughout the year'**.

Merriam-Webster dictionary defines gas lighting as **"psychological manipulation of a person** usually over an extended period of time that **causes the victim to question the validity of their own thoughts, perception of reality, or memories** and typically leads to confusion, loss of confidence and self-esteem, the uncertainty of one's emotional or mental stability, and a dependency on the perpetrator."

India Central Asia Security Meet

India hosted a conclave **of top security officials from Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan** with a focus on the **evolving security situation in Afghanistan**. This year was the **30th anniversary** of the establishment of **diplomatic ties between India and Central Asian countries**

Key highlights of the meeting:

- Support for a **peaceful, stable, and secure Afghanistan**, emphasizing **respect for its sovereignty, unity, and territorial integrity** and urging non-interference in its internal affairs.
- The participants supported India's proposal to **include the Chabahar port within the framework of the International North-South Transport Corridor.**
- The communique also called for the early **adoption of the UN Comprehensive Convention on International Terrorism (CCIT), which India had first proposed in 1996.**

Why Central Asia is important for India?

- **Historical reasons:** Central Asia was a transit route **"the silk route"** for the continent.
- By acting as a **bridge between Asia and Europe.**
- **As a bulwark against fundamentalism:** Peace and stability in the Central Asian region and adjoining Afghanistan are important in the fight against **religious fundamentalism and terrorism.**
- **Counterbalancing China's** belligerent attitude
- As a **consumer market**
- **For Energy Security:** **Kazakhstan** has so far supplied a total of 9,000 tons of uranium. The **Turkmenistan-Afghanistan-Pakistan-India (TAPI) and Iran -Pakistan-India (IPI)** pipeline projects ensure energy security for India.
- **For connectivity and trade:** Development of the International North-South Transport Corridor (INSTC). **INSTC** is a multi-mode network of ship, rail, and road routes for moving freight between India, Iran, Afghanistan, Armenia, Azerbaijan, Russia, Central Asia, and Europe.

Sylhet-Silchar Festival

The inaugural edition of the Sylhet-Silchar Festival was organized recently in Assam's Barak Valley to celebrate the cultural ties between India and Bangladesh. This event commemorated the 75th anniversary of India's independence and 50th anniversary of Bangladesh's liberation from Pakistan.

Science-Tech & Environment

Access and benefit-sharing (ABS) mechanisms

- Access and benefit sharing, one of the three objectives of the United Nations Convention for Biological Diversity (CBD), is **set to be discussed at its upcoming 15th Conference of the Parties (COP15).**
- Access and benefit sharing refers to the **way in which genetic resources may be accessed, and how users and providers reach an agreement on the fair and equitable sharing** of the benefits that might result from their use.

- **Article 15** of the Convention on Biological Diversity (CBD) sets out rules, which govern access and benefit sharing. Under these rules, the **governments of countries have two key responsibilities**:
 1. To put in place systems that facilitate access to genetic resources for environmentally sound purposes
 2. To ensure that the benefits resulting from their use are shared fairly and equitably between users and providers

India's participation: India became a signatory to the **Convention on Biological Diversity (CBD) in 1994**. In 2002, India became one of the **first countries to enact a law, the Biological Diversity Act**, to implement the treaty within its borders. This Act is decentralized for implementation.

Intergovernmental meeting to end plastic pollution

- The first session of the Intergovernmental Negotiating Committee (INC-1) concluded in **Uruguay**.
- The INC-1 was convened and managed by the United Nations Environment Programme (UNEP).
- The INC-1 came after a landmark resolution was endorsed at the United Nations Environment Assembly (UNEA), calling for the **international legally binding instrument** to promote sustainable production and consumption of plastics.
- According to the OECD, global plastic production was 460 million tonnes (Mt) in 2019 (234 Mt in 2000) and during the same period, plastic waste doubled to 353 Mt from 156 Mt.

Extracts from the outcome document titled “Summary of plastic pollution science”:

- Recognised the links between plastic, human health and environmental health.
- Endorsed the Centre for Science and Environment (CSE)'s position that **plastic pollution is rooted in the material's life cycle** – an offshoot of the linear take-make-dispose economy.
- Current trends need to be replaced by a **circular economy (CE)** – a model of production and consumption, which involves **reusing, repairing, refurbishing and recycling** existing materials and products for as long as possible.

Joint Exercise Agni Warrior

The **12th Edition of Exercise Agni Warrior**, a bilateral exercise between the **Singapore & Indian Army** was recently concluded

Tungareshwar Wildlife Sanctuary

The Supreme Court exempted Maharashtra's Tungareshwar Wildlife Sanctuary (TWS) from its June order mandating the creation of a 1 km eco-sensitive zones (ESZ) around all protected areas in India.

The ESZs are set up around the protected areas as a “shock absorber”. They act as a transition zone from the areas with high protection to those having lesser protection.

Why was Tungareshwar Wildlife Sanctuary exempted from SC order mandating the creation of 1 km-ESZ?

- The Tungareshwar Wildlife Sanctuary was exempted by the Supreme Court mandate of creating 1 km ESZ due to practical difficulties and ground realities.
- The SC Bench observed that there were instances involving notified forests expand to reach into city areas where urban activities may have been taking place for the past several years.
- The order for exemption was given while hearing the plea filed by CREDAI-MCHI, a body consisting of members from the real estate sector in the Mumbai Metropolitan Region.
- It took into account the earlier order exempting the Sanjay Gandhi National Park and Thane Creek Flamingo Sanctuary in Mumbai.

Ransomware

- **Ransomware** is a malware designed to deny a user or organization access to files on their computer.
- The malware first gains access to the device. Depending on the type of ransomware, either the entire operating system or individual files are encrypted.
- A ransom is then demanded from the victim.
- **Past attacks:** WannaCry and Petya.

Jagdish Chandra Bose

Ministry of Culture organized an “International conference on the contributions of J C Bose” on his **164th birth anniversary (1858-1937)**.

His contribution to Science:

- J C Bose discovered **wireless communication** and was named the **Father of Radio Science**
- He invented **Crescograph** to measure plant growth
- He did pathbreaking work on the ‘**Millimeter range wavelength Microwaves**’
- **Bose Institute** (1917) was established by him at Cambridge University for **modern research**
- He was the teacher of **S N Bose, Meghnad Saha, and P C Mahalanobis**

Drones

- **A drone or UAV (Unmanned Aerial Vehicle)** is a remotely controlled flying device.
- Drones have been divided **into five categories** based on their weight (existing rules) –
 - **Nano:** Less than or equal to 250 grams,

- **Micro:** From 250 grams to 2kg, **Small:** From 2 kg to 25kg,
- **Medium:** From 25kg to 150kg,
- **Large:** Greater than 150kg.

Rules regulating drones in India:

- In India, the **Directorate General of Civil Aviation (DGCA)** governs the use of all (manned or automated) aerial vehicles.
- **'The Drone Rules, 2021'**, to regulate the use and operation of Drones or Unmanned Aerial Systems.

Risks associated with drones:

- Drones can be misused as **weapons of Mass Destruction**.
- Increased Risk of **Armed Attacks**.
- To **smuggle arms, ammunition and drugs**.

OpenAI's ChatGPT

- OpenAI's ChatGPT is a **conversational chatbot which can talk back almost as another human** being would.
- GPT stands for **Generative Pre-trained Transformer 3**, a kind of computer language model that relies on deep learning techniques to produce human-like text-based inputs.
- Once a user signs up for ChatGPT, they can use the chatbot to have a conversation, and it is expected to give **reasonably intelligent answers** in the form of an essay.
- It is also a **neural network**, as a large network of computers can fine-tune its output of words based on feedback.
- The chatbot can **remember** what the user said earlier in the conversation. It also allows users to follow up on **corrections**.

Advantage: seen as a replacement for basic emails, essays, CVs etc.

Limitations:

- Could give **incorrect or nonsensical answers**
- **Not powerful** in specialized contexts
- **Overuse** of certain phrases due to **training bias**
- **Racial and sexist biases** reflected
- **Incapable** of writing fiction

SpaceTech Innovation Network (SpIN)

- ISRO signed MoU with Social Alpha to establish SpIN
- **India's first dedicated platform** for innovation, curation and venture development for the blooming space entrepreneurial ecosystem.
- It is a **one-of-a-kind PPP** for start-ups and SMEs in the space industry.
- Provide a level playing field for all stakeholders to contribute and collaborate.
- Also, the **1st SpIN innovation challenge** was launched to develop solutions in areas like urbanisation, mapping, natural resources management etc. Selected start-ups can **access ISRO and Social Alpha's infrastructure and resources**

Economics

PM Gati-Shakti National Master Plan

PM Gati Shakti Master Plan (2021), is a **Rs. 100 lakh-crore project** for developing 'holistic infrastructure'. It aims to ensure the speed (Gati) and Power (Shakti) of **infrastructure projects** in the **next four years**, with a focus on expediting works on the ground, saving costs and creating jobs, and bringing down the logistics cost.

