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TATHASTU

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Editorials of the Month

The Concept of Fraternity

What is Fraternity?

- Fraternity means a sense of **common brotherhood** of all Indians, which gives **unity** and **solidarity** to social life.
- In the concluding session of the Constituent Assembly, Dr. B.R. Ambedkar pointed out the absence of recognition of the principle of fraternity in the Constitution. He stated that without fraternity, equality and liberty would be no deeper than coats of paint.
- Fraternity has been **most forgotten** in our Constitution and in our electoral process.

Why is Fraternity essential?

- It is one of the four pillars of constitutional morality spelt out in the Preamble of India's Constitution: **justice, liberty, equality, and fraternity**.
- Without fraternity, equality and liberty can't be achieved, because the idea of fraternity is closely linked to social solidarity.
- Gains coming from the other three are strengthened and enriched by a sense of fraternity.

What are challenges in achieving Fraternity?

- The **diversity of cultures** and **traditions** among different communities can lead to misunderstandings and conflicts. This can create social and cultural barriers that hamper the spirit of brotherhood.
- **Political ideologies** and **Political differences** can create deep divides in society, can lead to polarization and restrict cooperation and dialogue.
- **Lack of trust, mutual respect** and **understanding** can undermine the spirit of common brotherhood.
- **Constitutional morality**, which is based on the values enshrined in the Indian Constitution, is critical to maintaining fraternity. The failure of constitutional morality can lead to a loss of confidence in institutions and the rule of law.
- **Inequalities** continue to persist and so do those emanating from the caste system.
- Inter-state conflicts and challenges to internal security like left-wing extremism, terrorism, cybersecurity, fake news.

What are Constitutional provisions related to Fraternity?

- The principle of fraternity was added to the principles in the **Preamble** along with liberty, equality, and justice.
- **Article 51A** (Fundamental Duties) added to by the **42nd Amendment 1976** referred to the duty of every citizen 'to promote harmony and the spirit of common brotherhood amongst all the people of India'.
- While both the Preamble and the Fundamental Duties cannot be legally enforced, but they have a moral, spiritual appeal.

What are steps taken by government to ensure Fraternity?

- Facilitating cooperation through Inter-state councils, Zonal councils, NITI aayog
- Initiatives like Ek Bharat – Shrestha Bharat, National Foundation for Communal Harmony (NFCH), etc.
- A 'uniform' and 'Common Minimum Programme for Value Education' was launched across the entire schooling system with a focus on 'core Constitutional values'.

Conclusion

- Fraternity is an essential principle that requires collective action and public empathy. The Constitution recognizes the importance of fraternity, but its implications and duties require further discussion and understanding.

Approach against Maoism needs a Re-think

News: Recently, the Maoist attack in Chhattisgarh's Dantewada district claimed the lives of ten police personnel and a civilian driver.

Background:

- In this editorial we will understand about shortcoming in government's approach against Naxalites.

What are the shortcomings?

- As pointed by an expert group of the **Planning Commission recommendation** in 2008, "the development paradigm pursued since independence has always been 'imposed' on the tribal communities and has been insensitive to their needs and concerns. The state's model of development has resulted in the displacement of tribals.
- It is observed that there is a tendency to outsource the operations against Naxals to the **central armed police forces** as against the use of the local police, who know the language and terrain better. It is evident from Punjab where battle against terrorism was won as State police forces took the lead.
- Lastly, there is **no overall strategic plan** against the Naxals. States have been carrying out anti-Naxal drives according to their individual understanding.

What needs to be done?

- The Maoist problem is multi-dimensional; it has social and economic aspects. The security forces can take care of the law and order aspect of the problem. Unless the problem is tackled in its entirety, it is unlikely to go away.
- Security forces/ territorial domination should be followed by the administrative apparatus establishing its network in the affected areas.
- The government should make conscious efforts to win the hearts and minds of the people. As seen in Government's dealing with the Nagas and several other insurgent outfits in the Northeast, need of the hour is for a similar approach with Maoist leadership.

25 years since Pokhran Test

News: On 11th May 1998, the then Prime Minister Atal Bihari Vajpayee announced that India had conducted three nuclear tests at Pokhran.

Background:

- 11th May is also celebrated as National Technological Day in India.
- Following the success of Pokhran-II and to honour India's scientists and their accomplishments, the government declared May 11 as National Technology Day in 1998. The first Nuclear test was conducted in May 1974.

Why did India choose to exercise Nuclear option?

- An increasingly **nuclearised neighbourhood**.
- A progressively constraining **non-proliferation environment**.
- By the mid-1990s, China had already conducted as many as 45 nuclear tests and China had also conducted a nuclear test for Pakistan, reportedly in May 1990, thereby boosting Rawalpindi's nuclear confidence and emboldening it to foment insurgency in J&K and Punjab.
- At the same time USA was pressurising countries to join the **non-proliferation treaty** as non-nuclear weapon states and the **Comprehensive Test Ban Treaty** had been put out for signature.

What was India's nuclear doctrine?

- It highlighted a political role for nuclear weapons based on **credible minimum deterrence (CMD)** and a **no-first-use (NFU) policy**, while **concurrently supporting non-proliferation and universal disarmament**. In the last quarter century, India has used this doctrinal guidance to build its force structure and posture.
- The **sole purpose** of India's nuclear deterrence is to **deter adversaries' use or threat of use of nuclear weapons**.

- Pakistan's use of cross-border terrorism and China's territorial incursions at LAC have continued. Punishment for such attacks at best can be applied at the conventional level, keeping nuclear weapons out of the equation. Doing so provides India the "space" to employ military force in a manner that makes Pakistan's nuclear threat non-effective. For example, Surgical strikes, air strikes (in case of Pak) and building adequate infrastructure and military capability (in case of China)

Why India's CMD and NFU policy have been termed wise options?

- Nations that opted to build nuclear forces (missile defences, large warhead stockpiles, highly accurate nuclear delivery systems) do not seem to have found much use for them.
- For example, despite a large, war-fighting-capable nuclear arsenal, **Washington** accepted defeat in several regional conflicts. **Russia** confronts the **same dilemma** in Ukraine.
- For deterrence, **modest capabilities can suffice**. New Delhi understood this early in its nuclear journey.

What should we be prepared for?

- India needs actions at two levels for sustainable national security.
- The first is to **address immediate security threats** by intelligently building sufficient and resilient retaliatory capability to signal credible deterrence.
- Second, India needs to make **long-term innovative diplomatic investments** towards the creation of a **global environment conducive to peace and universal nuclear disarmament**.
- We can leverage our economic heft, political clout and cultural appeal to showcase the advantages of its philosophy of nuclear deterrence. India is the only nuclear-armed state offering this model today. We must maintain our **nuclear sobriety** in future.

A ground view of the India Space Policy 2023

News: Recently, The Indian Space Research Organisation (ISRO) released the Indian Space Policy 2023 that had been in the works for some years

Background:

- **Until the early 1990s**, India's space industry and space economy were defined by ISRO. Private sector involvement was limited to building ISRO designs and specifications.
- The **Second Space Age** began with the licensing of private TV channels, the explosive growth of the Internet, mobile telephony, and the emergence of the smartphone.
- Today, ISRO's budget is approximately \$1.6 billion. India's space economy is over \$9.6 billion. Broadband, OTT and 5G promise a double-digit annual growth in satellite-based services.
- The Indian space industry could grow to \$60 billion by 2030 directly creating more than 2 lakh jobs.

How have different policies evolved in India's space sector?

- The **first satellite communication policy** was introduced in 1997 It had guidelines for foreign direct investment (FDI) in the satellite industry. As per figures, more than half the transponders beaming TV signals into Indian homes are hosted on foreign satellites, resulting in an annual outflow of over half a billion dollars
- A **remote sensing data policy** was introduced in 2001. In 2016, it was replaced by a **National Geospatial Policy** that has been further liberalized in 2022.
- A **draft Space Activities Bill** was brought out in 2017, which went through a long consultative process. It lapsed in 2019 with the outgoing Lok Sabha.

Significance of new space policy:

Basis	Important Aspects
Vision	To "enable, encourage and develop a flourishing commercial presence in space" – Thrust given to private sector
Reference to security	Little reference to 'security' in the document. The focus is on civilian and peaceful applications.

Key Focus	Primarily on space-based intelligence, reconnaissance, surveillance, communication, positioning and navigation capabilities.
ISRO's role	ISRO will "transition out of the existing practice of being present in the manufacturing of operational space systems, ISRO to focus on R&D and share technology, products and processes and best practices with Non-Government Entities (NGE's)
Defining roles and responsibility	The policy lays out a strategy. It spells out the roles of the Department of Space, ISRO, the Indian National Space Promotion and Authorisation Centre (IN-SPACe), and the NewSpace India Limited (NSIL).
NSIL	It will become the interface for interacting with the industry.
IN-SPACe	It is expected to act as the single window agency for authorising space activities by government entities and NGEs.
Role of NGE's	They are allowed to undertake end-to-end activities in the space sector through establishment and operation of space objects, ground-based assets and related services, such as communication. Satellites could be self-owned, procured or leased. Communication services could be over India or outside; and remote sensing data could be disseminated in India or abroad.

Way Forward

- The policy sets out an ambitious role for IN-SPACe but provides no time frame for the necessary steps ahead. Neither is there an indicative timeline for ISRO's transitioning out of its current practices nor is there a schedule for IN-SPACe to create the regulatory framework.
- The policy framework envisaged will need clear rules and regulations pertaining to FDI and licensing, government procurement to sustain the new space start-ups, liability in case of violations and an appellate framework for dispute settlement.
- A regulatory body needs legislative authority like The Reserve Bank of India was set up by the 1934 RBI Act, the Securities and Exchange Board of India (SEBI) by the 1992 SEBI Act etc. IN-SPACe is expected to authorize space activities for all, both government and non-government entities. Currently, its position is ambiguous as it functions under the purview of the Department of Space.

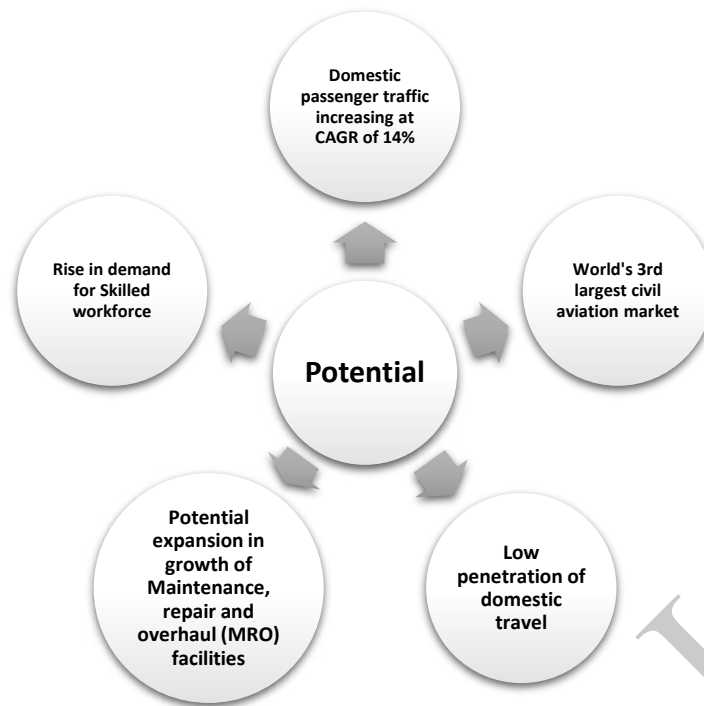
Civil aviation industry in India

News: Recently, budget airline Go First abruptly filed for bankruptcy protection and cancelled its flights for a few days.

Why did Go Air file for bankruptcy protection?

- Go Air faced problems with Pratt & Whitney (P&W), the engine manufacturer, which led to an increasing number of failing engines. This resulted in a significant portion of Go Air's fleet being grounded, causing operational challenges.
- It's over-reliance on fewer international suppliers for its operational needs
- India's lack of large-scale maintenance, repair, and overhaul (MRO) facilities contributed to Go Air's struggles, as grounded aircraft couldn't be quickly repaired and put back into service.
- Fierce competitions with its rivals.

What is the potential of Indian aviation industry?



Challenges in Aviation Industry

- **Aviation turbine fuel** – Taxes are high, not under GST – It hurts profitability of companies
- **Predatory pricing** – Deliberate selling product below cost price to eliminate companies. Eg – Spicejet
- Issue of **grounded aircrafts** across all airlines due to maintenance, engine replacements and supply chain challenges
- **Increasing cash flow woes** and grounded aircraft highlights the financial challenges faced by the industry.
- **Passenger safety compromised** – Low profitability, repair service not regularly done
- The **pandemic** has severely affected the aviation industry
- **Regulatory bodies like DGCA** have faced criticism for not conducting thorough financial audits and ensuring safety and operational standards in the industry.

What should be done to overcome aforementioned challenges?

An advisory firm **Primus Partners released a report** that suggests several reforms. They are,

- Encourage domestic financing solutions to reduce dependency on international leasing markets and keep Indian funds within the country.
- Improve the implementation of regulations to facilitate faster repossession and redeployment of aircraft.
- Simplify and streamline tax regulations to make the leasing industry more attractive and competitive.
- Develop an ecosystem that caters to the leasing industry's maintenance and operation's needs, creating a self-sufficient and robust industry within India.

Steps taken by government to support Aviation sector:

- **National Civil Aviation Policy, 2016** - The policy covers 22 areas of the civil aviation sector. NABH nirman scheme and UDAN scheme form part of the policy.
- **100% tax exemption** has been provided for airport projects for a period of 10 years. Indian aircraft Manufacture, Repair and Overhaul (MRO) service providers are exempted completely from customs and countervailing duties.
- **Over 30 airport development projects** are under progress across various regions in Northeast India. AAI plans to develop over 20 airports in Tier-II and Tier-III cities in the next 5 years.
- With the opening of the airport sector to **private participation**, 6 airports across major cities are being developed under PPP. Currently, 60% of airport traffic is handled under PPP, while the remaining 40% is managed by AAI. Participation by the private sector has improved the service levels and enhanced the passenger experience.

Weather-proofing Food Security

News: The editorial covers details concerning food inflation in India, factors impacting food security and steps to contain food inflation among specific categories in India.

What is Food Security?

- According to **United Nations' Committee on World Food Security**, Food security means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life.
- It is combination of 3 elements – **Food availability, Food access and Food utilization.**

What is the need for Weather-proofing Food security?

- Impact of Climate change on food production, livelihoods and health.
- Majority of population are at risk of crop failures, hunger, malnutrition and they are concentrated in regions of Sub-Saharan Africa, South and South-east Asia.
- The possibility of El Nino, and it could cause below-normal rainfall, even a drought. It can push more people to poverty.



What is Inflation scenario in the country?

- The food and beverages component in the Indian CPI has a weightage of 45.86%. Managing this component to around 4% is critical to control overall inflation. It is difficult to manage this component through Monetary policy or Fiscal policy alone.
- The biggest crop of the kharif season is rice. Rice inflation for April was 11.4% Wheat inflation is still very high at 15.5%. The overall cereal and products inflation is still at an uncomfortable level of 13.7%.
- While talking about milk and milk products. The inflation in this category is also high. It has the highest contributions amongst all commodities. High inflation here is attributed to 2 main factors – Lumpy skin disease and high fodder price inflation.

How can Food inflation across rice, wheat, milk and beverages products be managed?

- A large number of population is receiving free rice and wheat under Pradhan Mantri Garib Kalyan Yojana so they are **already protected from cereal inflation.**
- The **rice stocks** with the FCI are more than three times the buffer stock norms for rice. So to control rice price inflation it can **unload 5 million tonnes of rice** from the Central Pool in open market operations, and **easily bring down the rice inflation to around 4%.**
- **Lower Import duties on Fat** is another option reduce milk inflation. The policy instrument to use is to lower import duties on fat, which are currently at 40% and skimmed milk powder (SMP), which is at 60%. **Indian prices of SMP and fat (butter) are much higher than the global prices**, and therefore, by reducing import duties to say 10 to 15%, there would be some imports of fat and SMP. That could help in reining milk and milk product prices.
- **Cultivation of Fodder crops** must be promoted through subsidy or incentive programs.
- Although latest forecast about the Impact of El Nino is yet to be made by IMD but we can be prepared by introducing drought-tolerant crop varieties, expanding irrigation, restricting rice exports, storing and distributing grains, expanding social protection coverage can help reduce the impact of climate.

Violence in Manipur

News: Recently, The Supreme Court directed the State of Manipur to file a fresh status report on all the security, relief and rehabilitation efforts made for the people affected by the violence between Meitei and Kuki communities.

Background:

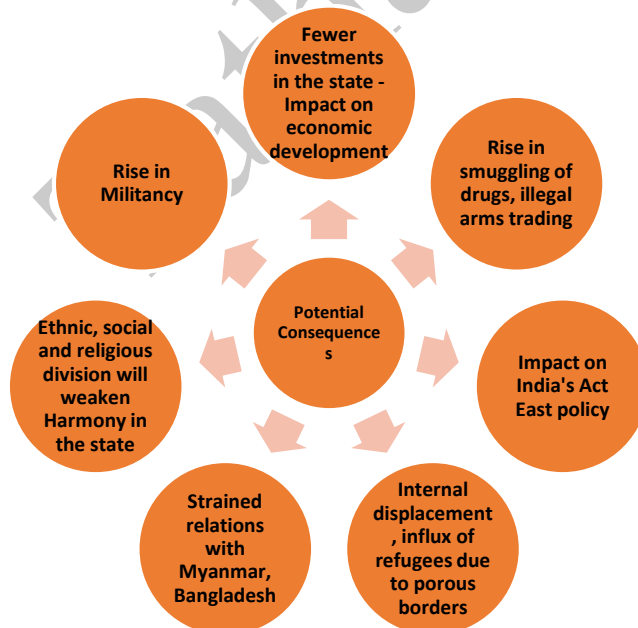
- Manipur has been facing unrest and violent protests, recently witnessing the first direct clashes between the **Kuki-Zomi tribals** and the **Meiteis** in over 30 years.
- With a complex cultural geography divided into 'valley' and 'hill' districts, the state has experienced longstanding ethnic tensions.
- **The valley**, which comprises about **10% of Manipur's landmass**, is dominated by the **non-tribal Meitei** who account for more than **64% of the population of the State**.
- **The hills** comprising **90% of the geographical area** are inhabited by more than **35% recognised tribes**.
- While a majority of the Meiteis are Hindus followed by Muslims, the 33 recognised tribes, broadly classified into 'Any Naga tribes' and 'Any Kuki tribes' are largely Christians

What are reasons behind clashes in Manipur?

There are several factors both external and internal. They are as follows:

- Meiteis demand for Scheduled tribe status which was central reason behind violence as tribal groups within the state feared for their existence.
- The competition for land and resources has intensified issues. Meiteis who are numerically stronger account for just 10% of land areas.
- Historical issues and both sets of communities (hill tribe and valley people) vie for greater representation and control in local politics.
- Economic underdevelopment in the region has exacerbated inter-ethnic tensions, as communities compete for scarce resources and opportunities.
- In 2020, as the Centre began the first delimitation process in the state since 1973, the Meitei community alleged that the Census figures used in the exercise did not accurately reflect the population break-up. Tribal groups (Kuki and Nagas) on the other hand said they had grown to 40% of the state's population and were underrepresented in the Assembly.
- The military coup in Myanmar in 2021 and subsequent unrest have led to a continuous influx of Burmese refugees into Manipur. Many of the refugees share kinship ties with Manipur's Kuki tribe.
- Manipur is located closely to the Golden Triangle and porous international borders make the state vulnerable to drug trafficking and other cross-border criminal activities. These illegal activities can fuel violence and social unrest in the region.

What are the potential consequences of recent unrest?



What should be the way forward?

- Improve governance by addressing corruption, and inefficiency, and strengthening local administration.
- Evaluate on the outcomes of AFSPA in the state and try alternative measures to protect human rights and win trust of the people.
- Engage with local people, local leaders and ethnic groups to find a common solution.

- Improve engagements with neighbouring countries especially Myanmar to manage cross-border problems such as smuggling, infiltration and refugee crisis.

Our quantum leap

News: Recently, The Union Cabinet approved the National Quantum Mission (NQM), putting India among the top six leading nations involved in the research and development in quantum technologies.

What is Quantum Technology?

