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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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SECTION: 'A' (MAINS)

CURRENT AFFAIRS

EDUCATED WOMEN ARE LIKELY TO MARRY LATER: NFHS

CONTEXT:

National Family Health Survey-5 (NFHS) data shows that higher education levels could play a greater role than wealth in delaying a woman's marriage in today's Indian Society.

Highlights of NFHS-5:

- The median marriage age of a woman who has completed over 11 years of schooling is 23 compared to 17.6 for a woman with less than five years of schooling.
- The data also reflect wide variations between the marital age of rural and urban women, and Dalit and upper-caste women.
- Social evils like **dowry system**, **poverty**, **caste biasness** remained a major reason for girls fluctuating age of marriage.

Factors responsible for early marriages of girls in India:

- **Poverty** is the greatest determinant of early marriage.
- **Societal barriers:** It is believed that Marriage is a woman's primary economic security.
- Lack of Literacy
- Norms associated to fertility
- Wrong perception of providing social security to daughters from societal offences than an unmarried woman.

Impacts of early marriages:

- Multiple diseases: The nutritional needs are high in late adolescence (15-19 years) and a fair measure of adolescent girls suffer from multiple forms of under nutrition, from chronic energy deficiency, iron deficiency to micronutrient deficiency.
 - ➤ The marriage and delivery during adolescence drain their already poor nutritional reserves and also lead to child stunting and mortality to multiple diseases at a later stage.

What do the Laws/Acts say?

 The law of land prescribes the minimum age of marriage shoud be 21 years and 18 years for men and women respectively. • Special Marriage Act, 1954 and Prohibition of Child Marriage Act, 20006: Prescribed 18 and 21 years as teh minimum age of consent for marriage for women and men respectively.

- Hindu Marriage Act, 1955 Section 5(iii): 18 years as teh minimum age for the bride and 21 years as the minimum age for the groom.
- Age of Consent Bill, 1927: IT amended the provision of rape in 1927 adn declared teh marriage with a girl under 11 invalid.
- Sarda Act was amended in 1978 and it prescribed 18 and 21 years as the age of marriage for a woman and a man respectively.
- In teh 1880s a legal framework for a age of consent for marriage began.
- **The Indian Penal Code, 1860:** Criminalised sexual intercourse with a girl below the age of 10.
- **In Islam**, the marriage of a minor who has attained puberty is conisered valid.
- Toll on mental health: Psychologically, women married as children are more likely to suffer from symptoms related to post-traumatic stress disorder (PTSD) and symptoms of depression.
- **Low access to education:** Marriage dramatically limits a girl's access to education.
- Domestic violence: According to the International Council of Research on Women (ICRW), women with low levels of education and married adolescents between the ages of 15-19 years old are at a higher risk of domestic violence than older and more educated women.

Factors responsible for changing trends of marriage:

- To reduced maternal deaths: Increase in marriageable age of girls will help in lowering maternal deaths and improving nutrition levels in the near term by putting more number of girls in college and enabling them to achieve greater financial independence in the long-term.
- **To keep population in check**: Helpful in controlling the population as it may help in keeping the population in check.
- Improved health: It would be helpful for Children's health and Women's overall development as the children who are born to mothers who tend to get married at an early age may develop health problems.
- **Equality**: Increasing the age of marriage will make the marriage age equal for both men and women.
- **Women's Health**: Increasing the Marriage age can reduce Mortality Rates and can reduce the diseases



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like anaemia among them. (young mothers are more susceptible to anaemia)

- **Enormous opportunities:** Increasing women's legal marriage age will give more power and legal support to all women so that they can choose the opportunities to educate and empower themselves, before being burdened with marriage and motherhood.
- **Increased participation in labour force**: India will get a large number of labour forces by increasing the marriageable age. In India Female labour Force participation is too low as compared to world average.

E-POSTAL BALLOT FOR OVERSEAS INDIAN VOTERS

CONTEXT:

The Election Commission of India (ECI) has proposed to change the rules pertaining to the conduct of election rules to facilitate the 'electronicallytransmitted postal ballot system' for overseas Indian voters.

Background:

- In 2014, a committee constituted by the ECI concluded that **proxy voting** was the most viable solution.
- A Bill was passed in the **16th Lok Sabha (2014-19)** to enable this. But Bill lapsed with the dissolution of the 16th Lok Sabha.
- The ECI then approached the government to permit NRIs to vote via postal ballots similar to a system that is already used by service voters, (a member of the armed Forces of the Union; or a member of a force to which provisions of the Army Act, 1950) which is the Electronically Transmitted Postal Ballot System or ETPBS.

About the development:

- The Election Commission of India has taken up a proposal to amend the Conduct of Elections Rules, 1961 to facilitate electronically-transmitted postal ballot system for overseas electors.
- The matter is under discussions with the **Ministry of External Affairs** to roll out the logistical challenges involved in the implementation of the proposal.

What is the issue?

- Citizens who leave the country for short-term work often miss out on exercising their voting rights.
- Overseas citizens, although can cast their vote, the

necessity to vote in person comes with a monetary cost and acts as a disincentive to exercise their voting mandate.

Voting Rules for overseas voters:

- Representation of the People (Amendment) Act, 2010: After the passing of the Act, NRIs have been able to vote, but only in person at the polling station where they have been enrolled as an overseas elector.
 - ➤ The provision of having to visit the polling booth in person has discouraged eligible voters from exercising their mandate.
- Amendment to Conduct of Election Rules, 1961: The Rule was amended in 2016 to allow service voters to use the Electronically Transmitted Postal Ballot System (ETPBS).
 - Under this system, postal ballots are sent electronically to registered service voters.
 - ► The service voter can then register their mandate on the ballot and send it back via ordinary mail.
 - The ECI proposed to extend this facility to overseas voters as well.
- In the case of overseas voters: The address mentioned in the passport is taken as the place of ordinary residence and chosen as the constituency for the overseas voter to enroll.

Significance of electronic voting:

- Greater turnout among service voters in the process of voting.
- It is a more trustworthy way of registering mandates rather than appointing proxies.

EXTEND PMAY-U DEADLINE TO COVER ALL

CONTEXT:

The Parliamentary Standing Committee on Housing and Urban Affairs in its report has raised concerns that some people could not avail the benefits of the Pradhan Mantri Awas Yojana-Urban (PMAY-U) due to the eligibility criteria or other impediments.

Findings of the report:

Committee recommended that the ministry can extend the scheme, which is set to end on **December** 31, 2024, if needed, to cover those who remained lack of houses.



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• The Committee recommended that the ministry should **conduct an impact assessment** of the scheme to understand the benefits and gaps.

 The panel noted that 60% of the total houses sanctioned were under the beneficiary-led construction (BLC) vertical, where purchasing land had been challenging for the beneficiaries.

About the Pradhan Mantri Awas Yojana-Urban (PMAY-U):

- Coverage: The Mission covers the entire urban area consisting of Statutory Towns, Notified Planning Areas, Development Authorities, Special Area Development Authorities, Industrial Development Authorities or any such authority under State legislation which is entrusted with the functions of urban planning & regulations.
- **Implementation:** Mission is implemented as **Centrally Sponsored Scheme (CSS)** except for the component of credit linked subsidy which will be implemented as a Central Sector Scheme.

Beneficiaries:

- Beneficiaries include economically weaker section (EWS), low-income groups (LIGs) and Middle Income Groups (MIGs).
- A beneficiary family comprises husband, wife, unmarried sons and/or unmarried daughters.
- The ownership of houses is provided in the name of female member or in joint name.

Centrally Sponsored Scheme (CSS) vs. Central sector scheme:

- Centrally Sponsored Schemes are different from Central Sector Schemes in the sense that Central Sector Schemes are implemented by Centre directly while Centrally Sponsored Schemes are implemented by states.
- CSS are extended by the Union Government to States under **Article 282** of the Constitution.

Phases of the Mission:

- It has been implemented in phased manner as under;
 - Phase I (April 2015-March 2017)- to cover 100 Cities selected from States/UTs as per their willingness
 - Phase II (April 2017-March 2019)- to cover additional 200 Cities
 - Phase III (April 2019-March 2022) to cover all other remaining Cities.