Gati Shakti scheme will give the necessary push to infrastructure development:

- **Boost to infrastructure:** A **plug-and-play model** for industrial parks. It will subsume National Infrastructure Pipeline launched in 2019
- **Helps solve logistical issues:** India's logistics cost **burden is 13-14% of GDP**, compared to **6-8%** in more competitive economies.
- **Curbs red-tapism:** g., the Railways has started a '**Common Drawing Approval System**' on an online platform, so all the approvals can be accessed on one portal.
- **Increased coordination:** Gati Shakti will **bring together 16 infrastructure-related Ministries**.
- **Incorporation of various projects from different ministries:** Gati Shakti will incorporate the **infrastructure schemes of various Union ministries and state governments:** Bharatmala, Sagarmala, UDAN, inland waterways, dry/land ports, etc.

Current Affairs Update (Dec 9-16)

National

Criteria for becoming a National Party in India

With 12.9% seats, AAP is set to be recognized as the 9th national party by the Election Commission of India (ECI).

What is a National Party? (ECI Criteria)

- It is 'recognised' in at **least four states**; **OR**
- If its candidates polled at **least 6% of valid votes in any four or more states** in the last Lok Sabha or Assembly elections and have at least four MPs in the last LS polls; **OR**
- If it has won at least 2% of the total seats in LS from not less than three states.

Meitei script

Newspapers in Manipur will be replacing **the Bengali script with the Meitei script** by 15th Jan 2023.

About the Script:

- **Patronised by Meitei rulers** fell into disuse after the advent of Hinduism and eventually disappeared, as Bengali script became popular.
- The **earliest epigraphic record of the script** is a stone inscription from Khoibu village which was erected on the orders of Meidingu Kiyamba (1467-1508).
- A movement to revive the Meitei Mayek started in the the1930s and gathered strength in the 1950s.
- **The Manipur Official Language Act, 1979**, was enacted with the definition of Manipuri language as "**Meiteilon written in Bengali script** and spoken by the majority of Manipuri population".
- **By an Amendment Act of 2021**, the definition of "**Manipuri language**" in the Official Language Act was modified as "Meiteilon in Meetei Mayek and spoken by the majority of the Manipur population"

Reasons behind increased consumption of urea and DAP

- **High subsidy on urea:** The government has fixed the maximum retail price (MRP) of urea at Rs 5,628 per tonne, while the MRPs of other fertilisers are technically decontrolled.
- **DAP (di-ammonium phosphate) – a cheaper substitute:** Companies have been told not to charge more than Rs 27,000/tonne for DAP (Rs 29,000-31,000/ tonne for NPKS complexes), which has 46% P and 18% N.

- Thus, the **choice of fertilisers is primarily a function of prices** and not of NPKS complexes or other macro and micronutrients in the fertilisers.

The effects of overconsumption of urea and DAP:

- The current NPK ratio of **13:5:1**, as against the ideal **4:2:1**, would adversely affect **crop yields**
- It will adversely affect the **health of plants and humans**, due to the unavailability of a balanced nutrient mix.

National Judicial Commission Bill, 2022

A private member bill – the National Judicial Commission Bill, 2022, to regulate the appointment of judges through the National Judicial Commission was introduced in RS.

Key features of the Bill:

- The bill provides for the establishment of the National Judicial Commission, to regulate –
 - the procedure for **appointment** of the CJI and other judges of the SC and Chief Justices and other judges of HCs.
 - transfer of HC judges
 - to lay down judicial standards
 - provide for accountability of judges.
- **To establish a credible and expedient mechanism** for investigating individual complaints for misbehaviour or incapacity of a judge of the higher judiciary.
- It also proposes **the presentation of an address** by Parliament to the President in relation to the proceeding for the removal of a judge.

Criticism of the move:

- The concept of NJAC has come under the consideration of the SC 3 times – 1993, 1998 and 2015.
- All 3 times, while giving importance to the independence of the judiciary, **the SC dismissed the framework of the NJAC.**
- **In its 2015 ruling**, the SC declared the 99th Constitutional Amendment and NJAC **unconstitutional**, violating the basic structure of the constitution. However, the SC admitted that **all is not well even with the collegium system.**



Judicial Reforms

Present State of Indian Judiciary

 <p>Lack of Transparency in Appointment of Judges.</p>	 <p>Nepotism during judicial appointments.</p>
 <p>Collegium system of appointment is a violation of principle of 'Checks and Balances' under the doctrine of 'Separation of Powers'.</p>	 <p>Present system of judicial appointment is contrary to the global standards.</p>
 <p>Declining Quality of Judges in the Subordinate Courts.</p>	 <p>Lack of competence in recruitment of judges.</p>
 <p>Lack of Institutional Accountability.</p>	 <p>Rampant corruption in the judiciary.</p>
 <p>High cost and Inaccessibility to judicial mechanisms.</p>	 <p>Lack of judicial proceedings and mechanisms against crime against women in urban areas.</p>

Pradhan Mantri Adi Adarsh Gram Yojana

Ministry of Tribal Affairs has revamped the existing Scheme of 'Special Central Assistance to Tribal Sub-Scheme (SCA to TSS) with the nomenclature '**Pradhan Mantri Adi Adarsh Gram Yojana (PMAAGY)**', for implementation **during 2021-22 to 2025-26**, which aims at **transforming villages with significant tribal population** into the model village (Adarsh Gram).

The objective of the scheme: To achieve **integrated socio-economic development** of selected villages through a convergence approach. It includes **preparing Village Development Plan** based on the needs, potential, and aspirations.

International

Singapore Declaration

The 17th Asia-Pacific Regional Meeting (APRM) of the ILO set **10-point priorities of national action** for the members to deal with the issue of dwindling wages, inflation and unemployment.

The tripartite (governments, employers and workers) declaration – the "**Singapore Declaration**", adopted by the delegates agreed to address labour market challenges and find solutions to crises like the pandemic, natural disasters and economic uncertainty.

Highlights of the Singapore Declaration:

- The governments must **strengthen governance frameworks** and ensure –
 - **Labour protection** through the promotion of freedom of association and the effective recognition of the right to collective bargaining.
 - **Rights of migrant workers**, including improved accommodation, protection of wages and extension of social protection, etc.
- **It called for closing gender gaps** through measures that –
 - Increase women's labour force participation,
 - Promote equal pay for equal work and responsibilities, and
 - Promote women's leadership.
- **Governments and social partners should urgently take effective measures** to address allegations of serious violations of these rights.

The Geminids meteor shower

The easiest-to-view meteor shower – Geminids will peak around the 13th and 14th of December.

What are meteor showers?

- It is a **celestial event** in which a number of meteors are observed to radiate or originate, from one point in the night sky.
- Meteors are usually fragments of **comets**. As they enter the Earth's atmosphere at high speed, they burn up, creating a spectacular "**shower**"

The uniqueness of Geminids Shower:

- The Geminids can produce **approximately 100-150 meteors** per hour for viewing (in clear weather and new moon).
- Unlike most meteor showers, **they originate not from a comet, but from an asteroid, the 3200 Phaethon.**
- The 3200 Phaethon was discovered on October 11, 1983. It is named after the Greek mythology character Phaethon.
- As **the 3200 Phaethon moves close to the Sun** while orbiting it, the rocks on its surface heat up and break off.
- When the Earth passes through the trail of this debris, the **Geminids** are caused.

Why are they called Geminids?

- They are **named after the constellation Gemini**, from whose location in the sky meteor shower appears to originate.

TIME Person of the Year 2022

Ukraine President **Volodymyr Zelensky** was chosen as the 2022 Person of the Year by the Time Magazine.

Notable past winners include German Dictator Adolf Hitler (1938), Russian President Vladimir Putin (2007) and others. Mahatma Gandhi was featured in the 1930 edition. In 2021, Tesla and SpaceX CEO Elon Musk was named the Person of the Year since he made headlines after buying Twitter.

Science-Tech & Environment

Fusion energy breakthrough by US scientists

US government scientists have **made a breakthrough in the pursuit of limitless, zero-carbon power** by achieving a **net energy gain in a fusion reaction** for the first time. The advancement by **Lawrence Livermore National Laboratory** researchers will be built on to further develop fusion energy research.

Why is nuclear fusion so important?

- Nuclear fission reactors used currently produce **a lot of radioactive waste**, which can be dangerous and must be stored safely – potentially for hundreds of years whereas the waste produced by **nuclear fusion is less radioactive and decays much more quickly**
- Nuclear fusion **doesn't need fossil fuels like oil or gas**
- It also **doesn't generate greenhouse gases**
- Most **fusion experiments use hydrogen**, which can be **extracted cheaply from seawater and lithium, i.e., fuel supplies could last for millions of years**
- Fusion could **generate four times more energy per kilogram of fuel than fission** (used in nuclear power plants) and **nearly four million times more energy than burning oil or coal**

Challenges with Nuclear Fusion:

- It has been particularly **difficult to obtain high enough plasma densities, temperatures, and energy confinement times** simultaneously for a reactor to approach ignition conditions.
- Forcing and keeping the elements together in fusion **requires very high temperatures and pressures**.

