GS SCORE PLS

MONTHLY
CURRENT
AFFAIRS
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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

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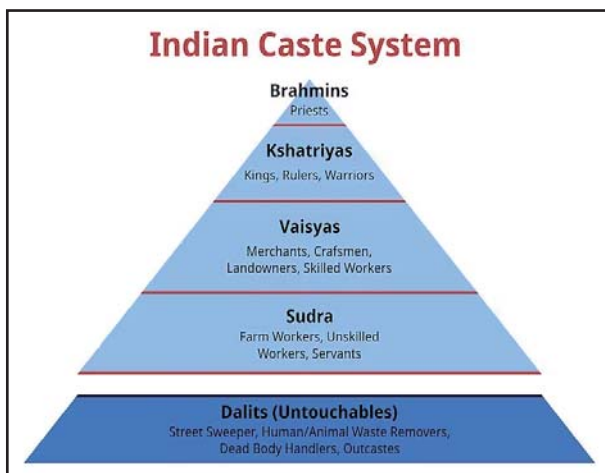## (JANUARY, 2023)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

INDIA'S 'UNTOUCHABLE' WOMEN & DISCRIMINATION

CONTEXT:

Despite outlawing caste-based discrimination in 1950, Dalits still get discriminated against when applying for programs such as microloan schemes which are actually established to help them.

Indian Caste System

Brahmins
Priests

Kshatriyas
Kings, Rulers, Warriors

Vaisyas
Merchants, Craftsmen, Landowners, Skilled Workers

Sudra
Farm Workers, Unskilled Workers, Servants

Dalits (Untouchables)
Street Sweeper, Human/Animal Waste Removers, Dead Body Handlers, Outcastes

Challenges faced by Dalit Women:

Plethora of issues: Dalit women continue to suffer from a high degree of poverty, gender discrimination, caste discrimination, and socio-economic deprivation.

- **Violence:** Girls face violence at a younger age and at a higher rate than women of other castes.

- **Others**
  - ➤ Exploitation by dominant castes
  - ➤ Workplace violence
  - ➤ Lack of justice

As per the Oxfam, **India Discrimination Report**, SC and ST community in rural India are facing an increase in discrimination in casual employment.

How caste plays its role in occupation?

- Caste is essentially the **stratification of people** into a **rigid occupational hierarchy.**

- Dalits who are the last in the list, often called "untouchables" are excluded from all jobs except the worst paid and most degrading — on the pretext of maintaining the spiritual purity of those in higher castes.

Extra information

Unsung Dalit women heroes

- **Sabari from the Ramayana**: example of acceptance, selflessness, and unconditional love

- **Sant Nirmala and Soyarabai**: From Mahar caste, questioning Hindu orthodoxy.

- **Naegeli:** Fought against the cruel "breast tax" system.

- **Kuyili:** She commanded the army of Velu Nachiyar.

- **Queen of Sivaganga in Tamil Nadu:** Dalit woman who fought against the British around 1780.

- **Jhalkaribai:** Most trusted companion and advisor of Rani Laxmibai of Jhansi.

- **Uda Devil:** formed a battalion consisting of Dalit women under the leadership of Begum Hazrat Mahal.

- **Savitribai Phule:** A pioneer in education for Dalits

- **Moovalur Ramamirtham Ammaiyar** fought against the exploitative Devadasi system**.**

- **Dakshayani Velayudhan:** first and only Dalit woman to be elected to the constituent assembly in 1946.

Initiatives Taken to Promote Transformation:

- Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

- Skills Acquisition and Knowledge Awareness for Livelihood (SANKALP) Scheme

- Stand Up India Scheme

- Pradhan Mantri Mudra Yojana

An attempt to help:

- In India, microloan programs have been embraced as a poverty-reduction policy.

- Microloans are offered by for-profit, not-for-profit and government-owned banks.

  - ➤ The Reserve Bank of India regulates the sector and acts as a guarantor of microloans given by banks under national government-sponsored poverty alleviation schemes.

  - ➤ The Reserve Bank of India underwrites incentives including interest rates about half that offered to other women**.**

What is the problem with microloans?

- Poor implementation of microfinance programs

- lack of outcomes for Dalit women entrepreneurs in India

- Discrimination at the branch level

How caste certificates 'too' creates hurdle?

- To qualify for a program to assist Dalits, they had to prove they're a Dalit by supplying a government-issued caste certificate.

- But this certificate then became the means for them be identified as Dalits and discriminated against.

WOMEN GET COMMAND ROLES IN THE INDIAN ARMY

CONTEXT:

For the first time, the Indian army had begun the process for selection of women officers for command postings in the rank of Colonel, which has so far been the domain of male officers.

About:

- 80 women officers in the Indian Army have been cleared for the rank of Colonel (selection grade), making them eligible to command units in their respective arms and services for the first time.

- The Women Officers were selected by the Special No. 3 Selection Board for promotion from the rank of Lt Colonel to Colonel to bring them on a par with their male counterparts.

- Women officers were selected from the batch of 1992 to 2006 in various arms and services, including Engineers, Signals, Army Air Defence, Intelligence Corps, Army Service Corps, Army Ordnance Corps and Electrical and Mechanical Engineers.

- The Corps of Engineers has the maximum vacancy followed by the Army Ordnance Corps and Electrical and Mechanical Engineering.

Women Induction in Army: A battle long fought:

- **1992**: Women were **first inducted into the Indian Army** as officers in **non-medical roles while the** Indian Army Medical Corps started inducting them from 1993.

- **2010**: Delhi High Court ruled that the Indian **Army's policy of not allowing women** to serve in combat roles was **discriminatory and violative** of the Constitution.

- **2013:** Supreme Court **upheld the decision of the Indian Army to exclude women** from certain **combat roles**, stating that the Indian Army was not ready for women in combat roles due to societal attitudes and lack of infrastructure.

- **2016**: Indian Army announced that it would begin inducting women into combat roles in select military units, starting with the **Corps of Military Police.**

- **2017**: **Supreme Court** stated that **women should be given equal opportunities** in the Army, **including in combat roles.**

- **2020:** Indian Army announced that it **would open up all positions** to women, including those in **combat roles.**

- **2021**: The Indian army starts to induct women in **short service commission as fighter pilots**.

Violation of Rights:

- **Right to equality (Article 14)**: The exclusion of women from certain roles in the Indian Army has been seen as a violation of this right, as it discriminates against women on the basis of their gender.

- **Right to work (Article 15)**: The exclusion of women denies them the opportunity to work in certain roles based solely on their gender.

- **Right to non-discrimination (Article 16)**: The exclusion of women from certain roles in the Indian Army is a violation of the right to non-discrimination, as it discriminates against women on the basis of their gender.

- **Right to life and personal liberty (Article 21)**: The exclusion of women is a violation of the right to life and personal liberty, as it denies women the opportunity to serve their country and defend their rights and liberties.

- **Right to education (Article 21)**: Exclusion from certain roles in the Indian Army is a violation of the right to education, as it denies women the opportunity to pursue education and training in certain fields.

- **Right to freedom of expression (Article 19)**: The exclusion of women denies women the opportunity to express themselves and their capabilities through their work.

Advantages of women in Army	Challenges of women in Army
• **Increased diversity**: Women bring a different perspective and set of skills to the military, which can enhance overall military effectiveness and decision-making.	• **Societal attitudes:** Women in the Indian Army have faced resistance from societal attitudes that view women as less capable or less suited for roles in the military.
• **Improved operational effectiveness:** Women can be effective in combat roles as they can improve the overall operational effectiveness of the military.	• **Physical demands**: The physical demands of military service can be challenging for women, and there have been concerns about whether women can meet the same physical standards as men.
• **Better representation of society**: The Indian Army is meant to serve and protect the entire population, and by having a more representative force, it can better understand and serve the needs of the society.	• **Limited opportunities**: There have been limited opportunities for women in the Indian Army, particularly in combat roles, which has limited their career advancement.
• **Better retention and recruitment:** By providing opportunities for women, it can attract and retain a larger pool of talented individuals.	• **Lack of support**: Women in the Indian Army have reported lack of support from their male colleagues and superiors, which can make it difficult to succeed in their roles.
• **Breaking stereotypes**: Induction of women challenges the societal stereotypes that women are weak and less capable.	• **Harassment and discrimination**: Women in the Indian Army have reported experiencing harassment and discrimination on the basis of their gender.
• **Improved morale**: Women's induction can improve morale among female soldiers and can lead to a more inclusive environment for all soldiers.	• **Limited facilities**: Women in the Indian army face limited facilities in terms of women-only barracks, toilets and other amenities.
• **Better support for women**: The Indian Army has taken steps to create a more supportive environment for women, such as increasing the number of women-only barracks and providing childcare facilities.	• **Limited representation**: Women are under-represented in leadership positions in the Indian Army, and there is a lack of female role models for women to look up to.
• **Cost-effective**: As the number of women in the Indian Army increases, it can be cost-effective in terms of recruitment and training, as it would increase the pool of eligible candidates.	

HOW FRANCE CAN HELP INDIA TO DIVERSIFY FROM RUSSIA?

CONTEXT:

Asserting that France could help India to diversify its defence supplies amid a heavy dependence on Russia is seen as an opportunity.

Background:

◎ India began to import weapons from Russia in the 1960s.

◎ The **Ilyushin Il-14 cargo transport aircraft** were the first ones to be inducted into the Indian inventory, followed by the **MiG-21 fighter aircraft**.

◎ From 1962 onwards, there has been a steady increase in India's import dependence on Russia.

◎ The legacy still leaves India with a sizeable number of Soviet-built platforms and in the post-Cold War period, India has made several sizeable acquisitions.

About India's defence equipment and scenario:

◎ India's requirements on defence are catered largely by imports.

◎ The opening of the **Defence sector for private sector participation** will help **foreign Original Equipment Manufacturers (OEMs)** to enter into strategic partnerships with Indian companies.

◎ This will enable them to leverage the domestic markets as well as aim at global markets. Besides helping in building domestic capabilities, it will also bolster exports in the long term.

◎ Since 2014 the **Ministry of Defence** has signed more than 180 contracts with the Indian Industry, as of December 2019. These contracts were valued at over **USD 25.8 billion** approximately.

◎ Favourable government policy which promotes self-reliance, indigenisation, and technology upgradation.

◎ The policies also aim at achieving economies of scale, including the development of capabilities, for exports in the defence sector.

◎ India's extensive modernisation plans with an

increased focus on homeland security and growing attractiveness as a defence sourcing hub.

Why has India remained dependent on Russia for so long?

- Russia is the **second largest arms exporter** in the world, following **only the United States**.

- In the five-year period between **2016 and 2020 America's** share in the global arms trade was 37 per cent, compared to **20 per cent of Russia's**, as per the **Stockholm International Peace Research Institute (SIPRI),** which tracks the global arms trade and military expenditure.

- For Russia, India **is the largest importer**, and for India, Russia is the largest exporter when it comes to arms transfer.

- Between 2000 and 2020, Russia accounted for 66.5 per cent of India's arms imports. Of the $53.85 billion spent by India during the period on arms imports, $35.82 billion went to Russia.

- During the same period, imports from the US were worth $4.4 billion, and from Israel, it was worth US$ 4.1 billion.

India is still in talks with Russia to lease two nuclear-ballistic submarines, **Chakra 3 and Chakra 4,** the first of which is expected to be delivered by 2025.

Why India needs an alternate?

- **Heavenly dependent on Russian Imports for defence equipment:** According to a report, India's 85% of defence equipment is brought from Russia.

- **Russia's expansionist policy:** Russia's war with Ukraine has shown many supply chain disruptions which led India to rethink its imports with Russia.

- **Russia and China ties:** Russia's increasing closeness with China has led India to find a way to less depend on Russia.

- **Expanding Indigenous defence manufacturing in India**: India is on its way to developing its indigenous defence manufacturing. Recently, India commissioned its first indigenously made Submarine **INS Vikrant** for Indian Navy.

How France can become an alternative?

- India is looking to diversify its suppliers and obviously, France is a great option, as France has successfully delivered **36 Rafale fighter jets** and other systems to India and wants to develop a national-level defence industrial base in India.

- France can also help India in developing **nuclear-powered and nuclear attack submarines** just like

the Russians, he underlined that the country has a longstanding submarine cooperation with India.

India-Russia Defence ties:

- As per **Stockholm International Peace Research Institute (SIPRI),** Russia is the **world's second-largest arms exporter**, with a 20% share in the global arms trade between 2016 and 2020, only behind the USA (37%).

- For India, Russia is the largest exporter. During 2000-20, **Russia accounted for 66.5%,** the US for 6.9% and Israel for 6.5% of India's arms imports.

- **India accounted for 23% of Russia's arms export** followed by 18% of China.

On-going major deals:

- Five units of **S-400 Triumf Air defence system**. (First of five units been delivered in December 2021, and deployed at the Air Force base in Punjab.)

- Manufacturing of around 6 lakh **AK-203 rifles at a factory in Amethi**.

INDIA'S TIES WITH EGYPT

CONTEXT:

Egypt's President Abdel Fattah El-Sisi, has been invited as the chief guest for the 74th Republic Day celebrations for the first time.

India-Egypt Relations:

- In the past, commercial connections between Egypt and India grew along the banks of the **rivers Nile and Indus,** which is when India's interactions with Egypt first developed.

- Under Nehru's direction: **Jawaharlal Nehru of India and Gamal Abdel Nasser of Egypt co-founded the Non-Aligned Movement in 1955**.

- **Nehru stood up for Egypt during the 1956 War** to the point of threatening to expel his nation from the British Commonwealth.

- **Bilateral relations and the Friendship Treaty**: The two countries grew further closer in the 1950s and signed the **Friendship Treaty in 1955**.

- The historically strong bilateral ties between the two nations have recently got a boost from the regular interchange of high-level meetings and contacts between the two sides.

Trade & Commerce:

- Egypt has long been among **India's top trading partners** on the continent of Africa.

- The **Most Favoured Nation** provision is the foundation of the bilateral trade agreement between Egypt and India, which has been in effect since March 1978.

- **Raw cotton, made and unmanufactured fertilizers, oil and oil products, organic and inorganic chemicals,** leather, and iron goods are among Egypt's main exports to India.

- **Sesame, lentils, coffee, herbs, and cotton yarn are among the top Indian exports to Egypt.**

- **India also exports mineral gasoline, car components, ship, boat, and floating construction parts, frozen slices of boneless beef, and electrical machinery and components.**

- India is widely represented in practically all fields in Egypt.

Technical and scientific fields:

- In accordance with the **Indian Technical and Economic Cooperation Programme, Egyptian applicants visit India (ITEC).**

- A **Memorandum of Understanding (MoU)** for cooperation in the **field of agricultural research was signed in 1998 by the ICAR** and the Agricultural Research Center of the Ministry of Agriculture & Land of Egypt.

Cultural ties:

- In 1992, Cairo saw the establishment of the **Maulana Azad Center for Indian Culture (MACIC).**

- By implementing the Cultural Exchange Program, seeks to foster cultural collaboration between the two nations (CEP).

- In addition to teaching **Hindi, Urdu, and yoga, displaying films,** and promoting Indian culture, the Centre also hosts cultural events.

- The **"India by the Nile"** festival is a yearly cultural event in Egypt.

- In a language that combines various cultural and artistic threads, it captures the spirit of India through classical, contemporary, performing, and visual arts, gastronomy, and popular culture.

- The event is organized by M/S Teamwork Arts, a Delhi-based company, with funding provided by ICCR and the Ministry of Culture of Egypt.

The defence alliance:

- With recent events like the Indian Navy ship's trip to Egypt, a month-**long air force drill**, and the leader of the Egyptian air force's trip to India, it is being revitalized.

About NAM:

- **120 nations** that are not formally allied with or opposed to any major power bloc make up the forum.

- It is the largest federation of states in the world after the United Nations.

- Nearly **two-thirds of the United Nations' members and 55% of the world's population reside in the nations that make up the Non-Aligned Movement.**

REMOTE EVM READY TO HELP MIGRANTS VOTE OUTSIDE STATES: EC

CONTEXT:

The Election Commission of India says that it has developed a prototype for a Multi-Constituency Remote Electronic Voting Machine which would enable remote voting by migrant voters.

Why is there a Need for Remote Voting?