Mission with all its component has become effective from the date 17.06.2015 and will be implemented up to March 2022 but now extended **till December 2024.**

Four Verticals under the Scheme:

In Situ Slum Redevelopment (ISSR): This vertical will be implemented with the concept **"Land as a resource"** with private sector participation for providing houses to eligible slum dwellers.

- Affordable Housing through Credit Linked Subsidy (CLSS): Beneficiaries of EWS, LIG, MIG (I &II) seeking housing loans from Banks, Housing Finance Companies and other such institutions for acquiring, new construction or enhancement of houses are eligible for an interest subsidy of:
 - Affordable Housing through Partnership (AHP): An affordable housing project can be a mix of houses for different categories but it will be eligible for Central Assistance, if at least 35% of the houses in the project are in the EWS category.
 - Beneficiary-led individual house construction (BLC): Central Assistance up to Rs. 1.5 lakh per EWS house is provided to eligible families belonging to EWS categories for individual house construction/ enhancement.

Government initiatives for implementation of the Scheme:

- CLSS Awas Portal (CLAP): It is a common platform where all stakeholders i.e., MoHUA, Central Nodal Agencies, Primary Lending Institutions, Beneficiaries and Citizens are integrated in a realtime environment.
- Affordable Rental Housing Complexes (ARHCs): It is a sub-scheme under PMAY-U. This will provide ease of living to urban migrants/ poor in the Industrial Sector as well as in non-formal urban economies to get access to dignified affordable rental housing close to their workplace.

INTER-SERVICES ORGANIZATIONS BILL, 2023

CONTEXT:

Recently, the Inter-Services Organisations (Command, Control and Discipline) Bill, 2023, was introduced in Lok Sabha to empower designated military commanders to take charge of soldiers and enforce discipline, regardless of the service they belong to.

o Need of the Bill:

 The bill came ahead of the impending move to establish integrated or joint commands, where



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all the manpower and assets will be under the operational control of a single **three-star** general of the **Indian Army, Navy and IAF (Indian Air Force)**.

• Key Provisions:

- The system is likely to include five joint services commands - western, eastern, northern, maritime, and air defense.
- The central government may constitute an Interservices Organisation, which may include a Joint Services Command.
- It will empower the Commander-in-Chief/ the Officer-in Command of Inter-Services Organisations to maintain discipline and ensure proper discharge of duties of all the personnel from the army, navy and IAF serving under his command.
- ➤ The Commander-in-Chief or the Officer-in-Command of an Inter-services Organisation shall be the head of such Inter-services Organisation.
- Significance:
 - The bill will pave way for various tangible benefits such as expeditious disposal of cases, saving time and public money by avoiding multiple proceedings and greater integration and joint Manship amongst Armed Forces personnel.

What is the present set-up for the Tri-services?

- At present, soldiers from their respective services are governed by different Acts of Parliament.
- They are ;
 - > The Navy Act of 1957,
 - > The Air Force Act of 1950, and
 - ► The Army Act of 1950.
- In a current joint services setup, an army soldier commanded by a navy officer would have to be sent back to his parent unit for any disciplinary proceedings. The navy officer does not have administrative powers over the said soldier.
- The Indian armed forces currently have 17 commands. There are 7 commands each of the Army and the Air Force. The Navy has 3 commands.
- Each command is headed by a **4-star rank military** officer.

There is one joint command in Andaman and Nicobar Islands which is the **first Tri-Service theatre command** of the Indian Armed Forces, based at Port Blair in Andaman and Nicobar Islands of India.

• The other tri-service command, the **Strategic Forces Command (SFC)**, looks after the delivery and operational control of the country's nuclear assets. There are also some tri-service organisations like the Defence Intelligence Agency, Defence Cyber Agency, Defence Space Agency, etc.

Concerns:

- Cumbersome disposal process: The personnel serving in the Inter-services Organisations need to be revert to their parent Service units for any disciplinary or administrative action.
 - The problem becomes more cumbersome when the proceedings arise from the same set of facts and circumstances but involves personnel belonging to different services.
- Affect standard of discipline: Multiple sets of proceedings under the respective Service Acts are required to be initiated, which impedes expeditious disposal of cases.
- **Different mechanism for administrative action**: The bill also provides that the service personnel will continue to be governed by their **respective Service Acts** for the purposes of disciplinary or administrative action, if any, when serving in or attached to an Interservices Organisation.

PM MITRA: SEVEN STATES SELECTED TO DEVELOP MEGA TEXTILE PARKS

CONTEXT:

The Centre has selected sites in Tamil Nadu, Telangana, Karnataka, Maharashtra, Gujarat, Madhya Pradesh and Uttar Pradesh to set up new textile parks under the PM MITRA scheme.

Key-highlights of the development:

- Each park will come up in at least **1,000 acre land** with ready nearby availability of raw material, fullyequipped infrastructure including port, road and rail connectivity, water and power availability etc.
- Objective: The mega textile parks are expected to emerge as manufacturing hubs, create employment, create global champions and enable access to state of the art textile technology.
- Centre's assistance: The Centre's assistance for these parks, categorised into Greenfield and Brownfield, would be 51 per cent and the balance would have to be borne by the respective State governments.
- Cost: The Rs. 4,445-crore centrally sponsored scheme will be in operation till 2027 under the Ministry of Textiles.



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 Implementation: A special purpose vehicle (SPV) owned by the Centre and state governments will be set up for each park, which will oversee the implementation of the project.

About PM MITRA scheme:

- PM MITRA parks are envisaged to help India in achieving the United Nations Sustainable Development Goal 9 — 'Build resilient infrastructure, promote sustainable industrialization and foster innovation'.
- Objective: The scheme aims to realise the vision of building an Atmanirbhar Bharat and to position India strongly on the global textiles map.
- '5F' Formula: PM MITRA is inspired by the '5F Formula':
 - ► Farm to fibre
 - ► fibre to factory
 - factory to fashion
 - fashion to foreign
- The scheme will develop integrated large scale and modern industrial infrastructure facility for total value-chain of the textile industry for example, spinning, weaving, processing, garmenting, textile manufacturing, and processing & printing machinery industry.

India's Textile Sector:

- The textile sector accounts for more than two per cent of the **total GDP** and more than 12 per cent of the manufacturing sector **gross domestic product** (GDP).
- The sector is also the **second largest provider** of employment in India, after agriculture.
- It provides employment to an estimated 45 million people directly and to another 60 million indirectly through allied activities.
- India is the **sixth largest exporter** of textile and apparel in the world, with **four per cent** share of the global trade in textiles and apparel.

Schemes launched by the Government in Textile sector:

- Production Linked Incentive Scheme
- Scheme for Capacity Building in Textile Sector (SAMARTH)
- Amended Technology Up-gradation Fund Scheme (ATUFS)
- National Technical Textile Mission
- Scheme for Integrated Textile Parks (SITP)
- Integrated Processing Development Scheme (IPDS)

Significance:

 Reduced Logistics Cost: It will reduce logistics cost and strengthen the value chain of the textile sector to make it globally competitive.

- Employment Generation: Each park is expected to directly generate 1 lakh jobs and indirectly generate a further 2 lakh jobs.
- Advancement in infrastructure and investment: Parks would provide state-of-the-art infrastructure for the textiles sector, attract investment of crores.

EXECUTION BY HANGING AND A POSSIBLE ALTERNATIVE

CONTEXT:

The Supreme Court (SC) asked the Centre to provide data which may point to a more dignified, less painful and socially acceptable method of executing prisoners other than death by hanging.

About the case:

- The Court was hearing a petition on constitutionality of death 'by hanging 'as a mode of execution, as Section 354 (5) of the Code of Criminal Procedure mandates that a person sentenced to death shall "be hanged by the neck till he is dead".
- The Chief Justice of India D.Y. Chandrachud and Justice P.S. Narasimha has also asked for setting up of an expert committee to relook at India's method of putting to death its criminals.
- The Bench has also mentioned that the fields of science and technology must also be considered for any other method of execution consistent with human dignity.

Death Penalty:

- It is **capital punishment**, as the criminal hangs until death. This type of punishment is rare.
- Death punishment can be provided for offences under **sections 121, 132**, etc. In the aforementioned sections, the court doesn't need capital punishment.
- The death penalty is **not constitutional** and is proved **invalid as a punishment.**
- The Supreme Court recognised the **death penalty** as valid.
- The court had earlier clarified that it was not questioning the constitutionality of the death penalty,



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which was well-settled in **Deena versus Union of India judgment** and the **Bachan Singh case** reported in 1980.