- It is a field of science and engineering that deals with the principles of quantum mechanics, which is the study of the behavior of matter and energy at the smallest scale.
- Quantum mechanics is the branch of physics that describes the behavior of matter and energy at the atomic and subatomic level.

Potential of Quantum Technology in India:

- NQM, planned during 2023 – 2031, is worth approximately 6,000 crore. It will mainly work towards strengthening India's research and development in the quantum arena alongside indigenously building quantum-based (physical qubit) computers.
- As far as India is concerned, investments in quantum materials and devices promise far more dividends than one can visualize.
- It will generate a skilled workforce, other major scientific projects can take significant lead ranging from semiconductor mission to neutrino observatory and gravitational wave detection.
- The infrastructure will play a key role in building self-reliance in energy and electronics industries.

What are Quantum materials?

- Quantum materials are a class of matter or systems that exploit unique properties of quantum physics. They accomplish tasks that classical technology is incapable of.
- The concept of "quantum materials" was originally introduced to identify some of the exotic quantum systems, including unconventional superconductors, heavy-fermion systems and multifunctional oxides.
- It has now morphed into a powerful unifying concept across diverse fields of science and engineering, including solid state physics, cold atoms (atoms cooled to close to absolute zero whereby their quantum mechanical properties are unveiled), materials science and quantum computing.

What are applications of Quantum materials?

- Quantum materials can be used to create new types of batteries, solar cells, and other energy-efficient devices.
- They can be used to create new types of medical devices, such as sensors and imaging devices.
- Quantum materials can be used to create new types of weapons and defence systems. For example, quantum sensors could be used to detect submarines and stealth aircraft, and quantum sensors could be used for Position, Navigation and Timing (PNT).
- Quantum materials can also enhance agricultural productivity, quality, and security by exploiting quantum effects such as biosensing, bioimaging, and nano delivery.
- Big technology companies like IBM, Google and Microsoft are racing for 'quantum supremacy', which is the point where a quantum computer succeeds in solving a problem that no classical computer could solve in any feasible amount of time.

What are challenges with Quantum materials?

- Quantum materials have potential to cause health and environmental risks due to their potential toxicity and bioaccumulation.
- They pose security and ethical challenges due to their potential applications in cryptography, surveillance, and warfare.
- Quantum materials may also be expensive and difficult to synthesize, purify, and characterize due to their complex structure and composition.

- Quantum materials may also have societal implications due to their impact on human cognition, communication, and culture. For example, quantum-powered artificial intelligence may be able to surpass human intelligence.
- Materials and devices-based innovation will create new businesses from manufacturing supporting equipment. India currently imports high-end specialized devices, such as semiconductor-based single-photon detectors, at the bulk scale.
- Currently nearly 12 percent startups are deep tech-related. It represents a nearly 35 times increase between 2016 and 2019 but less than 3 percent of these involve manufacturing and/or materials.

Way Forward

- The National Quantum mission will require a significant component of materials research to be carried out in goal-oriented multi-institutional consortia. It will demand strategic recruitment of new talent, synergistic multi-institutional collaboration and political will to ease bureaucratic norms and prevent delays in infrastructure building to ensure that the mission's deadlines are met.
- India needs to create a well-balanced R&D ecosystem where material research for near-term goals and applications needs to coexist and collaborate with those with more fundamental and futuristic objectives.

Integrated system of Medicine

News: Recently, the Indian Council of Medical Research and GoI's AYUSH ministry signed an MoU to promote and collaborate on integrative health research.

What is Integrated system of medicine?

- An integrated system of medicine combines different healthcare practices to provide the most effective treatment for the patient. It blends "Western" medicine, with alternative or traditional practices such as Ayurveda, acupuncture, yoga, or naturopathy.
- The aim of an integrated system is to treat the whole person – mind, body, and spirit, rather than just focusing on a single disease or symptom. This can result in more personalized, comprehensive care.

Advantages of Integrated system of Medicine:

- It focuses on holistic approach to patient care – It considers physical, mental and emotional well-being of a person.
- Traditional therapies can often be more cost-effective than modern ones. For example, Yoga can provide more solution with fewer resources.
- Traditional practices like Ayurveda and yoga can be used as adjunctive therapies in conjunction with modern medicine, potentially enhancing treatment outcomes.
- Fewer or no-side effects compared to modern medicine. For example, Meditation and Yoga can help overcome mental issues rather than relying on medications alone.
- The Integrated System of Medicine supports the 'One Health' approach, which enables coordinated action across human, animal, and agricultural sectors for judicious antibiotic use.
- Integrating traditional and modern medicines may provide more comprehensive care, potentially leading to improved patient satisfaction.

What are Government's initiative in this direction?

- Creation of Ministry of AYUSH was the first and foremost initiative towards promoting traditional and alternative system of medicine.
- Recent partnership of ICMR and AYUSH ministry to conduct quality human clinical trials is a step to look at potential evidence of combining Ayurveda with modern medicine.
- The AIIMS has been conducting clinical trials for years to assess the impact of Yoga and other traditional practices on various health conditions.

Way Forward

- Such collaborations should be encouraged as they provide for scientific validation of traditional therapies.
- Medical practitioners can be educated and trained in both traditional and modern systems of medicine to allow for the effective delivery of integrated care.

India as a QUAD led Biomanufacturing Hub

News: In March 2021, the Quad set up a Critical and Emerging Technology Working Group to facilitate cooperation, monitor trends, and scout for opportunities related to developments in critical and emerging technologies that included biotechnology.

What is Biomanufacturing?

- Biomanufacturing uses living systems, particularly microorganisms and cell cultures, to produce molecules and materials on a commercial scale.
- It has the potential to transform the global industrial system, with up to 60% of physical inputs to the global economy expected to be producible using this technology.

The QUAD Bio-manufacturing hub and India:

- India's **National Biotechnology Development Strategy** envisions the country as a "**Global Biomanufacturing Hub**" by 2025. It sets a target of \$100 billion for the hub.
- Quad should establish a biomanufacturing hub in India to benefit from the country's economic potential and address supply-chain vulnerabilities.
- Quad nations have complementary strengths that can be leveraged to create this hub. On one hand The U.S. has significant funding capability, while all three (Japan, Australia and the U.S.) also possess advanced biotechnology innovation ecosystems and intellectual property.
- India has skilled manpower and the potential to provide affordable scale.
- India is the ideal choice to host the biomanufacturing hub because of existing infrastructure, pharmaceutical manufacturing expertise, and the available workforce.
- India is among the top performers in the field of bio-manufacturing in both the quality of research output and in the share among research publications.
- Low-cost bio-manufacturing - India also has significant potential in low-cost bio-manufacturing.

Why should we act fast?

- India should act quickly as China has also expressed its intention to capture this market, similar to how it dominated small-molecule active pharmaceutical ingredients (APIs).
- Concerns about China's dominance in APIs pushed India to launch a production-linked incentive scheme that allocated \$2 billion to the pharmaceutical sector to make biopharmaceuticals, APIs, key starting materials, and related products.
- Dependence in the bio-manufacturing sector will be detrimental to both India and the Quad. The proposed hub can help facilitate technology transfer, connect investors, and establish a bio-manufacturing fund.

Way Forward:

- To scale up the biomanufacturing sector, India needs to uplift its workforce quality. Permanent training facilities can be established in universities around the Quad hub, with experts from other Quad countries providing the training. India can become a leading player in the field of biomanufacturing and help the Quad to compete in this key area.

India-Pacific Islands Relations

News: The article discusses the importance of Pacific Island nations for India in context of the latest edition of Forum for India-Pacific Islands Cooperation (FIPIC)

What are the Pacific Island countries (PICs)?

- The PICs, consist of **14 member nations** including Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.
- With unique challenges such as climate change and water scarcity, the PICs are nonetheless rich in culture and natural beauty.
- At the moment they hold strategic relevance with increased attention from global powers, including India, the US, and China, each vying for influence through security, economic, and developmental partnerships.

How India intends to help PICs?

- India unveiled a **12-point action plan** during the third Forum for India-Pacific Islands Cooperation Summit.
- India promised to **boost healthcare infrastructure** in the islands. Eg – 100 bed hospital in Fiji
- India plans to establish a **regional IT and cybersecurity training** hub in Papua New Guinea
- India promises to organize **Jaipur Foot Camps** in the region every year, helping provide prosthetic limbs to those in need.
- India intends to help with solar projects, desalination plants, sea ambulances etc

What are mutual benefits for both?

- India is a crucial development partner for the Pacific Island nations. With its human-centric approach, India offers support in critical sectors such as healthcare, IT, and climate change.
- India's increasing engagement with Pacific Island nations helps provide a diplomatic balance in the region.
- India's approach to providing developmental aid is based on not increasing the indebtedness of these nations.
- Presence of India within this region can help extend our influence as a strategic power especially within Indo-Pacific discourse.
- India's involvement can serve as a counterbalance in context of China.
- Significant opportunities for India in context of healthcare, IT, renewable energy etc.

Challenges:

- Geographically the islands are located far away from India and it will be difficult to keep constant engagements.
- Other significant players such as the USA's increasing presence can be detrimental to India making its own mark in the region.
- Ensuring the sustainability of development projects is another challenge. Given the small size and often remote locations of these islands, ensuring efficient implementation and long-term operation of projects can be difficult.
- China's expanding influence in the Pacific region poses a major challenge to India.

Way Forward

- Increase economic engagement with PICs and ensure consistent and proactive engagement with the island nations.
- Enhancing people-to-people connections can go a long way in strengthening the relationship. This can involve exchanges in culture, education, science and technology, sports, and more.
- Collaborate with like-minded countries in engagement with PICs.

Cheetah reintroduction project

News: In a span of around two months, three adult cheetahs and three out of the four cubs born to a female Namibian cheetah, Sisaya, have died.

Background:

- Several experts have expressed concerns over the death of some cheetahs in Kuno National Park.
- The **Madhya Pradesh Forest Department** had written a letter to the National Tiger Conservation Authority in April, seeking an "**alternative**" place for cheetahs to reside in, instead of Kuno.
- The **Supreme Court** suggested shifting cheetahs to other sanctuaries, pointing out the lack of space and logistical support in the national park.
- Reacting to the death of some adult cheetahs and cheetah cubs, South African wildlife expert Vincent van der Merwe on Thursday (May 25) recommended **fencing the cheetah habitats**. He believes it will prevent their "extreme ranging behaviour".

What are reasons for the deaths of Cheetah since its reintroduction?

- They are facing several Health issues. For example, Sasha's death was due to **kidney failure**, possibly caused by an underlying infection or health issue that went undetected.

- The cheetahs were fed a **flesh-only diet** during quarantine and confinement, which might have deprived them of **essential micronutrients** and **negatively impacted** their health.
- Both Sasha and Uday may have experienced **high-stress levels** from confinement, relocation, or other factors, contributing to their health decline.
- Various other reasons, such as kidney ailments, **injuries during mating, extreme heat, weakness and malnutrition** are also said to be reason behind death of Cheetah's in India.

What are steps taken by government as far as Cheetah re-introduction plans are concerned?

- **The Action Plan** has been developed in compliance with IUCN guidelines (2013).
- Kuno National Park was chosen after **extensive research**, ensuring that it has the necessary ecological conditions to support the cheetah population.
- The government is conducting **regular health checks** and providing necessary medical care.
- The government has partnered with the **Cheetah Conservation Fund** and other international organizations to ensure the success of the project, benefiting from their expertise and knowledge.
- A monitoring system, including **camera traps and tracking devices**, has been established to collect data on the cheetah population and inform future conservation efforts.
- The government has set up an **11-member high-level steering committee** to review and monitor the progress of the cheetah reintroduction programme.

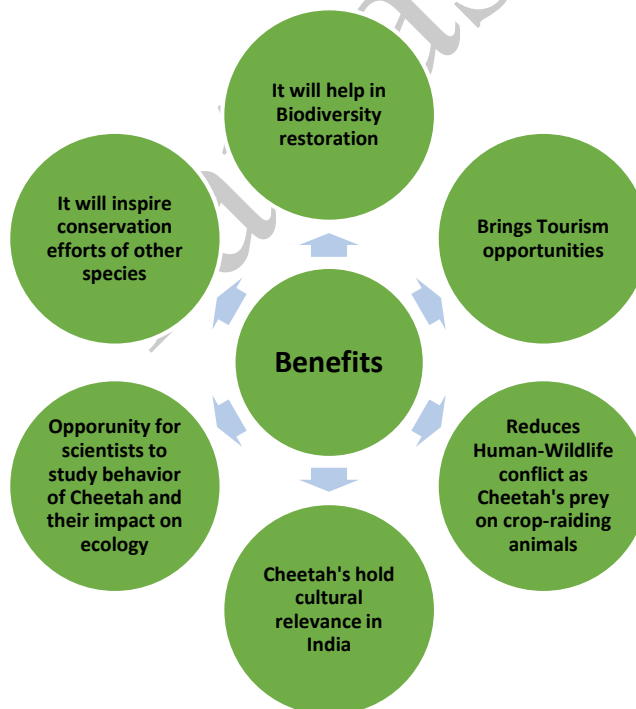
Cheetah deaths at Kuno

Three adult cheetahs and three cubs died since 20 of the big cats were relocated from Namibia and South Africa to the Kuno National Park



Cheetah	Date of death	Reason
Sasha	March 27	Kidney ailment
Uday	April 23	Cardiopulmonary failure
Daksha	May 9	Injury from a violent interaction
Three cubs born to Jwala	May 23	Weakness/ extreme weather

What are benefits of cheetah reintroduction?



General Studies - 1

History and Culture

Indus Valley Civilization

News: According to recent study, Harappa, Rakhigarhi, Dholavira, 200 years of droughts may have erased these Indus megacities.

Background:

- Severe droughts during the **Bronze Age** may have wiped off the population of the Indus Valley people, endorsing the theory that climate change led to the collapse of ancient civilisation.

About IVC:

- It was a Bronze Age civilisation in the northwestern regions of South Asia, lasting from 3300 BCE to 1300 BCE.
- It stretches over an area spanning northeast Afghanistan, much of Pakistan and western and northwestern India.
- It thrived in the Indus River basins and along a network of rivers that originally flowed near the ephemeral Ghaggar-Hakra river in northwest India and eastern Pakistan.
- The IVC is noted for its town planning, baked brick houses, elaborate drainage and water supply systems, handicraft techniques, seals, undeciphered script and metallurgy (copper, bronze, lead and tin).

Key Findings of the study:

- Droughts that began 4,200 years ago gripped the civilisation and went on for over two centuries. It severely affected food systems and habitation patterns which forced the people of the IVC to make systemic changes to adapt to a more self-reliant lifestyle.
- They reorganised their large cities and moved towards the east of the region in smaller rural settlements.
- They had to change their agricultural practices to rely more on drought-resilient crops such as millet.

On what basis did scientists arrive at conclusions?

- The scientists recovered a stalagmite — vertical mass of mineral deposits rising from the floor of caves and caused by water dripping — from a cave near Pithoragarh district in India's Uttarakhand. They studied the **layers of this stalagmite** to assess relative seasonal rainfall over thousands of years.
- They also used high-precision **Uranium-series dating** to get a handle on the age and duration of the droughts.

What are the theories as propounded by Historians on decline of IVC?

- **Aryan Invasion Theory** (Max Mueller, Mortimer) – which suggested that the invasion by the Aryan people, who came from the north and brought with them new technologies and ideas that led to the collapse of the existing civilization.
- **Decline due inherent internal issues** (S.R Rao) – The decline was caused by internal factors such as political instability, corruption, and economic decline.
- **Combination of several natural factors** – Geological and climatic, several tectonic disturbances leading to earthquakes, change in rainfall pattern, dramatic shift in river courses.
- **Gradual mixture with Vedic Culture** as propounded by David Frawley who argued that there was no actual decline/collapse but rather a transformation into the Vedic culture of ancient India.

Buddha Purnima

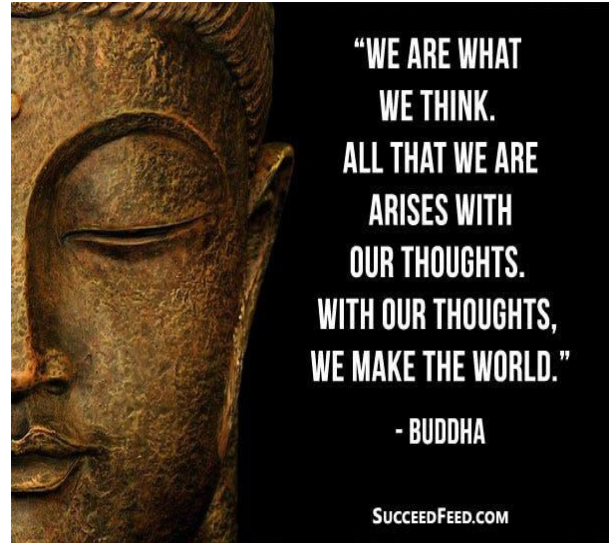
News: PM Modi greeted the nation on the occasion of Buddha Purnima.

Why do we celebrate Buddha Purnima?

- The occasion marks the birth anniversary of Gautam Buddha and is also believed to be the day he **attained salvation** or **Nirvana** under the **Mahabodhi tree** at **Bodh Gaya**.
- It is also known as **Vesak**. In 1999, it became an UN-designated day, to acknowledge the contribution of Buddhism to society.

About Gautam Buddha:

- He was born as Siddhartha Gautama around 563 BCE, in Lumbini and belonged to the Sakya clan.
- Buddha gave his first sermon in the village of Sarnath, near Varanasi in Uttar Pradesh. This event is known as **Dharma Chakra Pravartana** (turning of the wheel of law).
- He died at the age of 80 in 483 BCE at Kushinagar, Uttar Pradesh. The event is known as **Mahaparinibban** or **Mahaparinirvana**.
- Gautama Buddha, is considered the **ninth avatar** among the ten major avatars of the god Vishnu, according to the Vaishnava tradition of Hinduism.



Teachings of Buddha:

- 4 noble truths of Buddha – The world is full of suffering; it is our desire which causes suffering; when we get rid of desire; suffering will be removed. Following the 8 fold path will help to win over desire.
- 8 fold of Path – It consists of the right view, right resolve, right speech, right conduct, right mindfulness, right effort, and right concentration.
- Buddha laid great emphasis on the code of practical ethics and the principle of social equality.

Significance of Buddha Purnima:

- Buddha Purnima celebration is all about praying with the purest of feelings, and adopting what Buddhism stands for – peace, non-violence and harmony.
- Devotees visit Mahabodhi Temple, a UNESCO World Heritage Site, located in Bodh Gaya, Bihar, on the occasion of Buddha Purnima.
- Buddhism is practiced in different forms all over the world and is considered inclusive as it does not celebrate any deities.

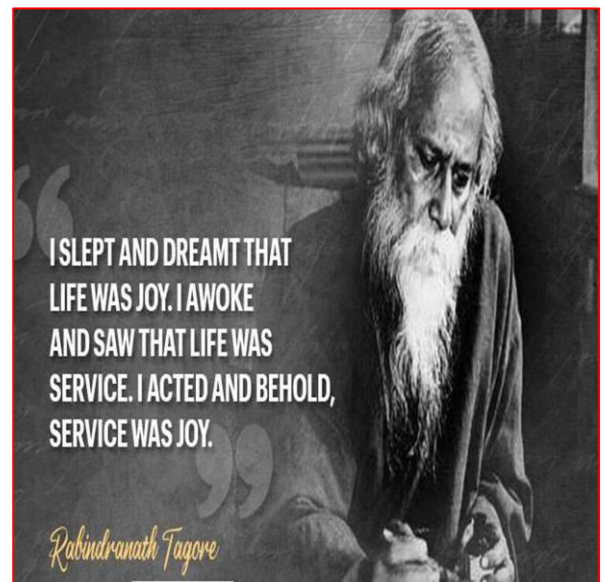
Gurudev Rabindranath Tagore

News: On 7th May, 162nd Rabindra Jayanti was celebrated which is a huge day for people who respect free thought and art, not only in Bengal or India but across the globe.

About:

- Kavi guru was a global personality in true sense and contributed not just to art in India, but across various disciplines globally
- He was the biggest medium of expression of Indian art in the world, He was the **first Indian to win the Nobel Prize** (1913) for his novel '**Geetanjali**'.
- He propagated ideas of **humanism, idealism, nationalism** and **internationalism**.
- One of the most remarkable institutions established by Tagore – **Visva Bharati University** (1921) – ushered in a new era of Indian nationalism (incorporating all the best aspects of Western culture into the best of Indian culture).