- **Decrease in Voting Turnout**: During the 2019 General elections, nearly **300 million citizens** out of a total of 910 million **electors didn't cast their votes.**

- **Due to Unfavourable Conditions:** Voter migration makes it difficult for them to return to their registered polling stations to cast their vote.

- **Concerns Regarding Metropolitan Areas**: Despite the fact that polling stations are set up within 2 km for any voter in urban areas, there is low voter turnout in some of the metropolitan/cities.

- **Increasing Registrations of Unorganized Workers**: There are nearly 10 million migrant workers, registered with the government's **e-SHRAM portal.** In this context, the remote voting facility will result in an increased voting percentage.

- **Health Concerns:** The health concerns of mainly the senior citizens are also a reason for low voter turnout.

The problem: migration-based disenfranchisement

- **Domestic migration:** It has been a big reason why registered voters do not end up voting.

- **Increasing numbers:** As per the 2011 census, there are nearly 45.36 crore migrants in India (both intra and interstate).

➤ It amounts to approximately 37 percent of the country's population.

◉ **Voting denied**: For a large chunk of the population, its franchise gets denied due to exigencies of work or lack of resources to travel.

➤ This goes directly against the EC's "*No voter left behind" goal*.

◉ The **Multi-Constituency Remote Electronic Voting Machine (RVM) can handle multiple constituencies** from a single remote polling booth.

What is Remote Voting?

◉ Remote voting may take place in person somewhere other than an assigned polling station or at another time, or votes may be sent by post or cast by an appointed proxy.

◉ This is where Remote Electronic Voting Machine (RVM), comes as a solution.

Remote Electronic Voting Machine (RVM):

◉ **Development:** The RVM was developed with the assistance of **Bharat Electronics Limited (BEL)** and the **Electronics Corporation of India Limited (ECIL).**

◉ **Technology:** It is based on the currently used EVM system.

➤ RVMs are "stand-alone, non-networked systems".

Standalone system:

● **It** is an application or software that **does not need to be bundled with other software or applications**, nor does it require anything else to function.

● Its software that can "stand on its own" **without help from the Internet** or another processor computer.

◉ **Procedure:** RVM will be set up in remote locations outside the state under similar conditions as current polling booths.

Significance:

◉ **Domestic migrants don't have to travel back** to their home states to vote.

◉ It can lead to a **social transformation** for the migrants

◉ It will help to **boost voter turnout**.

◉ It will also help in **strengthening India's democratic process as voters will be connected with their roots.**

SUPREME COURT'S DEMONETIZATION VERDICT

CONTEXT:

The Supreme Court has upheld the decision taken by the government in 2016 to demonetize the currency notes. The court also said that the decision, being the Executive's economic policy, cannot be reversed.

What is the Supreme Court's verdict on demonetization?

◉ In its *majority 4:1 judgment*, it was held that the Centre's notification dated November 8, 2016, was valid and satisfied the test of proportionality.

◉ Procedure Followed:

➤ **RBI Approval was taken:** The central government's decision was after the RBI board's approval which shows an in-built safeguard against the centre's powers.

➤ **No Excessive delegation of power:** It cannot be said that there is an excessive delegation of power under the RBI Act to the Centre which is answerable to the Parliament.

What is the test of proportionality?

● Proportionality means that administrative action should not be more drastic than it ought to be for obtaining the desired result. This requires few tests,

➤ State action must have a **legislative mandate**

➤ The action must show that the objective of its law is founded on a **legitimate governmental aim**

➤ It must be proportionate, i.e., such state action — both in its nature and extent, must be **necessary for a democratic society**. Further, such action must **have no alternative** and less intrusive measures available to achieve the same objective

➤ The principle of proportionality calls for **striking down laws that are excessively harsh or disproportionate.**

Why was demonetization challenged?

◉ The matter primarily revolved around the procedure

prescribed in **Section 26(2) of the RBI Act, 1934, which appears to have not been followed.**

⊙ **According to Section 26(2) of the RBI Act, 1934** the Parliament should have discussed the law on demonetization.

➤ The process should not have been done through a gazette notification.

➤ Parliament cannot be left aloof on an issue of such critical importance for the country.

Majority view	Dissenting view
• The Centre's **decision-making process was not flawed** as **there was consultation** between the Reserve Bank of India (RBI) and the Union government. • There was a **reasonable nexus to bring such a measure**. • The court holds that **demonetization was not hit by the doctrine of proportionality**.	• **Parliament should have discussed** the law on demonetization. • The process **should not have been done through a gazette notification**. • **Parliament cannot be left aloof** on an issue of such critical importance for the country.

Increasing Federal Disputes and role of SC:

⊙ India is a federal (sometimes quasi-federal) country having governance/state authorities at the federal/national, state and local levels.

⊙ It is often the case that such federal units (such as: federal/union and different states) have disputes and conflicts amongst each other.

⊙ Resolution of such federal disputes (disputes arising amongst federal units) requires an independent and impartial arbiter.

⊙ In the Indian polity and constitutional setup such a role of arbiter is **exclusively entrusted** on the Supreme Court of India ("SCI") under **Article 131** of the **Constitution of India, 1950 ("Constitution").**

How SC puts restrictions on its exclusive jurisdiction?

⊙ The Supreme Court itself has placed certain limitations on its exclusive jurisdiction, role and duty as the federal Court to the extent of handicapping itself in the effective dispensation of justice in federal disputes.

⊙ In **State of Madhya Pradesh v. UOI** the SCI has held that under its **Article 131** jurisdiction, as the federal Court, there can be no challenge to the constitutional validity of a law, and has implicitly ousted the power of the SCI to entertain challenges to the constitutional validity of a law under this jurisdiction.

Article 131 of the Constitution confers on the Supreme Court of India exclusive original jurisdiction in any dispute amongst the states or the Government of India and state(s) (in any combination) where the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends.

GOVERNMENT PROPOSED POLICY ON 'ONLINE GAMING'

CONTEXT:

Recently, the Central government has proposed several policy measures for regulating the Online gaming industry, with a self-regulatory body, grievance redressal mechanism, and mandatory know-your-customer norms for verification are among the key proposals in the draft rules.

⊙ The **proposal has been introduced as an amendment** to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

Key points from the proposal:

⊙ Online games will have to register with a self-regulatory body.

⊙ Only games that are cleared by the body will be allowed to legally operate in India.

⊙ Online gaming companies will not be allowed to engage in betting on the outcome of games.

Nodal Ministries:

⊙ **Ministry of Electronics and Information Technology (MeitY) would be the nodal ministry** to regulate online gaming, except for the e-sports category on which the Department of Sports can take the lead.

⊙ Certain other aspects of online gaming such as advertisements, code of ethics relating to

content classifications, etc. could be regulated by the **Information and Broadcasting Ministry.**

◉ The **Consumer Affairs Ministry** can regulate the sector for unfair trade practices.

About Self-Regulatory Body:

◉ It will have a board of directors with five members from diverse fields including **online gaming, public policy, IT, psychology, and medicine.**

◉ There could be more than one self-regulatory body.

◉ It must ensure that the registered games don't have anything:

➤ which is not in the interest of the sovereignty and integrity of India

➤ defense of India

➤ security of the state

➤ friendly relations with foreign states

➤ public order

➤ Incites the commission of any cognizable offence relating to the aforesaid.

Online Gaming Market in India:

◉ **Current state:** India's gaming market is currently estimated at $2.6 billion and is expected to be worth $8.6 billion by 2027.

◉ **Market growth**: The online gaming industry in India grew at a **compounded annual growth rate (CAGR)** of 38% between 2017-2020, as opposed to 8% in China and 10% in the US.

◉ **New user base**: India's percentage of new paying users (NPUs) in gaming has been the fastest growing in the world for two consecutive years, at 40% in 2020 and 50% in 2021.

◉ **Revenue generation**: The revenue of the Indian mobile gaming industry is expected to reach $5 billion in 2025.

Banning of Online Gaming:

◉ Many social activists, government officials, and those in law enforcement believe that online games like rummy and poker are **addictive in nature**, and when **played with monetary stakes lead to depression, mounting debts, and suicides.**

◉ Earlier, the World Health Organisation (WHO) had announced a plan to include "**gaming disorder**" as a mental health condition.

KESVANANDA BHARATI AND THE 'BASIC STRUCTURE' DOCTRINE

CONTEXT:

The recent statement by Vice President has slammed the Supreme Court's landmark 1973 judgement in the Kesavananda Bharati case in which it ruled that Parliament had the authority to amend the Constitution but not its basic structure.

What does the Basic Structure mean?

◉ The term "Basic structure" is not mentioned in the constitution.

◉ However, Supreme Court is yet to define or clarify as to what constitutes the 'basic structure' of the Constitution.

Who was Kesvananda Bharti?

◉ He was a monk from Adi Shankaracharya's tradition born in 1940.

◉ Kesavananda Bharati took sanyas at the age of 19 and headed to the Edneer Mutt, a Hindu monastery in Kasargod, Kerala.

◉ In 1961, still only 21, he was appointed as the head of the Mutt, a position he held till his death in 2020.

The Edneer Mutt is believed to have been established by Totakacharya, one of four original disciples of **Adi Shankaracharya (**credited to have synthesised the **non-dualistic philosophy** of **Advaita Vedanta**).

◉ He fought against the **Kerala government's land reforms** and aims when he took the Kerala government to court in February 1970.

◉ Rather, he was challenging the **1969 Land Reforms** enacted by the communist C. Achuta Menon government which had affected his Mutt. Under the reforms, Edneer Mutt lost a large chunk of its property, which contributed to its financial woes.

◉ Filing a writ petition in the Supreme Court, Kesavananda Bharati argued, that this action violated his fundamental rights – in particular, his fundamental **right to religion (Article 25), freedom of religious denomination (Article 26), and right to property (Article 31).**

Article 13 (2) provides for the protection of the fundamental rights of the citizen.

- Parliament and the state legislatures are clearly prohibited from making laws that may take away or abridge the fundamental rights guaranteed to the citizen.
- They argued that any amendment to the Constitution had the status of the law as understood by **Article 13 (2)**.

Evolution of Kesvananda Bharti case:

- Parliament's authority to amend the Constitution, particularly the chapter on the fundamental rights of citizens, was challenged as early as 1951.

- After independence, several laws were enacted in the states with the aim of reforming land ownership and tenancy structures.

- This was in keeping with the implementation of the socialistic goals of the Constitution [contained in **Article 39**(b) and (c) of the **Directive Principles of State Policy**] that required **equitable distribution of resources of production among all citizens and prevention of concentration of wealth in the hands of a few**.

- Parliament added the **Ninth Schedule** to the Constitution through the very first amendment in 1951 as a means of immunising certain laws against judicial review.

- Under the provisions of **Article 31,** which themselves were amended several times later, laws placed in the Ninth Schedule -- pertaining to the acquisition of private property and compensation payable for such acquisition -- cannot be challenged in a court of law on the ground that they violated the fundamental rights of citizens.

- The Ninth Schedule was created with the primary objective of **preventing the judiciary** - which upheld the citizens' right to property on several occasions - from derailing the Congress party-led government's agenda for a social revolution.

What does the case exactly say?

- **Constituent power is superior to ordinary legislative power:**
  - Unlike the British Parliament which is a **sovereign body** (in the absence of a written constitution), the powers and functions of the **Indian Parliament and State legislatures** are subject to limitations laid down in the Constitution.
  - The Constitution does not contain all the laws that govern the country. Parliament and the state legislatures make laws from time to time on various subjects, within their respective jurisdictions.

- The general framework for making these laws is **provided by the Constitution**.

- Parliament alone is given the **power to make changes** to this framework under **Article 368**.

- Unlike ordinary laws, amendments to constitutional provisions require a **special majority vote in Parliament.**

- **The difference between Parliament's constituent power and law-making powers:**
  - According to **Article 21 of** the Constitution, **no person in the country may be deprived of his life or personal liberty except according to a procedure established by law**.
  - Parliament and the state legislatures make the necessary laws identifying offensive activities for which a person may be imprisoned or sentenced to death.
  - Changes to these laws may be incorporated by a simple majority vote in the concerned state legislature.
  - There is no need to amend the Constitution in order to incorporate changes to these laws.
  - However, if there is a demand to convert **Article 21** into the fundamental right to life by abolishing the death penalty, the Constitution may have to be suitably amended by Parliament using its constituent power.

- **Declared that Parliament's constituent power was subject to inherent limitations:**
  - The Parliament could not use its amending powers under **Article 368** to **'damage', 'emasculate', 'destroy', 'abrogate', 'change'** or **'alter' the 'basic structure'** or framework of the Constitution.

PASHU SAKHI MODEL FOR GENERATING SOCIAL VILLAGE CAPITAL

CONTEXT:

The Pashu sakhi initiative of the Jharkhand government which was started in 2013, for last mile coverage of livestock management has shown successful ground results and is seen to be implemented in other rural areas.

About the initiative:

- **Aim:** To advise farmers about health check-ups for their livestock, vaccinations, de-worming, hygiene, breeding, feeding, and the management of animal waste.

- The project was conceived under the **National Rural Livelihood Mission**, with the objective of building a line of community resource persons.

- Pashu Sakhi, which means '**friends of animals**, is a woman from the village trained to handle routine medical requirements for animals, including cows, buffaloes, bulls, poultry and goats.

- While they are not trained to handle surgical interventions, they can identify diseases, provide medication, and vaccinations, and suggest remedial or preventive actions.

- Pashu Sakhi is a **Community Animal care Service Provider (CASP)** this will enable the last mile coverage in rural areas where clinical services for livestock are not available on time or expensive to afford for the rural poor.

   Fund allocation: In 2017-18, **the Jharkhand Opportunities for Harnessing Rural Growth (JOHAR)** took the project under its wing and the **World Bank** began funding it.

> A World Bank newsletter said that the *pashu sakhi* **model** under JOHAR had been selected by the **UN's Food and Agriculture Organization** and the **International Food Policy Research Institute** as one of the top eight global best practice models for farmer service delivery

Objective:

- The objective of this model is to make livestock-based livelihoods **sustainable and viable enterprises for the rural poor.**

- There will be a specific focus on **the ultra-poor households** who have limited or no access to land or other factors of production.

- It would build a strong extension network of livestock workers who are community-based practitioners and are accountable to community institutions.

- The model would aim at strengthening the existing livelihoods of the rural poor by bringing a clear impetus to livestock-related activities.

Need of the initiative:

- Jharkhand's livestock production is in the hands of **marginal and landless farmers**, with women accounting for over 70% of the production. In fact, many of the *pashu sakhis* own livestock themselves.

Key features:

- The *pashu sakhis* are put through a **three-level (introductory, practical, and upper) 30-day training** programme over seven-day tranches on how to take care of poultry, goats, and pigs.

- After the training, they provide **technical expertise** on taking care of livestock, advise fellow villagers on the economic benefits of rearing livestock for sale, and connect farmers to producer groups and traders, helping them get better access to markets to sell their produce.

- About **30 *pashu sakhi*** have also been trained with 45 days of additional training in livestock management.

- They will act as a medium of the interface between the **Animal Husbandry & Veterinary Department** and the rural poor by linking the HHS to the nearest Veterinary aid centre at the time of need.

Significance:

- The *pashu sakhis* **or doctor** *didis* of Jharkhand have contributed to achieving the mortality rate of goats which has come down by about **30% and of poultry by 40%.**

- It tends to develop livelihood options among the village women and respect among the villagers.

- The initiative has included livestock rearing awareness across the tribal communities and makes them independent.

AUDIT PANEL TO ENSURE ACCOUNTABILITY IN DELIVERY OF SCHEMES

CONTEXT:

The Rajasthan government has set up a Social and Performance Audit Authority (SPAA) to ensure accountability in the delivery of government schemes and programmes.

Background:

- Under the **National Rural Employment Guarantee Act, 2005 (MGNREGA)** which enshrined social audits in the Act, the first step is to gather all the records regarding the scheme such as muster rolls, maintained by the administration collected and pored over.

⊙ Based on these readings, surveys are prepared and social auditors administer the surveys across the geographical area of the audit and also conduct spot inspections.

What does social audit mean?

"Social Audit is the examination and assessment of a programme/scheme conducted with the active involvement of people and comparing official records with actual ground realities. Social Audit is a powerful tool for social transformation, community participation and government accountability."