Different modes of Death Execution:

- Lethal injection: Typically, three drugs are used in lethal injection.
 - Pancuronium bromide (Pavulon) is used to cause muscle paralysis and respiratory arrest, potassium chloride to stop the heart, and midazolam for sedation.
 - Lethal injection is the practice of injecting one or more drugs into a person for the express purpose of causing rapid death.
- Lethal Gas:
 - During a lethal gas execution, the prisoner is sealed in an airtight chamber and either potassium cyanide or sodium cyanide is dropped into a pan of hydrochloric acid.
 - ➤ This produces hydrocyanic gas, which destroys a human body's ability to process blood haemoglobin.
- Hanging:
 - Hanging, execution or murder by strangling or breaking the neck by a suspended noose.
 - ➤ The traditional method of execution involves suspending victims from a gallows or crossbeam until they have **died of asphyxiation**.
- Firing Squad:
 - Execution by firing squad is a method of capital punishment, particularly common in the military and in times of war.
 - Some reasons for its use are that firearms are usually readily available and a gunshot to a vital organ, such as the brain or heart, most often will kill relatively quickly.
- Electrocution:
 - Electrocution produces visibly destructive effects on the body, as the internal organs are burned.
 - The prisoner usually leaps forward against the restraints when the switch is turned on.

Centre's stand on hanging as a death penalty:

- In 2018, the Centre filed an **affidavit supporting death by hanging**.
- It had not found the method of execution "barbaric, inhuman and cruel" compared to firing squads and lethal injections.
- The Centre had also said the mode of execution is a "matter of legislative policy".

- The government said the death penalty is awarded only in the **rarest of rare cases**.
- There have been only three executions between 2012 and 2015.

Concerns of alternatives:

- The government had traced statistics regarding administration of **lethal injections to condemned prisoners** in the United States for 110 years to prove its point that this mode of State execution was only designed to create an appearance of serenity and painless death.
- Besides, if known to the public, the **lethal chemical** would possibly be misused.

PRUDENT ASSET LIABILITY MANAGEMENT

CONTEXT:

Reserve Bank of India (RBI) governor Shaktikanta Das mentioned that developments in the U.S. banking sector highlight the importance of ensuring 'prudent asset liability management'.

Background:

- The recent developments in the United States' banking system have brought to the fore the criticality of banking sector regulation and supervision.
- The ripple effects of the failure of the Silicon Valley Bank (SVB), the 16th largest bank in the US, may be seen globally.
- SVB collapsed because of poor financial management.

What is Asset Liability Management?

- ALM in banking means managing the cash flows of assets and liabilities to increase profitability, manages risk, and maintains safety and soundness.
- Simply put, it is the process whereby a bank's total assets and liabilities are controlled and managed simultaneously in an integrated fashion.
- ALM is all about managing three central risks:
 - Interest Rate Risk
 - ► Liquidity Risk
 - ► Foreign currency risk
- For banks with **forex operations**, it also includes managing,
 - Currency risk

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Issues with Banking sector in India:

 NPAs of public sector banks: Parliamentary committee noted that the problem of high loan writeoffs and NPAs, combined with low asset growth, is more severe for public sector banks (PSBs) than private banks.

- Lowering of Capital to Risk-weighted Assets Ratio (CRAR) requirement: The RBI's requirement of a minimum CRAR of 9%, to prevent banks from becoming highly leveraged, is 1% higher than the Basel III norms for internationally active banks.
- Performance of the National Company Law Tribunals (NCLT): Larger NPAs under the Insolvency and Bankruptcy Code (IBC) have been taking much longer than the stipulated time period of 270 days.
- Powers of the RBI in case of PSBs: RBI had stated that some powers available to the RBI under the Banking Regulation Act, 1949 are not available in the case of PSBs. These include: (i) removing and appointing Chairman and Managing Directors of banks, (ii) superseding the Board of Directors etc.

Way forward:

- Reducing CRAR: High CRAR requirement is impractical for these banks, and a relaxation would release capital and increase credit in the market.
- **Strengthening NCLT**: NCLTs' resources are increased to enable them to dispose of such cases swiftly.
- Strengthening RBI: Government should constitute a high powered committee to evaluate the powers of the RBI with respect to PSBs as provided under various statutes.

HYDROPOWER POTENTIAL IN INDIA

CONTEXT:

Recently, the Parliament had informed that India has exploited 29 per cent of its hydropower potential against over 80 per cent and 70 per cent developed by the US and European Union respectively.

About the information:

 As per the Reassessment Study carried out by the Central Electricity Authority (CEA) during 1978-1987, the assessed hydropower potential in the country is about 1,45,320 MW (for projects with capacity above 25 MW). The main challenges in the development of hydroelectric potential in the country are remote location, unpredictable geology, natural calamities, environment and forest issues, Rehabilitation and Resettlement (R&R) issues, law & order issues and inter-state issues.

 The coal stocking norms of the Central Electricity Authority mandate the power plants to maintain coal stock which varies from month to month basis.

The stocking norms are **20 to 26 days** in non-pithead plants and **12 to 17 days** in pithead plants so as to ensure sufficient coal stock at power plants to meet demand.

Central Electricity Authority:

 CEA is a Statutory Body constituted under the erstwhile Electricity (Supply) Act, 1948, hereinafter replaced by the Electricity Act, 2003, where similar provisions exists, the office of the CEA is an "Attached Office" of the Ministry of Power.

Hydroelectric Potential in India:

- Hydropower potential is located mainly in **northern** and north-eastern regions.
- Arunachal Pradesh has the largest unexploited hydropower potential of 47 GW, followed by Uttarakhand with 12 GW.
- The unexploited potential is mainly along **three river** systems the Indus, Ganges and Brahmaputra
- India has several international issues across these river systems. Like electricity, hydropower should also be brought on the **concurrent list** to formulate uniform policies and processes for faster development.
- India has over 90 GW of pumped storage potential, with 63 sites identified and recognised in national energy policies for their valuable grid services.

India has an estimated hydropower potential of 1, 45,320 MW, excluding small hydro projects (SHPs) which has 20 GW potential.

- The estimated potential of Small Hydropwer of 21135.37 MW from 7135 sites for power generation in the country from small / mini hydel projects is assessed by the Alternate Hydro Energy Centre (AHEC) of IIT Roorkee in its Small Hydro Database of July 2016.
- The hilly States of India mainly Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir and Uttarakhand, and constitute around half of this potential.
- Other potential States are Maharashtra, Chhattisgarh, Karnataka and Kerala.

India ranks as the **fourth country** in the world by undeveloped hydropower potential, after Russia, China and Canada, and **fifth by total potential**, surpassed also by Brazil.

Issues in Hydropower generation:

- Development vs. Indigenous communities: In central India, the hydroelectric power potential from the Godavari, Mahanadi, Nagavali, Vamsadhara and Narmada river basins has not been developed on a major scale due to potential opposition from the tribal population.
- Majority power from thermal source: Hydropower's share in the electricity mix has, however, been decreasing over the years, accounting for around 10 per cent of generation, with the majority (80 per cent) coming from thermal generation.
- Complex clearance norms: Many current hydropower projects have been slow going with delays due to complex planning procedures, prolonged land acquisition and resettlement, a lack of enabling infrastructure including transmission, insufficient market scope and long-term financing.
- Environmental concerns: Several hydroelectric projects (HEPs) in India are languishing due to contractual conflicts, environmental litigations, local disturbances, financial stress and unwilling purchasers.
 - Only about 10,000 MW of hydropower could be added over the last 10 years.
- Centre-state dispute: As water and water power are State subjects, the construction of HEPs is often delayed due to conflicts among riparian States — the Subansiri HEP is a prime example of this.

Major Hydropower projects in India:

o Tehri Hydropower Project:

- Topping the list of hydroelectric power plants in India is the Tehri Dam in Uttarakhand, the highest hydroelectric power project in the country. It is also the eighth-tallest dam in the world and the second-tallest in Asia.
- ➤ Commissioned in 2006, the first construction began in 1978 helped by technical collaboration from the former USSR.
- Located at the confluence of the Bhagirathi and the Bhilangana rivers.
- Sardar Sarovar Dam:
 - ➤ This dam counts as the world's second-largest concrete dam—after Grand Coulee which sits across River Columbia in the US—in terms of the volume of concrete used in its construction.

