CURRENT AFFAIRS MAGAZINE
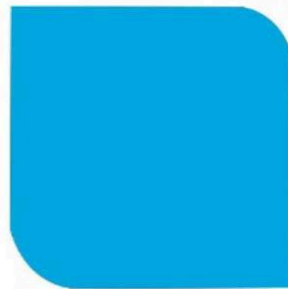# JANUARY, 2024

Educrat IAS ACADEMY
India's Best Mentorship for Civil Services

> **PROHIBITION OF SAPINDA MARRIAGE**

> **RED SEA AND PANAMA CANAL**

> **CASTE BASED DISCRIMINATION IN INDIAN PRISONS**

> **GREEN HYDROGEN**

> **ANNUAL STATUS OF EDUCATION REPORT**

GS Paper – 1

1. Prioritizing the Poor, Youth, Women, and Farmers

Why in News?

The Prime Minister of India has underscored the imperative of prioritizing the well-being of four groups: **the poor, youth, women, and farmers.**
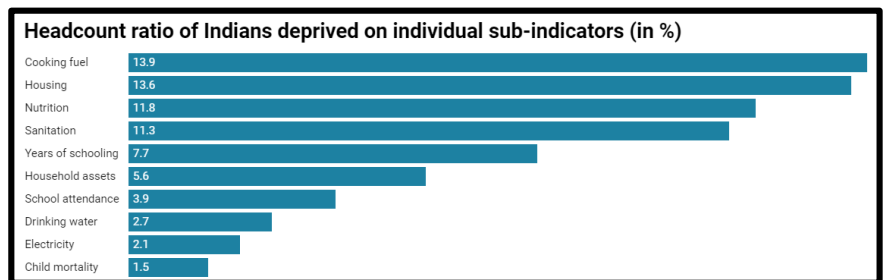
- This emphasis reflects a commitment to ensuring dignity and respect for the deprived.

What are the Socioeconomic Dynamics of the Highlighted Groups in India?

- **Poor:**
  - **Multidimensional Poverty Index:**
    - India has more than 230 million poor people.
    - According to the **2023 Global Multidimensional Poverty Index**, published by the **United Nations Development Programme (UNDP)** and the Oxford Poverty and Human Development Initiative, some **415 million Indians escaped poverty between 2005-06 and 2019-21.**
    - Approximately **18.7% of the population falls into the category of being 'vulnerable' to multidimensional poverty,** as defined by the UNDP.
    - This refers to individuals who, while not classified as poor, but have experienced deprivations in 20-33.3% of all weighted indicators.
    - **Cooking fuel, housing, and nutrition** are major areas of deprivation. Approximately

Headcount ratio of Indians deprived on individual sub-indicators (in %)

Cooking fuel	13.9
Housing	13.6
Nutrition	11.8
Sanitation	11.3
Years of schooling	7.7
Household assets	5.6
School attendance	3.9
Drinking water	2.7
Electricity	2.1
Child mortality	1.5

13.9%, 13.6%, and 11.8% of the population were classified as deprived in these respective
    - metrics.

  - **Unemployment:**
    - India's **unemployment** rate rose to the highest level in over two years in October 2023, with **rural areas experiencing an increase in joblessness.**
    - The **National Sample Survey Office's Periodic Labour Force Survey** for 2022-23 revealed a **decrease in unemployment from 5.3% to 2.4%** in rural areas and from **7.7% to 5.4% in urban areas compared to 2017-18.**
    - The proportion of **self-employed** individuals in the total employed population increased from 52% in 2018-19 to 57% in 2022-23.
    - Self-employment covers various activities such as running a tea stall, farming, assisting in household enterprises, practising medicine, and undertaking unpaid work within one's economic activities.
    - A high level of self-employment levels indicates a **lack of alternatives,** with individuals often adhering to these less rewarding jobs.
    - Typically, **countries with lower per capita income** tend to have higher proportions of self-employed populations.

States where crimes against women increased in one year
Darker the shades, higher the % increase in crimes

States in grey have seen a decline in crimes against women

- **Women:**
  - **India ranked 127 out of 146 countries** in the **Global Gender Gap Report 2023** released by the **World Economic Forum** showing an improvement of 1.4% points and eight positions from 135 in 2022.
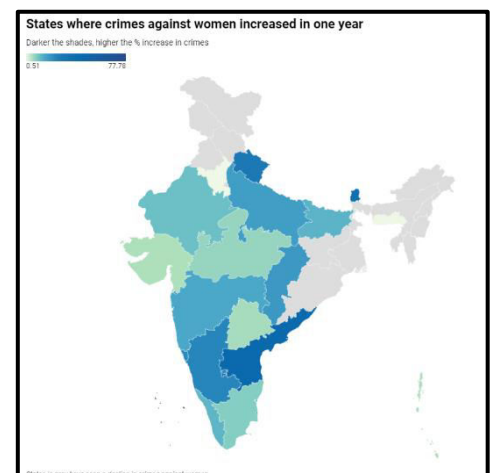
- o According to the **National Crime Records Bureau (NCRB)** reports Crimes **against women rose by 4% in 2022** compared to 2021, with over 4.45 lakh crimes registered.
  - Majority of crimes were related to cruelty by husbands or relatives, kidnapping, assault, and rape.
  - 12 states and Union territories recorded crime rates higher than the national average.
- o The **Women's Reservation Act, 2023** also known as the **Nari Shakti Vandan Adhiniyam**,was passed to reserve **one-third of seats** in legislative assemblies and Lok Sabha for women.

- **Farmers:**
  - o Farmers lost **standing crops to excess and untimely rain**, leading to a significant blow to their incomes.
    - **Southwest monsoon** was below normal and erratic, impacting **Kharif crop** yields in many parts of the country.
    - States like **Karnataka, Maharashtra, and Jharkhand** are facing drought and drought-like conditions.
  - o Recurring losses due to the **pink bollworm pest on the BT cotton crop** in north India added to farmers' distress.
  - o NCRB data revealed an increase in **deaths by suicide** among those involved in farming.
    - At least **one farmer died by suicide every hour in India,** with 11,290 suicide cases reported in 2022.
    - Deaths by the **suicide of agricultural labourers were higher** than farmers/cultivators, with 53% of the suicide cases being agricultural labourers.
  - o The dependence of an average agricultural household for income has been increasing on wages from farming rather than crop production.

- **Youth:**
  - o According to the **World Bank** the **youth unemployment rate in India was at 23.2%**, higher than its neighbours Pakistan (11.3%), Bangladesh (12.9%), and Bhutan (14.4%), in 2022.
    - The unemployment rate in China stood at 13.2%, South Korea 6.9% and Singapore 6.1%.
    - Although the youth unemployment rate in India dropped from 23.9% in 2021, it is still marginally higher than the 22.9% recorded in the Pre-Covid year of 2019.
  - o The youth unemployment rate refers to those in the workforce who are aged 15 to 24 years and without a job, but actively seeking one.
  - o The **State of Working India 2023 study** found that unemployment among graduates under the age of 25 was at 42.3% in 2021-2022, while the overall joblessness rate was 8.7%.

What are the Related Initiatives Aimed at Addressing these Specific Groups?
- **Poor:**
  - o Pradhan Mantri Awaas Yojana
  - o Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005
  - o Deendayal Antyodaya Yojana - National Rural Livelihood Mission (DAY-NRLM)
  - o Pradhan Mantri Kaushal Vikas Yojana
  - o Pradhan Mantri Jan Dhan Yojana

- **Women:**
  - o Beti Bachao Beti Padhao Scheme
  - o Ujjawala Yojna
  - o Pradhan Mantri Mahila Shakti Kendra Scheme
  - o One Stop Centre
  - o The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013
  - o The Protection of Children from Sexual Offences (POCSO), 2012
  - o NARI SHAKTI PURASKAR
  - o Mahila police Volunteers
  - o Mahila Shakti Kendras (MSK)

- **Farmers:**
  - o The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
  - o Agriculture Infrastructure Fund (AIF)
  - o Kisan Credit Cards (KCC)
  - o Paramparagat Krishi Vikas Yojana (PKVY)
  - o Rashtriya Krishi Vikas Yojana

- **Youth:**

- o YUVA: Prime Minister's Scheme For Mentoring Young Authors
- o National Youth Policy-2014
- o National Skill Development Corporation
- o Rashtriya Yuva Sashaktikaran Karyakram Scheme
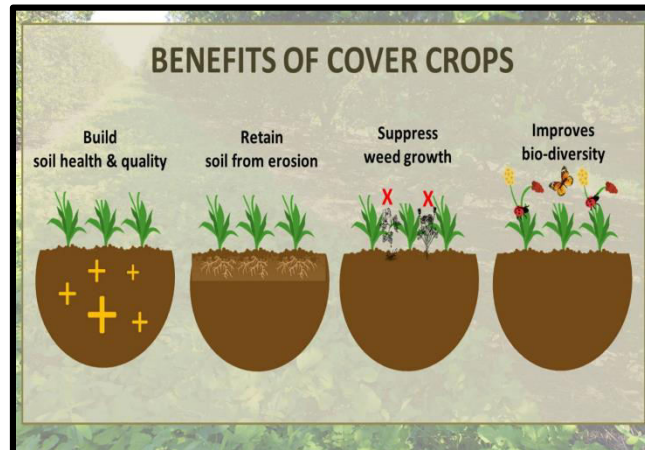
2. Sustainable Agriculture

Why in News?

Recently, the **Indigenous Seed Festival** in West Bengal showcased **a remarkable effort by farmers** to conserve native seed varieties and exchange traditional knowledge, exemplifying a significant shift towards **Sustainable Agriculture Practices.**

- The festival is a part of ActionAid's climate justice campaign, facilitating discourse between farmers on climate change, organic farming, and indigenous seed access.
- ActionAid's focus on climate resilience and sustainable farming across 22 Indian states. The NGOs aim to establish grassroots-level seed banks across West Bengal.

What is Sustainable Agriculture?

- **About:**
  - o Sustainable agriculture **refers to a holistic approach to farming and food production** that aims to meet the current needs for food and fiber while ensuring the long-term viability of agricultural systems and preserving natural resources for future generations.
  - o It encompasses various practices and principles such as **Crop Switching, Organic Farming**, Community Supporting Agriculture etc, that focus on **environmental stewardship, economic profitability, and social equity.**
- **Benefits:**
  - o **Environmental Conservation:** Practices that **minimize the impact on ecosystems,** soil, water, and biodiversity. This involves using methods that reduce soil erosion, conserve water, and avoid or minimize the use of synthetic fertilizers and pesticides.
    - Techniques like crop rotation, cover cropping, and **agroforestry** are employed to maintain soil fertility and health.
  - o **Economic Viability:** Ensuring that **agricultural practices are economically feasible for farmers,** enabling them to earn a fair income while sustaining their livelihoods.
    - This involves strategies that enhance productivity, reduce production costs, and open up markets for sustainably produced goods.

BENEFITS OF COVER CROPS

Build soil health & quality | Retain soil from erosion | Suppress weed growth | Improves bio-diversity

  - o **Social Equity**: Fostering **fair and equitable relationships among farmers,** consumers, and other stakeholders in the food system.
    - This includes ensuring fair wages and working conditions for agricultural laborers, supporting rural communities, and promoting access to healthy and nutritious food for all.
  - o **Resilience to Climate Change:** Building agricultural **systems that are resilient to climate variability and change.** Sustainable agriculture practices aim to adapt to changing climatic conditions, mitigate greenhouse gas emissions, and contribute to overall climate resilience.
  - o **Biodiversity Preservation:** Supporting **diverse ecosystems and genetic diversity within crops and livestock**. Maintaining biodiversity is critical for resilience against pests, diseases, and environmental changes. This involves preserving heirloom and indigenous crop varieties, as well as promoting diverse landscapes that support wildlife and pollinators.

What are the Limitations of Sustainable Agriculture in India?

- **High Labor Demand:** Sustainable agriculture often requires more manual labor than conventional agriculture, as it involves practices such as **Crop Rotation, Intercropping, Organic Fertilization**, and pest management.

- o This can increase the cost of production and reduce the profitability of farmers.
- **Time Consumption:** Sustainable agriculture also takes more time to implement and show results than conventional agriculture, as it relies on natural processes and gradual improvements.
  - o This can discourage farmers who need immediate returns and face uncertainties such as weather, market, and policy changes.
- **Limited Production Potential:** Sustainable agriculture may not be able to meet the growing demand for food in India, as it tends to have lower yields than conventional agriculture, especially in the short term.
  - o This can pose a challenge to **Food Security** and **Poverty Alleviation**, especially in a country with a large and increasing population.
  - o The recent Sri Lankan crisis was triggered by the policy of shifting to Organic farming.
    - Rice, Sri Lanka's dietary staple, saw average yields slashed by some 30%.
- **High Capital Cost:** Sustainable agriculture may require high initial investment in infrastructure, equipment, and inputs, such as **Irrigation systems**, micro-irrigation devices, organic fertilizers, and seeds.
  - o This can be a barrier for small and marginal farmers who lack access to credit and **Subsidies**.
- **Storage and Marketing Challenges:** Sustainable agriculture may face storage and marketing challenges in India, as it produces perishable and heterogeneous products that require proper handling and packaging.
  - o This can increase post-harvest losses and reduce the marketability of the produce, especially in the absence of adequate certification and labeling systems that ensure quality and traceability.

What are the Recent Government Initiatives Related to Sustainable Agriculture?
- National Mission on Sustainable Agriculture
- Paramparagat Krishi Vikas Yojana (PKVY)
- Sub-mission on AgroForestry (SMAF)
- Rashtriya Krishi Vikas Yojana
- Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)

Way Forward
- **Providing financial incentives for farmers** to adopt sustainable practices, such as direct payments, subsidies for organic inputs, and crop insurance.
- Investing in research and development of sustainable agricultural technologies and practices.
- **Strengthening agricultural extension** services to provide farmers with training and information on sustainable agriculture.
- **Improving market access** for sustainably produced food through better infrastructure, marketing support, and consumer awareness campaigns.
- **Addressing land fragmentation** through land consolidation programs and promoting joint farming initiatives.
- Strengthening environmental regulations and their enforcement.
- **Empowering women in agriculture** through land ownership rights, access to credit and resources, and participation in decision-making processes.

3. Rise of Child Marriages in West Bengal

Why in News?
A recent *Lancet* study on **child marriage in India** highlighted an overall decrease in child marriage across the country. However, it emphasized that certain states, specifically **Bihar (16.7%), West Bengal (15.2%), Uttar Pradesh (12.5%), and Maharashtra (8.2%),** collectively contributed to over half of the total headcount burden of child marriages in girls.
- Despite the implementation of multiple **policy interventions in West Bengal aimed at curbing child marriage**, the region has experienced a **substantial surge of 32.3% in the incidence of child marriages.** This increase corresponds to over 500,000 additional girls getting married as children.

Note
- **National Family Health Survey-5 (2019-21):**
  - o The National Family Health Survey-5 indicates that the prevalence of women **aged 20-24 years** married before 18 remains high in **West Bengal at 41.6%, compared to the national figure of 23.3%.**

Has Policy Intervention in West Bengal Effectively Curbed Child Marriage?
- **Policy Interventions to Stop CHild Marriage in West Bengal:**

- o **The Kanyashree Prakalpa Scheme:**
  - Launched in 2013, Kanyashree Prakalpa incentivizes the s**chooling of teenage girls aged 13 to 18** while simultaneously discouraging child marriage. The scheme has covered 81 lakh girls, according to the West Bengal Budget for 2023-24.
  - The scheme received international recognition with the **United Nations Public Service Award in 2017.**
  - While the **school enrolment of girls has increased in the State,** questions are being posed based on **National Family Health Survey** data and the Lancet study of whether the scheme has achieved its promise of arresting child marriage.
- o **Rupashree Prakalpa:**
  - In addition to Kanyashree, the state government runs the Rupashree Prakalpa, **providing cash incentives for girls' marriages.**
  - Some families utilize benefits from both schemes, organizing marriages shortly after cashing in on the school scheme.

- ▪ **Educational Stride and Child Marriage Rates:**
  - o Despite **girl's enrolment in schools has "significantly increased** over the past few years and **yet the incidence of child marriage remains high** in West Bengal".
    - The All-India Survey of Higher Education for 2020-21 puts the number of **estimated enrolment of girls in West Bengal at 9.29 lakh**, which is higher than the boys enrolment which stood at 8.63 lakh.
  - o As per NFHS- 5, the Purba Medinipur district with **over 88% literacy rate** has the highest incidence of **child marriage of more than 57.6%.**
  - o Experts noted **migration in West Bengal fuels child marriage** as families fear **leaving unmarried daughters behind,** driven by societal norms and economic factors.
    - This perpetuates a cycle where cultural expectations prioritize early marriages for **wives to bear children while men work.**
- ▪ **Challenges in Law Implementation:**
  - o Beyond social issues, **challenges in law implementation contribute to the persistence of child marriage.**
    - As West Bengal's 105 cases under The Prohibition of Child Marriage Act (PCMA), 2006 in 2021 raise concerns. Because comparatively, states with **smaller populations reported more cases.**
  - o The Ministry introduced the **Prohibition of Child Marriage (Amendment) Bill, 2021**, proposing raising the age of marriage for women to 21, currently under Parliamentary review.
    - The data suggests gaps in law enforcement and highlights the need for comprehensive strategies.

What are the Impacts of Child Marriage?
- ▪ **Ending Childhood:**
  - o **Child marriage is a global problem and is compounded by poverty.** It abruptly **ends a boy's/girl's childhood**, pushing them into adulthood before they are physically and mentally prepared.
    - Arranged marriages often involve girls marrying significantly older men, intensifying the challenges they face.
    - Early marriage significantly decreases the likelihood of girls staying in school, leading to **lifelong economic repercussions.**
    - Child marriage leads **childhood grooms to drop out of school** and often **settle for low-paying jobs to provide for their families.**
    - Child brides and grooms often experience isolation and have their freedom curtailed, limiting their social interactions and personal autonomy.

- ▪ **Human Rights Violation:**
  - o Child marriage is considered a **human rights violation and a recognised form of sexual and gender-based violence**, the adverse impact of child marriage is manifested across maternal and child health in the State.
  - o Child brides are frequently denied their **fundamental rights**, including access to health, education, safety, and the opportunity for active participation.
  - o **United Nations Children's Fund (UNICEF) categorizes child marriage as a human rights violation** due to its adverse impacts on the development of both girls and boys.
    - Each year, some **12 million more girls will marry before reaching age 18** and of those, 4 million are under age 15.
    - **Save the Children's Global Girlhood Report** estimates that an additional **2.5 million girls are at risk of child marriage** globally between 2020 and 2025, as a result of reported increases in all types of **gender-based violence** due to the **Covid-19 pandemic.**

- **Maternal and Child Health Implications:**
  - The adverse impact of child marriage extends to maternal and child health.
    - Child brides often become **pregnant during adolescence**, when the risk of **complications during pregnancy** and childbirth increases. The practice can also isolate girls from family and friends, taking a heavy toll on their mental health.
  - Child brides are also more susceptible to contracting **Human Immunodeficiency Virus (HIV).**

What are the Initiatives to Tackle Child Marriage?
- Prohibition of Child Marriage Act, 2006 (PCMA)
- BetiBachaoBetiPadhao (BBBP) scheme.
- National Commission for Protection of Child Rights (NCPCR).
- Protection of Children from Sexual Offences Act 2012.
- CHILDLINE.

Way Forward
- Mobilize **political will at both state and national levels** to prioritize the eradication of child marriage through legislative measures.
  - Conduct **social campaigns involving all stakeholders** including panchayats, schools and local communities and without a political will to enforce the existing laws the situation at the grass roots will not improve as rapidly as it has in other parts of the country.
- Promote a culture of **reporting and transparency** by regularly updating and providing detailed information on child marriage cases under PCMA 2006.
  - Facilitate a **comprehensive review of PCMA 2006** to identify loopholes and areas for improvement in enforcement.
- Advocate for the swift approval of the **Prohibition of Child Marriage (Amendment) Bill, 2021,** by the Parliamentary Standing Committee.
  - The Bill amends the PCMA 2006 to increase the **minimum age of marriage of females to 21 years**. Further, the Bill will override any other law, custom, or practice.
- Empower girls with **information, skills, and support networks** for increased autonomy and decision-making.

4. Rock Glaciers

Why in News?
A recent study has shed light on the presence of over **100 active permafrost structures in the Jhelum basin of the Kashmir Himalayas.** These structures, known as rock glaciers, have significant implications for the region's hydrology and pose potential risks as the **climate warms.**

What are Rock Glaciers?
- **About:**
  - Rock glaciers are a type of landform that consists of a **mixture of rock fragments and ice.**
  - Rock glaciers typically form in **mountainous regions** where there is a combination of **permafrost, rock debris, and ice.**
    - **Permafrost** is a permanently frozen layer on or under Earth's surface. It consists of **soil, gravel, and sand, usually bound together by ice.**
    - One common scenario involves a **pre-existing glacier** that accumulates debris and rocks as it moves. Over time, if the glacier recedes or thaws, the debris-covered ice can transform into a rock glacier.
  - These rock glaciers occur in highly elevated regions with steep slopes.
  - To the **naked eye, the rock glaciers look like regular ground**, they require a geomorphological view for proper identification.
- **Classification:**
  - They are classified as **active or relict,** depending on whether they have ice and movement or not. **Active rock glaciers are more dynamic** and hazardous, while **relict rock glaciers are more stable and inert.**
- **Importance:**
  - Rock glaciers are important indicators of **mountain permafrost,** which is the permanently frozen ground that underlies many high-altitude regions.

- Rock glaciers also store **significant amounts of water** in their frozen cores, which could be a valuable resource in the face of **water scarcity and glacial retreat.**

What are the Potential Impacts of the Active Rock Glaciers on the Region?
- **Glacial lake outburst floods (GLOFs):**
  - These are sudden and **catastrophic floods that occur when a glacial lake bursts** its natural or artificial dam, releasing large volumes of water and debris downstream.
    - The **active rock glaciers could increase the risk of GLOFs** by destabilizing the slopes or the dams of glacial lakes.
  - Rock glaciers near glacial lakes, such as **Chirsar Lake and Bramsar Lake, increase the risk of GLOFs.**

- **Landslides:**
  - These are the **rapid movements of soil, rock, or snow down a slope**, often triggered by **earthquakes,** rainfall, or human activities.
    - The active rock glaciers could **cause landslides by weakening** the slope stability or by melting and releasing water that could lubricate the sliding mass.
  - The melting permafrost makes these areas unstable, posing risks to nearby settlements and critical infrastructure.
    - For example, the **Nunavik area in Quebec was mostly built on permafrost** ground many years ago. In the last decades, the **ice in the underlying layers began to melt** due to global warming, increasing the frequency of mudslides and other dangers.

- **Thermokarst:**
  - This is a type of **terrain that is characterized by irregular surfaces of marshy hollows** and small hummocks (ridges), formed by the **thawing of ice-rich permafrost.**
    - The **active rock glaciers could lead to the formation of thermokarst features,** such as ponds or lakes, that could alter the **hydrology, ecology, and carbon cycle of the region.**
  - The presence of **water bodies near Kulgam town, Jammu and Kashmir suggests the existence of permafrost underground, resembling 'thermokarst lakes',** which can pose further risks.
    - The melting of ice underneath the earth's surface is a high risk of collapse. The collapse leads to formation of a landscape whose features are sinkholes, hummocks, caverns, and tunnels.
    - The **Batagaika crater is an example of thermokarst,** it is the **biggest permafrost crater in the world, it belongs to the Sakha Republic, Russia.**

Jhelum Basin of the Kashmir Himalayas
- The Jhelum basin is drained by the **upper Jhelum River,** which originates from a deep spring at **Vernag at Anantnag**, situated at the base of the **Pir Panjal range in the Kashmir Valley**, the river passes through **Srinagar and Wular Lake** before entering Pakistan.
- As a tributary of the **Indus River,** the Jhelum contributes to the larger river system in the Indian subcontinent.
  - The river flows through Jammu and Kashmir and into Pakistan, where it joins the **Chenab River.**
- The primary tributary is the **Kishenganga (Neelum) River.** The **Kunhar River,** another significant tributary, connects Pakistan-occupied Kashmir and Pakistan via the Kohala Bridge in the Kanghan Valley.

Way Forward
- The study highlights the critical role of permafrost research in understanding and mitigating the impacts of **climate change** in the Himalayan region.
  - Allocate resources for further studies on the **hydrological potential of active rock glaciers**, exploring ways to harness the stored water for sustainable use in regions facing water scarcity.
- Develop and implement early warning systems in regions with identified active rock glaciers to alert communities and authorities about potential disasters.
- Integrate findings from permafrost studies into **regional and national climate change adaptation plans,** considering the specific challenges posed by the transition from glaciers to rock glaciers.
- There is a need to **raise awareness among local communities**, planners, and policymakers about the risks associated with permafrost degradation

5. Implications of No Snowfall in Kashmir

Why in News?
The absence of Snowfall in Kashmir during the winter season is not **only affecting the region's tourism industry,** particularly in popular destinations like Gulmarg, but it also has significant implications for various aspects of the local environment and economy.

What Causes No Snowfall In Kashmir?
- **Climate and Weather Patterns:**
  - The entire Jammu and Kashmir and Ladakh regions have seen a **lack of rains or snow this winter,** with a notable **80% rainfall deficit in December 2023** and 100% (no rain) deficit in January 2024 so far.
  - Winter precipitation in these regions, crucial for the local climate, is mainly in the form of snowfall.
- **Decline in Western Disturbance:**
  - The overall trend of decreasing snowfall has been attributed to a decline in **Western Disturbance** events and a **gradual rise in temperatures**, likely influenced by **Climate Change.**
  - Western Disturbances are the **primary source of winter precipitation** in the **Himalayan region.**
    - The number of Western Disturbance events has been showing a declining trend, contributing to less overall precipitation during the winter months.
    - Western Disturbance are large **eastward-moving rain-bearing wind systems** that originate beyond Afghanistan and Iran, picking up moisture from as far as **the Mediterranean Sea and even the Atlantic Ocean.**
- **Role of Climate Change and El Nino:**
  - Climate change is considered a contributing factor to the declining snowfall in Kashmir, as indicated by various studies.
  - The rate of temperature increase is higher in upper elevation areas than in the **plains, further impacting snowfall.**
  - The current **El Nino** event in the eastern Pacific Ocean is suggested as an **additional factor affecting global atmospheric circulation** and contributing to the deficit precipitation in the region.
    - There have been several years in the last one decade — 2022, 2018, 2015 — when winters have been relatively dry in Jammu and Kashmir, and snowfall has been very low.

What are the Implications of No Snowfall in Kashmir?
- **Short and Long Term Impact:**
  - Short-term effects include an increase in forest fires, agricultural drought, and a drop in crop production.
  - Long-term consequences **include a reduction in hydroelectricity generation**, an increase in glacier melting, and adverse effects on drinking water supply due to less recharge of groundwater.
- **Vital for Winter Crops:**
  - The winter snow, crucial for **moisture in the soil,** is vital for winter crops, particularly horticulture. The yields of apples and **Saffron,** significant contributors to the local economy, are adversely affected in the absence of sufficient snowfall.
- **Impact on Tourism:**
  - Gulmarg, a key winter tourism spot in Kashmir, is witnessing a sharp decline in tourist visits this season due to insufficient snow. Despite substantial tourist numbers in 2023, officials project at least **a 60% reduction in footfall.**
  - The scarcity of snow is adversely affecting **ski resorts and related businesses, impacting the local economy.**

6. Ram Temple

Why in News?
On 22nd January 2024, the Ram temple in Ayodhya was inaugurated, marking the completion of a **200-year-old saga that profoundly impacted India's socio-political landscape.**
- The Ram temple has been designed in the **Nagara Style of Temple Architecture.**
- The story of **Ram is popular from Laos, Cambodia and Thailand in Asia** to Guyana in **South America to Mauritius in Africa**, making **Ramayana Popular outside India.**

What is the Timeline of Ram Janmabhoomi Movement?

▪ **Origin:**
  o Originating in **1751 when the Marathas appealed to the Nawab of Awadh (Nawab Shuja-ud-Daula) for control of Ayodhya**, Kashi, and Mathura.
  o The **Marathas had helped the Nawab of Awadh** in defeating the Pathan (local chieftain) forces in the Doab Region and as a result, they sought control over these important religious and cultural centres like **Ayodhya, Kashi (Varanasi), and Mathura.**
    • The **Doab Region** refers to the **area between the Ganges and Yamuna rivers** in northern India.
  o The movement gained momentum in the **19ᵗʰ century with judicial records dating back to 1822** mentioning a mosque on the birthplace of Lord Ram.

▪ **Clash Near Babri Masjid:**
  o Tensions escalated in 1855 with a violent **clash near the Babri Masjid between Hindus and Muslims**, leading to the **capture of Janmasthan by Hindus.**

▪ **Placement of the idol of Ram Lalla:**
  o The year 1949 saw the **placement of the idol of Ram Lalla** in the mosque, sparking demands for a grand temple.

▪ **Legal Battles:**
  o In the **1980s, the Vishwa Hindu Parishad (VHP)** initiated a movement for the 'liberation' of Ram Janmabhoomi, Krishna Janmabhoomi, and Vishwanath shrine.
  o Legal battles ensued, and in **1986, the locks of the Babri Masjid were opened,** allowing Hindus to offer prayers.
  o The following years witnessed significant events, including the foundation-laying ceremony in 1989 **and the Rath Yatra led by LK Advani in 1990,** leading to widespread riots.

▪ **Demolition of Babri Masjid:**
  o On **6ᵗʰ December 1992,** a mob demolished the Babri Masjid, leading to political repercussions and legal proceedings.
  o In 1993, Parliament passed the Acquisition of Certain Area at Ayodhya Act, allowing the government to acquire the disputed Ram Janmabhoomi-Babri Masjid land.
  o The **Liberhan Commission**, in 2009, highlighted the **premeditated nature of the events in 1992.**

▪ **Allahabad High Court Verdict:**
  o In 2010, a special bench of the Allahabad High Court in its **Ayodhya title suit judgment divided the land in a 2:1 ratio,** with two-thirds of the 2.77-acre, including the garbha griha, **going to litigants for a Ram temple – Shri Ram Lala Virajman and Nirmohi Akhara.**
  o One-third of the land **was given to the Sunni Central Waqf Board.**

▪ **Supreme Court Verdict:**
  o Legal proceedings continued, and in 2019, the **Supreme Court** awarded the entire disputed land to the **Hindu petitioners for a Ram temple** and allocated land for a mosque elsewhere.

▪ **Culmination:**
  o The culmination of this historic journey occurred on 5th August, 2020, when the Indian Prime Minister performed the **Shilanyas of the Ram temple**, establishing the **Shri Ram Janmabhoomi Teerth Kshetra Trust.**
  o On 22nd January 2024, the **Ram temple in Ayodhya, built in Nagara Style,** was set to be inaugurated, marking the completion of a 200-year-old saga that profoundly impacted India's socio-political landscape.

What is the Uniqueness of Ram Temple?

▪ **Traditional Architecture and Construction:**
  o This is a **3-storey temple**, built in the **traditional Nagara style**, standing tall with **pink sandstone from Mirzapur and** the hills of **Bansi-Paharpur (Rajasthan).**
  o Temple covers an **expansive 71 acres, showcasing the architectural marvel.**

▪ **Temple Dimensions:**
  o Spanning 250 feet in width and 161 feet in height, the main temple area covers 2.67 acres, **boasting 390 pillars, 46 doorways, and 5 mandaps.**

▪ **Unique Features Inside:**
  o The main **Garbh Griha holds the idols of Ram Lalla**, accompanied by multiple mandaps, **including Rang Mandap & Nritya Mandap.**

▪ **Innovative Anointment Tradition:**
  o On every Ram Navami at noon, a system of mirrors and lenses will focus the **sun's rays on Ram Lalla's idol.** This unique anointment **requires no electricity, utilizing brass** instead of iron or steel.

- **Sculptor's Contribution:**
  - The idol of five-year-old Ram Lalla, **crafted by Mysuru sculptor Arun Yogiraj**, stands at 51 inches and was consecrated in a special ceremony.
- **Durability and Symbolism:**
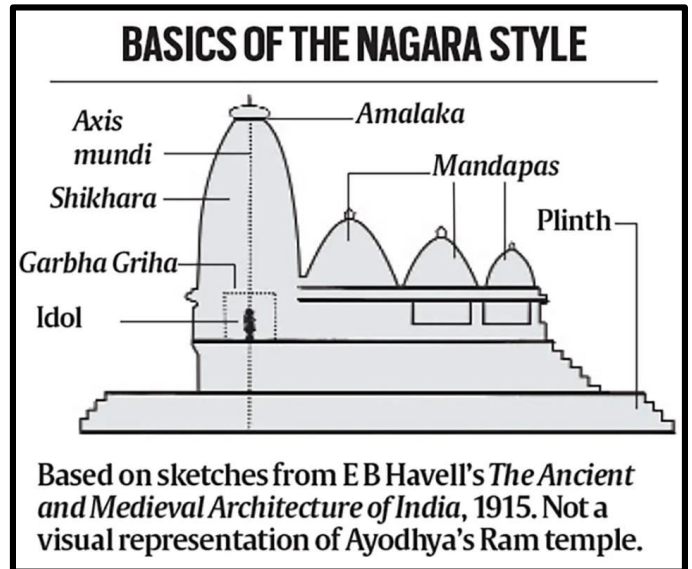 - **No iron has been used in the temple's construction**, designed to endure for at least a millennium.

What is the Nagara Style of Temple Architecture?
- **About:**
  - The Nagara style of temple architecture **emerged sometime in the 5th century CE**, during the late **Gupta period, in northern India.**
  - It is seen in **juxtaposition with the Dravida style** of southern India, which too emerged in the same period.
- **Distinguished by a Towering Shikhara:**
  - Nagara temples are **built on a raised plinth**, with the **Garbha Griha (sanctum sanctorum)** — where the idol of the deity rests — the most sacred part of the temple.
  - Towering over the Garbha Griha is the **shikhara (literally 'mountain peak'),** the most **distinguishable aspect of Nagara-style temples.**
    - As the name suggests, **shikharas are human-made representations** of the natural and cosmological order, as imagined in Hindu tradition.
  - A typical Nagara-style temple **also comprises a circumambulatory passage around the garbha griha**, and one or more mandapas (halls) on the same axis as it. Elaborate murals and reliefs often adorn its walls.

BASICS OF THE NAGARA STYLE

Axis mundi — Amalaka
Shikhara — Mandapas
Garbha Griha — Plinth
Idol

Based on sketches from E B Havell's *The Ancient and Medieval Architecture of India*, 1915. Not a visual representation of Ayodhya's Ram temple.

Note
- Meru, Mandara and Kailasa are the **first three names amongst the twenty types** of temples described in the early texts, all three are the **names of the Mountain,** which is the axis of the world.

- **Five Modes of Nagara Architecture:**
  - **Valabhi:**
    - This mode begins as a **masonry rendering of the barrel-roofed wooden structure,** either simple or with aisles, **familiar through chaitya halls** (prayer halls, most associated with Buddhist shrines). It is a formalization of multi-eave towers, often with a piling up of slabs.

  - **Phamsana:**
    - The Phamsana mode is **characterized by a shikhara** that is a **formalization of multi-eave towers** and involves a piling up of slabs. It is associated with the Early Nagara Style and **represents a progression from the Valabhi mode.**

  - **Latina:**
    - The Latina is a **shikhara that is a single, slightly curved tower** with four sides of equal length. It emerged in the **Gupta heartland, was complete with curvature** by the early seventh century, and spread across the entire breadth of northern India. For three centuries, it was considered the peak of Nagara temple architecture.

- o **Shekhari:**
  - The Shekhari mode features a **shikhara with attached sub-spires** or spirelets echoing the main shape. These sub-spires may run up most of the face of the shikhara and can be of more than one size.

- o **Bhumija:**
  - The Bhumija mode involves miniature spires arranged in horizontal and vertical rows, creating a **grid-like effect on each face of the shikhara.** The **actual shikhara often approaches a pyramidal shape**, with the curve of the Latina less visible. **This style emerged from composite Latinas in the tenth century onwards.**

How has Shri Ram and Ramayana Become Popular Outside India?
- ▪ **Trade Routes and Cultural Exchange:**
  - o The Ramayana spread through **trade routes, both by land and sea.** Indian traders, travelling for commerce, **carried with them not only goods but also cultural elements**, including religious stories.
  - o Land routes, such as the northern route through Punjab and Kashmir, and the eastern route through **Bengal, facilitated the transmission of the Ramayana to regions like China,** Tibet, Burma, Thailand, and Laos.
  - o Sea routes, particularly the southern route from Gujarat and South India, led to the dissemination of the epic in places like Java, Sumatra, and Malaya.
- ▪ **Cultural Transmission by Indian Communities:**
  - o Indian traders, accompanied by Brahmin priests, Buddhist monks, scholars, and adventurers, **played a crucial role in transmitting Indian culture,** traditions, and philosophy to the people of Southeast Asia.
  - o Over time, the Ramayana became an **integral part of the culture of many Southeast Asian countries**, influencing art, architecture, and religious practices.
- ▪ **Integration into Local Culture:**
  - o The Ramayana integrated with local cultures in various ways. For example, in **Thailand, the Ayutthaya kingdom** is believed to have been based on the Ayodhya of the Ramayana.
  - o In Cambodia, the **Angkor Wat temple complex,** originally dedicated to Vishnu, features murals depicting scenes from the Ramayana.
- ▪ **Evolution of the Epic:**
  - o The Ramayana **took on local flavors and variations in different regions.** For instance, the **Ramakien in Thailand, influenced by the Tamil epic Kamban Ramayana, became Thailand's national epic.**
  - o Various adaptations in different countries **incorporated unique elements**, such as the depiction of characters with Tamil names in the Thai Ramakien.
- ▪ **Spread Through Indentured Labor Migration:**
  - o In the 19th century, the **Girmitiya Migration** resulted in the spread of the Ramayana to regions like **Fiji, Mauritius, Trinidad and Tobago, Guyana**, and Suriname.
  - o Indentured laborers carried their cultural and religious practices, including the Ramcharitmanas, with them to new lands.
- ▪ **Enduring Themes and Universality:**
  - o The Ramayana served as a **source of cultural identity and nostalgia** for Indian communities living far away from their homeland. It provided a connection to their **roots and a sense of familiarity** in alien lands.
  - o The themes of the Ramayana, such as the triumph of good over evil, the concept of dharma, and the **narrative of exile and return, resonate universally,** making the epic relatable to diverse cultures.
- ▪ **Continued Cultural Practices:**
  - o Even today, the Ramayana remains a significant part of the cultural fabric in many Southeast Asian countries. It is kept alive through various art forms, including plays, dance dramas, puppet shows, and religious ceremonies.

7. Winter Storms in the US
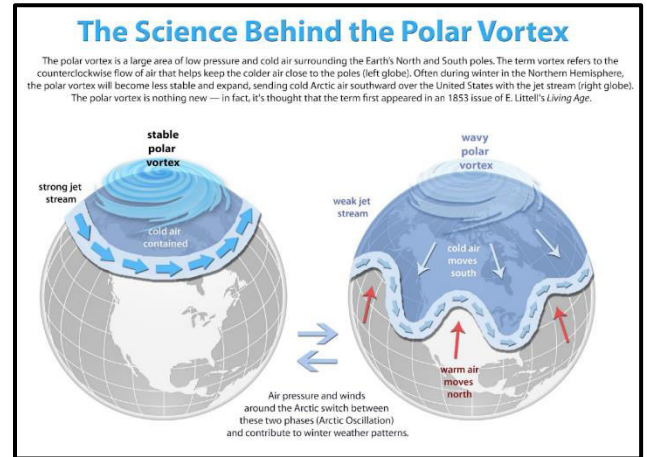
Why in News?

Winter storms in the U.S. have led to a range of challenges, affecting various states with sub-freezing temperatures, snow, and ice.

- The situation has resulted in at least 72 deaths nationwide in January 2024, primarily due to **Hypothermia or Road Accidents.**

What are the Factors Causing Severe Winter Storms in the US?

- **Polar Vortex:**
  - The **Polar Vortex** is a large area of low pressure and cold air surrounding both of the Earth's poles.
  - The term **"vortex" refers to the counterclockwise flow of air that helps keep the colder air near the Poles**. It always exists near the poles but **weakens in summer and strengthens in winter.**
    - Occasionally, **disruptions in the polar vortex can lead to outbreaks of cold air moving southward into the United States,** bringing frigid temperatures.
    - **Climate change**, in the Arctic, leads to a phenomenon called **Arctic amplification**. This is the faster warming of the Arctic compared to the rest of the globe. The amplified warming in the **Arctic weakens the polar vortex, making it more susceptible to disruptions.**
    - The weakening can result in the polar vortex stretching or splitting, allowing **cold Arctic air to spill southward.**

The Science Behind the Polar Vortex

The polar vortex is a large area of low pressure and cold air surrounding the Earth's North and South poles. The term vortex refers to the counterclockwise flow of air that help keep the colder air close to the poles (left globe). Often during winter in the Northern Hemisphere, the polar vortex will become less stable and expand, sending cold Arctic air southward over the United States with the jet stream (right globe). The polar vortex is nothing new — in fact, it's thought that the term first appeared in an 1853 issue of E. Littell's *Living Age.*

Air pressure and winds around the Arctic switch between these two phases (Arctic Oscillation) and contribute to winter weather patterns.

- **Arctic Air Masses:**
  - The intrusion of **Arctic air masses** into the US can cause a rapid drop in temperatures. These air masses originate in the **Arctic region and can extend southward,** bringing bitterly cold conditions to areas that are not accustomed to such extremes.
- **Jet Stream Patterns:**
  - The jet stream, a fast-flowing ribbon of air high in the atmosphere, plays a role in steering weather systems.
  - Changes in the **jet stream pattern can allow cold air from the Arctic** to plunge southward, affecting large portions of the country.

What are Winter Storms?

- **About:**
  - Winter storms are **weather events characterized by extreme cold temperatures,** precipitation in the form of snow, sleet, or freezing rain, and often accompanied by **strong winds.**
  - These storms can disrupt normal daily activities, impact transportation, and pose various hazards to communities.
- **Winter Storm Formation:**
  - **Moist Air Rising:** Winter storms **begin with moist air rising** into the atmosphere. This can occur at a cold front where warm air is lifted above cold air or as air moves up a large hill or mountain.
  - **Source of Moisture:** A source of moisture is necessary for cloud formation and precipitation. This can be provided by **air blowing across large bodies of water,** such as lakes or oceans, picking up water vapour.
  - **Cold Air:** The key factor that differentiates winter storms is the presence of cold air. When temperatures **both near the ground and throughout the atmospheric layers** are below freezing, precipitation occurs in the form of snow or ice.
- **Types of Winter Storms:**
  - **Snowstorms:** These are **storms where precipitation falls mainly as snow.** Snowflakes form as water vapor condenses into water droplets and freezes. The air temperature determines whether the precipitation falls as snow, rain, or freezing rain.
  - **Blizzards:** Defined by strong winds rather than the amount of snow, blizzards have wind **speeds at or above 35 MPH (MIles Per Hour).** Blizzards create blowing snow conditions, reducing visibility and **causing the accumulation of snowdrifts.**

- o **Lake Effect Storms:** These storms form **due to the abundance of moisture from the Great Lakes (USA).** Cold, dry air passing over the lakes picks up water vapour, leading to heavy snowstorms in areas south and east of the lakes.
- o **Ice Storms**: Winter storms with an accumulation of at least 0.25 inches of ice on outdoor surfaces. Ice storms create **slick layers on the ground, making travel and walking** hazardous. They can also lead to the **snapping of branches and powerlines.**

What is Hypothermia?