About the Social and Performance Audit Authority (SPAA):

⊙ **Administered by**: The Secretary, Finance (Expenditure) in the state has made the Commissioner of the authority.

⊙ Under SPAA, audits of government schemes will be undertaken on two counts: social and performance.

Constitutional provision regarding audit:

Article 148 - Comptroller and Auditor-General of India

● The Comptroller and Auditor-General shall perform such duties and exercise such powers in relation to the accounts of the Union and of the States and of any other authority or body as may be prescribed by or under any law made by Parliament.

Article 151 - Audit Reports

● The reports of the Comptroller and Auditor-General of India relating to the accounts of the Union shall be submitted to the president, who shall cause them to be laid before each House of Parliament.

● The reports of the Comptroller and Auditor-General of India relating to the accounts of a State shall be submitted to the Governor of the State, who shall cause them to be laid before the Legislature of the State.

⊙ The social audit will be undertaken along the lines of the social audit in MGNREGA.

Requirements:

⊙ **The social audit** does not necessarily require **high qualifications of the resource persons**, who will be empanelled as per requirement and paid on a per-day basis.

⊙ **For the performance audit,** SPAA will engage personnel from Valuation Wing under the Planning Department as well as the Department of Treasuries

and Accounts, with the latter reportedly having excess personnel, among others.

⊙ Post the social and performance audit, the auditors will file a report online.

⊙ The **Audit Management System (AMS)** under the Local Fund Audit Department (LFAD) will be customised for audit reports under SPAA.

⊙ **Significance:** It will ensure transparency, public participation, public satisfaction and quality along with accountability in public welfare schemes of the state government.

Who can conduct a social audit?

⊙ The **Department of Rural Development** in states like Andhra Pradesh, Telangana and Meghalaya has set up its **Society for Social Audit and Transparency** which are autonomous institutions that conduct social audits of the MGNREG Scheme.

⊙ This is in furtherance of the **Social Audit Manual of the Ministry of Rural Development** which requires every State to set up an independent Social Audit Unit consisting of resource persons from the State, District and Village as well as experts on relevant themes.

⊙ Social audits are conducted in partnership **with civil society organisations**, with auditors emerging from among scheme beneficiaries, who are trained over a period of time on how to conduct a social audit. Since awareness generation is an important component of these audits, it becomes necessary to have conduits that can be relied upon to transfer factually correct information.

Other related Initiatives:

The Meghalaya Community Participation and Public Services Social Audit Act, 2017: Meghalaya became the first state in India to operationalize a law that makes social audits of government programmes and schemes a part of government practice.

JOSHIMATH: THE SINKING LAND

CONTEXT:

Joshimath, the ancient Uttarakhand town has become a cause of concern. Though the town of Joshimath has been witnessing cracks emerging for the past two decades, things have escalated over a few days when the area was declared a disaster prone region.

Journey of Joshimath Town's development:

⊙ Joshimath is a busy town in **Chamoli district.**

- The region is the part of the Himalayan ecosystem.

- Despite a population of only about 23,000, it has been heavily built-on, with hotels, resorts, and a bustling market that caters mainly to tourists, pilgrims, trekkers and personnel of the army and the Indo-Tibetan Border Police (ITBP).

- After the **1962 India-China war**, Joshimath emerged as a place of strategic importance.

- It leads to villages along the **India-China border** and is also en route to Barahoti, a disputed territory along the border.

- The town is also a gateway to noted sites such as;
  - ➤ The pilgrimage – **Badrinath for Hindus** and **Hemkund Sahib for Sikhs;**
  - ➤ The **international skiing site of Auli;** and
  - ➤ The **Valley of Flowers**, a UNESCO World Heritage site.

- Today, Joshimath is overly burdened with structures built without any regard for the land's load-bearing capacity.

- The signs of sinking first appeared in October 2021, when cracks continued to appear around town and residents resorted to repairs.

- The situation became particularly alarming towards the end of 2022 and the beginning of 2023, when large parts of the town experienced sudden land-sinking and several houses developed major cracks as well.

Reasons for Vulnerability of region:

- Joshimath is built on the deposits of an **old landslide**,

which means the slopes can be destabilised even by slight triggers.

- The town is also in **Zone V,** denoting highest risk, in India's seismic zonation scheme.

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- It lies between two thrusts, the **Main Central Thrust (MCT) and the Vaikrita Thrust (VT),** and thus occupies a seismically active terrain.
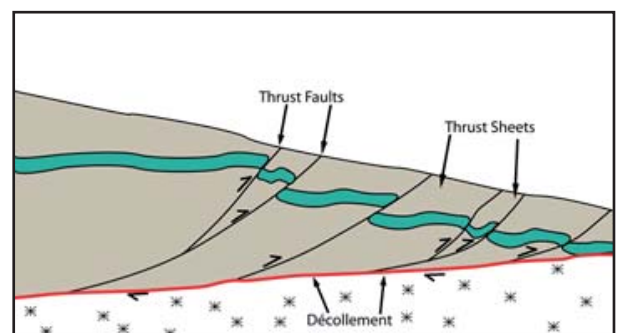
Main Central Thrust (MCT) line:

- In simplest terms, the MCT is a crack or geological fault in Himalayas.
- It is formed due to the collusion of Indo-Australian plate and Eurasian plate.
- The area underneath the MCT is particularly very fragile due to frequent tectonic activities.
- And, therefore, seismic activities are very common in MCT areas.
- The MCT extends for over 2200 km across the Himalayas in northwest-southeast direction. Joshimath is located above the MCT.

> The M.C. Mishra **committee's report of 1976** warned against heavy and unscientific construction in the town mentioning that, "Joshimath is a deposit of sand and stone, hence was not a suitable place for the coming up of a township. Vibrations produced by blasting and heavy traffic will also lead disequilibrium in natural factors."

Contributing factors for disasters in the region:

- **Role of NTPC:** Locals have blamed the **NTPC's 520-MW Tapovan Vishnugad hydropower project**, under construction in the area, for exacerbating the Joshimath land subsidence.
    - ➤ Recently, NTPC has punctured a tunnel to connect Auli, near Joshimath for supply of water.
- **Char Dham project:** The 6-km **Helang-Marwari bypass**, being built by the Border Roads Organisation (BRO), is also under scrutiny for weakening slopes and further destabilising the local topography.
    - ➤ The bypass is part of the 825-km Char Dham highway expansion project in Uttarakhand, which experts have already questioned for unscientific slope-cutting, which resulted in several landslides.
- **Inadequate drainage and wastewater disposal:** The 2022 USDMA report pointed to a lack of drainage and wastewater disposal systems as being part of the subsidence problem.
    - ➤ About **85% of buildings** in the town, including those owned by the army aren't connected to a sewerage system and have soak pits instead.

The Himalayan ecosystem:

- The Himalayas are ecologically **fragile and economically** underdeveloped, with geo-environmental constraints imposing severe limitations on the level of resource productivity.
- Consequently, subsistence agriculture constitutes the main source of livelihood in the region.

- The rapid growth of tourists in the region has brought about extensive land-use changes in the region, mainly through the extension of cultivation and large-scale deforestation.
- This irrational land transformation process has not only disrupted the ecological balance of the Himalayan watersheds through reduced groundwater recharge, increased run-off and soil erosion, but has also adversely affected the ecology and economy of the adjoining Indo-Gangetic plains by recurrent floods and decreased irrigation potential.
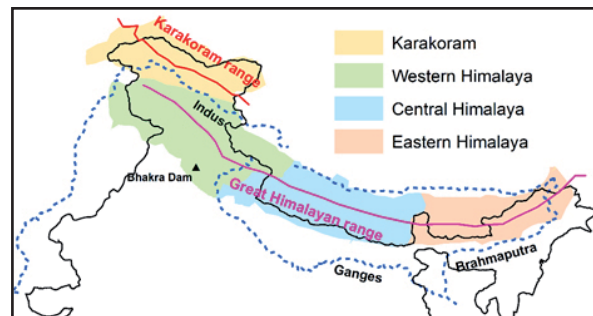
Why Himalayan region is susceptible to disasters?

The Hindu Kush Himalayan region is prone to numerous types of disasters because of its:

- Steep terrain
- fragile geology
- intense and variable precipitation
- Common incidents of floods and landslides
- Neo-tectonic mountain-building process, like earthquakes, landslides, floods, etc.
- **Other factors:**
    - ➤ **Overexploitation of the ecosystem** (tourism, increased consumerism)
    - ➤ **Exploitative development projects:** The indiscriminate exploitation of the fragile Himalayan region in the name of development projects has extracted a heavy price in terms of environmental damage.
    - ➤ **Fragmentation of natural resources:** String of hydroelectric and road projects in the Himalayan States have already resulted in the fragmentation of natural systems.

Sustainable tourism in Himalayas: Recommendations:

- **Regulated tourism practice**: There is need to establish regulated tourism practices with promotion of sustainable agendas for the Indian Himalayan region (IHR).

- Also, there is need of maintenance of proper tourist capacity in every tourist place.
- **Vigilance and patrolling**: Protected areas require vigilance and regular patrolling to reduce unwanted wildlife-tourist interaction as well as habitat destruction due to off-road driving and encroachment.
- **Early Warning System:** It is important to have early warning and better weather forecast systems in order to forecast the disaster and alert the local population and tourists.
- **Regional Cooperation**: There is a need for a trans-boundary coalition of Himalayan countries to share and disseminate knowledge about the mountains and preservation of the ecology there.
- **Area Specific Sustainable Plan**: What is most critical is to review the area's present status and draw up a sustainable plan that respects the specific requirements of this fragile region and the impact of the climate crisis.
- **Promote Ecotourism**: Initiating a dialogue on adverse impacts of commercial tourism and promoting ecotourism.

Recent disasters in the region:

- In last ten years, two major earthquakes have occurred in Uttaranchal namely the Uttarkashi earthquake (1991) and the **Chamoli earthquake (1999).**
- 380 people were killed when massive landslides washed away the whole village Malpa, Uttaranchal (then Uttar Pradesh) in 1998.
- In 1999, forest-fires in the hills of Uttaranchal destroyed more than 3, 75,000 hectares of forest. The same year, more than 450 cases of forest fire were reported in Himachal Pradesh and by May 1999, more than 80,000 hectares of forests were turned to ashes.
- The **kedarnath floods in 2013**, had took lives of several innocent people and disaster in the region

INDIA & THE PROBLEM OF BAD LOANS

CONTEXT:

In December 2022, Finance Minister has informed the Parliament that bank had bad loans worth Rs.10, 09,511 crore during the last five financial years.

What are Bad Loans?

- A bad loan is one that has not been 'serviced' for a certain period.

- Servicing a loan is paying back the interest and a small part of the principal — depending on the agreement between bank and borrower; to begin with so that over time, you pay back the principal as well as the interest accrued in the duration.
- In 2009, the RBI brought out norms that set out categories of **Non-Performing Assets (NPAs)** and what banks must do as these bad loans age.
- **According to RBI**, Bad loans are a problem, for, with time, there is less and less certainty that the loan would be paid back in full.

Types of NPA:

- **Standard Assets:** It is a kind of performing asset which creates continuous income and repayments as and when they become due. These assets carry a normal risk and are not NPA in the real sense of the word. Hence, no special provisions are required for standard assets.
- **Sub-Standard Assets:** Loans and advances which are non-performing assets for a period of 12 months fall under the category of Sub-Standard Assets.
- **Doubtful Assets:** The Assets considered as non-performing for a period of more than 12 months are known as Doubtful Assets.
- **Loss Assets:** All those assets which cannot be recovered by the lending institutions are known as Loss Assets.

What is a Non-Performing Asset?

- They are loans or advances that are in default or in arrears.
- In other words, these are those kinds of loans wherein principal or interest amounts are late or have not been paid.

When a loan is classified as NPA?

- Non-Performing Assets are basically Non-Performing Loans.
- In India, the timeline given for classifying the asset as NPA is 180 days. As against 45 to 90 days of international norms.

Why is there a need to recognise NPAs?

- In the banking system, the government and regulatory authorities need to have a good view of how healthy the financial system is.
- India became more aggressive in recognising loans as 'bad' in the 2014 to 2015 period.

◉ The periodic asset quality review was introduced. Further, the regulator stepped in to prevent evergreening of loans (i.e., lending more to an already stressed asset in the hope that it could be brought back to its feet).

What process does a bank undertake to recover NPA?

◉ The banks employ the Lok Adalats for settling the NPA loans. The Lok Adalats help in settling the NPA between the banks and defaulters.

> A **National Asset Reconstruction Company Ltd. (NARCL)** was announced in the Union Budget for 2021-2022 to resolve stressed loans amounting to about **Rs.2 lakh crore** in phases**.**

Impact of NPAs on Financial Operations:

◉ This reduces the profits of the banks.

◉ This reduces a bank or financial institution's capital adequacy.

◉ The banks have become averse to giving loans and taking risks of zero per cent. Thus, the creation of fresh credit is debarred.

◉ The banks start concentrating on the management of credit risk instead of the bank becoming profitable.

◉ The funds happen to cost due to NPA.

CREDIT CHALLENGES: ON CREDIT FLOW AND ALL-AROUND CAPITAL SPENDING

CONTEXT:

Recently, the Reserve Bank of India (RBI) released the Report on 'Trends and Progress of Banking in India 2021-22'.

About the Report:

◉ This report is statutory compliance in accordance with **the Banking Regulation Act 1949.**

◉ This Report presents the performance of the banking sector, including co-operative banks and non-banking financial institutions, during 2021-22.

◉ It has highlighted the gradual strengthening of the growth momentum in the Indian banking sector.

Key Highlights:

> **Gross non-performing assets (GNPA):**
> ● The GNPAs are bad loans which the borrower is not in a position to repay at the moment.
> ● A loan turns bad or becomes an NPA if they are overdue for over 90 days.

◉ **Double Digit Growth:** Scheduled commercial banks (SCBs) have registered double-digit growth in 2021-22.

◉ **Strengthening of capital to risk-weighted assets ratio** (CRAR) of SCBs

◉ **Decline in gross non-performing assets (GNPA) ratio** of SCBs.

➤ **Reasons for decline in GNPAs**: Banks have given write-offs or upgradation; greater scrutiny and monitoring of loans; greater recovery of loans after the Insolvency and Bankruptcy Act 2016.

◉ **Improvement in the financial performance of urban co-operative banks** (UCBs)

Areas of concern:

◉ **Retail loans may become a source of Systemic risk:** There is evidence of a building up of **concentration in retail loans.**

➤ Retail loans are generally unsecured, meaning they **do not require any collateral**. These are generally taken for personal use.

◉ **Indian banks are showing "Herding Behaviour":** The banks were found diverting *lending away from the industrial sector* towards retail loans.

What is the reason behind the drastic shift in the sectors that the banks funded?

◉ **Bad loans in the industry sector:** There has been a very high share of bad loans in the industry sector till 2018. **It can be seen in the figure provided.**

➤ But it has been **brought down by recovery mechanisms** such as insolvency and bankruptcy code and also by issuing fewer fresh loans to the industries.

➤ On the other hand, bad loans are barely there in the retail sector.

Bank Credit in India:

◉ Bank credit in India refers to credit lending by various **scheduled commercial banks (SCBs)** to various sectors of the economy**.**

◉ The **RBI follows the practice of classifying the credit-related data** under the **food and non-food credit (NFC) categories.**

➤ The food credit indicates the lending made by banks to the **Food Corporation of India (FCI)** mainly for procuring food grains. It is a small share of the total bank credit.

➤ The major portion of the bank credit is **non-food credit** which comprises credit to various sectors of the economy **(Agriculture, Industry, and Services)** and also in the form of **personal loans.**

Three challenges in Indian financial services:

To enable India's journey towards a **USD 5 trillion economy** the financial services industry needs to work with the stakeholder ecosystem to address three key issues:

⦿ **Bridging the credit gap:**

➤ To enhance the **credit-to-GDP ratio** the policymakers need to op**en up alternative capital sources for public sector banks** and **address the credit gap faced by MSMEs**.

⦿ **Digital innovation across the financial sectors:**

➤ Given that 70% of the market share belongs to public sector banks, these banks need to be **incentivized to aggressively drive the digital agenda**.

⦿ **Focus on building ESG into the financial system:**

➤ The other key challenge for India is to drive sustainable growth around **environmental, climate and social paradigms.**

➤ Financial service providers will need to work to bring their economic objectives into harmony with the new ESG rules and regulations and change their business models.