End-to-end encryption

- **It is a communication process** that encrypts data being shared between two devices, **preventing 3rd parties** (cloud service providers, internet service providers (ISPs), and cybercriminals) **from accessing data while it is being transferred**.
- Its process **uses an algorithm** that transforms standard text into an unreadable format, which can only be unscrambled by those with the decryption keys.
- It has long been **used to secure communications** and can also be used to secure passwords, protect stored data and safeguard data on cloud storage.

Need:

- According to data breach research, the total number of data breaches **more than tripled** between 2013 and 2021, exposing data of 1.1 billion personal records.

- End-to-end encryption is a technology that secures users' data from **hacking, and snooping** by government agencies, making it a popular feature among **activists, journalists and political opponents**.

Concerns:

- They are deeply concerned with the threat that end-to-end encryption and user-only access pose.
- **For example**, US FBI insisted that end-to-end encryption hinders its ability to protect Americans from cyber-attacks, violence against children and terrorism.

Namami Gange program

The Union government's flagship **Namami Gange program**, which was designed to enhance cleanliness levels in the Ganga River, has now geared to shift its focus to conservation, tourism and economic livelihoods.

About Namami Gange Programme:

- It is an **Integrated Conservation Mission** approved as a 'Flagship Programme' of the Ministry of Jal Shakti, Government of India, **in 2014**, with a budget outlay of Rs.20,000 crore.
- Its mandate is to accomplish the **twin objectives** of effective abatement of pollution, conservation and rejuvenation of the National River Ganga.
- It is being implemented by the **National Mission for Clean Ganga (NMCG)**, and its state counterpart organisations i.e., State Program Management Groups (SPMGs).

New focus areas to include:

- The **Tourism Ministry** is developing **tourism circuits** and planning exhibitions and fairs in 75 towns along the main stem of the river.
- The **Agriculture Ministry** is taking steps to **build organic farming and natural farming corridors**.
- The **Urban Affairs Ministry** is mapping **drains and solid waste management** along the river.
- The **Environment Ministry** is scaling up **afforestation and scaling up conservation efforts** to protect the Gangetic River dolphin
- **Arth Ganga** or harnessing economic **potential from the Ganga** and nearby communities
- The **Power Ministry** is working to reuse **treated wastewater for thermal power**
- The **Rural Development Ministry** is looking to **rejuvenate small rivers** and protect traditional water bodies.

India's Donkeys Disappearing

A fall in demand as a beast of burden, and illegal meat and skin trade have caused a critical decline in donkey numbers.

About donkeys:

- Finds use in places untouched by mechanisation, like brick kilns, where its small size helps it move quickly through narrow entrances.
- Used to **carry goods across rough** terrain
- Serve as a **draught animal** in farms.
- **Donkey milk is more nutritious** than bovine milk as it has a less fat content.
- **IUCN:** Near Threatened

Threat to donkeys:

- Donkeys are **not part of the income-generating milk, meat and fibre production** systems in livestock farming.
- **Illegal export to China:** In traditional Chinese medicine, boiling donkey skin produces gelatin called *ejiao*, which can be consumed or mixed with cosmetic products to treat conditions such as insomnia, dry cough and poor blood circulation.

SAFAR

- It is an initiative of **the Union Ministry of Earth Sciences (MoES)** launched in 2010 (for Delhi) for greater metropolitan cities to provide – Location-specific information on air quality in near real-time and it's forecast 1-3 days in advance.
- **SAFAR:** System of Air Quality and Weather Forecasting and Research
- It is developed by the **Indian Institute of Tropical Meteorology, Pune**, and is operationalised by the India Meteorological Department (IMD).
- SAFAR framework considers almost all pollutant levels – PM10, 1, 2.5, CO, NO_x, SO₂, Volatile Organic Compounds, etc., to compile the Air Quality Index (AQI).
- It promotes **public awareness** by educating the public, encouraging self-mitigation, and assisting policymakers in developing mitigation policies.

Drug or pharmaceutical pollution

- It is mainly a form of **water pollution**, caused by pharmaceutical drugs and their molecules which reach the aquatic environment (groundwater, rivers, lakes, and oceans) through wastewater.
- It is now detected in waters throughout the world and its causes include –
 - **Effluents** from pharmaceutical manufacturing,
 - **Ageing infrastructure** (such as water treatment plants which cannot filter out too small molecules),
 - **Sewage overflows** (drugs in urine and excreta) and

- **Agricultural runoff** (antibiotic use in livestock).

Effects:

- **On human health: for example**, Endocrine disruptor chemicals (EDCs) (e.g. endosulfan) directly influence sex hormones.
- **On aquatic life:** A suspected contributor in fish kills, amphibian die-offs, etc.

Aichi Targets

The Aichi Targets, adopted during the **2010 CBD summit in Nagoya**, included **goals such as reducing deforestation by at least half during the coming decade and curbing pollution so that it no longer harmed ecosystems**. Aichi was deemed a failure by the United Nations and the CBD secretariat called on parties to come up with another guiding document to direct conservation efforts through 2030 and beyond.

Aichi Targets

	Understand values		Reduce pollution		Enhance resilience
	Mainstream biodiversity		Reduce invasive spp.		Implement Nagoya Prot.
	Address incentives		Minimize reef loss		Revise NBSAPs
	Sustainable production		Protected areas		Respect and conserve TK
	Halve rate of loss		Prevent extinctions		Improve knowledge
	Sustainable fisheries		Conserve gene pool		Mobilize resources
	Manage within limits		Restore ecosystems		

Wildlife (Protection) Amendment Bill 2022

Rajya Sabha passed the Wildlife (Protection) Amendment Bill, 2022 which seeks to **conserve and protect wildlife** through better **management** of protected areas and **rationalise schedules** which list out species under the Wildlife (Protection) Act, 1972.

Features of the bill:

- **Implement the provisions of the CITES:** CITES is an international agreement between governments to ensure that **international trade in specimens of wild animals and plants** does not threaten the survival of the species.
- **Provides much more power at the hands of the Central Government:**
 - The central government can **designate a Management Authority**, which grants export or import **permits** for the trade of specimens.
 - **Central Government can regulate or prohibit the import, trade, possession or proliferation of invasive alien species** (plant or animal species which are not native to India and whose introduction may adversely impact wildlife or its habitat)
 - The central government may also notify a **conservation reserve** (typically act as buffer zones to or connectors and migration corridors between established national parks, and wildlife sanctuaries)
- **Reduces the number of schedules from Six (currently) to Four now:** Currently, there are six schedules: protected plants (one), specially protected animals (four), and vermin species (one). The new bill removes the schedule for vermin species (Vermin refers to small animals that carry diseases and destroy food e.g. Monkeys, Nilgai)

Reduces the number of schedules to Four

Schedule I	Animal species that will enjoy the highest level of protection
Schedule II	Animal species that will be subject to a lesser degree of protection
Schedule III	Protected Plant species
Schedule IV	Specimens listed in the Appendices under CITES (scheduled specimens)

- **Control of Sanctuaries to Chief Wildlife warden:** The Act entrusts the Chief Wildlife Warden to control, manage and maintain all sanctuaries in a state. The Chief Wildlife Warden is **appointed** by the **state**
- **Registration certificate for live specimens of scheduled animals:** People possessing live specimens of scheduled animals must obtain a registration certificate from the Management Authority.

- **Voluntary surrender of captive animals:** The bill provides for any person to voluntarily surrender any captive animals, without any compensation and consequent authority over the animal)
- **Exception for 'live elephant':** The Bill allows for Commercial Trade In Live Elephants. The Bill, therefore, allows for commercial trade in elephants. This is contrary to the **previous act (Wildlife (Protection) Act, 1972)** which specifically prohibits trade in Wild Animals including captive and wild elephants.
- **For sanctuaries falling under Scheduled Areas** (where FRA 2006 is applicable and comes under the 5th Schedule), the management plan must be prepared after due consultation with the **Gram Sabha concerned**
- **States can declare areas adjacent** to National parks and Sanctuaries as **Conservation Reserve**, for protecting flora and fauna, and their habitat.
- **Increases the Penalties:** For General violation (increases to Rs 1,00,000 from Rs25,000) and for specially protected animals (increases to 25,000 from Rs 10,000)

Issues with the Bill:

- **The exemption given to 'live elephant' for commercial trade:** Parliamentary Standing Committee headed by Jairam Ramesh objected to the blanket exemption, recommending to **limit it only to temple elephants kept for religious purposes**
- **Centre's hold over 'vermin' declaration continues:** Last year, Kerala's requests for declaring wild boars as vermin have been turned down repeatedly by the Environment ministry.
- The bill severely curtailed the **ability to graze across pastoral spaces** in the conservation areas
- **Impact on tribal communities:** The Van Gujjars are a semi-nomadic pastoral community (Uttarakhand, Uttar Pradesh and Himachal Pradesh) that may be impacted.