- ▪ **About:**
  - o Hypothermia is a medical emergency that occurs when the body loses heat faster than it can produce it, resulting in a **dangerously low body temperature.**
  - o The normal body temperature is around 98.6 degrees Fahrenheit (37 degrees Celsius), and **hypothermia typically sets in when the body temperature drops below 95 degrees Fahrenheit** (35 degrees Celsius).
  - o Cold exposure can lead to hypothermia through a **combination of factors that disrupt the body's ability** to maintain its core temperature.
  - o The Body's natural response to cold conditions is to generate heat and conserve warmth, **primarily regulated by the hypothalamus in the brain.**
- ▪ **Symptoms:**
  - o Shivering, which may stop as hypothermia progresses. (Shivering is actually a good sign that your heat regulation systems are still active.)
  - o Slow, shallow breathing
  - o Confusion and memory loss
  - o Drowsiness or exhaustion.

8. Asian Buddhist Conference for Peace

Why in News?

Recently, the **Asian Buddhist Conference for Peace (ABCP),** a voluntary mass movement of **Buddhists** in Asia convened its **12th General Assembly** in New Delhi.

What are the Major Highlights of the 12th General Assembly of ABCP?

- ▪ **Theme: ABCP - The Buddhist Voice of Global South**, reflects India's commitment, as demonstrated through its **G20 presidency** and the **Voice of Global South Summit.**
- ▪ **India's Commitment to Buddha's Legacy:** India was featured as a nation guided by the principles of Buddha.
  - o Proactive role of India was highlighted in developing the Buddhist circuit and establishing the **India International Centre for Buddhist Culture.**
- ▪ **Constitutional Recognition of Buddha's Influence:** Emphasis was placed on the depiction of Lord Buddha in the artwork of the Indian Constitution, specifically in **Part V,** where he is featured in the section on **Union governance.**

What is the Asian Buddhist Conference for Peace?

- ▪ **About**: ABCP was founded in **1970 at Ulaanbaatar, Mongolia** as a voluntary movement of followers of Buddhism with both monastic (monks) and lay members.
  - o ABCP then emerged as a collaborative effort of Buddhist dignitaries from **India**, Mongolia, Japan, Malaysia, Nepal, the then USSR, Vietnam, Sri Lanka, South and North Korea.
- ▪ **Headquarters: Gandanthegchenling Monastery** in Ulaanbaatar, Mongolia.
  - o The Supreme Head of Mongolian Buddhists is the current ABCP President.
- ▪ **Aims of ABCP:**
  - o Bring together efforts of Buddhists in support of consolidating universal peace, harmony and cooperation among peoples of Asia.
  - o Furthering their economic and social advancement and promoting respect for justice and human dignity.
  - o Disseminating the **Buddhist culture**, tradition and heritage.

From the Constitution of India

Part V

The Union

Lord Buddha
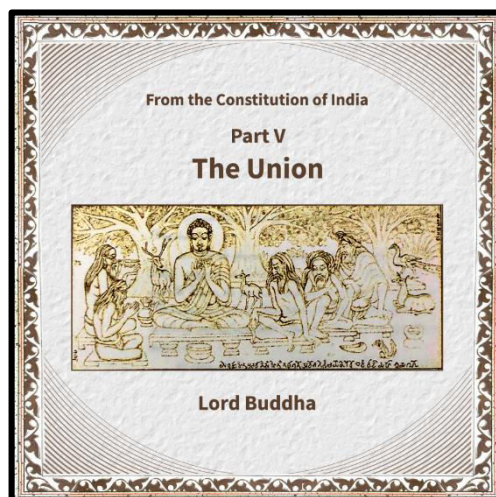
How Buddhist Teachings Convergence with Principles of Good-Governance?

- **Right View in Policymaking:** The Buddha's emphasis on **Right View,** avoiding distortion and delusion, aligns with good governance principles of **transparency, objectivity, and evidence-based decision-making.**
  - For example, **Bhutan's Gross National Happiness index,** inspired by Buddhist values, aims to measure public well-being beyond just economic indicators.
- **Right Conduct in Leadership:** The Buddha's Five Precepts - non-violence, non-stealing, **non-lying, non-sexual misconduct, and non-intoxication** - can be interpreted as ethical guidelines for public officials.
- **Compassionate Governance:** The Buddha's core teaching of compassion encourages leaders to consider the needs and **suffering of all citizens, not just certain groups.**
  - For example, initiatives like **universal healthcare or fair taxation policies** reflect an attempt to govern with compassion in mind.
- **Dialogue and Nonviolent Conflict Resolution:** The Buddha's emphasis on Right Speech and Right Action promotes respectful communication and nonviolent solutions to conflict.
  - This can be applied in **international diplomacy, interfaith dialogue**, and even within internal political debates.

How Teachings of Buddha Can Help in Navigating Present-Day Challenges?

- **Compass for Ethical Uncertainty:** In an age marked by ethical uncertainty, Buddha's teachings provide a path of **sustainability, simplicity, moderation, and reverence for all life.**
  - The **Four Noble Truths and Eightfold Path** serve as a transformative roadmap, guiding individuals and nations towards **inner peace, compassion, and non-violence.**
- **Mindfulness in a Distracted World**: In an age of constant **digital bombardment**, the Buddha's emphasis on mindfulness is more poignant than ever.
  - Practices like **meditation help us navigate information overload, reduce stress,** and cultivate focused attention in a scattered world.
- **Compassion in a Polarised Society**: With rising social and political tensions, the Buddha's teachings on **compassion and understanding offer a critical antidote.**
  - His emphasis on recognizing the interconnectedness of all beings encourages empathetic communication and constructive conflict resolution.
- **The Middle Way in an All-or-Nothing Culture:** The Buddha's concept of the Middle Way, **avoiding extremes of indulgence and denial**, resonates in our consumerist society.
  - It encourages **mindful consumption, finding balance between personal desires and responsible living.**

9. Sri Sri Auniati Satra Vaishnavite Monastery

Why in News?

Sri Sri Auniati Satra is a more than 350-year-old **Vaishnavite** monastery in Assam's Majuli district.

What are the Key Facts about Sri Sri Auniati Satra Vaishnavite Monastery?

- **Establishment:**
  - The Sri Sri Auniati Satra was established in the year 1653 in Majuli, Assam. It has a history of over 350 years, making it **one of the oldest Satras** in the region.
    - A Satra is an **institutional centre for Assamese Vaishnavism**, a bhakti movement that emerged in the **15th century.**
  - The Satra is located in Majuli, which is the **largest inhabited river island in the world**. Majuli is situated in the Brahmaputra River in the northeastern state of Assam, India.
- **Religious Significance:**
  - The Satra is a **center of Assamese Vaishnavism,** a bhakti movement that revolves around the worship of Lord Krishna.
  - The original idol of **Lord Krishna in the form of Govinda** is said to have been brought from the Lord Jagannath Temple at Puri.
- **Cultural Heritage:**
  - **Vaishnavite monasteries like Auniati Satra** are not only places of worship but **also centers for the preservation of traditional art forms, literature, and cultural practices.** These Satras **play a crucial role in promoting and sustaining the cultural heritage** of the region.

- o Vaishnavite Satras traditionally serve as centres for learning and spiritual activities. Monks and disciples engage in **religious studies, meditation, and community service.**
- ▪ **Bhaona and Traditional Art Forms:**
  - o **Bhaona, a traditional art form, is practiced at the Satra.** It is a combination of acting, music, and musical instruments.
  - o Bhaona is a significant performing art form that aims to **convey religious messages to villagers through entertainment.**
  - o The main drama is usually preceded by a **musical performance called the Gayan-Bayan.**

What are the Key Facts Related to Majuli Island?
- ▪ Majuli is a river island located in the Brahmaputra River in the northeastern state of Assam, India. It is recognized as the largest river island in the world.
- ▪ The island is a result of the dynamics of the Brahmaputra River system, characterized by the shifting courses and channels of the river.
- ▪ The island is surrounded by the Brahmaputra River and its tributaries, creating a unique fluvial landform. **Wetlands known as Beels and Chaporis (islets)** contribute to the ecological diversity of the region.

What is Vaishnavism?
- ▪ **About**:
  - o Vaishnavism is a **prominent bhakti (devotional) movement within Hinduism**, and it emphasises deep devotion and love towards the god Vishnu and his various incarnations.
- ▪ **Key Features:**
  - o **Devotion to Vishnu:** The central focus of Vaishnavism is devotion (bhakti) to Vishnu, who is considered the Supreme Being and the sustainer of the universe. Vaishnavas believe in a personal relationship with Vishnu, expressing love, reverence, and devotion toward the deity.
    - • Vishnu is believed to have incarnated on Earth in various forms known as avatars to restore cosmic order and righteousness. The ten primary avatars are collectively known as the Dashavatara, with popular incarnations including Rama and Krishna.
  - o **Dashavatara:** The ten avatars of Vishnu are Matsya (fish), Kurma (turtle), Varaha (boar), Narasimha (half-man, half-lion), Vamana (dwarf), Parashurama (the warrior with an axe), Rama (the prince of Ayodhya), Krishna (the divine cowherd), Buddha (the enlightened one), and Kalki (the future warrior on a white horse).
  - o **Bhakti and Liberation:** Vaishnavism places a strong **emphasis on the path of bhakti,** which involves **intense devotion and love toward Vishnu.** The ultimate goal for many Vaishnavas is liberation (moksha) from the **cycle of birth and death (samsara)** and union with Vishnu.
  - o **Variety of Sects:** Vaishnavism encompasses a variety of sects and groups with different interpretations of the relationship between the individual soul (jiva) and God. Some sects emphasise **qualified nondualism (vishishtadvaita),** while others subscribe to **dualism (dvaita) or pure nondualism (shuddhadvaita).**
    - • **Srivaishnava Sect**: Emphasises qualified nondualism based on the teachings of Ramanuja.
    - • **Madhva Sect:** Professes dualism, asserting the separate existence of God and the soul, following the philosophy of Madhva.
    - • **Pushtimarg Sect:** Maintains pure nondualism according to Vallabhacharya's teachings.
    - • **Gaudiya Sect:** Founded by Chaitanya, teaches inconceivable duality and nonduality.

10. Idate Commission Report

Why in News?
Recently, the **National Human Rights Commission (NHRC)** emphasised the importance of executing the recommendations of **the Idate Commission report,** to address the concerns of **Nomadic, Semi-Nomadic, and De-Notified Tribes** (NTs, SNTs, and DNTs) in India.
- ▪ The NHRC urged the government to repeal the **Habitual Offenders Act, 1952,** or appoint a representative from the De-notified Tribe community along with **nodal officers** as mandated by the Act.
  - o Additionally, it recommended excluding DNTs/NTs/SNTs from SC/ST/OBC categories and creating tailored policies for them.

What were the Major Recommendations of the Idate Commission?

- **About:**
  - It was **established in 2014** under the leadership of **Bhiku Ramji Idate,** to compile a statewide catalogue of Denotified, Nomadic, and Semi-Nomadic Tribes (DNTs).
  - Another mandate was **to recognize those excluded from Scheduled Castes (SC), Scheduled Tribes (ST)** and **Other Backward Classes (OBC)** categories and recommend welfare measures for their well-being.
- **Recommendations:**
  - Assign individuals not identified in the SCs/STs/OBCs list to the OBC category.
  - Enhance **legal and constitutional safeguards** by incorporating a third schedule into the **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989** to prevent atrocities and restore the feeling of security amongst the members of the community.
  - Create a **permanent commission** with legal standing for the DNTs, SNTs, and NTs.
  - Form a **distinct department** to address the welfare of these communities **in states with significant populations.**
  - Undertake a **thorough survey of DNT families** to determine their estimated numbers and distribution.

Who are Denotified, Nomadic, and Semi-Nomadic Tribes?

- **About:**
  - They are also known as **'Vimukt Jatis.** These communities are among the most vulnerable and disadvantaged.
  - De-notified communities, once labelled as **'born criminals'** during British rule under laws like the **Criminal Tribes Act, 1871.**
    - They were officially de-notified by the **Indian Government in 1952.**
  - A few of these communities which were listed as de-notified were also nomadic.
    - **Nomadic and semi-nomadic communities** are defined as those who move from one place to another rather than living in one place all the time.
  - Historically, Nomadic Tribes and De-notified Tribes **never** had **access to private land** or home ownership.
  - While most DNTs are spread across the **Scheduled Castes (SC)**, **Scheduled Tribes (ST)** and **Other Backward Classes (OBC)** categories, some DNTs are not covered in any of the SC, ST or OBC categories.
- **Major Committees/Commissions for NTs, SNTs, and DNTs Communities:**
  - The **Criminal Tribes Inquiry Committee,** 1947 constituted in the United Provinces (now Uttar Pradesh).
  - **Ananthasayanam Ayyangar Committee,** 1949.
    - **Criminal Tribes Act, 1871 was repealed** based on the recommendation of this committee.
  - **Kaka Kalelkar Commission** (also called first **OBC Commission**), 1953.
  - The **B P Mandal Commission**, 1980.
    - The commission also made some recommendations related to the issue of NTs, SNTs, and DNTs Communities.
  - The **National Commission to Review the Working of the Constitution (NCRWC)**, 2002 held that **DNTs have been wrongly stigmatised as crime prone** and subjected to high handed treatment as well as exploitation by the representatives of law and order and general society.
- **Distribution:**
  - In India, roughly **10% of the population** is composed of NTs, SNTs, and DNTs Communities.
  - While the number of Denotified Tribes is about 150, the population of Nomadic Tribes consists of about 500 different communities.
    - It has been estimated that **South Asia** has the world's **largest nomadic population.**

What are the Challenges Faced by Nomadic Tribes?

- **Lack of Basic Infrastructure Facilities:** Communities lack essential facilities such as access to drinking water, shelter, and sanitation, which deprives them of basic amenities. Additionally, healthcare and education services are unavailable to them.
- **Lack of Social Security Cover:** Due to their frequent mobility, these individuals lack a permanent settlement, leading to an **absence of social security** coverage and exclusion from government welfare schemes that require **documents** like **Ration Cards, Aadhar Cards** and caste certificates.
- **Bad Treatment by Local Administration:** Due to the stigma of being labelled as criminals in the past, they continue to be treated as such and subjected to torture by the local administration and police.
- **Ambiguous Caste Categorisation:** The **classification of castes is ambiguous for these communities**, as they are categorized as Scheduled Castes (SC) in certain states and as Other Backward Classes (OBC) in others.

What Developmental Efforts have been Taken for these Tribes?

- **Dr Ambedkar Pre-Matric and Post-Matric Scholarship for DNTs**:
  o This **Centrally Sponsored Scheme** was launched in 2014-15 for the welfare of those DNT students who are not covered under **SC, ST** or **OBC**.
  o The scheme of **Pre-matric Scholarships** for DNT students is helpful in spreading education amongst DNT children, especially the girl child.
- **Nanaji Deshmukh Scheme of Construction of Hostels for DNT Boys and Girls:**
  o This Centrally Sponsored Scheme, launched in 2014-15, is implemented through State Governments/UT Administrations/Central Universities.
  o The goal of the program is to offer hostel accommodations to DNT students who do not fall under the categories of SC, ST, or OBC.
    • This support is intended to facilitate their pursuit of higher education.
- **Scheme for Economic Empowerment of DNTs:**
  o It aims to provide **free competitive exam coaching,** health insurance, housing assistance, and livelihood initiatives.
  o It ensures expenditure of Rs. 200 crores to be spent over five years beginning 2021-22.
  o The **DWBDNCs** (Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities) has been tasked with the implementation of this scheme.

National Human Rights Commission (NHRC)

- **About:**
  o Ensures protection of rights related to life, liberty, equality, dignity of individuals and rights guaranteed by the Indian Constitution and **international covenants** enforceable by Indian courts.
- **Establishment:**
  o Established on October 12, 1993, under the **Protection of Human Rights Act, 1993**.
  o Amended by the Protection of Human Rights (Amendment) Act, 2006, and Human Rights (Amendment) Act, 2019.
  o Established in conformity with the **Paris Principles,** adopted for promoting and protecting human rights.
- **Composition:**
  o The Commission consists of a chairperson, five full-time Members and seven deemed Members.
  o Chairman is a former Chief Justice of India or a Supreme Court judge.
- **Appointment and Tenure:**
  o Chairman and members appointed by the President on the recommendations of a six-member committee.
  o The committee consists of the Prime Minister, the Speaker of the Lok Sabha, the Deputy Chairman of the Rajya Sabha, leaders of the Opposition in both Houses of Parliament, and the Union Home Minister.
  o Chairman and members **hold office for a term of three years or until they reach the age of 70.**
- **Role and Function:**
  o Possesses **powers of a civil court with judicial proceedings.**
  o Empowered to utilise services of central or state government officers or investigation agencies for investigating human rights violations.
  o Can investigate matters within one year of their occurrence.
  o Functions are primarily recommendatory in nature.

# 11. ASI Survey Report on Gyanvapi Mosque

Why in News?

Recently, the **Archaeological Survey of India (ASI)** surveyed the **Gyanvapi mosque** complex, where a total of 55 stone sculptures were found, including the idols of Hindu Deities.

- The ASI report suggests that a temple "appears to have been destroyed in the 17th century, during the reign of Aurangzeb, and part of it was modified and reused in the existing structure."

What are the Key Highlights of the ASI Report?

- **Discovery of Broken Idols:**

- o The survey uncovered fragments of what appear to be **statues of Hindu Deities,** including those of **Hanuman, Ganesha, and Nandi,** within the mosque complex.
- o Various sculptures and statues were found in varying states of damage, including those of Shiva linga, Vishnu, Ganesha, Krishna, and Hanuman.
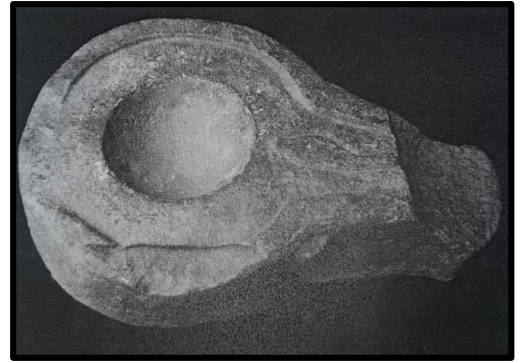
- ▪ **Yonipattas and Shiv Linga:**
  - o Several yonipattas, the base of a shivling, were discovered during the survey.
  - o A shiv linga with its bottom part missing was also found.

- ▪ **Indian Inscription:**
  - o 32 inscriptions written in the **Devanagari, Grantha, Telugu and Kannada scripts.**
  - o These are in fact inscriptions on the stone of a preexisting Hindu temple which have been reused during the construction, repair of the existing structure.
  - o The reuse of earlier inscriptions in the structure suggests that the earlier structures were **destroyed and their parts were reused in the construction and repair** of the existing structure.
- ▪ **Swastik and Trident Marks:**
  - o There were marks found on the structure, **including the swastika and the trident.**
    - • Swastika is known to be one the most **ancient symbols in the world,** and has been used in all old civilisations.
    - • **Trishula** (trident -- the distinct weapon of Lord Shiva), symbol is commonly used as one of the principal symbols by Hindus, **particularly by Shaivites and also Shaktas.**
- ▪ **Coins and Sandstone Slab with Persian Inscription:**
  - o Objects such as coins, a sandstone slab inscribed in Persian, and other artifacts were unearthed during the survey.
  - o Inscriptions in Persian on stone slabs were found, providing an account of the demolition of the temple **during the reign of Mughal Emperor Aurangzeb** in the 17th century.
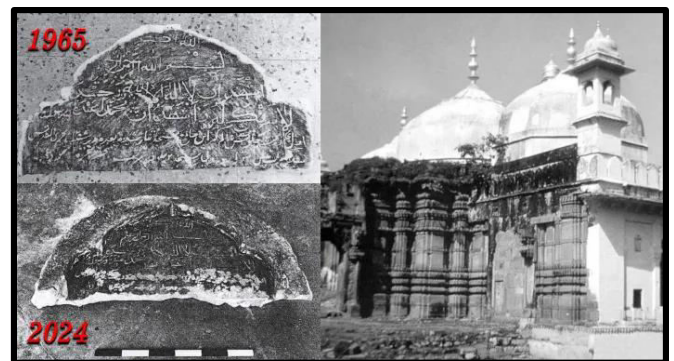
What is the Archaeological Survey of India (ASI)?
- ▪ ASI, under the **Ministry of Culture,** is the premier organisation for the archaeological research and protection of the cultural heritage of the nation.
  - o **Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958** governs the functioning of ASI.
- ▪ It administers more than 3650 ancient monuments, archaeological sites and remains of national importance.
- ▪ Its activities include carrying out surveys of antiquarian remains, exploration and excavation of archaeological sites, conservation and maintenance of protected monuments etc.
- ▪ It was founded in **1861 by Alexander Cunningham- the first Director-General of ASI.** Alexander Cunningham is also known as the "Father of Indian Archaeology".

What Method was Used in the Survey at Gyanvapi Mosque?
- ▪ The ASI has conducted a detailed **non-invasive survey** of the Gyanvapi mosque in Varanasi to determine if the mosque was built atop a temple.
- ▪ Non-invasive methods are used **when investigations are undertaken inside a built structure** and no excavation is permitted.
- ▪ **Types of Methods:**
  - o **Active Methods: Inject energy into the ground** and measure the response. The methods provide an **estimate of the ground's material properties,** such as density, electrical resistance, and wave velocity.
    - • **Seismic Techniques:** Use shock waves to study subsurface structures.
    - • **Electromagnetic Methods:** Measure electromagnetic responses after energy injection.
  - o **Passive Methods:** Measure existing physical properties.
    - • **Magnetometry:** Detect magnetic anomalies caused by buried structures.
    - • **Gravity Surveying:** Measure gravitational force variations due to subsurface features.

- o **Ground-Penetrating Radar (GPR):**
  - **ASI used GPR to produce a 3-D model of buried archaeological features.**
  - GPR operates by introducing a short radar impulse from a surface antenna and records time and magnitude of return signals from the subsoil.
  - **Radar beam spreads like a cone,** causing reflections before the antenna passes over the object.
    - Radar beams spread out in a cone, leading to reflections that may not directly correspond to physical dimensions, creating false images.
- o **Carbon Dating:**
  - Method used to establish the age of organic materials based on the radioactive decay of Carbon-14 (C-14).

What is the Gyanvapi Mosque Dispute?
- ▪ **Demolition of Temple:**
  - o It is a popular belief that the **Gyanvapi Mosque was built in 1669** by the Mughal ruler Aurangzeb by demolishing the ancient Vishweshwar temple.
    - **Saqi Mustaid Khan's Maasir-i-Alamgiri, a Persian-language chronicle** (written shortly after Aurangzeb's death in 1707) also mentioned that Aurangzeb had demolished the temple in 1669 by ordering Governor Abul Hassan.
  - o The ASI report stated that the **Arabic-Persian inscription found inside** a room in the mosque mentions that the mosque was built in the 20th regal year of Aurangzeb (1676-77 CE).
    - Historian Audrey Truschke wrote that Aurangzeb brought the bulk of Benares's Vishvanatha Temple (Vishweshwar) down in 1669. The temple had been built during Akbar's reign by Raja Man Singh, whose great-grandson, Jai Singh, many believed helped Shivaji flee from the Mughal court in 1666.
- ▪ **Legal Battle:**
  - o The case of Gyanvapi mosque **has been in court since 1991**, when three persons, including **a descendant of the priests** of the Kashi Vishwanath temple, filed a suit in the court of the civil judge of Varanasi claiming that Aurangzeb had demolished the temple of Lord Vishweshwar and built a mosque on it so that the land should be returned to them.
  - o On 18th August 2021, in the same court in Varanasi, five women filed a petition demanding to **worship in the temple of Mata Shringar Gauri,** accepting which the court constituted a commission to know the present status of the Mata Shringar Gauri Temple.
    - Varanasi court had asked the **Commission to give the survey report by videographing the idol of Mata Shringar Gauri** and the Gyanvapi complex.
  - o The Hindu side has presented a comprehensive map of the Gyanvapi complex as evidence in court. This map **identifies Hindu deity temples located around the mosque entrance**, along with landmarks such as the Vishweshwar temple, Gyankoop (Mukti Mandap), the prominent Nandi statue, and the Vyas family basement.
  - o The Muslim side argued that no decision can be given on the dispute under the **The Places of Worship Act, 1991.**
    - Under **Section 3 of the Places of Worship (Special Provisions) Act, 1991,** it is prohibited to convert a place of worship into a place of worship of a different religious denomination or a different class of the same religious denomination.
  - o Gyanvapi Case is still pending before judiciary.

What are the Provisions of the the Places of Worship Act 1991?
- ▪ **Prohibition of Conversion (Section 3):**
  - o Prevents the conversion of a place of worship, whether in full or part, from one religious denomination to another or within the same denomination.
- ▪ **Maintenance of Religious Character (Section 4(1)):**
  - o Ensures that the religious identity of a place of worship remains the same as it was on 15th August 1947.
- ▪ **Abatement of Pending Cases (Section 4(2)):**
  - o Declares that any ongoing legal proceedings concerning the conversion of a place of worship's religious character before15th August 1947, will be terminated, and no new cases can be initiated.
- ▪ **Exceptions to the Act (Section 5):**
  - o The Act does not apply to ancient and historical monuments, archaeological sites, and remains covered by the **Ancient Monuments and Archaeological Sites and Remains Act, 1958.**
  - o It also **excludes cases that have already been settled** or resolved and disputes that have been resolved by mutual agreement or conversions that occurred before the Act came into effect.

- o The Act does not extend to the specific place of worship known as **Ram Janmabhoomi-Babri Masjid in Ayodhya,** including any legal proceedings associated with it.
- ▪ **Penalties (Section 6):**
- o Specifies penalties, including a maximum imprisonment term of three years and fines, for violating the Act.

12. Prohibition on Sapinda Marriage

Why in News?

Recently, the Delhi High Court in the case of *Neetu Grover v. Union of India & Ors, 2024* has rejected a challenge to the constitutionality of **Section 5(v) of the Hindu Marriage Act, 1955 (HMA)**, which **prohibits marriage between two Hindus** if they are "Sapindas" of each other.

- ▪ However, in **Shakti Vahini v. Union of India, 2018,** the Supreme Court held that consensually choosing life partners is a manifestation of their freedom of choice guaranteed under **Articles 19 and 21 of the Constitution.**

Why Was the Law Challenged, and What Was the Court's Ruling?

- ▪ **Arguments of Petitioner:**
- o In 2007, the petitioner's marriage was **declared void after her husband successfully proved** that they had **entered into a sapinda marriage,** and that the woman was not from a community where such marriages could be considered a custom.
- o The petitioner challenged the constitutional validity of the **prohibition on sapinda marriages, arguing** that sapinda marriages are **prevalent even when there is no proof of custom.**
- o Hence, **Section 5(v) which prohibits sapinda marriages** unless there is an established custom, violates the right to equality under Article 14 of the Constitution.
  - • The petitioner also argued that if the marriage had received the consent of both families, **which proved the legitimacy of the marriage.**
- ▪ **Delhi Court's Order:**
- o The Delhi High Court found no merit in her arguments, holding that the petitioner did not **provide "stringent proof" of an established custom**, which is necessary to justify a sapinda marriage.
- o The court held that the choice of a partner in a marriage **can be subject to regulation.** With this in mind, the court held that the petitioner did not present any **"cogent legal ground"** to show that the prohibition against sapinda marriages was violative of the right to equality.

What is a Sapinda Marriage?

- ▪ **About:**
- o A sapinda marriage is one **between individuals who are related to each other** within a **certain degree of closeness.**
- o Sapinda marriages are defined under **Section 3 of the HMA**, as two persons are said to be "sapindas" of each other if one is a lineal ascendant of the other in the limits of sapinda relationship, or if they have a common lineal ascendant who is within the limits of sapinda relationship with reference to each of them.
- ▪ **Lineal Ascendant:**
- o Under the provisions of the HMA, on the mother's side, a Hindu individual cannot marry anyone w**ho is within three generations of them in the "line of ascent".** On the father's side, this prohibition applies to anyone within five generations of the individual.
- o In practice, this means that on their mother's side, an individual cannot marry **their sibling (first generation),** their parents (second generation), their grandparents (third generation), or an individual who shares **this ancestry within three generations.**
- o On their father's side, this prohibition would extend up to their grandparents' grandparents, and anyone who shares this ancestry within five generations.
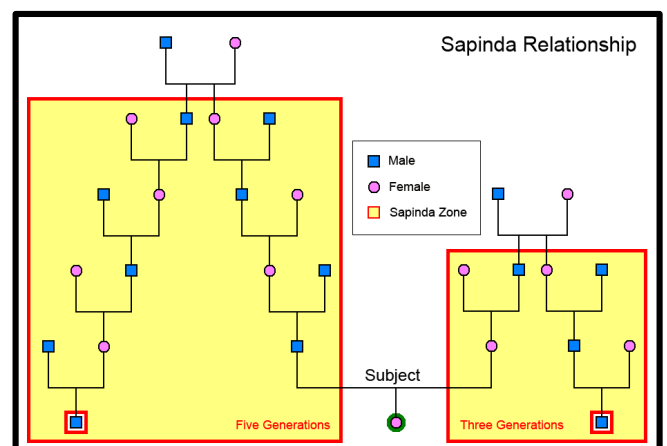
- **Section 5(v) of HMA 1955:**
  - If a marriage is found to violate Section 5(v) for being a sapinda marriage, and there is no established custom that **allows such a practice, it will be declared void.**
  - This would mean that the marriage was invalid from the very beginning, and will be treated as though it never took place.

What are the Exceptions to the Prohibitions Against Sapinda Marriages?
- The exception is mentioned in Section 5(v) of the Hindu Marriage Act, 1955 and it states that **if the customs of the individuals involved permit sapinda marriages, then such marriages would not be declared void.**
- In other words, if there is an established custom within the community, tribe, group, or family that allows sapinda marriages, and if this custom is continuously and uniformly observed for a long time, it can be **considered a valid exception to the prohibition.**
  - The definition of **"custom"** is provided in **Section 3(a) of the HMA,** stating that a custom must be continuously and **uniformly observed for a long time and should have gained enough legitimacy among Hindus in a local area**, tribe, group, or family, such that it has obtained "the force of law."
- However, **certain conditions must be met for a custom to be considered valid.** The rule in question must be "certain and not unreasonable or opposed to public policy," and in the case of a rule applicable only to a family, it should not have been "discontinued by the family."
  - If these **conditions are satisfied**, and there is a valid custom permitting sapinda marriages, the marriage would **not be declared void under Section 5(v) of the HMA.**

Are Marriages Similar to Sapinda Marriages Allowed in Other Countries?
- **France and Belgium:**
  - In France and Belgium, the **crime of incest** was abolished under the **Penal Code of 1810,** allowing marriages between consenting adults.
    - Incest is the crime of sexual relations or marriage taking place between a male and female who are **closely linked by blood.**
  - Belgium maintained this legal stance even after introducing a new Penal Code in 1867.
- **Portugal:**
  - Portuguese law does not criminalise incest, implying that marriages between close relatives **may not be prohibited.**
- **Republic of Ireland:**
  - While the Republic of Ireland recognised same-sex marriages in 2015, the law on **incest has not been updated to explicitly** include individuals in same-sex relationships.
- **Italy:**
  - In Italy, incest is considered a crime only if it causes a **"public scandal,"** suggesting that the legal framework takes into account certain circumstances.
- **United States:**
  - In the United States, incestuous marriages are generally banned in all 50 states. However, there are variations in laws related to incestuous relationships between consenting adults.
    - For example, New Jersey and Rhode Island **allow such relationships under certain conditions.**

Conclusion
- The concept of Sapinda marriages, as regulated by the HMA, reflects an effort **to preserve familial and social harmony** by prohibiting unions within certain lineal ascendants. The law includes provisions that declare marriages **void if they violate these restrictions unless there is a well-established custom** permitting such marriages.
- Internationally, various countries have different legal stances on incestuous relationships and marriages, showcasing the diversity of legal approaches to issues of personal choice and family relationships.

GS Paper – 2

1. Red Sea and Panama Canal

Why in News?
Recent attacks on ships in the **Red Sea trade route** and the ongoing drought problem at the **Panama Canal** have raised worries about global trade disruptions.

What are the Key Issues in the Red Sea and Panama Canal Presently?
- **Red Sea:**
  - **Issue: Chemical tanker MV Chem Pluto** was struck by a drone attack, approximately 200 nautical miles off Gujarat's coast.
    - **MV Chem Pluto** is a Liberia-flagged, Japanese-owned, and Netherlands-operated chemical tanker. It had started its journey carrying crude from **Al Jubail, Saudi Arabia** and was expected to arrive in **New Mangalore, India.**
  - **Alleged Involved Entity**: It is believed to have been carried out by **Houthi rebels based in Yemen,** citing protest against **Israel's actions in Gaza.**
    - Houthi rebels are also engaged in a **decade-long civil conflict with Yemen's government.**
  - **Impact on India:** Concerns arise for Indian **oil importers** and **exporters of key commodities like basmati and tea** due to disruptions in this critical trade route.
    - Disruption in the Red Sea route could **increase Indian agricultural product prices by 10-20%** as shipments reroute through the **Cape of Good Hope.**

Note
Global oil and petroleum flows have declined due to major shipping companies avoiding the Red Sea. However, **India's oil imports from Russia remain unaffected.**
- **India's reliance on Russian oil,** perceived as Iran's ally, has remained stable amid the conflict in the Red Sea.
- **Panama Canal:**
  - **Issue:** Due to drought conditions, shipping through the **51-mile stretch of the Panama Canal has decreased by over 50%.**
    - A naturally occurring **El Nino climate pattern** associated with warmer-than-usual water in the central and eastern tropical Pacific Ocean is contributing to Panama's drought.
  - **Impact:** This shortage of water is compelling vessels traveling from **Asia to the US to opt for the Suez Canal,** adding six extra days compared to the Panama Canal route.
    - While the **Bab-el-Mandeb Strait that leads to the Suez Canal in the Red Sea** region connects Asia to Europe, the 100-year-old Panama Canal connects the Atlantic and Pacific Oceans.
    - **Both these routes are among the busiest in the world.**
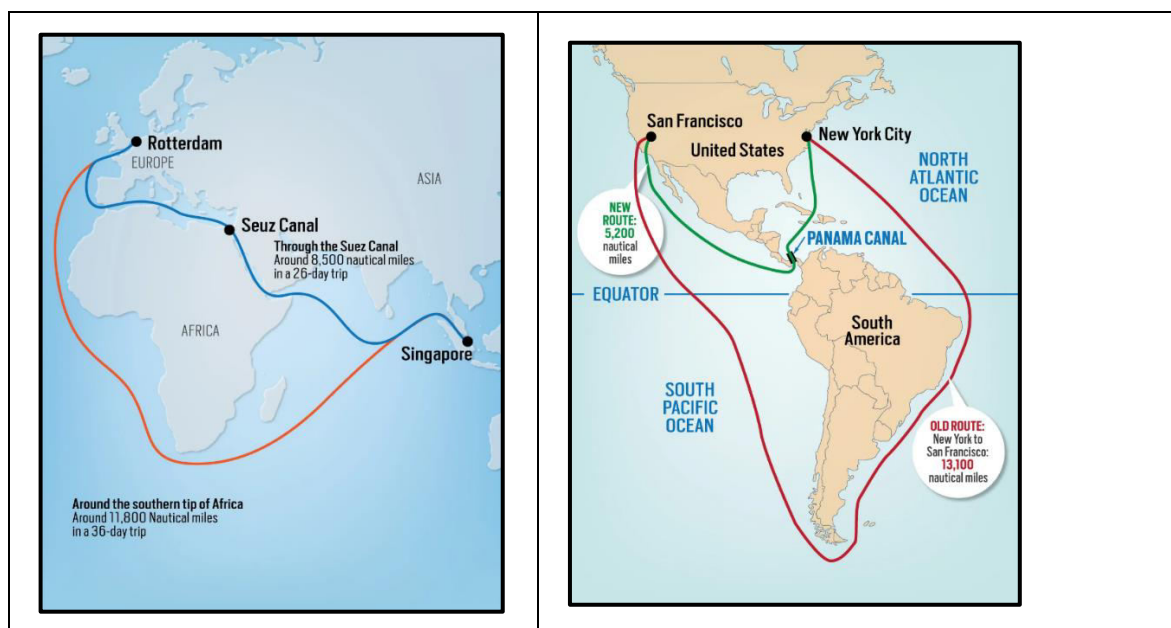
What is the Significance of Maritime Transport in Global Trade?

- **Unrivaled Volume and Value Carrier**: Maritime transport shoulders a colossal **80% of global trade by volume and over 70% by value**, far surpassing other modes of transportation **as per the United Nations Conference on Trade and Development.**
  - As of 2019, the total value of the annual world shipping trade had reached more than **14 trillion US Dollars.**
- **Environmental Considerations:** While shipping does contribute to around **3% of global greenhouse gas emissions**, it is relatively more fuel-efficient and emits less per ton of cargo transported compared to other modes of transportation like air freight.
- **Energy Transportation:** The majority of the world's energy resources, such as oil and natural gas, are transported by sea. Tankers carry these resources from **production areas to consuming regions,** playing a critical role in meeting global energy demands.

What Measures India can Adopt to Reduce Vulnerability to These Issues?

- **Joint Maritime Security Initiative:** Propose a collaborative security framework with key Red Sea stakeholders **(Egypt, Saudi Arabia, UAE, Yemen)** involving **intelligence sharing, coordinated patrols, and joint exercises.**
- **Deploy Advanced Surveillance Systems:** Install **integrated radar and drone surveillance** systems along India's western coastline to enhance early threat detection and response capabilities.
- **Negotiate Preferential Access:** Engage with **Panama Canal authorities to explore preferential passage for Indian vessels** or potential toll discounts for specific routes.

Alternate Trade Routes Under Consideration

Recently, there has been renewed interest in the **Ben Gurion Canal Project**, a proposed 160-mile-long sea-level canal that would connect the **Mediterranean Sea** with the **Gulf of Aqaba,** bypassing the Suez Canal.

2. India-Italy Migration and Mobility Agreement

Why in News?

Recently, the **Union Cabinet** granted **ex-post facto approval** to the **Migration and Mobility Agreement between India and Italy.**

What is Migration and Mobility Agreement between India and Italy?

- **About:**
  - The agreement is set to strengthen cooperation **on issues related to irregular migration** while bolstering people-to-people ties between India and Italy.
  - It facilitates mobility for various segments, including **students, skilled workers, businesspersons, and young professionals,** fostering exchange and collaboration.
- **Key Provisions:**
  - **Temporary Residence for Indian Students:** Graduates seeking professional exposure in Italy post-academic or vocational training can secure temporary residency for **up to 12 months.**
  - **Reserved Quotas for Workers:** The agreement **outlines quotas for non-seasonal and seasonal Indian workers**, with a reserved quota range over the years **2023-2025** under the existing Flows Decree.

- The Italian government's annual **"Flow Decree" (Decreto Flussi)** sets the maximum number of non-EU citizens who can enter Italy for work and self-employment
- **Implementation:**
  - The agreement will remain in force for **5 years,** with automatic renewal unless terminated.
  - A **Joint Working Group (JWG)** will oversee its implementation, convening periodically to evaluate progress and propose supportive measures for effective execution.

Key Facts About Italy
- **About:**
  - Italy is a boot-shaped peninsula that juts out of southern Europe into the **Adriatic Sea, Tyrrhenian Sea, Mediterranean Sea**, and other waters.
- **Bordering Countries:**
  - Italy has international borders with **Austria, France, the Holy See (Vatican City), San Marino, Slovenia, and Switzerland.**
  - Italy also shares maritime borders with **Albania, Algeria, Croatia, Greece, Libya, Malta, Montenegro, Spain, and Tunisia.**
- **Form of Government:** Republic
- **Capital:** Rome
- **Money:** Euro
- **Major Mountains:** Alps, Apennines
- **Major Rivers:** Po, Adige, Arno, Tiber

What are the Other Areas of Cooperation Between India and Italy?
- **Historical Ties:**
  - India and Italy are ancient civilizations but young states. Italian port cities were important trading posts on the **spice route.**
  - The **Venetian merchant Marco Polo**, during his travels to the east, also traveled to India in the 13th century and wrote about his experiences.
- **Political:**
  - Political relations between India and Italy were established in **1947.**
  - In **March 2023**, India and Italy elevated their relationship to a **Strategic Partnership.**
- **Economic:**
  - The bilateral trade between the two countries was valued at **USD 14.25 billion in 2022-23.**
    - Italy is among India's top **5 trading partners in the European Union.**
  - Main items of Indian exports to Italy are **ready-made garments, leather, iron ore, motor vehicles, textiles, chemicals, gems & jewelry.**
    - The main items of import from Italy are general and **special purpose machinery, machine tools, metallurgical products, and engineering items.**
- **Security:**
  - The **India-Italy Military Cooperation Group (MCG)** is a forum established to boost defense cooperation between the both countries.
- **Other Initiatives Involving India and Italy:**

- o India-Middle East-Europe Economic Corridor
- o Global Biofuel Alliance
- o Blue-Raman project

3. India's Steel Sector

Why in News?

Over the years, **the Steel Sector has witnessed tremendous growth** and India has emerged as **a global force in steel production and the 2nd largest producer of steel** in the world after China.

What is the State of Steel Sector in India?
- **Present Scenario:**
  - o India's steel output has been 125.32 million tonnes (MT) of crude steel and 121.29 MT of finished steel production in FY23.
- **Significance:**
  - o Steel is **one of the widely used materials all over the world.** The iron and steel industry is the bottom line producer industry.
    - The steel industry plays a pivotal role in crucial sectors such as construction, infrastructure, automobile, engineering, and defense.
  - o Steel is a key sector for the Indian economy (responsible for 2% of the country's GDP in FY 21-22).
- **Producing States:**
  - o India's major steel-producing states include **Odisha**, which leads among all steel producing states, **followed by Jharkhand and Chhattisgarh.** Karnataka, Maharashtra, Gujarat, and West Bengal also play crucial roles.