> **ESG fund/investment:**
> - ESG is a combination of three words i.e., environment, social and **governance**.
> - It is a **kind of mutual fund**. Its investing is used **synonymously with sustainable investing or socially responsible investing.**
> - The fund is regulated by the **Securities and Exchange Board of India (SEBI).**

RBI PROPOSED A FORWARD-LOOKING APPROACH FOR LOAN LOSSES

CONTEXT:

The Reserve Bank of India (RBI) has published a discussion paper on 'loan loss provision', proposing a framework for adopting an expected loss (EL)-based approach for provisioning by banks in case of loan defaults.

About the loan loss provisions:

⦿ It is based on the premise that the **present incurred loss-based approach** for provision by banks is inadequate, and there is a need to shift to the "**expected credit loss**" regime in order to avoid any systemic issues.

> The incurred **loss approach** requires banks to provide for losses that have already occurred or been incurred.

⦿ The RBI defines a **loan loss provision** as "an expense that banks set aside for defaulted loans".

⦿ Banks set aside a portion of the expected loan repayments from all loans in their portfolio to cover the losses either completely or partially.

⦿ In the event of a loss, instead of taking a loss in its cash flows, the bank can use its loan loss reserves to cover the loss.

⦿ An increase in the balance of reserves is called **loan loss provision**.

⦿ The level of loan loss provision is determined based on the level expected to protect the safety and soundness of the bank.

> The delay in recognising expected losses under an "**incurred loss**" approach was found to exacerbate the downswing during the **financial crisis of 2007-09.**

How the loan loss provision will work?

⦿ **Shifting policy framework**: A bank is required to **estimate expected credit losses** based on forward-looking estimations, rather than wait for credit losses to be actually incurred before making corresponding loss provisions.

⦿ **Classification of loan assets**: The banks will need to **classify financial assets** (primarily loans, including irrevocable loan commitments, and investments classified as held-to-maturity or available-for-sale) into one of three categories — **Stage 1, Stage 2, or Stage 3.**

➤ **Stage 1 assets:** are financial assets that have not had a significant increase in credit risk since initial recognition or that has low credit risk at the reporting date. For these assets, 12-month expected credit losses are recognised and interest revenue is calculated on the gross carrying amount of the asset.

➤ **Stage 2 assets** are financial instruments that have had a significant increase in credit risk since initial

recognition, but there is no objective evidence of impairment. For these assets, lifetime expected credit losses are recognised, but interest revenue is still calculated on the gross carrying amount of the asset.

➤ **Stage 3 assets** include financial assets that have objective evidence of impairment at the reporting date. For these assets, lifetime expected credit loss is recognised, and interest revenue is calculated on the net carrying amount.

◉ The classification of loan will depend upon the **assessed credit losses on them**, at the time of initial recognition as well as on each subsequent reporting date, and make necessary provisions.

Benefits	Concerns
• It will enhance the resilience of the banking system in line with globally accepted norms. • It is likely to result in excess provisions as compared to shortfall in provisions as seen in the incurred loss approach.	• Faced with a systemic increase in defaults, the delay in recognising loan losses resulted in banks having to make higher levels of provisions when banks needed to shore up their capital. This affected banks' resilience and posed systemic risks.

DIGITAL CROP SURVEY IN INDIA

CONTEXT:

The Central Government has planned to launch a digital crop survey across 10 states from the Kharif-2023 season.

About the survey:

◉ **Objective:** The survey will collect information on different types of crops sown by farmers in their fields.

◉ The information will be collected through an automated process by using "**Geo-Referenced maps**" of the farmland plots and remote sensing images.

◉ **Implementation:**

◉ The **digital crop survey** will be rolled out initially as a pilot project in **Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Kerala and Gujarat.** Later, it will be gradually rolled out across the country.

> In the patwari agency, a complete enumeration of all fields (survey numbers) called '**girdawari'** is made of a village during each crop season to compile land use, irrigation and crop area statistics.

◉ Once it becomes fully operational, it will add to the age-old crop area statistics collection system, which is known as the **'Patwari agency'.**

Key features:

◉ The proposed survey will use the **latest technological advancements** such as visual and advanced analytics, GIS-GPS Technologies and AI/ML to provide **near real-time information** about the crops sown by the farmers.

◉ As part of the digital agriculture initiatives, the Union Ministry of Agriculture and Farmers Welfare plans to develop a reference application for the crop-sown survey.

◉ **Data used**: Satellite data from **National Remote Sensing Centre (NRSC),** which comes under the Indian Space Research Organisation (ISRO), has already been made available to the states.

◉ **Crop registry**: The crop registry will act as a single source of truth for collecting the data in a standardized manner, during the digital crop survey.

◉ The crop registry will have the ability to capture single or multiple crop IDs for the same farmland plot for the same season, along with the respective area of sowing and type of crops, such as intercrop, mixed crops, and single crops.

◉ It will add linkage to **Global Positioning Systems (GPS)** and **Geo-referenced Cadastral maps** would enable users to reach the **right farm and collect the right data and images.**

◉ The linkage to **remote sensing and aerial image** analysis tools can be used to cross-check data at a larger area level with the reported and derived information from the field level for enabling higher accuracy levels.

◉ The survey will also have a **mobile interface** that will allow **offline data capturing** in the field (farmland plot) where the crop is sown.

CENTRE TO GIVE INCENTIVE FOR BANKS TO PROMOTE DIGITAL PAYMENTS

CONTEXT:

The Union Cabinet approved an outlay of ₹2,600 crore to promote payments using RuPay cards and the Unified Payments Interface (UPI).

About the initiative:

- Banks will be provided this incentive money to promote such digital payments, the Cabinet said in a press release.

- The fund will be paid to banks in view of the lack of a **Merchant Discount Rate (MDR)**, a commission on digital transactions — for **UPI and RuPay** transactions.

- This regime has led to complaints from the **Reserve Bank of India (RBI) and banks**, which have been worried about the sustainability of building digital payments infrastructure in the absence of payments needed to scale and maintain them.
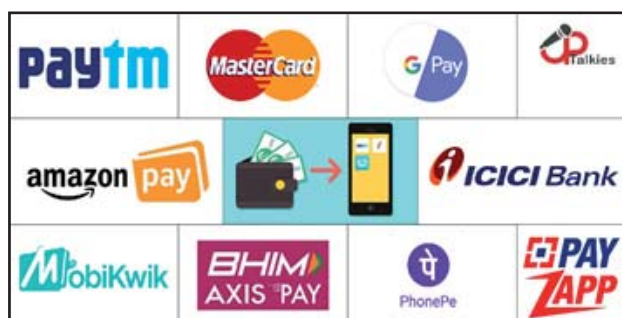
- The scheme will also promote **UPI Lite and UPI 123PAY** as economical and user-friendly digital payments solutions and enable further deepening of digital payments in the country.

- This incentive scheme will facilitate building of a robust digital payment ecosystem and promoting RuPay Debit Card and BHIM-UPI digital transactions.

What is digital payment system?

- Digital payment system is a way of payment which is made through digital modes- completely online. No hard cash is involved in digital payments.

- In this system, payer and payee both use digital modes to send and receive money.

- It is also called electronic payment.

- Example- Internet Banking, Debit Cards, Credit Cards, e-Wallets.

Different digital payment modes in India:

- **Cards:** Banking cards offer consumers more security, convenience, and control than any other payment method.

- **Internet Banking**: It is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

  ➤ Different types of online financial transactions are: National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), and Immediate Payment Service (IMPS).

- **Unstructured Supplementary Service Data (USSD):** This service allows mobile banking transactions using basic feature mobile phone (dialling *99#), there is no need to have mobile internet data facility for using USSD based mobile banking.

- **Mobile Banking**: Mobile banking is a service provided by a bank that allows its customers to conduct different types of financial transactions remotely using a mobile device.

- **Unified Payments Interface (UPI)**: It is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.

- **Mobile Wallets**: It is a way to carry cash in digital format. Instead of using physical plastic card to make purchases, we can pay with our smartphone, tablet, or smart watch.

  ➤ An individual's account is required to be linked to the digital wallet to load money in it.

- **Aadhaar Enabled Payment System (AEPS)**: AEPS is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale / Micro ATM) through the Business Correspondent or Bank Mitra of any bank using the Aadhaar authentication.

UNION CABINET APPROVES FORMATION OF THREE NEW COOPERATIVE SOCIETIES

CONTEXT:

As per the decision taken by the Cabinet Committee on Economic Affairs (CCEA) headed by Prime Minister, the Union Cabinet has approved the formation of three new cooperative societies to focus on seed availability to farmers, organic farming and exports, benefiting farmers.

About:

◉ **Need of the initiative**: Cooperatives that are associated with farmers, farmers' income and agriculture production are an important part of rural India.

◉ The Cabinet approved the establishment of the;

➤ National Export Society,

➤ National Cooperative Society for Organic Products and

➤ National Level Multi-state Seed Cooperative Society

◉ **Significance:** These cooperative societies will help realise the vision of "**Sahakar Se Samriddhi**" (prosperity through cooperatives), and boost rural growth and farmers' income.

What are Multi-state Cooperative societies?

◉ They are societies that have operations in more than one State, for instance, a farmer producers Organisation that procures grains from farmers from multiple states.

◉ At present, India has more than 1,500 multi-State cooperative societies, with the highest number being in Maharashtra.

◉ The **MSCS Act 2002** was passed to govern such cooperatives whose members and areas of operation are spread across more than one state.

The Cooperative societies Act, 1950:

◉ It states that the **state government** is entitled to appoint a registrar to look after a cooperative society's workings and appoint people to assist the registrar.

◉ Any society that decides to work for its members with a common vested interest must be registered under this act.

◉ A society will be registered under this act only if it has a member count of more than ten persons who has attained the age of 18 years.

◉ The objective of the society is to create funds for its members. The word limited must be in use with the name of such cooperative societies.

◉ Any questions regarding the membership, such as whether the society has been created for agriculture or non-agricultural purposes, whether the residence of a member will be a town or village etc., will be taken by the registrar and deemed as final.

Related Constitutional Provisions:

◉ The **97ᵗʰConstitutional Amendment Act** 2011

◉ The right to form cooperative societies is a **fundamental right (Article 19).**

◉ New Directive Principle of State Policy on the **Promotion of Cooperative Societies (Article 43-B).**

◉ A new **Part IX-B** to the Constitution is titled "**The Co-operative Societies" (Articles 243-ZH to 243-ZT).**

◉ Creation of a new Ministry of Cooperation– which gave more acknowledgment to cooperative societies.

Ministry of Cooperation:

● The Union Ministry of Cooperation was formed in 2021; its mandate was looked after by the Ministry of Agriculture before.

● **Objectives of creation of the new ministry:**

➤ To realize the vision of "**Sahakar se Samriddhi**" (prosperity through cooperation).

➤ To streamline processes for ''Ease of doing business'' for co-operatives and enable the development of **Multi-State Co-operatives (MSCS)**

➤ To provide a separate administrative, legal, and policy framework for strengthening the cooperative movements in the country.

➤ To deepen the cooperative as a **true people-based movement** reaching up to the grassroots level.

Advantages of a cooperative society:

◉ These societies are directly associated with the producers themselves. It excludes the chance of people working in the middle and thus provides maximum profit to the producers and consumers; hence goods are sold at cheap rates here.

◉ Instant and easy loans are provided to the members of these cooperative societies.

Disadvantages of a Cooperative Society:

◉ As these organisations work with the economically weaker and backward sections of society, the chances of raising monetary capital are quite low.

◉ Due to membership of such associations being essentially voluntary, there are scopes and instances of mismanagement and chaos in such groups.

SEBI BAN ON AGRI COMMODITIES TRADE

CONTEXT:

Amid the continued suspension of derivates trading in seven Agri commodities, the farmers have launched agitation outside the office of the Securities and Exchange Board of India (SEBI) in Mumbai.

Background:

- On December 20, 2021 the capital markets regulator suspended **futures trading in seven commodities, wheat, paddy (non-basmati), moong, chana, soybean and its derivatives, mustard seed and its derivatives, and palm oil and its derivatives on the exchanges.**

- The SEBI order allowed the squaring of contracts but said **no new contract** would be allowed in these commodities.

- Of the seven commodities, **chana and mustard seed** were already banned at the time.

- The trading was initially suspended for a year, but in December 2022, the **ban was extended for another year**, until December 20, 2023.

- The ban on the **launch of futures contracts** was intended to **stop speculative trade** in these commodities.

> - The Central government was worried about **food inflation**, and the ban was part of the efforts made to control it.

How does the derivative trade in commodities work?

- Agricultural commodities like cotton, paddy, soya bean, soya oil, mustard seed, etc., are traded on the **National Commodities and Derivatives Exchange (NCDEX)** and the **Multi Commodity Exchange (MCX).**

- Derivatives are **short-term financial contracts** that are bought and sold in the market.

- Profits are made in the **derivatives trade** by predicting the price movements of the asset that underlies the contract. The derivatives trade can be in **futures and options**.

- In a futures contract, a supplier pledges to sell a certain quantity at a fixed price at a future date.

- Also, farmers can put fixed amounts of their products, which fit the quality standards of the exchange, to be sold at a fixed price, almost like price insurance.

- Both contracts can be excited **by either the producer or the trader** by paying a margin price to the exchange.

Why are farmers protesting against the ban?

- The **future trends** provided by the exchange are an **important indicator for farmers.**

- **Physical markets** often follow the trend, and farmers base their offloading plans on it.

- More than individual farmers, the **Farmer's Producer Companies (FPCs)** trade on the exchanges.

The National Commodities and Derivatives Exchange (NCDEX):

- **The National Commodity and Derivatives Exchange (NCDEX)** is a commodities exchange dealing primarily in agricultural commodities in India.

- The NCDEX is located in Mumbai but has offices across the country to facilitate trade.

- Exchanges like the NCDEX have also played a key role in improving Indian agricultural practices.

- Barley, wheat, and soybeans are some of the leading agricultural commodities traded on the NCDEX.

The Multi Commodity Exchange (MCX):

- **The Multi-Commodity Exchange of India** was established under the **Forward Markets Commission (FMC) in 2003.**

- It is an online platform that enables online trading, settlement and clearing of commodity futures transactions.

- It acts as a platform for providing risk management (hedging).

THE INTERNATIONAL YEAR OF MILLETS: HOW INDIA'S GOVT CAN PROMOTE THE CEREALS IN 2023

CONTEXT:

The United Nations has declared 2023 as the International Year of Millets. Despite it having a lot to offer to consumers and farmers, millets aren't the first choice.

What is Millet?

- Millet is a **collective term referring to a number of small-seeded annual grasses** that are cultivated as grain crops, primarily on **marginal lands in dry areas in temperate, subtropical, and tropical regions.**

- **Examples**: jowar (sorghum), ragi (finger millet), Kodo (Kodo millet), kutki (little millet), kakun (foxtail millet), Sanwa (barnyard millet), cheena (proso millet), kuttu (buckwheat) and chaulai (amaranth).