His contribution as a Freedom Fighter and Social Reformer:



- According to him, true freedom means the ability to be truthful and honest with oneself.
- He viewed British rule as a symptom of the overall “sickness” of the social “disease” of the public.
- He actively participated in the Swadeshi movement (1905). He withdrew from the movement looking at communal violence it caused.
- He wrote the ‘**Amar Sonar Bangla**’ (adopted as the national anthem of Bangladesh later) and ‘Jana Gana Mana’ (adopted as the national anthem of independent India later) which helped ignite a feeling of nationalism amongst people.
- For Hindu-Muslim unity, he started the Rakhi festival.
- He also vociferously opposed the Jallianwala Bagh incident for which he renounced the Knighthood.
- He laid great emphasis on **education in one’s mother tongue**. The NEP 2020 takes inspiration from his thoughts.
- In his poem – ‘**The Sacred Touch**’ (in the Harijan) and drama – ‘**Chandalika**’, he shunned untouchability as being inhumane.
- His works – **Chokher Bali** (a novel that explores the themes of love, marriage, adultery, and widowhood in the late 19th century Bengal), **Maanbhajan**, and **Aparichita** (against the practice of dowry) catered to all social evils.
- **Ghare Baire** (The Home and the World), a novel that portrays the conflict between tradition and modernity, and the impact of the Swadeshi movement on a Bengali family

Important works:

- He published his first poems at the age of 16 under the pen name ‘**Bhanusimha**’.
- Important works include **Gitanjali**, **Ghare-Baire**, **Gora**, **Manasi**, **Balaka**, **Dak Ghar** and **Sonar Tori**. He is also remembered for his song ‘**Ekla Chalo Re**’.

International Museum Expo

News: Recently, PM Modi inaugurated the International Museum Expo 2023 in New Delhi to celebrate the 47th International Museum Day (IMD).

Background:

- India will have the world’s largest museum, **Yuge Yugeen Bharat**, that will capture 5,000 years of India’s history.
- 2023 theme – “**Museums, Sustainability and Well Being**”

About:

- IMD is observed on **18th May** every year to raise awareness about museums. The day was instituted in 1977 by the **International Council of Museum**.
- ICOM is a **membership association** and a **non-governmental organisation** that establishes professional and ethical standards for museum activities. It is the **only global organisation** in the museum field. **HQ - Paris, France**.
- The ICOM Red Lists of Cultural Objects at Risk are practical tools to curb the illegal traffic of cultural objects.

Key Highlights of Expo:

- The Prime Minister unveiled the Mascot of the International Museum Expo, the Graphic Novel – A Day at the Museum, the Directory of Indian Museums, the Pocket Map of Kartavya Path, and Museum Cards.
- The **Mascot of the International Museum Expo** is a contemporized version of the **Dancing Girl made of wood in the Chennapatnam art style**.
- The Prime Minister also highlighted the significance of museums in preserving history, promoting sustainability, and fostering a sense of well-being.
- The challenges of smuggling and appropriation of artefacts, particularly for countries with ancient cultures like India, have been acknowledged.
- Efforts are being made to recover and repatriate stolen artefacts, resulting in the retrieval of over 240 ancient items in the past nine years.

- Examples: 18th-Century **Annapurna statue** stolen from Banaras (recently returned from Canada), the 12th-Century statue of **Mahishasur Mardini** stolen from Gujarat (returned by New York's Met Museum in 2018), and **the idols of Nataraja** built during the Chola Empire.

Who administers museums in India?

- Not all museums are administered by the Ministry of Culture. Some are run independently under a Board of Trustees.
- Notable museums in India - National Museum, New Delhi; National Gallery of Modern Art, Bengaluru; Victoria Memorial Hall, Kolkata; Asiatic Society, Kolkata; National Museum of Natural History, New Delhi.

Sengol

News: In a symbolic move, a sacred sceptre that was handed to Jawaharlal Nehru on the eve of Independence to mark the transfer of power from the British will be given to Prime Minister Narendra Modi at the inauguration of the new Parliament building.

What is a Sengol?

- The "sengol" sceptre is a **long, stick-like item** (5 feet) made of **silver** and **covered in gold**. The sceptre has a carving of a bull, called a **Nandi**, at the top. This is done to remind everyone about the importance of fair and just leadership in the country.
- The Sengol represents the idea that the person who holds it should rule with fairness and justice.
- 'Sengol' is derived from the Tamil word 'semmai,' which means excellence, the 'Sengol' represents the embodiment of power and authority.



Who gave the idea of Sengol ceremony in 1947?

- The idea came from C Rajagopalachari, the last Governor-General of India. When Lord Mountbatten, the Viceroy of British India, asked for a suitable symbol, Rajaji suggested the 'Sengol' sceptre. He was inspired by a similar ceremony in the ancient **Chola dynasty**, where **power was passed from one king to another**.
- In the Chola tradition, during the transfer of power ceremony, in addition to the presentation of the sceptre, an order called '**aanai**' in Tamil was bestowed upon the new ruler. This order symbolizes the responsibility to govern with **unwavering adherence** to the principles of 'dharma,' ensuring justice and fairness in the realm.

Where will the sceptre be placed?

- The sceptre will be installed near the **Lok Sabha Speaker's podium**. The handover ceremony will be attended by priests from the **Adheenam Mutt**.

Vinayak Damodar Savarkar

News: Recently, PM Modi paid homage to Veer Savarkar on his birth anniversary (28th May).

Who was Veer Savarkar?

- Veer Savarkar was a Hindu and Indian nationalist and a leading figure in the Hindu Mahasabha, a Hindu nationalist organization and political party. He was also a lawyer, writer, and activist who fought against British colonial rule.

What were his contributions?

- Vinayak Damodar Savarkar made several contributions to India's freedom struggle and Indian society.



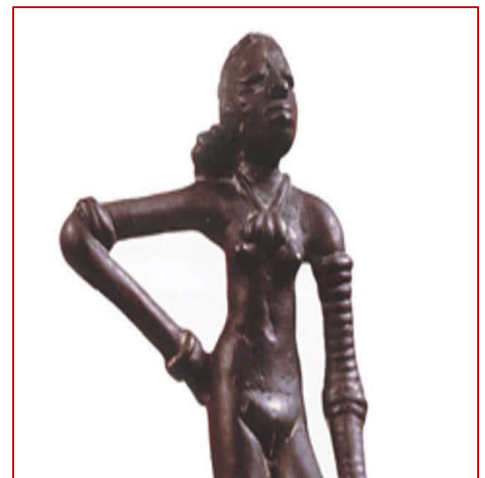
- Veer Savarkar was involved in the **Swadeshi movement** and propagated the concept of Swadeshi as he was against foreign goods. In 1905, he decided to burn all the foreign goods in a bonfire on the auspicious Dussehra day.
- In Pune, he founded the “**Abhinav Bharat Society**” and later joined **Tilak’s Swaraj Party**.
- While studying law in London (1906–10), he helped to instruct a group of Indian revolutionaries in methods of sabotage and assassination.
- He is known for his book “**The Indian War of Independence, 1857**” (1909), in which he called the **1857 rebellion the first war of independence**.
- He also coined the term **Hindutva** (“Hinduness”), which sought to define Indian culture as a manifestation of Hindu values.
- In 1911, Vinayak Damodar Savarkar was sentenced to 50 years in the Cellular Jail of Andamans (also known as Kala Pani) for revolting against the **Morley-Minto reforms** (Indian Councils Act 1909). He was released in 1924.
- The freedom fighter is most known for his treatise **Hindutva: Who is a Hindu?**, wherein he put forth his ideas about what constitutes the Indian nation.

Mohenjodaro’s Dancing Girl

News: The Dancing Girl figurine discovered in Mohenjodaro in 1926 recently found itself at the centre of controversy. It was the mascot of recently held International Museum Expo 2023.

About:

- It was discovered in 1926 (by British archaeologist **Ernest McKay**) during excavations at Mohenjodaro, a major site of the Indus Civilization.
- The 4,500 years old **bronze figurine**, just 10.5 cm in height, is dark and completely in the nude with the exception of multiple bangles and a necklace.
- The Dancing Girl is evidence of the civilisation’s knowledge of **metal blending** and **lost-wax casting** – a complicated process by which a duplicate sculpture is cast from an original sculpture to create highly detailed metallic artefacts.
- It strikes a pose with a hand on her hip, legs slightly forward, and a lively and spirited stance.
- Historians differ in interpreting the figurine’s purpose: some consider her a dancer, while others suggest she could represent a woman carrying an offering.
- The figurine is an object of symbolic and aesthetic value, highlighting the presence of high art in Harappan society.
- The Dancing Girl is a significant artefact of the Indus Civilization, offering insights into the artistic and cultural practices of the time.
- Even though Mohenjodaro and Harappa became part of Pakistani territory after the Partition, the Dancing Girl remained in India as part of an agreement.



Ahilya Bai Holkar

News: 31st May marks the birth anniversary of Ahilya Bai Holkar.

Who was she?

- Ahilya bai Holkar was a remarkable queen of the Maratha Empire in early-modern India. She was born on 31 May 1725 in a village called Chondi in Maharashtra.
- She became the ruler of Indore after the death of her husband Khande Rao Holkar and her father-in-law Malhar Rao Holkar.

- She was known for her **courage, wisdom and administrative skills**. She built many **temples, dharmashalas and forts** throughout India.
- She established Maheshwar as the seat of Holkar dynasty.

Which temples were constructed by her?

- Ahilya bai Holkar built hundreds of temples across India, especially in the holy places that had been destroyed by the Mughal emperor Aurangzeb.
- Some of the temples are Kashi Vishwanath Temple (Varanasi), Somnath Temple (Gujarat), Shri Kedarnath and Badrinath Temple (Uttarakhand), Shri Omkareshwar and Shri Mahakaleshwar Temple (MP) etc.
- She also built many ghats, dharmashalas and forts throughout India.



What are the things that we can learn from her?

- She was supported well by her father-in-law who refused her from committing Sati when her husband died. She became a ruler when women were not given freedom as much as they would have sought.
- As a ruler, she led a very modest life. She built **numerous tanks** for people's welfare.
- She defended her kingdom and **personally led armies** into battle. She never plundered anyone.
- Ahilyabai **never issued capital punishment**. She took personal oath from prisoners & released them. A prisoner who promised not to commit misdeeds again was released. Many such prisoners adopted an honest life and this generosity showed results.
- She **never used public cash** to meet her family or personal expenditures. She contributed money from her personal funds to charity.
- Ahilyabai **removed all taxes for traders** and there was no trader tax beyond custom. Her subjects weren't afraid to display wealth.
- She even established a **textile industry** in Maheshwar.

Conclusion

- Ahilya Bai Holkar was a woman ahead of her time. As a tribute to the great Indian queen, Government of India issued a commemorative stamp on 25th August 1996.

Society

Women participation in India's workforce

News: Last month, India surpassed China as the world's most populous country, prompting analysts to point out the potential benefits of its significant young demographic. However, a major obstacle to realising this potential is the insufficient representation of women in India's workforce.

Important facts pertaining Women's participation in workforce in India:

- According to data from the **World Bank**, the female participation rate in India's labour force was at its peak in 2000 at 31%. Since then, it has consistently fallen, hitting a low of 21% in 2018.
- A 2018 **McKinsey report** estimated that India could add \$550bn to its gross domestic product by increasing its female labour force participation by just 10%.
- Currently, women employees account for less than 20% of India's manufacturing sector.

What are reasons for declining women participation?

- India is still a largely **patriarchal society**, where women are expected to be primary caregivers at home.
- Indian women spend eight times the number of hours on **unpaid care work** compared with men, according to a national time use survey from 2019. The global average is three times.
- Experts say that **safety concerns** and **not being able to find jobs close to home** also prevent women in big cities from joining the workforce.
- Lack of opportunities for women returning to their careers after a professional break.
- Concentration in low/non-productive jobs: Like agriculture, primary caregiver at home, etc.
- Gender inequality – Almost 19% of employed women had regular salaried jobs while compared to 60% of employed men had regular salaried jobs. (Oxfam India Report)

What are steps taken by government?

- The Maternity Benefit (Amendment) Act 2017 provides for enhancement in paid maternity leave from 12 weeks to 26 weeks and provisions for mandatory crèche facilities.
- An advisory is provided to the States under the Factories Act 1948 for permitting women workers in the night shifts with adequate safety measures.
- A number of protective provisions have been incorporated in various labour laws – The Equal Remuneration Act 1976, The Minimum Wages Act 1948.
- A network of Women Industrial Training institutes, National Vocational Training Institutes and Regional Vocational Training Institutes.

Best practices (as quoted in editorial)

- **Gabriel India Ltd** - an auto parts company in Hosur - says that more than 20% of the workers in its factories are women.
- The company provides perks such as on-site accommodation, subsidised food and several training programmes to attract more women workers.
- They believe that attrition rates for women are lower.

Way Forward:

- A policy framework encouraging and enabling women's participation should be constructed.
- Active awareness of the "gender-specific" constraints that face most women.
- Gender-responsive policies need to be developed.

Digital Divide in India

Background:

- The article contains key finds from many indicator surveys (2020-21) which are published by NSSO concerning Digital Divide in India.

Key Findings

- More than 70% of Indian youth aged between 15 and 29 cannot send emails with files attached
- Nearly 60 per cent cannot copy and move a file or folder.
- Over 80% cannot transfer files between a computer and other devices.
- Only 8.6% can create electronic presentations with presentation software.

Impact of Digitisation on Tech-market:

- As per a recently published report by the WEF, in the next five years, the churn in Indian labour markets will be led by technology-driven sectors.
- Jobs in fields such as artificial intelligence and machine learning, data analysts and scientists, and data entry clerks will lead to this labour churn.
- “Labour-market churn” refers to the expected job movement being created, and existing roles destroyed as a proportion of current employment.
- Generative artificial intelligence is emerging as the next frontier in tech and IT skills. Firms have already begun hiring for new roles such as prompt engineers, AI trainer, ethics coach.
- Job roles involving generative AIs will not require candidates to be trained in hardcore computer engineering skills. Instead, candidates from the humanities stream, with English or history as their majors, will be better able to use these natural language tools.
- Technology has influenced our daily lives and we have become used to technology. The use of personal tech has become second nature to those born between the late 2000s and early 2010s.

What are the challenges related to skilling in digital technology?

- Persistent demand-and-supply gap for computer skills. More evident in tech-skilling in tier 2 and tier 3 cities.
- Only about 40 to 45% of Indian graduates are readily employable. Many technology companies have created large training infrastructures and have also worked with engineering schools to develop the curriculum and pedagogy.
- One of the biggest challenges of the Skill India Mission is that the government is organized in verticals. The issues around employment and skills are horizontal and involve different ministries.

Family Matters

News: Recently, The International Day of Families (May 15th) was celebrated.

Background:

- The importance of family gains more prominence especially when we see the increasing cases of murders of live-in partners, news items about family feuds leading to violent attacks on spouses or other family members and suicide among aspiring youths barely in their teens present a scary scenario.

What is the importance of Family?

- They provide **emotional, moral and mental support** during challenging times.
- It plays a crucial role in **socializing children**, teaching them societal norms, values, and behaviours.

- Family provides a **sense of belonging and helps individuals develop their identity** by instilling cultural, religious, and familial values.
- India swear by Vasudhaiva Kutumbakam. Kutumb or family has traditionally acquired primacy in human interpersonal-social relationship dynamics.
- The presence of multiple generations in a family fosters **intergenerational relationships**, creating opportunities for shared wisdom, experiences, and mutual learning.



What are the challenges faced by Traditional Family system?

- Conflicts arise when women desire to work or pursue a career away from Home but at the same time are expected to prioritize domestic responsibilities as well.
- Generational Gap when younger kids have different outlook and approach towards their life, value and belief systems compared to other members.
- In pursuing their goals and careers individuals may move away from their extended families, leading to a decrease in close-knit family support networks.
- Due to increasing usage of technology, candid and heart-to-heart dialogues between husband-wife and parent-children are becoming rare. They have become too formal and superficial. This challenges the collectivist nature of traditional family systems.
- From birthdays to weddings and house-warmings to condolence meetings, everything is being made into a formal event. This creates the “crisis of authenticity” of our interpersonal feelings.
- Cultural and social changes, such as globalization and exposure to diverse perspectives, can challenge traditional family norms and values.

How can we revive India’s traditional family system?

- Improve communication and dialogue that goes beyond formal talks and embraces deeper emotional connections.
- Encourage the preservation of traditional values, customs, and cultural practices within the family, ensuring that they are passed down to younger generations.
- Motivate family members to pursue personal goals while maintaining a sense of togetherness and commitment for family cause.
- Making wise use of technology. For example, encouraging virtual gatherings and staying connected despite the distance barriers.
- Advocating gender equality within family, gender sensitization especially among young boys.
- We need to have women-led families as a starting point for the implementation of PM Modi’s clarion call for women-led development. And to make this happen, men will have to rise above the traditional male mindset.

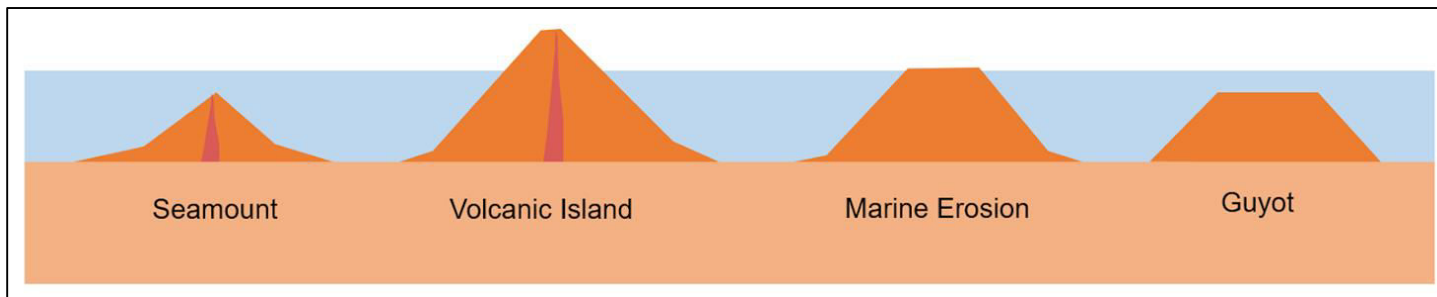
Way Forward:

- Reforming our families is easier said than done. Woman-led, child-focused and elderly-sensitive families are the need of the hour.

Geography

Seamounts

News: Recently, Scientists have reported finding 19,325 new seamounts after poring through new high-resolution data.



What are Seamounts?

- A seamount is an **underwater mountain**. They are formed through volcanic activity and scientists recognised them as hotspots for marine life.
- Typically, they are cone shaped, but often have other prominent features such as craters and linear ridges and some, called **guyots**, have **large, flat summits**.
- Like volcanoes on land, seamounts can be active, extinct or dormant volcanoes.
- Most seamounts are formed **near mid-ocean ridges**, where the earth's tectonic plates are moving apart, allowing molten rock to rise to the seafloor. The planet's two most-studied mid-ocean ridges are the Mid-Atlantic Ridge and the East Pacific Rise.
- Some seamounts have also been found near intraplate hotspots – regions of heavy volcanic activity within a plate – and oceanic island chains with a volcanic and seismic activity called island arcs.
- Echo sounders or multibeam sonar on ships for topographic mapping and using satellite altimetry for gravity-field mapping are the 2 modes that help map the seamounts.

Why are they important?

- They provide valuable information about the mantle's composition and about how tectonic plates evolve.
- Oceanographers also study seamounts to understand their influence on how water circulates and absorbs heat and carbon dioxide.
- Studies conducted over seamounts indicate that seamounts function as "**oases of life**," with higher species diversity and biomass found on the seamount and in the waters around it than on the flat seafloor.
- Seamounts also provide substrate (a location for attachment) where organisms can settle and grow. These organisms provide a food source for other animals. Scientists have found that seamounts often provide habitat to endemic species, or species found only in a single location.