What are the Government Initiatives for the Growth of Steel Sector?
- **Inclusion of Specialty Steel in PLI Scheme:**
  - o The government approved a **Rs 6322 crore outlay for a 5-year period** to promote manufacturing of specialty steel, attracting investments, and fostering technological advancements in the sector.
- **Green Steel Making:**
  - o The Ministry of Steel **constituted 13 Task Forces with the engagement of industry**, academia, think tanks, S&T bodies, different Ministries and other stakeholders to discuss, deliberate and recommend upon different levers of decarbonisation of the steel sector.
  - o The Ministry of New and Renewable Energy (MNRE) has announced a **National Green Mission for green hydrogen production and usage.** The steel sector has also been made a stakeholder in the mission.
  - o The steel sector has adopted the **Best Available Technologies (BAT)** available globally, in the modernization & expansions projects.
- **Ministry's Engagement with PM Gati Shakti National Master Plan:**
  - o The **Ministry of Steel has integrated BISAG-N's capabilities into the PM Gati Shakti National Master Plan**, uploading geolocations of more than 2000 steel units to gain insights into steel production facilities.
  - o This information will aid in planning railway line extension, inland waterways, highways, ports, and gas pipeline connectivity.
- **Steel Scrap Recycling Policy:**
  - o The **Steel Scrap Recycling Policy (SSRP)** has been notified in 2019 which provides a framework to facilitate and promote establishment of metal scrapping centres in the country for scientific processing and recycling of ferrous scrap generated from various sources **including end of life vehicles (ELVs).**
- **National Steel Policy 2017:**
  - o The Government has formulated the **National Steel Policy 2017,** which lays down the broad roadmap for encouraging **long term growth for the Indian steel industry**, both on demand and supply sides, by 2030-31.
    - Government's push for infrastructure development through Gati-Shakti Master Plan, **'Make-in-India' initiative** for manufacturing sector and other flagship schemes of the Government would provide impetus to the demand and consumption of steel in the country. .
- **Steel and Steel products (Quality Control) Order:**
  - o The Ministry of Steel has introduced Steel Quality Control Order, thereby **banning sub-standard/ defective steel products both from domestic & imports** to ensure the availability of quality steel to the industry, users and public at large. As per the Order, it is ensured that only quality steel conforming to the relevant BIS standards are made available to the end users.
- **Safety in the Iron & Steel Sector:**

- o After extensive consultations with stakeholders, academia etc, a set of 25 common minimum Safety Guidelines for the **Iron & Steel Sector was formulated.**
- o These Safety Guidelines are **at par with the global standards** and are compliant with the **requirements of the ILO Code of practice on safety** in the Iron & Steel industry.
- o Inputs have also been taken from the World Steel Association's guidance document on "Safety & Health Principles and Definitions".
- ▪ **National Metallurgist Award :**
- o This award is a prestigious award given by the Ministry of Steel to recognize the outstanding contributions of metallurgists in the iron and steel sector.

4. Caste Based Discrimination in Indian Prisons

Why in News?

The **Supreme Court (SC) of India** recently issued notice to the Centre and 11 states on a **public interest litigation (PIL)** that alleged **caste-based discrimination and segregation of prisoners in jails** and sought a direction to repeal provisions that mandate such practices under the state prison manuals.

What are the Instances of Caste Based Discrimination Highlighted by the PIL?
- ▪ **Instances of Discrimination:**
- o The PIL exposes instances from Madhya Pradesh, Delhi, and Tamil Nadu jails where **cooking is allocated to dominant castes**, while **"specific lower castes" are assigned menial jobs** such as sweeping and cleaning toilets.
  - ➢ The Prison system in India is alleged to perpetuate discriminatory practices, including the division of labour based on **caste hierarchy and the caste-based segregation of barracks.**
- o Caste-based labour distribution is deemed a relic of colonial India and is considered humiliating and unhealthy, violating the prisoners' right to life with dignity.
- ▪ **State Prison Manual Sanctions:**
- o The petition claims that prison manuals in various states sanction caste-based discrimination and forced labour within the prison system.
  - ➢ **Rajasthan Prison Rules 1951:**
    - • Assignment of **Mehtars to latrines and Brahmins to kitchens** based on caste.
  - ➢ **Palayamkottai Central Jail in Tamil Nadu:**
    - • The petition highlights the caste-based segregation of inmates in Palayamkottai Central Jail in Tamil Nadu, pointing to the separation of **Thevars, Nadars, and Pallars into different sections.**
  - ➢ **West Bengal Jail Code:**
    - • Directs menial tasks like sweeping to prisoners from the **Mether or Hari caste, Chandal, and other castes.**
- ▪ **2003 Model Prison Manual Guidelines:**
- o The petition refers to the **2003 Model Prison Manual**, emphasizing guidelines for **classification based on security, discipline, and institutionalized programs.**
  - ➢ It argues against any classification based on socio-economic status, caste, or class.
- ▪ **Fundamental Rights:**
- o The petition argues that a **person does not lose fundamental rights or the equality code** merely for being a prisoner, citing the Supreme Court's judgment in the **Sunil Batra v. Delhi Administration (1978) case on the fundamental rights of prisoners.**
- ▪ **Call for Repeal of Discriminatory Provisions:**
- o The petition emphasises the need to **repeal discriminatory provisions in state prison manuals,** advocating for the protection of prisoners' fundamental rights and equality within the prison system.

What are the Supreme Court's Observations on Caste Discrimination in Prisons?
- ▪ Three-judge Bench, headed by the **Chief Justice of India**, finds that prison manuals in over 10 states support caste-based discrimination and forced labour.
- o States include Uttar Pradesh, Odisha, Jharkhand, Kerala, West Bengal, Madhya Pradesh, Andhra Pradesh, Maharashtra, Telangana, Punjab, and Tamil Nadu.
- ▪ Caste-based discrimination, segregation, and treatment of **denotified tribes** as **"habitual offenders"** within prisons are deemed a **"very important issue"** by the SC.
- o SC emphasized the **need for prompt and comprehensive addressing** of alleged discriminatory practices.

- The SC sent a notice and asked for a response from the States and the Union within four weeks on the petition.

How do the Laws Allow Caste Discrimination Inside Indian Jails?
- **Legacy of Colonial Policies:**
  o India's criminal justice system, rooted in **colonial legacy,** primarily focuses on **punishment rather than reformation or rehabilitation.**
  o The **'Prisons Act of 1894,'** dating back almost 130 years, underscores the outdated nature of the legal framework.
    - The Act lacks provisions for the **reform and rehabilitation of prisoners.**
  o Recognizing the deficiencies in existing laws, the Ministry of Home Affairs (MHA) reviewed **'The Prisons Act, 1894,' 'The Prisoners Act, 1900,' and 'The Transfer of Prisoners Act, 1950.'**
    - This review led to the assimilation of relevant provisions into the forward-looking **'Model Prisons Act, 2023.'**
    - The effective implementation of the **Model Prisons Act, 2023** which was finalized by the MHA in May 2023, is **expected to improve the prison conditions and administration** and protect the human rights and dignity of the prisoners.
- **Prison Manuals:**
  o State-level prison manuals, largely unchanged since the establishment of the modern prison system, reflect both colonial and caste mentalities.
  o Existing prison manuals **enforce the central premise of the caste system,** emphasizing notions of purity and impurity.
    - State prison manuals mandate that duties like cleaning and sweeping must be performed by members of specific castes, perpetuating caste-based discrimination.
    - Prison manuals, such as the one in West Bengal under Section 741, safeguard the monopoly of "savarna Hindus" on cooking and carrying food for all prisoners.
  o Despite constitutional and legal provisions against untouchability, caste-based rules persist in prison administration.
- **The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013):**
  o Despite the outlawing of **manual scavenging** by the 2013 Act, it does not explicitly cover prison administration, and hence, the prison manuals that **allow caste discrimination and manual scavenging in jails** are not in violation of the Act.
    - Manual scavenging refers to the practice of manually cleaning, handling and disposing of human excreta and other waste materials from dry latrines, open drains, and sewers.

Way Forward
- The states should adopt the **Model Prison Manual of 2016** released by the Ministry of Home Affairs based on the **Nelson Mandela Rules in 2015.**
  o The **United Nations General Assembly** adopted the Nelson Mandela Rules in 2015, emphasizing **dignity and non-discrimination for all prisoners.**
- Courts should **consider judicial intervention to strike down discriminatory provisions,** ensuring the protection of fundamental rights and promoting equality within the prison system.
- Establish **robust monitoring mechanisms** to track progress in implementing reforms, holding authorities accountable for creating a more equitable prison system.

5. Kochi-Lakshadweep Islands Submarine Optical Fiber Connection Project

Why in News?
Recently, the Prime Minister of India inaugurated the **Kochi-Lakshadweep islands submarine optical fiber connection (KLI-SOFC) project** among various developmental projects \covering a wide range of sectors including technology, energy, water resources, healthcare and education.

What are the Key Facts About the KLI-SOFC Project?

- **Background:**
  - Lakshadweep required digital connectivity, prompting a high-capacity submarine cable link due to **limitations in satellite communication,** marked by inadequate bandwidth to meet growing demand.
- **KLI-SOFC Project:**
  - The KLI-SOFC project will lead to an **increase in internet speed**, unlocking new possibilities and opportunities.
  - The project introduces **Submarine Optic Fiber Cable connectivity** for the first time in Lakshadweep since independence.
    - Fiber optics, or optical fiber, refers to the **technology that transmits information as light pulses** along a glass or plastic fiber.
  - The **Department of Telecommunications (DOT)** funded by the **Universal Services Obligation Fund (USOF),** completed the project. **Bharat Sanchar Nigam Limited (BSNL)** was the Project Executing Agency.
  - The KLI project extended submarine cable connectivity from the mainland **(Kochi) to eleven Lakshadweep Islands** namely, Kavaratti, Agatti, Amini, Kadmat, Chetlet, Kalpeni, Minicoy, Androth, Kiltan, Bangaram and Bitra has been extended.

- **Significance:**
  - The project aligns with the goals of **'Digital India'** and **'National Broadband Mission,'** fostering the rollout of various **e-governance projects** in Lakshadweep Islands.
    - E-Governance, Tourism, Education, Health, Commerce, and Industries will experience significant enhancements, contributing to **improved standards of living** and overall socio-economic development on the islands.
  - The population of Lakshadweep Islands will benefit from high-speed wireline broadband connectivity, facilitated through Fibre to the Home (FTTH), and **5G/4G Mobile network technologies.**
    - The bandwidth generated by the project will be accessible to all **Telecom Service Providers (TSPs),** reinforcing telecom services in Lakshadweep Islands.

Other Projects in Lakshadweep Islands

- **Low-Temperature Thermal Desalination (LTTD) Plant at Kadmat:**
  - Produces 1.5 lakh litres of clean drinking water every day. **Functional Household Tap Connections (FHTC)** in Agatti and Minicoy Islands.
    - All households on the Agatti and Minicoy islands now have functional household tap connections.
    - The LTTD is a process under which the **warm surface seawater is flash evaporated at low pressure** and the vapour is condensed with cold deep sea water.
- **Solar Power Plant at Kavaratti:**
  - The first-ever battery-backed **solar power** project in Lakshadweep.
- **Primary Health Care Facility in Kalpeni:**
  - Foundation stone laid for the renovation of the primary health care facility in Kalpeni.
- **Model Anganwadi Centres (Nand Ghars):**
  - Five model **Anganwadi centres** (Nand Ghars) to be constructed in the islands of Androth, Chetlat, Kadmat, Agatti, and Minicoy.

What are the Key Facts About the Lakshadweep Islands?

- India's smallest Union Territory Lakshadweep is an archipelago **consisting of 36 islands** with an area of 32 sq km.
- The **capital is Kavaratti** and it is also the principal town of the UT.
  - All Islands are 220 to 440 km away from the coastal city of Kochi in Kerala, in the emerald **Arabian Sea.**
  - The name Lakshadweep in Malayalam and Sanskrit means 'a hundred thousand islands'.
- Lakshadweep has a **tropical climate and it has an average temperature of 27° C – 32° C.**
  - As the climate is equitable during monsoons, ship-based tourism is closed.

- It is directly under the **control of the Centre through an administrator.**
- The entire indigenous population has been classified as **Scheduled Tribes** because of their economic and social backwardness.
  - According to the **Scheduled Castes** and Scheduled Tribes list (modification orders), 1956, there are no Scheduled Castes in this Union Territory.
- In 2020, the Lakshadweep Islands administration established **the world's first conservation area for sea cucumbers** , the Dr. KK Mohammed Koya Sea Cucumber Conservation Reserve, spanning 239 square kilometers **in the Cheriyapani Reef.**

6. PRITHvi VIgyan Scheme

Why in News?

The Union Cabinet recently approved the comprehensive scheme **"PRITHvi VIgyan (PRITHVI)"** by the **Ministry of Earth Sciences.**
- This initiative spans five sub-schemes, aiming to enhance Earth System Sciences and provide crucial services for societal, environmental, and economic well-being.
- The Cabinet also approved an agreement between the **Indian Space Research Organisation (ISRO)** and **Mauritius Research and Innovation Council (MRIC)** to jointly develop a "small satellite."

Note
- India and Mauritius have a history of cooperation since the 1980s when ISRO established a **ground station in Mauritius** for tracking and telemetry support for ISRO's launch vehicle and satellite missions.

What is the "PRITHvi VIgyan (PRITHVI)" Scheme?
- **About:**
  - It is an overarching scheme of the Ministry of Earth Sciences (MoES) for the period from 2021 to 2026.
  - It encompasses five ongoing sub-schemes, namely:
    - **ACROSS: Atmosphere and Climate Research-Modelling Observing Systems & Services.**
    - **O-SMART: Ocean Services, Modelling Application, Resources and Technology.**
    - **PACER: Polar Science and Cryosphere Research.**
    - **SAGE:** Seismology and Geosciences
    - The scheme includes six activities, including seismological monitoring and microzonation. SAGE aims to strengthen **earthquake monitoring and research on the Earth's solid components.**
    - **REACHOUT: Research, Education, Training and Outreach.**
  - PRITHVI scheme comprehensively addresses the **five components of Earth System Sciences: atmosphere**, hydrosphere, geosphere, **cryosphere,** and biosphere.
    - This holistic approach aims to enhance understanding and deliver reliable services for the country.

- **Objectives:**
  - To augment and sustain long-term **observations of the atmosphere, ocean,** geosphere, cryosphere and solid earth to record the vital signs of the Earth System and change
  - Development of modelling systems for understanding and **predicting weather, ocean and climate hazards** and understanding the science of **climate change.**
  - Exploration of **polar and high seas regions of the Earth** towards discovery of new phenomena and resources;
  - Development of technology for exploration and sustainable harnessing of oceanic resources for societal applications.
  - Translation of knowledge and insights from Earth systems science into services for societal, environmental and economic benefit.

- **Benefits for India:**
  - PRITHVI provides **advanced warning services** for natural disasters like **cyclones, floods, heatwaves,** and **earthquakes,** facilitating prompt and **effective disaster management.**
    - Additionally, the scheme ensures **precise weather forecasts** for both land and oceans, enhancing safety and minimizing property damages in adverse weather conditions.
  - PRITHVI extends its reach to explore the three poles of the Earth; **Arctic, Antarctic, and Himalayas** facilitating valuable insights and knowledge about these regions.
  - The scheme encourages the development of technology for exploration and sustainable harnessing of oceanic resources, aligning with modern advancements in Earth Science.

7. Concerns over Hit-and-Run Law

Why in News?

The recent protests by transporters and commercial drivers in states like Maharashtra, Chhattisgarh, West Bengal, and Punjab shed light on the contentious **Section 106 (2) of the Bharatiya Nyaya Sanhita, 2023 (BNS).**

- This section, which stipulates **severe penalties for hit-and-run incidents,** has become a focal point of discontent among the driving community.
- The countrywide truckers' strike has been called off after the government assured that it **would consult stakeholders before implementing** a contentious law against hit-and-run.

What is the Hit-and-run Law?

- **Provisions:**
  - The hit-and-run provision is part of the **Bharatiya Nyaya Sanhita (BNS)**, which is set to replace the colonial-era **Indian Penal Code, 1860.**
    - Section 106 (2) of the BNS, 2023 **stipulates a penalty of up to 10 years in jail and a fine for fleeing an accident spot** and failing to report the incident to a police officer or a magistrate.
    - However, if the driver reports the incident immediately after the accident, they will be charged under Section 106(1) instead of Section 106(2). **Section 106(1) provides for a punishment of up to five years** for causing death by any rash or negligent act not amounting to culpable homicide.
- **Need:**
  - The new law comes in the backdrop of concerning figures related to road accidents in India.
    - In **2022, India recorded over 1.68 lakh road crash fatalities**, averaging 462 deaths daily.
    - India experienced a **12% increase in road accidents** and a 9.4% rise in fatalities, while global road crash deaths decreased by 5%.
    - On average, there are 19 deaths per hour due to road accidents in India, almost one death every three and a half minutes.
    - More than half of road fatalities occurred on national and State highways, which make up less than 5% of the total road network.
    - **India, with only 1% of the world's vehicles**, contributes to about **10% of crash-related deaths** and suffers an annual economic loss of **5-7% of its GDP** due to road crashes.
- **Principle Underlying the Law:**
  - The **National Crime Records Bureau recorded 47,806 hit-and-run incidents** which resulted in the deaths of 50,815 people in 2022.
    - Offenders have a **legal duty to report road accidents to the police** or magistrate, and there are **provisions to criminalize the omission of this duty.**
  - The principle underlying **Section 106 (2) of hit-and-run law is to deter rash and negligent driving and to punish** those who flee the scene without reporting or helping the victims.
  - The law reflects the legislative intent to **enforce moral responsibility** on the offender towards the victim.
    - Drawing parallels with existing laws, such as **Section 134 of the Motor Vehicles Act, 1988,** highlights the government's commitment to ensuring a prompt and responsible response from drivers in the aftermath of accidents.
    - Section 134 of the Motor Vehicles Act, 1988, **requires the driver of the vehicle to take all reasonable steps** to secure medical attention for the injured person unless it is **not practicable on account of mob fury or any other reason beyond his control.**

What are the Concerns of the Protesters?

- **Section 106 (2) of the BNS, 2023:**
  - Transporters and commercial drivers are demanding the **withdrawal or amendment of Section 106 (2) of the BNS, 2023.**
  - Protesters argue that the prescribed penalties, including a 10-year imprisonment and Rs. 7 lakh fine, are excessively severe.
  - The widely circulated view that Section 106 (2) of the BNS stipulates imprisonment of up to 10 years and a **fine of Rs. 7 lakh for fleeing an accident spot and failing to report the incident to a police officer/magistrate is grossly incorrect.**
    - While this Section discusses a maximum punishment of 10 years and a fine, there is **no actual mention in the BNS about the fine being Rs 7 lakh.**

Note

- **Section 161 of the Motor Vehicles (Amendment) Act, 2019, provides compensation for victims of hit-and-run accidents.**
  - The compensation for death is Rs 2 lakh and for grievous hurt, it is Rs 50,000. Unlike Section 106 (2) of BNS, the compensation in this case is not recoverable from the drivers.
- **Challenging Conditions:**
  - They argue that the **penalty is excessive** and fails to consider the challenging work conditions of drivers, such as **long driving hours and difficult roads.**
  - Transporters also argue that accidents may be caused by **factors beyond the driver's control**, such as **poor visibility due to fog,** and **fear of mob violence against drivers** if they stop to assist at accident sites.
    - The fear of violence further complicates the decision-making process for drivers in the aftermath of accidents.
- **Perceived Unfair Blame:**
  - Drivers argue that they are **often unfairly blamed for accidents**, irrespective of the actual circumstances.
  - The legislation's punitive approach may exacerbate this perception of unfairness and contribute to a negative impact on the transport industry.
- **Possible Misuse by Authorities:**
  - They are concerned that the law may be **abused by law enforcement agencies** and that the harsh penalties could hurt the transport industry as a whole.
- **Unfair Treatment and Limited Categorization:**
  - The current legislation raises concerns about the **fairness of penalties** imposed on truck drivers and individual vehicle drivers,
    - For instance, an exception has been made under **106 (1) of the BNS for doctors** in the event of rash or negligent acts, where the **punishment will be up to two years with a fine.**
  - This limited categorisation is problematic and is against the **principles of equality**, as the liability of a wide variety of people working in other sectors also needs to be moderated.
- **Lack of Differentiation:**
  - Section 106(2) lacks differentiation between **rash and negligent driving**, which are two distinct types of offences with different degrees of liability.
    - They also contend that the **section does not consider the contributory factors in negligent acts,** such as the behaviour of commuters, road conditions, lighting on the road, and other similar factors, which may affect the driver's responsibility.
  - Applying one clause to all situations may **unfairly prejudice drivers** in different circumstances.

Way Forward

- Initiate **comprehensive consultations with stakeholders**, especially drivers and transport associations, to address concerns and gather diverse perspectives.
  - Establish a **clear and standardized protocol for emergency response**, emphasizing the importance of prompt reporting **without exposing drivers to potential violence.**
- The current hit-and-run law under Section 106 (2) of the BNS **does not differentiate** between different types and outcomes of accidents.
  - The law should be categorised in different scales based on liabilities, such as death, grievous hurt, simple hurt, or minor injuries, and the punishment should be **commensurate** with the offence.
- The law should also **clarify** the reporting procedure and the evidence required for the drivers to prove their innocence or mitigating factors.
- The road accidents resulting in **minor injuries ought not to be equated with criminal acts,** but rather impose **alternative measures** such as community service, revoking of driving licences, or mandatory driving retests.
- Invest in improved road infrastructure, visibility measures, and safety features to mitigate accidents and reduce the likelihood of hit-and-run incidents.
- Study and incorporate successful models and best practices from other countries with effective hit-and-run legislation, adapting them to the Indian context.

8. Project Tiger

Why in News?

Over time, the tiger conservation initiative has evolved, establishing Tiger Reserves (55) and implementing crucial wildlife protection laws.

- However, conflicts in Tiger Reserves between the forest bureaucracy and forest dwellers have intensified due to violations of the **Wildlife (Protection) Act, 1972**, and the **Forest Rights Act, 2006.**
- The **Ministry of Environment, Forest and Climate Change** announced the merger of the two flagship programmes **Project Tiger (PT)** and **Project Elephant** as **Project Tiger and Elephant (PTE).**

What are the Shortcomings in Tiger Conservation?
- The **Wildlife Protection (Amendment) Act, 2006** didn't prohibit the diversion of a **"tiger's forest"** for development projects and allowed wildlife to be killed as a last resort if they threatened human lives.
- The government planned to notify the FRA Rules in 2009 and operationalise the Act.
  - But in November 2007, the **National Tiger Conservation Authority (NTCA)** passed an order that gave the Chief Wildlife Wardens 13 days' time to submit a proposal to delineate Critical Tiger Habitats (CTHs), each with an area of 800-1,000 sq. km.
  - As a result, the government ended up notifying 26 Tiger Reserves in 12 States Section 38 (V) of WLPA, and without complying with its provisions.
- Tiger Reserves in **Similipal, Odisha**, the **Critical Tiger Habitats (CTHs)** lacked a **Buffer Area.**
  - It was only in **2012** that they were included following a directive from the Supreme Court, which gave the **National Tiger Conservation Authority (NTCA)** a three-month ultimatum.
- The **Tiger Task Force** found the approach of using guns, guards, and fences wasn't protecting tigers, and that the increasing conflict between the **forest/wildlife bureaucracy** and those who coexist with the **tigers** was a recipe for disaster.

What are Initiatives Taken for Tiger Conservation?
Project Tiger:
- **About:**
  - **Project Tiger** is a **wildlife conservation initiative** in India that was launched in 1973.
  - The primary objective of Project Tiger is to ensure the survival and maintenance of the tiger population in their natural habitats by creating dedicated **Tiger Reserves.**
  - Starting with only **nine reserves** covering **9,115 sq. km,** the project marked a paradigm shift in wildlife conservation efforts.
- **Method of Tiger Census:**
  - The unreliable **pug-mark method** of the **first tiger census** in **1972** gave way to more accurate techniques like the **camera-trap method.**

- **Growth Rate in Tiger Population:**
  - The first tiger census, in **1972,** used the unreliable pug-mark method to count **1,827** tigers.
  - As of **2022**, the tiger population is estimated at **3,167-3,925**, showcasing a growth rate of **6.1%** per year.
  - India is now home to **three-quarter**s of the **world's tigers.**
- **Tiger Reserve:**
  - In 1973, **Project Tiger** began with **nine reserves** covering **9,115 sq. km.** By **2018,** it had grown to **55 reserves** in different states, totalling **78,135.956 sq. km** or **2.38%** of India's land area.

Wildlife (Protection) Act,1972:
- The **Wild Life (Protection) Act, 1972** provides a legal framework for the protection of various species of wild animals and plants, management of their habitats, regulation, and control of trade in wild animals, plants, and products made from them.
- The **Wildlife (Protection) Act (WLPA), 1972** laid the groundwork for tiger conservation. It established **National Parks** and **Wildlife Sanctuaries**, segregating rights in favour of State governments and introducing the concept of **Critical Tiger Habitats (CTH).**
- The amendment to **WLPA** in **2006** led to the creation of the **National Tiger Conservation Authority (NTCA)** and a comprehensive tiger conservation plan.
- This marked a departure from the **earlier fortress conservation approach,** acknowledging the **inseparable link between tiger protection, forest conservation, and the well-being of local communities.**

Tiger Task Force:

- In 2005, the formation of the **Tiger Task Force**, prompted by concerns about tiger conservation, emphasized the necessity for a reassessment. The task force pointed out flaws in the existing strategy that heavily depended on **weapons, guards**, and **fences.**

What is the Recognition of Forest Rights Act, 2006?
- The enactment of the **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** recognized the customary and traditional forest rights in communities.
- This empowered **Gram Sabhas** to democratically manage forest resources and biodiversity within their boundaries.
- **Critical Wildlife Habitat (CWH):**
  - The **Forest Rights Act (FRA)** introduced a **'Critical Wildlife Habitat' (CWH),** similar to the **Critical Tiger Habitat (CTH)** under the **Wildlife Protection Act (WLPA).**
- However, a key difference was that **once a CWH was notified, it couldn't be redirected for non-forestry purposes**. This particular clause was insisted upon by Adivasi movements during negotiations.
  - **Critical Tiger Habitats (CTH)** cover 42,913.37 sq. km, or 26% of the area under **National Parks** and **Wildlife Sanctuaries.**
- The **Gram Sabhas** were given the authority to **safeguard, preserve**, and **oversee** the **forest, wildlife**, and **biodiversity** within their customary boundaries.

Conclusion
The journey from Project Tiger in 1973 to creation of the NTCA by 2006 amendments reflects India's commitment to tiger conservation and sustainable coexistence. The integration of community empowerment, recognition of forest rights, and a nuanced approach to wildlife protection showcase a holistic paradigm in wildlife conservation.

9. India Maldives Relations

Why in News?
The **Maldives** has recently found itself in the **midst of diplomatic turmoil,** raising questions about its **relations with India** through **undiplomatic remarks, military positioning, and the scrapping of crucial agreements.**
- Maldives has also signed **new deals with China**, further complicating the geopolitical landscape.

What are the Major Points Related to India and Maldives Relations?
- **Historical Ties:** The diplomatic and political relationship between India and the Maldives dates back to **1965 when the British relinquished control of the islands.**
  - Since the democratic transition in 2008, India has invested years in building deep relationships with various stakeholders in the Maldives, including political, military, business, and civil society figures.

- **Maldives' Significance for India:**
  - **Strategic Location:** Located south of India, the **Maldives holds immense strategic importance in the Indian Ocean**, acting as a gateway to the Arabian Sea and beyond.
    - This allows India to **monitor maritime traffic and enhance regional security.**
  - **Cultural Link:** India and Maldives share a deep cultural and historical connection dating back centuries.
    - Until the first half of the 12th century, Buddhism was the principal religion in the Maldivian islands.
    - There is an inscription of **Vajrayana Buddhism**, that had existed in the Maldives in ancient times.
  - **Regional Stability:** A stable and prosperous Maldives aligns with **India's "Neighbourhood First" policy,** promoting peace and security in the Indian Ocean region.

- **India's Significance for Maldives:**
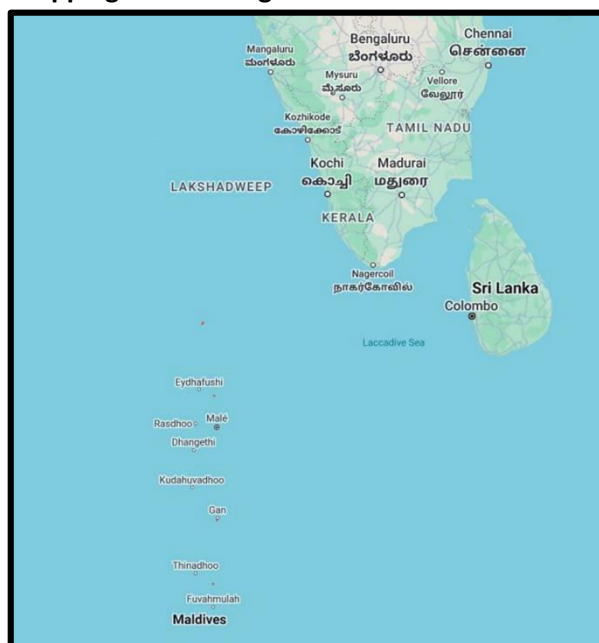
- o **Essential Supplies:** India is a crucial supplier of everyday essentials, including **rice, spices, fruits, vegetables, and medicines.**
  - India also aids in building Maldivian infrastructure by providing materials like cement and rock boulders.
- o **Education:** India serves as the primary education provider for Maldivian students who pursue **higher education in Indian institutions,** including scholarships for deserving students.
- o **Disaster Assistance:** India has been a consistent source of aid during crises, such as **tsunamis and drinking water shortages.**
  - The provision of essential items and support during the Covid-19 pandemic showcases India's role as a reliable partner.
- o **Security Provider:** India has a history of providing security assistance, intervening during a **coup attempt in 1988** through **Operation Cactus** and conducting joint naval exercises for the protection of the Maldives.
  - Joint Exercises include- **"Ekuverin", "Dosti" and "Ekatha".**
- o **India's Dominance in Maldives Tourism:** Indian tourists have become the leading source market for the Maldives since the Covid-19 pandemic. In 2023, **they accounted for a significant 11.2% of total tourist** arrivals, amounting to 18.42 lakh visitors.

INDIANS TRAVELLING TO THE MALDIVES

	Tourist	Share*
2023	2,06,026	11.18%
2022	2,41,382	14.41%
2021	2,91,787	22.07%
2020	62,960	11.33%
2019	1,66,030	9.75%
2018	90,474	6.10%

Note

Eight Degree Channel separates Indian Minicoy (part of Lakshadweep Islands) from that of Maldives.

What are the Major Challenges Related to India Maldives Relations?

- **India-Out Campaign:** In recent years, Maldivian politics has witnessed a campaign centered on an **"India Out" platform,** branding Indian presence as a threat to Maldivian sovereignty.
  - o Key campaign points include the demand for the withdrawal of Indian military personnel.
  - o Current Maldives' President has set a deadline of 15th March, 2024, for the withdrawal of Indian troops.
- **Tourism Strain:** The tourism scenario in the Maldives has gained significant focus due to a diplomatic dispute arising from **disparaging comments directed at the Indian Prime Minister** after his promotional visit to the Lakshadweep islands.
  - o Consequently, a **boycott Maldives** trend has been floating social media as a response to the controversy.
- **China's Rising Influence in Maldives:** Chinese is becoming increasingly visible in the Maldives. The Maldives' proximity to key shipping lanes and India makes it **strategically important for China**, potentially fueling its interest in deeper engagement.
  - o It has caused unease in India and could lead to a regional geopolitical contest.

What are the Key Takeaways From Recent China-Maldives Deals?

- **Elevation of Bilateral Ties:**
  - o **China and Maldives** announced the **elevation of their countries' ties to a Comprehensive Strategic Cooperative Partnership**, signifying the deepening of their relationship.
- **Key Agreements:**
  - o **Belt and Road Initiative**: The nations will jointly **accelerate the formulation of the Cooperation Plan on the Belt and Road Initiative,** fostering connectivity and infrastructure development.
  - o **Tourism Cooperation:** Both countries pledged to **strengthen collaboration in the tourism sector,** recognizing its significance to the Maldives' economy.
  - o **Disaster Risk Reduction:** The agreements encompass cooperation in disaster risk reduction, emphasizing joint efforts to address and mitigate the impact of natural disasters.
  - o **Blue Economy:** They expressed their commitment to advancing cooperation in the **blue economy,** focusing on sustainable use of ocean resources.
  - o **Digital Economy**: Efforts to strengthen investments in the digital economy were underscored.
- **Economic Assistance:**
  - o China has extended support to the Maldives by providing grant assistance, although the specific amount remains undisclosed. T
  - The agreements also highlight the importance of China-Maldives trade, with bilateral trade in 2022 totaling USD 451.29 million.

Conclusion

▪ The Maldives government taking swift action by suspending ministers reflects an effort to manage the crisis. Therefore, both countries should **engage in regular diplomatic dialogue to rebuild trust.** Cooperating on **shared concerns, addressing grievances** and emphasizing the long-standing ties that have benefited both nations can pave the way for a **diplomatic resolution.**

10. Green Hydrogen: Enabling Measures Roadmap for Adoption in India

Why in News?

Recently, the World Economic Forum along with Bain & Company has released a report titled- **Green Hydrogen: *Enabling Measures Roadmap for Adoption in India***, highlighting that **Green Hydrogen** production cost needs to be reduced **to less than or equal to USD 2 per kg.**

What are the Key Highlights of the Report?

▪ **India's Demand for Energy is Set to Surge:**
  o India is currently the **third-largest economy in the world in terms of energy needs,** and the country's demand for energy is set to surge – demand is estimated to **grow 35% by 2030.**
    • In 2022, India's energy import bill reached USD 185 billion, which is likely to increase if the country continues to meet its growing energy demand through traditional methods.
    • At the same time, India has set a commitment to achieve **Net Zero by 2070** at the **United Nations Climate Change Conference in Glasgow (COP26)**, held in 2021.
▪ **Criticality of Green Hydrogen:**
  o **Green Hydrogen** is critical to help meet India's energy security needs while reducing emissions in hard-to-abate sectors on the path to net zero.
  o Recognizing this, the Indian government launched the **National Green Hydrogen Mission** in 2022.
    • The aim is to spur green hydrogen production and consumption through roughly USD 2.3 billion in incentive funding, to be distributed between 2022 and 2030.
▪ **Current status of Hydrogen Production in India:**
  o Currently, India produces **6.5 million Metric Tonnes Per Annum (MMTPA)** of hydrogen, predominantly for **use in crude-oil refineries** and fertilizer production.
  o Most of India's current hydrogen supply is **Gray Hydrogen**, which is produced using **Fossil Fuels** in a process that creates **CO_2 Gas Emissions.**
  o Green Hydrogen production requires an ample supply of **Renewable Energy** for the electrolysis process.
    • India's renewable energy potential can support its goals for green hydrogen growth but needs rapid capacity addition – additional capacity is required to generate green hydrogen as well as to meet the country's electricity needs.
  o There is **limited on-the-ground traction** for green hydrogen in the country; most are in a "wait-and-watch" phase. Many expect sizable production of green hydrogen to take effect beginning in 2027 and after.
▪ **Constraints in Green Hydrogen:**
  o Important constraints for the expansion of green hydrogen in India include, on the supply side, the cost of production and delivery, and, on the demand side, Indian players' readiness to consume green hydrogen in traditional industrial processes.

What is the Blueprint proposed by the Report for the evolution of Green Hydrogen in India?

▪ **Reduce the Cost of Producing Green Hydrogen:**
  o Green hydrogen today costs roughly USD 4–5/kg to produce in India, approximately double the production costs for grey hydrogen.
    ➢ The majority of production costs for green hydrogen (50–70%) are driven by the need for round-the-clock (RTC) renewable electricity.
  o Green hydrogen needs to come down to a benchmark goal of USD 2/kg for a green energy ecosystem to develop in India. This can be done through:
    ➢ **Increasing direct subsidies for early adopters** – for example, the USA has announced, under the Inflation Reduction Act (IRA), a tax credit of up to USD 3/kg of hydrogen.
    ➢ **Supporting long capital investment cycles** for technologies with long-term clarity on policies and incentives
    ➢ Encouraging the development and testing of indigenous electrolyzer technology
▪ **Reduce Costs related to Green Hydrogen Conversion, Storage, and Transport:**

- o Despite low production costs, infrastructure expenses (conversion facilities, storage, and transport) can significantly affect the overall cost of green hydrogen and its derivatives.
- o Minimizing the costs of establishing this infrastructure, will reduce delivery costs and increase offtake.
  - ➢ **Essential interventions to achieve this are**
    - In the short to medium term, developing green hydrogen production clusters where a collaborative environment for production and offtake **occur in close proximity.**

    - Investing in long-term infrastructure construction, including pipelines for transporting green hydrogen throughout the country.
    - For example, the European Union's European Hydrogen Backbone programme aims to develop a pipeline network in the EU.

- ▪ **Support Industries that are most likely to Adopt Green Hydrogen:**
  - o Certain industries are better positioned than others to embrace green hydrogen consumption.
    - Incentives, subsidies, and other support mechanisms should target likely **adopters to increase India's domestic demand** for green hydrogen.
  - o Chief among these are existing grey hydrogen users. Stakeholders can support domestic green energy demand among users of grey hydrogen by increasing direct subsidies.
    - This will **reduce green hydrogen costs in the short term and encourage long-term demand** for the new energy source.
- ▪ **Capitalize on India's Export Potential:**
  - o India has the **potential to become a hub for green hydrogen** derivative exports given its relatively low-cost renewable energy, skilled workforce, and abundance of land for renewable energy expansion.

  - o Stakeholders can capitalize on India's export potential by **improving export infrastructure at ports.**
  - o Green hydrogen derivatives **need to be converted at the production site or ports** before they can be exported.
    - Export also requires storage and shipping facilities at port terminals.
- ▪ **Disincentivize Carbon-Intensive Energy Sources:**
  - o In addition to incentivizing green hydrogen adoption, India must also **disincentivize carbon-intensive energy sources.**
  - o India can **divert subsidies away from high-emission sources** and redirect funds toward the green energy transition.
    - A **comprehensive carbon-tax regime** could help India meet rising energy demand, without compromising energy affordability for the population.

What is Green Hydrogen?
- ▪ **About:**

- Hydrogen is a **key industrial fuel that has a variety of applications** including the production of ammonia (a key fertilizer), steel, refineries and electricity.
- However, all of the hydrogen **manufactured now is the so-called 'black or brown'** hydrogen because they are produced from coal.
- Hydrogen is the **most abundant element in the universe.** But pure, or the elemental hydrogen, is very scarce.
  - It almost always exists in compounds like with oxygen to form water.
- But when electric current is passed through water, **it splits it into elemental oxygen and hydrogen through electrolysis.**
  - And if the electricity used for this process comes from a renewable source like wind or solar then the hydrogen thus produced is referred to as green hydrogen.
- Colors attached to hydrogen indicate the source of electricity used to derive the hydrogen molecule.
  - For instance, if coal is used, it is referred to as brown hydrogen.
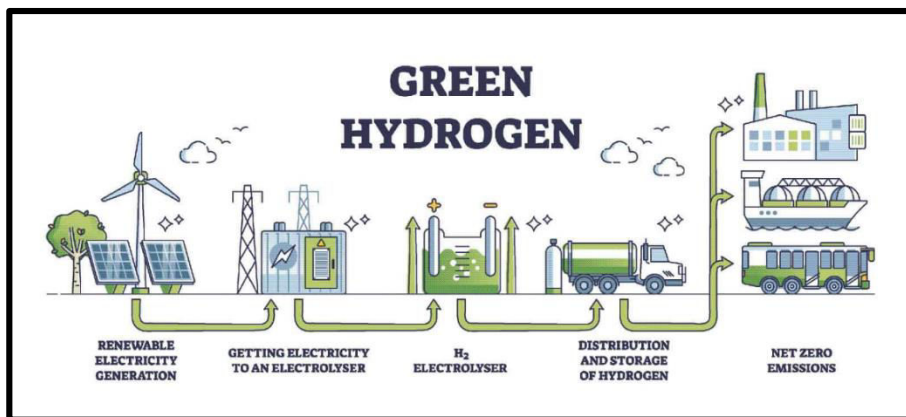
- **Need for Producing Green Hydrogen:**
  - Hydrogen is a great source of energy because of its **high energy content per unit of weight,** which is why it is used as rocket fuel.
  - Green hydrogen in particular is one of the cleanest sources of energy with close **to zero emission.**
    - It can be used in fuel cells for cars or in energy-guzzling industries like fertilizers and steel manufacturing.
  - Countries across the world are working on building green hydrogen capacity as it can ensure energy security and also help in cutting carbon emissions.
  - Green hydrogen has become a global buzzword, especially as the world is facing its biggest-ever energy crisis and the threat of **climate change is turning into a reality.**
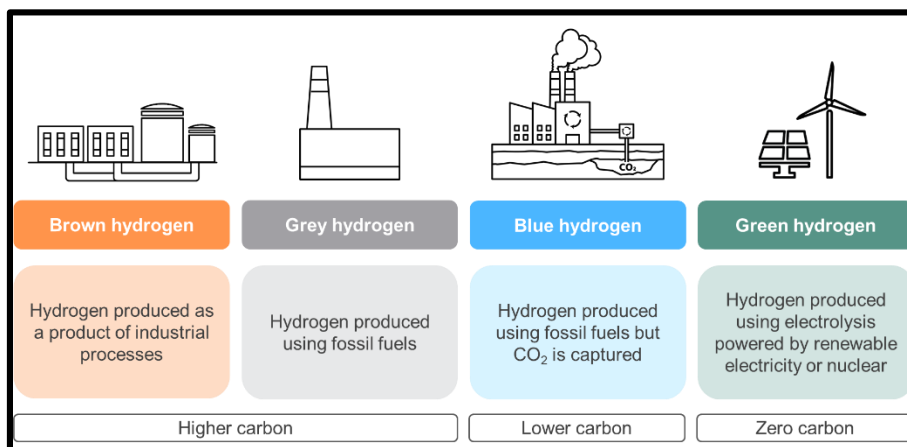
What are the other Initiatives Related to Renewable energy?
- Jawaharlal Nehru National Solar Mission (JNNSM)
- International Solar Alliance
- PM- KUSUM
- National Wind-Solar Hybrid Policy
- Rooftop Solar Scheme

11. All India Conference of Director Generals of Police

Why in News?
Recently, the Prime Minister of India attended the **58th All India Conference of Director Generals/Inspector Generals of Police** in Jaipur, Rajasthan.
- It was a three-day being held in hybrid mode with **DGPs (Director general of police), IGPs (Inspector-General of Police)** and Chiefs of Central Police Organisations.
- A wide range of policing and internal security issues including Cyber Crime, Technology in Policing, Counter Terrorism challenges, Left Wing Extremism, and Prison Reforms were discussed at the conference.
- Another key agenda of the conference is **deliberations on the road map for implementation of the new Criminal Laws.**

What are the Key Highlights of the PM's Address?

- **Paradigm Shift in Criminal Justice:**
  - The PM emphasized the **significant shift brought about by the enactment of new criminal laws,** advocating for a justice system focused on **citizen dignity, rights, and justice first,** moving away from punitive measures to data-driven approaches.
  - He highlighted the **importance of sensitizing women and girls** about their rights under the new laws, urging the police to ensure their safety and freedom to work fearlessly anytime, anywhere.
- **Positive Image of Police:**
  - He stressed the **need to enhance the positive perception of the police** among citizens, suggesting the use of social media at the grassroots level to **disseminate positive informatio**n and messages.
  - Additionally, proposed leveraging social media for disaster alerts and relief efforts.
- **Citizen-Police Connect:**
  - He advocated for **organizing sports events as a means to strengthen** the bond between citizens and the police force.
  - He also encouraged government officials to stay in border villages to establish better connections with the local populace.
- **Transformation of Police Force:**
  - He encouraged the Indian police to **evolve into a modern, world-class force in alignment with India's rising global profile**, aiming to contribute to the vision of a developed India by 2047.