PRODUCTION OF MILLETS (in million tonnes)

Legend: Total | Bajra | Jowar | Ragi

Data points: 21.32, 12.11, 6.68, 1.97 (2003-04); 15.92, 9.62, 4.23, 1.70 (2021-22)

X-axis: 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22
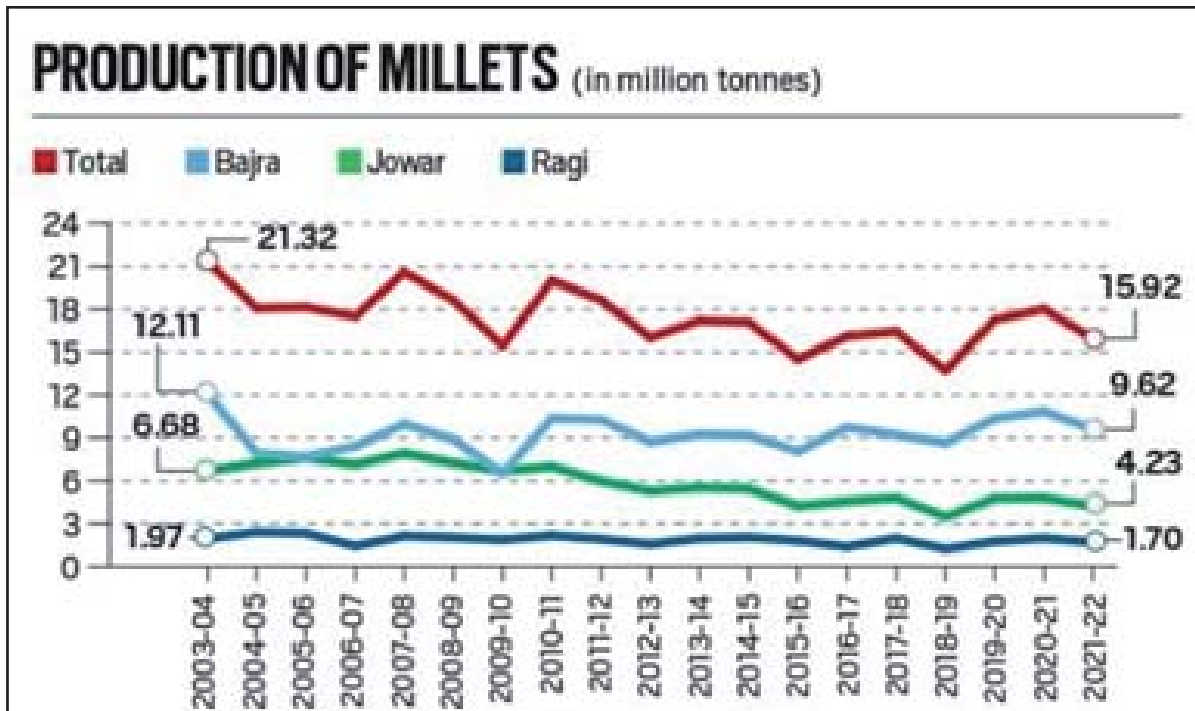
Positives of millets:

- **Nutritionally superior traits:** Millet's score over rice and wheat in terms of minerals, vitamins, and dietary fibre content, as well as amino acid profile.

- For example, Bajra (pearl millet) has iron, zinc, and protein levels comparable to that of wheat, but it's gluten-free and has more fibre.

> - It can address the **problem of "hidden hunger"** arising from the consumption of energy-dense but micronutrients-deficient foods.

- **The rotis from bajra make one feel fuller for longer**, as they take more time to digest and **do not raise blood sugar levels too fast.**

Advantages as a crop:

- Millets are **hardy** and **drought-resistant crops**.

- This has to do with their **short duration** (70-100 days, against 115-150 days for rice and wheat)

- **lower water requirement** (350-500 mm versus 600-1,250 mm) and

- **Ability to grow even on poor soils** and in hilly terrain.

Where do millets lag?

- **Eating Habits:** For the poor, both in urban and rural areas, rice and wheat were once aspirational foods.

- **The dominance of traditional grains:** Two-thirds of India's population receives up to 5 kg of wheat or rice per person per month at Rs.2 and Rs.3/kg respectively.

➤ The recent move to place two fine cereals free of cost from January 2023, further tilts the scales against millets.

- **Cooking:** Rolling Rotis is easier with wheat than millet flour

➤ This is because gluten proteins make the wheat dough more cohesive and elastic.

➤ As resultant bread come out light and fluffy (in the case of wheat), which isn't the case with bajra or jowar.

- **Low per-Hectare yields:** The national average is roughly 1 tonne for jowar, 1.5 tonnes for bajra and 1.7 tonnes for ragi.

➤ Whereas it is 3.5 tonnes for wheat and 4 tonnes for paddy — **are disincentives.**

- **Presence of Infrastructure for traditional grains:** With access to assured irrigation, they would tend to switch to rice, wheat, sugarcane, or cotton.

- **Absence of government procurement at minimum support price (MSP):** It makes farmers hesitant to grow even this high-yielding and naturally bio-fortified bajra, suitable for both post-monsoon Kharif and summer cultivation.

> **Indian Agricultural Research Institute (IARI) contribution:**
> - **Hybrid varieties:** Pusa-1201, a hybrid bajra that gives an average grain yield of over 2.8 tonnes and a potential of 4.5 tonnes per hectare.
> - **Characteristics:** It matures in 78-80 days.
> - It is **resistant to downy mildew and blasts**, both deadly fungal diseases.

Possible Government Intervention:

◎ The Centre has two existing schemes:

➤ Pradhan Mantri Poshan Shakti Nirman and

➤ Saksham Anganwadi & Poshan 2.0 — with a combined budget of Rs 30,496.82 crore in 2022-23.

➤ These can be better **leveraged by making them more millets-focused**.

◎ **MSP procurement of millets** should be part of a decentralized nutritional programme specifically targeting tomorrow's citizens.

◎ Centre could **fund any state willing to procure millets** specific to their region exclusively for distribution through schools and anganwadis.

Role of Schools:

◎ Every schoolchild and Anganwadi ben**eficiary can be served one daily hot meal** based on locally-sourced bajra, jowar, ragi, Kodo, or kutki.

◎ It will help **combat hidden hunger**, besides giving a boost to crop diversification by creating demand for millions of small millets, dairy and poultry farmers.

State Initiatives:

◎ **Odisha already has a dedicated millets mission** that undertook procurement of 32,302 tonnes worth Rs. 109.08 crore, mainly of ragi, in 2021-22.

◎ Rajasthan, Uttar Pradesh, and **Haryana might want to do the same in bajra**, just as **Maharashtra may for jowar**, **Karnataka for ragi**, and **Madhya Pradesh for Kodo/ kutki.**

ChatGPT: ARTIFICIAL INTELLIGENCE AND ETHICAL CHALLENGES

CONTEXT:

Teachers and academicians have expressed concerns over ChatGPT's impact on written assignments, as have those at risk of running malicious code.

ChatGPT as Artificial Intelligence (AI) system:

◎ ChatGPT is remarkable. It's a new AI model from Open AI that's designed to chat in a conversational manner.

◎ AI systems are not capable of behaving in an **ethical or unethical** manner on their own, as they do not have the ability to **make moral judgments**.

◎ Instead, the ethical behaviour of an AI system is determined by the **values and moral principles** that are built into the **algorithms and decision-making processes** that it uses.

➤ For example, an AI system designed to assist with medical diagnoses might be programmed to prioritize the well-being of patients and to avoid causing harm.

◎ Similarly, an AI system designed for use in a **self-driving car** might be programmed to prioritize safety and to follow traffic laws.

◎ In these cases, the AI system's behaviour is determined by the ethical guidelines that are built into its algorithms and decision-making processes.

◎ However, it's important to note that these guidelines are determined by the humans who design and implement the AI system, so the ethics of an AI system ultimately depend on the ethics of the people who create it.

What is an Artificial Intelligence Ethics?

◎ AI ethics is a system of moral principles and techniques intended to inform the development and responsible use of artificial intelligence technology.

◎ As AI has become integral to products and services, organizations are starting to develop AI codes of ethics.

◎ An AI code of ethics, also called an AI value platform, is a policy statement that formally defines the role of artificial intelligence as it applies to the continued development of the human race.

◎ The purpose of an AI code of ethics is to provide stakeholders with guidance when faced with an ethical decision regarding the use of artificial intelligence.

Why ethics becomes necessary for AI?

◎ AI is a technology designed by humans to replicate, augment or replace human intelligence.

◎ These tools typically rely on large volumes of various types of data to develop insights. Poorly designed projects built on data that is faulty, inadequate or biased can have unintended, potentially harmful, consequences.

◎ Moreover, the rapid advancement in algorithmic systems means that in some cases it is not clear to us how the AI reached its conclusions, so we are essentially relying on systems we can't explain to make decisions that could affect society.

Challenges while using AI:

◎ **Explainability:** When AI systems go awry, teams need to be able to trace through a complex chain of algorithmic systems and data processes to find out why. Organizations using AI should be able to explain the source data, resulting data, what their algorithms

do and why they are doing that. "AI needs to have a strong degree of traceability to ensure that if harms arise, they can be traced back to the cause," said Adam Wisniewski, CTO and co-founder of AI Clearing.

◉ **Responsibility**:

➤ Society is still sorting out responsibility when decisions made by AI systems have catastrophic consequences, including loss of capital, health or life. Responsibility for the consequences of AI-based decisions needs to be sorted out in a process that includes lawyers, regulators and citizens.

➤ One challenge is finding the appropriate balance in cases where an AI system may be safer than the human activity it is duplicating but still causes problems, such as weighing the merits of autonomous driving systems that cause fatalities but far fewer than people do.

◉ **Fairness:** In data sets involving personally identifiable information, it is extremely important to ensure that there are no biases in terms of race, gender or ethnicity.

◉ **Misuse**: AI algorithms may be used for purposes other than those for which they were created. Wisniewski said these scenarios should be analysed at the design stage to minimize the risks and introduce safety measures to reduce the adverse effects in such cases.

Characteristics of an ethics based AI model:

◉ An ethical AI system must be inclusive, explainable, have a positive purpose and use data responsibly.

◉ An inclusive AI system is **unbiased and works equally well** across all spectra of society.

◉ It also requires a careful audit of the trained model to filter any problematic attributes learned in the process. And the models need to be closely monitored to ensure no corruption occurs in the future as well.

◉ An AI system endowed with a positive purpose aims to, for example, reduce fraud, eliminate waste, reward people, slow climate change, cure disease, etc.

◉ An AI system that uses data responsibly observes data privacy rights. Data is key to an AI system, and often more data results in better models. However, it is critical that in the race to collect more and more data, people's **right to privacy and transparency** isn't sacrificed.

◉ Responsible collection, management and use of data are essential to creating an AI system that can be trusted.

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SECTION: B
(CONTEMPORARY ISSUES BASED ESSAY)

LIFE IS A SERIES OF NATURAL & SPONTANEOUS CHANGES; INSTEAD OF RESISTING THEM, FLOW WITH THEM

Nothing is permanent in this world except change. — *Heraclitus*

Changes are mostly good as it is the symbol of life. We as living beings continue to change physically with time which shows that the meaning of life is to change. But in practical life, when it comes to living it, we often fear changes, as it takes us away from our comfort zone and exposes us to the things which are unknown to us. Most of the time, we avoid taking pain and feel not to indulge in something new. It is human behavior that he demands certainty in everything. Only few individuals are willing to take chances and these few are actually those who make the real difference in their lives and others' lives.

Though we refrain from accepting or bringing change, it is desirable as this brings freshness and new air in our life. It exposes us to the qualities and strength of our character which we have never seen before. We become more tolerant and enduring due to the changes that may occur. Changes are hard to accept when it comes to bringing challenge to our beliefs, ideologies and way of life. Hardliners usually avoid changes and they try to live in the status quo and do not want to compromise their power and authority. To bring change has not always been easier. Sometimes, this takes sweat and blood. History has seen revolutions, where the changes were opposed such as the French Revolution and Russian Revolution were against the monarchy and capitalist order. Time is the biggest change bearer and by supporting slow and steady changes prepare people to not to resist them irrationally.

It also brings new experience and motivation for life. Once we are used to something, we might get fed up with our routine life. To bring any smaller change from our routine life may invite change of mood and behavior. An average working person, while living a routine of getting up in the morning, going to office and coming back, a slight difference in our schedule makes us relaxed and brings more energy and thoughts to work efficiently. Similarly, an unemployed person while applying for multiple jobs and giving interviews daily but despite not getting selected, a visit by a friend or family member may bring short term joy as the mind gets diverted from the financial concern at least for sometime. Even the influence of a positive fellow may bring positive changes in our personality that may turn us into being more positive and constructive.

It exposes us to new challenges and makes us stronger. For example joining a new workplace, an individual meeting with new people, new work culture but every experience teaches us something. Any adventure in life gives us strength to face challenges. Those who are not ready to accept them and resist, usually quit and stop working for the betterment of the result. Such individuals who do not expose themselves to difficulties or either change may not learn things and new experiences.

With time the choices and preferences of people do get changed. It comes naturally and gradually with the change in our personalities. As the time passes, we get new experiences and are exposed to new people and thoughts. This exposure brings new insights and thinking among people. People come in contact with people from different classes and backgrounds, which leads to the exchange of ideas and new learning. This may lead to change in their perceptions and attitudes. The changing perceptions may lead to significant changes.

The adoption of changes may become quite easier once we become more adaptable towards them. Once our attitudes are changed, we become more accepting towards the changes. To make our attitude more accepting towards the unusual requires inculcation and adoption of values such as tolerance and resistance that may prove to be helpful in making us more welcoming for changes. The social reforms such as more enrolment of girls in educational institutions, less drop out rates etc can be achieved by changing the attitude and perceptions of people towards women. To make the society more adaptable for change, the change of attitude is a must. A positive attitude accepts things easily as it sees possibility and rationality in everything.

Conscience and rational thinking makes us more adaptable to change. It makes us more adaptable by bringing the right knowledge and critical thinking. We do not even wait to change to occur, we even demand for change. We become able to differentiate between right and wrong. This difference making ability can help us to demand for the good. The great changes such as revolutions and abolition of derogatory customs have been brought by the help of rational thinking. The main reason behind the making of societal values and society are also changes. Those societies which are open to change always flourish and on the other hand, which are closed may face challenges in terms of going along with the pace. The Jewish societies adopted significant changes to make themselves acceptable in Europe during their exile from Arab land.

Experience resists change. Changes are mostly acceptable at the initial stages and easier to get implemented. The older and more experienced we get it becomes quite hard to change. Experience makes us rigid and we do not want to change by leaving our perceptions and ideologies so

easily. Similarly, once a custom or practice gets so much incorporated in the system that it becomes a part of the system, in such a situation to bring change is difficult. For example, corruption has become an intrinsic part of the administration and political life. We have become so used to it that we find it convenient to find a berth in a train coach in case we do not get a reservation. Corruption has taken its seat everywhere starting from preschools to the top institution of the country. Whenever the changes were tried to make to the system to end corruption, resistance was faced from almost every end.

To accept change and get changed is not always required. It is not always desirable, in the case of a few things. For example, in the case of holding the basic principles of life and values, change is not needed. Ethical and moral values which are universal such as compassion, kindness, honesty, discipline etc are something which can not be compromised irrespective of time and space. The change in the values systems is not desirable, though our values get changed with time and circumstances. But to stick to the basic and fundamental values is important to make the society and world a better place.

Overall changes are essential for our life as the stagnant water starts stinking after sometime and flowing water flourishes the civilizations. So, it is desirable to help people to flourish instead of perishing them.

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SECTION: C
(PRELIMS)

CURRENT AFFAIRS

ARCHAEOLOGICAL SURVEY DISCOVERS 1200-YEAR-OLD MINIATURE STUPAS

CONTEXT:

Patna circle of the Archaeological Survey of India (ASI) has discovered two 1200-year-old miniature votive stupas during landscaping activities.

About:

⊙ **Location:** It has been found near **Sarai Tila** mound within the premises of **'Nalanda Mahavihara'**, a world heritage site in Nalanda district in the state.

⊙ The stupas, carved from stone, depict Buddha figures.

What are stupas?

⊙ A Stupa is a hemispherical structure which **symbolizes the burial mound of Buddha**. It rose to prominence after the advent of Buddhism and peaked during **Ashoka's reign**. Stupas evolved as **Chorten in Tibet and pagodas in East Asia**.

Nalanda Mahavihara site:

● The Nalanda Mahavihara site comprises the archaeological remains of a monastic and scholastic institution dating from the **3rd century BCE to the 13th century CE**.

● It includes stupas, shrines, viharas (residential and educational buildings) and important art works in stucco, stone and metal.

Importance of stupas

⊙ **Religious importance –**

➤ **Relic repository**: In the beginning stupas were built to venerate and safeguard relics and remains of Buddha.

➤ **Sacred place:** Along with monasteries (viharas)

later, stupas were included in chaityas, which is a prayer hall.

➤ **Circumambulation path**: an important Buddhist ritual around the path surrounding it.

➤ **The object of veneration**– it is believed that relics of buddhas body were buried within the stupas

⊙ **Philosophical –**

➤ **Meditation:** It is an important place for meditation.

➤ **Commemorative**: In the Tibetan tradition, stupas were built to celebrate the life events of the Buddha.