INDIA'S DEEP OCEAN MISSION

CONTEXT:

The National Institute of Ocean Technology is set to take an edge by undergoing a 6,000-metre dive into the Indian Ocean for a mission to explore marine biodiversity and potential of the seabed.

About Deep Ocean Missions:

- Deep Ocean mission is the Government of India's mission to study the various aspects of ocean in an integrated framework.
- **Objective:** The focus of the mission will be on deepsea mining, ocean climate change, underwater vehicles and underwater robotics related technologies.
- Nodal ministry:
 - Ministry of Earth Science will be the nodal ministry implementing this multi-institutional ambitious mission.
- Components of the mission:
 - Manned Submersible: A manned submersible will be developed to carry three people to a depth of 6,000 metres in the ocean with a suite of scientific sensors and tools.
 - India's indigenous submersible, MATSYA-6000, will plunge into the bowels of the Indian Ocean
 - ➤ Integrated mining system: An Integrated Mining System will be also developed for mining polymetallic nodules at those depths in the central Indian Ocean.
 - ➤ Desalination plants: Studies and detailed engineering design for offshore Ocean Thermal Energy Conversion (OTEC) powered desalination plants are envisaged in this proof of concept proposal.
 - ➤ Ocean Climate Change Advisory Services: It entails developing a suite of observations and models to understand and provide future projections of important climate variables on seasonal to decadal time scales.
 - Exploration and Conservation of Deep-sea Biodiversity: Bio-prospecting of deep sea flora and fauna including microbes and studies on sustainable utilization of deep sea bio-resources will be the main focus.

Significance:

• **Capabilities development:** The 'Deep Ocean Mission' plan will enable India to develop capabilities to exploit resources in the Indian Ocean Basin.



WEEK - 4 (MARCH, 2023)

MAINS

Minerals: The International Seabed Authority has allocated about 75, 0000 square kilometres in the Central Indian Ocean Basin (CIOB) to conduct exploratory mining. This will mean scouting polymetallic nodules that lie on the seabed. IN

- Climate Change: It will help in study Impact of climate change on ocean. This would help India to prepare for any disaster due to climate change.
- Technological advancements: It can also help us in o innovating technologies from underwater vehicles to underwater robotics.
- In line with high seas treaty: United Nations passed this treaty - India too has committed to this - that seeks to protect 30% of the world's ocean by 2030. Deep sea mission in line with this treaty.

Similar government initiatives:

- India-Norway Task Force on Blue Economy for Sustainable Development:
 - ► It was inaugurated jointly by both the countries in 2020 to develop and follow up joint initiatives between the two countries.
- Sagarmala Project:
 - The Sagarmala project is the strategic initiative for port-led development through the extensive use of IT-enabled services for the modernization of ports.
- O-SMART:
 - > India has an umbrella scheme by the name of O-SMART which aims at regulated use of oceans, marine resources for sustainable development.
- Integrated Coastal Zone Management:
 - It focuses on the conservation of coastal and marine ≻ resources, improving livelihood opportunities for coastal communities etc.

GENERATIVE ARTIFICIAL INTELLIGENCE (GAI)

CONTEXT:

Generative artificial intelligence and its uses for Enterprises is transforming the way it operates by analysing vast amounts of data and generating new ideas.

It has the potential to change the way businesses

interact with customers, create products, and make decisions.

What is generative AI?

- Like other forms of artificial intelligence, generative AI learns how to take actions from past data.
- It creates new content a text, an image, even **computer code** – based on that training, instead of simply categorizing or identifying data like other AI.
- The rise of GAI can be attributed to the development of advanced generative models, such as Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs).

Applications:

- Healthcare: By generating new medical images and simulations, improving the accuracy and efficiency of medical diagnoses and treatments.
- Music: GAI can help musicians to explore the new o sounds and styles, leading to more diverse and interesting music.
 - Example, Amper Music creates musical tracks from pre-recorded samples.
 - Art and Creativity: It can be used to generate new works of art that are unique. This is helping artists and creatives explore new ideas and push the boundaries of traditional art forms.
 - Example, DALL-E2 This AI model from OpenAI generates new images from text descriptions.

Concerns Related to GAI?

- Accuracy: Ensuring that the outputs generated by GAI are of high quality and accurate is major concern.
- **Privacy:** There is a risk that this data could be used for unethical purposes, such as for targeted advertising or for political manipulation.
- Joblessness: GAI can promote the joblessness as it has potential to replace the humans.

Way Forward:

- Regulation: Regulations and standards must be put in place to ensure that GAI is used in a responsible and ethical manner.
- Collaboration between stakeholders, including industry, government, academia, and civil society, is crucial to ensure that GAI is used in a responsible and ethical manner.



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SECTION: 'B' (SPECIALS)

CURRENT AFFAIRS

SPECIAL

UN RESOLUTION ON WATER CRISIS AND MANAGEMENT

CONTEXT:

• The United Nations (UN) 2023 Water Conference took place in New York from March 22-24, 2023.

About the Conference:

- This is the second UN Conference dedicated to water after the one held in Mar del Plata, Argentina, in 1977.
- This year is celebrated as the **46th anniversary** of the Mar del Plata conference.
- Need of the initiative:
 - The world's population has doubled to eight billion since the last UN Water Conference in 1977; consequently, the demand for water has soared. Access to clean water and sanitation remains a significant challenge in many parts of the world.
 - Today, over 2.2 billion people lack access to safe drinking water and 4.2 billion lack access to basic sanitation facilities and hygiene.

Mar del Plata Conference:

- The first-ever global water conference resulted in the Mar del Plata Action Plan.
- It outlined several recommendations for improving water management and access, including developing integrated water resources management frameworks, increased investments in water infrastructure and recognising water as a fundamental human right.
- The conference highlighted water resource interdependence and called for **more coordinated** water management.

Global Conventions to conserve Water:

Under the **Dublin Principles**, a policy agenda was dictated, and water was established as an "economic good".

- Sustainable Development Goals (SDGs) include a specific goal on water and sanitation (Goal 6), and the UN-mandated Paris Agreement recognises the interlinkages between water and climate change.
- The **International Drinking Water Supply and Sanitation Decade** from 1981 to 1990, the 1992 UN Conference on Environment and Development in Rio de Janeiro (Agenda 21, Chapter 18) and International Conference on Water and the Environment in Dublin elevated water's importance.

Terms related to water:

- Water scarcity is the lack of sufficient available water resources to meet the demands of water usage within a region. Water scarcity is being driven by two converging phenomena: growing freshwater use and depletion of usable freshwater resources. Water scarcity involves the following concepts:
- Water stress: It is relatively a new concept; it is the difficulty of obtaining sources of fresh water for use during a period of time and may result in further depletion and deterioration of available water
- Water shortage or deficits: Water shortages may be caused by climate change, such as altered weather patterns including droughts or floods, increased pollution, and increased human demand and over use of water.
- **Water crisis**: A water crisis is a situation where the available potable, unpolluted water within a region is less than that region's demand.



Causes for water scarcity:

- Inefficient use of water for agriculture. India is among the top growers of agricultural produce in the world and therefore the consumption of water for irrigation is amongst the highest (80 % of the water).
 - Traditional techniques of irrigation causes maximum water loss due to evaporation, drainage, percolation, water conveyance, and excess use of groundwater



SPECIAL

 Policies like several states giving free electricity to farmers or giving financial support for groundwater extraction -- borewells and tube wells -- results in uncontrolled exploitation and wastage of resource.

CURRENT AFFAIRS

- Reduction in traditional water recharging areas. Rapid construction is ignoring traditional water bodies that have also acted as ground water recharging mechanism.
- Water is not valued in India. It is very cheap commodity in India. People think that if they own the land, they own the water.
 - India as a country extracts the highest amount of groundwater in the world.
- **Improper Waste water treatment**: Sewage and wastewater drainage into traditional water bodies.
- Lack of on-time de-silting operations in large water bodies that can enhance water storage capacity during monsoon.
- Lack of efficient water management and distribution of water between urban consumers, the agriculture sector and industry.
- Non-existent pricing of water. State governments have control over water-related policies, and the lack of legislation for groundwater extraction and the inability to price water for every home due to political constraints has led to a paralysis in the formation of a sustainable framework.