What are the Issues Associated with the Police Forces?

- **Custodial Deaths:**
  - Custodial deaths refer to **fatalities that occur while a person is in the custody of the police** or other law enforcement agencies.
    - According to the **National Crime Records Bureau (NCRB),** while the number of such **custodial deaths** had declined over three successive years from 146 in 2017-18 to 100 in 2020-21, **they had recorded a sharp rise to 175 in 2021-22.**
- **Excessive Use of Force:**
  - Instances of excessive force by the police have been reported, leading to injuries and fatalities.
  - Lack of proper training and oversight contributes to the misuse of force in some cases.
    - A police officer is a public servant and hence is expected to treat its citizens in a lawful manner.
- **Corruption:**
  - Corruption within the police force, including bribery, and other forms of misconduct, undermines public trust.
  - High-ranking police officials have occasionally been exposed as engaging in corrupt practices, and lower-ranking police officers have also been exposed as accepting bribes.
    - **Ex: Prohibition law enforcement.**
      - The laws **create a fertile ground for police corruption** by boosting demand for banned substances, such as alcohol.
      - The combination of increased profitability and law enforcement discretion tempts **officers to engage in corrupt practices.**
- **Trust Issues:**
  - There is a significant trust deficit between the police and the community, affecting cooperation and information sharing.
  - High-profile cases of police misconduct contribute to public skepticism and mistrust.
- **Extrajudicial Killing By Police:**
  - There have been many instances of Extrajudicial killings by the police in the name of self-defence, which is commonly known as 'encounter.'
  - There are no enigmatic provisions or statute in Indian law that **legalizes encounter killing**. In various judgments of the Supreme Court, it had limited the use of policy excesses.
    - During 2020-2021, 82 people were killed in the name of encounter which increased to 151 during 2021-2022.

What are the Recommendations for Police Reforms?

- **Police Complaint Authority:**
  - In the case **Prakash Singh v/s Union of India, 2006**, the **Supreme Court** directed to **establish the Police Complaint Authority in all the states of India.**

- The Police Complaint Authority is authorized **to investigate matters relating to any kind of misconduct by police of, above, below the rank of Superintendent of Police.**
- SC also directed separation of investigation and law and order functions to better improve policing, **setting up of State Security Commissions (SSC)** that would have members from civil society and forming a **National Security Commission.**
  - **National Police Commission Recommendations:**
    - The National Police Commission (1977-1981) in India made recommendations for police reforms, emphasizing the **need for functional autonomy and accountability.**
  - **Shri Ribero Committee:**
    - Shri Ribero committee was constituted in 1998, on the directions of the Supreme Court, **to review action taken on police reforms**, and to suggest ways ot implementing recommendations of the Commission.
    - The Rebeiro Committee **endorsed major recommendations of National Police Commission (1978-82) with certain modifications.**
  - **Malimath Committee on Reforms in the Criminal Justice System:**
    - The **Malimath Committee** on Reforms in the Criminal Justice System set up in 2000, headed by V.S. Malimath made 158 recommendations including that of setting up a central law enforcement agency.
  - **Model Police Act:**
    - In accordance with the **Model Police Act, 2006,** each state must establish an authority made up of retired High Court judges, civil society members, retired police officers, and public administrators from another state.
      - It focused on the functional autonomy of the police agency, encouraged professionalism and made accountability paramount for both performance and conduct.

12. Govt Jobs for Acquitted Individuals in Criminal Cases

Why in News?

Recently, The **Punjab** and **Haryana High Court** directed the Centre to reconsider the appointment of a person from Haryana as a constable in the **Indo-Tibetan Border Police (ITBP)**, given his acquittal in 2019 case under **the Protection of Children from Sexual Offenses (POCSO) Act, 2012.**

- Order issued by the **Ministry of Home Affairs (MHA)** cancelled the person's appointment on grounds of **moral turpitude.**

What is the Moral Turpitude?

- The term **"moral turpitude,"** as noted by the Supreme Court in the case of *P. Mohanasundaram vs. the President, 2013*, lacks a specific definition.
- It encompasses actions contrary to **justice, honesty, modesty,** or **good morals,** suggesting a **depraved and wicked character** or disposition of the individual accused of such conduct.

What is the Concerning Case?

- The constable, appointed on compassionate grounds in 2022, faced the revocation of his appointment after revealing his acquittal in a **2018** criminal case under **Section 4** of the **POCSO Act, 2012**, concerning penetrative sexual assault.
- In addition to this, he faced charges under several sections of the **Indian Penal Code, 1860**, including offences related to causing harm by poison, kidnapping, and criminal intimidation, among others.
- Despite being acquitted of all charges by a **Kaithal Court (Haryana) in 2019,** he faced the cancellation of his appointment.
  - This action was taken according to a policy issued by the **Ministry of Home Affairs** for appointments in the **Central Armed Police Forces (CAPF),** for individuals with criminal cases registered, under trial, or under inquiry.
  - **Individuals faced serious charges or moral turpitude in a criminal case**, even if acquitted later due to benefit of doubt or witness intimidation, are generally **deemed unsuitable for appointment in the CAPF.**

What Mandates has the Court Set for Appointing Individuals with Criminal Cases in Public Jobs?

- A three-judge bench of the **Supreme Court in Avtar Singh vs. Union of India, 2016** dealt with the **appointment of a candidate involved in a criminal case.**
  - It ruled that information given to the employer about a candidate's conviction, acquittal, arrest, or pendency of a criminal case must be true and without suppression or false information.

- o For **conviction in cases that aren't trivial**, the employer may cancel the employee's candidature or terminate his services.
- If an acquittal has occurred in a case involving **moral turpitude or a serious offence** on **technical grounds**, and it's not a clear acquittal or based on reasonable doubt, the employer can assess all pertinent information regarding the individual's background and make a suitable decision regarding the employee's continuation.
- Supreme Court in *Satish Chandra Yadav vs. Union of India, 2023* case **"acquittal in a criminal case would not automatically entitle a candidate for appointment to the post"** and it would be still open to the employer to consider their antecedents and examine their suitability as a candidate.

What is the Protection of Children From Sexual Offences (POCSO) Act, 2012?
- **About:**
  - ➤ **The POCSO Act** came into effect on **14ᵗʰ November 2012** which was enacted in consequence to India's ratification of the **UN Convention on the Rights of the Child in 1992.**
  - ➤ The aim of this special law is to address offences of sexual exploitation and sexual abuse of children, which were either not specifically defined or adequately penalised.
  - ➤ The Act defines a child as any person below the age of **18 years**. The Act provides punishment as per the gravity of the offence.
    - The Act was further reviewed and amended in **2019** to Introduce more stringent punishment including the **death penalty for Committing sexual crimes on children**, with a view to deter the perpetrators & prevent such crimes against children.
    - The Government of India has also notified the **POCSO Rules, 2020.**

- **Features:**
  - ➤ **Gender-Neutral Nature:**
    - The Act recognises that both **girls and boys** can be victims of sexual abuse and that such abuse is a crime regardless of the gender of the victim.
    - This is in line with the principle that all children have the right to protection from sexual abuse and exploitation and that laws should not discriminate based on gender.
  - ➤ **Ease in Reporting Cases:**
    - There is sufficient general awareness now to report cases of sexual exploitation of children not only by individuals but also by institutions as **non-reporting has been made a specific offence under the POCSO Act.** This has made it comparatively difficult to hide offences against children.

What is the Indo-Tibetan Border Police Force (ITBPF)?
- **Indo-Tibetan Border Police Force (ITBPF)** is a **Central Armed Police Force** functioning under the **Ministry of Home Affairs, Government of India.**
  - o The ITBP was raised on **24ᵗʰ October 1962** during the **India-China War** and is a border guarding police force specialising in high-altitude operations.
  - o Presently, **ITBP** is deployed on border guarding duties from **Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh** covering 3488 km of the **Indo-China Border.**
  - o The Force is also deployed for **Anti-Naxal Operations** and other internal security duties.

13. Infrastructure Push in Kerala

Why in News?
Recently, the **Prime Minister (PM)** inaugurated three projects in Kochi, Kerala which include the **New Dry Dock (NDD) at Cochin Shipyard Limited (CSL), the International Ship Repair Facility (ISRF) of CSL, and the LPG Import Terminal** of Indian Oil Corporation Limited (IOCL).
- These major infrastructure projects are in line with the Prime Minister's **vision to transform India's ports, shipping, and waterways sector,** and build capacity and self-sufficiency in it.

What are the three Different Projects Inaugurated in Kerala?
- **New Dry Dock:**
  - o The NDD, with a length of 310 meters, is built **at par with international standards.**
  - o This national pride is an engineering marvel which is **capable of handling aircraft** carriers twice the displacement of **INS Vikrant or other larger ships.**

- o It is a flagship project reflecting India's engineering prowess and project management capabilities, the **NDD is one of the largest marine infrastructures in the region.**
- o It has incorporated the latest technology and innovations to ensure efficiency, safety, and environmental sustainability.
- **International Ship Repair Facility:**
  - o The ISRF is **India's first fully developed pure ship repair ecosystem** which will **add 25% capacity of ship repair industry in the country.**
  - o Built at an investment of ₹970 crores, it will also **provide rapid turnaround for India's Naval and Coast Guard ships** during emergencies as planned refits.
  - o The ISRF will modernise and expand the existing ship repair capabilities of CSL and to transform it as a global ship repair hub.
- **LPG Import Terminal for IOCL:**
  - o An LPG Import Terminal for IOCL was also inaugurated at Kochi with a **state-of-the-art infrastructure connected with Multi-User Liquid Terminal Jetty** through a 3.5 km Cross Country Pipeline.
  - o **The terminal aims at achieving a turnover of 1.2 million metric tons per annum (MMTPA)**. It will ensure LPG distribution through road and pipeline transfers, which will directly benefit bottling plants in Kerala and Tamil Nadu.
  - o It will also significantly enhance India's energy infrastructure by ensuring a steady supply of LPG, benefiting millions of households and businesses in and around the region.
  - o This project will further strengthen India's efforts towards ensuring accessible & affordable energy for all.

What is the Significance of These Projects?
- **Strategic Vision for Maritime Development:**
  - o Prime Minister emphasises the global benchmark set by the projects aligned with **'Sabka Saath, Sabka Vikaas'** vision.
  - o The **Maritime Amrit Kaal Vision 2047** outlines ambitious goals to elevate Kochi into a prominent **Maritime Cluster and a Global Hub for Green Ship,** reflecting a commitment to excellence and innovation.
- **Investment and Employment in Maritime Sector:**
  - o The initiatives launched aim to bring significant investment of Rs 45,000 Crores and generate employment of over 50,000 people in the maritime sector.
  - o Efforts focus on increasing India's tonnage, becoming **Atmanirbhar,** and minimizing dependency on foreign ships.
- **Role of Cochin Shipyard Limited (CSL):**
  - o CSL, recognized globally for **delivering autonomous electric barges to Norway,** plays a pivotal role in India's resurgence as a major maritime player.
  - o The shipyard's strong product portfolio, **including Next-Generation Green Technology ships,** positions it as a key contributor to India's maritime industry.
- **National Pride and Environmental Impact:**
  - o The projects in Kochi, symbolising national pride, showcase India's engineering prowess. They are expected to lead to **significant logistic savings and reduce CO_2 emissions, emphasizing environmental responsibility.**
- **Alignment With Global Vision:**
  - o Throwing light on the agreements made during **India's G20 Presidency** regarding the **Middle East-Europe Economic Corridor (MEEEC),** PM underlined that the MEEEC will further strengthen the **creation of Viksit Bharat by giving a boost to the coastal economy of India.**
- **Future Plans for Maritime Infrastructure:**
  - o The Ministry of Ports, Shipping & Waterways outlines future plans on the basis of these projects which includes:
    - Establishment of a **Centre of Excellence in Shipbuilding & Repair**.
    - Creation of ship **repair clusters in strategic locations.**
    - Relaxation of trade conditions to propel the Ship Repair Sector.
    - Discussions for a Ship Repair facility at Vadinar are underway.

Major and Minor Ports
- Number of Major Ports:
  - o There are **12 major ports and 200 non-major ports** (minor ports) in the country.
  - o **Major ports** include Deendayal (erstwhile Kandla), Mumbai, JNPT, Marmugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambaranar, Visakhapatnam, Paradip and Kolkata (including Haldia).

- Major Ports vs Minor Ports:
  - o Ports in India are classified as Major and Minor Ports according to the jurisdiction of the Central and State government as defined under the Indian Ports Act, 1908.
  - o All the **12 Major Ports are governed under the Major Port Trusts act, 1963 and are owned and managed by the Central Government.**
  - o All the Minor Ports are governed under the Indian Port Act, 1908 and are owned and managed by the State Governments.
- **Recent Developments:**
  - o **Indian ports achieved double-digit annual growth in the last 10 years.**
  - o India has surpassed many developed nations when it comes to their turnaround time.
  - o **Timely changes to laws related to Indian seafarers have led to an increase in their numbers by 140%.**

What Measures Can be Taken to Strengthen the Infrastructure Sector?

- **Ensuring Consistency in Policy/Regulatory Framework:**
  - o There is a need for a better regulatory environment and consistency in the tendering process. **Lack of consistency and policy coherence across different government departments** should be addressed as a priority.
  - o Between the government and the RBI, **there needs to be a holistic way to deal with the issue of stressed assets.**
    - A dedicated policy needs to be formed across sectors for non-performing assets and revamp of PSUs.

Roadblocks in key sectors

HIGHWAYS
- Delays in land acquisition; lenders stop lending midway
- Tendering of projects to low-traffic entity
- Unclear exit policy for road developer; NHAI is a developer as well as the regulator which causes a conflict of interest in case of arbitration so there is a need for a clear distinction of roles for NHAI

PORTS
- Multiple changes in tariffs setup by the Tariff Authority for Major Ports make it difficult to evaluate the cost of projects
- Delays in tariff fixation

AIRPORTS
- Lack of consistency in tariff methodology and concession tariff framework
- Switching from single till tariff method to hybrid till creates difficulty in assessing the cost of projects
- Delays in the passage of tariff orders cause problems in the timely execution of projects

WIND
- Inconsistent policy at Central and State govt level
- Accelerated depreciation leads to non-viability
- State regulators do not honour renewable purchase obligation

TELECOM
- Lack of predictability
- Inconsistent policy and regulatory framework; govt refuses to honour PPAs signed earlier
- Aggressive bidding to some extent

POWER
- Coal block deallocation causing execution delays and losses to project developers
- New auction-based coal linkage approved by government in 2017, uncertainty remains regarding the validity of old contracts
- Inconsistency in the interpretation of PPA
- Inconsistency in Central & State regulation, for instance, the Central electricity Act allows open access, but State governments do not adhere to it causing the problem in execution
- Unstable financial health of State utility causes a delay in the payment cycle

GREENFIELD PROJECTS
- Land acquisition delay
- Nature of developers have been contractors which leads to low-cost bidding making the project unviable
- Bank loans are given out for **10/15/18 years** but the interest reset clause poses a high risk on overall investment return evaluation, sometimes **8%** interest rates are increased up to **14-15%** rendering the project unviable

BROWNFIELD PROJECTS
- Government questions the validity of existing projects (eg, with rates of solar energy slashing, will the contracts entered on higher tariffs remain valid or not?)
- There is a strong need for the ability to have more credible infrastructure developers and partners

UNIFIED LOGISTICS INTERFACE PLATFORM (ULIP) IS DESIGNED TO ENHANCE EFFICIENCY AND REDUCE THE COST OF LOGISTICS BY CREATING A TRANSPARENT, ONE-WINDOW PLATFORM

- **Reasonable User Charges:**
  - o It is necessary for **augmenting infrastructure financing,** financial viability of infrastructure service providers, and for environmental and resource use sustainability.
  - o User charges are crucial because in many areas across the country, **partly because of zero or very low user charges, there is over-use and wastage** of the precious resources.
  - o Besides the environmental sustainability and resource use efficiency that would emanate from reasonable user prices, this **policy priority has immense resource generation potential.**
- **Autonomous Regulation of Infrastructure:**
  - o As India and the world opens up more sectors to private participation, the **private sector would essentially demand autonomous infrastructure regulation.**
  - o The world-wide trend is towards multi-sectoral regulators as the **regulatory role is common across infrastructure sectors**, and such institutions build regulatory capacity, conserve resources and prevent regulatory capture.
- **Asset Recycling (AR) and BAM:**
  - o The basic idea of **BAM (Brownfield Asset Monetisation) is to augment infrastructure resources through brownfield AR** for accelerated greenfield investment by freeing up funds tied up in de-risked brownfield public sector assets.
  - o These assets can be transferred to a **trust (Infrastructure Investment Trusts (InvITs))** or a corporate structure **(Toll Operate Transfer (TOT) model),** which receive investment from institutional investors against a capital consideration (which captures value of future cash flows from these underlying assets).
  - o **India has a large stock of brownfield assets across infrastructure sectors.**
- **Utilising Domestic Funds:**
  - o Domestic sources such as **India Pension Funds** which **have been lying dormant could give a big boost to the sector if utilised efficiently.**

- India can emulate the practices in Canada, the Netherlands, Australia and the likes on efficient usage of domestic funds to push infrastructure development.

What are the Different Government Initiatives Related to Infrastructure?
- PM Gati Shakti Scheme
- National Infrastructure Pipeline
- Urban Infrastructure Development Fund
- National Logistics Policy
- Dedicated Freight Corridors
- Sagarmala Projects

14. Annual Status of Education Report 2023

Why in News?
Recently, the 18th **Annual Status of Education Report (ASER) 2023** titled **'Beyond Basics'** was released by NGO Pratham, discussing the activities students are engaged in, their basic and applied reading and maths abilities and digital awareness and skills.

What is the Annual Status of Education Report (ASER)?
- The ASER, **is an annual, citizen-led household survey** that aims to understand whether children in rural India are enrolled in school and whether they are learning.
- ASER has been **conducted every year since 2005 in all rural districts of India.** It is the **largest citizen-led survey in India.**
- ASER surveys provided representative estimates of the **enrolment status of children aged 3-16** and the basic reading and arithmetic levels of children aged 5-16 at the national, state and district level.

What are the Key Highlights of the ASER 2023?
- **Enrollment Rates:**
  - Overall, **86.8% of 14-18-year**-olds are enrolled in an educational institution.
  - However, there are notable differences visible by age, **with 3.9% of 14-year-olds and 32.6% of 18-year-olds not enrolled.**
    - Most students in the 14-18 age group are enrolled in the **Arts/Humanities streams, with more than half (55.7%)** in Class XI or higher studying in this stream.
    - There are gender differences, with fewer females (28.1%) enrolled in the **Science, Technology, Engineering, and Mathematics (STEM)** stream compared to males (36.3%).

- **Vocational Training:**
  - Only 5.6% are taking vocational training or related courses. Vocational training is **more prevalent among college-level** students (16.2%).
    - Most youth are taking short duration courses of six months or less.
- **Basic Abilities:**
  - About 25% of the youth **cannot read a Class II level text fluently** in their regional language.
  - **Over half struggle with division problems (3-digit by 1-digit)**, with only 43.3% of 14-18-year-olds able to solve such problems correctly.
- **Language and Arithmetic Skills:**
  - While females (76%) outperform males (70.9%) in reading a Standard II level text in their regional language, **males excel in arithmetic and English reading.**
  - Only **57.3% can read sentences in English,** and of those, almost three-quarters understand their meanings.
- **Digital Awareness and Skills:**
  - Close to 90% of all youth **have a smartphone in the household**, and 43.7% of males have their own smartphone compared to 19.8% of females.
  - Males **generally outperform females in digital tasks,** and performance on digital tasks improves with education level and basic reading proficiency.
- **Foundational Numeracy Skills:**
  - Over 50% of students **in the 14-18 age group face difficulties with elementary division problems,** and around 45% struggle with tasks such as calculating the number of hours a child slept based on bedtime and wake-up time.

- Inadequate foundational numeracy skills hinder youth proficiency in **everyday calculations, including budget management,** applying discounts, and calculating interest rates or loan repayments.

➢ **Recommendations:**
  o Government efforts are needed to bridge the gap in foundational literacy and numeracy skills, with a focus on initiatives for the 14-18 age group.
    - The **National Education Policy (NEP) 2020** recognizes the need for 'catch-up' programs for students who have fallen behind academically.
  o There is a need for initiatives aimed at improving foundational literacy and numeracy skills among youth, not only for academic performance but also to meet their everyday requirements.

➢ **Digital Education:**
  o **High Smartphone Penetration:**
    - Almost **90% of Indian youth have access to a smartphone** in their household and know how to use it. This indicates widespread digital connectivity among this demographic.
  o **Gender Gaps in Digital Literacy:**
    - There is a significant gender disparity in digital literacy. Girls are **reported to be less likely to know how** to use a smartphone or computer compared to boys.
    - **Males (43.7%) were more than twice as likely as girls (19.8%) to own their own smartphone.**
    - There is a **notable gender gap in smartphone ownership,** with males being more than twice as likely as females to own their own smartphone.
    - Boys outperformed girls across various digital tasks.
  o **Online Safety Awareness:**
    - **Boys are more familiar with online safety settings compared to girls.** This suggests a need for targeted efforts to educate and empower girls in online safety practices.
  o **Smartphone Usage for Education:**
    - About two-thirds used smartphones for educational purposes, **such as watching online videos related to studies,** solving doubts, or exchanging notes.
  o **Limited Connectivity for Assessment:**
    - While the survey aimed to assess digital skills using smartphones, not all youth could bring a **smartphone with good connectivity.** Boys were more likely to bring smartphones for the assessment compared to girls, indicating discrepancies in access.
  o **Educational Activities Among Non-Enrolled Youth:**
    - A quarter of non-enrolled youth reported engaging in educational activities on their smartphones, **emphasizing the role of digital devices in supporting** learning outside formal educational settings.

What are the Issues Faced by Elementary Education in India?
▪ **School Infrastructure and Amenities:**
  o Despite improvements in retention rates, there are **concerns about the availability of basic amenities in schools**. While 95% of schools have drinking water and toilets, **over 10% lack electricity.**
  o Additionally, there is a **lack of digitization, with more than 60% of schools lacking computers,** and 90% not having access to internet facilities.
▪ **Shift Towards Private Schools:**
  o Over the years, there has been a **shift in momentum towards private schools.** Government data indicates a **decrease in the share of government schools in the elementary category from 87% in 2006 to 62% in March 2020.**
▪ **Teacher Shortage and Quality:**
  o There is a **shortage of teachers in schools, and the student-teacher ratio is high.** The reliance on contractual teachers is noted, and there is **widespread teacher absenteeism.**
  o The quality of education varies, with a visible divide between well-funded, formal schools and under-resourced, informal schools.
▪ **Social Divides:**
  o There is the existence of social divides, including caste-class, rural-urban, religious, and gender divides, impacting the quality of education provided.

How Can India Enhance Basic Education?
▪ **Increased Funding and Resource Allocation:**

- o The government should **allocate more funds to education,** moving towards the **recommended 6% of GDP, as outlined in the National Education Policy (NEP) 2020.**
- o Prioritise funding for infrastructure development, teacher training, and the provision of necessary amenities in schools.
- **Teacher Recruitment and Training:**
  - o Recruit and train a sufficient number of qualified teachers to reduce the high student-teacher ratio.
  - o Implement programs for continuous professional development to enhance the quality of teaching.
- **Addressing Dropout Rates:**
  - o Identify and address the **root causes of student dropouts,** including socio-economic factors, lack of infrastructure, and quality of education.
  - o Implement targeted interventions, such as scholarship programs and mentorship initiatives, to encourage student retention.
- **Infrastructure Development:**
  - o Invest in the **development of school infrastructure**, ensuring that all schools have basic amenities such as electricity, clean drinking water, and proper sanitation facilities.
  - o Promote the integration of technology in education by providing schools with computers and internet access.
- **Focus on Quality of Education:**
  - o Emphasise the importance of quality education over rote memorization.
  - o Implement child-centered teaching methods and assessment strategies that encourage critical thinking and problem-solving skills.
- **Monitoring and Evaluation:**
  - o Establish robust monitoring and evaluation mechanisms to assess the effectiveness of education policies and interventions.
  - o Use data-driven insights to identify areas for improvement and adjust strategies accordingly.

What are the Government Initiatives Related to Education?
- National Programme on Technology Enhanced Learning.
- Sarva Shiksha Abhiyan
- PRAGYATA
- Mid Day Meal Scheme
- Beti Bachao Beti Padhao
- PM SHRI Schools
- National Education Policy (NEP) 2020:
  - o The NEP 2020 introduces changes to the education system, including the use of mother tongue or local language up to class 5, comprehensive education frameworks, and the introduction of exams at various levels. However, challenges persist in the implementation of these policies.
  - o The NEP 2020 emphasises the **need for increased public investment in education,** recommending a target of 6% of GDP.

15. Republic Day 2024

Why in News?
India celebrated its **75th Republic Day** on 26th January 2024. The day is a celebration of the **Constitution,** and building India as a republic instead of a colony or dominion of any nation.

What are the Key Highlights of the Republic Day 2024?
- **French Contingent:**
  - o The French military contingent participated in the Republic Day parade. The contingent belonged to the **Corps of French Foreign Legion.**
    - • The French Foreign Legion is an **elite military corps that is open to foreigners** who want to serve in the French Army.
  - o It was the second time the French armed forces participated in India's Republic Day celebrations.
    - • In 2016, French troops became the first foreign military contingent to participate in the Republic Day parade.
- **Nari Shakti:**
  - o The 75th Republic Day Parade at **Kartavya Path** showcased the themes of **'Viksit Bharat'** and **'Bharat-Loktantra ki Matruka',** emphasising a women-centric focus.

- o The Republic Day parade showcased India's military prowess and cultural diversity, with a special emphasis on Nari Shakti or women's empowerment.
  - For the first time, **an all-women tri-services contingent participated** in the parade.
- ▪ **NCC Contingents:**
  - o The **National Cadet Corps (NCC)** Directorate Maharashtra contingent secures the **Prime Minister's Banner at the Republic Day Camp 2024** for the **third consecutive year.**
    - **The Prime Minister's Banner** is a prestigious award given to the **best performing NCC state contingent at the Republic Day Camp**, which is an annual event where NCC cadets from all over India showcase their skills and talents.
- ▪ **Pradhan Mantri Rashtriya Bal Puraskar:**
  - o **Pradhan Mantri Rashtriya Bal Puraskar** are conferred on children with exceptional abilities and outstanding achievement in the fields of bravery, art & culture, sports, science & technology, innovation and social service.
- ▪ **Veer Gatha 3.0:**
  - o The third edition of Project Veer Gatha was organised as a part of Republic Day Celebrations 2024 to inspire and spread awareness among children about the gallant deeds and **sacrifices of the Armed Forces.**
- ▪ **Anant Sutra:**
  - o The 75th Republic Day parade featured a unique installation called **"Anant Sutra,"** which **showcased sarees and drapes from all over India.** As a tribute to the country's weaving and embroidery arts, as well as the women of India.
- ▪ **Beating Retreat Ceremony 2024:**
  - o The **Beating Retreat ceremony** took place on 29th January 2024 at Vijay Chowk in Delhi. The ceremony is a military tradition that marks the end of Republic Day celebrations.
  - o The ceremony features music bands from the **Indian Army, Navy, Air Force, and Central Armed Police Forces (CAPF)** playing 31 Indian tunes.

What are Key Highlights of the Tableaus on Republic Day 2024?
- ▪ **Ministry of Culture's Tableau:**
  - o The tableau-themed **'Bharat: Mother of Democracy' has bagged the first prize** among tableaus that were part of the 75th Republic Day parade.
    - It showcased the **evolution of democracy from ancient India to modern times,** using anamorphic technique.
- ▪ **Defence Research and Development Organisation:**
  - o The **DRDO** tableau was themed "Self-reliance in Defence Technology".
  - o The DRDO-developed systems and subsystems that were displayed on the tableau: are Missiles like **Man Portable Anti-tank Guided Missile (MPATGM), Anti-Satellite (ASAT) Missile, and Agni-5 Surface-to-Surface Ballistic Missile, Very Short Range Air Defence System (VSHORADS),** Naval Anti-Ship Missile–Short Range (NASM-SR), **Anti-Tank Guided Missile 'HELINA'**, **Quick Reaction Surface-to-Air Missile (QRSAM)**, **Astra**, **Light Combat Aircraft 'Tejas'**, 'Uttam' Active Electronically Scanned Array Radar (AESAR), **Advanced Electronic Warfare System 'Shakti'**, Cyber Security systems, Command Control Systems and the Semiconductor Fabrication Facility.
- ▪ **Army Tableau:**
  - o The Indian Navy tableau depicted the imposing **indigenously built aircraft carrier INS Vikrant** and INS Delhi, INS Kolkata and INS Shivalik, the **LCA, the ALH** and the **Kalvari-class submarine.**
- ▪ **Ministry of Ports, Shipping and Waterways:**
  - o **Sagarmala programme and Nari Shakti** in the maritime sector were showcased in the tableau.
- ▪ **Council of Scientific and Industrial Research**
  - o The **purple revolution** unfolding in the **lavender fields** of Bhaderwah in Jammu and Kashmir found a proud place on the tableau of the **CSIR.**
- ▪ **Indian Space Research Organisation:**
  - o The tableau featured the landing of the **Chandrayaan-3 spacecraft near the south pole of the Moon** and the **Aditya L-1 mission.**
    - The lunar landing site of the spacecraft which was named **Shiv Shakti Point** was also featured.
  - o The tableau illustrated future missions such as **Gaganyaan and Bhartiya Antariksh Station** among others.
- ▪ **Arunachal Pradesh:**
  - o The state's tableau showcased its **Singchung Bugun Village Community Reserve,** a 17 square kilometre biodiversity hotspot created in 2017 to protect the **Bugun Liocichla, a critically endangered bird.**
    - The Bugun Liocichla is named after the Buguns community.
  - o Tableau was led by the **Bugun folk dance.**

- **Manipur:**
  - Manipur's tableau showcased **the women-run Ima Keithel, also known as the Mother's Market.**
    - The 500-year-old Ima Keithel is the **only market in the world run entirely by women.**
  - The Manipur tableau at the parade featured a woman weaving clothes using an **"Eyong" loom- a traditional loom from Manipur.**
- **Madhya Pradesh:**
  - The tableau showed the **first woman fighter pilot of the Indian Air Force, Avani Chaturvedi** of Madhya Pradesh's Rewa district.
  - It also featured the **Badal Mahal gate** and weavers of the globally renowned Chanderi, Maheshwari and Bagh print sarees.
    - The gate is said to have been built during the rule of **Sultan Mahmud Shah Khilji, the King of Malwa,**
    - The tableau featured **India's Millet Mission ambassador and 'Millet Woman of India Lahari Bai.**
- **Chhattisgarh:**
  - The tableau depicted the ancient tribal form of **Parliament in Bastar known as "Muria Darbar".** It also depicted a place called **"Limau Raja",** situated in Bade Dongar, the ancient capital of Bastar.
- **Ladakh:**
  - The tableau depicted a **high hill in Ladakh, with the world's highest motorable road at Umling-La pass.**
- **Tamil Nadu:**
  - The tableau highlighted the historical significance of the **Kudavolai electoral system**, which emerged during the **10th-century Chola era** and marked an early stride towards democracy.
  - It also featured a scale model of the **Vaikunda Perumal Temple** in Uthiramerur where the **Kudavolai system** is practised, showcasing its integration into the local culture.
- **Odisha:**
  - The state's tableau featured a heritage hut of **Raghurajpur village**, where women play a pivotal role in crafting **Pattachitra and masks.**
    - '**Odisha Pattachitra' masks** are handcrafted from **leftover paper's Papier Mache paste.**
    - The **"War Horse of Konark Temple"** symbolised Odisha's rapid progress in shaping a developed India.
- **Meghalaya:**
  - The state's tableau featured a **unique freshwater scuba diving site** along the **Umngot River in Dawki.**
  - The tableau celebrated community-led cleanliness initiatives in **Mawlynnong, Asia's cleanest village.**
  - It also highlighted the state's rich reserve, displaying its flora, and endemic **species like the clouded leopard.**
- **Rajasthan:**
  - The tableau promoted the state's tourism potential, with the **"ghoomar" dance** and decorated camel icon.
    - Ghoomar, a traditional **Bhil tribe folk dance, is a symbol of womanhood.**
  - A statue of **Meera Bai was** displayed in the tableau, She was a great devotee of Lord Krishna and a Hindu poetess of the 16th century.
- **Telangana:**
  - The tableau honoured the legacy of tribal freedom fighters like **Komaram Bheem, Ramji Gond and Chityalallamma (Chakalillamma).**
    - **Bheem and Ramji advocated for the freedom**, dignity, and rights of indigenous tribal communities. They employed **guerrilla warfare tactics** to spread a powerful message of empowerment and justice.
- **Uttar Pradesh:**
  - Tableau symbolically represented the consecration ceremony that took place in **Ayodhya,** with an artistic model depicting Lord Ram in a young avatar (Ram Lalla).
    - It also depicted the first-ever operational high-speed **regional rapid transit system (RRTS)** of the country.
    - The tableau displayed the **world's fourth-largest international airport, Jewar Airport.**
    - A group of women artists accompanying the tableau perform traditional dances **'Charkula' and 'Wadhwa,** popular in the Braj region.
- **Gujarat:**
  - The tableau was based on the theme **Dhordo: Global Identity of Gujarat's Border Tourism.**
    - Dhordo, located on India's western tip, is the gateway to the **Rann of Kutch.**
    - Women dressed in traditional attire played **garba** along the tableau.
- **Maharashtra:**
  - **Shivaji Maharaj's** establishment of 'self-rule' and respect for women in his 'kingdom of the people' formed the highlight of Maharashtra's tableau.
- **Haryana:**
  - The tableau highlighted the state's ambitious **"Mera Parivar-Meri Pehchan"** scheme.

- o It also highlighted the benefits of the **'Parivar Pehchan Patra'** through a phone call such as the seamless procurement of ration, agricultural subsidies for farmer families, scholarships for young students, and pensions for the elderly.
  - ▪ **Jharkhand:**
    - o The tableau showcased the skill of tribal women in the production of **Tasar silk with depictions of Tasar moth rearing, cocoon production,** weaving and the modern journey of Tasar garments from design to global distribution.
      - • Jharkhand "jhumar" folk dance was performed.

What is the History of Republic Day?
- ▪ **About:**
  - o Republic Day commemorates the adoption of the Constitution of India on 26th January 1950, and the country's transition to a republic which came into effect on 26th January 1950.
    - • The constitution was adopted by the **Constituent Assembly of India on 26th November 1949** and came into effect on 26th January 1950.
  - o The Constitution of India repealed the **Indian Independence Act 1947 and Government of India Act 1935** when it became effective on 26th January 1950. India ceased to be a dominion of the British Crown and became a **sovereign, democratic republic with a constitution.**

- ▪ **History:**
  - o **Declaration of Poorna Swaraj:**
    - • The **Lahore Session of the INC in December 1929** passed the historic **"Poorna Swaraj" resolution,** calling for total **self-rule/sovereignty and complete independence from British rule.**
    - • The Declaration of Independence was officially promulgated on 26th January 1930, and the Congress urged Indians to celebrate **"independence" on that day.**
  - o **Republic Day in Post-Independence India:**
    - • From 1930 to 1947, **26th January was celebrated as "Independence Day" or "Poorna Swaraj Day."**
    - • India gained independence on **15th August 1947,** leading to a **reevaluation of the significance of Republic Day.**
    - • The selection of **26th January for the promulgation of India's new constitution** was ideal due to its existing nationalist significance and alignment with the **"Poorna Swaraj" declaration.**

Note
- ▪ **On Republic Day every year**, the President of India, who is the **head of state, 'unfurls' the tricolour, while on Independence Day** (August 15), the prime minister, who **heads the Union government, 'hoists' the national flag.**
  - o While the two terms are often used interchangeably, these represent different techniques of presenting the tricolour.
  - o **On 26th January,** the flag is **folded or rolled, and attached to the top of a pole**. It is then unveiled ('unfurled') by the President, who does so without pulling it up.
    - • 'Unfurling' is a symbolic gesture to **renew the commitment to principles laid down in the Constitution**, highlighting India's shift from being a British colony to becoming a sovereign, democratic Republic.
  - o **On 15th August,** on the other hand, the **flag, positioned at the bottom of the pole, is raised ('hoisted')** by the prime minister, from the bottom to the top.
    - • Hoisting symbolises the rise of a new nation; patriotism, and freedom, from colonial rule.

16. Delhi High Court Reverses Abortion Approval Order

Why in News?
Recently, the **Delhi High Court** has reversed its order that permitted a **26-year-old woman** to terminate her 29-week-old **pregnancy.**
- ▪ The court, now **advocating for the unborn child's right to life**, has directed the woman to undergo delivery at either AIIMS or any central or state hospital.

What is the Status of Medical Termination of Pregnancy in India?
- ▪ **Background**: In the 1960s, in the wake of a high number of induced abortions taking place, the Union government ordered the constitution of the **Shantilal Shah Committee** to deliberate on the **legalisation of abortion in the country**

- o Resulting from its recommendations, the **Medical Termination of Pregnancy (MTP) Act, 1971** was enacted, permitting safe and legal abortions to protect women's health and decrease maternal mortality.
- ▪ **MTP Act and Subsequent Amendment:**
- o The **MTP Act, 1971** permits licensed medical professionals to perform **safe and legal abortions** in specific predetermined situations (as provided under the legislation), to protect women's health and decrease maternal mortality.
  - • It underwent subsequent amendments through the **MTP Amendment Act, 2021**.
- ▪ **Provisions for Terminating Pregnancy**:

Up to 12 weeks	On the advice of one doctor	On advice of one doctor
12 to 20 weeks	On advice of two doctors	On advice of one doctor
20 to 24 weeks	Not allowed	On advice of two doctors for special categories of pregnant women
More than 24 weeks	Not allowed	On advice of medical board in case of substantial fetal abnormality
Any time during the pregnancy	On advice of one doctor, if immediately necessary to save pregnant woman's life	On advice of one doctor, if immediately necessary to save pregnant woman's life

Note

Under MTP Amendment Act 2021, special categories of women, includes survivors of rape, victims of incest and other vulnerable women like **differently abled and minors.**

- ▪ **Other Key Features of MTP Amendment Act 2021:**
- o **Termination Due to Failure of Contraceptive Method or Device:** The MTP Act permitted married women to terminate pregnancies up to 20 weeks in case of contraceptive method or device failure.
  - • The MTP Amendment Act **extended the allowance to unmarried women as well.**
- o **Medical Boards:** The board will assess pregnancies beyond 24 weeks for substantial foetal abnormalities.
  - • It should comprise specialists like gynaecologists, paediatricians, and radiologists, and will be established by all state and union territory governments.
- o **Privacy Measures:** A registered medical practitioner can only disclose details of a terminated pregnancy to **individuals authorised by law.** Violation carries penalties of **imprisonment up to a year, fines, or both.**
- ▪ **Constitutional Stance:**
- o Although the **Constitution does not explicitly mention the right to abortion,** certain fundamental rights have been associated with **reproductive rights and women's healthcare.**
- o **Article 21 - Right to Life and Personal Liberty:** The Supreme Court interprets this broadly to encompass reproductive autonomy and healthcare **(Suchita Srivastava vs. Chandigarh Administration case, 2009)**
  - • Also, recently the **Supreme Court** observed that the **rights of an unborn child must be balanced with a woman's reproductive right.**

Note

The fetus's moral status, legal standing, and constitutional rights still remain a grey area in India. However, **section 20 of the Hindu Succession Act, 1956, protects the fetus's life from conception.**

- ▪ **Global Trends:**
- o Worldwide, there is a noticeable trend toward the liberalisation of abortion laws and improved accessibility to abortion services.
- o Since the early **1990s,** approximately **60 countries globally have relaxed abortion laws**, broadening the legal grounds for abortion.
- o Notably, only four countries: the **United States, El Salvador, Nicaragua, and Poland**, have tightened abortion laws during this period by removing legal grounds for the procedure.

- A significant development occurred in 2022 when the U.S. Supreme Court eliminated the constitutional right to abortion **(Roe v. Wade case).**
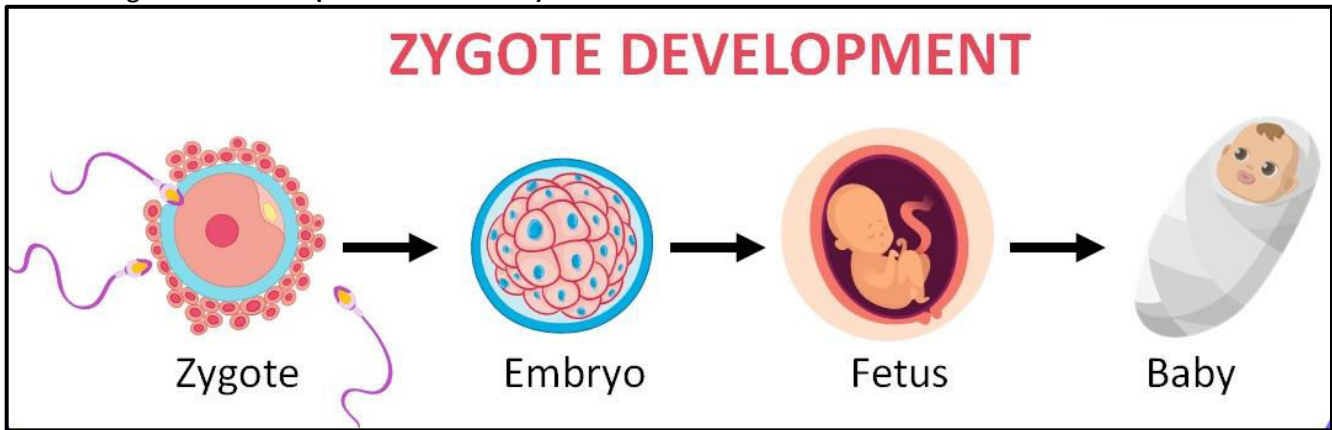
- **Zygote:** The initial cell formed by the fusion of sperm and egg during fertilisation.
- **Embryo:** Early stage of development, from the moment of fertilisation until about the 8th week of pregnancy.
- **Fetus:** The later stage of prenatal development, starting from the **ninth week until birth,** characterised by the development of organs and systems.

GS Paper – 3

1. Space Missions in 2024

Why in News?

The year 2023 proved to be an **important one for space missions,** with **NASA's OSIRIS-REx mission returning a sample from an asteroid** and **India's Chandrayaan-3 mission,** and 2024 is shaping up to be **another exciting year for space exploration.**

▪ Several new missions under **NASA's Artemis plan** and Commercial Lunar Payload Services initiative will target the moon.

What are the Space Missions Planned for 2024?