⊙ **Symbolic**: The stupas encapsulate the teachings and ideology of Buddha

➤ E.g. **Dhamek stupa at Sarnath marks the spot** where the Buddha gave his first sermon after attaining enlightenment, revealing his Eightfold Path leading to nirvana.

⊙ **Historical**: Provide information about the various dynasties who ruled India. Eg:

➤ **Mauryas** : Bairat stupa , Sanchi stupa , Bharhut stupa etc

➤ **Sathavahanas** : Amaravati stupa etc.

⊙ **Architectural –**

➤ **Oldest stone structures**: The stupas at Sanchi and Bharhut are one of the oldest stone structures in India.

➤ **Inclusion of text in narrative panels** – at Bharhut (Queen Maya's dream)

➤ **Use of marble** – at Amravati stupa

➤ **Taxila excavations reveal stupas with Boddhisatva images**, Gandhara influence and patronage of Kanishka.

AHOM BURIAL SITES IN ASSAM SELECTED FOR UNESCO WORLD HERITAGE TAG

CONTEXT:

The Centre has decided to nominate Assam's Charaideo Maidams, the Ahom equivalent of the ancient Egyptian pyramids for the UNESCO World Heritage list.

About Assam's Charaideo Maidams:

⊙ They belong to the late medieval (13th-19th century CE), built under the **mound burial tradition** of the Tai Ahom community in Assam.

⊙ Charaideo, more than **400 km east of Guwahati**, was the **first capital of the Ahom dynasty** founded by Chao Lung Siu-Ka-Pha in 1253.

⊙ The country is celebrating the 400th birth anniversary **of Lachit Barphukan,** a legendary Ahom general whose battle against the Mughals in 1671.

Features of the site:

⊙ Out of 386 Maidams or Moidams explored so far, 90 royal burials at Charaideo are the best preserved, representative of and the most complete examples of the mound burial tradition of the Ahoms.

⊙ The Charaideo Maidams enshrine the mortal remains of the members of the Ahom royalty, who used to be buried with their paraphernalia.

⊙ After the 18th century, the Ahom rulers adopted the **Hindu method of cremation** and began entombing the cremated bones and ashes in a Maidam at Charaideo.

The Ahom Dynasty:

⊙ The Ahom dynasty (1228–1826) ruled the Ahom kingdom in present-day Assam, India for nearly 598 years.

⊙ The dynasty was established by **Sukaphaa**, a Shan prince of Mong Mao who came to Assam after crossing the **Patkai Mountains.**

⊙ The rule of this dynasty ended with the **Burmese invasion of Assam**.

⊙ In external medieval chronicles, the kings of this dynasty were called Asam Raja, whereas the subjects of the kingdom called them Chaopha or Swargadeo.

⊙ The Ahom rule lasted till the British annexed Assam in 1826, following **the Treaty of Yandabo.**

The famous battles of Ahoms:

Battle of Alaboi (1669):

⊙ In 1669, Aurangzeb dispatched the Rajput Raja Ram Singh I to recapture territories won back by the Ahoms.

⊙ The battle of Alaboi was fought between the Ahom armed force and Mughals trespassers on August 5, 1969, in the **Alaboi Hills near Dadara** in North Guwahati.

Battle of Saraighat (1671):

⊙ The battle of Sarai Ghat was one of the most significant warfare in medieval India.

⊙ The Battle of Saraighat was a **naval battle fought between 1671** between the Mughal Empire (led by the Kachwaha king, **Raja Ram Singh** I), and the Ahom Kingdom (led by **Lachit Borphukan**) on the Brahmaputra river at Saraighat, Guwahati, Assam.

⊙ Although weaker, the Ahom Army defeated the Mughal Army through brilliant uses of the terrain, clever diplomatic negotiations to buy time, **guerrilla tactics**, psychological warfare, **military intelligence** and by exploiting the sole weakness of the Mughal forces (navy).

UNESCO Heritage Site:
- The list of World Heritage Sites is maintained by the international '**World Heritage Programme'** which is administered by the UNESCO World Heritage Committee.
- A World Heritage Site is a place that is listed by UNESCO for its special cultural or physical significance.
- **Criteria for inclusion in the List of UNESCO World Heritage Sites:**
- Any heritage or any historical site has to be first on the tentative list to be a part of UNESCO's World Heritage sites.
- Once it makes it to the tentative list, then the proposal is sent to UNESCO for inclusion in the final List of UNESCO World Heritage Sites, only if the site:
  ➤ Contains significant natural habitats for the conservation of biological diversity, including threatened species of outstanding universal value from the point of view of science or conservation.

⊙ The Battle of Saraighat was the last battle in the last major attempt by the Mughals to extend their empire into Assam.

⊙ Though the Mughals managed to regain Guwahati briefly later after a Borphukan deserted it, the Ahoms wrested control in the **Battle of Itakhuli in 1682** and maintained it till the end of their rule.

HOW THE EARTH'S TILT CREATES SHORT AND COLD JANUARY DAYS?

CONTEXT:

Above the equator, winter officially begins in December, but in many areas, January is when it really takes hold which is mainly due to the earth's tilt and it seems to be different for different locations on earth.

EARTH'S SEASONS
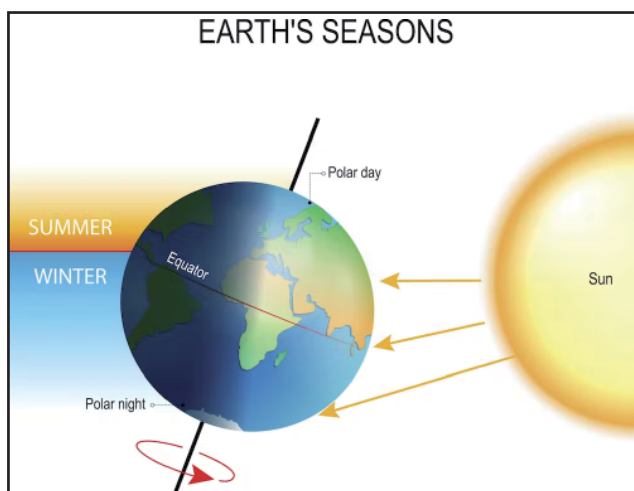
About the earth's axial tilt:

- Earth's axial tilt (also known as the **obliquity of the ecliptic**) is about **5 degrees**.

- Due to this axial tilt, the sun shines on different latitudes at different angles throughout the year.

- **The earth's spin axis is tilted with respect to its orbital plane**.

- This is what causes the seasons. When the earth's axis points towards the sun, it is summer for that hemisphere. When the earth's axis points away, winter can be expected.

How does the Earth's orbit influence our daylight and temperatures?

- As the Earth orbits the sun, it spins around an axis from the **North Pole to the South Pole**.

- **During the 24 hours** that it takes for the Earth to rotate once around its axis, every point on its surface faces toward the Sun for part of the time and away from it for part of the time. This is what causes daily changes in sunlight and temperature.

- There are **two other important factors**:
  - ➤ First, the **Earth is round,** although it's not a perfect sphere.

- ➤ Second, its **axis is tilted about 23.5 degrees** relative to its path around the Sun.

- As a result, light falls **directly on its equator** but strikes the **North and South poles at angles.**

- When one of the poles points more toward the Sun than the other pole, that half of the planet gets more sunlight than the other half, and it's summer in that hemisphere.

- When that pole tilts away from the Sun, that half of the Earth gets less sunlight and it's winter there.

What happens on earth due to the tilt?

- **Existence of seasons:** As the Earth orbits the Sun, sunlight strikes the surface at varying angles because of the planet's tilt. This creates seasons.

- The four seasons can be determined by the **solstices (the point of maximum axial tilt toward or away from the Sun) and the equinoxes (when the direction of tilt and the Sun are perpendicular**).

- In **the northern hemisphere**, the winter solstice occurs around **December 21st**, the summer solstice around **June 21st,** the spring equinox around **March 20th**, and the autumnal equinox on or about **September 22nd or 23rd.**

- In the **southern hemisphere**, the situation is reversed, with the summer and winter solstices exchanged and the spring and autumnal equinox dates swapped.

- **Changes in Wind directions**: As the Earth rotates; air circulates around it in the atmosphere. Mostly, in the northern hemisphere, the air comes from the Arctic region which is comparably cold**.**

- **Distribution of Sunlight:**

  - ➤ **At Poles**: Seasonal changes are the most dramatic at the poles, where the changes in light are the most extreme. During the summer, a pole receives 24 hours of sunlight and the Sun never sets. In the winter, the Sun never rises at all.

  - ➤ **At the Equator:** At the equator, which gets consistent direct sunlight, there's very little change in day length or temperature year-round. People, who live in high and middle latitudes, closer to the poles, can have very different ideas about seasons from those who live in the tropics.

Why January is too cold?

- **Due to less solar radiation falling on the earth's surface**: Earth's surface constantly absorbs energy from the Sun and stores it as heat. It also emits heat back into space.

- Whether the surface is warming or cooling depends on the balance between how much solar radiation the planet is absorbing and how much it is radiating away.

INDIA AND AUSTRIA SIGN MIGRATION AND MOBILITY AGREEMENT

CONTEXT:

India signed a "Comprehensive Migration and Mobility Partnership Agreement" (MMPA) with Austria. Along similar lines, India has also signed agreements with other European countries namely, France, the United Kingdom, Germany and Finland.

About MMPA:

◉ **Objective:** It aims at the facilitation of mobility of **students, academics, and researchers, migration for professional and economic reasons**, and abiding by equal treatment of nationals of both Parties in a similar situation.

  ➤ The provisions of this Agreement will be without prejudice to the application of national laws on the stay of foreigners on all the points that are not dealt with in this Agreement.

◉ **Significance:**

  ➤ **To curb illegal migration**: India is keen to finalise these agreements with European countries as a stepping stone to resolving issues over the long-pending **India-European Union (EU) Free Trade Agreement** and facilitating Indian professionals working in these countries, the European countries also see them as a way to curb illegal immigration from India.

  ➤ **Skill development**: The agreement will regulate multiple entry visas for professionals and student exchange programmes, and will be reviewed regularly by a Joint Working Group (JWG).

◉ **Need:**

  ➤ In view of the sharp increase in **illegal migration,** Austria was confronted with last year, including over 15,000 illegal migrants from India with practically no chance of asylum.

  ➤ The agreement is now a useful tool to combat illegal migration together, as it enables the swift return of illegal migrants.

Recent developments:

● **India-Germany mobility agreement:** India-Germany agreement on Migration and Mobility partnership to foster the exchange of skills, and talents.

CROATIA BECOMES A FULLY INTEGRATED MEMBER OF THE EU

CONTEXT:

Croatia has switched to the euro and entered Europe's passport-free zone – two important milestones for the country after joining the European Union (EU) nearly a decade ago.

About:

◉ The **Balkan nation** bid farewell to its **kuna currency** and became the 20th member of the **Eurozone**

◉ It is now the 27th nation in the **Schengen zone**, the **world's largest passport-free travel area**, which enables more than 400 million people to move freely around its members.

◉ Croatia, a former **Yugoslav republic** of 3.9 million people that fought a war of independence in the 1990s, joined the **EU** in 2013.

THE BILLS INTRODUCED AND CLEARED IN PARLIAMENT FOR YEAR 2022

CONTEXT:

According to the data collated by non-profit organisation *PRS Legislative Research* shows that the overall Parliament recorded 56 sittings in 2022, across the Budget, Monsoon, and winter sessions, the number of Parliament sittings has been declining over the last 50 years and has halved since the 1950s and 1960s.

◉ So, let us assess the bill that passed this year in Parliament.

About the Bills:

◉ **The Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Amendment Bill, 2022:**

  ➤ The Bill amends the 2005 version of the Act, which prohibits the unlawful manufacture, transport, or transfer of **weapons of mass destruction (WMD)**, including chemical, biological and nuclear weapons and their means of delivery.

➤ It includes the **prohibition of financing any activity related to WMD** and their delivery systems and gives the central government the power to crack down on financial sources suspected of catering to the same.

◉ **The Indian Antarctic Bill, 2022:**

➤ The Bill aims to regulate **visits and activities to Antarctica** as well as potential disputes that may arise among those present on the continent.

➤ It prohibits private **tours and expeditions to Antarctica** without a permit or written authorisation from a member country and includes provisions for penalising defaulters.

➤ The Bill also includes a structure for government officials to inspect **a vessel and conduct checks of research facilities and calls for creating a fund to protect the continent's environment.**

◉ **The Criminal Procedure (Identification) Bill, 2022:**

➤ This Bill replaces the **Identification of Prisoners Act, of 1920**.

➤ It allows the police and prison authorities to collect store and analyse physical and biological samples including the retina and iris scans of convicted, arrested and detained persons.

> The **National Crime Records Bureau of India (NCRB),** under the Union Home Ministry, is allowed to preserve records for at least 75 years.

◉ **The Delhi Municipal Corporation (Amendment) Bill, 2022:**

➤ This amendment Bill was introduced when Delhi was gearing up for Municipal Corporation elections, which were then halted.

➤ This Bill amended the **Delhi Municipal Corporation Act of 1957**, which was in turn amended by the Delhi Legislative Assembly in 2011, to divide the Municipal Corporation of Delhi into **three bodies— North, South, and East.**

➤ The new amendment merged all three bodies into one.

◉ **The Constitution (Scheduled Castes and Scheduled Tribes) Orders (Amendment) Bills, 2022:** This bill includes;

➤ The Bill amends the ST order to include the **Deshwari, Ganjhu, Dautalbandi (Dwalbandi), Patbandi, Raut, Maajhia, Khairi (Kheri), Tamaria (Tamadia), and Puran** communities of Jharkhand in the ST list and recategorises the Bhogta community in the State as ST from SC.

➤ It also excludes the Gond community from the SC list in four districts of Uttar Pradesh – **Sant Kabir Nagar, Sant Ravidas Nagar, Kushinagar, and Chandauli,** and adds it to the ST list in these four districts.

➤ The Bill amends the ST order to make the **Darlong community** of Tripura a sub-tribe of the Kuki tribe.

➤ It includes the **Narikoravan and Kurivikkaran** communities in the Tamil Nadu ST list.

➤ It includes **Betta-Kuruba** as a synonym for the **Kadu Kuruba community** in the Karnataka ST list.

◉ **The Central Universities (Amendment) Bill, 2022:**

➤ This Bill seeks to convert the **National Rail and Transportation Institute (NRTU)** into the '**Gati Shakti Vishwavidyalaya',** an autonomous central university.

➤ It also expands the scope of the university from just the **railways to cover** the entire transport sector and supports growth and modernisation in the field.

◉ **The Family Courts (Amendment) Bill, 2022:**

➤ This Bill pertained only to **Himachal Pradesh and Nagaland**.

➤ It amends the **Family Courts Act, 1984**, and extends the application of the Act to the mentioned States.

➤ Governments in both **Nagaland and Himachal Pradesh** had already set up family courts under the 1984 Act before it was applicable there.

◉ **The New Delhi International Arbitration Centre (Amendment) Bill, 2022:**

➤ This Bill renames the **New Delhi International Arbitration Centre** as the India International Arbitration Centre.

◉ **The Energy Conservation (Amendment) Bill, 2022:**

➤ This Bill facilitates the promotion of **green Hydrogen** as an alternative to fossil fuels used by industries and incentivises **efforts to use clean energy**.

THE CASE AGAINST STATE CONTROL OF HINDU TEMPLES

CONTEXT:

It's high time that we need to provide adequate community representation in the management of their places of worship. Regulation of secular activities associated with religious practice requires more attention.

Why the government control over temples needs to be replaced?

◉ States' control over temples has become a more controversial issue due to:

➤ **Gross mismanagement** of financial resources

➤ **Increasing Corruption**

➤ **Disregarding temple maintenance** leads to the loss and destruction of temple antiquities.

➤ **Against the principle of Secularism**

State interference in religion:

◉ The most fundamental criticism against the release of Hindu temples from government control to society is:

➤ To whom will the temples be handed over?

➤ Will it not perpetuate class hierarchies?

◉ Sovereign control of temples is justified on the grounds that Hindu temples were supervised and managed by kings.

◉ On the contrary, there are inscriptions, cast in stone that attest that temples were managed wholly and entirely by local communities.

Hindu temples under state shackles:

◉ The proponents of state management of temples argue that courts have accorded approval to this practice. Hence, it becomes pertinent to read the **Shirur Mutt judgment (1954)** of the Supreme Court.