Impacts:

- Burden on Women to fetch water and seen as a responsibility to bring water from far places in India.
- Lack of sanitation and water requirement in the body.
- Changes animal profile and rearing pattern of a region
- Affects plants and Agriculture
- Eating habits gets affected which can led to increased risk of Kidney and liver related ailments.

Way forward:

 Feminisation of Water Crisis: Addressing women's water, sanitation and hygiene requirements is a critical driver in attaining gender equity and unlocking the potential of half of the world's population. The water crisis is a women's issue and feminists need to talk about it.

Related Government Initiatives:

- Jal Kranti Abhiyan.
- National Water Mission.
- National Rural Drinking Water Programme.
- NITI Aayog Composite Water Management Index.
- Jal Jeevan Mission.
- Jal Shakti Abhiyan.
- Atal Bhujal Yojana.
- Save Fresh water sources: The water levels of the floodplain aquifers need to be monitored scrupulously to be well above the river water level to avoid contamination by river water.
- Less water Intensive vegetation and Agriculture: Floodplains can be secured by planting organic food forests or fruit forests which don't demand or consume much water.
- Corporate involvement: In water management, corporations must play a more active role in using their Corporate Social Responsibility (CSR) efforts towards innovation and conservation of water and harness water recharge.

Conclusion:

Freshwater is a finite and limited resource on Earth and, increasingly, much of it is polluted, by both pathogenic microbes and chemical contaminants. Human demand for freshwater is increasing; in particular, water is required to irrigate crops to feed the rapidly expanding human population. Hence there is an urgent need for such global initiative to spread awareness and tackle the water scarcity menace.





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SECTION: 'C' (PRELIMS)

CURRENT AFFAIRS

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ARTWORKS FOR NEW PARLIAMENT BUILDING

CONTEXT:

The new Parliament building shows that artworks and its installation represent sanatan parampara and Vastu shastra that continued over thousands of years.

- Sanatan parampara broadly refers to Hindu culture, which is believed to have been in continuity for centuries.
- Vaastu shastra is the traditional Indian system of architecture based on ancient texts that describe principles of design, layout, measurements, space arrangement and spatial geometry.



About the Central Vista Redevelopment Project:

- A 3.2 kilometre stretch in Delhi which includes Rashtrapati Bhawan, Parliament House, North and South Block, India Gate, National Archives among others is 'Central Vista Project'.
- For the construction of a new parliament building that will be close to the existing one, the Central Vista Redevelopment Project is the government's plan.
- It includes area covered by central administrative buildings and residential buildings at Raisina Hill, New Delhi, India, which is set under revamping.

The planners of the area at which the Parliament was built were **Herbert Baker** and **Edward Lutyens**.

- Highlights of ancient Art works model:
- The new building is going to have six entrances exhibit **guardian statues** showing **auspicious animals.**
- These "auspicious animals" have been chosen based on their importance in Indian culture, vaastu shastra and traits such as wisdom, victory, power and success.

• Each animal chosen to be installed in the building possesses a set of affirmations, spreading well-being and harmony.

Importance of Direction:

- ➤ The North: Guarding the ceremonial entrance to the north is the gaja (elephant), which represents wisdom, wealth, intellect and memory.
- According to vaastu shastra, the northern direction is associated with Mercury, which is the source of higher intellect.
- The South: The southern entrance is the ashva (horse), which is symbolic of endurance, strength, power and speed — describing the quality of governance.
- ➤ The East: Soaring at the eastern entrance is the garuda (eagle), which symbolises the aspirations of the people.
- ► In vaastu shastra, the east is associated with the rising sun, **representing victory**.
- ► The north-eastern entrance: It has hamsa (swan), which represents discernment and wisdom.
- ➤ The remaining entrances showcase the makara (a mythical aquatic creature that is a combination of the body parts of different animals), which represents unity in diversity, and the shardula (a mythical animal that is said to be the most powerful of all living beings), which symbolises the power of the people of the country.

Remains of India's freedom struggle:

➤ The new building will have six granite statues devoted to personalities involved in the freedom struggle and making of the Constitution, four galleries each for the two Houses, three ceremonial foyers, as many India galleries and one Constitution gallery.

• Depicting Art and Culture:

- Inside the building, each wall will have a theme reflecting a certain aspect, such as contributions by tribal and women leaders.
- The artworks used indicate the 5000 years old culture of India.
- There will be adequate focus on Indian knowledge traditions, the Bhakti tradition, Indian scientific traditions as well as monuments.

BUMCHU FESTIVAL

CONTEXT:

Recently, the Bumchu Festival was celebrated in the Tashiding Monastery, located in the state of Sikkim.





About the Festival:



- Bumchu Festival is the Tashiding holy water vase ritual which is a unique and important occasion that draws travellers from all over the world.
- Annual performances of this ancient ceremony are held at the Tashiding Monastery, located in the western part of Sikkim.
- The Bumchu festival commemorates a **supernatural** occurrence that took place in the **18th century** under Chogyal Chakdor Namgyal.
- Bumchu means "pot of sacred water" in Tibetan. The vase is opened during the event, and the water inside is shared among the worshippers.
- The water is thought to **have healing qualities** and to grant luck and riches to those who drink it.
- The celebration takes place on the **14th and 15th of the first lunar month**, which often **falls in February or March.**
- In Sikkim, the Bumchu festival is a time of intense delight and celebration.
- At the event, pilgrims travel to Tashiding from all around India as well as from close by nations like Bhutan, Nepal, and Sri Lanka.

Tashiding Monastery:

- It is one of the most sacred Buddhist pilgrimage sites, located on a hilltop overlooking the **Rangeet River in Sikkim.**
- **Guru Padmasambhava,** better known as **Guru Rinpoche**, the great Buddhist guru who brought Buddhism to Tibet, blessed the location of the monastery.
- A Nyingma teacher named Ngadak Sempa Chempo Phunshok Rigzing later founded the monastery in the **17th century.**

AFRICA'S GREAT RIFT

CONTEXT:

Scientists have predicted that a new ocean would be created as Africa gradually splits into two separate parts.

• The rift is going to develop in between the eastern and the western parts of the African continent.



About the rift:

- **Rifting** refers to the **geological process** in which a single tectonic plate is split into two or more plates separated by divergent plate boundaries.
- The division of the African continent is connected to the East African Rift which is a crack that stretches 56 kilometres and appeared in the desert of Ethiopia in 2005.
- This geological process will inevitably divide the continent, resulting in currently landlocked countries, such as Uganda and Zambia, which would take five to 10 million years.
- Formation of new islands:
 - As the Somali and Nubian tectonic plates continue to pull apart from each other, a smaller continent will be created from the rift, which will include present-day Somalia and parts of Kenya, Ethiopia, and Tanzania.
- o Formation of New Ocean:
 - The Gulf of Aden and the Red Sea will eventually flood into the Afar region in Ethiopia and the East African Rift Valley, leading to the formation of a new ocean.



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PRELIMS

 This new ocean will result in East Africa becoming a separate small continent with its own unique geographic and ecological characteristics.

Phenomenon behind splitting African continent:

- The Arabian Plate is moving away from Africa at a rate of about an inch per year, while the two African plates are separating even slower, between half an inches to 0.2 inches per year.
- The Earth's lithosphere, comprised of the crust and upper part of the mantle, is divided into several tectonic plates that are not stationary but rather move in relation to each other at varying speeds.
- Tectonic forces not only move the plates but also have the potential to cause them to rupture, resulting in the **formation of a rift** and potentially leading to the creation of new plate boundaries.

INDIAN TECHNICAL AND ECONOMIC COOPERATION (ITEC) PROGRAMME

CONTEXT:

After the member of Taliban participated in India capacity building assistance to developing countries across the world via the ITEC (Indian Technical and Economic Cooperation) programme, it has seen various objections.

• **Ministry of External Affairs** has clarified that there has been **no change** in India's position on Taliban.