PathoDetect Kit

- It is **India's 1st indigenous TB detection kit** produced by Pune-based **Mylab**
- **Using a single test**, it can detect **tuberculosis and multi-drug resistance** (against Isoniazid and Rifampicin). The test kit is low-cost and can be stored at room temperature.

Wren babblers

New species of songbird Wren Babblers found in Arunachal Pradesh which has been named **Lisu Wren Babbler** (after the Lisu community of the state)

Wren Babbler: It is a small Asian bird of the babbler family chiefly found in South Asia.

About the Lisu community: The Lisu people are a Tibeto-Burman ethnic group who inhabit mountainous regions of Burma (Myanmar), southwest China, Thailand, and the Indian state of Arunachal Pradesh

About bird songs: In bird biology, the word “birdsong” means any sound delivered in the nesting period, usually by a male bird for the purpose of territorial defence or the attraction of a mate.

IUCN Red List Update

Three medicinal plant species in the Himalayas have been included in the IUCN Red List of Threatened Species. These are **Meizotropis pellita (critically endangered)**, **Fritilloria cirrhosa (vulnerable)** and **Dactylorhiza hatagirea (endangered)**.

Meizotropis pellita is commonly known as **Patwa**. It is a **perennial shrub** that is found only in **Uttarakhand**. The species was listed as critically endangered in the IUCN List based on its limited area of occupation (less than 10 square kilometres). Its survival is currently under threat because of **deforestation, habitat fragmentation and wildfires**. The essential oil extracted from the leaves of Patwa is found to have **strong antioxidants**.

India's largest botanical garden

- **Acharya Jagadish Chandra Bose Indian Botanic Garden** – India's largest botanical garden – is currently under threat because of severe land erosion by River Ganga.
- The Acharya Jagadish Chandra Bose Indian Botanic Garden was previously known as the Indian Botanic Garden and the Calcutta Botanic Garden. It is situated in West Bengal's **Howrah**, near Kolkata.
- It hosts wide range of rare plants, with the number of species collection reaching over 12,000 spanning across 109 hectares of land. Hence, this botanical garden is considered to be the **“largest man-made Plant Kingdom”**.

Forabot: The Fossil sorting robot

- This new technology can automate sorting, manipulating and identifying microscopic marine fossils.
- **Foraminifera (forams)** are very simple **microorganisms** that **secrete a tiny shell**. They have existed on the ocean floor for **more than 100 million years**. They leave behind their shells when they die.
- **Examining these shells** gives scientists an insight into the characteristics of the oceans from a time when the forams were alive.
- Different types of foram species thrive in the ocean environment and **physical inspection and sorting of forams require human time and effort**.
- With an accuracy rate of 67%, **Forabot automates** this tedious process.

Hypersonic Vehicle Test Run

- The Indian Space Research Organization (**ISRO**), along with the Headquarters of the Integrated Defense Staff (**HQ IDS**), conducted the joint test run of hypersonic vehicle. The recently held joint trial run fulfilled the predetermined targets successfully. This hypersonic vehicle is set to become operational in three to four years.
- A **hypersonic vehicle** is a vehicle capable of travelling at a speed higher than **Mach 5** (five times faster than the speed of sound). It can be an airplane, missile or spacecraft.
- Countries like **China, India, Russia, and the United States** are racing to enhance their ability to develop hypersonic missiles.
- These vehicles have high manoeuvrability and do not follow a predictable arc.

Just Transition Initiative

- **South Africa and Kenya** have recently announced the Just Transition Initiative to put an end to plastic pollution in an inclusive manner. This announcement came in the aftermath of the historic the first Session of the Intergovernmental Negotiating Committee (INC) to phase out plastic.
- The Just Transition Initiative aims to **phase out plastic in an inclusive manner** so that the transition does not adversely affect the concerned stakeholders.
- It aims to create decent jobs for waste-pickers and other workers in the plastic value chain.
- The first session of the Intergovernmental Negotiating Committee or INC-1 was held in **Uruguay's Punta del Este**. It is an international negotiation between governments, the private sector and civil society to end global plastic pollution.

Economics

Districts as Export Hub (DEH) initiative

- ODOP (One District One Product) initiative is operationally merged with the 'Districts as Export Hub (DEH)' initiative of the DGFT, Department of Commerce, with DPIIT as a major stakeholder.
- **ODOP focuses on identifying products in the districts** that have manufacturing and export potential. It comes under the Ministry of Food Processing Industries.
- **Under DEH**, a list of products and services with export potential is regularly updated for all districts of the country. It comes under the Ministry of Commerce and Industry.
- **District Export Promotion Committees (DEPCs)** are to be constituted in each District, headed by a Collector.
- The primary function of the DEPC is to prepare and act on **District Specific Export Action** Plans in collaboration with all the relevant stakeholders from the Centre, State and District.

Sports

PT Usha: 'Payyoli Express'

P.T. Usha becomes the **first woman chief** of the Indian Olympic Association

Values from her life:

- **Dedication and hard work in sports:** Overall, Usha won **23 medals** in the Asian track and field events in the 1980s and remained active as a coach post-retirement. She is also known as the **"Queen of track and field"**
- **Breaking a glass ceiling:** 58-year-old P T Usha gained immense popularity back in the 1980s at a time when not many women came forward in the world of sports. She found herself a place in one of the **first batches of sport-oriented schools** the Kerala government had set up at that time.
- **Overcoming defeat: Los Angeles Olympics of 1984:** She qualified for the 400m hurdles final and missed out on the bronze medal by just one-hundredth of a second. Despite her defeat, this game made her a **household name** in India

Current Affairs Update (Dec 17-30)

National

The Indian constitution views on alcohol

- **Article 47:** The State shall make every effort to ban the consumption of intoxicating drinks and substances that are injurious to health.
- Though not legally enforceable, DPSPs **set goals for the state** so that citizens can lead a good life. Thus, alcohol is seen by the Constitution as an **undesirable evil that needs to be regulated**.
- **7th Schedule of the Constitution puts alcohol on the state list**., state legislatures have the right and responsibility to draft laws regarding it.
- Hence, alcohol regulations **vary** from state to state, spanning the entire range from **prohibition to private sale**.
- Currently, there are five states (Bihar, Gujarat, Lakshadweep, Nagaland, and Mizoram) with total prohibition and some more with partial prohibition.

Negative effects of Prohibition:

- Boosts underground market.
- Strengthening organised crime groups (or mafias).
- Spurious liquor disproportionately affects poorer sections.

Vijay Diwas

Vijay Diwas or Victory Day is commemorated on December 16, **marking the end of the 1971 Indo-Pak War** and the **liberation of Bangladesh**. India declared victory on this day 51 years ago after Pakistan signed the Instrument of Surrender.

India's role in the 1971 War

- **Launched Operation Jackpot**, an operation to **recruit, train, arm, equip, supply** and advise Mukti Bahini fighters engaged in **guerrilla warfare against the Pakistan military**.
- When the Pakistan Air Force launched **pre-emptive strikes towards Western India** (including Amritsar, Pathankot, Srinagar, Avantipura, Ambala, Sirsa and Agra), **India formally declared war on December**
- An important figure in this war was India's Field Marshal Sam Manekshaw, who is often evoked in relation to it. **His planning and strategy helped secure one of the quickest victories in recent military history**.

Shimla Agreement:

- The Agreement **was a peace treaty signed between India and Pakistan** on 2 July 1972 in Shimla, the capital city of the Indian state of Himachal Pradesh
- The agreement converted the **cease-fire line of 17 December 1971 into the Line of Control (LOC)** between India and Pakistan and it was agreed that “neither side shall seek to alter it unilaterally, irrespective of mutual differences and legal interpretations”.

The law on acid attacks

- **Until 2013**, acid attacks were not treated as separate crimes. However, acid attacks were put under a separate **section (326A) of the IPC** and made punishable with a minimum imprisonment of 10 years which is extendable to life along with a fine.
- The law also has **provisions for punishment for denial of treatment** to victims or police officers refusing to register an FIR.
- **Denial of treatment** can lead to imprisonment of up to one year and **dereliction of duty** by a police officer is punishable by imprisonment of up to two years.

The law on the regulation of acid sales:

- In 2013, **the SC took cognizance** of acid attacks and passed an order on the regulation of sales of corrosive substances.
- As a result, **the MHA issued an advisory** to all states on how to regulate acid sales and framed **the Model Poisons Possession and Sale Rules, 2013** under The Poisons Act, 1919.

Gond Tribes and Hattee community

A motion has been initiated in Lok Sabha to include **Hattee community of Sirmaur district’s Trans-Giri region** in the Scheduled Tribes list of Himachal Pradesh. Also, a bill to move in the **Gond community from SC to the ST list** in four districts of UP has been approved by the Rajya Sabha.