Consequences of Rising Sea Level

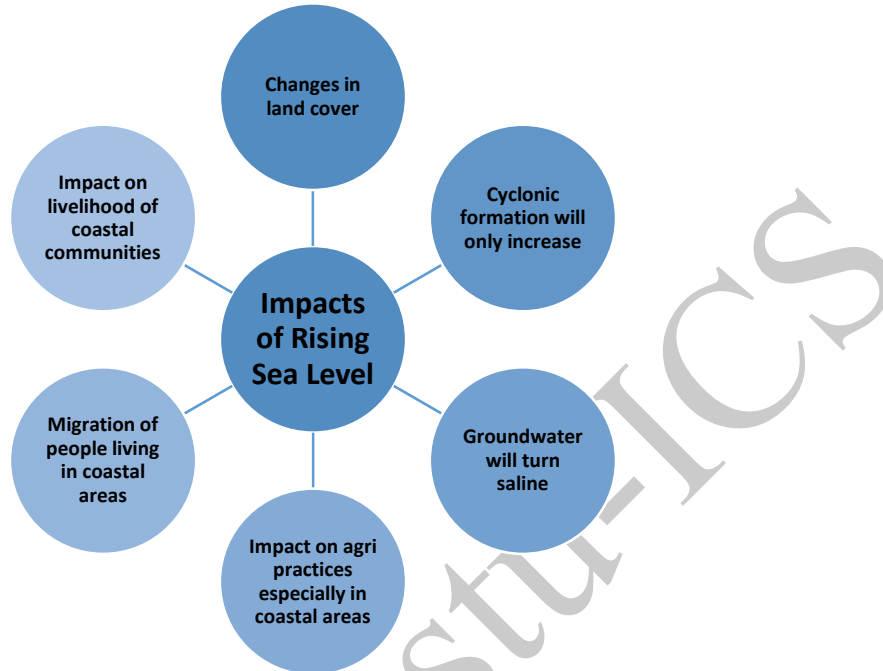
News: As per the WMO's 'State of the Global Climate 2022' report, the world's sea level is rising at an unprecedented rate.

Background:

- The rate of **global mean sea-level [GSML] rise** has doubled from **2.27 mm/year** in 1993-2002 to **4.62 mm/year** in 2013-2022.
- GSML budget (individual contribution of these factors) - Loss of glaciers and ice sheets contributed 36% to the GSML rise (between 2005-2019), Ocean warming (55%), and changes in the storage of land water (less than 10%).

Causes:

- Ocean warming - increasing concentrations of CO2 and other GHGs drive global warming, 90% of the extra heat is stored in the oceans.
- Ice loss from glaciers and ice sheets.
- Earth’s ice cover/cryosphere includes the Arctic and Antarctic regions (called sea ice), Glaciers, Ice sheets of Greenland and Antarctica, Seasonal snow cover, and Permafrost (mass of land that remains below 0°C for at least two straight years).



Changing Weather patterns in India

News: Despite recent showers, it is expected that weather will be hotter and drier.

Note – You can note down some of the data from image. It can be helpful in questions pertaining to Disaster management, impacts of Climate change in India.

Background:

- Weather in different parts of India has seen newer patterns with unusual rainfall seen in Maharashtra, Gujarat, UP, MP getting as much as 10 to 15 times the expected rainfall.
- The IMD has also released data on fatalities caused by extreme weather events, marking the first time they have done so.

Present situation in India:

- India's warming trend is slightly lower than the global average, with the year 2022 being 1.15 degree Celsius warmer than pre-industrial times.
- The warming over India is not uniform across regions. Some states like Himachal Pradesh, Goa, and Kerala have become much hotter than others, while eastern states such as Bihar, Jharkhand, and Odisha have experienced the least warming.
- Sea surface temperatures in the tropical Indian Ocean have risen by almost one degree Celsius between 1950 and 2015.

Which weather event kills most people?

TABLE 2
HOW WARM WAS 2022 FOR STATES (SINCE 1901)

Warmest year on record	Sikkim
Second Warmest	Himachal Pradesh, Meghalaya, Punjab
Third Warmest	Assam, Manipur
Fourth Warmest	Arunachal Pradesh, Mizoram, Nagaland, Tripura
Fifth Warmest	Odisha

TABLE 3
LONG-TERM WARMING

Himachal Pradesh	1.5
Goa	1.44
Kerala	1.05
Mizoram	0.83
Uttarakhand	0.8
Assam	0.72
Chhattisgarh	0.7
Sikkim	0.7
Manipur	0.68
Tamil Nadu	0.67

(Temp rise per 100 years between 1901 and 2022)

TABLE 4
DEATHS CAUSED BY EXTREME WEATHER EVENTS

Lightning	1,608
Floods and Heavy Rains	917
Cyclones	6
Snowfall	33
Gale	8
Heat Wave	30
Cold Wave	1
Dust Storm	22
Thunderstorm	32

**Total
2,657**

Based on data from 29 states

- More than 60 per cent of deaths caused by weather events in India in 2022 (1,608 out of 2,657 recorded deaths) were due to lightning strikes.
- Floods and extreme rainfall events claimed 937 lives. These numbers are only indicative and could be much larger.

Should India consider phasing out nuclear power?

Background:

- The topic was discussed in an editorial recently. The topic has been in news since Germany had recently closed its last nuclear plant.

Nuclear Energy in India:

- **Fifth-largest source** of electricity in India.
- At present, we have over **22 nuclear reactors** in 7 power plants across the country, which together produce 6,780 MW of nuclear power. Majority of reactors in India are Pressurized heavy water reactors.
- As recent as January 2021, the Kakrapar Atomic Power Project (KAPP-3), India's first 700 MWe unit and the biggest indigenously developed variant of the PHWR, was connected to the grid.
- India is also working on an entirely indigenous thorium-based nuclear plant, "**Bhavni**," which will be the first of its kind using **Uranium-233**. The experimental thorium plant "**Kamini**" already exists in Kalpakkam.

What is the need of Nuclear energy?

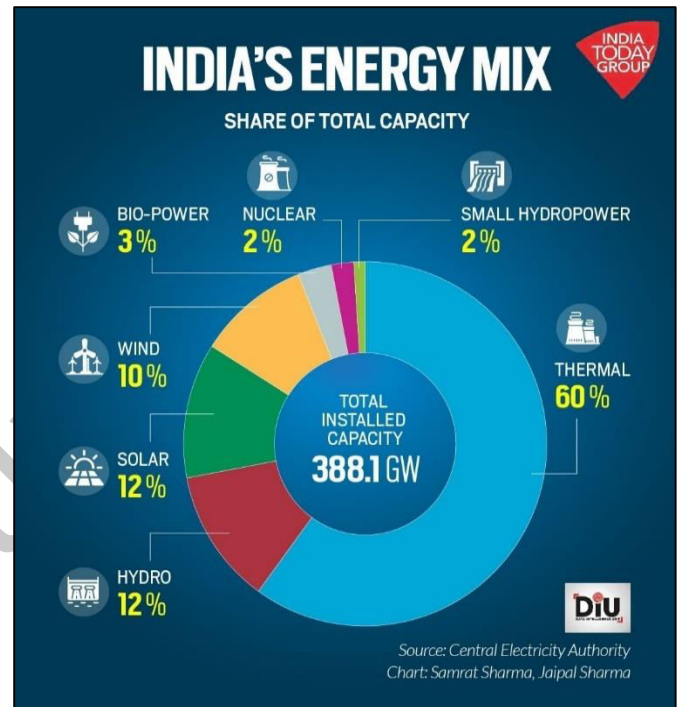
- Cheaper to operate compared to coal or gas plants.
- It has the potential to reduce our energy import bills and significantly improve our Current Account figures.
- Unlike solar and wind power, which are dependent on weather conditions, nuclear power provides a reliable, high-density source of energy that is widely available.
- It is a cleaner source of energy
- Thorium reserves in India makes nuclear energy a promising solution for India's energy needs.

Why are there calls for phasing out Nuclear energy?

- India's nuclear plan is premised on working around its limited supply of enriched uranium, which is difficult to source and is a burden on finances.
- Considering we have sufficient reserves of Thorium, we are yet to shift to thorium based nuclear power plants.
- Nuclear waste produced can have adverse impacts on life, leading to cancerous growths and genetic issues.
- Nuclear power plants are capital intensive and recent nuclear builds have suffered major cost overruns.
- Problems with land acquisitions.

Way Forward

- To realize the potential of Nuclear energy in India government companies like NTPC should be allowed to go solo in the sector. Monopoly of NPCIL is harming the prospects.
- Invest in research and development of advanced nuclear technologies, such as small modular reactors (Reduction of costs, increased safety)



Cyclones - Formation and Naming

News: Recently, The Indian Meteorological Department (IMD) has said that a cyclonic or low-pressure area is developing in the Bay of Bengal and can lead to high rainfall in the next few days in the region.

Background:

- The weather system is named Mocha pronounced as Mokha.

What are cyclones?

- A cyclone is a **low-pressure system that forms over warm waters.**

How are they formed?

- A high temperature anywhere means the existence of low-pressure air, and a low temperature means high-pressure wind.
- As air warms over hotter regions it ascends, leading to low pressure at the surface it is covering.
- In a depression or low-pressure situation, the air is rising and blows in an anticlockwise direction (in the northern hemisphere) around the low. This is because of the Coriolis effect, a result of the earth's rotation on its axis.
- Warm seas present favorable conditions for the development and strengthening of cyclones and fuel these systems over the water.
- As warm air rises and cools, water vapour condenses to form clouds and this can lead to rains.

How are cyclones named?

- Cyclones that form in every ocean basin across the world are named by the **regional specialised meteorological centres (RSMCs)** and **Tropical Cyclone Warning Centres (TCWCs)**. There are six RSMCs in the world, including the India Meteorological Department (IMD), and five TCWCs.
- As an RSMC, the IMD names the cyclones developing over the north Indian Ocean, including the Bay of Bengal and the Arabian Sea.
- In 2000, a group of nations called WMO/ESCAP (World Meteorological Organisation/United Nations Economic and Social Commission for Asia and the Pacific), which comprised Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand, decided to start naming cyclones in the region.
- After each country sent in suggestions, the WMO/ESCAP Panel on Tropical Cyclones (PTC) finalised the list.
- This cyclone will be named Mocha (Mokha), a name suggested by **Yemen** after the Red Sea port city, which is known to have introduced coffee to the world over 500 years ago.

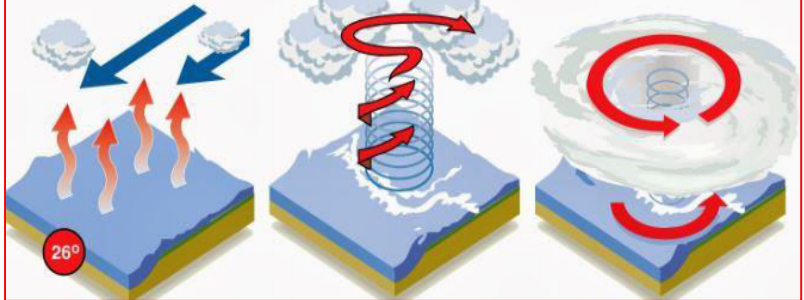
How tropical storms are formed

High humidity and ocean temperatures of over 26°C are major contributing factors

Water evaporates from the ocean surface and comes into contact with a mass of cold air, forming clouds

A column of low pressure develops at the centre. Winds form around the column

As pressure in the central column (the eye) weakens, the speed of the wind around it increases



Lakes must be protected

News: More than half of the world's large lakes and reservoirs have shrunk since the early 1990s, chiefly because of climate change, intensifying concerns about water for agriculture, hydropower and human consumption. (Journal Science)

Key Findings:

- More than 30 large lakes in India have recorded a drying trend from 1992 to 2020. Of them, 16 are the major lakes of southern India. Some of these include Mettur, Krishnarajasagar, Nagarjuna Sagar and Idamalayar.
- Global lakes contribute to 95% of the total lake water storage on Earth. Overall, 53% of the world's largest lakes have been losing water, while 24% have seen an increase in water levels. Nearly 33% of the global population resides in a basin with a large, drying lake.
- Climate change, including temperature, precipitation, and runoff, was identified as one of the main drivers of water losses.

- Human water consumption, potential evapotranspiration, and sedimentation were identified as additional factors contributing to the decline of lakes.
- A team of international researchers reported that some of the world's most important freshwater sources – from the Caspian Sea between Europe and Asia to South America's Lake Titicaca – lost water at a cumulative rate of around 22 gigatonnes per year for nearly three decades. That's about 17 times the volume of Lake Mead, the United States' largest reservoir.

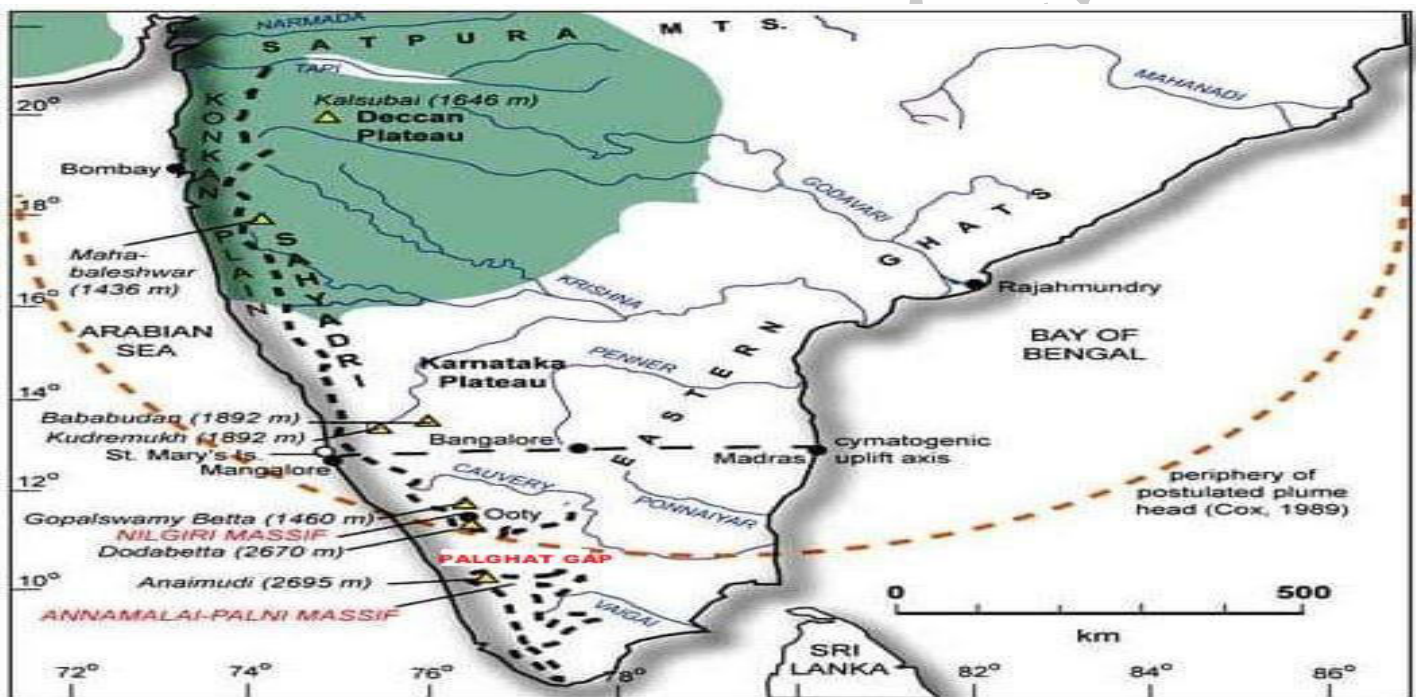
Importance of Lakes:

- Lakes, which cover three per cent of the global land area, play a key role in regulating climate through carbon cycling.

While rivers get all the attention rightfully, lakes have and continue to provide more of the water supply and sustain societies, across the world and, are often not well managed

The Palghat Gap

News: Often called as a **significant discontinuity** in the **Western Ghats**, the Palghat Gap is about 40 km wide, with the steep **Nilgiris** and **Anamalai hills**, both rising above 2,000 msl, on either side.



Basis	Key points
Evolution	The Palghat Gap originated due to the drift of continental shelves after the separation of Australia and Africa from the Gondwana landmass. The splitting of India and Madagascar led to the formation of the Gap approximately 100 million years ago.
River flowing through the Gap	Bharathapuzha River
Vegetation	Dry evergreen forest
Historical significance	Entry point to Kerala
Geographical	The Palghat Gap is a geological shear zone, running from east to west, which represents a weak region in the earth's crust.

Southern region of Gap	It boasts abundant species richness and phylogenetic diversity.
Other important Gaps	Thal Ghat Pass (Kasara Ghat) (connects Mumbai to Nashik); Bhor Ghat Pass (connects Mumbai to Pune via Khopoli); Amba Ghat Pass (connects: Ratnagiri district to Kolhapur); Naneghat Pass (connects Pune district with Junnar city); Amboli Ghat Pass (connects Sawantwadi of Maharashtra to Belgaum of Karnataka)

Groundwater exploitation and Land subsidence

News: While the scary scenes of Land subsidence and cracks in buildings in Joshimath is not forgotten, A similar phenomenon has been playing out for years in the plains of Punjab, Haryana, Delhi and Faridabad.

What is Land Subsidence?

- Land subsidence refers to the gradual sinking or settling of the Earth's surface, **usually due to the compaction of underground layers** of soil, rock, or other materials.
- It occurs when the support structures beneath the land, such as **aquifers, underground mines, or natural gas extraction**, are depleted or when certain geological processes take place.

How groundwater extraction is connected to sinking land?

- When the underlying aquifers – deep water channels that are stores of percolated water, aren't recharged, they run dry. Hence, the layers of soil and rock above them start to sink and the issue is not specific to north India alone.

What is the magnitude of problem?

- Unlike land movement from landslides or earthquakes, subsidence from groundwater extraction was gradual and barely visible annually.
- Studies utilizing satellite-based analysis of ground movement have identified building deformities resulting from groundwater withdrawals.
- For example, data from the **Sentinel-1 satellite** shows that the **NCR region sank 15 mm per year** (on average) between 2011-2017.
- **Urbanization and unplanned growth** exacerbated groundwater withdrawal and contributed to subsidence in the NCR.

What should be done?

- Most important thing is to understand that groundwater exploitation has consequences other than water scarcity.
- **Incentivising rainwater harvesting**, ensuring **strict implementation of laws against illegal mining of groundwater**, evaluating building conditions in hazard zones and provisioning of such subsidence in building designs.
- To promote **crop diversification** and shift to more **water-efficient irrigation techniques** like drip irrigation and sprinkler systems.
- **Leverage technology** for **real-time monitoring of groundwater levels**, such as **remote sensing, IoT devices**, and **data analytics** can help in informed decision-making and enable prompt action to mitigate groundwater depletion.

Government initiatives:

- **Atal Bhujal Yojana** is a groundwater management scheme launched in 2019.
- **Jal Shakti Abhiyan** (2019) - Launched in 256 water-stressed districts to improve groundwater conditions in these areas.
- **Pradhan Mantri Krishi Sinchayee Yojana**
- The United Nations-Water Summit on Groundwater 2022 - Organised to raise awareness on groundwater conservation.

General Studies - 2

Polity and Governance

The importance of Constitutional Punctuality

News: Recently, the Tamil Nadu Legislative Assembly passed a resolution seeking to provide for a time frame for Governors to act on Bills passed by the State Legislature.

What power does Governor have over bills?

- **Article 200** – It deals with the powers of the Governor with regard to assent given to bills passed by the State legislature and other powers of the Governor such as reserving the bill for the President's consideration.
- **Article 201** – Bill reserved for consideration of President.
- **Veto** - The Governor of India enjoys absolute veto, suspensive veto (except on money bills) but not the pocket veto.
- **Assent to bill** - The process of law making is complete only when the Governor signs the bill, signifying his assent.

What is the issue?

- Governor of Tamil Nadu, had withheld assent to as many as 13 Bills passed by the Tamil Nadu Legislative Assembly.
- The Supreme Court in a case filed by the State of Telangana against its Governor: Remarked that Governors should not sit over Bills indefinitely.
- The idea of **constitutional punctuality** need not be restricted to gubernatorial (relating to governor) offices alone. All constitutional high offices including those of the President of India and Speakers of Assemblies must suo motu evolve guidelines to discharge duties in a time-bound manner.
- **Resolution** passed by the Tamil Nadu Legislative Assembly urged the Union Government and President to advise the Governor to **decide on the bills** passed by the State Legislatures **within a reasonable time period**.