About India Technical and Economic Cooperation Programme (ITEC):

- Background:
 - The Indian Technical and Economic Cooperation (ITEC) Programme was instituted on 15 September 1964 by a decision of the Indian Cabinet.
- Objective:
 - ➤ The programme of technical and economic cooperation is essential for the development of our relations with the other **developing countries** on the basis of partnership and cooperation for mutual benefit.
 - It would also be a concrete manifestation of our resolve to contribute to the evolution of world community based on the **inter-dependence** of all its members in the attainment of their common

goal for promoting the social and economic wellbeing of their people.

 Since then 15 September is celebrated as 'ITEC Day' every year.

- Under the programme, India this year has organised a four-day session of online courses inviting several participant countries.
- The courses under the programme are also open to nationals of various countries, including Afghanistan.

The ITEC is the **leading capacity building platform** of the Ministry Of External Affairs.

- The members of the Taliban regime in Kabul attended 'India immersion' online course.
- o Title of courses:
 - 'Immersing with Indian Thoughts, an India Immersion Program', is designed by the Indian Technical and Economic Cooperation that executes capacity-building projects in partner countries.

NSS 78TH ROUND REPORT 2020–21

CONTEXT:

The National Sample Survey Office (NSSO) carried out its 78th round of the Multiple Indicator Survey (MIS).

About:

The Multiple Indicator Cluster Surveys (MICS) are household surveys implemented by countries under the programme developed by the United Nations Children's Fund to provide internationally comparable, statistically rigorous data on the situation of children and women.

The survey was conducted for all the states except for **Andaman and Nicobar Islands**.

Background:

- ➤ The MICS was originally developed in response to the World Summit for Children (WSC) held in 1990 to measure progress towards an internationally agreed set of mid-decade goals.
- Need of the initiative:
 - MIS was basically developed to fill existing data gaps and to inform and complement existing data collection methods and instruments (e.g. administrative records, census, vital events registration, etc.)

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• Objectives of the survey:

 To collect information for developing estimates of some important Sustainable Development Goal (SDG) indicators.

To collect information Purchase/Construction of house(s)/ flat(s) by the household for residential purpose after 31 March 2021 and information on Migration.

Key Findings:

S. No.	Description	Percentage (All India)
1.	Percentage of persons reported to have improved source of drinking water	95.7
2.	Percentage of persons reported access to hand washing facility with water and soap/detergent within the premises	81.9
3.	Percentage of households using clean fuel as primary source of energy for cooking	63.1
4.	Percentage of persons of <i>age 15-29 years</i> were in formal and non- formal education and training for the 12 months preceding the survey	34.9
5.	Percentage of persons of age 18 years and above who used mobile telephone with active SIM card during the three months preceding the date of the survey	72.7

National Sample Survey Office (NSSO):

• It is headed by a **Director General** who is responsible for conduct of large scale sample surveys in diverse fields on All India basis.

• Functions:

- Primarily data are collected through nation-wide household surveys on various socio-economic subjects like Annual Survey of Industries (ASI), etc.
- Besides these surveys, NSSO collects data on rural and urban prices and plays a significant role in the improvement of crop statistics through supervision of the area enumeration and crop estimation surveys of the State agencies.
- It also maintains a frame of urban area units for use in sample surveys in urban areas.
- Later, the data obtained by the NSSO, is evaluated by CSO.

Central Statistics Office (CSO): It coordinates the statistical activities in the country and evolves statistical standards.

GLOBAL MILLETS (SHREE ANNA) CONFERENCE

CONTEXT:

The Prime Minister inaugurated the Global Millets (Shree Anna) Conference in New Delhi.

About the conference:

- It is a two-day global conference.
- It will consists of sessions on all important issues related to millets (Shree Anna) like promotion and awareness of millets among producers, consumers and other stakeholders.

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).

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.

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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.

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.

RULES AND PROCEDURE & CONDUCT OF BUSINESS IN LOK SABHA

CONTEXT:

Amid the allegation of the Opposition leader Rahul Gandhi, on the present central government members in Lok Sabha, against which the rule 357 and conduct of Business mentioned under parliamentary functioning gained traction.

Background:

The Constituent Assembly (Legislative) Rules of Procedure and Conduct of Business in force immediately before the commencement of the Constitution of India were modified and adopted by the Speaker of Lok Sabha in exercise of the powers conferred on the Speaker by article 118(2) of the Constitution and published under the title "Rules of Procedure and Conduct of Business in the House of the People" in the Gazette of India Extraordinary dated the 17th April, 1952.

- Those Rules were amended by the Speaker from time to time on the recommendations of **the Rules Committee of the House** until September, 1954.
- In September, 1954, Rules Committee decided that their recommendations should be approved by the House before amendments were given effect to.
- Consequently, the procedure for amendment of the rules as given in rule 306 of the Fourth Edition (rule 331 of the Present edition) came into force with effect from the 15th October, 1954.

What is Rule 357?

- In the Rules of Procedure and Conduct of Business in Lok Sabha, under the section 'Rules to be observed by the members', there is rule 357 for 'personal explanation'.
- It states that "a member may, with the permission of the Speaker, make a personal explanation although there is no question before the House, but in this case no debatable matter may be brought forward, and no debate shall arise."

Powers of Speaker under the Rules for the Conduct of Business:

- Rule 378 of the Rules for the Conduct of Business states: "The Speaker shall preserve order and shall have all powers necessary for the purpose of enforcing own decisions."
- Rule 373 says: "The Speaker, if is of the opinion that the conduct of any member is grossly disorderly, may direct such member to withdraw immediately from the House, and any member so ordered to withdraw shall do so forthwith and shall remain absent during the remainder of the day's sitting."

NATIONAL SECURITY ACT 1980

CONTEXT:

The National Security Act has been invoked in the case of self-styled Sikh preacher and on-the-run 'Waris Punjab De' chief Amritpal Singh.

 Orders have been passed to detain Amritpal Singh by the District Magistrate Amritsar issued under section 3(2) of the National Security Act, 1980.

National Security Act, 1980:

 It is a preventive detention law that empowers the state and central government to detain a person the authorities are satisfied that he/she is a **threat to national security** or India's relations with foreign countries.

- It is invoked to maintain **public law and order**.
- NSA "empowers the state to detain a person without a formal charge and without trial".
- The provisions in the Act are is re-notified every quarter.
- It came into existence under the Prime Ministership of Indira Gandhi.
- It also empowers the government to detain foreigners and regulate his/her presence or expel him/her from India.

Under **National Security Act**, Article 22 (1) of the Indian Constitution and **Section 50** of the Criminal Procedure Code (CRPC) are not available to the person detained.

- "Article 22 (1) of the Indian Constitution says an arrested person cannot be denied the right to consult, and to be defended by, a legal practitioner of his choice. "
- "According to Section 50 of the Criminal Procedure Code (CRPC), any person arrested has to be informed of the grounds of arrest and has the right to bail."

What are the grounds for detention?

- NSA can be invoked to prevent a person from acting in any manner prejudicial to the defence of India, relations of India with foreign powers or the security of India.
- Among others, it can also be applied to prevent a person from acting in any manner prejudicial to the maintenance of supply and services essential to the community.
- An individual can be detained without a charge for a **maximum period of 12 months**.
- The detained person can be held for 10 to 12 days in special circumstances without being told the charges against them.

What is the protection available under the Act?

The NSA is granted under Article 22(5), where all the detained persons have the right to make an 'effective representation' before an independent advisory board, which consists of three members; and the board is chaired by a member who is, or has been, a judge of a high court.

RAJASTHAN GETS 19 NEW DISTRICTS

CONTEXT:

Recently, Rajasthan's Chief Minister has announced the formation of 19 new districts and 3 new divisions in the state.

• The state now has a total of 50 districts.

What is the Procedure to form a new District?

- The power to create new districts or alter or abolish existing districts rests with the State governments.
 - ► This can either be done through an **executive** order or by passing a law in the State Assembly.
- The **Centre has no role to play** in the alteration of districts or the creation of new ones. States are free to decide on this matter.
- **Name change:** If the state government wants to change the **name** of a district or a railway station, then the **Home Ministry** comes into the picture.
 - The State government will propose a new name to a district and forward the proposal to the Home ministry.
 - The Home Ministry will forward the proposal to other departments.
 - After that, the departments such as the Ministry of Earth Sciences, Intelligence Bureau, Department of Posts, Geographical Survey of India Sciences, and the Railway Ministry, provide their clearance to the proposal of the state government.
 - ➤ After examination of their replies, the state government receives a no-objection certificate. Then the name of the district stand changed.