About Gond Tribes: Gond is one of the **largest tribal groups** speaking the Gondi language (a Dravidian ethnolinguistic group). They are spread over several states- MP, Chhattisgarh, Maharashtra, etc. They are generally peasants and worship nature. **Bhil** are the largest Tribe in India (consisting of **38%** of the ST population of India)

Issues with Civil Services in India

- **Structural Issues-Issue of colonial legacy:** many of the structures and processes in Indian civil services still rely on colonial rules and processes e.g. Dual system of administration in Indian cities, outdated personal procedures
- **The issue with the mindset:** Indian civil service is

- Aimed at **development** (rather than the outcome of the policy area)
- Committed to **civil service** (rather than public service),
- Has a precedent of a **follower** (rather than the creator)
- Is **monopolistic** (rather than competitive)
- **Status Quoist:** Civil service resist change since they are wedded to their privileges and prospects e.g. **lateral entry** at the undersecretary level has long been fiercely opposed by Civil servants. Despite **73rd and 74th amendments**, grass-root democracy has not given the desired result due to **the reluctance of civil servants** to accept changes in authority and control
- **Rule-Book Bureaucracy:** This has led to issues of high-handed 'bureaucratic behaviour', (e.g. **DM in Tripura** was suspended recently for raiding a marriage party and misbehaving with guests). This has also led to **red-tapism, complicated procedures, and poor responses** to the needs of people.
- **Political interference:** This has led to issues of corruption, arbitrary transfer of honest civil servants (e.g. Haryana IAS office **Ashok Khemka** frequent transfer), inefficiency, institutional decline, and lack of professionalism

Water Impact Summit

The 7th edition of the India Water Impact Summit concluded on 17th December 2022 after 3 days of fruitful deliberations on important aspects of water conservation and river rejuvenation, with special emphasis on the revival of small rivers for the protection of large basins.

Key outcomes:

- **Need for forming a national river framework:** The framework will monitor the river health, process and responsibility of organizations.
- **Theme:** Restoration and Conservation of Small Rivers in a Large Basin with emphasis on the 5Ps'- People, Policy, Plan, Programme and Project.

Organized by: National Mission for Clean Ganga (NMCG) (a registered society) along with Centre for **Ganga River Basin Management and Studies** (c-Ganga) (established at IIT Kanpur with excellence in data collection on the Ganga River Basin)

In the Constitution, **water** is a matter included in **Entry 17 of List-II i.e. State List**

Urban 20

- U20 is an important city diplomacy initiative, which **reinforces the role of cities in taking the sustainable agenda forward.**

- Urban-20 (U20), one of the **Engagement Groups of G20**, provides a platform for cities from G20 countries to facilitate discussions on various important issues of **urban development including climate change, social inclusion, sustainable mobility, and affordable housing, and propose collective solutions.**
- The U20 2023 Cycle will be **chaired by the City of Ahmedabad**
- The Urban 20 (U20) is a city diplomacy initiative **launched on December 12, 2017, at the One Planet Summit in Paris.**
- It aims to facilitate lasting engagement between the G20 and cities, raise the profile of urban issues in the G20 agenda, and establish a forum for cities to develop a collective message and perspective to inform G20 negotiations.
- **C40 Cities (C40) and United Cities and Local Governments (UCLG)** convene the U20 **under the leadership of a Chair city that rotates annually, based in the G20 host country.**

Rule 267

Rule 267 of the Rajya Sabha rulebook, which allows for the suspension of a day's business to debate the issue suggested by a Member, has become a bone of contention in the Upper House. **Not a single notice** under the rule moved by the Opposition has been accepted in this Winter Session of Parliament.

What is Rule 267?

The Rajya Sabha defines Rule 267, under 'suspension of rules', as an instance where "any member, may, with the **consent of the Chairman**, move that **any rule may be suspended** in its application to a motion related to the business listed before the Council of that day and **if the motion is carried**, the rule in question shall be suspended for the time being."

Therefore, it is simply the provision for a House member to request the Chairman to suspend issues listed out for discussion on a particular day in order to **deliberate a separate issue.**

The **rule shall not apply** where a specific provision already exists for suspension of a rule under a particular chapter of the Rules.

Usually, such requests are not accepted by the chairman, with **3 exceptions in 2015 and 2016.** The last time the rule was used to request a discussion was in **November 2016** – the issue in question being 'demonetisation'.

Recent efforts made by Indian government for good governance

- **Jan Vishwas (Amendment of Provisions) Bill, 2022:** It promotes ease of living and doing business by decriminalising minor offences in 42 Acts administered by 19 ministries.
- **E-Office 7.0:** Enables users to create and manage electronic documents that can be viewed, searched and shared.



Vivek Career Academy SCO 385, Sector 8, Panchkula

- **Swachhta Special Campaign 2.0:** For swachhta in government offices and disposal of pending matters from 2nd to 31st October, 2022.
- **Prashasan Gaon Ki Ore 2022:** It is a nation-wide campaign for redressal of public grievances and improving service delivery which is being held in all Districts, States, and UTs of India.

Project Vaani

- Project Vaani will be implemented jointly by the Indian Institute of Sciences (IISc), ARTPARK (AI and Robotics Technology Park), and Google to gather speech data from across India for the creation of an AI-based language model that can understand diverse Indian languages and dialects.
- Under Project Vaani, diverse languages used across India will be mapped by collecting speech sets of around 1 million people from 773 districts over 3 years.
- This project uses a district-anchored approach, which involves recording local speeches by randomly selecting over 1,000 people from each district.
- One of the main objectives of this project is the development of technologies like automatic speech recognition, speech-to-speech translation and natural language understanding.

Veer Bal Diwas (26th December)

As a tribute to Guru Gobind Singh's martyred sons- **Zorawar (6 years) and Fateh Singh (9 years)**, the nation observed the **1st Veer Bal Diwas**. Also, the last week of December is observed as '**Shaheedi Saptah' (martyr's week)**. **Four sons of Guru Gobind Singh** were martyred on this day by the army of Aurangzeb (1704).

Guru Gobind Singh was born on **22nd December 1666 in Patna (Bihar) (based on the Nanakshahi calendar)**. He created **Khalsa Panth** and fought the **battles of Anandpur (1700) and Chamkaur (1704)**. He wrote **Zafarnamah** in 1705.

National Mobile Monitoring System (NMMS)

Digitally capturing the attendance of workers employed under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGREGS) through NMMS has been made **universal** by the Centre from January 1, 2023. **Any worksite having 20 or more workers under MGREGS** are to compulsorily mark the attendance through NMMS

About NMMS:

- **The NMMS App** was launched by the Minister of Rural Development on **May 21 2021**. This app is aimed at bringing **more transparency and ensuring proper monitoring** of the schemes.
- It permits **taking real-time attendance of workers** at Mahatma Gandhi NREGA worksites along with a **geo-tagged photograph**.
- The app helps in increasing **citizen oversight** of the programme.

- The App is applicable for the **Mahatma Gandhi NREGA workers** for all the States/ Union Territories.

International

Doxxing

- Doxxing is the **revealing of someone's intimate information** with harassment as the intent. It is a popular and controversial tactic used against those with opposing political views. Even celebrities and influencers have been doxxed with real-life consequences.
- Twitter's policy now **includes sharing the live location of any individual as a possible "serious safety and security risk,"** and this is not allowed (neglected in the older version).
- According to the policy, **violation of these can result in the account getting locked and continued violations can result in a permanent suspension.** But sharing anyone's live location without express permission will lead to an automatic suspension, which is what happened with the journalists.

UNSC resolution 2593

- India joins other nations in criticising Taliban's ban on Women in universities.
- **United Nations Security Council Resolution 2593** was adopted on 30 August 2021, following the Fall of Kabul and subsequent **Taliban takeover in Afghanistan.**
- According to the resolution, the Security Council demands that **Afghan territory not be used to threaten or attack any other country or to shelter and train terrorists.**
- It reaffirms importance of **upholding human rights** including those of **women.**

Japan Adopts New Policy to Promote Nuclear Energy

Japan has adopted a new policy promoting greater use of nuclear energy to secure a stable power supply and reduce carbon emissions, reversing its previous plan to phase out nuclear energy by 2030. The new policy calls for the maximum use of existing nuclear reactors by restarting as many as possible and extending the operating life of old reactors beyond their 60-year limit, as well as developing next-generation reactors to replace them.

Nepal's new PM

- **Pushpa Kamal Dahal "Prachanda"** was sworn in as Nepal's new Prime Minister after he switched sides to join hands with a bitter foe, the former prime minister Kharga Prasad Oli.
- **Delhi views Oli as pro-China, and the coming together of Communist forces to form the government is a turning back of the clock from its point of view.** After the bitterness in ties during Oli's terms in office from 2015-2016 and 2018-2021, **India-Nepal relations improved after Deuba became PM in 2021.**

Bomb cyclone

- **Bomb cyclones** form when the air near Earth's surface rises quickly in the atmosphere, **triggering a sudden drop** in barometric pressure — **at least 24 millibars within 24 hours**
- **This quickly increases the pressure difference or gradient**, between the two air masses, therefore making the winds stronger.
- This process of **rapid intensification** has an even more ferocious-sounding name: **bombogenesis**.
- An intense **blizzard/snowstorm/bomb cyclone** is wreaking havoc across the United States and Canada. Forecasters have dubbed the blizzard a "**bomb cyclone**," describing it as **distinct from typical weather patterns**.