Why withholding assent to a bill is against the spirit and values enshrined in the Constitution?

- Drafters of the Constitution assumed that nominated governors will discharge sovereign duties beyond the confines of political partisanship.
- Governors have wrongly understood the powers available under Article 200 of the Indian constitution. They believe options available to them function as some discretionary responsibility.
- The original draft Article 175(moved for discussion in 1949) read as follows: "Provided that where there is only one House of the Legislature and the Bill has been passed by that House, the Governor may, in his discretion, return the Bill together with a message requesting that the House will reconsider the Bill."
- R. Ambedkar (While moving the amendment to this Article): there "can be no room for a Governor acting on discretion" and recommended removing the phrase "the Governor, in his discretion". Therefore, the final Article, adopted by the Constituent Assembly and embedded in the Constitution explicitly negates any discretionary power.
- The Supreme Court in **Shamsher Singh & Anr vs State Of Punjab** (1974), held that the discretion of the Governor is **extremely limited**. Even in rare cases, the governor shall act in a manner that is not detrimental to the interest of the state.

Global practices pertaining Veto of the Bill:

- In the **United Kingdom**, there has been **no royal veto** since 1708. In the **United States**, there is a **time limit of 10 days for the President** to give assent or veto a bill. If the President does not sign or vetoes the Bill within this time, it automatically becomes an Act.

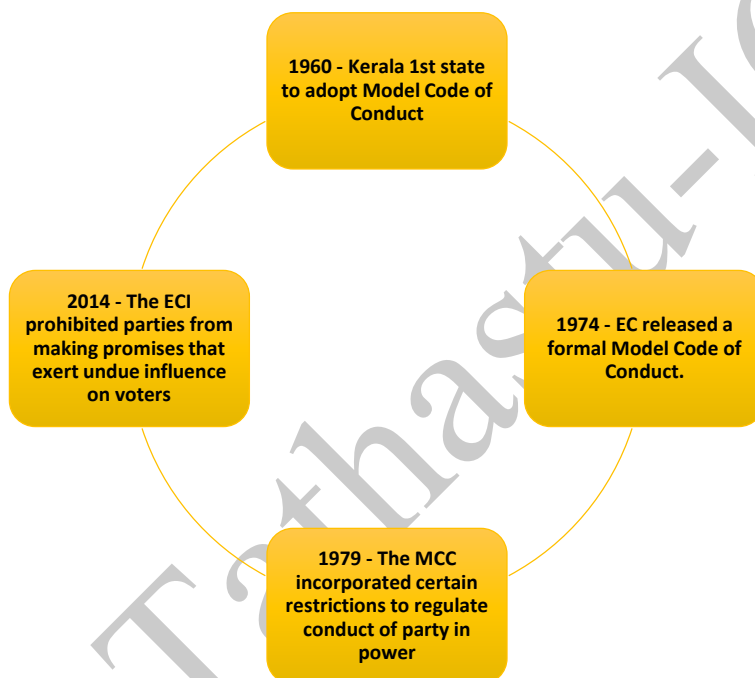
Model code of conduct

News: The Model code of conduct (MCC) was imposed in Karnataka due to upcoming state elections and instances of violation of MCC have been observed.

What is Model code of conduct?

- The model code refers to a set of norms laid down by the Election Commission of India, with the consensus of political parties. It helps Election Commission in keeping with the mandate it has been given under **Article 324** of the Constitution
- MCC bears **no statutory backing** and remains **unenforceable**.
- It spells out the **dos** and **don'ts** for elections. Political parties, candidates and polling agents are expected to observe the norms, on matters ranging from the content of election manifestos, speeches and processions, to general conduct, so that free and fair elections take place.
- The MCC is operational from the date that the election schedule is announced till the date that results are announced.

Evolution of MCC:



Key provisions of MCC:

- **Prohibition** - Criticism of political parties must be limited to their policies and programmes, past record and work.
- **Meetings** - Parties must inform the local police authorities of the venue and time of any meeting in time to enable the police to make adequate security arrangements.
- **Polling day** - All authorised party workers at polling booths should be given identity badges. These should not contain the party name, symbol or name of the candidate.
- **Polling booths** - Only voters, and those with a valid pass from the Election Commission, will be allowed to enter polling booths.
- **Observers** - The Election Commission will appoint observers to whom any candidates may report problems regarding the conduct of the election.
- **Party in power** - The party must avoid advertising at the cost of the public exchequer or using official mass media for publicity on achievements to improve chances of victory in the elections. Ministers and other authorities must not announce any financial grants
- **Election manifestos** - Added in 2013, EC issued guidelines to rationalize manifesto of political parties. The election manifesto shall not contain anything against the ideals and principles enshrined in the Constitution.

Political parties should avoid making promises that are likely to vitiate the purity of the election process (S.Subramaniam Balaji vs Govt of Tamil Nadu). Manifestos should reflect the rationale for promises and broadly indicate the ways and means to meet the financial requirements for it.

- **Other additions to MCC** - The regulation of opinion polls and exit polls during the period notified by the ECI. The prohibition of advertisements in print media on polling day and one day prior to it. The restriction on government advertisements featuring political functionaries during the election period.

Is MCC legally enforceable?

- Under **Article 324** the election commission issues Model Code of Conduct at the time of the announcement of the dates of the elections. Though the MCC does not have any statutory backing, it has acquired prominence in the past decade because of its strict enforcement by the EC.
- In 2013, the **Standing Committee on Electoral reforms** recommended making the MCC legally binding. However, the ECI refused against making it legally binding because elections need to be completed within a time frame and judicial proceedings will make the process longer.

Criticism of MCC:

- It has failed to prevent electoral malpractices such as hate speech, fake news, money power, booth capturing, voter intimidation, and violence.
- MCC prohibits the issue of advertisement at the cost of public exchequer but the government can release advertisements prior to the announcement of elections giving an advantage to the ruling party.
- As MCC is not a legally binding document, it relies primarily on moral persuasion and public opinion for compliance.
- It imposes restrictions on policy decision, welfare schemes, transfers and appointments thus impacting the development activities.
- The model code applies to all social media content, but closed systems such as WhatsApp, where users connect individually, are not covered by the election commission's guidelines.

Behind the Violence in Manipur

News: Recently, violent clashes broke out at various places in Manipur during the course of a 'Tribal Solidarity March'.

Background:

- The march was called to oppose the longstanding demand that the Meitei community be included in the list of the state's Scheduled Tribes (ST), which received a boost from an order of the Manipur High Court last month.

Why are tribal groups opposing the order?

- The dominance of the Meiteis, both in population and in political representation was primary reason for opposing the court order.
- It was argued that the sections of the Meitei community which is predominantly Hindu are already classified under Scheduled Castes (SC) or Other Backward Classes (OBC), and have access to the opportunities associated with that status.

Why do Meiteis want ST status?

- They argue that the community has been victimised without any constitutional safeguards to date.
- The Meitein/Meetei have been gradually marginalised in their ancestral land.
- Their population which was 59% of the total population of Manipur in 1951 has now been reduced to 44% as per 2011 Census data.

Which are major communities residing in Manipur?

- The Meiteis are the largest community in Manipur.
- There are 34 recognized tribes, which are broadly classified as 'Any Kuki Tribes' and 'Any Naga Tribes'.

What is important from Prelims perspective?

- **Article 371 C** of the Indian Constitution deals with the Special provision with respect to the State of Manipur.
- This article was added by the **27th Amendment Act of 1971**.

- The **President** is authorised to provide for the creation of a committee of the Manipur Legislative Assembly consisting of members elected from the Hill Areas of the State.
- The President can also direct that the Governor shall have a special responsibility to secure the proper functioning of that committee.
- The Governor should submit an annual report to the President regarding the administration of the Hill Areas.
- The Central Government can give directions to the State Government as to the administration of the Hill Areas.

Mercy Petition

News: The Supreme court has recently asked the government to decide on a mercy petition of Balwant Singh Rajoana.

Background:

- Balwant Singh Rajoana was convicted for the assassination of former Punjab Chief Minister Beant Singh in 1995.
- The petitioner argued that since the state and the Union of India have not been able to decide on the mercy petition, which is pending for more than 10 years and so the death penalty should be commuted to life imprisonment.

What is Mercy Petition?

- A mercy petition is a formal request made by a person who has been sentenced to death or imprisonment seeking mercy from the President or the Governor, as the case may be.

Constitutional provisions:

- As per the Constitutional framework in India, mercy petition to the President is the **last constitutional resort** a convict can take when he is sentenced by the court of law.
- A convict can present a mercy petition to the President of India under **Article 72** of the Constitution of India.
- Similarly, the power to grant pardon is conferred upon the Governors of States under **Article 161** of the Constitution of India.
- **Article 72** - The President shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence
 - in all cases where the punishment or sentence is by a court Martial;
 - in all cases where the punishment or sentence is for an offence against any law relating to a matter to which the executive power of the Union extends;
 - in all cases where the sentence is a sentence of death
- **Article 161** - The Governor of a State shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends.

What are grounds for filing Mercy petition?

- The act of mercy is not the right of the prisoner.
- The mercy or clemency is granted on the grounds based on his health, physical or mental fitness, his family financial conditions as he is the only sole earner of bread or butter or not.

What is important from prelims perspective?

- In the case of **Epuru Sudhakar & Anr. v. Government of Andhra Pradesh** (2006) the SC held that the clemency power of the President and Governor under Article 72 and Article 161 is **subject to judicial review**. (Remember the name of case)

Higher Education in India

News: Recently, a 33-year-old Ad-hoc professor in Delhi University committed suicide which highlights the case of problems persistent in recruitment system in country's higher education institutions.

Background:

- In this context it is important to study about Higher education in India, government schemes to promote it and challenges faced.

Who is an ad-hoc professor?

- Ad-hoc officers are teacher's appointed in universities. Though, they are expected to perform the same duties as the permanent faculty, the ad-hoc lecturers are not eligible for benefits such as gratuity, pensions and medical allowances.

What comprises Higher education in India?

- Higher education or the tertiary education, is an optional final stage of learning that occurs after completing secondary education in India. In simple words, education after Class 12th constitutes Higher education.

Importance of Higher education in India:

- It creates better job prospects, helps build valuable connections with outside world
- With better job prospects it leads to enhanced standard of living
- Personality development
- Higher education helps create future leaders through training in professional domains
- Technological advancement. Rise of startups, entrepreneurs and new age technologies.

What are the steps taken by Government to upgrade India's higher education system?

The government has taken steps to improve research, financing, quality and to increase participation of women in Higher education institutes (HEIs) in India.

Financially backing the HEI's

- Higher education financing Agency (HEFA) – A JV of Ministry of Education and Canara Banks, it leverages funds from market, donation, CSR activities which are used to finance improvement in infrastructure in top institutions.
- Institution of Eminence Scheme (IoE) – Selected institutions in public and private sector will be declared as IoE and receive 1000 crore in donation in next 5 years.

To improve Quality

- PARAMARSH scheme which mentors institutions seeking NAAC accreditation.
- Beginning of National Institutional Ranking Framework (NIRF) which ranks higher education institutions in India to encourage institutes to compete against each other and improve growth prospects.
- Foreign Higher Education Institutes were recently given permission to setup their campuses in India. Australia's Deakin University will be amongst first to join.

To Boost Digital education

- SWAYAM – India's own MOOC platform which offers free online learning courses
- SWAYAM PRABHA

To promote research and innovation

- IMPacting Research Innovation and Technology (IMPRINT) India – It is pan-IIT and IISc joint collaboration to develop a blueprint for research of immediate relevance to society requiring innovation, direct scientific research into identified areas, ensure higher funding support for research into these areas and measure outcomes of the research efforts with reference to the impact on the standard of living in rural/urban areas.
- Uchhatar Avishkar Yojana - promoting innovation of a higher order that directly impacts the needs of the Industry and thereby improves the competitive edge of Indian manufacturing.
- Impactful Policy Research in Social Science (IMPRESS) – To promote social science research in higher education institutions and to enable research to guide policy making.

Promoting higher education for Women

- KIRAN scheme, Women Scientists Scheme, Consolidation of University research for innovation excellence in Women universities (CURIE) to enhance participation of women in STEM field.

What are major challenges faced by Higher education ecosystem in India?**Gross Enrollment Ratio (GER)**

- It is 27.3 for age group 18-23 years based on 2011 population. In USA, the GER is 88.2%, China 49.1%.
- The NEP-2020 envisages Gross Enrollment Ratio (GER) to reach GER of 50% by 2030.

Inadequate Infrastructure

- Apart from Top educational institutes, most of colleges and universities in India lack basic facilities – Technical labs, libraries, hostels, research equipment's.

Inefficient Human resource management

- According to data presented by Education ministry in Parliament this March, more than 6,000 teaching positions are currently vacant across the country's central universities.
- Faculty shortages and high Student-to-faculty ration
- Inability of HEI's to attract and retain well qualified teachers due to factors such as ad-hocism, lack of merit based career progression, poor teacher education institutions (TEIs)

Commercialization of Education

- Rise of private ownership and management of educational institutions
- Lack of focus on ethical and value-based education, lowered standards and quality of educations.

Regulatory issues

- Over-centralization and rigid bureaucratic structures of regulatory system
- Multiple regulatory institutions with overlapping roles and functions make system complex. Eg – UGC, AICTE

Way Forward

- The NEP 2020 has suggested reformative approach to address the challenges faced by HEI's in India. The suggestions addresses issues at structural, regulatory levels and provide steps to promote equity and inclusion.
- It also underscores the need to curb commercialization of education and recommends promoting Indian languages in HEI's. Suggestions of NEP 2020 need to be implemented in letter and spirit.

River Cities Alliance

News: National Mission for Clean Ganga (NMCG) in association with the National Institute of Urban Affairs (NIUA) organized the 'River-Cities Alliance (RCA) Global Seminar: Partnership for Building International River-Sensitive Cities'.

What is RCA?

- It is a joint initiative of the **Ministry of Jal Shakti (MoJS)** & the **Ministry of Housing and Urban Affairs (MoHUA)**,
- It aims to connect river cities and focus on sustainable river centric development.
- The Alliance focuses on three broad themes- Networking, Capacity Building and Technical Support.
- Beginning with 30 member cities in November 2021, the Alliance has expanded to 110 river cities across India and one international member city from Denmark.

About NIUA:

- Established in 1976 as an autonomous body under the Societies Registration Act 1860, NIUA is an institute for research, training and information dissemination in urban development and management.
- It is supported by the Ministry of Housing and Urban Affairs

About NMCG:

- The mission is implemented by the National Council for Rejuvenation, Protection and Management of River Ganga also known as the National Ganga Council.
- It acted as the implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA),1986. NGRBA has since been dissolved with effect from the 7th of October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council).
- National Ganga Council works under the chairmanship of Prime Minister of India.
- Its main purpose is to reduce pollution and ensure rejuvenation of the Ganga River.
- The mission incorporates rehabilitating and boosting the existing STPs (Sewage Treatment Plants) and instant short-term steps to curb pollution at exit points on the riverfront in order to check the inflow of sewage.

Enforcement Directorate

News: The Supreme Court on Monday said it might revisit its 2021 ruling that the tenure of a superannuated officer may be extended only in exceptional circumstances.

What is the issue?

- The tenure for directors of CBI and ED is **two years**. However, in November 2021, the President promulgated two ordinances allowing the Centre to extend the tenures from **two years to up to five years**.
- So, now they can be given three annual extensions. The Supreme Court had previously upheld this and allowed the extension of ED's chief Sanjay Kumar Mishra, but said that such extension should be done in rare and exceptional cases and for a short period.
- The government recently extended tenure of ED chief citing a pending review by the Financial Action Task Force and that Mishra would not remain in service after his term comes to an end in November. This has been challenged in SC.

About ED:

- The Directorate General of Economic Enforcement (Enforcement Directorate) is a **law enforcement and economic intelligence agency** responsible for enforcing economic laws and fighting economic crime in India.
- The Enforcement Directorate (ED) is administered by the **Department of Revenue under the Ministry of Finance**.
- **HQ - Delhi** and has 5 regional offices around the country.
- It is headed by the Director of Enforcement, who is an IRS officer (Indian Revenue Service).

Functions:

- Investigating violations of Foreign Exchange Management Act (FEMA) laws and provisions.
- Investigating offences of Prevention of Money Laundering Act, 2002 (PMLA) laws and provisions.
- Processing cases of fugitive/s from India under the Fugitive Economic Offenders Act, 2018.
- Sponsoring cases of Preventive Detention under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA) with respect to FEMA violations.
- Rendering cooperation to foreign countries in matters related to money laundering and restoration of assets under the PMLA provisions.

Issues with ED and PMLA:

- The Enforcement Case Information Report (ECIR) is not given to the accused and the ED lacks clarity in selecting cases to investigate.
- The ED has been assigned almost blanket powers under PMLA for searching, seizing, investigating, and attaching assets considered to be proceeds of crime.
- Low conviction rate. For example, Between 2005 and 2013-14, there were zero convictions, and between 2014-15 and 2021-22, only 23 cases were under conviction out of 888 cases registered.
- Observation of Political biases as those jumping ship to ruling party have been given clean chits, ED has not acted or slowed down proceedings against them.

Supreme Court ruling in Sena vs Sena

News: The SC made some important observations that are important for our syllabus perspective.

Background of the issue:

- Last year, a group of Shiv Sena MLAs led by Eknath Shinde rebelled against the then Uddhav Thackeray.
- While it became evident that rebelled MLA's will call for a trust vote, Shinde faction received disqualification notices from the then deputy speaker.
- The faction moved to the Supreme Court challenging the disqualification notices served on them by the Deputy Speaker.

- Later, several petitions were also filed by the Thackeray group challenging the then Maharashtra Governor's decision to call for a trust vote and the swearing-in of Mr. Shinde as Chief Minister. The election of the new Speaker was also challenged.

What did the Supreme Court say?

Basis	Supreme Court's observation
On Disqualification of MLA's	The SC did not interfere with proceedings of disqualification and stated the issue be decided by the Speaker of Legislative Assembly.
Governor's role on calling a floor test	The court said that the Governor was not justified in calling upon Mr. Thackeray to prove his majority on the floor of the House because he did not have objective material before him to reach the conclusion. But the Court also said that status quo ante cannot be restored because Mr. Thackeray did not face the floor test and resigned from the post.
Appointment of Whip	The court said the appointment of the whip by the split-faction to be illegal. The Speaker should have conducted an independent inquiry to verify the decision of the political party regarding the appointment of the whip.
Legislature party, Political party – Are they same?	The Shinde faction argued that political party and legislature party are intertwined. The SC said that they cannot be combined and stated as per provisions of the Representation of the People Act, an association of individuals calling itself a political party has to be registered with the EC.

Misleading Advertisements – FSSAI takes charge

News: Recently, The Food Safety and Standards Authority of India (FSSAI) flagged 32 new cases of misleading advertisements and claims made by food business operators.

What is FSSAI?

- FSSAI is a **statutory body** established under the **Ministry of Health & Family Welfare**, Government of India.
- The FSSAI has been established under the Food Safety and Standards Act, 2006, which is a consolidating statute related to food safety and regulation in India.
- HQ – New Delhi

What are misleading ads?

- Misleading ads are those that make false, unverified or exaggerated claims about a product or service with the intention of deceiving consumers.
- Example, Amazon Kindle's advertisement for 'Unlimited Reading' was held to be not substantiated as a limit of 10 books was advertised as an 'unlimited offer'.
- The most recent misleading advertisement was regarding Patanjali's Coronil which was claimed to be a cure for Coronavirus. It was found to be misleading and untrue.
- Recently, Bournvita was in news as well where it was found that sugar content is at high level but they project the product as being low sugar one.

What are consequences of such ads?

- Loss of trust in minds of consumers
- Subsequent health impact – especially in case of Bournvita where parents convince children to have it daily while being ignorant of its health consequences on children.
- Unethical – Unfair competition, deception and breach of trust
- Unfavorable brand image

What are legal provisions available against misleading ads?