▪ **Europa Clipper:**
  o NASA will launch **Europa Clipper**, which will explore one of Jupiter's largest moons, Europa.
    • Europa is **slightly smaller than the earth's moon**, with a surface made of ice. Beneath its icy shell, Europa likely harbours a saltwater ocean, which scientists expect contains over twice as **much water as all the oceans here on Earth combined.**
  o With Europa Clipper, scientists want to **investigate whether Europa's ocean** could be a suitable habitat for extraterrestrial life.
    • The mission plans to do this by **flying past Europa nearly 50 times** to study the moon's icy shell, its surface's geology and its subsurface ocean.
  o The mission will also **look for active geysers spewing out from Europa.**
▪ **Artemis II launch:**
  o Artemis II, part of NASA's Artemis program, is a **crewed lunar mission set to orbit the Moon, marking humanity's return since 1972.**
    • The Artemis programme is named after **Apollo's twin sister in Greek mythology.**
    • Planned for a 10-day journey, it aims to validate systems for sustained lunar presence.
  o This pivotal mission, including the **first woman and person of color,** follows Artemis I's success, testing an uncrewed lunar capsule in late 2022.
    • Artemis II underscores NASA's **commitment to lunar exploration,** preparing for extended space habitation, and laying the groundwork for future missions to Mars.
▪ **VIPER to Search for Water on the Moon:**
  o VIPER (Volatiles Investigating Polar Exploration Rover), is a **robot the size of a golf cart that NASA** will use to explore the moon's south pole in late 2024.
  o This robotic **mission is designed to search for volatiles,** which are molecules that easily vaporize, like water and carbon dioxide, at lunar temperatures.
    • These materials could provide resources for future human exploration on the moon.
  o The VIPER robot will **rely on batteries, heat pipes and radiators throughout its 100-day mission,** as it navigates everything from the extreme heat of lunar daylight – when temperatures can reach 224℉ (107 ℃) – to the moon's frigid shadowed regions that can reach as low as -240℃.
▪ **Lunar Trailblazer and PRIME-1 Missions:**
  o NASA has **recently invested in a class of small, low-cost planetary** missions called **SIMPLEx,** which stands for **Small, Innovative Missions for Planetary Exploration.**
    • These missions save **costs by tagging along on other launches** as what is called a rideshare, or secondary payload.
  o One example is the **Lunar Trailblazer.** Like VIPER, Lunar Trailblazer will look for water on the moon.
    • But while VIPER will land on the moon's surface, studying a specific area near the south pole in detail.
    • Lunar Trailblazer will orbit the moon, measuring the temperature of the surface and mapping out the locations of water molecules across the globe.
  o Lunar Trailblazer's launch timing depends on **the primary payload's launch readiness.**
    • The PRIME-1 mission, scheduled for a mid-2024 launch, is Lunar Trailblazer's ride. PRIME-1 will drill into the moon – it's a test run for the kind of drill that VIPER will use.
▪ **JAXA's Martian Moon eXploration Mission:**
  o The JAXA MMX mission concept to study Mars' moons - Phobos and Deimos.
  o The Japanese Aerospace Exploration Agency, or JAXA, has a robotic mission in development called the Martian

Moon eXploration, or MMX, planned for launch around September 2024.
- The mission's **main science objective is to determine the origin of Mars' moons.**
  - Scientists aren't sure whether Phobos and Deimos are former asteroids that Mars captured into orbit with its gravity or if they formed out of debris that was already in orbit around Mars.
  - The spacecraft will **spend three years around Mars** conducting science operations to observe Phobos and Deimos. MMX will also land on Phobos' surface and collect a sample before returning to Earth.
- **ESA's Hera Mission:**
  - It is a **mission by the European Space Agency** to return to the Didymos-Dimorphos asteroid system that **NASA's DART mission** visited in 2022.
    - But DART didn't just visit these asteroids, it collided with one of them to test a planetary defence technique called **"kinetic impact".**
    - DART hit Dimorphos with such force that it actually changed its orbit.
  - The kinetic impact technique smashes something into an object in order to alter its path. This could prove useful if humanity ever finds a potentially hazardous object on a collision course with Earth and needs to redirect it.
  - Hera will launch in October 2024, making its way in late 2026 to Didymos and Dimorphos, where it will study the physical properties of the asteroids.

What are ISRO's Space Missions set for 2024?
- **PSLV-C58 with XPoSat:**
  - **XPoSat,** India's first X-Ray Polarimeter Satellite, was launched in January 2023 aboard the **Polar Satellite Launch Vehicle (PSLV-C58).**
  - This mission aims to investigate the polarization of intense X-ray sources in the universe, focusing on pulsars, black hole X-ray binaries, and other celestial objects.
- **NASA-ISRO Synthetic Aperture Radar (NISAR):**
  - The **NISAR**, a collaborative mission between NASA and ISRO, is a dual-frequency synthetic aperture radar satellite designed for remote sensing, providing insights into various Earth systems including ecosystems, ice mass, vegetation biomass, and natural hazards.
- **Gaganyaan 1:**
  - The **Gaganyaan 1** mission is a critical step in India's Human Spaceflight Programme.
  - This test flight, involving three crew members, is a collaborative effort between ISRO and Hindustan Aeronautics Ltd (HAL) to pave the way for **Manned Space Exploration.**
- **Mangalyaan-2 (MOM 2):**
  - Mangalyaan-2, or **Mars Orbiter Mission 2** (MOM 2), is ISRO's ambitious sequel to its successful Mars mission.
  - This mission, aimed at studying the surface, atmosphere, and climatic conditions of Mars, will equip the orbiter spacecraft with advanced scientific instruments, including a hyperspectral camera, magnetometer, and radar.
  - MOM 2 is a testament to India's expanding prowess in planetary exploration.
- **Shukrayaan-1:**
  - Under the **Venus Orbiter Mission**, ISRO plans to launch Shukrayaan-1, a spacecraft destined to orbit Venus for five years.
  - It aims to study the atmosphere of Venus, marking India's first foray into exploring the mysteries of the second planet from the Sun.

2. Concerns over Insolvency and Bankruptcy Code, 2016

Why in News?
The **Insolvency and Bankruptcy Code (IBC)** came into effect in 2016 to achieve several objectives, including maximizing the value of debtor's assets, promoting entrepreneurship, ensuring timely resolution of cases, and balancing the interests of stakeholders.
- However, recent developments have raised concerns about the **effectiveness of the code and the resolution process.**

What are the Key Issues with the IBC?
- **Low Repayment Percentage:**

- o The resolution plan approval process typically involves only about 15% payment by the purchaser, and **repayment can take years without any further interest collected** by the banks according to the **financial stability report (FSR)** released by **Reserve Bank of India (RBI)** in 2023.
  - This has raised questions about the effectiveness of the repayment process.
- ▪ **Settlement and Recovery:**
  - o Recent settlements and resolutions, such as the **Reliance Communications Infrastructure Ltd. (RCIL) case,** have raised concerns due to the low settlement amounts and extended resolution periods.
    - For example, the settlement for RCIL amounted to a **mere 0.92% of the debt,** and it took four years to complete the resolution plan, far **beyond the stipulated maximum of 330 days.**
    - The Financial Creditors (FCs) should ideally get principal and interest.
  - o Time-consuming processes for identifying and acknowledging defaults contribute to reduced recovery rates. It hampers the **timely initiation of resolution proceedings,** contributing to reduced recovery rates.
- ▪ **Haircuts and Recovery Rates:**
  - o The concept of "haircuts," which involves **writing off loans and accrued interest,** has gained prominence.
    - Promoters are taking advantage by taking the company to cleaners and getting a **substantial haircut from bankers/National Company Law Tribunal (NCLT).**
  - o After resolutions, **borrowers and Insolvency Professionals (IPs) remain wealthy**, while lenders suffer and banks are absolved from liability, as only **companies are declared insolvent, not the owners,** leading to depositors being the losers.
    - This has resulted in **low recovery rates for financial creditors**, with some cases realizing as little as 5% of the loan outstanding.

- ▪ **Realizable Value:**
  - o The **FSR** released by the **RBI** in 2023 highlights the **low realizable value to creditors**, with banks or financial creditors recovering an average of just 10-15% in NCLT-settled cases of large corporates. However, the RBI says the creditors realize **168.5% of the liquidation value and 86.3% of the fair value.**
    - As per the FSR, out of 597 liquidations, against the claim of Rs 1,32,888 crore, the **amount realised was 3% of the claims admitted.**
    - While banks collect up-to-date interest on loans to farmers, students, MSMEs and on housing, including penalty interest for delays, corporates are treated differently.
  - o The amount realized from liquidations has also been minimal, raising concerns about the recovery process.

Code Red

In RCom, against debtors' claims of ₹49,668 cr., the NCLT admitted only ₹47,251 cr. The settlement was just ₹455.92 cr.

- ▪ **Regulatory Concerns:**
  - o **Regulatory Reports:**
    - The **FSR** has highlighted several concerns regarding the **Corporate Insolvency Process (CIRP).**
    - The report indicates that the **admitted claims are less than the dues,** and banks or financial creditors are recovering only a fraction of the liquidation value and fair value.
  - o **Parliamentary Standing Committee Report:**
    - The **32nd report of the Parliamentary Standing Committee on Finance** has raised concerns about **low recovery rates**, with **haircuts as much as 95%** and the **delay in the resolution process with more than 71% of cases pending** for more than 180 days clearly points towards a deviation from the original objective of the code intended by the Parliament, and issues with **Resolution Professionals (RPs) and Insolvency Professionals (IPs).**
    - It also recommends the need for a **professional code of conduct for the Committee of Creditors (COCs)** and fixing a ceiling on haircuts.
- ▪ **Limited Judicial Bench Strength:**
  - o The IBC resolution process is impeded by a **shortage of judges,** resulting in a **deceleration of case processing**. This, in turn, contributes to prolonged resolution times.

What are the Key Highlights of the Insolvency and Bankruptcy Code, 2016?
- ▪ **About:**
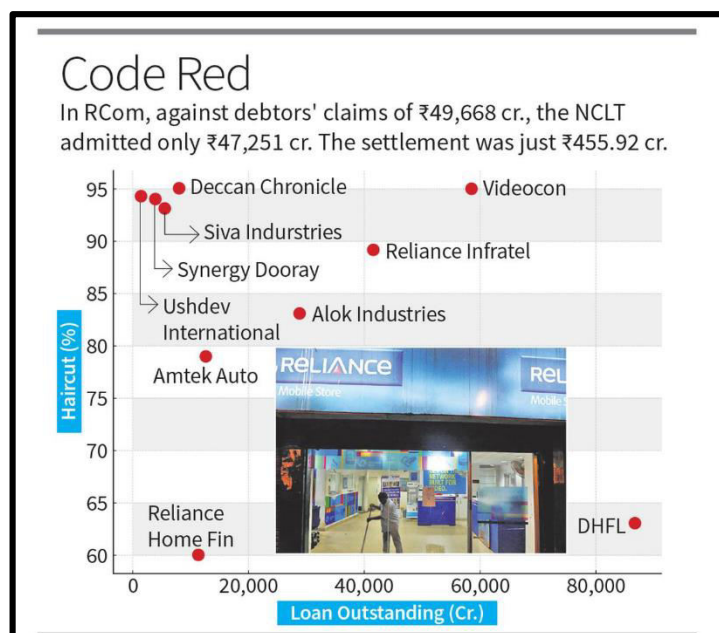
- o The Insolvency and Bankruptcy Code (IBC), 2016 provides a framework for resolving the bankruptcy and insolvency of companies, individuals, and partnerships in a time bound manner.
  - Insolvency is a state where the **liabilities of an individual or an organization exceeds its asset** and that entity is **unable to raise enough cash to meet its obligations** or debts as they become due for payment.
  - Bankruptcy is when a person or company is **legally declared incapable of paying** their due and payable bills.
- o The **Insolvency and Bankruptcy Code (Amendment) Act, 2021** amends the Insolvency and Bankruptcy Code, 2016.
  - This amendment aims to provide an efficient alternative insolvency resolution framework for corporate persons classified as **micro, small and medium enterprises (MSMEs)** under the code.
  - It aims for **ensuring quicker, cost-effective and value maximizing** outcomes for all the stakeholders.

- ▪ **Objectives:**
  - o Maximizing the value of debtor's assets.
  - o Promoting entrepreneurship.
  - o Ensuring timely and effective resolution of cases.
  - o Balancing the interests of all stakeholders.
  - o Facilitating a competitive market and economy.
  - o Providing a framework for cross-border insolvency cases.

- ▪ **IBC Proceedings:**
  - o **Insolvency and Bankruptcy Board of India (IBBI):**
    - **IBBI** serves as the regulatory authority overseeing insolvency proceedings in India.
    - The IBBI's **Chairperson and three whole-time members** are appointed by the government and are experts in the fields of finance, law, and insolvency.
    - It also has ex-officio members.
  - o **Adjudication of Proceedings:**
    - **National Companies Law Tribunal (NCLT)** adjudicates proceedings for companies.
    - **Debt Recovery Tribunal (DRT)** handles proceedings for individuals.
    - Courts play a pivotal role in approving the initiation of the resolution process, appointing professionals, and endorsing the final decisions of creditors.
  - o **Procedure for Insolvency Resolution under the Code:**
    - Initiated by **either the debtor or creditor upon default.**
    - Insolvency professionals manage the process, providing financial information to creditors and overseeing debtor asset management.
    - A **180-day period prohibits legal action** against the debtor during the resolution process.
  - o **Committee of Creditors (CoC):**
    - Formed by insolvency professionals, the CoC comprises financial creditors.
    - The CoC determines the **fate of outstanding debts,** deciding on debt revival, repayment schedule changes, or asset liquidation.
    - **Failure to decide within 180 days leads to the debtor's assets going into liquidation.**
  - o **Liquidation Process:**
    - Proceeds from the sale of the debtor's assets are distributed in the following order of order:
    - First insolvency resolution costs, including the remuneration to the insolvency professional, second secured creditors, whose loans are backed by collateral and third dues to workers, other employees, forth unsecured creditors.

Way Forward
- ▪ Implement measures to ensure a higher repayment percentage in the resolution plans. This may involve **stricter evaluation criteria for approving plans**, emphasizing the need for a substantial upfront payment by the purchaser, and incentivizing timely repayments.
  - o RBI's decision to implement a maximum ceiling of credit to a single corporate house at Rs 10,000 crore is crucial for reducing the burden of banks during write-offs.
- ▪ As the original objectives have not been fulfilled, a **full review of IBC and NCLTs is urgently needed.**
- ▪ Reevaluate the concept of "haircuts" and implement measures to **prevent abuse by promoters.** Introduce safeguards that ensure a **fair distribution of losses** between promoters and financial creditors.
- ▪ Enhance **transparency** in the resolution process by ensuring regular updates on the status of cases and reasons for delays.

3. Recommendations of Vijay Raghavan Panel

Why in News?

The **nine-member VijayRaghavan panel,** established by the government, has recently submitted a comprehensive report addressing concerns about the **functioning of the Defence Research and Development Organisation (DRDO).**

What are the Major Recommendations of the VijayRaghavan Committee?

- **Background:**
  - o A recent **Parliamentary Standing Committee (PSC) on Defence's Report** expressed concerns about **23 out of 55 mission mode projects** of DRDO facing significant delays.
  - o **CAG Report** (December 2022) indicated that **67% (119 out of 178) of the projects examined failed to adhere to proposed timelines.**
    - Multiple extensions were cited, primarily due to design alterations, user trial delays, and supply order issues.
- **Major Recommendations of VijayRaghavan Committee:**
  - o **Refocusing on Research and Development (R&D):** Suggested that DRDO should **return to its original goal of focusing on research and development** for defense.
    - **Advised against involving itself in productization**, production cycles, and product management, tasks deemed more suitable for the private sector.
  - o **Narrowing Focus and Expertise:** Emphasized that DRDO should identify specific areas of expertise rather than engaging in diverse technologies.
    - Questioned the **necessity for DRDO's involvement in drone development,** proposing a **need to recognize expertise both domestically and internationally.**
  - o **Role of Defence Technology Council (DTC):** Advocated a pivotal role of the **Defence Technology Council,** chaired by the Prime Minister, in identifying suitable players for specific defense technologies.
    - DTC should be instrumental in steering the direction of defense technology development.
  - o **Creation of a Dedicated Department:** Proposed the establishment of the **Department of Defence Science, Technology, and Innovation** under the Ministry of Defence.
    - Recommended that the proposed department should act as the secretariat for the Defence Technology Council.

Note

DRDO is the R&D wing of the **Ministry of Defence, Govt of India,** with a vision to empower India with **cutting-edge defense technologies and a mission to achieve self-reliance in critical defense technologies.** It was established in **1958** by amalgamating existing establishments from the **Indian Army and Directorate of Technical Development & Production.**

What are the Major Issues Related to DRDO?

- **Project Timelines and Cost Overruns:** DRDO projects are notorious for exceeding estimated timelines and budgets by significant margins.
  - o This leads to delays in crucial defense capabilities and raises concerns about efficiency and resource allocation.
  - o Examples include the **Light Combat Aircraft Tejas,** which took **over 30 years to develop.**
- **Lack of Synergy with Armed Forces:** DRDO's internal decision-making processes hinder innovation and adaptation.
  - o Additionally, reported **lack of smooth collaboration with the Armed Forces in terms of defining requirements** and incorporating feedback, results in technologies not fully meeting operational needs.
- **Technology Transfer and Private Sector Integration:** Efficient transfer of developed technologies from DRDO to private industries for mass production still remains a challenge.
  - o This **hinders faster deployment and commercialization of indigenous defence technology,** leading to dependence on foreign imports.
- **Transparency and Public Perception: Limited public awareness** and transparency regarding DRDO's activities and achievements lead to negative perception and criticism.

Way Forward

- **Stronger Project Management:** DRDO should implement stricter project management methodologies, including **clear milestones, resource allocation, and accountability measures.**
- **Enhanced Collaboration with Armed Forces:** Establish **dedicated channels for communication and feedback exchange,** involving Armed Forces personnel in development stages.
- **Streamlined Technology Transfer:** Develop **clear protocols and incentives for technology transfer to private companies,** fostering closer **public-private-partnerships.**
- **Foster a culture of Experimentation and Open Innovation**: DRDO should collaborate with universities, startups, and international partners **to leverage diverse expertise and access cutting-edge technologies.**
- **Increase Public Awareness:** DRDO must actively engage with the media, organize public outreach events, and **share success stories to raise awareness about DRDO's contributions to national security.**

GS Paper – 4

1. Decoding Psychoanalysis

Why in News?
Recently, the **Delhi Police** revealed that six individuals accused in the **Parliament breach** incident underwent **psychoanalysis** to decipher their motives.

What is Psychoanalysis?
- **About:** Psychoanalysis is a **set of theories and therapeutic techniques** that treat mental disorders.
  - It aims to treat a range of mental health issues by investigating the **relationship between the unconscious and conscious elements** of psychological experience.
  - It was pioneered by **Sigmund Freud,** a Viennese psychiatrist, in the late 19th and early 20th centuries
- **Key Aspects Related to Psychoanalysis:**
  - **Unconscious Mind:** Freud proposed that much of human behavior is influenced by **unconscious desires, fears, memories, and conflicts,** often stemming from early childhood experiences.
    - Psychoanalysis delves into the unconscious mind, exploring how it shapes **thoughts, behaviors, emotions, and personality**
  - **Id, Ego, Superego:** Freud introduced a structural model of mind comprising the **id (driven by instincts and pleasure), ego (mediates between id and reality), and superego (internalizes societal norms and values).**
    - This model helps understand conflicts within the mind.
  - **Psychoanalytic Therapy:** It involves verbal exchanges between the patient and therapist, aimed at exploring unconscious conflicts and gaining insight into one's emotions and behaviors.

What are the Ethical Aspects Involved in Psychoanalysis?
- **Informed Consent:** The patient must be fully informed about the nature of psychoanalysis, its **potential benefits, risks and alternatives** before beginning treatment.
  - This is crucial because the process often involves delving into personal and sensitive topics.
  - Furthermore, obtaining informed consent also safeguards against potential **violations of Article 21**, as highlighted in the **Selvi vs State of Karnataka & Anr Case (2010).**
- **Confidentiality:** Maintaining patient **confidentiality is paramount in therapy.** However, in some situations, therapists may face ethical dilemmas, such as when a patient poses a danger to themselves or others.
  - Balancing confidentiality with the duty to warn or protect can be challenging.
- **Transference and Countertransference**: Both the **patient and therapist can experience strong feelings or reactions toward each other** due to past experiences or unresolved issues.
  - Managing these emotions ethically to ensure they don't interfere with treatment or professional boundaries is important.
- **Cultural Sensitivity:** Therapists need to be **culturally competent and aware of their biases** to ensure they provide appropriate care and respect diverse perspectives.

How Psychoanalysis can Help in Criminal Rehabilitation?
- **Developing Empathy**: Psychoanalysis can foster empathy by helping individuals **understand the impact of their actions on others.**
  - Through self-reflection and insight gained in therapy, offenders can develop a greater understanding of the consequences of their behavior, leading to increased **empathy.**
- **Impulse Control:** For individuals with **a history of violent or impulsive behavior,** psychoanalysis can assist in understanding and managing these tendencies.
  - By **exploring deep-seated emotions** and unresolved conflicts, individuals can learn to better regulate their emotions and impulses, reducing the likelihood of reoffending.
- **Preventing Recidivism:** By addressing the core motivations, individuals are better equipped to **break free from destructive patterns** and reintegrate into society in a meaningful way.

PRELIMS BOOSTER-THE HINDU & INDIAN EXPRESS

1ST JAN

1. Marine Energy Conversion Systems Sectional Committee (MECSSC): Bureau of Indian Standards (BIS) formed a dedicated technical committee MECSSC to promote standardization in the field of Marine Energy Conversion Systems (MECS).

- BIS is the **National Standard Body of India established under the BIS Act, 2016.**
- **Objectives of MECSSC**
  - Set comprehensive standards and guidelines for various aspects related to MECS.
  - Foster collaboration, innovation, and knowledge exchange in MECS.
- MECSs are a **group of technologies designed to extract energy from the ocean and convert it into electricity.**
- Marine energy sources include **waves, tides, ocean thermal energy, etc**

2. Eurasian otter: Recently, Eurasian otter was found in **the Chinnar Wildlife Sanctuary in Kerala.**

- **Features**: Shy, nocturnal, good swimmer and fish catcher etc.
- **Habitat**: Semi-aquatic, lives in water bodies, marshes, swamp forests, coastal areas etc.
- **Distribution**:
  - **World**: Europe, Asia and Africa.
  - **India**: Northern, northeast and southern India.
- **Conservation Status:**
  - **IUCN List:** Nearly Threatened
  - **Wildlife Protection Act:** Schedule I
  - **CITES**: Appendix I
- **Threats**: Pollution, poaching, habitat loss, accidental trapping etc.

3. Foreign Exchange Management Act (FEMA), 1999: RBI released a draft Licensing Framework for Authorised Persons (APs) under FEMA, 1999. APs are entity authorized by RBI to deal in forex.

- **Objective**: Facilitate external trade and payments; promote orderly development and maintenance of forex market in India.
- **Major provisions:** Related to holding of forex, power of RBI to inspect APs etc.
- **Forex transactions under FEMA have been classified into :**
  - Current Account Transaction.
  - Capital Account Transaction.
- **FEMA replaced Foreign Exchange Regulation Act (FERA), 1973.**

4. International Court of Justice (ICJ): South Africa filed a case at ICJ against Israel accusing it of crimes of genocide acts in Gaza.

- **Genesis**: Established in 1945 by Charter of UN and began work in 1946.
- One of the **6 principal organs of UN**, it is the only one not located in New York.
- **Role**:
  - **Settle legal disputes** submitted to it by States.
  - Gives advisory opinions on legal questions.
  - **Composition**: 15 judges (eligible for re-election) elected to nine-year terms by UNGA and UNSC.

2ND JAN

1. India and Pakistan Exchanged list of Nuclear Installations: Exchanges of list happened under Agreement on the Prohibition of Attack against Nuclear Installations and Facilities between India and Pakistan.

- The agreement was **signed in 1988 and entered into force in 1991**.
- Agreement mandates two countries to inform each other of nuclear installations and facilities to be covered under the agreement on first of January of every calendar year.
- This is **33rd consecutive exchange of such lists, the first one having taken place on January 1,1992.**

2. New Packaging Rules: Recently, Ministry of Consumer Affairs, Food and Public Distribution has made printing of **'date of manufacturing' and 'unit sale price' mandatory on all packaged commodities effective from January 1, 2024.**

- For example, a packaged wheat flour of 2.5 kg will have a unit sale price per kg, along with the Maximum Retail Price (MRP).
- Earlier, companies were given the option to either print the 'date of manufacturing' or 'date of import' or date of packaging on the packaged commodities.

3. Railway for Persons with Disabilities (PwDs): The government has released draft guidelines to make Railways more **user-friendly for PwDs as part of "Sugamya Bharat Abhiyan".**

- They comply with the **Rights of Persons with Disabilities Act, 2016.**

- **Guidelines suggestions in the draft**
- o Accessibility features such as **text-to-speech and user-friendly pictograms for website.**
- o Low-height ticket counters with accessibility signage and accessible help booths manned by "Divyangjan Sahayaks".
- o Development of a dedicated mobile app and a one-click template

4. Health tax: Public health researchers recommended implementing a **health tax ranging from 20% to 30%, in addition to the Goods and Services Tax (GST).**

- Currently, **sugar is taxed at 18% GST, sugar-sweetened beverages attract 28% GST and a 12% additional cess,**
- **India is the largest consumer of sugar in the world.**
- An average Indian consumes five times the WHO recommended threshold for free sugar intake per year.
- **Impact of imposing health tax:** It will help control obesity, tooth decay, risk of type 2 diabetes, cardiovascular disease, and certain cancers.

4TH JAN

1. Supreme Court legal Services Committee (SCLSC): Recently, a Supreme Court judge has been nominated as the Chairman of the SCLSC.
- It is a **statutory body**.
- Constituted under **section 3A of Legal Services Authorities Act**, 1987 by National Legal Service Authority.
- **Objective**: Providing free legal services to poor, underprivileged and those marginalized in society.
- **Chief Justice of India in Patron-in-Chief of Committee.**
- **Members**: Chairman (sitting Judge of SC) and 9 members (nominated by the Chief Justice of India).

2. Snow Leopard (Panthera Uncia): Kyrgyzstan has acknowledged the snow leopard as a national symbol.
- Often termed as **Ghost of Mountain**, closely related to Tiger species (Panthera Tigris).
- **Feature**: Smoky-coloured coats tinted with cream and yellow shades and patterned with black spots.
- **The spots are called rosettes which is unique to every snow leopard.**
- **Habitat**: 12 snow leopard range countries (Afghanistan, Bhutan, China, India, Kazakhstan,

Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan)
- **China has world's largest snow leopard population.**
- **State animal of Ladakh and Himachal Pradesh**.
- **Conservation Status**
  - o **IUCN**: Vulnerable.
  - o **Schedule I:** Wildlife (Protection) Act, 1972.

3. Desert cyclone: It is a joint military exercise between India and UAE.

4. Fast Reactor Fuel Reprocessing Plant: PM has inaugurated indigenously developed Demonstration Fast Reactor Fuel Reprocessing Plant at **IGCAR, Kalpakkam**
- The plant will reprocess spent fuel from the Fast Breeder Reactor (FBR) at **the Kalpakkam Atomic power station.**
- **FBR breeds more material for a nuclear fission reaction than it consumes.**
- It is the **key to India's three-stage nuclear power programme.**
  It is the only of its kind in the world and is capable of reprocessing both carbide and oxide fuels discharged from the fast reactors.

5TH JAN

1. Fog Pass Device (FPDs): Indian Railways installed FPDs for smoother operations in foggy weather.
- FPDs, being **GPS-based navigation devices**, provide real-time information about signals, level crossing gates, Permanent Speed Restrictions, Neutral Sections etc.
- **Features**
  - o Equipped with **both display and voice guidance.**
  - o Can cater to train speeds up to 160 km/hr.
  - o Unaffected by **weather conditions such as fog, rain, or sunshine**.
  - o Suitable for single/double line, electrified/non-electrified sections.
  - o Portable, compact, and lightweight

2. Polar bear: First death of polar bear due to Avian Influenza occurred in Arctic region recently.
- **Polar bear is both the largest bear and the largest land carnivore (main food source is seals) in the world.**
- **Habitat**: Arctic region only (not in Antarctica).
- **Behaviour**: Live solitary lives except when mating.
- **Adaptation**:
  - o Can swim (due to large paws) for long distances.
  - o White fur helps the bear remain camouflaged.

- o Thick layer of fat below the skin surface acts as insulation on the body to trap heat.
- o Large size reduces amount of surface area exposed to cold per unit of body mass.
- **IUCN status: Vulnerable**

3. United Nations Statistical Commission (UNSC): India started a four-year term as a member of the UNSC.
- UNSC, **established in 1946 is the highest body of global statistical system**.
- **Key responsibilities**
  - o Oversees the work of the **UN Statistics Division (UNSD)**
  - o Acts as a **functional Commission of the UN Economic and Social Council (ECOSOC).**
  - o Brings together the Chief Statisticians from member states.
  - o Setting of statistical standards and their implementation at national and international levels.
- **Members**: Consists of 24 member countries of UN elected by ECOSOC.

4. Short selling: Supreme Court directed Centre and SEBI to investigate if Hindenburg report on short-selling caused harm to investors.
"Short selling" **involves selling a stock not owned at the time of trade.**
- Speculating a price decrease, sellers borrow stocks to sell, then buy them back at a lower price, making a profit.
- SEBI permits short selling for both retail and institutional investors, who must deliver securities during settlement.
- **However Naked short selling is illegal in India.**
  - o It **entails trading shares that are undetermined to exist or have not been secured by the trader**

6TH JAN

1. Registered Unrecognised Political Parties (RUPPs): The Election Commission of India (ECI) brought new rules for the allocation of symbols to RUPPs.

- **The new rules mandate RUPPs to furnish the following along with application for symbols**
  - o Audited accounts of the last three financial years,
  - o Expenditure statements of last two elections

- RUPPs are those which have **not secured enough percentage of votes in the Assembly or general election to become a State party.**
- It also **includes newly registered parties or parties that have never contested elections after being registered.**
- ECI allots symbols to political parties under the **Election Symbols (Reservation and Allotment) Order, 1968.**

2. Direct-to-Cell: SpaceX, an American company**, launched the first batch of Starlink satellites with "Direct-to-Cell" capabilities.**
- Direct-to-Cell satellites have an **advanced eNodeB modem onboard that acts like a cellphone tower in space.**
- Current communication system is **based on the land based tower for transferring signals.**
- It **allows Starlink to deliver direct satellite broadband connectivity** on smartphones anywhere on Earth.
- It will also **connect Internet of Things (IoT) devices with common LTE (Long-Term Evolution) standards**.
- IoT refers to a network of physical devices embedded with sensors, software and network connectivity that allows them to collect and share data.

3. Ratle Hydroelectric Project (RHP): A Power Purchase agreement has been signed between RHP Power Corporation and Rajasthan Urja Vikas and IT Services Limited.
- It is a **Run of River (ROR) project with a capacity of 850 megawatt (MW).**
- **ROR project harvest the energy from flowing water to generate electricity** in the absence of a large dam and reservoir.
- It is located on the **river Chenab in Jammu and Kashmir**.
- Chenab is formed after the merger of the two streams namely **Chandra and Bhaga.**
- Other major projects on Chenab and its tributaries include **Dul Hasti, Pakal Dul, etc.**

4. White Goods: Department for Promotion of Industry and Internal Trade (DPIIT) is planning to undertake a third-party assessment of the PLI scheme in the white goods segment.
- White goods refer **to heavy consumer durables or large home appliances, which were traditionally available only in white.** E.g. washing machines, air conditioners, etc.

- **Some other types of goods**
  - **Veblen good**: Their demand increases as the price increases due to their exclusivity. **E.g. luxury cars**
  - **Giffen goods**: Their demand increases when prices increase due to lack of substitute for them. E.g. Wheat
  - **Sin goods**: Considered harmful to society. **E.g. Alcohol**

8TH JAN

1. Eaglenest Wildlife Sanctuary (EWS): IISC study in EWS has revealed the migration of birds uphillamid rising temperatures.

- Falls within the Eastern Himalayan Biodiversity Hotspot in **West Kameng district of Arunachal Pradesh**.
- **Conjoins Sessa Orchid Sanctuary to the northeast and Pakhui/ Pakke Tiger Reserve.**
- **River**: Kameng River and its tributaries (Tipi and Sessa) drain th area.
- **Flora**: **Encompasses**:
  - Coniferous Temperate Forest
  - Coniferous Subtropical Forest
  - Broadleaf Subtropical Forest
  - Tropical Wet Evergreen and Semi-evergreen Forest
- **Fauna**: Blyth's Tragopan, Rufous-necked Hornbill, Rusty-bellied Shortwing, Bugun Liocichla(Critically endangered) etc.

2. Politically-Exposed Persons (PEP): RBI has revised the definition of PEPs in its updated KYC (Know Your Customer) master direction for better clarity.

- As per the notification **PEPs are individuals who are or have been entrusted with prominent publicfunctions by a foreign country, including:**
  - heads of states/governments,
  - senior politicians,
  - senior government or judicial or military officers,
  - senior executives of state-owned corporations and
  - important political party officials.
- Financial Action Task Force (FATF) recommends **financial institutions to conduct additional due diligence measures for PEP clients.**
- **Prevention of Money-laundering (Maintenance of Records) Rules, 2005 also mentions PEP.**

3. Competition Commission of India (CCI): CCI is investigating domestic units of global delivery companies, such as **Germany's DHL, US based United Parcel Service and FedEx**, for alleged collusion on discounts and tariffs.

- **CCI (HQ: New Delhi) was established by Central Government in 2003** as a statutory body under Competition Act, 2002.
- It consists of a **Chairperson and 6 Members appointed by Central Government**.
- It eliminates practices having adverse effects on **competition, promote and sustain competition**, protect interests of consumers and ensure freedom of trade in markets of India.

4. Trichoderma: Scientists develop a new granular lime-based trichoderma biopesticide, fertiliser.

- Tricholime integrates **Trichoderma, a fungal biocontrol agent, and lime** into a single product for easier application by farmers.
- Tricholime serves as **both bio-pesticide and bio-fertilizer in crop production.**
- Lime helps to **control soil acidity.**
- Trichoderma is mainly used to **control soil-borne diseases as well as some leaf and panicle diseases** of various plants. It also **promotes plant growth, improves nutrient utilization efficiency, enhances plantresistance, and improves agrochemical pollution environment.**

9TH JAN

1. Graphene: Researchers in Georgia have created the world's first functional semiconductor made from graphene.

- For the first time, **graphene has showed band gap property.**
- Band Gap is a crucial electronic property that allows semiconductors to switch on and off.
- **About Graphene:**
  - It is a **two-dimensional single-atom-thick layer of carbon atoms** bonded in a hexagonal honeycomb lattice structure.
  - It is **extracted from graphite** and displays unique physicochemical properties like:
    - **High surface area, excellent thermal conductivity, etc.**
  - **Other Applications:** Energy (Solar cell, Fuel cell, Super computers etc); Sensor, Bio-sensor; Biomedical (diagnostic, drug delivery etc.), etc.

2. Harike and Gharana wetland: A significant number of migratory birds have arrived in Harike and Gharana wetland recently.

- **About Harike wetland:**
  - It is **north India's largest wetland** situated at the confluence of Satluj and Beas rivers in Punjab.
  - It **came into existence in 1953** due to the construction of a barrage on River Sutlej.(Man-made).
  - It is **also a Ramsar site.**
- **About Gharana Wetland:**
  - The Wetland is located on the **Indo-Pak border in Jammu district.**
  - It is **situated along the Central Asian Flyway**.
  - It is **Important Bird Area (IBA), declared by BirdLife International (UK) and the Bombay Natural History Society**

3. SVAMITVA Scheme: SVAMITVA (Survey of villages and mapping with improvised technology invillage areas) Scheme won the **Best Innovation Award for Innovation Sandbox presentation during PublicPolicy Dialogues–2024.**

- **Scheme Type**: Central Sector Scheme
- **Ministry**: Ministry of Panchayati Raj (MoPR)
- **Objective**: To establish clear ownership of property in rural areas, with issuance of legal ownership cards to the property owners.
- It **uses drone technology for mapping land parcels.**
- **Significance of scheme: Facilitating monetization of properties, enabling bank loans and comprehensive village-level planning, mitigating disputes.**

4. Bio-Imaging Bank (BIB): Mumbai's Tata Memorial Hospital (TMH), has established a 'BioImagingBank' for cancer.

- Through it, the hospital is utilizing deep learning and artificial intelligence (AI) to craft a cancer-specific tailored algorithm that aids in early-stage cancer detection.
- BIB **aims at creating a robust repository encompassing radiology and pathology images.**
- It will be linked with clinical information, treatment specifics.
  - This will be also **used for training, validation, and rigorous testing of AI algorithms forearly detection of cancer.**

10ᵀᴴ JAN

1. Pravasi Bharatiya Diwas (PBD): Celebrated on 9th January every year since 2003 to mark **the contribution of Overseas Indian community in the development of India.**

- 9 January commemorates the **return of Mahatma Gandhi from South Africa to India in 1915**.
- Since 2015, under a revised format, **PBD Convention has been organised once every 2 years.**
- 17 Pravasi Bharatiya Divas Conventions have been organised till date.
- **17th PBD Convention was held in 2023 in Indore, Madhya Pradesh.**
- In 2023, theme was "**Diaspora: Reliable partners for India's progress in Amrit Kaal".**

2. Lunar Gateway Station: UAE has announced its participation in NASA's Lunar Gateway Station expected to be launched by 2025.

- Other participating countries are **USA, Japan, Canada and the European Union**.
- Gateway is humanity's first space station that will orbit the Moon.
- **This lunar space station will:**
  - Support **long-term exploration of the Moon under Artemis and research in deep space**.
  - Provide a home for astronauts to live and work.
  - Spacewalks while orbiting the Moon.
  - Facilitate studies on solar and cosmic radiation.
- Under Artemis mission, **NASA will land the first woman and first person of colour on the Moon.**

3. Hog deer: Hog deer are spotted for the first time in **Rajaji Tiger Reserve (Uttrakhand).**

- **Features**: It is a small deer with rounded ears and older animals tend to become light-coloured in the face and neck.
- **Diet**: Herbivore
- **Habitat**: Riverine flooded grasslands with tall grasses or dense vegetation, found in tropical or subtropical climates.
- **Threats**: Hunting, loss of habitat due to agriculture
- **IUCN status:** Endangered
- **Protection**: Schedule I of Wildlife Protection Act, 1972 and Appendix I (CITES)

4. Directorate General of Civil Aviation (DGCA): DGCA has updated **Flight Duty Time Limitations (FDTL) regulations for flight crew, aligning them with global best practices.**

- These changes **aim to tackle pilot fatigue and improve overall flight safety.**
- DGCA is an attached office of the Ministry of Civil Aviation.
- **Its role is to:**
  - Regulate air transport services to/from/within India.

- o Enforce civil air regulations, air safety and airworthiness standards.

- o Co-ordinates all regulatory functions with **International Civil Aviation Organisation.**

11TH JAN

1. Global Economic Prospects Report 2024: World Bank Group released its flagship report 'Global Economic Prospects'.
- Global trade growth in 2024 is expected to be **only half the average in the decade before pandemic.**
- Global growth is projected to slow for third year in a row— from 2.6% in 2023 to 2.4% in 2024.
- To tackle climate change and achieve other key global development goals by 2030, developing countries need to increase investments —about $2.4 trillion per year.

2. Rudra and Arka propulsion system: Two payloads developed by Bengaluru-based space startup Bellatrix Aerospace were launched on **PSLV Orbital Experimental Module-3 (POEM-3).**
- POEM is ISRO's platform that helps **perform in-orbit experiments using final stage of PSLV.**
- Rudra is a **green propulsion system** replacing hazardous hydrazine with a **non-toxic, environmentally friendly propellant.**
- **Arka electric engine utilizes electricity** instead of conventional chemical propellants.
- Arka offers superior fuel efficiency and more precise control

3. Peregrine Mission 1 (Peregrine Lunar Lander): NASA launched Peregrine Lunar Lander to explore Moon's Bay of Stickness.
- Mission is **part of Nasa's Commercial Lunar Payload Services initiative**, which partners with commercial entities to deliver payloads to Moon.
  - o Assess thermal properties and hydrogen content of lunar regolith.
  - o Study magnetic fields etc.
- **Bay of Stickiness (also known as Sinus Viscositatis region),** an area on moon, lies adjacent to **Gruitheisen Domes near Oceanus Procellarum, or Ocean of Storms.**

4. Latitudinal Diversity Gradient (LDG): A recent study examined role of major classes of **Mycorrhizal Fungi – arbuscular, mycorrhizal and ectomycorrhizal in LDG.**

- LDG **refers to the pattern of having lots of species at the equator with diversity reducing towards poles.**
- **Study found that:**
- o **Mycorrhizal fungi** form mutually beneficial relationships with majority of plant roots globally.
- o **Arbuscular fungi**, common near equator promote diversity.
  Ectomycorrhizal fungi, common at higher latitudes support single tree species, reducing diversity

12TH JAN

1. World Employment and Social Outlook Trends 2024: Report was released by **InternationalLabour Organisation (ILO).**
- ILO is **only tripartite UN agency** with government, employer, and worker representatives formed in 1919.
- **Headquarter**: Geneva (Switzerland)
- **Key highlights**
  - o Macroeconomic environment deteriorated significantly over 2023.
  - o Despite slowdown, global growth in 2023 was modestly higher than anticipated.
  - o Real wages declined in majority of G20 countries due to inflation.
- **Other Major reports of ILO**
  - o Global Wage Report
  - o World of Work Report

2. African Elephants: Nigeria has destroyed $11.2 million worth seized elephant tusks.
- Earlier trade of Ivory was banned globally in 1989.
- **African elephants are largest animals walking on earth.**
- **They are of two types:-**
  - o Savannah Elephants (IUCN- Endangered)
  - o Forest Elephants (IUCN- Critically Endangered)
- **Comparison with Asian Elephants**
  - o African elephants have comparatively larger ears.
  - o Both male and female African elephants have tusks (unlike only male Asian elephants).
- **Other facts**
  - o Female elephant (Matriarch) leads their herd.
  - o Elephants have a gestation period of 22 months (longest in mammals).

3. Modern Monetary Theory (MMT): MMT argues that countries that issue their own currencies cannever "run out of money" the way people or businesses can.

- As long as there is unemployment, it calls for government spending without being concerned aboutfiscal deficit.
- At full employment**, MMT prescribes taxes and government borrowing to counter inflation.**
- The monetization of fiscal deficit aligns with this theory.
- It involves central bank printing currency for emergency spending by government.
- India ceased this practice in 1996 via an MOU between the RBI and the government

4. Lead exposure: Many parts of Odisha is reportedly suffering from Lead contamination.

- Sources of lead exposure include mining and smelting, recycling of electronic waste and lead-acidbatteries, plumbing, lead paint, etc.
- Lead accumulates in the body and gets deposited in the bones and teeth.
- It poses severe health risks including **Cognitive impairments, developmental delays, behavioural disorders in children.**
- Lead poisoning is often asymptomatic early stages, leading to delayed detection.
- According to the WHO, almost one million people die every year due to lead poisoning across the globe.