◉ **Shirur Mutt judgment (1954):**

➤ The court held that the term "religion" will cover all rituals and practices "integral" to a religion, and took upon itself the responsibility of determining the essential and non-essential practices of a religion.

➤ Supreme Court obliterated the Madras Hindu Religious and Charitable Endowments (HR&CE) Act, 1951.

Constitutional Provisions:

Article 25(2) grants power to the State to enact the law on two distinct aspects.

◉ **Article 25(2)(a)** empowers the state to regulate "economic, financial, political or other secular activities which may be associated with religious practice".

◉ **Article 25(2)(b)** enables the state to enact a law to prohibit the exclusion of 'classes and sections' of Hindu society to enter into Hindu temples of a public character and also make laws for social welfare and reform.

◉ Thus, the control of secular aspects associated with religion and the power to throw open Hindu temples to all classes and sections of society are distinct.

◉ **The Constitution does not permit** the state to assume ownership of properties belonging to religious institutions.

SAMUDRAYAAN MISSION

CONTEXT:

India is aiming to send three persons to 6,000 meters below sea level as part of the Samudrayaan Mission. The mission heralds India's ushering into an era of a "Blue Economy" which is going to play a major part in building India's overall economy during the years to come.

About Samudrayaan Mission

◉ Samudrayaan Mission is aimed to develop a self-propelled manned submersible to carry three human beings to a water depth of 6,000 meters in the ocean with a suite of scientific sensors and tools for deep ocean exploration.

◉ It has an endurance of 12 hours of operational period and 96 hours in case of emergency.

◉ The projected timeline is five years for the period 2020-2021 to 2025-2026.

What are the main components of the Deep Sea Mission?

There are six components to this mission.

◉ **First component:** A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean.

◉ **Second component:** Developing a suite of observations and models to understand and provide future projections of important climate variables.

◉ **Third component:** Development of technological innovations to explore and conserve deep-sea biodiversity.

◉ **Fourth component:** Exploring multi-metal hydrothermal sulphides mineralisation along the Indian Ocean mid-oceanic ridges.

◉ **Fifth component:** Focus on developing an offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plant which will work with tidal energy.

◉ **Sixth component:** Establishment of an advanced Marine Station for Ocean Biology.

Need in India:

◉ For India, there lies a unique maritime position, a 7517 km long coastline, which is home to nine coastal states and 1,382 islands.

◉ The Government of India's vision of 'New India' highlights the Blue Economy as one of the ten core dimensions of growth.

Which other entities are involved in Samudrayaan?

◉ Indian Space Research Organization (ISRO), IITM, and Defence Research and Development Organisation (DRDO) will actively participate in this mission.

With the launch of the unique ocean mission 'Samudrayaan' in October 2021, India joined the elite club of nations such as the US, Russia, Japan, France, and China to have niche technology and vehicles to carry out subsea activities.

COURTS HAVE NO POWER TO REDUCE MINIMUM SENTENCE PRESCRIBED IN POCSO ACT

CONTEXT:

The Karnataka High Court has enhanced the sentence of five years imposed by the special court on an accused convicted under the Protection of Children From Sexual Offences (POCSO), Act, observing that when the Special Judge did not have any power whatsoever to reduce the minimum sentence to five years.

About the Case:

◉ A single-judge bench of Justice V. Srishananda upheld the conviction handed down to Shaikh Rouf under **Section 4** of the Act and **Section 376** of the Indian Penal Code and enhanced the sentence of the trial court.

Section (4) says that "Any person who contravenes the provisions of **sub-section (1) or sub-section (2)** shall be liable to be punished with imprisonment of either description for a period which shall not be less than six months but which may extend to one year or with fine or with both".

◉ However, the statute has prescribed a **minimum sentence of seven years** for the offence punishable under the POCSO Act.

What was the High Court's say on it?

◉ The approach of the trial Court in sentencing the respondent/accused for a period of five years for the offence under Section 4 of the POCSO Act is illegal as the minimum sentence that is prescribed under the provisions of Section 4 of the POCSO Act is seven years and there is no discretion vested in the learned Special judge to reduce the minimum sentence of seven years to five years.

Protection of Children from Sexual Offences (POCSO) Act 2012:

◉ **Definition:** "Children" according to the Act are individuals aged **below 18 years.** The Act is **gender-neutral.**

◉ **Types:** Different forms of sexual abuse including but not limited to **sexual harassment, pornography, penetrative & non-penetrative assault** are defined in the Act.

◉ **Child-friendly process:** The investigation process should be child-friendly and the case should be disposed of within one year from the date of reporting.

◉ **Special Court:** The Act provides for the establishment of **Special Courts** for the trial of such offences and matters related to them.

◉ **Implementing Agency:** The **National Commission for the Protection of Child Rights (NCPCR)** and **State Commissions for the Protection of Child Rights (SCPCRs)** monitor the Act's implementation.

◉ Both are **statutory bodies.**

INVESTMENT IN CAPITAL MARKETS THROUGH P-NOTES DROPPED

CONTEXT:

According to Sebi data, the value of P-note investments in Indian markets—equity, debt, and hybrid securities—stood at Rs.96, 292 crores at December-end, as compared to Rs.99, 315 crores at the end of November.

Equity, debt, and hybrid securities:

Equity Funds	Debt Funds	Hybrid Funds
• Invests in the stocks of companies.	• Invests in debt securities and money market instruments.	• Invests in both equity and debt instruments.
• Returns are fully dependent on the performance of the market.	• Returns are more stable and are not dependent on the performance of the market.	• Returns are partly stable and partly dependent on the performance of the market.
• These funds are very risky.	• These funds carry low levels of risk.	• These funds carry moderate levels of risk.

What are Participatory Motes (P- Notes)?

◉ P-notes are issued by registered **foreign portfolio investors (FPIs)** to overseas investors who wish to be a part of the Indian stock market without registering themselves directly after going through a due diligence process.

Who issues P- Notes and what is the process?

◉ Participatory notes are issued by brokers and FIIs registered with SEBI. The investment is made on behalf of these foreign investors by the already registered brokers in India.

◉ For example, Indian-based brokerages buy India-based securities and then issue participatory notes to foreign investors. Any dividends or capital gains collected from the underlying securities go back to the investors.

◉ The brokers that issue these notes or trades in Indian securities have to mandatorily report their PN issuance status to SEBI for each quarter. These notes allow foreign high-net-worth individuals, hedge funds and other investors to put money in Indian markets without being registered with SEBI, thus making their participation easy and smooth.

CII BUSINESS CONFIDENCE INDEX IMPROVES IN Q3 FY23

CONTEXT:

The Confederation of Indian Industry Business Confidence Index (CII- BCI) has shown an apparent increase in the October-December 2022 quarter, indicating the optimism Indian industry and the country's economic resilience.

About the index:

◉ The index rose to the level of 67.6 during the quarter, up from 62.2 in the previous July-September 2022 quarter.

◉ The Index is based on the findings of a survey of over 120 firms of varying sizes and across all industry sectors and regions of the country.

◉ Growth is expected to moderate further in the next year on global headwinds. Hence, to support growth, it is critical that RBI refrains from raising the interest rates any further.

◉ The latest first advance estimates of GDP for the current fiscal put the GDP print at 7 per cent.

◉ Nearly half of the respondents (47 per cent) have indicated that they have already started feeling the impact of the policy rate hikes by the RBI on the overall economic activity, revealed the survey.

◉ **High interest rates** have impinged on private investment levels too.

◉ Currently most of the heavy lifting to support growth is being done by public capex, with private capex playing a supporting role.

◉ Even as global economic growth is witnessing headwinds due to the tightening financial conditions and geopolitical tensions, an overwhelming 73 per cent of the survey respondents expect only a moderate impact on the Indian economy.

◉ In addition to **high borrowing costs**, the prevailing heightened uncertainty has prevented firms from furthering their investment plans.

Key findings:

◉ The index presents an encouraging prognosis with **90 per cent feeling** that their company's investment cycle will recover during the next fiscal.

◉ **Around 52 per cent** expect recovery during the first half of the next fiscal while about **37 per cent** of them foreseeing a pickup in investments by the second half of the year.

◉ Nearly half of the survey respondents feel that the capacity utilisation levels in their companies would range **between 75-100 per cent** during the Oct-Dec quarter.

◉ It is encouraging to note that given its bearing on the overall economy, a recovery in the rural demand is eagerly awaited and about 60 per cent of the respondents feel that a pick-up in rural consumption will take place in the next fiscal.

◉ With a resumption of business activity, expectations for the Oct-December quarter have improved as majority of the respondents anticipate an increase in sales (60 per cent) and count of new orders (55 per cent).

◉ Consequently, the profit outlook for the quarter has strengthened as nearly half of the respondents (47 per cent) foresee an increase in profit margins, despite the majority of them indicating high input costs.

Confederation of Indian Industry (CII):

● It is a non-government, not-for-profit, industry-led and industry-managed organization.

● It was founded in 1895; its headquarters is in New Delhi.

● It works to create and sustain an environment conducive to the development of India, partnering industry, Government and civil society, through advisory and consultative processes

IMF CONFIRMS RECEIPT OF INDIA'S FINANCING ASSURANCES FOR SRI LANKA

CONTEXT:

The International Monetary Fund (IMF) has confirmed receiving India's written financing assurance in support of Sri Lanka's economic revival, while Sri Lanka has expressed hope of completing talks on debt restructuring in six months' time.

About India-Sri -Lanka relations:

- India and Sri Lanka have a long history of cultural, religious, and trade ties dating back to ancient times.

- There are strong cultural ties between the two countries, with many Sri Lankans tracing their heritage to India. Buddhism, which originated in India, is also an important religion in Sri Lanka.

- **Economic ties:** India is Sri Lanka's third largest export destination, after the US and UK. More than 60% of Sri Lanka's exports enjoy the benefits of the India-Sri Lanka Free Trade Agreement. India is also a major investor in Sri Lanka.

- **Defence:** India and Sri Lanka conduct **joint Military (Mitra Shakti)** and **Naval exercise (SLINEX).**

Issues:

- **Killing of Fishermen:** Killing of Indian fishermen by the Sri Lankan Navy is a lingering issue between these two nations.

- **Influence of China:** China's rapidly growing economic footprint (and political clout as a corollary) in Sri Lanka is straining India-Sri Lanka relations.

  ➤ China is already the largest investor in Sri Lanka, accounting for 23.6% of the total Foreign Direct Investment (FDI) during 2010-2019 as against 10.4% from India.

- **13th Amendment of the Sri Lankan Constitution:** It envisages devolution of necessary powers to the provincial councils to address the just demand of the Tamil people for equality, justice, peace, and respect within a united Sri Lanka.

  ➤ India supports its implementation but the Sri Lankan government is yet to "fully implement" the 13th Amendment.

About International Monetary Fund (IMF)

- The IMF was set up along with the World Bank after the Second World War to assist in the reconstruction of war-ravaged countries.

- The two organizations agreed to be set up at a conference in Bretton Woods in the US. Hence, they are known as the Bretton Woods twins.

- The IMF is governed by and accountable to the 190 countries that make up its near-global membership.

  ➤ India joined on 27th December 1945.

- The IMF's primary purpose is to ensure the stability of the international monetary system — the system of exchange rates and international payments that enables countries (and their citizens) to transact with each other.

- The Fund's mandate was updated in 2012 to include all macroeconomic and financial sector issues that bear on global stability.

- **Reports by IMF:**

  ➤ Global Financial Stability Report

  ➤ World Economic Outlook

GAVI FOREST & ECO-SENSITIVE ZONES OF KERALA

CONTEXT:

As heated debates on buffer zones rage across the forest-fringe settlements in Kerala, the confusion on the impact of the buffer zone markings and resettlement reigns supreme among the residents in forest covered village at Gavi.

About the Gavi Forests:

- Gavi is an Eco-Tourism project of the **Kerala Forest Development Corporation** located in the **Pathanamthitta district, Kerala**.

- Gavi is inside the **Ranni reserve forest**. Gavi is a part of Seethathode Panchayath in Ranni Taluk.

- Gavi is part of the **Periyar Tiger Reserve**, and the route can be covered by car from Vandiperiyar.

- The forests offer its visitors activities like trekking, wildlife watching, outdoor camping in specially built tents, and night safaris.

- **Species found**: **The mammals include elephant, tiger, Indian giant squirrel, jungle cat, sloth bear, Nilgiri tahr and barking dear among others**.

- Gavi is also home to over 150 species of butterflies and 40 species of reptiles. The forest also has 140 species of orchids and 170 species of grass.

What are Eco-sensitive zones?

- As per the **National Wildlife Action Plan (2002-2016),** issued by the Union Ministry of Environment, Forest and Climate Change, land within 10 km of the boundaries of **national parks and wildlife sanctuaries** are to be notified as eco-fragile zones or Eco-sensitive Zones.

- However, the general rule of **a 10km boundary** may vary depending on the ecology of the land.

Areas beyond **10 km** can also be notified by the Union government as ESZs, if they hold larger ecologically important "sensitive corridors".

INDIA NOW HAS 212 INDIGENOUS LIVESTOCK BREEDS AFTER ICAR-NBAGR REGISTERS 10 NEW ONES

CONTEXT:

The Indian Council of Agricultural Research (ICAR) has registered 10 new breeds of livestock species, including cattle, buffalo, goat and pig in last one year.

About:

- The registration was done by **ICAR-National Bureau of Animal Genetic Resources (NBAGR).**

- The process involves identification and surveying of these breeds through visits to the native areas.

- This has taken the **total number of indigenous breeds** to 212.

- **The 10 new breeds includes**:
  - ➤ Three new cattle breeds (**Kathani, Sanchori, Masilum),**
  - ➤ One buffalo breed (**Purnathadi),**
  - ➤ Three goat breeds (**Sojat, Karauli, Gujari) and**
  - ➤ Three pig breeds (**Banda, Manipuri Black, Wak Chambil**).

- Since 2010, this is the **third highest increase** in registration of indigenous breeds, after 15 new breeds in 2018-19 and 13 new breeds in 2019-20 were recorded.

- In 2010, there were only 129 indigenous breeds registered, called '**extant breeds'.**

The Indian Council of Agricultural Research (ICAR):

- The Indian Council of Agricultural Research (ICAR) was established on 16 July 1929 as a registered society under **the Societies Registration Act, 1860.**

- It is an **autonomous organisation** under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India.

- It is headquartered **at New Delhi.**

- It is the **apex body for coordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country.**

SPECIES IN NEWS
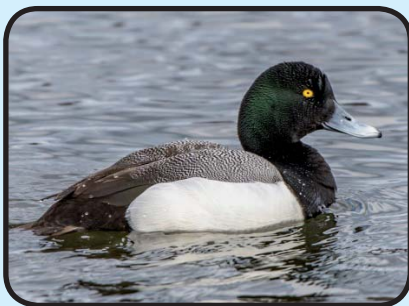
Greater Scaup	The species are seen after 90 years in Loktak Lake, Manipur.
	About: - The Greater Scaup is a medium-sized diving duck species that belongs to the family of Anatidae. - Greater Scaup, locally known as Sadangman, was recently sighted in Loktak Lake in Manipur's Bishnupur district after a gap of over 90 years. - Males have black breast, medium gray back, white sides, and yellow eye. - Head appears black with a greenish sheen in good lighting, never purplish. Females are brown overall, grayer on body in winter, with white patch at base of bill and yellow eye. - Very similar to Lesser Scaup; note smoothly rounded head without tall peak, puffier cheeks, more extensive white stripe on wing in flight, and larger, broader bill.

Spot Bellied Eagle Owl	A wildlife team recently stumbled upon a '**Spot Bellied Eagle Owl'** for the first time in **Seshachalam forest**, and for the third time in Andhra Pradesh.

About the species:

- **Scientific Name**: *Bubo Nipalensis*
- The bird's habitat, found on large trees in thick forests, is spread across the Indian sub-continent.
- It is a bold predatory bird, measuring 20-25 inches in length and weighing between 1.5 kg and 2 kg, feeds on small rodents and lizards.
- The bird makes a **strange scream similar to humans** and it is hence called the '**Ghost of the Forest'** in India and '**Devil Bird'** in Sri Lanka.
- **Protection status:** least concern

JAMES WEBB TELESCOPE DISCOVERS ITS FIRST EARTH-SIZED EXOPLANET

CONTEXT:

Recently, the National Aeronautics and Space Administration (NASA) announced that the James Webb Space Telescope has discovered its first new exoplanet named LHS 475 b, of the same size as Earth.