The **New Consumer Protection Act, 2019** deals with some provisions relating to false/misleading advertisements. They are:

- **Section 10(1)** of the Act mentions that the **Central Government** shall establish a **Central Consumer Protection Authority** to regulate matters relating to violation of rights of consumers, unfair trade practices and false or misleading advertisements which are prejudicial to the interests of public and consumers and to promote, protect and enforce the rights of consumers as a class.
- **Section 2(28)** defines “**misleading advertisement**” in relation to any product or service, means an advertisement, which: (i) falsely describes a product or service, (ii) gives a false guarantee which is likely to mislead the consumers regarding the nature, substance, quantity or quality of such product or service, (iii) conveys an express or implied representation which, would constitute an unfair trade practice and (iv) deliberately conceals important information

Food Safety and Standards Regulations, 2018

- Specifically deals with food (and related products), and regulates product claims, while the above guidelines deal with goods, products and services.

Advertising Standards Council of India (ASCI)

- A self-regulatory organization that monitors ads and deals with complaints against them in India.

Consumer Protection (E-Commerce) Rules, 2020

- These mandatory rules require sellers to take back defective or deficient goods, withdraw services, or provide refunds if goods or services do not meet the description on the platform.

The Powers of Delhi Government

News: The Supreme Court of India has given the state government of Delhi complete control over administrative services in the National Capital Territory of Delhi (NCTD) drawing curtains on an 8 year long legal battle. (Powers pertaining to public order, land and police will remain with central government)

What is Article 239AA?

- The **Constitution (69th Amendment) Act, 1991** inserted **Article 239 AA** in the Constitution, giving **special status** to Delhi and establishing an Administrator and a Legislative Assembly.
- The Assembly has the power to make laws for the NCT of Delhi, except for police, public order, and land. The L-G has dual control and can either act on the aid and advice of the Council of Ministers or refer a difference of opinion to the President. This power tussle between the elected government and the L-G has been a point of contention.



What issues were discussed?

- The Delhi government and Lieutenant Governor have been in a legal battle since 2015 over control of “**services**” in Delhi.
- The Supreme Court gave a split verdict in 2019, and a five-judge Constitution Bench has now delivered its verdict on the issue of control and whether officers allocated to Delhi come under the administrative control of the Delhi government or Delhi LG.
- The case also included the constitutional validity of the Government of National Capital Territory of Delhi (Amendment) Act 2021, which referred to the Lieutenant Governor as the “government” in any law made by the Legislative Assembly of Delhi.

What did the court decide?

- First, the court concluded that Delhi under the constitutional scheme is a **Sui Generis (or unique) model**, and is not similar to any other Union Territory. It said Delhi presents a special constitutional status under **article 239AA**.

- **Lt. Governor shall be bound by the decision of the Delhi government over services**, apart from public order, police and land.
- Central government had exclusive legislative and executive control over 'services' relating to public order, land and police as envisaged under Article 239AA.
- If a democratically elected government is not given the power to control the officers, the **principle of the triple chain of accountability** (Political, Administrative and Public accountability) will be redundant.
- The Centre had argued that the Constitution is a federal Constitution with a strong unitary bias as far as UTs are concerned. Contradicting it, SC said that Indian federalism is not unitary and any further expansion of the Union's power will be contrary to the Constitutional scheme.
- The SC brought about the principal of collective responsibility. The SC observed that the principle extends to the responsibility of the officers who in turn report to the ministers. When the officers stop reporting to the ministers the principle of collective responsibility suffers.

What are the grey areas?

- The ultimate hiring powers resides with the Centre.
- The Centre has Arunachal Pradesh, Goa, Mizoram and Union Territories (AGMUT) cadre for Delhi and other union territories.
- Grey areas still exist. For example, what happens if Delhi demands its own public service commission after this order? If they demand so, who will make recommendations, hiring in such cases.

Nabam Rebia case

News: The Supreme Court has referred to a larger bench its 2016 ruling in the Nabam Rebia case, where it was held that the Speaker of a House can't decide a disqualification petition filed under the anti-defection law while a notice under Article 179(c) for the Speaker's removal is pending.

What was the Nabam Rebia case?

- In **Nabam Rebia & Bamang Felix v. Deputy Speaker, Arunachal Legislative Assembly (2016)**, the Supreme Court had ruled that it would be "constitutionally impermissible for a Speaker of the House to adjudicate upon disqualification petitions under the anti-defection law as per Tenth Schedule while a motion of resolution for his/her own removal from Office of Speaker is pending".

Why did the court refer the Nabam Rebia case to a larger bench?

- Some aspects were not considered in the Nabam Rebia judgment.
- Among them was whether temporary disablement of the Speaker is prone to misuse by MLAs who anticipate disqualification petitions against them, or by MLAs against whom disqualification petitions have already been instituted.
- The court further said that the Nabam Rebia verdict was in conflict with a 1992 constitution bench judgment in the Kihoto Hollohan case.
- While the Nabam Rebia verdict doubted the ability of the speaker to remain neutral while deciding disqualification petitions after a resolution to remove them is moved, the Kihoto Hollohan order of the SC had stated there was no reason to doubt the independence and impartiality of the Speaker when adjudicating such proceedings under the Tenth Schedule.

Model Prisons Act, 2023

News: The Centre has finalised a comprehensive 'Model Prisons Act, 2023' to replace the pre-independence era 'Prisons Act, 1894'

Background:

- Under the new Act, prisons will be viewed as **reformative** and **correctional institutions**, with a focus on **transforming** and **rehabilitating inmates** back into society as law-abiding citizens.

Need for new prison act:

- **Outdated laws** - The Indian Prison Act was enacted in 1894 and amended several times, but it fails to address modern-day prison challenges.
- **Rehabilitation** - The current prison system focuses more on punishment than rehabilitation leading to prisoners committing crimes again and again.
- **Embraces Technology** - The current prison system is largely **manual** and **paper-based**, leading to delays and inefficiencies. The new act focuses on use of technology.
- **Issues such as** Overcrowding in prisons, custodial deaths, torture were widely present. According to **National Crime Records Bureau (NCRB)**, the **occupancy rate of Indian prisons is over 117%**, indicating severe overcrowding.
- **Lack of healthcare facilities** leading to prison deaths.
- Many Indian prison staff **lack adequate training**, leading to incidents of human rights abuses, corruption, and mismanagement.

Salient Features of New Model Prisons Act:

- It includes provision for security assessment and segregation of prisoners, individual sentence planning, grievance redressal,
- The establishment of a **prison development board**, and a focus on the **physical and mental well-being of prisoners**.
- The Act also includes provisions for the **use of technology** in prison administration, such as **video conferencing with courts** and **scientific and technological interventions** in prisons.
- It **also includes** provisions for the **punishment of prisoners and jail staff** for using prohibited items like mobile phones in jails.
- Additionally, the Act provides for the establishment and management of high-security jails, open jails (open and semi-open), and the protection of society from the criminal activities of hardened criminals and habitual offenders.
- The Act also provides for **legal aid** to prisoners and provisions for **parole, furlough, and premature release** to incentivise good conduct.
- The Act focuses on **vocational training and skill development** of prisoners to facilitate their reintegration into society.



As Prisons in India and 'persons detained therein' are a **State subject** thus the Model Act will serve as a **"guiding document"** for States. Hence, it is **not binding** on the states.

Conclusion:

- The new model prisons act, 2023 will bring in more transparency and improvements in prison management and prisoners administration across the country.
- It focuses on the well-being of inmates and aims to ensure their successful reintegration into society.

Jallikattu, Kambala declared legal

News: A five-judge Bench of the Supreme Court upheld the amendments made by the legislatures of Tamil Nadu, Maharashtra, and Karnataka to The Prevention of Cruelty to Animals (PCA) Act, 1960, allowing bull-taming sports like jallikattu, kambala, and bullock-cart races.

What is Jallikattu?

- Jallikattu, also known as **eruthazhuvuthal**, is a bull-taming sport traditionally played in **Tamil Nadu** as part of the **Pongal harvest festival**.

- The festival is a celebration of nature, and thanksgiving for a bountiful harvest, of which cattle-worship is part.
- It also finds mention in Silappadikaram, one of the great Tamil epics from the Sangam age.

Significance:

- Sport cultivates and represents a cordial man-animal relationship, wherein the owner strives to develop an “emotional connect” with the bull through the long process of rearing.

Verdict of the Supreme Court:

- It overruled its 2014 ruling in ‘**Welfare Board of India v. A. Nagaraja**’ and held that Jallikattu has a strong cultural component.
- The amendments (to the PCA) were “valid legislations”, as these are not a piece of colourable legislation and that it relates to List III of the 7th Schedule to the Constitution [prevention of cruelty to animals].
- The court also said that the 2017 amendment does not violate – **Articles 51-A (g)** and **51-A (h)**, which impose duties on Indian citizens to protect the environment and develop a scientific temper, humanism, spirit of inquiry, and reform, respectively and **Articles 14** (Right to Equality) and **21** (Right to Life) of the Constitution.
- However, the Jallikattu issue is “debatable” and must ultimately be decided by the Parliament, as the issue requires social and cultural analysis in greater detail.



Dotted Lands

News: Recently, the Andhra Pradesh government has initiated a significant step to release "dotted lands" from the prohibited list. It will resolve ownership disputes and provide opportunity to farmers to access land ownership.

What are Dotted Lands?

- Dotted lands are **disputed lands** for which there are no clear ownership documents. Normally, one or more individuals as well as the government’s Revenue Department lay claim over the land.
- The Andhra Pradesh government introduced a Bill to grant land titles to farmers cultivating dotted lands for over 12 years. Removal of dots and entries from land registers will provide clear land ownership documents to approximately 97,000 farmers.
- Over 1 lakh applications were received to resolve dotted land disputes. Urban areas faced issues related to illegal sale and construction on dotted lands, leading to tax evasion and revenue loss for the government.

What are Government’s initiatives to Digitize land records?

- **SVAMITVA Scheme** – The scheme was introduced by Ministry of Panchayati Raj for mapping the land parcels in rural inhabited areas. It uses Drone technology to map the land parcels. It will give ownership titles to poor people and confidence of having their own lands.
- **Unique Land Parcel Identification Number (ULPIN)** – Dubbed as “**the Aadhaar for land**”, ULPIN is a number that would **uniquely identify every surveyed parcel of land and prevent land fraud**, especially in the hinterlands of rural India, where land records are outdated and often disputed.
- **PARIVESH Portal** - PARIVESH is a web-based application which has been developed for online submission and monitoring of the proposals submitted by the proponents for seeking Environment, Forest, Wildlife and Coastal Regulation Zones (CRZ) Clearances from Central, State and district level authorities.
- **National Generic Document Registration System** - It is a major shift from the existing manual registration system to online registration of all transactions in sale-purchase and transfer of land.
- **BHUMI samvaad** – It is a National Workshop on Digital India Land Record Modernisation Programme (DILRMP).

Ordinances – Government's power

News: On May 19, the central government promulgated an Ordinance that undid the unanimous verdict of a five-judge Constitution Bench of the SC which gave AAP government of Delhi control over the transfer and posting of officials in the National Capital Territory (NCT), except with regard to public order, police, and land.

What is the Ordinance?

- The Ordinance promulgated by President Droupadi Murmu gave the LG of Delhi, **power over services**, and established a “**National Capital Civil Service Authority**” comprising the **Chief Minister and two senior IAS officials**, which would decide matters “**by majority of votes of the members present and voting**” — essentially creating a situation in which the view of the elected CM could potentially be overruled.

What is Ordinance in Constitution?

- Under **Article 123** of the Constitution (“**Power of President to promulgate Ordinances during recess of Parliament**”), “if at any time, except when both Houses of Parliament are in session, the President is satisfied that circumstances exist which render it necessary for him to take immediate action, he may promulgate such Ordinances as the circumstances appear to him to require.”
- An Ordinance “**shall have the same force and effect as an Act of Parliament**”.
- But the government is required to bring an Ordinance before Parliament for ratification — and failure to do so will lead to its lapsing “at the expiration of six weeks from the reassembly of Parliament”
- The **Ordinance may lapse earlier** if the **President withdraws it** — or **if both Houses pass resolutions disapproving it**.

What is Re-promulgation of Ordinance? What did Supreme Court observe in its context?

- **Krishna Kumar Singh and Another v. State of Bihar:** If, for whatever reason, an Ordinance lapses, the only option for the government is to reissue or repromulgate it. In 2017, the Supreme Court examined a case where the state of Bihar re-promulgated an Ordinance several times without placing it before the legislature.
- The Supreme Court held that the Governor's power to issue an Ordinance is an **emergency power**, and that repeated re-promulgations without bringing the Ordinance to the legislature would usurp the legislature's function and be unconstitutional. This was in violation of the SC judgment in **Dr D C Wadhwa and Ors v. State of Bihar and Ors** (1986).
- A Constitution Bench of the Supreme Court headed by then CJI P N Bhagwati held that an Ordinance promulgated by the Governor to meet an emergent situation shall cease to be in operation at the expiration of six weeks from the reassembly of the Legislature.
- If the government wishes for the **Ordinance to continue in force beyond the six-week period**, it “**has to go before the Legislature**”, which is the constitutional authority entrusted with law-making functions.

National Human Rights Commission

News: For the 2nd time in a decade, the **UN-backed Global Alliance of National Human Rights Institutions** (GANHRI) **deferred the accreditation** of the National Human Rights Commission, India (NHRC-India).

What is GANHRI?

- GANHRI is a global network of NHRIs which is constituted as a **non-profit entity** (under Swiss law) and **Secretariat support** is provided by the Office of the UN High Commissioner for Human Rights (OHCHR).
- It coordinates the relationship between NHRIs and the UN human rights system.
- It is the only non-UN body whose internal accreditation system grants access to UN committees – speaking rights and seating at human rights treaty bodies.

What is the Paris principles?

- They were defined in 1991 and were adopted by the UN Human Rights Commission (1992) and the UN General Assembly (1993).
- They provide the **international benchmarks** against which NHRI can be accredited.

- They set out 6 main criteria that NHRIs are required to meet. The criteria are mandate and competence, autonomy from the government, independence guaranteed by a statute or Constitution, pluralism, adequate resources and adequate powers of investigation.
- Institutions accredited with “A status” means full compliance with the Paris Principles.

Why is the accreditation of NHRC-India deferred?

- Lack of independence (political interference in appointments), Lack of diversity (in staff and leadership) and accountability.
- Insufficient action to protect marginalized communities, religious minorities, and human rights defenders.
- Police involvement in probes into human rights violations.
- Civil society participation isn't encouraged enough.

Way Forward

- Comply with utmost sincerity all the provisions enshrined in Paris principles.
- Implement the decisions and recommendations submitted by NHRC and include members from Civil society, human rights activists within NHRC.

The Missing Census

News: While there is no legal requirement that the Census be held every 10 years, its sheer utility had so far ensured it was a regular exercise. The current delay can have wide-ranging consequences.

Background

- The Census exercise should have been carried out in 2021 but was delayed due to Covid-19 pandemic.

What is a Census?

- A Census is **Constitutionally mandated** in India. There are repeated references to the Census exercise in the Constitution in the context of reorganisation of constituencies for Parliament and state Assemblies.
- But the Constitution **does not say** when the Census has to be carried out, or what the frequency of this exercise should be.
- The **Census of India Act of 1948**, which provides the legal framework for carrying out the Census, also does not mention its timing or periodicity.

Importance of Census

- The Census produces **primary, authentic data** that becomes the backbone of every statistical enterprise, informing all planning, administrative and economic decision-making processes.
- It is the basis on which every **social, economic** and other indicator is built.
- Lack of reliable data – 12-year-old data on a constantly changing metric is not reliable – has the potential to upset every indicator on India, and affect the efficacy and efficiency of all kinds of developmental initiatives.
- Census data serves as the foundation for **statistical systems** and **surveys**.
- Conducting regular censuses allows for comparisons and analysis of demographic changes, societal trends, and historical patterns over time.

What are advantages of having accurate Population Census Data?

- It helps the researchers and policy makers in **policy planning** and **decision making**.
- Census data helps in the **equitable distribution of resources** and **services** based on population size and demographic characteristics. For example, how much allocation is needed towards education, rural infrastructure etc.
- It helps researchers study demographic trends, migration patterns, socio-economic indicators.



- The data helps in determining the **number of seats** and **boundaries for electoral constituencies**.
- They help to monitor fertility rates, mortality rates, health indicators amongst children and women, change in population growth etc.

What are challenges with collecting Population census data?

- **Collection of data** in a country as big as India with diverse population is a challenge in itself.
- **Lack of awareness** about benefits of Census data is a limitation factor in data collection.
- **Language diversity** and **cultural variations** pose challenges in effectively communicating and collecting data from diverse linguistic and cultural groups.
- Ensuring the **privacy** and **confidentiality** of respondents' information is crucial to gain their trust and cooperation.
- **Rapid urbanization** and **migration** adds to the task of data collection.
- **Inadequate technological infrastructure**, limited access to digital devices, and connectivity issues can hinder the adoption of digital data collection methods.

Way Forward

- The pandemic and subsequent delay in conducting Census exercise should be seen as an opportunity to re-examine the instruments for carrying out the population Census through innovation and new initiatives using technology.
- The government should prioritize and expedite the start of the Census and at the same time launch awareness campaigns and community outreach programs to educate public about importance of census exercise and put to bed the rumours surrounding it.

Atal Bhujal Yojana

News: The National Level Steering Committee of the Atal Bhujal Yojana, chaired by the Secretary of the Department of Water Resources, has decided to continue the ABY for another two years beyond 2025, till 2027.

About:

- Atal Bhujal Yojana (ATAL JAL) is a **Central Sector Scheme** for facilitating sustainable ground water management with an outlay of INR 6000 crores. Out of this, INR 3,000 crores will be as loan from the **World Bank** and INR 3,000 crores as matching contribution from the **Government of India (GoI)**.
- The major objective of the Scheme is to improve the management of groundwater resources in **select water stressed areas** in identified states viz. **Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh**.
- One of the key aspects of ATAL JAL is to bring in **behavioral changes** in the community, from the prevailing attitude of consumption to conservation & smart water management. Communities at the Gram panchayat level are being assisted in collecting water related data and then preparing water budget and Water Security Plans (WSPs).

Focus areas of scheme:

- The scheme aims to bring all line departments working in the area of water **at one platform** so that the resources can be effectively utilized in implementing the WSPs.
- The scheme also emphasizes on such interventions which reduces the demand of water in irrigation and bringing 4.5 lakh Hectare irrigated area under efficient water techniques such as drip/sprinkler, irrigation through pipeline, mulching, crop diversification, etc.
- The scheme is being implemented in the challenge method wherein states performing well can be released more incentive fund. These performances are being measured through pre-defined targets called **Disbursement Linked Indicators** and forms the basis of incentive disbursement to States.

National Population Register

News: For Census 2021, the Government has made the National Population Register (NPR) mandatory, allowing citizens to self-enumerate, for individuals who wish to fill out the census form themselves instead of relying on government enumerators.

What is NPR?

- NPR is a database containing a list of **all usual residents** of the country.
- A usual resident for the purposes of NPR is a person who has **resided in a place for six months or more and intends to reside there for another six months or more.**
- Its objective is to have a comprehensive identity database of people residing in the country.
- It is generated through house-to-house enumeration during the “house-listing” phase of the Census.
- NPR was first collected in 2010. It was updated in 2015 and already has details of 119 crore residents.
- The NPR is prepared under the provisions of the **Citizenship Act 1955** and the **Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.**
- It is **mandatory** for every “**usual resident of India**” to register in the NPR.

Significance:

- It will streamline data of residents across various platforms
- The government can frame its policies better and also aid national security.
- It will help to target government beneficiaries in a better way and also further cut down paperwork and red tape in a similar manner that Aadhaar has done.
- It will help in implementing the idea of ‘One Identity Card’ that has been recently floated by the government.

India’s new Parliament

News: In the 75th year of Independence, India’s new Parliament building, embodying the culture, pride and spirit of the entire nation, was recently inaugurated by the PM of India.

Background:

- Replacing the old Parliament building, which was completed almost a century ago in 1927, the new structure is a significant addition to the Central Vista project in the national capital.

What was the need for new Parliament building?

- The existing Parliament house is almost a century-old Heritage Grade-I building, showing signs of distress and over-utilization.
- The present building was never designed to accommodate a bicameral legislature for a full-fledged democracy.
- The Central Hall has seating capacity only for 440 persons. It becomes difficult to held Joint-sittings of both the houses.
- The number of Lok Sabha seats is likely to increase significantly from the current 545 after 2026.
- The addition of services like water supply, sewer lines, etc., has led to seepage of water at several places and impacted the aesthetics of the building.
- The old parliament isn’t resilient to face earthquakes. Delhi falls into Seismic-Zone IV.
- Communications infrastructure and technology is antiquated in the existing Parliament, and the acoustics of all the halls need improvement.