The dark pattern on the internet

- Some Internet-based firms have been tricking users by deploying "dark patterns," which are also known as "deceptive patterns."
- The term is credited to UI/UX (user interface/user experience) researcher and designer **Harry Brignull**, who has been working to catalogue such patterns and the companies using them since around 2010.
- These are **unethical UI designs** that deliberately make one's internet experience harder or even exploit them and benefit the company or platform employing the designs.
- Uninformed users would not have accepted such terms or clicked URLs (uniform resource location) if digital platforms had not utilised deceptive tactics.
- Such acceptances and clicks **flood consumers' inboxes with promotional emails** they never wanted, making it difficult to unsubscribe or request deletion.
- The Federal Trade Commission of the US listed **over 30 dark patterns**, many of which are considered standard practice across social media platforms and e-commerce sites. **These include** making cancellation buttons hard to see or click, making ads appear as news reports or celebrity endorsements, etc.

Science-Tech & Environment

Kunming-Montreal Global Biodiversity Framework

The 15th Conference of Parties (COP15) to the United Nations Convention on Biological Diversity (CBD) held in Montreal in December 2022 adopted the Kunming-Montreal Global Biodiversity Framework (GBF). The GBF includes four goals and 23 targets to address the loss of biodiversity and restore natural

ecosystems by 2030. The GBF was agreed upon by representatives of 188 governments, including 95% of all Parties to the CBD, as well as the United States and the Vatican.

Targets of the GBF

- Protecting at least 30% of the world's land, water, coastal, and marine areas
- Restoring at least 30% of degraded terrestrial, inland water, coastal, and marine ecosystems
- Reducing or eliminating the loss of areas with high biodiversity importance
- Cutting global food waste in half and reducing overconsumption and waste
- Reducing the use of pesticides and hazardous chemicals by half
- Phasing out or reforming subsidies that harm biodiversity by at least USD500 billion per year and scaling up incentives for conservation and sustainable use
- Mobilizing at least USD200 billion per year in funding from all sources for biodiversity-related causes
- Increasing international financial flows to developing countries to at least USD20 billion per year by 2025 and at least USD30 billion per year by 2030
- Preventing the introduction of invasive species and reducing the establishment of other known or potential invasive species
- Requiring large and transnational companies to disclose their risks and impacts on biodiversity

Opportunities of using 5G

- **High-speed and Digital India**
- **Better Governance:** Better speed and connectivity would **reduce red-tapism**
- **Employment generation:** 5G will open greater opportunities for new device manufacturers and application developers.
- **Enhanced coverage:** Device-to-device communication techniques will further enhance network performance.
- **Reduced digital gap: small cell concept** used in 5G will have multiple advantages of better cell coverage, maximum data transfer, low power consumption and cloud access network etc.
- **Entertainment and multimedia industry:** Analysts found that 55% of mobile Internet traffic has been used for video downloads globally in 2015.
- **Enhanced Security:** 5G wireless technology is one the best solution for security surveillance due to higher bandwidth and unlicensed spectrum.
- **Logistics and Shipping:** Logistic and shipping industry can make use of smart 5G technology for goods tracking, fleet management etc.
- **Boost Smart cities**
- **Industrial Growth**
- **Agricultural applications:** 5g technology can be used for agriculture and smart farming in future. Using **smart RFID sensors and GPS technology**.

Sanskrit problem in Panini's 'Ashtadhyayi'

In his PhD thesis, Cambridge scholar **Dr Rishi Rajpopat claims to have solved Sanskrit's biggest puzzle**— a grammar problem found in the '**Ashtadhyayi**', (an ancient text written by the **scholar Panini** in the 4th century BC)

Significance: Experts are calling the **discovery revolutionary**, as it may allow **Panini's grammar to be taught to computers** for the first time.

What is Solar Geo-engineering?

- **Solar geoengineering** involves spraying substances into the atmosphere that form reflective aerosols and bounce sunlight back into space.
- This could stop global temperatures from increasing, but **temperatures locally or regionally might continue to increase** over the following few years, new research shows.
- The wider consequences of solar geoengineering are **still poorly understood**, making it a potentially risky approach to tackle global warming.
- It involves **shooting reflective particles into the stratosphere** to deflect the rays of the Sun and help bring down territorial temperature.
- However, last time in 1991, the **eruption of Mount Pinatubo** (Phillippines) brought about a '**volcanic winter**', with global temperature cooling **by 0.4 degrees Celcius**, leading to the issue of food scarcity.

Water worlds detected

According to a new study **two alien planets, about 218 light years away from Earth** have found a **twin in the ocean worlds of Europa and Enceladus** — moons orbiting Jupiter and Saturn. According to the National Aeronautics and Space Administration (NASA), these exoplanets were found in the **constellation Lyra**.

Key Findings:

- The exoplanets, **Kepler-138 c and Kepler-138 d, are likely water worlds** — a feature that scientists have theorized for a long time.
- The volume of the two alien worlds was **three times that of Earth and mass twice as big**.
- The **Kepler- 138 c and d are made up of ingredients lighter than rock (rocky planets like Earth) but heavier than hydrogen or helium (gas-giant planets like Jupiter)**.

UN recognises Namami Gange

The UN has recognised the **Namami Gange initiative** to rejuvenate river Ganga as one of the **top 10 World Restoration Flagships** aimed at reviving the natural world during a function at the 15th COP15 to the Convention on Biodiversity (CBD) in Montreal, Canada on World Restoration Day (14th December).

The entries were selected under the **United Nations Decade on Ecosystem Restoration (2021-2030)** (coordinated by the UNEP and FAO)

“World-first” operation using stem cells

A heart surgeon in England has carried out a “**world-first**” operation using stem cells from the **placentas**. Stem cells are the **body’s raw materials** — cells from which **all other cells with specialized functions** are generated. Under the right conditions in the body or a laboratory, **stem cells divide to form more cells** called daughter cells.

Stem cell scaffolding: Developing a stem cell scaffolding architecture (temporary platform to build tissues) supports **vascular cell ingrowth, and promotes wound healing** and **regenerative medicine** that is effective in treating bone, cartilage, blood vessel, skin, tendon, and nerve damage. **Using a bio-printer**, a **stem cell scaffold** is made to repair **abnormalities** to valves in blood vessels and to mend holes between the two main pumping chambers of the heart.

Significance of the operation: It can help **develop technology so children** born with **congenital cardiac disease** won’t need as many operations.

NGT extends stay on the ministry of environment’s notification on construction projects

The National Green Tribunal has extended the stay on the Ministry of Environment notification modifying the Environmental Impact Assessment (EIA) conditions for certain construction projects.

Previously, in the 2018 notification, the ministry had given the powers to **local bodies instead of State Environment Impact Assessment Authorities** (SEIAAs) to do EIA of:

- **Construction projects** (built-up areas between 20,000 sqm to 50,000 sqm)
- **Industrial sheds, educational institutions, hospitals and hostels for educational institutions** (built-up areas between 20,000 sqm and 1,50,000 sqm)

Issues: NGT has now given the decision that such changes will result in diluting the mechanism of EIA by SEIAA and thus cannot be sustained.

EIA notification 2020 and its impact:

- **Public Consultation:** Reduced to max 40 days and only 20 days (from 30 days) for submitting a response. This will help speed up the process of EIA. However, it may give very little time for Tribal and forest dwellers who are not aware of technical details or have the means to access them.

- **More Discretionary power for Government:** Power to declare '**economically sensitive areas**' without a public hearing as well as give any project a '**strategic tag**' (so no EIA obligation)
 - This is important for the clearance of strategic projects related to **defence and national security** as well as projects deemed too important for the nation.
 - However, there is fear of misuse of this clause for **political or economic reasons** to circumvent EIA
- **Common assessment for all the seasons by replacing seasonal assessment:** No need to cover all the seasons in a year. This may make EIA **less reliable** and not reveal the full impact of EIA
- **Report Issues:** reduced from once every six months to once every year. This will dilute the scrutiny and it may be late before any mitigation measures could be taken for highlighted project impact.

The science behind high methane release in ruminants

- Unlike other animals, **ruminants have specialized digestive systems comprised of stomachs that have four compartments instead of one.**
- Plant material is initially taken to the rumen, the largest compartment in the stomach that is inhabited by microorganisms such as fungi, bacteria, protozoa and archaea.
- These microorganisms break down the otherwise indigestible cellulose-rich plants to release protein and energy for their host animal in exchange for nutrition and shelter.
- But during this process, **which scientists call enteric fermentation, one particular microbe, the archaea, combines CO₂ and hydrogen made by the cellulose-digesting microbes to create methane.** This means the archaeal population and a diet rich in roughage dictate the amount of methane released by a ruminant.