13TH JAN

1. Global Risk Report 2024: Report is based on **Global Risks Perception Survey** and annually releasedby World Economic Forum.

- **India's top five risks:** Misinformation and Disinformation (MI); Infectious diseases; Illicit economicactivity; Inequality (wealth and income); and Labour shortage.
- **Global short-term risks:** MI; Extreme Weather Events (EWS); Societal polarization; Cyber insecurity; etc.
- **Global long-term risks:** EWS; Critical change to Earth systems; Biodiversity loss and ecosystem collapse etc.

2. Interim bail: Supreme Court has recently extended the interim bail of an ex-Minister.

- Interim bail is **granted for a short time before the hearing for the grant of regular bail oranticipatory bail.**

- **Other kinds of Bails in India:**
  - **Regular Bail:** Granted to a person who has been arrested or is in police custody.

  - **Anticipatory bail:** It can be filed by those who fear arrest for a nonbailable offense.
- Provisions related with bail are **covered in Criminal Procedure Code (CrPC),** which has beenreplaced by Bharatiya Nagarik Suraksha Sanhita (BNSS).

3. MILAN 24 Exercise: It is a biennial multi-national naval exercise.

- It was **first conceived by Indian Navy in 1995 at Andaman and Nicobar Command** with participation of four countries (Indonesia, Singapore, Sri Lanka and Thailand).

4. Henley Passport Index 2024 (HPI): HPI was released by Henley & Partners, a global leader in residence and citizenship planning.

- HPI ranks different passports according to number of destinations their holders can visit without aprior visa.
- It **covers 227 destinations and 199 passports.**
- Rankings are based on data provided by **International Air Transport Association.**
- **India stands at 80th rank in list of most powerful passports**. Its passport has visa-free access to 62 nations.
- France, Germany, Italy and Spain, Japan and Singapore are sharing number one spot.

15TH JAN

1. Thirty Meter Telescope (TMT) project: Indian delegation visits Hawaii to discuss progress of TMT.

- TMT is a new class of extremely large telescopes that will allow seeing deeper into space and observing cosmic objects with unprecedented sensitivity.
- It is a joint venture of 5 countries- **India (Department of Science and Technology), Canada, US, China and Japan.**
- It is being **installed at Mauna Kea in Hawaii.**
- The level of contribution determines the amount of viewing time, or slots.
- TMT would be able to resolve objects 12 times better than the Hubble Space Telescope.

2. Cold dark matter (CDM): Scientists have found a new approach to explore CDM.

- CDM is a hypothetical dark matter that **constitutes 25 percent of current Universe.**
- "Cold" or "hot "refers to fact that particles of **CDM move at speeds much lower than the speed of light.**
- It is very difficult to determine what constituents of CDM are.
- One of promising candidates of CDM is **Weakly Interacting Massive Particles (WIMP).**
- WIMPs, represent one hypothesized class of particles that neither absorb nor emit light and don't interact strongly with other particles.

3. Akash-NG (New Generation) missile: Defence Research and Development Organisation conducted successful flight-test of Akash NG missile.

- Akash-NG is a **Surface to Air Missile capable of intercepting highspeed, agile aerial threats**.
- It has range of around 80 km.
- Its active electronically scanned array (AESA) multi-function radar features all three functions - search, track and fire control in one platform.
- Akash Weapon System is **Short Range Surface to Air Missile (SRSAM) Air Defence System**, indigenously designed and developed by DRDO

4. Atal Setu Nhava Sheva Sea Link: Inaugurated by PM, it is **country's longest Sea bridge, also referred as Mumbai Trans Harbour Link.**

- It is a **21.8 Kms long bridge** of which 16.5 kms is built completely over the Sea.
- It **connects Sewri in Mumbai with Nhava Sheva in Raigad district**, thereby easing travel between Mumbai-Navi Mumbai.

16TH JAN

1. Right to Reside: Delhi High Court ruled that foreigners **cannot claim right to reside in India under Article 19(1)(e) of Constitution of India.**

- Article 19(1)(e) of constitution grants the right to reside and settle in any part of territory of India as afundamental right under Right to Freedom.
- **However, Reasonable restrictions on this right can be imposed by law-**
  o in the interest of general public, or
  o for the protection of interest of any Scheduled Tribe.

2. Operation AMRITH (Antimicrobial Resistance Intervention For Total Health): KeralaDrug Control Department has launched operation AMRITH to prevent overuse of antibiotics in state.

- It **aims to detect over-the-counter sale of antibiotics without doctor's prescription.**
- Other efforts taken by Kerala on AMR
  o **In 2018, became first state in India that came up with Kerala AntiMicrobial Resistance Strategic Action Plan (KARSAP)** which is aligned with India's National Action Plan on AMR.
  o Kerala Antimicrobial Resistance Surveillance Network (KARS-NET).
  o AMR laboratory for environmental surveillance of AMR.
  o Programme on Removal of Unused Drugs (PROUD) for proper disposal of unused antibiotics

3. National Assessment and Accreditation Council (NAAC): NAAC has put on hold gradingprocess of around 30 institutes in the country.

- NAAC (set up in 1994) is an **autonomous institution of the University Grants Commission (UGC).**
- It **conducts assessment and accreditation of Higher Educational Institutions (HEIs)** such as colleges, universities.
- **Eligibility criteria:** HEIs, with a record of at least two batches of students graduated, or been in existence for six years, whichever is earlier, are eligible to apply for the process of Assessment and Accreditation of NAAC

4. Genocide Convention: South Africa accused Israel of violating Genocide Convention at the United Nations' International Court of Justice (ICJ).

- Officially known as **Convention on the Prevention and Punishment of the Crime of Genocide**.
- It was the **first human rights treaty adopted by the UN General Assembly in 1948.**
- Purpose of the convention is to prevent and punish acts of genocide.
- It **defines genocide as acts committed with the intent to destroy,** in whole or in part, a national, ethnic, racial, or religious group.

17TH JAN

1. 'Rashtriya Vigyan Puraskar" (RVP): Ministry of Science and Technology called for nominationsof the **first-ever National Science Award, known as "Rashtriya Vigyan Puraskar".**

- It will replace over 300 previously existing awards.
- It **recognizes outstanding and inspiring scientific, technological and innovation contributions ofresearchers, technologist and innovators.**

- Awards will be given across four categories:
  - These awards include **Vigyan Ratna, Vigyan Shri, Vigyan Yuva: Shanti Swarup Bhatnagarand Vigyan Team.**
  - Posthumous awards will be given only in exceptional cases.
- Award will be conferred **on August 23rd (National Space DayChandrayaan-3 mission's softlanding).**

2. Tibetan Brown Bear: India has recorded its first-ever confirmed sighting of a rare Tibetan brown bear(Ursus arctos pruinosus) in Sikkim.

- It is also **known as the Tibetan blue bear.**
- It is an **omnivore** (eat and survive on both plant and animal matter)
- **Feature**: Has a distinctive 'V' shaped white chest mark
- **Habitat**: Inhabits alpine forests, meadows, and steppe, at elevations from 2,000 to 4,500 metres.
- Mainly found in **Nepal, Bhutan and the Tibetan plateau.**
- **Status**:
  - Wildlife Protection Act, 1972 (Schedule 1)
  - CITES (Appendix 1)

3. One Vehicle, One FASTag Initiative: National Highways Authority of India's (NHAI's) 'OneVehicle, One FASTag' will come into implementation **from 31st January 2024.**

- It **seeks to discourage use of single FASTag for multiple vehicles or linking multiple FASTags toa particular vehicle.**
- Users also need to complete the 'Know Your Customer' (KYC).
- FASTag **employs Radio Frequency Identification (RFID) technology** to enable automatic toll payments.
- RFID is a **method of wireless communication involving electromagnetic waves**.
- **It has two components, tags and readers which do not need to be in line of sight to share information.**

4. National Essential Diagnostics List (NEDL): The Indian Council of Medical Research (ICMR)has invited suggestions for the revision of the NEDL.

- NEDL mainstreams diagnostics as an essential component of the healthcare system.
- India launched **its NEDL in 2019, first country to do so**.
- It is **based on WHO's first Essential Diagnostic List (2018).**

- The list includes general laboratory tests for diagnosis of HIV, hepatitis, tuberculosis, dengue, malaria and imaging tests such as X-rays, MRIs, etc.
- NEDL has been developed for all levels of health care.

18TH JAN

1. MPLADS (Member of Parliament Local Area Development Scheme) e-SAKSHI Mobile Application: It was launched by Ministry of Statistics and Programme Implementation (MoSPI)that allows MPs to propose, track, and oversee projects under MPLAD Scheme.

- **Central Sector Scheme under MoSPI.**
- MPLADS funds used for creation of durable community assets in areas of drinking water, primaryeducation, etc.
- Atleast 15 percent of MPLADS entitlement allocated for areas inhabited by Scheduled Caste population and 7.5 percent for areas inhabited by ST population.
- **Funds are non-lapsable** i.e. if money is not utilised, it gets carried to next year.
- District authority must inspect atleast 10% of all work under implementation every year.

2. Chittorgarh Fort: Supreme Court has put a hold on use of explosives for mining of minerals in five-kilometre radius of Chittorgarh Fort.

- **Longest fort in India.**
- One of the six hill forts of Rajasthan, which are part of UNESCO World Heritage Site.
  - Other five include **Kumbhalgarh, Sawai Madhopur, Jhalawar, Jaipur, and Jaisalmer.**
- Constructed by **Chitrangada of Mori dynasty**.
- Seven gateways built by **Rana Kumbha with Ram Pol as final gate.**
- **Monuments**: Vijaya Stambha, Kirti Stambha, Rana Kumbha's Palace, Rani Padmini's Palace.
- Every year, **Jauhar Mela is held in Chittorgarh, Rajasthan.**

3. Global Cooperation Barometer 2024 (GCB): Developed by World Economic Forum and McKinsey & Company, GCB 2024 which measures current state of global cooperation along five pillars.

- **Trade and Capital**: Cooperation grew through pandemic disruption but slowed in 2023.
- **Innovation and Technology**: Flows of data, intellectual property and international students

increasedcooperation until 2020.

- **Climate and Natural Capital**: Rising steadily due to increase in commitments.
  - **Health and Wellness**: Rose swiftly in response to pandemic.
  - **Peace and Security**: Declined since 2016 and plummeted recently

4. Housing Finance Companies (HFCs): RBI issued draft circular on Review of regulatory framework for HFCs and harmonisation of regulations applicable to HFCs and NBFCs.

- They are corporate entities that operate under the Companies Act 2013
- They are NBFC whose financial assets, in the business of providing finance for housing, constitute atleast 60% of its total assets.
- While they were **initially regulated by the National Housing Bank (NHB), the responsibility ofhandling HFCs was transferred to RBI in 2019.**

19TH JAN

1. MotorVehicleAct(MVA), 2019: Supreme Court directed the Union to consider amending the MVA, 2019 to enhance the compensation granted to victims of hit-and-run accidents.

- **About MVA,2019**
  o Amended the Motor Vehicles Act, 1988 to provide for road safety.
  o It **provides Compensation of ₹2 lakh and ₹50,000 in case of death and injury, respectively.**
  o Established Motor Vehicle Accident Fund, to provide compulsory insurance coverage to all road users.
  o It **provided protection to the Good Samaritan**.
    ▪ Good samaritan is a person who renders emergency assistance to a victim at the sceneof an accident.

2. Soil-based microbial fuel cell (MFC): Researchers have developed an advanced Soil-based microbial fuel cell (MFC).

- In it, they improved design so that it can efficiently work in dry conditions.
- It **generates bioelectricity with the help of microbes (such as bacteria) instead of chemicals.**
- It **consists of an anode, a cathode and electrolyte.**
- Microbes naturally give out electrons to nearby conductors. These electrons from anode to cathodecreate an electric circuit.
- **Applications**: It can be used to fuel underground sensors used in green infrastructure and

precisionagriculture

3. Global Hydrogen Trading Mechanism (GHTM): Indian Gas Exchange or IGX (India's onlygas exchange) and Gujarat State Petroleum Corporation (GSPC) signed a MoU to establish a GHTM in collaboration with IFSC-GIFT City in Gandhinagar (Gujarat).

- They will **develop a global hydrogen price index**, a benchmark for price discovery and market information on India's growing green hydrogen market.
- **Benefits**: Enhance transparency, boost investor confidence, and facilitate the growth of the green hydrogen market on a global scale.

4. Disease X: World Economic Forum is set to begin session on novel 'Disease X'.

- It is a theoretical term and "X" refers to "unexpected".
- **WHO introduced Disease X in 2018 to represent an unknown pathogen that could cause a serious international epidemic.**
- **WHO has placed Disease X alongside other high priority diseases such as Ebola and Zika virus in itsawareness campaigns.**

20TH JAN

1. Future of Growth Report 2024:

- Published by the **World Economic Forum**.
- Assesses the quality of economic growth across 107 countries in four dimensions: Innovativeness,Inclusiveness, Sustainability, Resilience.
- **Findings**:
  o High-income economies score high on innovation and inclusion, while lower-income economies on sustainability.
    ▪ **India, along with Kenya scored high on sustainability.**
  o Report highlighted a significant economic slowdown, estimated to fall to the lowest rate inthree decades by 2030.
  o Most countries' economic growth is neither sustainable nor inclusive.
    - Report called for a new approach to economic growth that balances efficiency with long-termsustainability and equity.

2. Tea Board India: Tea Board has mandated all tea producers to limit generation of tea waste not exceeding 0.2% of production for quality produce.

- Presently, tea waste is being used for producing instant tea, bio-fertiliser and caffeine.
- Board is in process of allowing tea waste being used only for production of instant tea.
- **About Tea Board India**
  - **Nature**: Statutory body set up under Tea Act 1953.
  - **Ministry**: Ministry of Commerce and Industry.
  - **Head Office**: Kolkata
  - **Functions**: Financial and technical assistance for cultivation, manufacture and marketing of tea, export promotion etc.

3. Panama Canal: Panama Canal has been hit by a severe drought forcing authorities to slash ship crossings by 36%.
- Panama Canal is **one of the two most strategic artificial waterways in the world (other being SuezCanal)**.
- It connects the Atlantic (Caribbean Sea) and Pacific Oceans and links North America with SouthAmerica.
- It is **one of the world's most important trade routes.**
- **Initially, from its opening in 1914, the canal was controlled solely by USA** (which built it) but in 1999, **control was transferred to Panama**

4. Stripe Rust (Yellow Rust) of wheat: Indian Institute of Wheat and Barley Research, Karnal (Haryana) has appealed to the farmers to remain vigilant against yellow rust.
- **Caused by a fungal pathogen, Puccinia striiformis**
- It appears in the form of yellow stripes on wheat leaves.
- **Major States affected**: Punjab, Himachal Pradesh, Haryana, Jammu & Kashmir, Uttar Pradesh andUttarakhand.
- **Treatment**: Spray Propiconazole Fungicides

22ND JAN

1. North Eastern Council (NEC): 71st Plenary Session of NEC held in **Shillong, Meghalaya**.
- NEC (HQ: Shillong) is **nodal agency for the economic and social development of North EasternRegion (NER).**
- It is a statutory body created by **Parliament through NEC Act, 1971.**
- It works under **administrative control of Ministry of Development of NER.**
- Union Home Minister is ex-officio Chairman of NEC.
- It **consists of eight States** i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

2. Laser Communication with Vikram Lander: NASA successfully tested laser communication between its **Lunar Reconnaissance Orbiter (LRO) and the Chandrayaan-3 Vikram lander for the first time.**
- NASA's LRO detected signals reflected by the **Laser Retroreflector Array (LRA) accommodated on the Vikram lander under international collaboration.**
- This LRA of NASA comprises eight corner-cube retroreflectors and will serve as a long-term geodeticstation and a location marker on the lunar surface.
- This breakthrough enables precise location targeting on the lunar surface, marking a new era

3. Alliance for Global Good- Gender Equity and Equality: India announced a new alliance for **Global Good, Gender Equity and Equality at the World Economic Forum (WEF) Annual Meeting in Davos, Switzerland.**
- It aims to bring together global best practices, foster knowledge sharing, and attract investments in keyareas such as women's health, education, and enterprise.
- It **builds on commitments of G20 Leaders' Declaration and India's dedication to women-leddevelopment**.
- Supported by **Bill and Melinda Gates Foundation**, and anchored by Confederation of Indian Industry Centre for Women Leadership.
- **WEF will be a 'Network Partner' and Invest India an 'Institutional Partner'.**

4. Hague Apostille Convention, 1961: Allahabad High Court mandates that **India, a member of the Apostille Convention**, must accept **foreign apostille-authenticated documents.**
- It simplified the global circulation of public documents.
- These public documents include **certificates of birth, marriage, and death, and educationaldocuments among others.**
- Contracting parties issue an Apostille certificate to authenticate a document's origin, allowing it to be presented abroad to another Contracting Party.
- Non-member countries require extra certification from the State of origin for document acceptance.

23RD JAN

1. Mitakshara Law: Supreme Court ruled that children born out of void/ voidable marriage can't be denied share in parent's property.

- Court concluded that **Hindu Succession Act, 1956 recognise institution of joint Hindu family governed by Mitakshara law.**
- It is one of the two major Hindu law school (other being Dayabhaga) that governs succession of property in Hindu Undivided Family.
- It holds that **son, grandson, and grandson's son have right to family property through birth.**
- It also recognizes right of daughters to inherit property, with certain limitations.

2. Sri Ranganathaswamy Temple: Recently, Prime Minister offered prayers at Sri Ranganathaswamy Temple.

- Also known as **Thiruvaranga Tirupati**, is dedicated to Ranganatha (reclining form of Lord Vishnu).
- It is **constructed in Dravidian style** and temple Complex has 21 sculpted Gopurams, 50 sub-shrines, and 9 sacred pools (tanks).
- It is not just a temple but a temple-town, unique in its SaptaPrakaram formation and one of 108 Divya Desams dedicated to Lord Vishnu.
- Situated on **island of Srirangam bounded by Cauvery and Kollidam** (tributary of Cauvery) Rivers.

3. Binturong (Arctictis binturong) and Smallclawed otter (Aonyx cinereus): These two new mammalian species were added to list of fauna in Assam's Kaziranga National Park.

- Both are listed under **Schedule I of Wildlife Protection Act 1972.**
- **Binturong (Bearcat) largest civet in India.**
  - **Native**: South-East Asia.
  - **Distribution**: India (Meghalaya, Sikkim), Indonesia, Thailand, Malaysia, etc.
  - **Conservation**: Vulnerable (IUCN); Appendix III (CITES).
- Small-clawed otter (Asian Small-clawed Otter) primarily found in freshwater habitats.
  - **Distribution**: India (West Bengal, Assam, Arunachal Pradesh, Karnataka, Tamil Nadu, and Kerala), Southeast Asia and Southern China.
  - **Conservation**: Vulnerable (IUCN); Appendix I (CITES)

4. Aravalli Hills: Apex court opined that **Rajasthan can stop mining activities in Aravalli range if they are found to be detrimental to environment.**

- One of the **oldest fold mountains of world.**
- Located in **north-west India** i.e. States (Gujarat, Rajasthan, Haryana) and Union territory (Delhi) stretching from south-west and north-east direction.
- Highest peak is **Guru Shikhar**, near Mount Abu Rajasthan.
- **Rivers**: Banas and Sahibi (tributaries of Yamuna) and Luni River originate from Aravalli.
- Acts as **water divide between Indus and Ganga Basins**.
- **Source of Rich Mineral**: Zinc, Gold, Silver, Copper, Dolomite, Marble etc

24TH JAN

1. Pradhan Mantri Rashtriya Bal Puraskar (PMRBP): The President conferred **PMRBP to 19 children**.

- The PMRBP awarded annually by the **Ministry of Women and Child Development**.
- It **honors children aged 5–18 for excellence in Bravery, Art & Culture, Environment, Innovation, Science & Technology, Social Service, and Sports that deserve national recognition**.
- Awards include a medal, certificate, and citation booklet, presented the week before Republic Day.
- Awardees must receive the accolades personally, with posthumous exceptions for bravery in Bal ShaktiPuraskar.
- **Eligibility**: Limited to Indian citizens residing in India

2. Mosquirix: Cameroon becomes the first country to routinely administer **Mosquirix, the world's first malaria vaccine program for children.**

- Also known as **RTS,S/AS01**.
- It is a **vaccine that is given to children from 5 months of age**.
- It is a World **Health Organization (WHO) approved vaccine.**
- It is made up of proteins of the Plasmodium falciparum parasites and the hepatitis B virus.
- Plasmodium falciparum is the **parasite which is responsible for causing malaria**.

3. Kanger Valley National Park: In Kanger valley National park, first-of-its-kind landscape model will be implemented for restoration.

- It is located in the **bastar region of Chhattisgarh**.
- **River**: Kanger river (Tirathgarh Waterfall is located on it)
- **Forest Type**: Tropical moist deciduous forests.
- Lies in transition zone of southern limit of sal forests and northern limit of teak forests.
- **Fauna**: Panther, Barking Deer, Wild Pig, Jacal, Langur, Rhesus Macaque, Sloth Bear, FlyingSquirrel, Bastar Maina (state bird), etc.

4. Smart Lander for Investigating Moon (SLIM): Japanese spacecraft SLIM landed on the moon, making Japan the fifth country to reach the lunar surface.

- The other four countries are India**, United States, Russia, and China**.
- It successfully demonstrated pinpoint technology for landing.
- This **technology enables landing within 100 m of a target**.
- Because of achieving this feat, it is also referred as Moon Sniper.
- **Objective**: Acceleration of the study of the Moon and planets using lighter exploration systems.
- **Agency**: Japanese Aerospace Exploration Agency (JAXA)

25TH JAN

1. Standards Machine Applicable Readable and Transferable (SMART): Bureau of Indian Standards (BIS) in association with **IEC and ISO conducted workshop to clarify SMART standards.**

- SMART are **digitally enabled standards that are machine-applicable, readable, and transferable**.
- SMART is joint programme of **International Organization for Standardization (ISO) and International Electro-technical Commission (IEC)** to drive digital evolution of international standards.
- **Benefits**: Enhanced industry efficiency; Facilitating automation and innovation, User-centric simplicity, etc.
- ISO is a non-governmental international standard-development organization with **membership of 170 national standards bodies including BIS (India).**
- IEC is international standards organization, publishes international standards for electrotechnology.

2. Coalition for Epidemic Preparedness Innovations (CEPI): Serum Institute of India joins CEPI global network to boost production of vaccines.

- **About CEPI (HQ: Oslo, Norway)**
  - An innovative global partnership between **public, private, philanthropic, and civil societyorganisations.**
  - Founded in **Davos, Switzerland in 2017 by Governments of Norway and India, Bill & MelindaGates Foundation, Wellcome Trust, and World Economic Forum.**
  - Provide funds to accelerate development of vaccines and other biologic countermeasures againstepidemic and pandemic threats so they can be accessible to all people in need.
  - **Examples of CEPI-funded vaccines**: Nipah Virus, Lassa fever Vaccine etc.

3. Dynamic Wireless Charging (Inductive charging): Government is planning to build **electric vehicle (EV)-ready highways on Golden Quadrilateral** in which dynamic wireless charging can play a keyrole.

- Dynamic wireless charging technology enables power exchange between vehicle and grid while thevehicle is moving ubiquitously.
- Energy exchange is facilitated by **inductive power transfer (IPT) between vehicles**.
- Moving Buses/trucks can act as energy sources to EVs that need charging.
- It can also be **done by embedding charging infrastructure under the surface of road.**
- **Significance**: Reduced battery size, decarbonization of transport, etc.

4. Mpemba effect: Researchers contend that hot water freezes faster than its colder counterpart, a phenomenon known as Mpemba Effect.

- According to it, **hot water evaporates more rapidly, reducing its mass and inducing a coolingeffect**.
- When heated, Hydrogen bonds in water break, causing water molecules to move apart and facilitatingquicker freezing due to energy loss.
- In contrast, **cold water's freezing process is impeded by presence of gases and impurities**

26TH JAN

1. Kuno National Park (KNP): Recently, a Namibian cheetah translocated to KNP under ProjectCheetah, gave birth to 4 cubs.

- **Location**: In Madhya Pradesh and is a part of Central Indian Vindhyan Hills.
- **Forest**: Dry Deciduous.
- **River**: Kuno river is main source of water.

- **Flora**: Mainly dominated by Kardhai, Salai, Khair trees, along with vast grasslands.
- **Fauna**: Spotted deer, Chousingha, Nilgai, Black buck, Leopard, Wild dog or Dhole, etc.

2. Advanced Chemistry Cell (ACC): Ministry of Heavy Industries invited bids to set up domestic manufacturing facility for ACC under Production Linked Incentives (PLI) scheme for ACC Battery Storage.

- ACCs are the **new generation energy storage technologies.**
- They can **store electric energy either as electrochemical or chemical energy** and convert it back toelectric energy when required.
- **Examples of ACCs:** Advanced lithium-ion batteries, lithiumsulphur batteries, solid-state batteries,metal-air batteries, flow batteries etc.
- **India launched National Programme on Advanced Chemistry Cell (ACC) Battery Storage in2021.**

3. National Girl Child Day: Since 2008, **January 24 is celebrated as National Girl Child Day forpromoting equal opportunities for girl** child while raising awareness of the injustices that girls face.

- On **January 24 1966 Smt. Indira Gandhi took her oath as the first woman Prime Minister of India.**
- Now it also **commemorates anniversary of Beti Bachao, Beti Padhao (BBBP) Scheme** which was launched on January 22, 2015.
- BBBP aims to improve the child sex ratio and empower girls and women throughout their lives.

4. Lake Victoria: Centre for Science and Environment in association with Tanzania is working to restoreLake Victoria.

- It is the **largest freshwater lake in Africa and world's second-largest (first is Lake Superior in North America).**
- It is the **chief reservoir of River Nile**, and its basin is shared by Kenya, Uganda, Tanzania, Rwanda, and Burundi.
- Approximately **80% of its water comes from rainfall**.

29TH JAN

1. Gallantry Awards: On 75th Republic Day, President approves Gallantry awards to Armed Forcespersonnel.

- Gallantry awards are **announced twice in a year (on Republic Day and Independence Day).**
- Gallantry Awards are classified into two Categories
  - **Gallantry in the Face of Enemy**: Param Vir Chakra, Mahavir Chakra , Vir Chakra.
  - **Gallantry Other than in the Face of Enemy**: Ashok Chakra, Kirti Chakra, Shaurya Chakra.
- **Order of precedence of these awards**
  - Param Vir Chakra, Ashoka Chakra, Mahavir Chakra, Kirti Chakra, Vir Chakra and Shaurya Chakra.

2. Kutia Kondh Tribe: Two persons from Kutia Kondh Tribe attended Republic Day parade in New Delhi as special guests.

- They are **Particularly Vulnerable Tribal Groups (PVTGs) from Odisha**.
  - Currently, **75 tribes are given status of PVTGs in India**.
- **Society and culture:**
  - Families are mostly nuclear and patriarchal in character.
  - **Kondhs worship nature.**
  - Known for their buffalo sacrifice ritual, called **"Kedu" to worship their Earth Goddess".**
- **Agriculture**:
  - Shifting cultivation, or slash-and-burn agriculture.
  - Kondhs call it dongar chaas or podu chaas

3. South Asian University (SAU): The Delhi High Court has ruled that the SAU is not subjected to thewrit jurisdiction under Article 226.

- The court observed that
  - The **varsity's character is that of an international institution as it derives powers from a2007 inter-governmental agreement.**
  - It cannot be included under "other authority" as mentioned in **Article 12 of the Constitution of India**.
- SAU is an international university established by the member nations of the South Asian Associationfor Regional Co-operation in New Delhi.

4. Cyclone Kirrily: Tropical Cyclone Kirrily made landfall in Australia.

- Tropical cyclones originate and intensify over warm tropical oceans.
- **Conditions favourable for Tropical cyclone**

- Large sea surface with **temperature higher than 27° C.**
- **Presence of the Coriolis force.**
- Small variations in the vertical wind speed.
- A pre-existing weak low-pressure area or low-level-cyclonic circulation.
- Upper divergence above the sea level system

30TH JAN

1. E Ink displays: A new crowdfunded phone, called the Minimal Phone, has featured a white E Ink display.

- It is a **screen that aims to replicate the experience of reading and writing on paper**.
- Works using tiny microcapsules filled with positively charged white particles and negatively charged black ones suspended in a fluid.
- By electric charges, white or black particles can be made to rise, creating the text and images on the display.
- **Advantages**: Energy efficient, easy readability, etc.
- **Disadvantages**: Slow refresh rate, expensive manufacturing, limited color and resolution, etc.

2. Padma Awards: President approved conferment of 132 Padma awards for 2024.

- One of the **highest civilian honors of India announced annually**, except for brief interruption(s) during the years **1978-1979 and 1993-1997**.
- To recognize achievements in all fields of activities or disciplines involving public service.
- **Padma Vibhushan was instituted in 1954** and had three classes namely **Pahela Varg, Dusra Varg, and Tisra Varg.**
- Renamed in January 1955 as **Padma Vibhushan, Padma Bhushan, and Padma Shri.**
- It is **not a title under Article 18.**

3. Default Bail: Supreme Court recently held that **statutory right to default bail cannot be availed once the charge-sheet is filed.**

- Court added that default bail cannot be availed on grounds of incomplete submission of charge-sheet or pending investigation against other co-accused.
- Default Bail, also **known as compulsive or statutory bail, is provided under Section 167(2) of Criminal Procedure Code (CrPC).**
- It **affords protection to accused against detention due to inordinate delays** in completion of investigation and filing of charge-sheet within timeframe stipulated by law.

4. Laughing Gull: Laughing Gull from North America **spotted at Chittari estuary in Kasaragod district of Kerala for the first time.**

- Known for its unique laughter-like calls.
- **Habitat**: Coastal regions, especially common around beaches and salt marshes.
- **Distribution range**: Atlantic and Gulf coasts of North America; Caribbean and on both coasts of Central America and northern South America.
- **Appearance**: Slender, medium-sized gull with long wings; Medium gray upper-parts.
- **IUCN Status**: Least Concern.

31ST JAN

1. Chenab River: Successful diversion of Chenab River achieved at Ratle Hydro Electric Project in Jammu & Kashmir.

- Formed by two streams, **Chandra and Bhaga**, which join near Keylong in Himachal Pradesh. **Hence, it is also known as Chandrabhaga.**
- River flows for 1,180 km before entering into Pakistan.
- **Chenab is largest tributary of Indus.**
- Indus river system comprises of main **Indus River, Jhelum, Chenab, Ravi, Beas and Sutlej.**
- **1960 Indus Waters Treaty (between India and Pakistan) grants India exclusive use of three rivers- Ravi, Sutlej, Beas (Eastern Rivers).**

2. United Nations Relief and Works Agency for Palestinian Refugees (UNRWA): UN officials urged countries to reconsider their decision to suspend the funding for UNRWA.

- **Genesis**: Established as a subsidiary organ of United Nations General Assembly in 1949.
- **Objective**: To provide assistance and protection to Palestine refugees registered with UNRWA.
- Its **mission is to help Palestine refugees in Jordan, Lebanon, Syria, Gaza Strip and West Bank,** including East Jerusalem achieve their full human development potential.
- **Funding**: Funded almost entirely by voluntary contributions from UN Member States.

3. Advocate-on-Record (AoR): A committee headed by Chief Justice of India **designated 56 lawyers and AoR as senior advocates, 11 of them women.**

- **Supreme Court Rules, 2013 prescribe eligibility criteria for an AoR.**
- AoR means **an advocate who is entitled under these rules to act as well as to plead for a party in Court.**
- No advocate other than AoR for a party shall appear, plead and address the Court in a matter unless he is instructed by AoR or permitted by Court.

4. National Chambal Sanctuary (NCS): Recently, Indian grey wolf was sighted in NCS, which is its first confirmed sighting in the region in about two decades.

- It is a **tri-state protected area (Rajasthan, Madhya Pradesh and Uttar Pradesh).**
- It was **set up in 1979 as a riverine sanctuary along Chambal River (tributary of Yamuna River).**
- Listed as an **Important Bird Area (IBA) and is a proposed Ramsar site.**
- Home to Gharial, red-crowned roof turtle (both critically endangered) and Ganges river dolphin (endangered) - National Aquatic Animal

1ST JAN

1. Maulana Azad National Fellowship: The objective of the Maulana Azad Fellowship Scheme (MANF) is to **provide five year fellowships in the form of financial assistance**. It is given to students from six notified minority communities viz. Buddhist, Christian, Jain, Muslim, Parsi and Sikh, notified by the Central Government, to pursue M. Phil and Ph.D**. The scheme covers all Universities/Institutions recognized by the University Grants Commission as under:**

- Central/State Universities (including constituent and affiliated institutions)
- Deemed Universities
- Institutions fully funded by the State / Central Government and empowered to award degrees.
- Institutions of National Importance as notified by Ministry of Human Resource Development

The Fellowship will cater to the minority community students pursuing regular and full time research studies leading to award of M.Phil/Ph.D degree within India only. This will enable them to be eligible for employment to the posts with M.Phil and Ph.D as pre- requisites, including the posts of Assistant Professors in various academic institutions. **UGC will be the nodal agency for implementing this fellowship.**

2. Bhil Tribe: Bhils are considered as one of the oldest tribes in India. **The name 'Bhil' is derived from the word villu or billu, which according to the Dravidian language is known as Bow.** They could be identified as one of the Dravidian racial tribes of Western India and belong to the Australoid group of tribes**. They are mainly divided into two main groups: the central and eastern or Rajput Bhils**. The central Bhils are found in the mountain regions in the Indian states of Madhya Pradesh, Maharashtra, Gujarat and Rajasthan. Bhils are also found in the north eastern parts of Tripura. **They speak Bhili, which is an Indo Aryan language**. Religion practice among the Bhils differ from place to place**. Most of them worship local deities like Khandoba, Kanhoba, Bahiroba, and Sitalmata. Some worship the Tiger God called 'vaghdev'.** They consult Badvas -the hereditary sorcerers on all the occasions**. The Baneshwar fair is the main festival celebrated among the Bhils**. This fair is held during the period of Shivratri and is dedicated to **Baneshwar Mahadev also known as Lord Shiva.**

3. Green Deposit: In general terms, a **green deposit is a fixed-term deposit for those who want to invest in environmentally friendly projects**. Just like a regular Fixed Deposit scheme, the green deposit pays interest to its investors and has a fixed term. The proceeds that a bank gets from deposit holders get earmarked for allocation to green finance. **A green fixed deposit, also known as an environmentally friendly fixed deposit, is a financial instrument that encourages sustainable development by channeling funds towards projects focused on renewable energy, clean technology, or other environmentally beneficial initiatives**. The green activities/ projects financed under the framework can be classified under priority sector if they meet the requirements laid down in priority sector lending (PSL) guidelines of RBI. **Banks are allowed to offer overdraft facility to customers against Green Deposits**. The current framework permits green deposits to be denominated in Indian Rupees only. **The deposits raised under the framework are covered by Deposit Insurance and Credit Guarantee Corporation (DICGC)** in accordance with the Deposit Insurance and Credit Guarantee Corporation Act, 1961 and the regulations framed there under, as amended from time to time.

2ND JAN

1. Agreement on the Prohibition of Attack against Nuclear Installations and Facilities: It was s**igned on December 31, 1988, by the then Pakistani Prime Minister Benazir Bhutto and Indian PM Rajiv Gandhi**. The treaty came into force on January 27, 1991, and has two copies each in Urdu and Hindi. **In 1986, the Indian army carried out a massive exercise 'Brasstacks', raising fears of an attack on nuclear facilities**. Since then, both countries have been negotiating to reach an understanding towards the control of nuclear weapons, which culminated in the treaty. **The agreement mandates both countries to inform each other about any nuclear installations and facilities to be covered under the agreement on the first of January of every calendar year, providing a confidence-building security measure**

environment. The term 'nuclear installation or facility' includes nuclear power and research reactors, fuel fabrication, uranium enrichment, iso-topes separation, and reprocessing facilities, as well as any other installations with fresh or irradiated nuclear fuel and materials in any form and establishments storing significant quantities of radioactive materials.

2. **Exercise 'Desert Cyclone':** The Joint Military Exercise 'Desert Cyclone 2024' between India and UAE will be held in Rajasthan. **It is the inaugural edition of joint military exercise "Desert Cyclone 2024" between India and the United Arab Emirates (UAE).** The exercise aims to enhance interoperability by learning & sharing best practices in Urban Operations. This exercise is marking a significant milestone in the strategic partnership. **India and the UAE established diplomatic relations in 1972 and UAE opened its Embassy in Delhi in 1972 whereas, India opened its Embassy in Abu Dhabi in 1973.** The first-ever India-UAE Joint Air Forces exercise took place in September 2008 at the Al-Dhafra base in Abu Dhabi. India has also been a regular participant at the biennial International Defence Exhibition (IDEX) in Abu Dhabi. **Earlier this year, two ships of the Indian Navy, INS Visakhapatnam, and INS Trikand participated in bilateral exercise 'Zayed Talwar' with the UAE to enhance interoperability and synergy between the two navies.**

3. **XPoSat mission:** It is **the first dedicated scientific satellite from ISRO to carry out research in space-polarisation measurements of X-ray emission from celestial sources.**

It carries two payloads namely

POLIX: It is an **X-ray Polarimeter for astronomical observations in the energy band of 8-30 keV. The payload is being developed by Raman Research Institute (RRI), Bangalore in collaboration with U R Rao Satellite Centre (URSC).** It is expected to observe about 40 bright astronomical sources of different categories during the planned lifetime of XPoSat mission of about 5 years.

This is the first payload in the medium X-ray energy band dedicated for polarimetry measurements. **It is an X-ray SPECtroscopy and Timing payload onboard XPoSat, which can provide fast timing and good spectroscopic resolution in soft X-rays.** It can provide long-term monitoring of spectral state changes in continuum emission, changes in their line flux and

profile, simultaneous long term temporal monitoring of soft X-ray emission in the X-ray energy range 0.8-15 keV. **It would observe several types of sources viz X-ray pulsars, blackhole binaries, low-magnetic field neutron star (NS) in LMXBs, AGNs and Magnetars.** The launch put India in an elite category as it has become the second (after NASA's Imaging X-ray Polarimetry Explorer (IXPE) launched in 2021) nation to send an observatory to study astronomical sources such as black holes, neutron stars among others.

3RD JAN

1. **Hattee community:** The Himachal Pradesh state government has finally issued notification to give Scheduled Tribe (ST) status to the Hattee community of **Trans-Giri area of Sirmaur district**. They are a c**lose-knit community who got their name from their tradition of selling homegrown vegetables, crops, meat and wool etc. at small markets called 'haat' in towns**. Their homeland straddles the Himachal-Uttarakhand border in the basin of the Giri and Tons rivers, both tributaries of the Yamuna. This community's men generally don a distinctive white headgear during ceremonies, is cut off from Sirmaur by two rivers called Giri and Tons. **Tons divide it from the Jaunsar Bawar area of Uttarakhand**. The Hattees who live in the trans-Giri area and Jaunsar Bawar in Uttarakhand were once part of the royal estate of Sirmaur until Jaunsar Bawar's separation in 1815. **They are governed by a traditional council called Khumbli**. The two Hattee clans, in Trans-Giri and Jaunsar Bawar, have similar traditions, and inter-marriages are common.

2. **Direct-to-mobile (D2M) technology**: Indian telecom operators have asked the government to auction the spectrum that will be used for direct-to-mobile (D2M) technology services. **The science behind D2M is similar to that of an FM radio, where a receiver within the device can tap into different radio frequencies**. This new-age technology is a combination of broadband and broadcast that uses mobile phones to capture territorial digital TV signals. Using D2M, multimedia content, including live TV matches, can be streamed to phones directly without using the internet. **D2M can ensure- Emergency alerts are delivered directly, reliably and without dependence on internet/cellular networks.**

Disaster Management audio content is delivered directly and authentically in a targeted manner. **With D2M, governments can broadcast citizen-**

centric information. This approach benefits consumers by reducing their reliance on internet data consumption for staying informed and entertained. It is still in the developmentstage. The biggest challenge in front of the government is to bring different stakeholders, including telecommunications, on board in launching D2M tech on a wide scale.

3. **Genocide Convention 1948:** South Africa moved the International Court of Justice (ICJ), for an urgent order declaring that Israel was in breach of its obligations under the 1948 Genocide Convention. **The term 'genocide' is often loosely used when speaking of attacks against various communities across the world.** It has been **defined using set criteria in the UN's Convention on the Prevention and Punishment of the Crime of Genocide**, moved in the General Assembly in 1948.It says, "In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such: Killing members of the group; Causing serious bodily or mental harm to members of the group;

Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; Imposing measures intended to prevent births within the group; Forcibly transferring childrenof the group to another group. **As per this convention the genocide is a crime whether committed during wartime or peacetime. India ratified the convention in 1959; there is no legislation on the subject.**

4TH JAN

1. Square Kilometer Array Observatory: It is a **state of the art, mega science international facilityto build the world's biggest** and most sensitive radio telescope for addressing a wide variety of cutting-edgescience goals. T**he SKAO, collocated in Australia (SKA-Low) and South Africa (SKA-Mid) with operational headquarters in the UK**, is expected to revolutionize radio astronomy, while driving the growth of many important new state-of-the-art technologies. **Ten countries involved are - Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and UK.**

2. SMART 2.0 program: The **Central Council for Research in Ayurvedic Sciences (CCRAS) alongwith National Commission for Indian System of Medicine**

(NCISM) has launched 'SMART 2.0' program. Scope for Mainstreaming Ayurveda Research among Teaching professionals (SMART) program promotes robust clinical studies in priority areas of Ayurveda with Ayurveda academic institutions/hospitals across the country through mutual collaboration. **The objective of 'SMART 2.0' is to generate a tangible evidence to demonstrate efficacy and safety of Ayurveda interventions using interdisciplinary research methods and translating it into public health care**. The study aims at safety, tolerability and adherence to Ayurveda formulations in the priority research areas of Bal Kasa, malnutrition, insufficient lactation, Abnormal Uterine Bleeding, Osteoporosis in post-menopausal women and Diabetes Mellitus (DM) II.