Key features of new Parliament building:

- A “**Platinum-rated Green Building**” with about 65,000 sq m built-up area, will be divyang friendly.
- The **triangular shape** ensures the optimum utilisation of space.
- A larger Lok Sabha hall (888 seats) based on the peacock theme (India’s national bird) and a larger Rajya Sabha hall (384 seats) based on the lotus theme (India’s national flower).
- The Lok Sabha may accommodate up to 1,272 seats for joint sessions of Parliament.

- A state-of-the-art Constitutional Hall symbolically and physically puts the Indian citizens at the heart of our democracy.
- A Central Lounge that will complement the open courtyard (with a banyan – the national tree) will be a place for members to interact with each other.
- The new Parliament building prioritizes **sustainability and eco-friendliness**. It will use green construction materials and incorporate devices to **save 30 percent electricity consumption**. Rainwater harvesting and solar power generation systems will be implemented to promote renewable energy sources.
- Ultra-modern state-of-the-art features like a digitised voting system, well-engineered acoustics and audiovisual systems in the two chambers.
- 3 ceremonial entrance halls with huge brass images of Mahatma Gandhi, Chanakya, Gargi, Sardar Vallabhbhai Patel, B.R. Ambedkar, and the Chariot Wheel from the Sun Temple at Konark are on display.
- Special facilities for the media will also be provided in the new Parliament House. A total of 530 seats will be arranged for media personnel.
- The building is designed by Ahmedabad-based **HCP Design, Planning and Management** under architect **Bimal Patel** and has been built by **Tata Projects Ltd**.

Conclusion

- The new parliament building is a symbol of the vision and aspirations of India, the spirit of change and continuity and will witness the making of India as 'Aatmanirbhar Bharat'.

Social Justice

The Hunger Paradox in India

News: To achieve the goal of zero hunger, India must immediately focus on India's youngest children.

Background:

- As per fifth National Family Health Survey (NFHS-5) data, **18%** of children between ages 6-23 months, did not eat any food whatsoever in the 24 hours preceding the survey.

Important facts:

- According to the WHO, a minimum of 33% of the daily calorie intake is expected to come from food (at six months of age). The child obtains the remaining calories through "on-demand" breastfeeding.
- According to NFHS-5 Data, the **zero-food** prevalence was **30 % for infants aged 6-11 months**, remains worryingly high at 13% among the 12-17 months old, and persists even among 18-23 months-old children at 8%
- More than 80%** had **not consumed any protein-rich foods** for an entire day.
- Close to 40% did not eat any grains for an entire day, and six out of 10 children do not consume milk or dairy of any form every day.
- This data reflects worrying scenario concerning **Food insecurity** in India.

What are the challenges with NFHS surveys?

- The assessment of the extent of nutritional deprivation among young children in India has relied on measures such as stunting, wasting, compared to a reference population. These measures suggest **overall deficiencies** in the child's environment, **without any guidance on the specific nature** of the deficiencies.
- Given their multifactorial nature with regard to what causes stunting or wasting among children, the specific nature of the deficiencies must be assessed. For this, assessments using **household-level food insecurity modules** developed by the **FAO** can be adapted.
- Zero-food** underscores that achieving sufficiency in food production (the world's leading country in milk production) **does not** necessarily mean attaining food security.

Way Forward:

- Multiple** (not single) ministries/departments of the Government of India should take responsibility for designing, implementing and monitoring policies.
- A **national effort** to establish **routine dietary** and **nutritional assessments** for the entire population is the need of the hour.
- Measuring the availability, accessibility and affordability of nutritious food constitutes the foundation for any evidence-based policy to end hunger and improve nutritional security among Indians.
- To achieve the **SDG 2 of zero hunger**, India should consider a strategic initiative aimed at eliminating food insecurity by ensuring adequate-affordable-accessible-nutritionally diverse food, with a special and immediate focus on mothers and children.

Prevention of Sexual Harassment Act, 2013

News: POSH act is in news these days as many sports federations in India have failed to comply on key provisions of it.

About:

- The enactment of POSH Act, 2013 has led to awareness on the dos and don'ts in terms of workplace conduct. This Act provides a mechanism for and aims at prevention, prohibition, and redressal of complaints of sexual harassment at the workplace.

Key Provisions:

Definition of Sexual harassment

- Sexual harassment includes "any one or more" of the following "unwelcome acts or behaviour" committed directly or by implication:

- I) Physical contact and advances ii) a demand or request for sexual favours iii) sexually coloured remarks iv) showing pornography or any other unwelcome physical, verbal, or non-verbal conduct of a sexual nature.

Internal Complaints committee

- Every employer is mandated to constitute an Internal Complaints committee at each office/branch with 10 or more employees.
- They have powers similar to those of a civil court in respect of summoning and examining any person on oath and requiring the discovery and production of documents.

Duration of filing complaints

- It must be made "within three months from the date of the incident".

Penalty

- Non-compliance with the provisions of the Act shall be punishable with a fine of up to Rs 50,000.

Basis of Compensation

- It is determined on 5 objects - suffering and emotional distress caused to the woman, loss of career opportunity, her medical expenses, income and financial status of the respondent, and the feasibility of such payment.

Conciliation

- The ICC may at the request of the aggrieved woman allow the matter to be settled through conciliation. However, no monetary settlement is allowed.

Protection for Domestic workers

- They are protected under the Act and can seek redressal from the Local Complaints Committee (LCC) when they are sexually harassed at their workplaces.

Relief for Victim

- As per the Section 12 of the POSH Act, the employer shall grant relief to the victim, such as transfer the aggrieved woman to any other workplace or grant leave up to a period of three months (except for the leaves she would be otherwise entitled to) during the pendency of the enquiry only if the victim has given a written request.

Key issues:

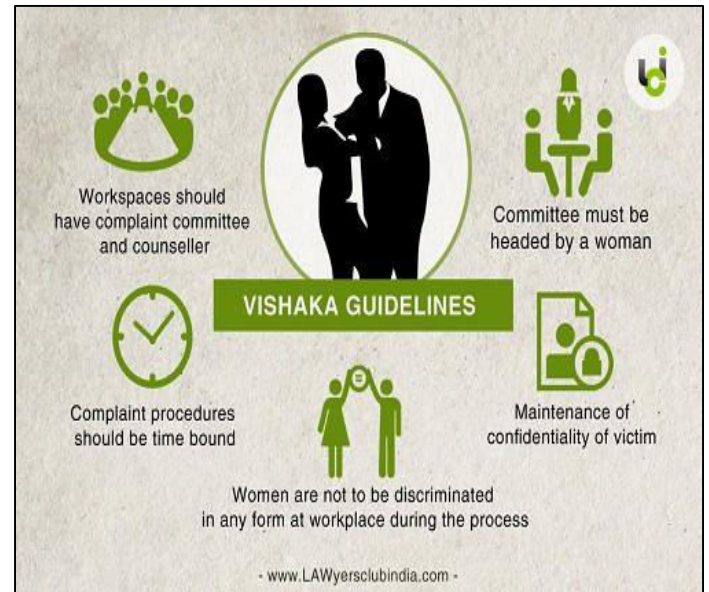
- Questions pertaining regarding whom to approach in case of sexual harassment at the workplace.
- A hostile and insensitive approach towards women employees at workplace hampers the success of the Act.
- Lack of confidence in the process and outcome of POSH act prevent women from reporting misconduct happening at workplace.
- Failure of over 50% of national sports federations in the country to constitute Internal Complaints Committees (ICCs) mandated under the 2013 Act raises more questions than answers over implementation of the act.
- Inquiries carried out in a hurry.

Key recommendations:

- The Union, States, and UTs have been directed by SC to undertake a time-bound (8 weeks) exercise to verify whether Ministries, Departments, government organizations had constituted Internal Complaints Committees (ICCs), Local Committees(LCs), and Internal Committees(ICs) under the Act.
- The bodies were ordered to publish the details of their respective committees on their websites
- Earlier, the National Commission for Women (NCW) had asked all states to ensure that coaching centers and educational institutes strictly enforce the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

Conclusion:

- Sexual Harassment is one of the serious issues in the workplace and women are easy targets for these kinds of offences as they are considered to be fragile.



- However, India is late in formalizing sexual harassment at the workplace as an offence punishable with imprisonment, fine or both.
- The Government of India has been taking steps to monitor implementation of the POSH Act in all the sectors. However, it is the responsibility of the victim to step up and report such incidents and create awareness about the rights of the victims.

Drug Recall

News: A multinational pharmaceutical company has recently recalled its drugs by issuing a public notice in newspapers in India, alerting people about a mislabeled batch of the medicine that it had accidentally shipped to the market.

What is a Drug recall?

- A drug recall is the process of removing a prescription or over-the-counter drug from the market. A recall may occur if a medication is found to be defective, contaminated, or potentially harmful to the public.

What is need for Drug recall law in India?

- It is crucial for India to have a national Drug Recall Law to guarantee that once a drug is known to be Not of Standard Quality (NSQ), the entire batch is withdrawn from the market. At present, there is no such Law in India to withdraw the entire batch of substandard drugs from the market.
- At most state drug regulators can order a withdrawal of a particular batch from their state but given that India is a common market, it is possible that the same batch is dispersed across multiple states. In such a case, there needs to be a central drug regulator who can execute and coordinate national recall.
- In 1976, the Drugs Consultative Committee along with the officials from the Central Drugs Standard Control Organisation (CDSCO), discussed the issue of drug recalls. The need for greater cooperation between various state drug controllers to facilitate better coordination was decided in the meeting. However, this decision never translated into amending the Drugs and Cosmetics Act to create a legally binding structure to enforce such recalls.

Why India doesn't have a law for drug recall?

- The government's drug regulatory bodies give more importance to promoting the growth of the pharma industry than restricting their activities. Moreover, they lack expertise in drug regulation (as USA FDA has)
- Both the pharmaceutical industry and state drug regulators have resisted greater centralisation of regulatory powers.
- The Drug Regulation Section of government is not up to the task of tackling complex drug regulatory issues due to a combination of different factors including apathy, lack of expertise in the area, and a greater interest in enabling the growth of the pharmaceutical industry than protecting public health.

Significance of Drug Recall law:

- Substandard drugs have adverse health consequences which may also lead to deaths of children.
- In India, almost every month, dozens of drugs fail random testing in government laboratories and there was also news about Indian drugs failures overseas. These drugs require to be recalled in a transparent manner.

Way Forward

- The responsibility of recalling drugs needs to be centralized under one authority backed by legal power to hold companies liable for failures to recall drugs and search and seize batches of failed medicine.

Global Report on Internal Replacement 2023

News: The number of internally displaced people (IDPs) around the world reached 71 million as of the end of 2022, according to the recently published Global Report on Internal Replacement 2023.

About:

- It was released by the **Norwegian Refugee Council's** Internal Displacement Monitoring Centre (IDMC).
- Internal displacement refers to people forced to move inside their own borders and the Internal Displacement Monitoring Centre's report didn't take into account those who left for different countries.

Factors responsible for Displacement:

- Millions of people are uprooted from their homes due to conflict, violence, development projects, disasters and climate change and remain displaced within their countries' borders.

Key Findings:

- The number of internally displaced people (IDPs) around the world reached **71.1 million** as of the end of 2022, an increase of 20 per cent from the previous year.
- **Pakistan** had the highest number of disaster displacements in the world in 2022, at 8.16 million.
- Conflict and violence triggered 28.3 million internal displacements worldwide.
- The conflict in Ukraine triggered nearly 17 million displacements.
- 32.6 million people were displaced due to disasters, an increase of 40 per cent from 2021 largely the result of the effects of La Niña which continued for a third consecutive year.
- Of the total disaster displacement, 98 per cent were triggered by weather-related events like floods and storms.
- **India** recorded the **fourth largest disaster displacement**, with 2.5 million displacements.

How are internal displacements different from Refugees?

- According to the 1951 Refugee Convention, a “refugee” is a person who has been persecuted and forced to leave his native country.
- A precondition of being considered a refugee is that a person crosses an international border. Unlike refugees, internally displaced people are not the subject of any international convention.
- At the international level, no single agency or organisation has been designated as the global lead on protection and assistance of internally displaced persons. However, there are United Nations Guiding Principles on Internal Displacement.

Kudumbashree completes 25 years

News: Kudumbashree is the largest network of women in Kerala for empowerment and poverty eradication, which has completed 25 years recently.

What is Kudumbashree?

- Kudumbashree is a **women's self-help group network** and **poverty eradication program** in the state of **Kerala**. The name Kudumbashree in Malayalam language means '**prosperity of the family**'.
- Kudumbashree was set up in 1997 following the recommendations of a three member Task Force appointed by the State government.
- Its formation was in the context of the devolution of powers to the Panchayat Raj Institutions (PRIs) in Kerala, and the Peoples' Plan Campaign, which attempted to draw up the Ninth Plan of the local governments from below through the PRIs.

Important achievements:

- It has helped women become independent, successful entrepreneurs.
- It has established "**Janakeeya Hotels**" across the state, offering affordable meals. Currently, it operates 125 restaurants providing meals for just Rs 20.
- It has empowered women in true sense. Not just economically but politically as well. It has enabled women's participation in local bodies after enforcing 33% women's reservation policy.
- It donated money during Floods in Kerala and provided counselling to flood affected families in Kerala.
- The network also supplied essential services, masks, sanitizers during the pandemic.
- Kudumbashree's success in poverty reduction was highlighted by studies and surveys, including the **Multidimensional Poverty Index by NITI Aayog**.

Conclusion

- Kudumbashree has been a turning point in the lives of women in Kerala and has helped uplift the social and political mobility of women. For women, it is "the entry point to public life."

Child Stunting reduced, wasting and obesity remain concern

News: According to **UNICEF, WHO, and World Bank Joint Malnutrition Estimates**, Child stunting in India has improved but child wasting and Obesity in children remain a sign of worry.

Key Findings:

- The **Joint Malnutrition Estimates (JME)** released by UNICEF, WHO and the World Bank revealed that India recorded 1.6 crore fewer stunted children under five years in 2022 as compared to 2012.
- **Stunting** - This was accompanied by India's share of the global burden of stunting declining from 30% to 25% in the past decade.
- **Wasting** - The prevalence of wasting in 2022 was 18.7% in India, with a share of 49% in the global burden of this malnutrition indicator.
- **Obesity** - The prevalence of obesity marginally increased in a decade from 2.2% in 2012 to 2.8% in 2022.
- Globally, stunting declined from a prevalence rate of 26.3% in 2012 to 22.3% in 2022.
- **Sustainable Development Goal (SDG) Targeting** - There is insufficient progress to reach the 2025 World Health Assembly (WHA) global nutrition targets and the 2030 Sustainable Development Goal (SDG) 2 targets; only about one-third of all NFHS-5 showed evidence of continued reduction of stunting and instances of underweight children, though anemia was disappointing.
- It also showed an improvement in access to health services such as family planning, ante-natal care, deworming, and breastfeeding counselling.
- Wasting is an outlier, with two-thirds of children at 12 or 24 months having wasting at birth or at one month of age. This means that children were born with very low weight for height and didn't recover even six months or 12 months later despite weight gain.
- The JME estimates for stunting and obesity are based on country-level modelled estimates derived from primary sources, while for wasting, the estimates are based on national-level country prevalence data.

Key Recommendations:

- Children suffering from severe wasting require early detection and timely treatment and care to survive.
- More intensive efforts are required if the world is to achieve the global target of reducing the number of children with stunting to 89 million by 2030.
- Regular data collection is critical to monitor and analyze country, regional and global progress on child malnutrition moving forward.

Government of India's initiatives to tackle malnutrition:

- **Integrated Child Development Scheme and Anganwadi system** – To provide supplementary nutrition and ration to pregnant and lactating mothers.
- **The National Food Security Act, 2013**
- **National Nutrition Strategy (Niti Aayog)** – Aims to reduce all forms of malnutrition by 2030.
- **POSHAN Abhiyaan**
- **Mission POSHAN 2.0** – Seems to address the challenges of malnutrition in children, adolescent girls, pregnant women, and lactating mothers.
- **Mission VATSALYA**
- **Pradhan Mantri Matru Vandana Yojana** – Maternity benefits to eligible mothers (Pregnant and lactating)
- **Food Fortification** – Rice, Iodine, Wheat, Edible Oil, Milk.

International Relations

Trade and Economic Partnership Agreement (TEPA)

News: The Secretary General of the **European Free Trade Association (EFTA)** laid stress on the potential benefits of a Trade and Economic Partnership Agreement (TEPA) between India and Iceland, Liechtenstein, Norway, Switzerland (EFTA states).

What is TEPA?

- A trade and Economic Partnership Agreement is a type of economic partnership agreement between countries.
- TEPA agreements offer flexibility in terms of negotiating terms and conditions, as the parties involved can tailor the agreement to their specific needs and interests.
- TEPA agreements often include stronger provisions on labor and environmental standards, as well as provisions for dispute settlement and enforcement mechanisms.
- TEPA agreements are designed to promote mutual benefits for both parties, rather than being one-sided.



EFTA

- European Free Trade Association (est. 1960; HQ: Geneva) is an intergovernmental organization founded by four European countries: Iceland, Liechtenstein, Norway and Switzerland as an alternative to the EU.
- It looks to promote free trade and economic cooperation among its member states and with other countries.
- EFTA has a close relationship with the EU and has signed several agreements, which allow for the free movement of goods, services, capital, and people between the EFTA countries and the EU
- The EFTA countries have strong economies. They rank among the highest in the world in innovation, competitiveness, wealth creation per inhabitant, life expectancy, and quality of life.

What are the positives of TEPA between India and EFTA states?

- Improved market access for goods would boost India's export potential to EFTA markets.
- India can benefit from EFTA support in as India seeks towards clean energy transition. Leadership and investments of EFTA countries will be helpful in Green technologies.
- EFTA states have already contributed significant investments of over USD 35 billion in India. The TEPA will further increase investments in India.
- EFTA states can benefit from India's highly skilled workforce in the services sector, and India can benefit from the over 400 companies established by EFTA states generating more than 1,50,000 jobs.
- India aims to meet 50% of its energy needs with renewables by 2030. EFTA states can contribute to India's green growth aspirations with their cutting-edge technologies.

Potential Challenges:

- The EFTA states are highly developed economies with a focus on high-tech industries and services, while India is a developing economy with a more diverse economic structure.
- The agreement must address market access issues and address concerns regarding tariffs, quotas, and non-tariff barriers, to ensure free and fair trade between the parties.
- Differences in regulations, standards, and legal frameworks.

- EFTA states are small, but their economies are highly competitive, particularly in sectors such as pharmaceuticals, biotechnology, and machinery manufacturing. Addressing competitive challenges to ensure a level playing field and fair competition is essential.
- Addressing environmental and social challenges, such as promoting sustainable development and gender equality, is crucial in establishing a long-term, successful partnership between the parties.
- Negotiating a mutually beneficial agreement that meets the interests of all parties involved can be challenging. This includes addressing outstanding issues and achieving a balanced agreement with strong political involvement and guidance.

Way Forward:

- The delegates from EFTA and India should work towards resolving any outstanding issues and should identify areas of mutual benefit, such as technology transfer, R&D and innovation, business collaboration, and market access for goods, to increase trade and investment ties.

India-UAE Relations

News: Minister of Economy (UAE) addressed on the occasion of 1-year completion of CEPA between India-UAE.

What is CEPA?

- It is a kind of free trade pact that covers negotiation on the trade in services and investment, and other areas of economic partnership. It may even consider negotiation in areas such as trade facilitation and customs cooperation, competition, and IPR.
- Such partnership agreements are more comprehensive than Free Trade Agreements.

Importance of CEPA for both nations:

- The Bilateral Trade has increased from US\$ 72.9 billion (Apr 21-Mar 2022) to US\$ 84.5 billion (Apr 22-Mar 2023) registering a year-on-year increase of 16%.
- During the CEPA Implementation period (from May 22 to Mar 23), bilateral trade increased from US\$ 67.5 billion (May 21-Mar 2022) to US\$ 76.9 billion (May 22-Mar 2023) – an annual increase of 14%.
- It has generated greater trade volumes and improved mutual access to markets. It has generated a wide range of economic, industrial and investment opportunities. For example, The CEPA provides for preferential market access for over 80% of products traded between India and the UAE.
- The CEPA provides for a liberal and non-discriminatory regime for cross-border investment between India and the UAE. It also includes provisions on, dispute settlement and cooperation on investment facilitation.
- The volume of non-oil trade reached the \$50 billion mark in 2022, with growth of about 10%.
- The UAE-India CEPA is unleashing the spirit of entrepreneurship, inspiring innovators and investors. It is encouraging SMEs, startups to make inroads into new markets.
- The UAE-India CEPA is also a strategic catalyst in addressing vital developmental challenges. It can tackle issues such as energy and food security, agriculture, and sustainability.