Genes responsible for the long lifespan of banyan, Peepal trees identified

- Researchers at the **Indian Institute of Science Education and Research (IISER) Bhopal** have carried out **whole genome sequencing of banyan** (*Ficus benghalensis*) and peepal (*Ficus religiosa*) from leaf tissue samples
- The work helped in identifying **17 genes in the case of banyan and 19 genes of peepal with multiple signs of adaptive evolution (MSA)** that play a pivotal role in the long-time survival of these two *Ficus* species.
- **About *Ficus religiosa*:** *Ficus religiosa* or sacred fig is a species of fig native to the Indian subcontinent and Indochina that belongs to the Moraceae family.
- The lifespan of the banyan tree is expected to be **200 – 500 years**. Peepal trees, on the other hand, can survive up to **2500**

INS Mormugao

- Indian Naval Ship (INS) Mormugao was commissioned recently. It is the **2nd warship** of the P15B class of **stealth guided-missile destroyers**
- **Built by** Mazagon Dock Shipbuilders Limited (MDSL)
- **Named after:** It has been named after a key port in Goa which was commissioned a day before the Goa Liberation Day celebrations
- **A ship 'class'** describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.
- **Other upcoming ships of this class:** Imphal, and Surat
- **About Project 15A:** Over the last decade, the Indian Navy has commissioned **three guided missile destroyers** of the Kolkata class — INS Kolkata, INS Kochi, and INS Chennai.
- **About Project 15B:** This is the advanced version of Project 15A with four guided missile destroyers. Its lead ship INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.
- A ship class is identified by its **lead ship**, in this case, **INS Visakhapatnam. All these ships were built by MDSL (including Project 15A)**, one of the country's most important Defence PSUs.

Surya Kiran XVI

The joint military exercise between India and Nepal, Exercise Surya Kiran XVI, is being held from December 16 to 29 this year in Nepal Army Battle School in Nepal's Saljhandi.

INS Arnala

- The Indian Navy launched the indigenously-built ship INS Arnala at the shipbuilding facility of Larsen & Toubro (L&T) in Chennai's Kattupalli.
- Arnala is the first of the 8 anti-submarine warfare shallow water craft (ASW-SWC) that are currently being built by the Garden Reach Shipbuilders and Engineers Ltd (GRSE).
- The ship has been named Arnala to highlight the maritime significance of the Arnala island, which is situated some 13 km north of Maharashtra's Vasai. Maratha warrior king Chhatrapati Shivaji Maharaj bestowed strategic importance on this island during his reign.
- The 'Arnala' class ships are being built to replace the Indian Navy's 'Abhay' class ASW ships.

INS Vagir

- Vagir is the **5th Scorpene class submarine** which has been built indigenously (under Project-75 by Mazagon Dock Shipbuilders Ltd. and France's help) and has now been delivered to the navy.
- **The other 5 submarines are:** Kalvari, Khanderi, Karanj, Vela and Vagsheer (under construction)
- **About Project 75:** Project – 75 (started in 1998) includes the indigenous construction of six submarines of Scorpene design. The submarines are being constructed at MDL in Mumbai in collaboration with the Naval Group of France

Carbon Border Tax

- A carbon border tax is an **import duty** based on the amount of carbon emissions produced by the goods in question.
- It discourages emissions as a carbon price, and it has an impact on production and exports as a trade-related measure.

Why in news? The European Union (EU) agreed on a preliminary deal for an EU Carbon Border Adjustment Mechanism (CBAM) on imported goods such as iron and steel, cement, aluminium, fertilisers, electricity and hydrogen.

The CBAM/ a carbon border tax/ carbon leakage instrument was proposed by the EU in 2021 and will be applicable from October 1, 2023.

Stated goal of CBAM:

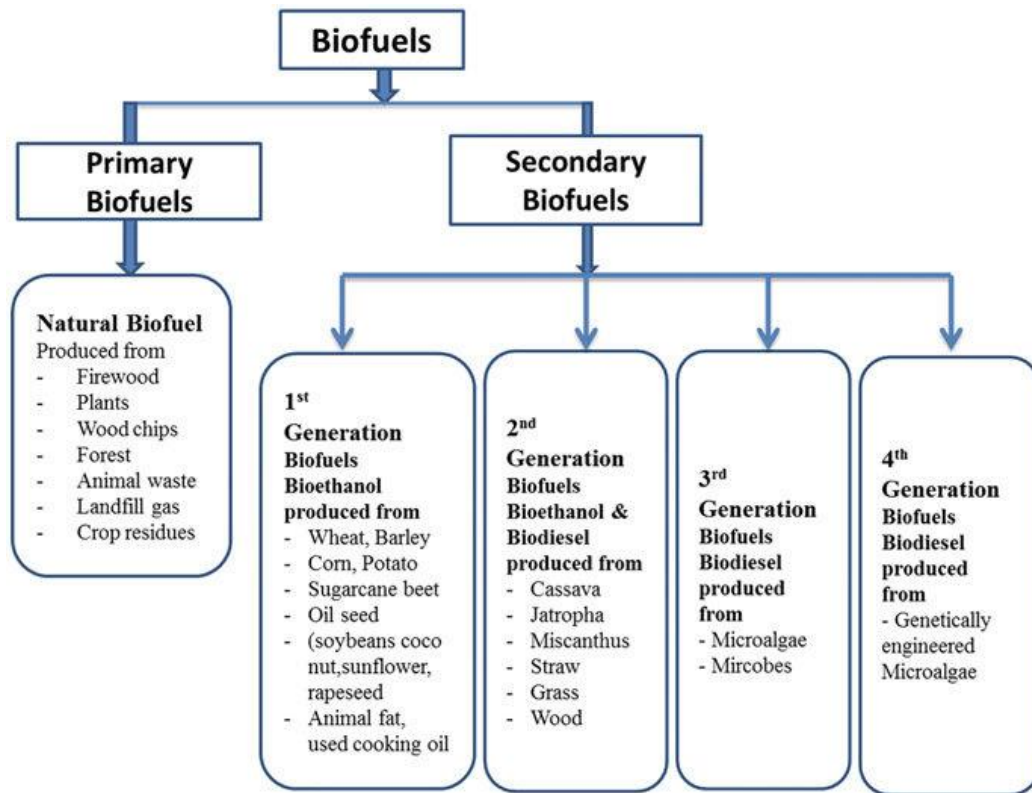
- **To eliminate the difference in carbon price** paid by companies subject to the EU's Emissions Trading System (ETS) and the price paid by companies elsewhere.
- **Levelling the playing field for EU firms.**
- To implement stronger emission reduction efforts.
- **Incentivises non-EU countries** to increase their climate ambition.
- It will ensure that EU and global climate efforts are not undermined due to the relocation of production which is defined as '**carbon leakage**'.

Facial Recognition Technology

- Facial recognition is a way of recognizing a human face through technology.
- It uses **biometrics** to map facial features from a photograph or video.
- It compares the information with a database of known faces to find a match.

How it works?

1. A **picture of the face is captured** from a photo or video.
2. Facial recognition **software reads the geometry of the face** (Ex- the distance between eyes and the distance from forehead to chin)
3. **Facial signature** — a mathematical formula — **is compared to a database of known faces.**
4. A determination is made. The **faceprint may match that of an image in a facial recognition system database.**



Lion @ 47: Vision for 'Amrutkal'

Project Lion document titled "Lion @ 47: Vision for Amrutkal" has been prepared by Ministry of Environment, Forest and Climate Change.

The Project is being implemented in the **Gir landscape** in Gujarat which is the **last home of the Asiatic lion**. It envisages landscape ecology-based conservation by integrating conservation and eco-development.

Objectives:

- To **secure & restore lions' habitats** for managing its growing population
- **Scale up livelihood generation and participation of local communities**
- To make **India a global hub of knowledge** on big cat disease diagnostics and treatment
- Create inclusive biodiversity conservation

What does AI need to work?

1. High quality, unbiased data
2. Computational Infrastructure

3. Improved models and algorithms
4. Symbolic AI

Schemes in India to boost AI:

1. **National Strategy for AI** – to develop an ecosystem for the research and adoption of Artificial Intelligence i.e., #AIFOR ALL.
2. **Visveswaraya PhD Scheme**
3. **National programme of responsible use of AI for Youth**
4. A founding member of the **Global Partnership on Artificial Intelligence (GPAI)**.
5. Government of India organized **Responsible AI for Social Empowerment (RAISE)** – to draw a roadmap social transformation, inclusion and empowerment through responsible AI.

The SARS-CoV-2 lineages circulating in China

- According to the SARS-CoV-2 sequencing data submitted from China to the Global Initiative on Sharing All Influenza Data (**GISAID**) – a globally accessible repository of SARS-CoV-2 genome sequences, the country has seen –
- **Delta** and its sub-lineages in 2021.
- **Omicron** and its sub-lineages (BA.5.2, BQ.1.1, .7, **BF.5**, **BA.2.75** and the recombinant lineage **XBB**) in 2022.