GLOBAL TERRORISM INDEX 2023

CONTEXT:

India ranks 13th on The Global Terrorism Index (GTI).

• The report shows that Afghanistan continues to be the country most affected by terrorism for the **4th year** in a row, even though attacks and deaths decreased.

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Key Highlights:

• The GTI report is produced by the **Institute for Economics & Peace (IEP),** a think tank, using data from Terrorism Tracker and other sources.

- Terrorism Tracker provides event records on terrorist attacks since 1 January 2007.
- The dataset contains **almost 66,000 terrorist incidents** for the period **2007 to 2022.**
- Globally, deaths from terrorism fell by 9% to 6,701 deaths, marking a 38% decrease from its peak in 2015.
- **Pakistan r**ecorded the **second largest surge** in terrorrelated deaths worldwide in 2022, the toll increasing significantly to 643.
- South Asia remains the region with the worst average GTI score.
- South Asia recorded **1,354 deaths** from terrorism in 2022.
- Islamic State (IS) and its affiliates were the **deadliest** terror group globally for the **eighth consecutive** year, recording the most attacks and deaths of any group in 2022.

CHHATTISGARH MEDIAPERSONS PROTECTION BILL 2023

CONTEXT:

The Chhattisgarh legislative Assembly passed a Bill, 'Chhattisgarh Media persons Protection Bill 2023', aimed at providing protection to media persons and prevent violence against them.

Need of the initiative:

- Journalism remains a deadly profession—and in nine times out of ten, the murder of a journalist is unresolved.
- Other threats against journalists, online and off-line, continue to grow. Journalist imprisonment is at record highs, while online violence and harassment spurs self-censorship and, in some cases, physical attacks.

Provisions of the Bill:

 The Bill asks for the registration of all media persons with a broad classification of journalists, media institutions and mass media, such as news gatherers, freelancers, trainees and interns.

Formation of a Committee:

 A committee will be constituted under a chairperson to deal with complaints from the media.

Three media persons with over 10 years of experience, including at least one woman and two senior government officials will be the members of the committee.

Powers of committee:

- The committee shall have the same powers throughout the state as are vested with the civil court while trial of a suit under the Code of Civil Procedure, 1908 (5 of 1908).
- The committee shall have the power to recommend emergency protection measures and protection plans to the Superintendent of Police (SP) of the district concerned, who in turn will take appropriate decisions as per law.
- ➤ The committee will have powers to direct the SP of the district concerned to supervise the investigation and submit a report within 15 days in cases where there are allegations or trial or inquiry/investigation against a media person.
- The committee can also act against media persons for giving false complaints.
- ➤ For the first false complaint, the registration will be cancelled and for a second time, a fine may go up to Rs 10,000.

Significance:

- The Bill will give protection to the journalist in the state of Chhattisgarh.
- This ensures **freedom of free speech** in the Chhattisgarh. Other states should also follow the similar pathway to ensure the freedom of free speech and expression.

BACKGROUND RADIATION AND EFFECTS

CONTEXT:

The Bhabha Atomic Research Centre (BARC) has found that 'background radiation' levels are nearly three times more than what's been assumed in the State of Kerala.

Findings of the report:

1 Gray is equivalent to **1** Sievert, though one unit refers to radiation emitted and the other to biological exposure.





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Background radiation levels that emitted from natural o

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sources such as rocks, sand or mountains, are nearly three times more than what's been assumed in Kerala.

The average natural background levels of gamma radiation in India were 94 nGy/hr (Nano Gray per hour) (or roughly 0.8 milli sievert/year).

About the Background Radiation:

- Background radiation levels are emitted from natural sources such as rocks. sand or mountains.
- All rocks and soils contain some trace amount of natural radioactivity and can sometimes be ingested or inhaled if disturbed.

Radon is a gas that can concentrate indoors and be inhaled, along with its decay products.

- Radiation results from the disintegrating nucleus of an unstable element and these can be from anywhere, including from inside our bodies to the constituents of matter.
- Gamma rays are a kind of radiation that can pass 0 unobstructed through matter. Though extremely energetic, they are harmless unless present in large concentrated doses.
- Standard Limit:
 - Public exposure shouldn't exceed 1 milli-Sievert every year; those who work in plants or are by virtue of their occupation shouldn't be exposed to over 30 milli-Sievert every year.

The International Atomic Energy Agency (IAEA) specifies maximum radiation exposure levels and this has also been adopted by India's atomic energy establishment.

Source of background radiations:

- Natural Source: Natural sources, such as the earth, air, building materials, and food, provide the majority of background radiation. Cosmic rays from outer space also contain radiation.
- Cosmic Rays- Radiations that reach us from outer o space
- Animals All Animals emit a natural level of radiation. 0
- **Rocks** Some rocks give off radioactive radon gas. o
- Soil and plants- Radioactive material from the rock is absorbed by the soil and passed to plants.
- Artificial Source: Human activity, on the other hand, o has increased background radiation by building and employing artificial radiation sources.

X-Rays- When going through security or having an X-ray in the hospital, we are exposed to this type of radiation.

- Nuclear missile- Man has exploded bombs in the o environment, producing radioactivity.
- Nuclear Power- Radiation has been emitted into the o atmosphere by nuclear power plants.

IPCC SIXTH ASSESSMENT REPORT

CONTEXT:

Intergovernmental Panel on Climate Change (IPCC) released the final final report of the sixth assessment cycle.

Findings of the report:

- Climate change is a threat to human well-being and planetary health and there is a rapidly closing window of opportunity to secure a liveable and sustainable future for all.
- Human activities have 'unequivocally' caused global warming. This has warmed the land and oceans by 1.1°C as observed for the period of 2011-2020, compared with the period 1850-1900.

About IPCC:

- The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change.
- The IPCC was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP).
- It aims to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.
- Nationally Determined Contributions (NDC) announced by countries till October 2021 make it likely that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C.
- To achieve the 1.5°C goal with 50 per cent likelihood, we need rapid and deep GHG emissions reductions in all sectors this decade.
- o Climate justice is crucial because those who have contributed least to climate change are being disproportionately affected,

About the report:

• This report is the final report of the **sixth assessment cycle** of the UN panel.

- It is a summary of the 5 earlier reports released between **2018 and 2022.**
- Through its multiple assessment cycles beginning 1990, the IPCC has collated and analysed research by scientists on global warming, the long-term climate impact from current and future emissions and what people can do about it.

LOW TEMPERATURE THERMAL DESALINATION (LTTD) TECHNOLOGY

CONTEXT:

For supplying portable drinking water, Lakshadweep using Low Temperature Thermal Desalination (LTTD) technology which the National Institute of Ocean

Technology (NIOT) is working at making this process free of emissions.

About the technology:

- The plants are equipped to provide **at least 100,000 litres** of potable water every day.
- The desalination plants are powered by **diesel generator sets** — there being no other **source of power** in the islands.
- LTTD exploits the difference in temperature (nearly 15°C) in ocean water at the surface and at depths of about 600 feet.
- Such de-pressurised water can evaporate even at ambient temperatures and this resulting vapour when condensed is free of salts and contaminants and fit to consume.

Currently there were **five desalination plants** in operation in the Lakshadweep islands.

Issues/concerns:

• The need for **diesel power to reduce the water pressure** means that the process is **not fossil-fuel free** and also consumes diesel.

National Institute of Ocean Technology (NIOT):

- NIOT, an institute under the aegis of the **Ministry** of **Earth Sciences (MoES)**, has worked for years on harnessing energy from the ocean.
- It is a Chennai-based plant.

ONEWEB INDIA-2 MISSION

CONTEXT:

In its second commercial launch, ISRO's (Indian Space Research Organisation) heaviest launch vehicle LVM-3 (Launch Vehicle Mark 3) will launch a fleet of 36 OneWeb satellites, completing the first generation of the huge broadband constellation.

LVM3-M3/OneWeb India-2 Mission:

- This will be the **18th launch** of OneWeb and will add to the UK-based company's (OneWeb) existing constellation of 582 satellites.
- ISRO's commercial arm NSIL had signed a contract with OneWeb to launch 72 satellites in two phases.
- The first set of 36 satellites was launched in LVM3-M2/ OneWeb India-1 mission on October 23, 2022.
- This is the second **OneWeb fleet** that India is launching. This initiated India's journey into the commercial heavy lift-off space.