3. Fog Pass Devices: It is **a GPS based navigation device that helps the loco pilot to navigate during dense fog conditions**. It provides on-board real-time information (Display as well as voice guidance) to Loco Pilots regarding location of fixed landmarks such as Signal, Level Crossing gate (Manned & Unmanned), Permanent Speed Restrictions, Neutral Sections etc. It displays approach indications of next three approaching fixed landmarks in geographical order accompanied with voice message approximately 500m on approach. **General features of Fog Pass Device Suitable for all types of sections like single line, double line, electrified as well as non electrified sections.** Suitable for all types of electric and diesel locomotives, EMUs/MEMUs/ DEMUs.Suitable for train speeds up to 160 KMPH.It has built-in re-chargeable battery back-up for 18 hrs.It is portable, compact in size, light in weight and of robust design. **Loco Pilot can carry the device easily with him to the locomotive on resuming his duty**. It can be easily placed on the cab desk of locomotive.It is a standalone system. **It is unaffected by weather conditions like Fog, Rain or Sunshine.**

4. Swadesh Darshan Scheme: It was **launched in 2015 by the Ministry of Tourism, Government ofIndia, to develop sustainable and responsible tourism destinations in the country**. It is 100% centrally funded scheme. Under the scheme, the Ministry of Tourism provides financial assistance to State governments, Union Territory Administrations or Central Agencies for development of tourism infrastructure in the country. **Operation & Maintenance (O&M) of the projects sanctioned under Swadesh Darshan Scheme is the responsibility of the respective State Government/UT Administration**. The Ministry of Tourism has revamped

its Swadesh Darshan scheme as Swadesh Darshan 2.0 (SD2.0) for development of sustainable andresponsible tourist destinations covering tourism and allied infrastructure, tourism services, human capital development, destination management and promotion backed by policy and institutional reforms.

5TH JAN

1. Wetlands City Accreditation: Recently, the Ministry of Environment, Forest and Climate Change has submitted three nominations from India for **Wetland City Accreditation (WCA) of Indore (Madhya Pradesh), Bhopal (Madhya Pradesh) & Udaipur (Rajasthan) under the Ramsar Convention on Wetlands**. The **Ramsar Convention during COP12 held in the year 2015 approved a voluntary Wetland City Accreditation system**. It recognizes cities which have taken exceptional steps to safeguard their urban wetlands. This voluntary scheme provides an opportunity for cities that value their natural or human-made wetlands to gain international recognition and positive publicity for their efforts. **This scheme aims to further promote the conservation and wise use of urban and peri-urban wetlands, as well as sustainable socio- economic benefits for local populations**. To be formally accredited, a candidate for WCA should satisfy the standards used to implement each of the six international criteria mentioned in Operational Guidance for WCA of the Ramsar Convention on Wetlands. **Since Ramsar COP13, 43 cities from 17 countries have been officially recognized as "Wetland Cities".**

2. PRERANA program: It is a week-long residential program for selected students of class IX to XII.A batch of 20 selected students (10 boys and 10 girls) will attend the program, every week from various parts of the country. **It will run from a Vernacular Schoōl, established in 1888, in one of the oldest living cities of India, Vadnagar, district Mehsana, Gujarat**. The curriculum of Prerana School prepared by IIT Gandhi Nagar is rooted in nine value-based themes: **Swabhiman and Vinay, Shaurya and Sahas, Parishram and Samarpan, Karuna and Sewa, Vividhta and Ekta, Satyanishtha and Shuchita, Navachar and Jigyasa, Shraddha aur Vishwas, and Swatantrata and Kartavya.** The day-wise program schedule will feature yoga, mindfulness, and meditation sessions, followed by experiential learning, thematic sessions, and hands-on interesting learning activities. Evening activities will include visits to ancient and heritage sites, inspirational film screenings, mission life creative activities, talent shows etc. ensuring a holistic learning approach. Students can register through the portal, wherein applicants can fill the requisite details. The registered applicants will go through a selection process, as prescribed on the portal. **Applicants can also join the selection procedure conducted at the School/block level, on designated 'Prerana Utsav' day, through various activities.**

3. 'Workation' Visa: South Korea recently introduced a new visa for foreigners allowing them to visit the country on a working holiday or workation. **The "workation" or "digital nomad" visa allows foreign nationals to visit South Korea on a working holiday.** Foreign nationals with an annual income twice as much as South Korea's per capita gross national income will be eligible to apply for the visa. **It will be given to those having a work experience of over a year in one industry and are eligible for remote work.** Moreover, the applicants must also have medical insurance of over 100 million won and must cover medical treatment and repatriation fees. The visa will also be allowed to the families of these employees. **The visa, which is valid for a year and renewable for up to two years, can be issued at South Korean embassies, and those currently residing in the country under a temporary visa can also apply for it if they meet the requirements**. (Currently, foreign nationals interested in working and travelling in Korea need a tourist visa, which is limited to stays of less than 90 days).The people who are awarded this visa cannot be hired by any company in South Korea to work or undertake any profit-making activity.

6TH JAN

1. EB-5 Immigrant Investor Program: The United States Department of State recently released datathat indicates significant progress in the processing of EB-5 applications that are currently pending, especially those from Indian citizens. **The EB-5 (employment-based, 5th preference), or US golden visa, provides a special road for overseas investors and their families to seek permanent residency and Green Cards inthe United States.** It is administered by the United States Citizenship and Immigration Services (USCIS).**It was created in 1990** to stimulate the U.S. economy through **job creation and capital investment by foreigninvestors.** Under this program, **investors (and their spouses and unmarried children under 21) are eligible to apply for lawful permanent residence (become a Green Card holder)** if they: make the

necessary investment in a commercial enterprise in the United States, and Plan to create or preserve 10 permanent full-time jobs for qualified U.S. workers.

2. INS Chennai: It is the Indian Navy's indigenously designed and constructed guided missile destroyer. **It is the third and last ship of the Kolkata-class stealth-guided missile destroyers (Project 15A).It was constructed by the Mazagon Dock Limited (MDL) at Mumbai**. It was commissioned into the Indian Navy on November 21, 2016. **It is powered by four reversible gas turbine engines**. It can carry 350 to 400people. **It is armed with Vertical launch and long-range surface-to-air and surface-to-surface missile systems like supersonic BrahMos**, 'Barak-8' Long Range Surface to Air missiles. The ship is equipped to fight under nuclear, biological and chemical (NBC) warfare conditions. It is fitted with a modern Surveillance Radar, which provides target data to the gunnery weapon systems of the ship. **The ship's Anti-Submarine Warfare capabilities are provided by the indigenously developed Rocket Launchers and Torpedo Launchers**.

3. PRITHVI Scheme: It is an **initiative of the Ministry of Earth Sciences (MoES)** to enhance the understanding of the Earth and its vital signs. This overarching initiative, with an allocation of Rs 4,797 crore for the period 2021-26, aims to significantly enhance research, modelling, and service delivery across crucialareas like weather, climate, oceans, and the polar regions. **The Prithvi scheme integrates five existing sub-schemes:**

- Atmosphere and Climate Research-Modelling Observing Systems and Services (ACROSS)
- Oceanographic Services, Modelling Application, Resources and Technology (O-SMART)
- Polar Science and Cryosphere Research (PACER)
- Seismology and Geosciences (SAGE)
- Research, Education, Training, and Outreach (REACHOUT).

One of the primary objectives of Prithvi is to augment and sustain long-term observations across the atmosphere, ocean, geosphere, cryosphere, and solid earth. This will enable recording and monitoring of the Earth System's vital signs and changes. **Additionally, the scheme focuses on developing predictive models for weather, ocean, and climate hazards, as well as advancing the understanding of climate change science**. Exploration of the polar regions and high seas is another key aspect, aiming at discovering new phenomena and resources. The scheme also emphasises the development of technology for the exploration and sustainable harnessing of oceanic resources for societal applications.

8TH JAN

1. National Civil Services Day: **21st April is celebrated as the National Civil Service Day** as it marks the anniversary (21st April 1947) of the historic address given by the country's 1st home minister **Sardar Vallabhbhai Patel to the newly appointed administrative services officers.** During the **Speech, Sardar Patel had referred to the newly-appointed civil servants as the "steel frame of India"**.Sardar VallabhbhaiPatel is regarded as the 'Father of all-India Services'. **The country's first National Civil Service Day eventwas organised on 21st April 2006 in New Delhi's Vigyan Bhawan.** Since then, this function has become an annual affair that celebrates the contributions of civil servants to the country's development**. On this day, Prime Minister's Awards for Excellence in Public Administration are awarded "to acknowledge, recognize and reward the extraordinary and innovative work done by Districts/ Organizations of the Central and State Governments".**

2. Primary Agricultural Credit Societies: PACS are **village level cooperative credit societies thatserve as the last link in a three-tier cooperative credit structure headed by the State Cooperative Banks (SCB) at the state level.** Credit from the SCBs is transferred to the District Central Cooperative Banks (DCCBs), that operate at the district level. The DCCBs work with PACS, which deal directly with farmers. PACSs provide short-term, and medium-term agricultural loans to the farmers for the various agricultural and farming activities.The first PACS was formed in 1904.Significance of PACS:

- **Access to Credit**: PACS provide small farmers easy credit,which they can use to purchase seeds,fertilizers,and other inputs for their farms.
- **Financial Inclusion:** PACs help to increase Financial inclusion in rural areas,where access to formal financial service is limited.
- **Convenient Services:** PACS are often located in rural areas, which makes it convenient for farmers toaccess their services. This is important because many farmers are unable to travel to banks in urban areas to access financial services.
- **Enhancing Credit Discipline:** PACS promote credit

discipline among farmers by requiring them to repay their loans on time. This helps to reduce the risk of default, which can be a major challenge in the rural financial sector.

3. Viksit Bharat Sankalp Yatra: The "Viksit Bharat Sankalp Yatra" is a nationwide campaign launchedby the Government of India to promote the development and progress of the country. It is a **government initiative aimed at raising awareness about and monitoring the implementation of various flagship central schemes across India**. These schemes include Ayushman Bharat, Ujjwala Yojana, PM Suraksha Bima, PM SVANidhi, and others. The program is a collaborative effort involving various Union ministries and state governments.

The program has four primary objectives:

- **Reaching out to the vulnerable:** The Yatra aims to identify and connect with individuals who are eligible for various government schemes but have not yet availed of the benefits.
- Dissemination of information and **generating awareness.**
- Interaction with beneficiaries through personal experience sharing.
- **Enrollment of potential beneficiaries:** During the Yatra, efforts are made to enrol potential beneficiaries by collecting details and information from participants.

9TH JAN

1. India International Science Festival: The **9th edition of the India International Science Festival (IISF) 2023** will be held in **Faridabad, Haryana in 2024**. The mega science fair of India will be organised at the campus of Translational Health Science and Technology Institute (THSTI) and Regional Center for Biotechnology (RCB) of the Department of Biotechnology in Faridabad. **The theme of the present edition is 'Science and Technology Public Outreach in Amrit Kaal'.** It is noteworthy that this program dedicated to promoting creativity in science, technology and innovation for the advancement of a prosperous, **India has launched in collaboration with Vigyan Bharati through collaborative efforts of the Ministry of Science and Technology and the Ministry of Earth Sciences**. Since 2015, IISF has organised eight editions across different geographical regions of India and has expanded into a

mega science festival. **In 2021, the Department of Space and the Department of Atomic Energy became integral parts of IISF.**

2. Competition Commission of India (CCI): It is a **statutory body of the Government of India responsible for enforcing the Competition Act, 2002, it was duly constituted in March 2009**. The Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act) was repealed and replaced by the Competition Act, 2002, on the re**commendations of the Raghavan committee**. The **Commission consists of one Chairperson and six Members** who shall be appointed by the Central Government. **The commission is a quasi-judicial body** which gives opinions to statutory authorities and also deals with other cases. The Chairperson and other Members shall be whole-time Members. The Chairperson and every other Member shall be a person of ability, integrity and standing and who, has been, or is qualified to be a judge of a High Court, or, has **special knowledge of, and professional experience of not less than fifteen years** in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs, administration or in any other matter which, in the opinion of the Central Government, may be useful to the Commission.

3. Arjuna Award and Dronacharya Award:

Arjuna Award: It was **instituted in 1961** by the Government of India to recognise outstanding achievement in national sports events. It is **given for good performance over a period of previous four years and showing qualities of leadership, sportsmanship and a sense of discipline**. The award carries a cash prize of Rs 15 lakh, a bronze statue of Arjuna and a scroll of honour.

Dronacharya Award: It was **instituted in 1985 by the Government of India to recognise excellence in sports coaching**. It is given to coaches for doing outstanding and meritorious work on a consistent basis and enabling sportspersons to excel in international events. It carries a cash prize of Rs 15 lakh, a bronze statue of Dronacharya and a scroll of honour.

4. INS Kabra: It is a **naval vessel named after an island of the Andaman and Nicobar archipelago**. It belongs to the Car Nicobar class of high-speed offshore patrol vessels are **built by Garden Reach Shipbuilders and Engineers (GRSE)** for the Indian Navy. Kabra was eighth in a series of 10 Fast Attack Crafts. **The vessels are**

designed as a cost-effective platform for patrol, anti-piracy and rescue operations in India's Exclusive Economic Zone. The class and its vessels are named for Indian islands. They are the first water jet propelled vessels of the Indian Navy

10TH JAN

1. National Youth Festival: Nasik, Maharashtra is set to **host the 27th NYF in January 2024.** The programme is being held on National Youth Day, which is celebrated on **the birth anniversary of Swami Vivekananda, to honour and cherish his ideals, teachings, and contributions**. The National Youth Festival is held every year to provide exposure to our talented youth at the national level, along with galvanising them towards nation-building. It brings diverse cultures from all parts of the country on a common platform and unites the participants in the spirit of **Ek Bharat, Shreshtha Bharat.**

2. Pravasi Bharatiya Diwas: It is also **known as Non-Resident Indian (NRI) Day**, is celebrated on January 9 to mark the contribution and achievements of the overseas Indian community to the development of India. It is the **flagship event of the Ministry of External Affairs. The day also commemorates the return of Mahatma Gandhi**, the greatest Pravasi, from South Africa to India in 1915, who led India's freedom struggle and changed the lives of Indians forever. **It was first celebrated in 2003**. It was an annual event earlier, but **in 2015, the government revised its format to celebrate PBD once every two years.** It has become a platform to connect the Indian diaspora with their roots and encourage their continued engagement with India's progress. It is held in different cities, to showcase the diversity and progress of different regions of India. Till date, 17 conventions have been held. **The last Pravasi Bharatiya Divas was celebrated in the Indore of Madhya Pradesh in 2023.**

3. Colombo Security Conclave: The CSC, was **formed in 2011 as a trilateral maritime security grouping of India, Sri Lanka and the Maldives.** It welcomed Mauritius as a fourth member at the fifth meeting of national security advisers. Bangladesh and Seychelles attended as observers and have been invited to join the group. **The fifth meeting of national security advisers of the CSC identified key areas of cooperation to enhance and strengthen regional security in the following five pillars:**

- Maritime Safety and Security

- Countering Terrorism and Radicalization
- Combating Trafficking and Transnational Organized Crime
- Cyber Security, Protection of Critical Infrastructure and Technology
- Humanitarian Assistance and Disaster Relief

4. Narcotics Control Bureau: The **Narcotics Control Bureau** is an Indian central law enforcement and intelligence agency under the Ministry of Home Affairs, Government of India. **The agency is tasked with combating drug trafficking and the use of illegal substances under the provisions of Narcotic Drugs and Psychotropic Substances Act 1985**. Established in 1986, it is responsible for coordination with the Indian state governments and other central departments, implementation of India's international obligations with regard to drug trafficking, and assisting international and foreign drug law enforcement agencies**. The Narcotics Control Bureau's national headquarters is located in Delhi**. The Director General of NCB is mostly an officer from the Indian Police Service (IPS) or the Indian Revenue Service (IRS). **The NCB is outside the ambit of the Right to information Act under Section 24(1) of the RTI act 2005.**

11TH JAN

1. Exercise Sea Dragon-24: Indian Navy's P8I aircraft landed at Guam, a **US island territory in Western Pacific, to participate in Exercise Sea Dragon – 24**. It is an elite multinational maritime exercise that encourages professional exchanges and teamwork among participating navies. **Participating countries**: India, Japan, South Korea, Australia, and the US. The exercise seeks to improve skills in a variety of maritime combat domains through a number of aerial and ground-based tasks, including: Anti-submarine warfare (ASW), Surface warfare, Air defence and Search and rescue (SAR).

2. Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM – AJAY): It was **launched in 2021- 22 by the Ministry of Social Justice & Empowerment as a 100% Centrally Sponsored Scheme**. It is framed after merging the 3 erstwhile schemes –Pradhan Mantri Adarsh Gram Yojana (PMAGY), Special Central Assistance to Scheduled Caste Sub Plan (SCA to SCSP), Babu Jagjivan Ram Chatrawas Yojana (BJRCY).

   Objectives –

- To increase the income of SC population by income generating schemes, skill development andinfrastructure development.
- To reduce the poverty among the SC population and bring them above the poverty lines.
- To increase literacy and enrolment of SCs in schools and higher education institutions.

3 components –Development of SC dominated villages into an 'Adarsh Gram', Grants-in-aid for district/state-level projects for socio-economic betterment of SCs,Construction of hostels in higher educationalinstitutions.

Eligibility Criteria –For income generating and skill development schemes, the SC persons belonging to BPL category are eligible.In case of infrastructure development, the villages having 50% or more SC population are eligible.

3. India Post Payments Bank (IPPB): **Launched on September 1, 2018,** with 100% equity owned by the Government of India. IPPB embarks on its transformative journey with the launch of pilot branches. Pilot branches opened in Ranchi, Jharkhand, and Raipur, Chhattisgarh. **The Vision is of create an accessible, affordable, and trusted bank for all citizens.IPPB adopts the principles of India Stack to drive its operations**. The Aim is to facilitate banking through innovative technology and secure transactions,Implements Biometrics integrated smartphones and biometric devices for seamless transactions, **IPPB delivers simple and affordable banking solutions through intuitive interfaces available in 13 languages**.IPPB is committed to serving the unbanked and underbanked. It **is contributed to the vision of aless cash economy and Digital India.**

4. Vibrant Gujarat Global Summit: The **10th VGGS** is organized by the **Government of Gujarat inpartnership with the Confederation of Indian Industry (CII) and iNDEXTb**, will focus on the theme **"Gateway to the Future,"** bringing together global leaders, policymakers, and industry experts to discuss and explore opportunities for sustainable development, economic growth, and international cooperation. **The journey of the summit began in 2003 and since then it is held every two years.**The summit's primary objective is to promote Gujarat as an attractive investment destination and to facilitate partnerships and collaborations across different sectors.

12TH JAN

1. Zero Defect Zero Effect (ZED): Launched in **October 2016 and revamped in April 2022**, the ZED scheme offers certification for environmentally conscious manufacturing **under three certification levels (gold, silver, and bronze) classified according to 20 performance-based parameters such as quality management, timely delivery, process control, waste management, etc.** The major objectives of the ZED Scheme are:

- To **create proper awareness in MSMEs** about ZED manufacturing and motivate them for the assessment of their enterprise for a ZED rating.
- To drive manufacturing with the adoption of Zero-Defect production processes without impacting theenvironment (Zero Effect).
- To encourage MSMEs to constantly upgrade their quality standards in products and processes.
- To **support the "Make in India" campaign.**
  Currently, the scheme is applicable for manufacturing MSMEs only**. MSME Sustainable (ZED) Certification can be attained in three levels after registering and taking the ZED Pledge:** Certification Level 1: BRONZE, Certification Level 2: SILVER, Certification Level 3: GOLD.

2. Mumbai Trans Harbour Link (MTHL):The PM of India will inaugurate the country's longest bridge over the sea - the 22 km Mumbai Trans Harbour Link (MTHL), officially the Atal Setu Nhava Sheva Sea Link**. The bridge that was first conceptualised six decades ago will cut the travel time between Sewri(Mumbai) and Chirle (Raigad) to under 20 minutes.**It is twin-carriageway six-lane bridge over the ThaneCreek in the Arabian Sea, connecting Sewri in the island city of Mumbai to Chirle in Raigad district on the mainland. **The MTHL includes a 16.5 km sea link and viaducts on land at either end with a cumulativelength of 5.5 km**. While the project's contractors sourced engineers and experts from across the globe, most of the labourers hired were from states such as Bihar, Orissa, Uttar Pradesh, Punjab and Maharashtra. On an average, 5,403 individuals worked daily on the four packages of the project.**The objective of the project is to improve connectivity in the Mumbai Metropolitan Region which comprises the districts of**

Mumbai, Thane, Palghar, and Raigad, and promote the region's economic development.

3. Swachh Survekshan Awards: Surat in Gujarat and Indore in Madhya Pradesh were jointly declared **cleanest cities of the country at the annual clean city awards 2023** of the Union Urban Affairs Ministry. This was for the **seventh year in a row that Indore has been ranked as the cleanest city in India**. It is an annual survey of cleanliness, hygiene and sanitation in cities and towns across India, launched as part of the Swachh Bharat Abhiyan (specifically under SBA-Urban). It **was launched by the Ministry of Housing and Urban Affairs (MoHUA)** with Quality Council of India (QCI) as its implementation partner. T**he SBA was launched (on 2nd October 2014) to make India clean and free of open defecation by 2nd October 2019**. The SBA was split into two - rural (SBA-Gramin, monitored by the Department of Drinking Water and Sanitation under the Ministry of Jal Shakti) and urban (SBA-Urban, overseen by the MoHUA).

SBM-U 2.0 was recently launched on 1st October, 2021, focused on ensuring complete access to sanitation facilities for all. The vision of a Garbage Free India is an initiative under SBM-U 2.0. The first survey was undertaken in 2016. The methodology for measuring cleanliness rests on two main criteria – citizen feedback and field assessment

13TH JAN

1. India's First Dark Sky Park: The Pench Tiger Reserve in Maharashtra has been designated as **India's first Dark Sky Park and the fifth in Asia,** protecting the night sky and preventing light pollution. **The Pench Tiger Reserve (PTR) in Maharashtra is India's first Dark Sky Park within a tiger reserve** for earmarking areas around the park that restrict light pollution for stargazers to access pristine dark skies. Dark Sky Place certification **focuses on lighting policy, dark sky-friendly retrofits, outreach and education, and monitoring the night sky.**

This designation positions PTR as a sanctuary where tourists can witness celestial spectacles, shielded from the intrusion of artificial light pollution**. PTR became the fifth such park in Asia. The certification was given by the International Dark-Sky Association**, a global dark-sky movement to promote astronomy.

2. New Generation Akash missile: It is **surface-to-air new generation missile**. The missile intercepted the high-speed unmanned aerial vehicle at a very low altitude. The test has validated the functioning of the complete weapon system consisting of a missile with an indigenously developed radio frequency seeker, launcher, multi-function radar and command, control and communication system.

This was the first trial of the missile against a live target, which was successfully intercepted and destroyed. **It is a new generation state-of-the-art surface-to-air missile (SAM) for the Indian Air Force (IAF) to destroy high manoeuvring low radar cross section agile aerial threats.** This advanced variant comes with an active electronically scanned array (AESA) multi-function radar that features all three functions - search, track and fire control in one platform. It can **defend an area 10 times better compared to any short-range SAM and is capable of engaging up to 10 targets simultaneously**. It can strike targets up to 40 km as against the earlier variant's maximum range of 30 km.

3. ANUBHAV Awards: It recognizes the contribution made by Retired Officials to Nation building while working in Government and to document the administrative history of India by written narratives. **The ANUBHAV Portal, established in March 2015, serves as an online platform for retiring and retired government employees to share their experiences.** The portal was launched by the **Government of India, Ministry of personnel, Public Grievances & Pensions, Department of Pension & Pensioners' welfare**. It aims to create a database of significant suggestions and work experiences. It channels the human resource of retiring employees for nation building.

Enable Ministries/ Departments to take crucial steps while considering useful and replicable suggestions. It is to participate in the scheme, retiring Central Government, employees/pensioners are required to submit their Anubhav write ups, 8 months prior to retirement and up to 1 year after their retirement. Thereafter, the write- ups will be published after assessment by concerned Ministries/Departments. The published write-ups will be shortlisted for Anubhav Awards and Jury Certificates.

Each ANUBHAV Awardees will be felicitated with a medal and certificate and a Prize of 10,000 rupees, whereas a Jury certificate Winner will be presented with a medal and a certificate. **Till date, 54**

ANUBHAV awards have been conferred from 2016 to 2023.

15TH JAN

1. Indian Army Day: Indian Army Day is celebrated every year on January 15. On the special occasion of Army Day, the officials will perform a parade in the presence of higher dignitaries, and its salute is taken by the Indian Army Chief. **On January 15, 1949, Field Marshal K.M. Cariappa became the first Commander-in-Chief of the Indian Army**, and took over authority from the British Commander-in-Chief General Francis Butcher, and became the first Indian to command the Army in its long, rich history**. From 1949 until 2022, the Army Day parade was organised at the Cariappa Parade Ground in the Delhi Cantonment.** In 2023, the Southern Command was responsible for the parade in Bengaluru. **It was the firsttime the Army Day parade was held outside the country's capital.This year marks the 76th Army Day.** This year, the parade will be held under the command of Army's Central Command, which is headquartered in Lucknow. **The theme of Indian Army Day 2024 is "In Service of the Nation". This year's theme also resembles the motto of the Indian Army, "Service Before Self."**

2. Astra Missile: Astra is a beyond-visual-range (BVR) air-to-air missile designed to be mounted on fighter aircraft. **It is indigenously developed by the Defence Research and Development Organisation (DRDO) and manufactured by Bharat Dynamics Ltd. (BDL) for the Indian Air Force (IAF).The** missile is designed to engage and destroy highly manoeuvring supersonic aircraft.It is the best in its class of weapon systems in the world in the category of air-to-air missiles. The missile is being developed in multiple variantsto meet specific requirements**. The ASTRA Mk-I Weapon System, integrated with SU-30 Mk-I aircraft, is being inducted into the Indian Air Force (IAF).**

3. Makar Sankranti: It marks the Sun changing directions and shifting its trajectory towards the north, therefore, entering the Makara or Capricorn zodiac sign. The day is a marker for a change of season – warmermonths are close and we are moving away from winter, which is seen as a period of inactivity in many ways.**It is said that the northward journey of the sun (Uttarayan) begins on this day.** Unlike most festivals thatfollow the lunar cycle, **Makar Sankranti follows the solar cycle and thus, is celebrated almost on the sameday every ye**ar. Astronomically, the Earth revolves around the Sun in an elliptical orbit that requires about 365 1/4 days to complete, as it continues to rotate on its own axis. The earth's spin axis is tilted with respect to its orbital plane. This, along with its distance from the Sun, determines the change in seasons for life on Earth. For the Northern Hemisphere, the axis points most toward the sun in June (specifically around June 21), and away from the sun around December 21. This corresponds to the Winter and Summer Solstice (solstice is Latin for "the sun stands**"). For the Southern Hemisphere, this is reversed." It is also called as-** Paush Parbon in Bengal,Pongal in Tamil Nadu,Uttarayan in Gujarat,Bhogali Bihu in Assam,Lohri in Punjab and Jammu,Makar Sankramana in Karnataka,Saen-kraat in Kashmir.Khichdi Parwa in parts of Bihar, Jharkhand and Uttar Pradesh.

4. Food Corporation of India (FCI): The FCI is a **statutory body formed by the enactment of the Food Corporation Act, 1964 by the Parliament.**

Objectives: Effective price support operations for safeguarding the interests of the farmers, Distribution of food grains throughout the country for Public Distribution System (PDS), Maintaining satisfactory level of operational and buffer stocks of food grains to ensure National Food Security. **Nodal Ministry: Ministry of Consumer Affairs, Food and Public Distribution.**

16TH JAN

1. One Vehicle, One FASTag' initiative: The National Highways Authority of India suggested taggingusers to complete the Know Your Customer (KYC) process by the end of January 31 to avoid deactivation. **The move aims to enhance the efficiency of the Electronic Toll Collection system and provide seamless movement at the Toll Plazas**. **The new arrangement Of 'One Vehicle, One FASTag' has also been introduced to discourage user behaviour of using single FASTag for multiple vehicles or linking multiple FASTags to a particular vehicle**. The initiative had been taken after the recent reports of multiple FASTagsbeing issued for a particular vehicle and FASTags being issued without KYC in violation of RBI's mandate.

2. FASTag: It is a device that employs Radio Frequency Identification (RFID) technology for making toll payments directly while the vehicle is in motion. It is

a **RFID passive tag used for making toll payments directly from the customers linked prepaid or savings/current account**.It is affixed on the windscreen ofthe vehicle and enables the customer to drive through toll plazas, without stopping for any toll payments. Thetoll fare is directly deducted from the linked account of the customer. It is also vehicle specific and once it isaffixed to a vehicle, it cannot be transferred to another vehicle. **FASTag can be purchased from any of theNational Electronic Toll Collection (NETC) Member Banks**.If a FASTag is linked to the prepaid account,then it needs to be recharged/ topped-up as per the usage of the customer.

3. Exercise Ayutthaya: The IndIa-Thailand Bilateral Exercise is being named as 'Ex-Ayutthaya', which literally translates to 'The Invincible One' or 'Undefeatable'.It symbolises the significance of two of the oldest cities Ayodhya in India and Ayutthaya in Thailand, the historic legacies, rich cultural ties and shared historical narratives dating back to several centuries. **Indigenously built Indian Naval ships Kulish and IN LCU 56 participated in the inaugural edition of the exercise**. With the institution of a Bilateral Exercise, both navies have taken a step towards strengthening operational synergy and progressively increasing the exercise complexity. **The 36th edition of India-Thailand Coordinated Patrol (Indo-Thai CORPAT) was also conducted along with the maiden bilateral exercise.**

4. Bharat Gaurav Scheme: The Ministry of Railways introduced the 'Bharat Gaurav Trains' policyin 2021 to promote India's rich cultural history and amazing historical landmarks through theme-based tourism circuit trains. Trains now have a third segment for tourism as part of the concept. Before, the railways had passenger and cargo segments. The Bharat Gaurav Trains plan will get no funds because it is built on a revenue-generating mechanism. **These trains won't run on a regular schedule like ordinary trains; instead, they'll be more like the IRCTC's Ramayana Express.** It was announced as part of the tourism circuit trains with a theme. These trains are to be operated on theme-based circuits by both private players and the IRCTC. Anyone, including societies, trusts, coalitions, and state governments, can apply to take these trains and run them on theme tourism circuits.

17TH JAN

1. Guru Gobind Singh: He was the **10th and last human Guru of the Sikhs**. Born as Gobind Rai on December 22, 1666, in Patna, Bihar, Guru Gobind Singh was the son of the ninth Guru of Sikhism, Guru TegBahadur. He was renowned as a warrior, a poet, and a prophet. He is fondly remembered by Sikhs as a defenderof the faith and a champion of equality and justice. Among his notable contributions to Sikhism are foundingthe Sikh warrior community called Khalsa in 1699. He introduced the Five Ks, the five articles of faith that Khalsa Sikhs wear at all times. **These are Kesh: uncut hair, Kangha: a wooden comb, Kara: an iron or steel bracelet worn on the wrist, Kirpan: a sword,and Kacchera: short breeches.**T hroughout his life, he engaged in numerous battles against the Mughal Empire and their allies, totalling 21 battles**. He further codified Sikh law, wrote martial poetry and music, and was the reputed author of the Sikh work called the Dasam Granth ("Tenth Volume").**Guru Gobind Singh proclaimed that he was the last of the personal Gurus. From that point forward, **the Sikh Guru was to be the holy book, the Guru Granth Sahib (Sikh Holy Book)**.He was assassinated in 1708, at the age of 41.

2. Yen Denominated Green Bonds: It is REC Limited's eleventh venture into the international bond market and inaugural Yen Bond issuance, which is also the first Yen Green Bonds issuance by any Indian PSU. Time period: 5-year, 5.25-year and 10-year bonds issued at yield of 1.76%, 1.79% and 2.20% respectively. **Itis the largest ever Euro-Yen issuance in South and South East Asia.It is the largest Yen-denominated issuance from India**.Largest non-sovereign Yen-denominated issuance ever from South and South East Asia.T he transaction witnessed interest from both Japanese and international accounts, with the number of orders from each at 50%, international allocation being one of the highest for any other Indian Yen deal .These bonds will be rated Baa3/BBB–/BBB+ (Moody's/Fitch/JCR) and will be listed exclusively on Global Securities Market of India International Exchange (India INX) and NSE IFSC in GIFT City, Gandhinagar, Gujarat.

3. e-SAKSHI Application: It was **launched for revised fund flow procedure under Members of Parliament Local Area Development Scheme (MPLAD) Scheme.**It will bring forth a myriad of benefits, revolutionising the way Members of Parliament engage with and manage development projects in their constituencies. It **would offer convenience and accessibility, allowing MPs to propose, track, and overseethe projects at**

their fingertips. This real-time access enhances decision-making processes, enabling swift responses to emerging needs or issues. The application will streamline the communication between MPs and relevant authorities, facilitating a more efficient exchange of information. **It will promote transparency by providing MPs with instant updates on the status and progress of their proposed projects. It has the features for budget management, ensuring MPs can monitor expenditures.**

4. Chadar Trek: The Chadar Trek or the Zanskar Gorge trek is a **winter trail over the frozen Zanskar River**, which lies in the Indian union territory of Ladakh**. It is traditionally the only means of travel in the area during the harsh winter months.** The trail has become popular with foreign adventure tourists.

18TH JAN

1. Asian Buddhist Conference for Peace (ABCP): It was **founded in 1970 in Ulaanbaatar, Mongolia**, as a voluntary movement of followers of Buddhism with both monastic (monks) and lay members**. Its aim is to bring together the efforts of Buddhists in support of consolidating universal peace, harmony, and cooperation among people in Asia.** It is currently headquartered at the Ganden Tegchenling Monastery in Ulaanbaatar, Mongolia, and the Supreme Head of Mongolian Buddhists is the ABCP President. **The roots of founding of ABCP lay in the Cold War politics of peace movements,** and consolidation of allies, and building popular outreach among the masses through various organisations.

Most Venerable Gabji Samaagiin Gombojav, Khambo Lama of Mongolia, Venerable J. Gomboyev from Buriat, Khambo Lama of the former Soviet Union, Venerable Kushok Bakula Rinpoche from India, and Buddhist leaders from Sri Lanka and Nepal came together and officially founded the Asian Buddhist Conference for Peace (ABCP) in 1970 with a permanent headquarters in Ulaanbaatar. It drew active participation from Mongolia, Japan, India, Laos, Vietnam, Cambodia, Bhutan, Russian Far East, Sri Lanka, Thailand, and other regional countries. **ABCP was registered as an observer to the UN's Economic and Social Council in 1988 in recognition of its contribution to the well-being of humanity.**

2. Chang'e 6 Mission: The Chang'e 6 mission is a planned lander designed to return samples from the lunar south pole.The mission aims to land on the Moon, collect samples from the lunar surface, and return them to Earth. This process will contribute crucial data to unravel the Moon's geological mysteries. **Representing the first attempt to retrieve samples from the far side of the Moon, Chang'e 6 is set to bring back up to two kilograms of lunar samples, adopting a configuration similar to the successful Chang'e 5 mission**. The mission involves international collaboration, with payloads from the European SpaceAgency (ESA) and the French space agency CNES.

ESA contributes a lunar surface ion tester, while CNES provides equipment for measuring radon gas and its decay products. Additionally, an Italian laser corner reflector for radar instrument calibration and Pakistan's ICUBE-Q CubeSat will be part of the mission.

Chang'e 6 will consist of both a lander and a rover. The lander will touch down on the lunar surface, whilethe rover will explore specific regions, conduct experiments, and aid in the sample collection process. The returned samples will be made available to the global scientific community for study.

3. Thiruvalluvar Day: It is usu**ally observed either on January 15 or 16 in Tamil Nadu and is a partof Pongal celebrations**. He was a poet and philosopher, is regarded as a cultural icon by Tamils. **He is fondly referred to as Valluvar by Tamils. His most popular work is Thirukkural,** a collection of couplets on ethics, politics, economy and love. Thiruvalluvar's primary work Thirukkural contains 1330 couplets (kurals)that are divided into 133 sections of 10 couplets each. The t**ext is divided into three parts with teachings on dharma, artha, and kama (virtue, wealth and love)**.Each section covers a wide range of topics and impartsmoral, ethical, and practical guidance to the readers. The couplets are composed in a concise and poetic form, making them easily memorable and quotable.

19TH JAN

1. National Essential Diagnostics List: The NEDL lists the essential and most basic tests that should be available at various levels of healthcare facilities in the country, including at the village level, in sub-health

centres, health and wellness centres, and primary health centres. **The ICMR had released the first NEDL in 2019 to make the availability of diagnostics an essential component of the healthcare system.** The list includes general laboratory tests for a broad range of **common conditions for the diagnosis of communicable and non-communicable diseases,** disease-specific tests for HIV, hepatitis, tuberculosis, dengue, malaria, andarea-endemic diseases. **India is the first country to release the NEDL.** Since 2018, the World Health Organisation (WHO) recommends the development and implementation of a National Essential Diagnostics List (NEDL) to facilitate the availability of In-Vitro Diagnostics (IVDs) across the various tiers of the healthcare pyramid, facilities with or without a laboratory onsite.

2. Pradhan Mantri Rashtriya Bal Puraskar: The Government conducts the prestigious Pradhan Mantri Rashtriya Bal Puraskar every year to give due recognition to children with exceptional abilities, who have achieved extraordinary recognition in the fields of **Bravery, Sports, Social Service, Science & Technology, Environment and others.**

Age Limit: From 5 years to 18 years (as on 31st August of respective year).**It is given under two categories-**

Bal Shakti Puraskar To be given as recognition to children with exceptional abilities and outstanding achievement in the fields of innovation, scholastic, sports, arts & culture, social service and bravery.

Bal Kalyan Puraskar-To individuals who have made an outstanding contribution towards service for children in the field of **Child Development, Child Protection and Child Welfare for not less than 7 years**. To institutions who have done exceptional work for the cause of children in any field of child welfare.

A **National Selection Committee, headed by Minister or Minster of state, Women and Child Development Ministry will finalize the names of the awardees**. These Awards are given by the President in a special ceremony held in January every year. The awards carry a Cash prize of one lakh rupees, a medal and a certificate.

3. Boeing Sukanya Programme: **Prime Minister Narendra Modi successfully launched Boeing's India Engineering and Technology Centre (BIETC) in Bengaluru**, signifying a significant milestone. BIETC is located in the Hightech Defence and Aerospace Park in Bengaluru and is strategically positioned to foster cooperation with startups, private enterprises, and government entities. **It aims to produce over 3,000 skilled engineers and drive global growth in the aerospace industry**. The campus is equipped with advanced technologies for research and development in areas such as cloud computing, artificial intelligence, and additive manufacturing. **Boeing Sukanya Programme" was also launched to promote diversity in the aviation industry.** This initiative provides opportunities for skill enhancement in STEM fields and encouragesmore women to pursue careers in aviation. It includes the establishment of STEM laboratories and scholarshipsfor aspiring female pilots.

20TH JAN

1. SLIM(**Smart Lander for Investigating Moon):** Japan recently landed a spacecraft called **SLIM (Smart Lander for Investigating Moon) on the lunar surface**, becoming the **5th country after the SovietUnion, the US, China and India** to achieve a soft landing on the moon.

SLIM was **launched by the Japan Aerospace Exploration Agency (JAXA) in September 2023** aboard the H-IIA rocket from the Tanegashima spaceport. **It aims to demonstrate precision landing within 100 metresthrough new technologies**. It also carried two mini robotic rovers developed by Sony and Tomy for reconnaissance**. The mission aims to revitalise Japan's space program which suffered setbacks like the failure of the flagship H3 rocket in March 2023.** The mission aims to observe X-rays coming from deep space and to identify their wavelengths with unprecedented precision. It will **use state-of-the-art spectroscopy to measure changes in the brightness of celestial objects at different wavelengths**. It detects X-rays with energies ranging from 400 to 12,000 electron volts. (For comparison, the energy of visible light is 2 to 3 electron volts. This range will provide astrophysicists with new information about some of the universe's hottest regions, largest structures, and objects with the strongest gravity.

2. Central Consumer Protection Authority: The Central Consumer Protection Authority issues notice to Amazon for sale of sweets under misleading name of Shri Ram Mandir Ayodhya Prasad. **As providedin the Consumer Protection Act, 2019, the Central Consumer Protection Authority (CCPA) has been**

established w.e.f. 24th July, 2020. The objective is to promote, protect and enforce the rights of consumers as a class. It will have a Chief Commissioner as head, and only two other commissioners as members — one of whom will deal with matters relating to goods while the other will look into cases relating to services.

It will be empowered:

- To conduct investigations into violation of consumer rights and institute complaints / prosecution,
- Order recall of unsafe goods and services,
- Order discontinuation of unfair trade practices and misleading advertisements,
- Impose penalties on manufacturers/endorsers/publishers of misleading advertisements.
- **Nodal Ministry**: Ministry of Consumer Affairs, Food & Public Distribution.

3. Khelo India Youth Games - 2023: Tamil Nadu is hosting the sixth edition of the Khelo India Youth Games. This is the first time that Khelo India Youth Games are being held in South India. **The Games will be played across four cities of Tamil Nadu, namely Chennai, Madurai, Trichy and Coimbatore from 19th to 31st January 2024**.This edition of Khelo India Youth Games will see participation from over 5600 athletes with over 275 competitive events across 26 sports disciplines and 1 demo sport. Silambam, a traditional sport of Tamil Nadu, is being introduced as a demo sport for the first time in the history of Khelo India Youth Games and the sport of Squash shall be organised for the first time in this edition of the Games.

4. The Mascot: 'Veera Mangai'. Rani Velu Nachiyar, fondly known as Veera Mangai, was an Indian queen who waged a war against British colonial rule.The logo: The figure of poet Thiruvalluvar.

Objective: To revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country and establish India as a great sporting nation.

It is an annual event. The **first edition was held in 2018 in Delhi.Organised by:** Ministry of Youth Affairs & Sports.

22ND JAN

1. Exercise "Cyclone - I": The first ever joint exercise between the **special forces of the Indian Army and the Egyptian Army named "Exercise Cyclone-I" is in progress at Jaisalmer in Rajasthan**. It engages both the contingents to advance special forces skills such as Sniping, Combat Free Fall, Reconnaissance, Surveillance & Target Designation, sharing of information on weapons, equipment, innovations, tactics, techniques & procedures. **Egypt is the eighth country in the Middle East to enter a defence agreement with India, after Iran, the UAE, Qatar, Saudi Arabia, Oman, Israel, and Jordan.**

2. Exercise KHANJAR: The **11th edition of India-Kyrgyzstan Joint Special Forces Exercise KHANJAR has commenced at the Special Forces Training School in Bakloh, Himachal Pradesh**. It is an annual event conducted alternatively in both the countries. **Aim of the exercise is to exchange experiences and best practices in Counter Terrorism and Special Forces Operations in Built-up Area and Mountainous Terrain** under Chapter VII of United Nations Charter. The exercise will emphasise on developing Special Forces skills, advanced techniques of insertion and extraction.

3. Arogya Maitri cube: It is a revolutionary mobile hospital equipped with cutting-edge technology. **This cube is a part of the broader initiative named "Project BHISHM" – Bharat Health Initiative for Sahyog, Hita and Maitri.** It is tailored to treat up to 200 casualties, emphasising rapid response and comprehensive care. The Aid Cube is equipped with several innovative tools designed to enhance disaster response and medical support during emergencies. **It integrates Artificial Intelligence (AI) and data analytics to facilitate effective coordination, real-time monitoring, and efficient management of medical services in the field**. The whole unit contains 72 easily transportable components that can be conveniently carried by hand, cycle, or even drone, providing unmatched flexibility. In the face of mass casualty incidents (MCIs), where requirements range from basic aid to advanced medical and surgical care, the Aid Cube stands out with its ability to be deployed within an astonishing 12 minutes. These cubes are **robust, waterproof, and light, designed for various configurations, making them ideal for diverse emergency scenarios.** From airdrops to ground transportation, the cube can be rapidly deployed anywhere, ensuring immediate response capability.It has advanced medical equipment, RFID-tagged for efficient repacking and redeployment .The state-of-the-art BHISHM software system integrated into a

provided tablet allows operators to locate items quickly, monitor their usage and expiry, and ensure readiness for subsequent deployments.