Polar Bears (*Ursus maritimus*)

- It is a **hyper-carnivorous** (animals with over 70% meat diet) species whose native range lies largely within the Arctic Circle. It is the largest extant bear species, as well as the **largest extant land carnivore**.
- **Impact of climate change on polar bears:** The Arctic Sea ice (which is melting due to rising global temperatures) is crucial to polar bears' survival as they use it not only to hunt seals (chief food) but also for travelling, mating and resting.
- **Importance of polar bears:** Polar bears are one of the most significant predators in the Arctic region and they keep **biological populations in balance**.
- According to the researchers, Western Hudson Bay (the region includes Churchill, the town that is known as '**the Polar Bear Capital of the World**') has witnessed a drop of around 50% in the population of polar bears since the 1980s.

Economics

Registered GI rise to 432

Adding to the present collection of GIs, **09 new items from various states of India such as Gamosa of Assam, Tandur Redgram of Telangana, Raktsey Karpo Apricot of Ladakh, Alibag White Onion of Maharashtra etc. have been given the coveted GI Tags.**

The top five states holding maximum number of GIs are **Karnataka, Tamil Nadu, Uttar Pradesh, Maharashtra and Kerala.**

About GI Tag:

- A GI is primarily an **agricultural, natural or a manufactured product (handicraft and industrial goods)** originating from a definite geographical territory.
- Typically, such a name conveys an **assurance of quality and distinctiveness**, which is essentially attributable to the place of its origin.
- The **Geographical Indications of Goods (Registration and Protection) Act, 1999** seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- It is governed and directed by **the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).**

Decriminalisation of offences under GST

The Finance Minister chaired the 48th GST Council, which recommended decriminalising certain offences under Section 132 of the Central Goods and Services Tax (CGST) Act, 2017.

About Goods and Services Tax (GST):

- It is an **indirect tax** (a tax which is not directly paid by customers to the government) that came into effect on July 1, 2017, as a result of the 101st Amendment to the Indian Constitution.
- It has **replaced** several indirect taxes in the country, including service taxes, VAT, excise, etc.
- It is imposed on both manufacturers and sellers of goods, as well as suppliers of services.
- For tax collection, it is divided into five tax slabs – **0%, 5%, 12%, 18%, and 28%.**

Penalties under GST law:

- **The department authorities** have the jurisdiction to impose monetary fines and the seizure of goods as penalties for violating statutory provisions.
- **Criminal penalties** include imprisonment and fines but can be awarded only in a criminal court following a prosecution. **The amount of tax evaded**, the amount of Input Tax Credit (ITC) improperly claimed or used, etc, determines the length of the prison sentence.
- The Act also divides offences into – **cognisable and bailable** and **non-cognisable and bailable.**

Measures recommended at the 48th GST Council meeting:

- **Raising the minimum tax** amount for commencing a GST prosecution from one to two crore.
- Reducing the compounding amount from 50 to 150% of the tax amount to 25 to 100% of the tax amount.
- Decriminalising certain offences under Section 132 of the CGST Act, 2017, such as preventing an officer from doing his duties, deliberate tampering with material evidence and failure to supply information.
- **Other suggestions** include refunding unregistered individuals and facilitating e-commerce for small businesses.

'Lollapalooza Effect' on Meta stock

- **The term 'Lollapalooza Effect'** means a confluence of factors acting together that can lead to either largely positive or negative results.
- **E.g.** Meta has brands like Facebook, Instagram and WhatsApp, which are used by about 3.7 billion people on a monthly basis.
- It was one of the safest investment choices by scaling revenues from **\$5 billion to more than \$100 billion**, and delivering 40% and above PAT growth. However, its **valuation has fallen by 70-75%** (close to a **\$700-billion decline**) in a matter of **15 months**, indicating the 'Lollapalooza Effect'

Scholarship for Higher Education for Young Achievers Scheme (SHREYAS)

It is a **central sector scheme** under the **Ministry of Social Justice and Empowerment (MoSJE)** that provides financial assistance to **students from Scheduled Castes (SC)** and other communities for pursuing education.

It is proposed to be **implemented during 2021-22 to 2025-26** and covers:

- Top-class education for SCs
- National Overseas Scholarship for SC students (NOS)
- National Fellowship for SCs (NFSC)
- Free coaching for SC and OBC students

National Farmers Day

Union Home and Cooperation Minister Shri Amit Shah wished farmers across the country on the occasion of Farmer's Day, on 23rd Dec.

Why is it celebrated?

- To commemorate and recognise **the farmers as the country's backbone**.
- The date was selected as it coincides with the birth anniversary of **India's 5th Prime Minister Chaudry Charan Singh**.

- It is being celebrated since 2001.

About Chaudry Charan Singh:

- Popularly called as **Kisan Leader**
- His **writings** not only portrayed the **difficulties faced by the farmers**, but also contained solutions to improve their lives.
- **Inspired by Lal Bahadur Shastri**, Charan Singh saw how the exploitation of farmers at the hands of zamindars impacted India's rural economy.
- As Revenue Minister of UP, he **designed land reform laws** which made the peasants of the nation look upto him.

His popular works include – “**Abolition of Zamindari**”, “**Joint Farming X-rayed**”, “**India's Poverty and its Solution**”, **Peasant Proprietorship**

Social stock exchange (SSE)

- SEBI has given nod to the National Stock exchange (NSE) for the social stock exchange, to set up a **Social Stock Exchange (SSE)** as a separate segment of the NSE.
- The government had in her **Union Budget speech of 2019-20**, proposed the creation of a Social Stock Exchange. It then issued a new security '**Zero Coupon Zero Principal (ZCZP)**'. This year in July, SEBI notified rules for **SSE**.
- Currently, the regulations have prescribed the **minimum issue size as ₹1 crore** and the **minimum application size for subscription at ₹2 lakhs**. Subscription to the ZCZP would be like a **philanthropic donation**

As per the SEBI:

- Social Stock Exchange may be constituted as a **separate segment under the existing stock exchanges**.
- A social enterprise may be eligible for **onboarding on SSE** if it demonstrates that **social intent and impact are its primary goals** and it reports such impact. This is **irrespective** of the legal structure of the enterprise.
- It allows For-Profit Social Enterprises (FPEs) and not-for-profit organizations (NPO) with a social purpose, to raise funds

Examples of SSEs are: Singapore (Impact Investment Exchange), Canada(Social Venture Connexion) and the UK (Social Stock Exchange)

Ethics

Values that can be learnt from the life of Atal Bihari Vajpayee

Respected leader: Prime Minister Jawaharlal Nehru respected young Vajpayee as a leader in the Opposition, and **sent him to represent India in UN General Assembly**. Vajpayee respected the **right to dissent or disagree, as a part of polemics**, and yet engaged with the dissenter, within and beyond his own party, which is so important in current times.

Good Governance: Proposed training for **newbie legislators**, and **proposed National Agenda of Governance** including the role of parliamentarians.

High moral values: His writing, **'Andhiara fir hatega, ek naya savera ayega'** and poem, **'Geet Naya Gata Hoon'**, bear testimony to his **spirit against adversity and acceptance of the same to win another day**.

People rewarded him with a full majority in 1999 and **he ruled full term as the first non-Congress PM to have finished a full term**.

Nationalist: He advocated and **practised positive nationalism**. He proudly took **Hindi to the UN first time and spoke it in the General Assembly**. He represented the best of **Indian ethos and culture**.

Infrastructural Development: Vajpayee was the man who ushered in an **infrastructural revolution in India**. His model of **development was inclusive**.

- He initiated the **Delhi Metro rail as a mass transit system**.
- He brought in **National Highway Development Project leading to East West North South Corridor or the Golden Quadrilatera**
- He envisaged and executed the first **round of Pradhan Mantri Gram Sadak Yojana** which connected rural India greatly.
- **The New Telecom Policy of 1999** brought in by him was also a crucial part of the Indian telecom revolution.

Messenger of Peace: Against many odds, he himself **rode a bus to Lahore in 1999 for Indo-Pak peace**

Promote scientific temper: He conducted the **nuclear test in Pokhran in 1998** and made the hero of this achievement, Dr APJ Kalam the next President of India, who was later named as the true People's President. Vajpayee coined the **slogan: 'Jai Jawan, Jai Kisan, Jai Vigyan'**.

Corporate Governance

Corporate governance essentially involves **balancing the interests of a company's many stakeholders**, such as **shareholders, senior management executives, customers, suppliers, financiers, the government, and the community**.

Ethical issues with Corporate Governance in India:

- **Conflict of Interest:** The challenge of managers potentially enriching themselves at the cost of shareholders
- **Weak Board:** Lack of diversity of experience and background represents a major area of weakness for these boards.
- **Separation of ownership and management:** In the case of family-run companies, the separation of ownership and management remains a key challenge
- **Independent directors**

Suggestions to improve Corporate Governance in India:

Recommendations of Uday Kotak Panel:

- **Diverse board members:** **Minimum 6 directors** to be on the board of listed entities; every listed entity to have at **least 1 independent woman director**
- **Transparency:** More **transparency on the appointment of independent directors**
- **The audit Committee** must review the use of loans.
- **Robust risk management policies**
- **Effective governance infrastructure**
- **Evaluation of the Board's performance**
- **Communication:** Facilitating shareholder communication with the board is key.