The James Webb Telescope:

- NASA's James Webb Space Telescope is the agency's successor to the famous **Hubble telescope**.
- It was launched on December 25, 2021, on a mission to study the earliest stars and peer back farther into the universe's past than ever before.

- The James Webb Space Telescope is the largest, most powerful space telescope ever built.
- It is able to observe objects in our solar system from Mars outward, look inside dust clouds to see where new stars and planets are forming and examine the atmospheres of planets orbiting other stars.

- The James Webb Space Telescope will use its infrared cameras to see through dust in our universe.
- Stars and planets form inside those dust clouds, so peeking inside could lead to exciting new discoveries.
- It will also be able to see objects (like the first galaxies) that are so far away that the expansion of the universe has made their light shift from visible to infrared Webb has a sun shield to protect its instruments and mirrors as the Webb telescope's cameras are sensitive to heat from the Sun.

What are exoplanets?

- Exoplanets are planets that orbit other stars and are beyond our solar system.

- According to NASA, more than **5,000 exoplanets** have been discovered.
- Scientists believe that there are more planets than stars as each star has at least one planet orbiting it.

Characteristics:

- They can be gas giants bigger than Jupiter or as small and rocky as Earth.
- They are also known to have different kinds of temperatures, from boiling hot to freezing cold.

The LHS 475 b exoplanet:

- It is located just 41 light-years away and the planet orbits very close to a red dwarf star and completes a full orbit in just two days.
- LHS 475 b is relatively close, 41 light-years away, and belongs to the constellation Octans.

CENTER FOR THE FOURTH INDUSTRIAL REVOLUTION (C4IR)

CONTEXT:

Recently, the World Economic Forum (WEF) has chosen Hyderabad, Telangana for establishing its Center for the Fourth Industrial Revolution (C4IR).

About the Centre of Fourth Industrial Revolution (C4IR):

⊙ C4IR Telangana is the **18th center** to join the World Economic Forum's Fourth Industrial Revolution (C4IR) Network, which is **spread in four continents.**

⊙ It will be an **autonomous non-profit organization** that will focus on healthcare and life sciences**.**

⊙ The Centre for the Fourth Industrial Revolution in India (C4IR) was established in October 2018 to focus on the role of emerging technologies across different sectors and to plug the challenges that will emanate from **Fourth Industrial Revolution.**

⊙ The three pillars on which C4IR work on are:

➤ **4IR technologies** such as artificial intelligence, the internet of things, blockchain and others.

➤ **Public-private cooperation**. For example: India recently announced drone services, an area where C4IR work with the Centre and several state governments.

➤ M**ulti-stakeholder partnership**. C4IR collaborates with various sectors —government, industries, start-ups, civil society, and consumers — for inclusiveness. The overall focus is to bring in greater social good by leveraging technologies.

Some prominent works of C4IR:

⊙ C4IR have monitored vaccination programmes and built up the digital healthcare ecosystem.

⊙ The Centre has developed a data ecosystem through a platform approach such as **UPI (Unified Payments Interface) and Aadhaar.** There are upcoming platforms as well, such as the one on logistics announced in the budget.

> ### What is 'Fourth Industrial Revolution'?
>
> • The fourth industrial revolution is conceptualized as an upgrade on the third revolution and is marked by a fusion of technologies straddling the physical, digital and biological worlds.

How will it be different from 3rd revolution?

⊙ There are 3 reasons why today's transformations represent not merely a prolongation of the 3rd Industrial Revolution but rather the arrival of a 4th and distinct one: velocity, scope, and systems impact.

⊙ The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the 4th is evolving at an exponential rather than a linear pace.

⊙ Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance**.**

# DOPPLER WEATHER RADAR NETWORK

CONTEXT:

On the Occasion of 148th Foundation Day of India Meteorological Department (IMD), the Ministry of Earth Science has inaugurated the Doppler Weather Radar (DWR) Systems in Jammu & Kashmir, Uttarakhand, and Himachal Pradesh.

⊙ The Ministry of Earth Science is also preparing to cover the entire Country the **Doppler weather radar network** by 2025 for more accurate forecasts related to extreme weather events.

What are Doppler Weather Radars?

⊙ Based on Doppler principle, the **radar is designed to improve precision in long-range weather forecasting** and surveillance using a parabolic dish antenna and a foam sandwich spherical radome.

⊙ DWR has the **equipment to measure rainfall intensity, wind shear and velocity and locate a storm centre** and the direction of a tornado or gust front.
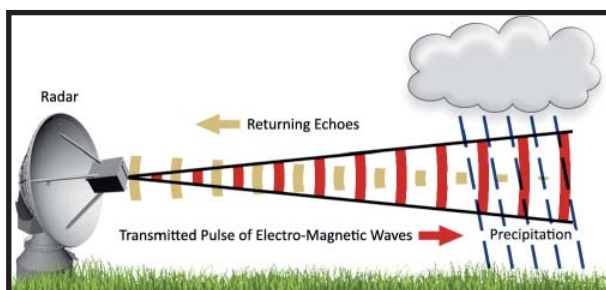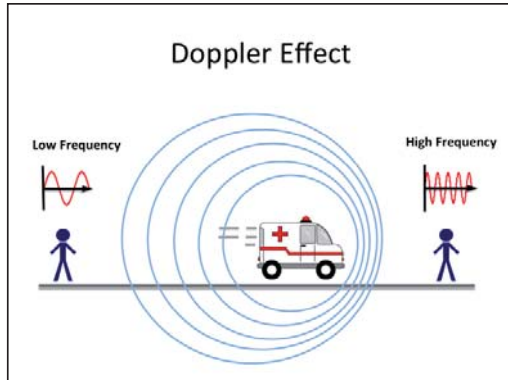

What is Radar?

⊙ **Radar (Radio Detection and Ranging):**

➤ It is a device which **uses electromagnetic waves in**

the microwaves region to detect location (range & direction), altitude, intensity and movement of moving and non-moving objects.

⊙ **Doppler Radar:**

Doppler Effect

➤ It is a specialized radar that uses the Doppler effect to produce velocity data about objects at a distance

Doppler Effect: When the source and the signal are in relative motion to each other there is a change in the frequency observed by the observer. If they are moving closer, frequency increases and vice versa.

➤ It does this by bouncing a microwave signal off a desired target and analyzing how the object's motion has altered the frequency of the returned signal.

➤ This variation gives direct and highly accurate measurements of the radial component of a target's velocity relative to the radar.

⊙ **Types Of Doppler Radars:**

➤ Doppler radar can be divided into **several different categories according to the wavelength which are L, S, C, X, K.**

X band radars:

They operate on a wavelength of 2.5-4 cm and a frequency **of 8-12 GHz**. Because of the smaller wavelength, the X band radar is more sensitive and can detect smaller particles.

Application:

⊙ These radars are used for **studies on cloud development** because they can detect the tiny water particles and also used to detect light precipitation such as snow.

⊙ X-band radars also attenuate (become less effective) very easily, so they are used for only very short-range weather observation.

⊙ Due to the small size of the radar, it can therefore be portable like the Doppler on Wheels (DOW). **Most major airplanes are equipped with X band radar** to pick up turbulence and other weather phenomena.

⊙ This band is also shared with some police speed radars and some space radars.

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SECTION: D
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CURRENT AFFAIRS

FSSAI sets standards for basmati rice

Context: In a bid to promote the **business around basmati rice**, the Food Safety and Standards Authority of India (FSSAI) notified standards for basmati rice.

About the initiative:

- It is going to be enforced from **August 1, 2023**.
- **Aim:** FSSAI hopes that the standards would protect consumer interest and ensure the basmati rice sold in the market has the characteristic fragrance identified with this variety and is free from artificial fragrances and colouring.
- It also set standards on parameters such as **average size of grains and their elongation ratio after cooking.**
- It has set the maximum limits for **moisture, amylose content, uric acid, damaged grains** and presence of non-basmati rice.
- The standards are applicable to brown basmati rice, milled basmati rice, parboiled brown basmati rice and milled parboiled basmati rice.

Ganga Vilas sails as Varanasi-Dibrugarh cruise

Context: The Prime Minister is set to flag off **the Ganga river cruise** from Varanasi.

About:

- **Named as:** The **Ganga Vilas**.
- The cruise will cover 3,200 km, crossing 27 river systems from **Varanasi to Dibrugarh in Assam**.
- The 51-day cruise, being pitched as the **world's longest river cruise**, is expected to reach its final destination — Dibrugarh in Assam, **on March 1.**
- The **Ministry of Ports, Shipping and Waterways** is the coordinator of this ship tourism project.

Key Features:

- The voyage is packed with visits to **50 tourist spots,** including World Heritage spots, national parks, river ghats, and major cities like Patna in Bihar, Sahibganj in Jharkhand, Kolkata in West Bengal, Dhaka in Bangladesh and Guwahati in Assam.
- The famous sites will include; the famous Ganga Arti in Varanasi, the Buddhist site of Sarnath; and even Majuli, the largest river island in Assam.
- The travellers will also visit the **Bihar School of Yoga** and Vikramshila University.
- The cruise will traverse through the Sunderbans in the Bay of Bengal delta, as well as the Kaziranga National Park.
- The vessel has **three decks, 18 suites** on board with a capacity of **36 tourists**, with all the luxury amenities.
- It will cost approximately **Rs.25, 000 per person per day.**

Prasar Bharati mulls own OTT platform	**Context:** Prasar Bharati is coming up with an **over-the-top (OTT) platform**.

About the move:

- The Centre had recently approved the **Broadcast Infrastructure Network Development (BIND) scheme** for Prasar bharati, for the upgrade and expansion of broadcasting infrastructure till 2025-2026.
- The public broadcaster had signed a **Memorandum of Understanding** with 'Yupp TV', an OTT platform.
- Owing to the platform, DD India is now accessible in the **United States, the United Kingdom, Europe, the Middle East, Singapore, Australia and New Zealand.**
- The channel is currently available in more than **190 countries via multiple platforms.**

Noise pollution affects dolphins' ability to communicate: What new study says	**Context:** A new study has found that the Noise from large commercial ships, military sonars or offshore drilling can severely impact the well-being of dolphins.

Dolphins: The Aquatic animal of India

- The Ganges River Dolphin or also **called 'Susu,**' is the National Aquatic Animal of India.
- It is located in Bhagalpur district of Bihar, India and is among the oldest animals in the world.
- The newly launched **MV Ganga Vilas cruise**, which will make stops at about 50 tourist and heritage sites along the Ganga and Brahmaputra river systems, could severely damage the habitat of the Ganges river dolphin, which already faces a number of threats, including water pollution and poaching.

India's population has already overtaken China's	

Context: According to estimates from the **World Population Review**, India may have already surpassed China as the world's most-populous nation.

About the Report:

- The **South Asian nation's population** stood at 1.417 billion as of end 2022.
- China has announced the first population decline since the 1960s.
- The United Nations had expected the milestone to be reached later this year.
- As of January 18, India's population had already climbed **to 1.428 billion**.
- India's rapid economic growth pre-Covid and its relatively strong recovery from the pandemic, about 800 million people still rely on free food rations from the government, the largest program of its kind in the world.

Rare dinosaur eggs found in Narmada Valley

Context: A group of Indian researchers **found rare cases of fossilised dinosaur eggs** —among 256 newly discovered eggs from the Narmada Valley.

About the study:

- The findings of the study are published in the journal *PLoS One* January 18, 2023.
- The discovery suggests that **Titanosaurs** — one of the largest dinosaurs to have roamed the Earth — displayed a notable reproductive trait **unique to modern-day birds.**
- The egg has two yolks; this feature can be seen in birds, suggesting they share similar reproductive traits.
- The eggs found measures **15-17 centimetres** in diameter.
- They were found during field investigations in the **Dhar district of Madhya Pradesh** between 2017 and 2020.
- They are found in **Lameta exposure** (is a sedimentary rock formation known for its dinosaur fossils).
- The eggs belonged to **six species**, suggesting a higher diversity of these extinct giants in India.

Saltie census 2023

Context: According to the **annual reptile census**, the population of **saltwater crocodiles in the water bodies** of Bhitarkanika National Park and its nearby areas in Odisha's Kendrapara district has marginally increased in 2023.

About the Census:

- The total count of crocodiles remained **at 1,793**.
- These included **20 whitish individuals**. Last year, officials had sighted **1,784 reptiles**.
- The peak winter, exposure of more **than 50 per cent** of mud banks and the lunar cycle are suitable periods for counting the reptiles.

The crocodile species found in India:

- India is home to three crocodile species – **Gharial, Mugger, and Saltwater** Crocodile.
- Usually spotted on banks of the aquatic systems, crocodiles are cold-blooded animals that spend a large part of their day basking under the sun.
- **Threats:**
  - Crocodiles too are facing threats due to climate change, habitat degradation, irreversible development activities, and illegal poaching.
- In order to conserve crocodiles in the wild, the Government of India initiated the **Crocodile Conservation Project in 1975** to rebuild the crocodilian population.
- Numerous breeding centres have been established along their native habitat that rear hatchlings and reintroduce them upon maturity.
- Other action interventions, including building of artificial nesting and basking sites, are also being carried out.

The saltwater crocodile:

- It is also the largest reptile in the world. The species inhabits a few coastal regions in India including **Odisha, West Bengal, and the Indian Islands**.
- A long and powerful tail, webbed digits, and powerful jaws make the animal an excellent predator in aquatic habitats.
- **Protection status:**
  - ➤ It has been listed as **Least Concern** on the IUCN Red List since 1996.

Green comet' appearing close to Earth after 50,000 year

Context: A comet is estimated to come closest to Earth around February 2 termed **the 'C/2022 E3 (ZTF)'.**

About the Comet:

- The comet was named to refer to those who first spotted it – astronomers using the wide-field survey camera at the **Zwicky Transient Facility (ZTF)** in the US, in **March 2022**.

What are Green Comets?

- The orbit indicates it comes from the edge of our solar system, a distant reservoir of comets we call the **Oort cloud.**
- The **Oort cloud** is thought to be a big, spherical region of outer space enveloping our sun, consisting of innumerable small objects, such as comets and asteroids.
- It has been reported that the green comet could be at a distance **of 2.5 light minutes** from Earth, which means a mere **27 million miles.**

What does 'shadow banning' of social media posts mean?

Context: The term is related to the fact that social media companies are taking stealth actions to limit a post's visibility.

What does shadow banning mean?

> The term was coined by **Jonathan Zittrain**, a professor of computer science and law at Harvard University.

- A shadow ban refers to partially blocking or blacklisting a user's profile to reduce visibility without their knowledge.
- It may lead to less engagement with the account and low visibility of posts instead of an outright ban.
- In other words, followers cannot see your posts on a social media platform.
- It refers to a situation that our online activity can be manipulated by a platform without our knowledge.

The India International Science Festival in Bhopal

Context: The **8th edition** of the India International Science Festival (IISF) was inaugurated at the Maulana Azad National Institute of Technology (MANIT), Bhopal, on January 21, 2023.

About the event:

- **Theme**: *Marching towards Amrit Kaal with Science, Technology, and Innovation.*

INDIA INTERNATIONAL SCIENCE FESTIVAL 2022
21-24 January, 2023
MANIT, Bhopal

- It is a four-day festival, also aligned with the G20 vision, which is *Vasudhaiva Kutumbakam* or "**One Earth· One Family · One Future.**"
- IISF will feature 14 thematic events:
  - ➤ Students Science Village
  - ➤ Face to face with New Frontiers of Science & Technology
  - ➤ Science through Games & Toys
  - ➤ Students Innovation Festival
  - ➤ Vaigyanika (Literature)
  - ➤ International Science Film Festival
  - ➤ Guinness World Records attempts
  - ➤ Artisan's Technology Village-Vocal for Local
  - ➤ Young Scientist Conclave
  - ➤ New Age Technology Show
  - ➤ National Social Organisations and Institutions Meet (NSOIM)
  - ➤ STEM @ 2022-Mega Science and Technology Exhibition
  - ➤ Start-up Meet
  - ➤ Science and Technology Council Conclave.

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