What is OneWeb Constellation?

- OneWeb Constellation operates in a LEO Polar Orbit.
- Satellites are arranged in **12 rings (Orbital planes**) with **49 satellites** in each plane.
- The orbital planes are inclined to be near polar (87.9 Deg.)
- The orbital planes are 1200 km above the Earth. Each satellite completes a full trip around the earth every 109 minutes.



SECTION: 'D' (SHORT NEWS)

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Spring equinox



The Spring Equinox falls **on 21 March** every year, also called the vernal equinox is the first day of spring in the Northern Hemisphere.

Why does Spring Equinox happen?

- There is an imaginary line from North to South called the axis along where the Earth rotates.
- This rotation is responsible for day and Night.
- The axis tilts at 23.5 degrees.
- This brings more sunlight to one hemisphere of the planet as compared to the other for half of the year's orbit around the sun.
- This difference in sunlight results in **different seasons**.
- Cultural Celebration of Equinox:
- The Persian New Year, 'Nowruz' falls on the first day of spring that welcomes all the positivity, peace, and prosperity.

Earthquake in Afghanistan



The **US Geological Survey (USGS)** measured the earthquake to be **6.5 in magnitude**, and located its origin about **300 km northwest of Kabul**, towards the border with Tajikistan, which has been felt in Northern India too.

About Hindu Kush region:

- North-eastern Afghanistan, where the Hindu Kush ranges are located, is an earthquake-prone area, which routinely experiences quakes of magnitude more than 6.
- The region is prone to Deep earthquakes originating mostly more than 100 km below the surface of earth.

Reason for fragility of the region:

- The Hindu Kush region in Afghanistan experiences unique tectonic forces and is a site of frequent earthquakes.
- On one side it feels the forces of the Indian tectonic plate getting under the Himalayas, a phenomenon that is occurring throughout the Himalayan ranges.
- From the other side, the **Eurasian plate is subducting** into the Pamir mountain ranges.
- In addition, there are local fault lines as well.

Harichand Thakur Ji

The Prime Minister has paid tribute to **Sri Sri Harichand Thakur Ji** on his Jayanti, falls **on 11 March.**

About:

• Harichand Thakur was born in a Namashudra peasant family in 1811 in the Orakandi village of Gopalganj District of Bangladesh.



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SHORT NEWS





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	About:
	• She is a resident of Edappally in Kochi and graduated from Ernakulam Government Law College.
	• The Bar Council of Kerala is the professional body for Lawyers in Kerala.
	• It provides representation and services for the Bar, and Guidance on issues of professional practice.
	Transgender in Judiciary:
	• In 2017 India got its first transgender judge when Joyita Mondal who was appointed a judge in the Lok Adalat of Islampur in West Bengal in 2017.
	 In 2018, transgender activist Vidya Kamble was appointed a member judge in a Lok Adalat in Nagpur in Maharashtra.
	 Later that year, the country got the third transgender judge, Swati Bidhan Baruah, who hails from Guwahati.
3 billion Dollar IMF loan to Sri Lanka	
	Sri Lanka secured a much-anticipated loan of about \$3 billion from the International Monetary Fund (IMF) as the South Asian nation navigates its worst financial crisis in decades.
	About 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 ALANY LINE	• 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 .
Trade Receivables Discounting System	n (TReDS)
	The electronic platform Trade Receivables Discounting
	System (TReDS) — introduced by the Reserve Bank of India (RBI) to finance or discount invoices of MSMEs and finances around 35,000 factoring units (FUs) per month.
	l



SHORT NEWS



About:

- Trade Receivables Discounting System (TReDS) is an invoice discounting platform set up by the **Reserve Bank of India (RBI)** for regulating the trade receivables between Micro, Small & Medium Enterprises (MSMEs), large organisations and financiers.
- TReDS is beneficial not only to those above but to the entire Indian economy.
- The key objective of the TReDS is to facilitate the financing of invoices of MSME vendors drawn on big organisations and other corporates, including **Public Sector Undertakings (PSUs) and Government Departments, by discounting by the financiers**.
- The participants in this system work together to facilitate, accept, discount, and settle the invoices.
- TReDS' primary purpose is to **help MSMEs** manage their working capital requirements.

Kappaphycus alvarezii



Horseshoe crabs disappearing off Odisha



The Government is planning a **seaweed park in Tamil Nadu**, ignoring the threat that **Kappaphycus**, widely grown invasive seaweed, poses to corals in the **Gulf of Mannar Marine National Park** running along the state's coastline.

About:

- **Kappaphycus alvarezii** is a red alga (seaweed) native to the Indo-Pacific.
- Its live colour is actually green or yellow.
- It reaches a **length of 2 m**, and can double its **biomass in 15 days**, has been widely introduced and cultivated in tropical regions as a source of carrageenan.
- It is cultured in more than **20 countries**, and remains confined to farm areas in much of its range, but have also behaved as an invader in the Gulf of Mannar, India, the Kaneohe Lagoon Hawaii, and Bocas Del Toro in Caribbean Panama.

Horseshoe crabs appear to be disappearing from their familiar spawning grounds along Chandipur and Balaramgadi coast in Odisha's Balasore district.

About

- Horseshoe crabs (*Limulidae*) are marine and brackish water arthropods.
- Despite their name, they are not crabs at all but are related to scorpions, spiders, and extinct trilobites.
- Conservation:
 - ► **IUCN:** Endangered
 - ➤ They are listed under Schedule IV of India's Wildlife Protection Act, 1972.



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	 They are currently represented by four species including;
	 Limulus Polyphemus
	 Tachypleus gigas
	 Tachypleus tridentatus
	 Carcinoscorpius rotundicauda
	• Of the four species, two species are known to occur in India mangrove horseshoe crab (C. rotundicauda) and Tachypleus gigas.
Leprosy	
	Lecturing on leprosy before the Royal Society of Arts , Sir Leonard Rogers related the favourable results on the treatment of disease with oils such as cod liver oil and royalin oil.
	• He was the founder member of the Royal Society of Tropical Medicine and Hygiene, and it's President from 1933 to 1935.
	About:
	 Leprosy also known as Hansen's disease (HD) is a chronic infection caused by the bacteria Mycobacterium leprae and Mycobacterium lepromatosis.
	Leprosy is not highly infectious.
	 It is transmitted via droplets from the nose and mouth during close and frequent contacts with untreated cases.
	 Leprosy is curable with the combination of drugs known as Multi-Drug Therapy (MDT).
INS Androth	
	The INS Androth , second in a series of eight Anti- Submarine Warfare Shallow Water Craft (ASW SWC), was launched in Kolkata.
	Background:
	The first ship of the series, the INS Arnala , was launched three months ago.
	About:
	• Built by : Garden Reach Shipbuilders and Engineers (GRSE) in Kolkata
	 INS Androth is about 77.6 metres long and 10.5 metres wide, and requires a draught of only 2.7 metres.
	• These ships can attain a maximum speed of 25 knots.
	 Their primary role is to conduct anti-submarine operations in coastal waters, low intensity maritime operations and mine laying operations.
	• INS Androth draws its name from the largest and longest island from Andrott Island, also known as Androth Island, in the Lakshadweep archipelago.

GSSCORE

SHORT NEWS

GESSCORE

First evidence of volcanic activity on Venus



Scientists have got direct **geological evidence** of recent volcanic activity on the surface of Venus.

About:

- The discovery was made by analysing archival radar images of Venus taken more than 30 years ago by NASA's Magellan mission.
- The images revealed a volcanic vent changing shape and increasing significantly in size in less than a year.

NASA's new mission to Venus '**VERITAS'** aims to discover more volcanic activity on planet.

Key features of Venus:

- It is the **second planet** from the Sun and sixth in the solar system in size and mass.
- It is the second brightest natural object in the night sky after the Moon, probably that is the reason why it was the first planet to have its motions plotted across the sky, as early as the second millennium BC.
- Unlike the other planets in our solar system, **Venus and Uranus spin clockwise** on their axis.
- It is the **hottest planet in** the solar system because of the high concentration of carbon dioxide which works to produce an intense greenhouse effect.