4. Havisure vaccine: The **Indian Immunologicals Ltd (IIL) a wholly owned subsidiary of National Dairy Development Board (NDDB) launched India's first indigenously developed Hepatitis A vaccine 'Havisure' in Hyderabad**. It is a two-dose vaccine — first dose administered at above 12 months of age andthe second at least six months after the first dose. **The vaccine is recommended for children as part of theroutine immunisation** as well as for individuals at risk of exposure or travel to the regions with high hepatitisA prevalence. In addition to this people with occupational risk of infection and suffering from chronic liver diseases also require Hepatitis A vaccination.

23ᴿᴰ JAN

1. FAO's Committee on Fisheries: India has been elected as the **First Vice Chair of the Food and Agriculture Organization's Committee on Fisheries (COFI) Sub-Committee on Fisheries Management**.It is a subsidiary body of the Food and Agriculture Organization. It was **established by the FAO Conference in 1965**. It addresses issues on international fishing and aquaculture, providing policy guidance on fisheries management, recognising global challenges, and promoting collective solutions to ensure the environmental, economic and social sustainability of the fishing industry. The grouping makes recommendations to the FAOCouncil or its Director-General. It **has also been used as a forum in which global agreements and non- binding instruments were negotiated**. The Committee also reviews specific matters relating to fisheries andaquaculture referred to it by the Council **The Sub-Committee on Fisheries Management is a new sub- group formed under the COFI in 2022, during the 35th session of the FAO Committee on Fisheries (COFI), held in Rome**. It will work closely with the two other COFI sub-committees, the Sub-Committee onAquaculture and the Sub-Committee on Fish Trade.

2. Subhas Chandra Bose: He was born on January 23, 1897, in Cuttack, Orissa.In 1920, he passed the civil service examination, but in April 1921, after hearing of the nationalist turmoil in India, he resigned from his position. Bose then joined the Indian National Congress and actively participated in the Indian independence movement. **Bose was elected president of the Indian National Congress for two consecutive terms but resigned from the post following ideological conflicts with Mahatma Gandhi**. In **1939, he formed the Forward Bloc**, an organization aimed at unifying all the anti-British forces in India. At the outsetof the Second World War, he fled from India and traveled to the Soviet Union, Germany and Japan, seeking an alliance with the aim of attacking the British in India. **With Japanese assistance, he reorganized and later led the Indian National Army, formed from Indian prisoners-of-war and plantation workers from Malaya, Singapore, and other parts of Southeast Asia, against British forces.** Also with Japanese monetary, political, diplomatic, and military assistance, he formed the Azad Hind Government in exile.

3. Pradhan Mantri Suryodaya Yojana: PM Modi announced the 'Pradhan Mantri Suryodaya Yojana', a government scheme under which one crore households will get rooftop solar power systems. **This scheme is a new attempt to help reach the target of 40 GW rooftop solar capacity.** It will involve installing solar power systems at rooftops for residential consumers. **The scheme would help not only reduce electricity bills of the poor and middle class, but also push India's goal of becoming self-reliant in the energy sector**.India's current solar capacity: Installed capacity- According to the Ministry of New and Renewable Energy, solar power installed capacity in India has reached around **73.31 GW as of December 2023**.Meanwhile, rooftop solar installed capacity is around 11.08 GW as of December 2023**. Overall, solar power has a major share in the country's current renewable energy capacity, which stands at around 180 GW.**

High performing states: In terms of total solar capacity, Rajasthan is at the top with 18.7 GW. Gujarat is at the second position with 10.5 GW. When it comes to rooftop solar capacity, **Gujarat tops the list with 2.8 GW, followed by Maharashtra by 1.7 GW**

24ᵀᴴ JAN

1. Bharat Ratna: Karpoori Thakur, a prominent Gandhian socialist leader and former Bihar chief minister will be awarded the 'Bharat Ratna' posthumously. It is the **highest civilian Award of the country**which was instituted in the year 1954.Any person without distinction of race, occupation, position or sex is eligible for these awards. **Though usually conferred on India-born citizens, the Bharat**

Ratna has been awarded to one naturalised citizen, Mother Teresa, and to two non-Indians, Pakistan national Khan Abdul Ghaffar Khan and former South African President Nelson Mandela. The original statutes did notprovide for posthumous awards but were amended in 1955 to permit them. **Former Prime Minister Lal Bahadur Shastri became the first individual to be honoured posthumously.** It is awarded in recognition of exceptional service/performance of the highest order in any field of human endeavour.The recommendations for Bharat Ratna are made by the Prime Minister himself to the President and no formal recommendations for this are necessary. The number of annual awards is restricted to a maximum of three ina particular year. **On conferment of the award, the recipient receives a Sanad (certificate) signed by the President and a medallion. The award does not carry any monetary grant**.

2. Design-Linked Incentive scheme: It **aims to offer financial incentives as well as design infrastructure support across various stages of development and deployment of semiconductor design(s) for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs)**, Systems & IP Cores and semiconductorlinked design(s) over a period of 5 years.The scheme shall initially be for three years from 01-01-2022. **The scheme has three components-**

Chip Design infrastructure support: Under this C-**DAC will set up the India Chip Centre** to host the state- of-the-art design infrastructure (viz. EDA Tools, IP Cores and support for MPW (Multi Project Wafer fabrication) & post-silicon validation) and facilitate its access to supported companies.

Product Design Linked Incentive: a reimbursement of up to 50% of the eligible expenditure subject to a ceiling of 15 Crore rupees per application will be provided as fiscal support to the approved applicants

Deployment Linked Incentive: Under this an incentive of 6% to 4% of net sales turnover over 5 years subjectto a ceiling of ₹30 Crore per application will be provided to approved applicants.

Nodal Agency: C-DAC (Centre for Development of Advanced Computing).

3. Insat-3DS: It is a **collaborative effort between ISRO and the India Meteorological Organisation (IMD)**.It is part of a series of climate observatory satellites aimed at enhancing climate services. Comprising three dedicated Earth observation satellites, including INSAT-3D and INSAT-3DR already in orbit. It will be **launched by using the Geosynchronous Launch Vehicle (GSLV-F14).**

It is an **advanced meteorological satellite of India** configured with an imaging System and an Atmospheric Sounder. The **significant improvements incorporated in INSAT-3DR are:**

- Imaging in Middle Infrared band to provide night time pictures of low clouds and fog
- Imaging in two Thermal Infrared bands for estimation of Sea Surface Temperature (SST) with betteraccuracy
- Higher Spatial Resolution in the Visible and Thermal Infrared bands
- **Payloads**: INSAT-3DR carries a multi spectral Imager, 19 channel Sounder, Data Relay Transponderand Search and Rescue Transponder

25TH JAN

1. PM - YASASVI Scheme: **Ministry of Social Justice and Empowerment is implementing an umbrella scheme namely PM Young Achievers Scholarship Award Scheme for Vibrant India (PM – YASASVI) for OBC and others**. This is an umbrella Scheme formulated for OBC, EBC and DNT Students by clubbing the existing Scholarship Schemes and Hostel Scheme**. It aims to award scholarships to eligible candidates belonging to Other Backward Class (OBC), Economically Backward Class (EBC), and De-Notified, Nomadic & Semi Nomadic Tribes (DNT/SNT) categories.** National Testing Agency has been entrusted with the responsibility of conducting the YASASVI ENTRANCE TEST. Students of Class IX will be provided with financial benefit of Rs.75,000 per year. Students of Class XI will be provided with financialbenefit of Rs.1,25,000 per year.

A candidate must fall in one of the following categories: OBC/ EBC/ DNT SAR/ NT/ SNT. Students studying in Class IX and Class XI identified Schools across India. The yearly income of the applicant's parentsshould not exceed Rs.2.5 lakh. The award of scholarships is at two levels: For students who are studying in Class IX and For students who are studying in Class XI.

2. National Voters' Day (NVD): It has been **celebrated on January 25 every year since 2011, across the**

country to mark the foundation day of the Election Commission of India, i.e. 25th January 1950.Themain purpose of the NVD celebration is to create electoral awareness amongst citizens and encourage them to participate in the electoral process.

Dedicated to the voters of the country, the National Voters' Day is also used to facilitate enrolment of voters, especially the newly eligible young voters. New voters are felicitated and handed over their ElectorPhoto Identity Card (EPIC) in the NVD functions held across the country. NVD is celebrated at the national, state, district, constituency and polling booth levels, which makes it one of the largest celebrations in the country. **NVD 2024 theme - 'Nothing Like Voting, I Vote For sure'.On January 25, 2024, the Election Commission of India celebrates its 75th year of service to the Nation.**

3. Disease X: It is referred to as a hypothetical pathogen or threat that can cause a major pandemic in future.It could be a new agent, a virus, a bacterium, or a fungus without any known treatment**. The term coined by scientists and the World Health Organization could be any of the 25 families of viruses that have the capability to cause illness in people.** Disease X was included in the WHO's updated Blueprint list of diseasesback in 2018. Scientists are of the opinion that **Disease X could be 20 times more deadly than SARS-Covidvirus that caused pandemic recently**. It represents an illness which is currently unknown but could pose a serious microbial threat to humans in the future.

4. Halwa Ceremony: It is a tradition performed every year ahead of the budget and signifies the official initiation of the printing process of various documents related to the budget. It involves **the preparation of the traditional dessert 'halwa' in a massive kadhai (wok), which is then served to allthose who are associated with budget making**.It serves as a formal 'send-off' for the ministry officials and staff engaged in preparing the Union government's annual financial statement. Subsequently, the top officials involved with the budget enter a designated 'lock-in' period, isolating themselves within the ministry premisesand cutting off from their families to preserve the confidentiality surrounding the final budget document.

28TH JAN

1. BrahMos: It is a supersonic cruise missile that can be launched from land, sea, and air. It has been **developed by Brahmos Aerospace, a joint venture of India and Russia.** It is named after the rivers **Brahmaputra (India) and Moskva (Russia).**It is a two-stage missile with a solid propellant booster engine as its first stage, which brings it to supersonic speed and then gets separated. The liquid ramjet, or second stage then takes the missile closer to 3 Mach speed in the cruise phase. It is **one of the fastest cruise missiles currently operationally deployed, with a speed of Mach 2.8, which is nearly three times more than the speed of sound**. The extended-range variant of the missile can strike land and sea targets at a maximum rangeof 400 to 500 kilometers with supersonic speed all throughout the flight. It operates on the "Fire and Forgets" principle. It is equipped with stealth technology designed to make it less visible to radar and other detection methods. It has an **inertial navigation system (INS) for use against ship targets, and an INS/Global Positioning System for use against land targets.**

2. Houthis: The Houthis, officially known as Ansar Allah (Partisans of God), are an armed religious and political movement in Yemen. **Houthis are Zaydi Shiites, or Zaydiyyah. Shiite Muslims are the minoritycommunity in the Islamic world, and Zaydis are a minority of Shiites, significantly different in doctrineand beliefs from the Shiites who dominate in Iran, Iraq, and elsewhere**. They are a minority in Yemen, which is predominantly Sunni Muslim, but they are a significant one, numbering in the hundreds of thousandsand making up as much as a third of the overall population. Its **members advocate regional autonomy for Zaidis in northern Yemen. They have been fighting Yemen's Sunni-majority government since 2004**. The Houthis took over the Yemeni capital Sanaa in September 2014 and seized control over much of north Yemen by 2016.

The **Houthi movement began as an effort to maintain tribal autonomy in northern Yemen and protest Western influence in the Middle East**. Today, the Houthis seek a greater role in the Yemeni government and continue to advocate for Zaidi minority interests. The **movement is known for its virulently anti-Americanand anti-Semitic rhetoric. Several of the group's leaders have been designated as terrorists by the United States**.

3. Neglected Tropical Diseases (NTDs): **World Neglected Tropical Diseases Day is observed everyyear on January 30**. NTDs are a diverse group of 20 conditions/diseases that are mainly prevalent in tropicalareas, where they thrive among people living in impoverished communities. They are caused by a variety of pathogens (including viruses, bacteria, parasites, fungi, and toxins) and are associated with devastating health, social, and economic consequences. **These include Guinea worm, Chikungunya, Dengue, Kala Azar (Visceral Leishmaniasis), and Elephantiasis (Lymphatic Filariasis), among others, and India is home toabout 12 NTDs**. The WHO estimates that NTDs affect more than 1 billion people, while the number of people requiring NTD interventions (both preventive and curative) is 1.6 billion. The epidemiology of NTDs is complex and often related to environmental conditions. Many of **them are vector-borne, have animal reservoirs, and are associated with complex life cycles.** All these factors make their public-health control challenging.

29TH JAN

1. Directorate of Revenue Intelligence (DRI): It is the **premier intelligence and enforcement agency of the Government of India on anti-smuggling matters**. It works under the Central Board of IndirectTaxes and Customs, Ministry of Finance, Government of India since 1957.

Functions:

- Collection of intelligence about **smuggling of contraband goods, narcotics, under-invoicing**, etc.
- Analysis and dissemination of such intelligence to the field formations for action
- Keeping watch over important seizures and investigation cases. Associating with or taking over theinvestigations which warrant specialised handling by the Directorate.
- Guiding important investigation/prosecution cases.
- To keep statistics of seizures, and prices/rates etc. and to **study and suggest remedies for loopholes in law and procedures to combat smuggling. Headquarters in New Delhi.**

2. Hazrat Nizamuddin Aulia Dargah: It is located in Delhi's Nizamuddin West area. It is the **mausoleum of the famous saint, Nizamuddin Auliya.** Built in the 14th Century C.E. It consists of a square chamber surrounded by verandas, which are pierced by arched openings. The dome is ornamented by verticalstripes of black marble and is crowned by a lotus-cresting. **Inside the dargah complex, one can find the tombs of Nizamuddin Auliya's saints: Jahanara Begum, Shah Jahan's favourite daughter, and poet Amir Khusru.** On the north-eastern side, there is a 16th-century tomb of Atgah Khan, who was a powerful minister in Emperor Akbar's court. **The site is also known for its evening qawwali devotional music sessions.**

3. All India Survey on Higher Education (AISHE): The Ministry of Education, Government of India, released the All-India Survey on Higher Education (AISHE) 2021-2022 recently. **The AISHE report has been published since 2011**.The aim is to portray the status of higher education in the country.The surveycovers all the institutions in the country engaged in imparting higher education. **Indicators of educational development such as Institution Density, Gross Enrolment Ratio, Pupil-teacher ratio, Gender Parity Index, Per Student Expenditure will also be calculated from the data collected through AISHE.** For thepurpose of this survey, Higher Education is defined as education that is obtained after completing 12 years ofstudents schooling or equivalent.

Highlights of AISHE 2021-22:

- In 2021-22, the overall gross enrolment ratio (GER) in higher education for the age group 18-23 years increased to 28.4%, from 27.3%in 2020- 21 and 23.7% in 2014- 15, the base year.
- **Female GER increased to 28.7% in 2021-22 from 27.9 in 2020-21** and 22.9 percent in 2014-15.
- The GER of SC and ST has also increased by around 2%. The enrolment of OBC students has also increased.
- About 78.9 per cent of the total students are enrolled in undergraduate level courses and 12.1 per centare enrolled in postgraduate level courses.
- **Among disciplines at the undergraduate-level enrolment is highest in Arts (34.2%), followed by science (14.8%), Commerce (13.3%), and Engineering and Technology (11.8%).**
- Among streams at postgraduate-level in AISHE 2021-22, maximum students are enrolled in SocialScience (21.1%), followed by science (14.7).
- Government Universities constituting 58.6% of total Universities, contribute 73.7% of total

enrolment, and Private Universities account for 26.3% of total enrolment.

- As per the survey, the total number of faculty/teachers in 2021-22 is 15.98 lakh, of which about 56.6%are male and 43.4% are female

30TH JAN

1. INS Sumitra: The Indian Navy's INS Sumitra recently rescued fishermen hijacked by pirates along the east coast of Somalia and the Gulf of Aden. It is **the fourth and last Saryu-class patrol vessel of the Indian Navy**. It is based on an indigenous design and constructed by Goa Shipyard Limited. It **was commissioned in 2014 and is based in Chennai under the Eastern Naval Command.** The primary role of the ship is to undertake surveillance of the country's exclusive economic zone (EEZ) besides other operational tasks such as anti-piracy patrols, fleet support operations, maritime security of offshore assets, and escort operations.

2. Ratle Hydro Electric Project: The government recently announced diversion of Chenab river water through diversion tunnels to expedite the 850-MW Ratle Hydro Electric Project in Jammu & Kashmir. It is **an 850 MW run-of-river hydroelectric power project being built on the Chenab River in the Kishtwar District of Jammu and Kashmir**. The project is being **developed by Ratle Hydroelectric Power Corporation (RHPCL), which was formed as a joint venture (JV) between Jammu & Kashmir State Power Development Corporation (JKSPDC) and India's state-owned National Hydroelectric Power Corporation (NHPC).**The project comprises a 133-metre-tall and 194.8-meter-long concrete gravity dam, a diversion dam, and an underground powerhouse on the right bank of the river.

3. Chenab River: It is a major river of India and Pakistan. It is **formed by the confluence of two streams, Chandra and Bhaga, at Tandi in the upper Himalayas in the Lahaul and Spiti Districts of Himachal Pradesh**. In its upper reaches, it is also known as the Chandrabhaga. It is a tributary of the Indus River. It **flows west through Jammu and Kashmir union territory, between the steep cliffs of the Siwalik Range (south) and the Lesser Himalayas (north**).Turning southwest, it continues into Pakistan, descending from the uplands into the broad alluvial lowlands of Punjab province. After receiving the Jhelum River near Trimmu, the Chenab empties into the Sutlej River, a tributary of the Indus River. Its total length is about 974 km, and it feeds several irrigation canals. **The tributaries of the Chenab River include Miyar Nalla, Sohal, Thirot, Bhut Nalla, Marusudar, and Lidrari.**

4. Exercise Sada Tanseeq: It is the **inaugural edition of India-Saudi Arabia Joint Military Exercise 'SADA TANSEEQ' commenced at Mahajan, Rajasthan.** Aim of the **Exercise is to train troops of both sides for Joint Operations in Semi Desert terrain under Chapter VII of the United Nations Charter**. The Exercise will enable both the sides to share their best practices in the tactics, techniques and procedures of conducting operations in sub-conventional domains.

5. Economic Community of West African States: Recently, the military regimes in Burkina Faso, Mali and Niger announced their immediate withdrawal from the ECOWAS. It is the **regional group established in 1975 through the Lagos Treaty**. The vision is the creation of a "borderless region governed in accordance with the principles of democracy, rule of law. **Members: Benin, Cape Verde, Côte d' Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Nigeria, Sierra Leone, Senegal and Togo.**

Headquarters: Abuja, Nigeria. ECOWAS' larger aims are to have a single common currency and create a single, large trading bloc in areas of industry, transport, telecommunications, energy, financial issues, and social and cultural matters. Along with the goals of economic cooperation, it has attempted to quell military conflicts in the region.

31ST JAN

1. H-1B Visa: It is a **non-immigrant visa that allows US companies to employ foreign workers in speciality occupations that require theoretical or technical expertise for a specified period.** Occupationsthat qualify for the H-1B visa are typically in fields such as technology, finance, engineering, architecture, ormore.

Eligibility: A valid job offer from a U.S. employer for a role that requires speciality knowledge

Proof of a bachelor's degree or equivalent experience in that field.

- The US employer must show that there is a lack of qualified U.S. applicants for the role.
- **The annual H-1B visa limit is 85,000**. There are 65,000 regular H-1B visas each year, andan additional 20,000 visas are reserved for

applicants with advanced degrees.

- **Some exceptions to the H-1B visa cap include people entering the U.S. to work in higher education or affiliated research/non-profit organisations.**
- Applicants are selected for adjudication via a lottery system.

Features: The **H-1B visa is valid for three years and can be extended one time for an additional three years. In general, the H-1B is valid for a maximum of six years.**

- There is no limit to the number of H1-B Visas that an individual can have in his or her lifetime.
- **H1-B holders can seek a Green Card or Lawful Permanent Residency for themselves and their families**.
- If the H1-B holder is changing jobs, he or she must reapply for a new visa.

2. Corruption Perception Index (CPI): It is an **annual index released by Transparency International, a global civil society organisation.** Since its inception in 1995, the Corruption Perceptions Index has become the leading global indicator of public sector corruption.

The CPI ranks 180 countries and territories by their perceived levels of public sector corruption on a scale of zero (highly corrupt) to 100 (very clean). It uses data from 13 external sources, including the **World Bank, World Economic Forum,** private risk

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and consulting companies, think tanks and others. The scores reflect the views of experts and business people, not the public.

Highlights of CPI 2023:

- CPI-2023 results show that most countries have made little to no progress in tackling public sectorcorruption.
- CPI global average score remains unchanged at 43 for the twelfth year in a row.
- **Denmark topped the index for the sixth consecutive year.**
- **Somalia was ranked last**, other countries occupying the bottom spots included: Venezuela, Syria,South Sudan and Yemen.
- India, Maldives, Kazakhstan, and Lesotho to ranked 93.In 2022, India was ranked at 85.
- **Pakistan**: rank of 133 and **China**: 76.

3. Bharat 5G Portal: The **Ministry of Communications (MoC), launched the "Bharat 5G Portal- anintegrated portal" on the sidelines of 'Bharat Telecom 2024**.It is a comprehensive platform serving the interests of startups, industry and academia in quantum, 6G, IPR and 5G domains. It **also features the Future Tech-Experts registration portal in collaboration with PANIIT USA, aimed to help and advise the Indian Telecom ecosystem to advance the goal of Atmanirbhar Bharat.** It acts as a one-stop solution for all quantum, IPR, PoCs/Pilot, 5G and 6G-related works capturing academic R&D developments, industry standards, OEMs, startups/MSM

PLACES IN NEWS

1. Nicaragua (Capital: Managua):
- Recently a Nicaragua-bound plane carrying Indians was grounded in France over concerns of "human trafficking".
- **Political features:**
  - It is a **country in Central America.**
  - **Bordering nations**: Honduras (north) and Costa Rica (south).
  - **Bordering water bodies:** Caribbean Sea (east) and Pacific Ocean (west).
- **Geographical features:**
  - **Major mountains:** Yolaina, Amerrique, Huapí.
  - **Major volcanoes**: Momotombo, San Cristóbal, Concepción.
  - **Major rivers**: Negro, Estero Real, Tamarindo.
  - **Major lakes**: Nicaragua, Lake Tiscapa etc.
  - **Highest point:** Mogotón Peak (2,103 metres).

2. Denmark (Capital: Copenhagen):
- Denmark's Queen Margrethe II, Europe's longest-reigning living monarch, announced plans to abdicate after 52 years.
- Political Boundaries
- Country in **Northern Europe**, made up of **Jutland peninsula** and more than 400 islands in North Sea.
- **Bordering nations**: Germany, Sweden and Norway.
- **Bordering water bodies:** North Sea and Baltic Sea.
- **Geographical features**
- **Highest Point**: Yding Forest Hill.
- **Largest lake**: Lake Arreso.
- **Longest River**: Gudena.

3. Iran (Capital: Tehran):
- India condemned the twin explosions that took place in Kerman city of Iran.
- **Political features:**
- Iran is a country in the **Middle East or West Asia**.
- **Bordering nations**: Afghanistan, Pakistan, Turkmenistan, Azerbaijan, Armenia, Turkey, Iraq.
- **Bordering water bodies**: Caspian Sea, Gulf of Oman and Persian Gulf.
- **Geographical features:**
- **Major mountain ranges**: Zagros, Elburz, Caucasus.
- **Highest Point:** Mount Damavand (Dormant stratovolcano)
- **Major deserts**: Dasht-e-Kavir and Dasht-e- Lut
- **Major lakes:** Lake Urmia, Gahar Lake

4. Mauritius (Capital: Port Louis):
- Cabinet approved MoU between Indian Space Research Organisation and Mauritius Research and

Innovation Council on development of Joint Small Satellite.

- **Political features**
- Island country in **Indian Ocean, located east of Madagascar**.
- Mauritius claims sovereignty over Chagos Archipelago (including Diego Garcia), although this claim is disputed by Britain.
- **Geographical features**
- **Major Rivers**: Grand River South East and Black River.
- **Major Lake**: Grand Bassin and Trou Kanaka.
- **Highest Point**: Piton de la Petite Rivière Noire.

5. Saudi Arabia (Capital: Riyadh):
- India and Saudi Arabia signed an agreement on annual Haj pilgrimage.
- **Political features:**
- Located in the **Middle East or West Asia**.
- It is the **largest country in the Arabian Peninsula**.
- **Bordering nations:** Jordan, Kuwait, Iraq, UAE, Qatar, Oman and Yemen
- **Bordering water bodies**: Persian Gulf, Red Sea
- Geographical features:
  - **Deserts**: Rub Al-Khali (world's largest continuous sand desert – part of larger Arabian Desert), Al Nafud, etc.
  - **Highest Mountain Peak:** Jabal Sawda
  - Largest country with no permanent rivers.



6. Timor Leste (Capital: Dili):
- Indian Prime Minister held a bilateral meeting with the President of Timor-Leste.
- **Political features**
  - Island country of South-East Asia.
  - Bounded by Timor Sea (southeast), Wetar Strait (north), Ombai Strait (northwest) and western Timor (part of Indonesian province of East Nusa Tenggara) to southwest.
- **Geographical features**
  - Climate: Dry tropical climate and moderate rainfall.
  - Highest Point: Mount Tatamailau

7. Ecuador (Capital: Quito):
- Ecuador has declared nationwide emergency following escape of high-profile prisoner.
- **Political Features**
  - South American country, opening to the Pacific Ocean in its west.
  - Bordered by **Columbia (North) and Peru (South).**
  - It includes **Pacific archipelago of Galapagos Islands**.
- **Geographical Features**
  - **Highest Peak**: Chimborazo
  - **Major Volcanoes**: Cotopaxi, Reventador, Sierra Negra.
  - **Major rivers:** Pastaza, Napo, Morona etc.
  - Situated on the equator from which it derives its name.
  - **Climate**: Humid tropical

- As per **one-China principle, Taiwan is an inalienable part of China, and the Government of the People's Republic of China is the sole legal government.**
- **Political Features:**
- It is an **island country in the southwestern Pacific Ocean**, lying north-east of Australia.
- Part of Micronesia (group of Islands).
- It lies south of the equator.
- **Neighbouring Islands Territories:** Solomon, Banaba, and Kiribati.
- **Geographical Features:**
  - It is a Coral island with a central plateau which is largely composed of rock phosphate (leached from guano or bird droppings).
  - **Highest Peak:** Command Ridge
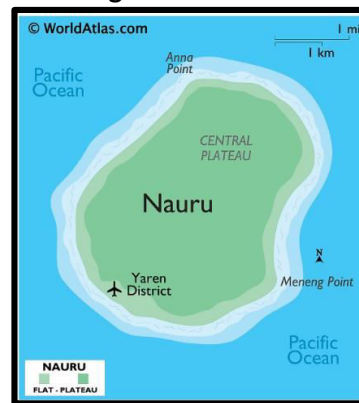
8. Cabo Verde (Capital: Praia):

- Cabo Verde has been certified as malaria-free by WHO, becoming third African country to achieve this status after Mauritius and Algeria.
- **Political Features:**
- The archipelago lies around 500km off the west coast of Africa in the Atlantic Ocean.
- **Cape Verde has no direct neighbours.**
- The former Portuguese colony comprises 10 islands and five islets.
- **Geographical Features:**
- The **archipelago is volcanic in origin**.
- **Highest point** : Pico do Fogo
- **Climate** : Tropical

10. Greenland (Capital: Nuuk):

- According to a research, **Climate change has caused Greenland's ice sheet to lose 20% more ice than previously thought.**
- **Political boundaries:**
- It is a part of the Denmark; however, the island's home-rule government is responsible for most domestic affairs.
- Two-thirds of the island lies within the Arctic Circle, in the North Atlantic Ocean.
- **Neighbours**: Canada and Iceland (separated by Denmark Strait).
- **Geographical features:**
- It is the **world's largest island,**
- It is noted for its vast tundra Biome.
- Major physical feature is its massive ice sheet, which is second only to Antarctica's in size.
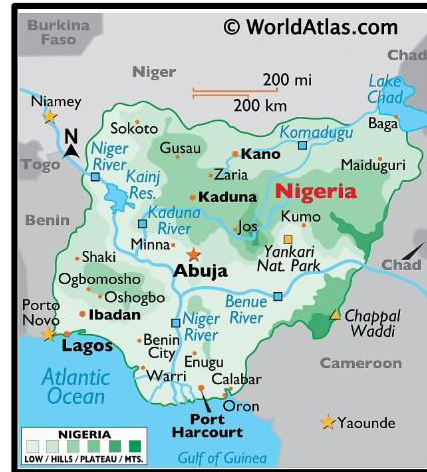- **Highest Peak:** Gunnbjorn Mountain

9. Republic of Nauru (Capital-Yaren):

- Nauru announced to recognise the People's Republic of China under one-China principle, breaks the diplomatic ties with the Taiwan authorities.

11. Senegal (Capital: Dakar):

- Lake Retba or Lac Rose or the Pink Lake of Senegal is on the verge of disappearing due to sudden increase in nitrate levels.
- Senegal is located in the westernmost point of Africa.
- **Political Boundaries:**
  - **Territorial Boundaries**: Mauritania, Mali, Guinea, Guinea-Bissau, The Gambia.
  - **Maritime boundaries**: Sénégal River (North) and Atlantic Ocean (West).
- **Geographical features:**
  - The country lies in a depression known as the Senegal-Mauritanian Basin.
  - **Major rivers**: Sénégal, Saloum, Gambia rivers.
  - **Major mountain:** Galeakouto.
  - **Vegetation**: Semiarid grassland and tropical rainforest converge.

12. Nigeria (Capital: Abuja):

- External Affairs Minister co-chaired the 6th Joint Commission Meeting between India and Nigeria.
- **Political features**
  - Located on the west coast of Africa

- **Territorial boundaries**: Niger in the North, Chad and Cameroon in the East and Benin in the West
- **Maritime boundaries**: The Gulf of Guinea of the Atlantic Ocean in the South.
- **Geographical Features**
  - **Major Mountain range**: Cameroonian Highlands
  - **Highest point**: Chabbal Waddi
  - **Major rivers:** Niger, Benue, Kaduna

13. Switzerland (Capital: Bern):

- Switzerland and India have reached consensus on Free-Trade Agreement after 16 years of negotiation.
- **Political features**
- Landlocked country of central Europe.
- Bordered to France (west), Germany (north), Austria and Liechtenstein (east), and Italy (south).
- **Geographical features**
- **Major Rivers**: River Rhine, Rhone
- **Highest Point**: Dufourspitze.
- **Major mountain ranges**: Alps, Jura

14. Jordan (Capital: Amman):

- Recently, there was a drone strike on American troops in northeast Jordan near Syrian border.
- **Political features**
- Arab country of Southwest Asia.
- Bounded by **Syria (north), Iraq (east), Saudi Arabia (southeast and south), and Israel (west).**
- Al-'Aqabah, port town, is located in southwestern part of Jordan along coasts of Gulf of Aqaba.
- **Geographical features**
- **Major Rivers:** Jordan; Yarmouk, Zarqa.
- **Highest point**: Jabal Umm ad Dami.

EDUFACTS

3RD JAN

1. Vikasit Bharat Sankalp Yatra is a nationwide campaign to raise awareness through outreach activities toachieve saturation of schemes of Govt. of India across the country covering **all Gram Panchayats, Nagar Panchayats and Urban Local Bodies**

2. XPoSat is only the world's second mission dedicated to X-ray polarization in the medium X-ray band.NASA's Imaging X-ray Polarimetry Explorer (IXPE), launched in 2021, was the first such mission by a space agency

3. Huntington's disease is a severe neurodegenerative disorder affecting the central nervous system. Huntington's disease is inherited in an autosomal dominant manner, which means that a person only needs toinherit one copy of the mutated gene from either parent to develop the condition

5TH JAN

1. Bharatmala Pariyojana is an **umbrella programme launched under the Ministry of Road Transport and Highways**. Till November 2023, 15,045 km or 42% of the project has been completed

2. Around Rs 1-1.30 lakh crore is estimated to be lying in inoperative bank accounts. As of March 2023, around Rs 42,270 crore remains unclaimed in banks.

3. Gujarat's ambitious project to reintroduce wolves bred in captivity to the wild is the first of its kind outside the United States, **aiming to restock wolf populations** and they can perform their role as **biocontrolagents** that keep the population of wild herbivores, like nilgai (blue bulls) and wild boars under control.

6TH JAN

1. Biodiversity credits are a **financial instrument designed to generate funding for the conservation, restoration, and sustainable use of biodiversity-rich areas.** They operate on a concept similar to Carbon Credits but with a distinct focus on biodiversity preservation rather than offsetting negative impacts

2. There is a significant decrease in crop yields when nano urea was used compared to conventional nitrogen fertilizers. Specifically, there was a 21.6% decrease in wheat yield and a 13% decrease in rice yield

3. The **Sukanya Samriddhi Account Scheme (SSAS) is a small deposit scheme by the Ministry of Finance** exclusively for a girl child and **is launched as a part of the Beti Bachao Beti Padhao Campaign**. At present, SSAS has several tax benefits and the highest rate of interest among all the Small Savings Schemes.

8TH JAN

1. In 1990, the **government's Operation Bajrang resulted in the capture of a large number of ULFA rebels.** Assam was labeled a 'disturbed area,' prompting the imposition of President's rule and invoking the Armed Forces Special Powers Act (AFSPA).

2. Recently, the **Indigenous Seed Festival in West Bengal showcased a remarkable effort by farmers to conserve native seed varieties and exchange traditional knowledge**, exemplifying a significant shift towards Sustainable Agriculture Practices. **Sustainable agriculture refers to a holistic approach to farming and food production that aims to meet the current needs for food and fiber** while ensuring the long-term viability of agricultural systems and preserving natural resources for future generations.

3. The Wetland City Accreditation (WCA) is a voluntary accreditation system established by the **Ramsar Convention during the Conference of the Contracting Parties (COP) 12, 2015** to recognize cities that havetaken exceptional steps to safeguard their urban wetlands

9TH JAN

1. The Indian toy industry exhibited remarkable growth between FY 2014-15 and FY 2022-23, marked by a substantial decline in imports by 52% and a significant rise in exports by 239%

2. Section 132 of the Income-Tax Act, 1961, empowers the tax authorities to conduct searches and seizuresof persons and properties, without any prior judicial warrant, if they have a "reason to believe" that the person has concealed or evaded income.

3. Square Kilometre Array Observatory (SKAO) is an intergovernmental organization that **aims to build andoperate cutting-edge radio telescopes.** Its global headquarters is located in the Jodrell Bank Observatory, United Kingdom. **India is a member**

10TH JAN

1. The SCLSC (Supreme Court Legal Services Committee) was constituted under **Section 3A of the Legal Services Authorities Act, 1987,** to provide "free and competent legal services to the weaker sections of society", in cases falling under the top court's jurisdiction.

2. The Supreme Court formed the **Justice Sapre Committee in March 2023** to probe potential regulatory failures after investors suffered significant losses due to market volatility following Hindenburg Research's allegations against the Adani Group for share price manipulation and accounting fraud.

3. In June 2022, **NSIL successfully completed its first demand-driven satellite mission, GSAT-24**, which was fully secured by Tata Play, a satellite television service. Currently, NSIL manages and operates 11 communication satellites in orbit

11TH JAN

1. In **Laxman Naskar v. State of West Bengal (2000),** SC stipulated the factors that govern the grant of remission. In **Epuru Sudhakar v. State of AP (2006),** SC held that judicial review of the order of remission is available.

2. As stated by the Finance Ministry, **India's public debt-to-GDP ratio is 81% in 2022-23**. The 2018 amendment to the FRBM Act specified debt-GDP targets for the Centre, States and their combined accounts at 40%, 20% and 60%, respectively.

3. Tangail Saree, Garad Saree, Korial Saree, Kalo Nunia Rice and Sundarban Honey from West Bengal recently received the Geographical Indication (GI) tag.

12TH JAN

1. The National Clean Air Programme (NCAP)'s goal is to **reduce average particulate matter (PM)concentrations** by 40% by 2026 in 131 cities

2. Saffron fields in Pulwama, have witnessed a 60% decline in cultivation in the last 20 years due to cementpollution.

3. The Ministry of Minority Affairs is the **nodal ministry to conduct Haj pilgrimage in India.**

13TH JAN

1. Overall GST Collections grew by 11.7% in the first nine months of 2023-24 compared to the 2022-23.

2. Darjeeling Zoo has the only conservative breeding programme for **snow leopards in India**

3. Atal Setu is the longest **bridge in India and also the longest sea bridge in the country**

15TH JAN

1. Under the Pradhan Mantri AdarshGram Yojana (PMAGY), a **total of 1834 villages** have been declared as **Adarsh Gram** during the current FY2023-24

2. The Government of India organizes the six-day mega event "**Bharat Parv" from January 26-31**, as part of the Republic Day celebrations. This alternative event takes place at the historic Red Fort.

3. The Serum Institute of India in 2023 launched an indigenous HPV vaccine known as CERVAVAC

16TH JAN

1. As per the Ministry of Consumer Affairs, **India is set to become the world's largest producer of lentils (masoor)** during the 2023-24 crop year on account of higher acreage

2. Recently, the **World Bank (WB) has released its Global Economic Prospects Report,** which shows that the global economy may witness a poor performance by the end of 2024, the slowest half-decade of GDP (Gross Domestic Product) growth in 30 years

3. A receptor-binding domain is a key part of a virus located on its 'spike' domain that allows it to dock to body receptors to gain entry into cells and lead to infection.

17TH JAN

1. India accounts for about **two-third of Nepal's merchandise trade** and about one-third of trade in services.

2. The IUCN Red List includes the **IUCN Green Status of Species**, which assesses the recovery of species' populations and measures their conservation success. There are **eight Green Status Categories**

3. Archaeological Survey of India (ASI) was founded in 1861 by Alexander Cunningham- the first Director-General of ASI. **Alexander Cunningham is also known as the "Father of Indian Archaeology".**

18TH JAN

1. The ICDS scheme was launched in India on **2th October 1975**. It was renamed as **Anganwadi Services** and the services are now offered as part of the **Saksham Anganwadi and Poshan 2.0**

2. **Luxembourg has become the third-largest region for FPIs in India,** surpassing Mauritius, with its AssetsUnder Custody (AUC) growing by 30% to ₹4.85 lakh crore

3. The brain comprises three primary components: the **cerebrum, cerebellum, and brainstem**. Cerebrum isthe largest part. **Cerebellum is also called a "little brain"** due to its similar but smaller structure than the cerebrum

19TH JAN

1. The entire Jammu and Kashmir and Ladakh regions have seen a lack of rains or snow this winter, with a notable **80% rainfall deficit in December 2023 and 100% (no rain) deficit in January 2024** so far.

2. Over 70% of the global population, or five billion people, lack timely access to safe and affordable surgicalcare when needed

3. **Klaus Schwab founded WEF in 1971, originally known as the European Management Forum**. The European Management Forum was the first non-governmental institution to initiate a partnership with China's economic development commissions, spurring economic reform policies in China.

22ND JAN

1. As per the Forest Survey of India (FSI), there have been 2**,050 incidents of forest fires between 16th October 2023 and 16th January 2024**, but there were just 296 incidents of forest fires during the same periodlast year.

2. Gangasagar Mela, which takes place during **Makar Sankrati (mid-January),** is said to be India's second largest pilgrimage gathering after the **Kumbh Mela**

23RD JAN

1. India is the **third-largest aviation market** globally, trailing behind the United States and China.

2. The **number of recognized Startups has grown at 120% (CAGR)** over the last 7 years and stands at over one lakh Startups as of October 2023

3. **India established the "Global Alliance for Global Good - Gender Equity and Equality" at the 54th annual World Economic Forum (WEF) in Davos**, gaining full support from WEF for promoting women's empowerment and gender equality

24TH JAN

1. In India, **Tata Iron and Steel Company Limited (TISCO), Jamshedpur**, was the first company to perform social audits in 1979 for measuring its social performance

2. Indian Nationals/PIOs who constitute less than 0.1% of Uganda's population, contribute about 70% of Uganda's direct taxes

3. **NavIC or the Indian Regional Navigation Satellite System (IRNSS)** is designed with a constellation of7 satellites and a network of ground stations. There are a **total of eight satellites** however only seven remain active

25TH JAN

1. Workers going to conflict zones or places without sufficient labour protections are required to register with the **Ministry of External Affairs' 'e-migrate' portal**

2. India is a **bio-diverse country**, with nearly 6.5% of the world's known wildlife species. Approximately, 7.6% of the world's mammals and 12.6% of the world's birds are found in India.

3. Recently, the **Ministry of Education (MoE)** has introduced comprehensive guidelines to regulate coachingcenters and manage the unregulated growth of private coaching centres. **Coaching centers are prohibited from enrolling students below 16 years of age.**

26TH JAN

1. The 60 Parachute Field Hospital, Uttar **Pradesh, has been selected for the Subhash Chandra Bose Aapda Prabandhan Puraskar-2024** for its excellent work in disaster management

2. As per UNESCO, any language spoken by less than 10,000 persons is considered "potentially endangered

29TH JAN

1. India has the world's deadliest roads, with crashes killing and maiming over 800,000 people annually,according to the World Bank

2. India reported 1,332,207 cancer cases between 2012 and 2019. Approximately **3.2% and 4.6%** of thesecases were in the age groups **0-14 years** and **0-19 years**, respectively

30TH JAN

1. For the year 2024, the **Republic of Uganda holds the Chairmanship of the G-77**

2. Indian Council of Medical Research issued ethical guidelines for AI in biomedical research and healthcarein June 2023

3. It is not mandatory that Bharat Ratna be awarded every year. There is no written provision that Bharat Ratnashould be awarded to Indian citizens only. **The number of Bharat Ratna Awards is restricted to a maximum of three in a particular year.** The Award does not carry any monetary grant.

31ST JAN

1. It is a popular belief that the **Gyanvapi Mosque was built in 1669 by the Mughal ruler Aurangzeb by demolishing the ancient Vishweshwar temple**. Saqi Mustaid Khan's Maasir-i-Alamgiri, a Persian-language chronicle, mentions the same.

2. Recently, the **Digital University Kerala has introduced State's maiden silicon-proven Artificial Intelligence (AI) chip—Kairali AI Chip**. AI chips are built with specific architecture and have integrated AI acceleration to support deep learning-based applications

3. Total rooftop solar installed capacity is around 11.08 GW as of December 2023. **Total solar power installed capacity in India has reached around 73.31 GW as of December 2023.** Also, the country aims for 50% of electricity generation from non-fossil fuel sources by 2030, having already reached 43%