Few Facts about India-UAE relations:

- In 2022-23, the UAE with \$76.16 billion, was the third largest trading partner of India.
- UAE is the 7th largest investor in India with cumulative FDI inflows of US\$ 15,179 million from April 2000 – September 2022.

A new dawn in bilateral ties

At a virtual summit between PM Narendra Modi and Abu Dhabi Crown Prince Sheikh Mohammed bin Zayed Al Nahyan, India and UAE unveiled a roadmap for expansion of ties

ABOUT THE DEAL
The comprehensive economic partnership agreement, or CEPA, is India's first such pact in a decade

WHAT IT ENVISIONS
\$100BN bilateral trade expected to grow to in the next five years
India's trade with the UAE is worth \$60bn right now – making it India's third largest trade partner
\$15BN worth additional trade in services also expected in five years
It provides benefits such as enhanced market access and reduced tariffs, and also opens up Arab and African markets to the Indian side

A QUICK DEAL
Negotiation for the deal was one of the shortest in recent years. The two sides began work on the pact in Sept last year and finalised it in less than three months

AREAS OF FOCUS
India and UAE also issued a joint vision statement that outlined the future course of ties and highlighted areas of focus, including enhanced maritime cooperation, joint steps to fight terrorism among others

"This agreement reflects the deep friendship, shared vision and trust between the two countries. I am sure this will usher in a new era in our economic relations and our business will grow from \$60 billion to \$100 billion in the next five years." — NARENDRA MODI, Prime Minister

- Major Indian exports to UAE are petroleum products, gems and jewellery, machinery and instruments, chemicals, iron and steel, textiles and garments, cereals, meat and meat products, etc.
- Major Indian imports from UAE are crude oil, gold, pearls and precious stones, metal ores and metal scrap, chemicals, electrical machinery, etc.

The SCO opportunity for India

News: India holds the rotating presidency of the SCO this year, and in this capacity has hosted several ministerial-level SCO meetings.

What is SCO?

- The SCO is a multilateral grouping comprising eight member states of China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan; four Observer States; and six “Dialogue Partners”.
- Of the four observers, **Iran** and **Belarus** are set to be admitted as full members in this year. Afghanistan and Mongolia being other two observer states.
- The dialogue partners are Armenia, Azerbaijan, Cambodia, Nepal, Sri Lanka, and Turkey.
- SCO has been an observer in the UN General Assembly since 2005.

Significance of SCO for India:

- A membership of the SCO gave India a **higher profile in Central Asia** to which it does not have overland access.
- The membership will help formulate appropriate Eurasian strategy.
- In post-US Afghanistan, it has helped India stay involved in the regional discussion on Taliban rule, from which it is otherwise excluded.
- The grouping promotes regional security – Combating Terrorism, extremism. This is more so important given negative impact of Talibanised Afghanistan on India especially in J&K.
- It facilitates economic cooperation in three areas— energy, building trade and transportation links. Central Asian Republics (CARs) are rich in iron-ore, coal, oil, gas, uranium etc
- India, one of the largest energy consuming countries in the world, is also likely to get greater access to major gas and oil exploration projects in Central Asia. Example – TAPI project
- The meetings of SCO will provide a platform to constructively engage with both Pakistan and China.
- The SCO represents India’s diplomacy in the Eurasian landmass. It can also be seen as an exercise of true multipolarity.
- Russia sees India’s presence in the SCO as a potential countervailing force to Chinese dominance of Central Asia. It was Russia that began pushing for India’s membership of the group.

Challenges

- Both China and Russia are major members of the grouping and the West views SCO as a cosy club run by both the nations who are striving for their own dominance in Central Asian Region.
- SCO members have, in the past, expressed concern of the organisation being held hostage to India’s and Pakistan’s adversarial relationship, and their fears would likely have worsened in recent times.
- India didn’t join other members of SCO in backing China’s Belt and Road Initiative (BRI). Thus, there are differences within the grouping as well.
- The SCO has not taken visible counterterrorism measures against the main threat facing its members, which emanates from Pakistan-Afghanistan.

Way Forward

- India can use its age-old relations with Iran, Russia, and the CARs to confront and neutralise the China-Pakistan axis. India and the Eurasian region have a long-standing cultural connection. In addition, its rising economic clout and its young demographics can help boost its position within the grouping

Syria re-admitted to Arab League

News: Syria was recently admitted to the league after being suspended for over a decade.

What is Arab league?

- Arab League an intergovernmental Pan-Arab organisations of all Arab states in the **Middle East and North Africa**.
- It was formed in **Cairo, Egypt** on 22nd March 1945, following the adoption of the **Alexandria Protocol** in 1944.
- Members - Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, the United Arab Emirates, and Yemen.
- It looks after the political, cultural, economic, and social programs of its members and to mediate disputes among them or between them and third parties.



Why was Syria suspended?

- Syria was suspended after it violently cracked down on anti-government protests. It was accused of not complying with a peace plan that called for a withdrawal of military forces, the release of political prisoners, and the start of a dialogue with opposition groups.

Re-admission procedure:

- A committee involving Egypt, Saudi Arabia, Lebanon, Jordan, and Iraq will be established to help Syria achieve stability, peace and development.
- However, readmission does not mean a resumption of relationships between Arab states and Syria as it is up to each country to decide this individually.
- It calls for a resolution of the crisis resulting from Syria's civil war, including the flight of refugees to neighboring countries and drug smuggling across the region.

Strategic convergence between India, UAE, USA and Saudi Arabia

News: Recently, the meeting in Riyadh between Saudi Arabia and the US, UAE, and India underlines the growing strategic convergence between Delhi and Washington in the Gulf.

What is the change in approach of India towards Gulf Nation?

- It is a departure from the traditional approaches towards the Middle East. India followed the principles of the Nehruvian foreign policy which believed that Delhi must either oppose Washington or keep its distance from it in the Middle East.
- Modi's foreign policy rejected the notion that Delhi can't be visibly friendly to Israel. He also transformed India's uneasy relations with Saudi Arabia and the UAE, into solid strategic partnerships.
- France has emerged as an important partner in the Gulf and the Western Indian Ocean. India now has a trilateral dialogue with UAE and France as well.
- Delhi and London are expected to work together in the Gulf soon. Britain enjoys much residual influence in the Gulf.
- The formation of a four-nation grouping known as I2U2 brought the US, India, Israel, and the UAE together.
- India seek to form a QUAD grouping of its own with USA, UAE and Saudi Arabia.

What led to changes in foreign policies of USA and India?

- Pakistan's continuing strategic decline makes it less relevant to the changing geopolitics of the Gulf. This coupled with violent extremism and a weak economy in Pakistan has ensured that their sphere of influence is waning making way for USA and India to fill the vacuum.
- The Gulf kingdoms (especially Saudi Arabia and the UAE) have accumulated massive financial capital and economic transformation will reduce their dependence on oil. They have also begun to diversify their strategic partnerships, develop nationalism, promote religious tolerance and initiate social reform. These reforms have prompted towards increasing business and trade opportunities with the region.

What options does it open for India?

- India is looking for business opportunities in this part of world. With International North-South Transport Corridor and Ashgabat agreement, India has cemented its access to Russia, Iran, Afghanistan and Central Asia.
- If a Western Asia railway network is agreed upon with USA, UAE and Saudi Arabia it will further improve our trade, economic, tourism and cultural ties with Middle-east countries.
- Better ties will also help overcoming violent religious extremism within the Subcontinent.
- India should go for modernisation of Delhi's strategic discourse on the Gulf and a conscious effort to change the outdated popular narratives on the Arabian Peninsula.

The Nakba Day

News: On May 15, Palestinians around the world commemorate 75 years of having lost their homeland.

What does the Nakba mean?

- The Arabic word Nakba means catastrophe or disaster. In reference to the Israeli-Palestinian conflict, the term Nakba or al-Nakba refers to the Palestinians having lost their homeland during and after the 1948 Arab-Israeli war.

What is the Nakba Day?

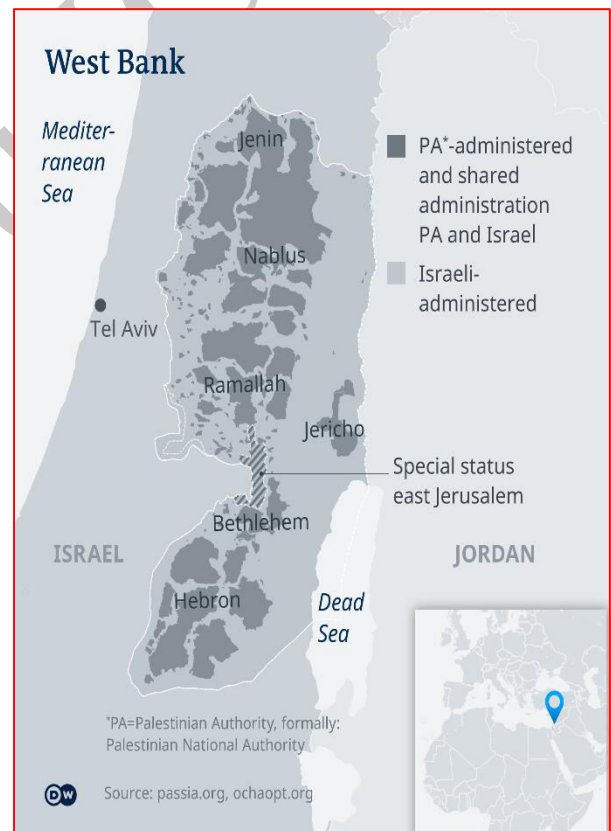
- **May 15, 1948** was the beginning of the Arab-Israeli war and has long been a day that **Palestinians take to the streets to protest against their displacement.**
- In the past, some protests have turned into violent clashes. Israel has accused Hamas and other organizations that are listed by the EU and other countries as terror organizations of using the day to further their causes.
- The term Nakba Day was coined in 1998 by then-**Palestinian leader Yasser Arafat**. He set the date as the official day for the commemoration of the loss of the Palestinian homeland.

Why did Palestinians have to leave?

- Until the end of World War I, Palestine was under Turkish rule as part of the Ottoman Empire.
- It then fell under British control, the so-called Mandate for Palestine. During that period — which was marked by growing antisemitism in Europe — an increasing number of Jews from around the world moved there, to what they see as their ancestral homeland.
- After the experience of the Holocaust in Nazi Germany, a United Nations Partition Plan for Palestine was adopted by the UN General Assembly. The Arab League rejected the plan, but the Jewish Agency for Palestine accepted. On **May 14, 1948**, the **State of Israel** was proclaimed.
- As a reaction, a coalition of five Arab states declared war but was eventually defeated by Israel in 1949. Before the war, between 200,000 and 300,000 Palestinians had already left or been forced out and during the fighting, a further 300,000 to 400,000 Palestinians were displaced.
- By the end of the war, Israel held around 40% of the area initially earmarked for the Palestinians by the UN partition plan of 1947.

Where did Palestinians go?

- Most of the Palestinians ended up as stateless refugees in the Gaza Strip, the West Bank and neighboring Arab countries. Only a minority moved further abroad.
- Until today, only a fraction of the next-generation Palestinians have applied for or received other citizenships.



New Washington Consensus

News: The recent initiatives taken by the US president Joe Biden are being dubbed as efforts to build “New Washington Consensus”.

What is Washington Consensus?

- It refers to a set of broadly free market economic ideas, supported by prominent economists and international organizations, such as the IMF, the World Bank, the EU and the US.
- It reduced the government’s role in the economy and pushed a free-market agenda of deregulation, privatization, and trade liberalization, floating exchange rates and macroeconomic stability.

What are the principles of Washington Consensus?

- Low government borrowing, Redirection of public spending from subsidies toward broad-based provision of key pro-growth, Tax reform, Positive Interest rate, Competitive exchange rates, trade liberalization, Liberalization of inward foreign direct investment, Privatization of state enterprises. Deregulation and Legal security for property rights.

What were the issues highlighted with old Washington Consensus?

- The older approach that markets know best led to the hollowing out of the US industrial base. Its promise that deep liberalization would help American export goods remained unfulfilled.
- Earlier idea was that brining China into the WTO in 2001 would incentivize the nation to adhere to its rules and policies of WTO. But, economic integration didn’t stop china from expanding its military ambitions in the region.
- Earlier notion that all growth was good growth led to the privileging of some sectors like finance “while other essential sectors, like semiconductors and infrastructure, were at disadvantage”. Under the old Washington Consensus, US industrial capacity took a real hit.

What are the solutions?

- Return to industrial policy that was the hallmark of US economic development historically, but dismissed by economic neoliberalism in the last few decades. The US has been pumping investments into semiconductor production and promoting the development and deployment of green technologies.
- Develop a joint effort with US allies and partners, including India. Pursue industrial strategy at home and not leave friends behind.
- The focus should be on developing diversified and resilient supply chains and ensuing trust in the massive infrastructure.
- The US should mobilize “trillions in investment into emerging economies — with solutions that those countries are fashioning on their own, but with capital enabled by a different brand” of US economic diplomacy.
- US should focus on offering an alternative to China’s Belt and Road Initiative, it must address the impending global debt crisis and reform multilateral development banks.

G7 Summit – De-risking and Climate Wishlist

News: The 49th annual summit (Hiroshima, Japan) of the G7 leaders concluded recently.

What is G7 grouping?

- The G7 is an informal grouping of seven of the world's advanced economies, including Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, as well as the European Union.

Key Highlights:

- G7 countries said that they would build economic resilience for themselves, based on a strategy of diversifying and deepening partnerships and de-risking, not decoupling.
- Member countries also listed key milestones in their climate Wishlist in response to ongoing studies and reports that continue to raise alarms about the worsening state of climate change, urging immediate action.

What is De-Risking? Why was it used by G7 countries?

- De-risking essentially means to move business away from areas that are considered risky in terms of the returns they could generate. It will have resilient, effective supply chains to prevent coercion of any other country.
- The term was used to describe their stance towards China on economic matters.
- It can be interpreted as a reduction of the reliance on China in the economic sphere – for the supply of materials or as a market for finished goods, so that potential risks to trade and disruption of supply chains are reduced.

G7 countries and Climate Wishlist:

- The G7 does not set a specific deadline for ending fossil fuel use but commits to accelerating the **phase-out of "unabated fossil fuels"** in line with 1.5 degree Celsius trajectories. They aim to eliminate "**inefficient fossil fuel subsidies**" by 2025 or earlier without specifying the definition of "inefficient subsidies."
- The G7 reiterates its commitment to achieve **net-zero status by 2050** and urges other major economies to do the same. The world as a whole must become net-zero by mid-century to meet the 1.5-degree Celsius target.

Challenges:

- G7 countries account for 20% of global emissions but have not effectively fulfilled their pledges.
- Lack of sufficient and consistent actions to align with the 1.5-degree Celsius and 2-degree Celsius temperature goals.
- G7 member countries Failure to update nationally determined contributions (NDCs) Paris Agreement targets.
- G7 countries have been slow and insufficient in providing climate finance to developing nations agreed under the Paris Agreement targets.

India sign's Migration, Mobility pact with Australia

News: Recently, India and Australia signed a migration partnership agreement aimed at making it easier for students, academics and professionals to live, study and work in each other's countries.

About:

- The pact will promote the exchange of students, graduates, researchers and businesspeople, expand people to people ties and enhance cooperation in preventing people smuggling.
- Their mobility will be facilitated through a new skilled pathway named MATES (Mobility Arrangement for Talented Early Professionals Scheme) specifically created for India.

Other developments:

- Both countries also finalized the terms of reference of an **India-Australia hydrogen task force**, which will report to the ministerial dialogue on the opportunities available for the two countries on green hydrogen.
- India announced the **opening of a consulate in Brisbane**, adding to its existing consulates in Perth, Melbourne, and Sydney.



General Studies - 3

Economic Development

National Manufacturing Innovation Survey

News: Recently, The Department of Science and Technology (DST) in India has released the “National Manufacturing Innovation Survey (NMIS) 2021-22 - Summary for Policymakers”.

About NMIS:

- The survey is conducted by **DST** in collaboration with the **United Nations Industrial Development Organization (UNIDO)**
- It evaluates the innovation performance of manufacturing firms in India.
- The components include **Firm-level survey** and **sectoral systems of innovation (SSI) survey** in 5 selected sectors i.e., food & beverage, textiles, automotive, pharmaceutical, and Information and Communication Technology (ICT)
- The firm-level survey captured data related to the process of innovation, access to finance, resources, and information for innovation for firms. These data were then used to compile **India Manufacturing Innovation Index (IMII)**, covering 28 states and 6 UTs.
- One in four firms was found to have successfully implemented an innovation in the observation period, and over 80% of these firms benefitted significantly in expanding markets and production and reducing costs.

About UNIDO:

- It is a specialized agency of the UN to promote and accelerate industrial development. India is one of UNIDO's Founding Members.
- HQ - Vienna, Austria

Key Findings:

- Around 25% of Indian firms are innovative
- The states/UT's that are top ranked in innovation - Karnataka> Dadra & Nagar Haveli and Daman & Diu> Telangana> Tamil Nadu
- Nearly 40% of firms faced issue in raising finance from external sources.
- The survey focusses on **Triple Helix Model** which refers to the relationships between universities, knowledge-based institutions (KBIs), firms, governments, and hybrid organizations.

Key Recommendations:

- To create a joint R&D program between universities, research institutes, and industries to foster collaboration and sharing of best practices.
- Establish innovation centers in every state that offer training and funding to MSMEs.
- To establish a government-backed loan program that offers low-interest loans to firms for innovation projects.
- To promote STEM education and encourage workers to acquire skills in emerging technologies.
- To provide financial assistance to firms to upgrade their manufacturing facilities with digital technologies such as IoT, AI, and big data analytics.
- Government backed loan programs for firms into innovation projects.
- To protect patents, trademarks, and copyrights, and provide swift enforcement against infringement by having a strong legal framework.
- Raise investments from Venture capitalists and angel investors. Attract such investors by giving them tax incentives and minimizing regulatory barriers.

Energy Justice

News: A pragmatic and balanced strategy has helped India to keep prices of petrol, diesel and gas under check.

Background:

- As the world's fastest-growing major economy, India will account for approximately **25 per cent of global energy demand growth** between 2020-2040, as per **the BP energy outlook and IEA estimates**.

How has India managed to avert crisis of rising prices of Crude oil?

- Prices of diesel in India have gone down in the last one year at a time when petrol and diesel prices went up by 35-40 per cent in the US, Canada, Spain and the UK. India, despite being a major importer of crude oil and natural gas, has been able to control the prices of petrol and diesel. This was made possible due to:
 - Massive cuts in excise duty and VAT rates by several states
 - Oil PSUs absorbing huge losses to ensure that the rising prices of crude oil and natural gas in the international market were not passed on to Indian consumers
 - Imposing an **export cess** on petrol, diesel and ATF and **windfall tax** on domestically produced petroleum products
 - Over the years, India has **expanded its network of crude oil suppliers** from 27 nations to 39 nations.
 - Expanding petrochemical production.
 - Accelerating efforts to move towards a **gas-based economy** by increasing the share of gas from the current 6.3 per cent to 15 per cent by 2030.
 - India took a giant stride in her biofuel revolution by launching **E20** — 20 per cent ethanol blended gasoline.
 - India is also setting up **five second generation ethanol plants**, which can convert agricultural waste into biofuel.
 - Other policy initiatives like **The National Green Hydrogen Mission** and increased support/incentives to adapt to **Electric vehicles, installation of alternate fuel stations** (EV charging/CNG/LPG/CBG) are all a step towards ensuring energy security, energy justice and energy independence, inspired under the visionary leadership of PM Modi.

Gig Economy in India

News: Recently, the strike by Blinkit workers have highlighted the plight of Gig workers in the country.

Who is a Gig Worker?

- The **Code on Social Security, 2020** [Section 2(35)] defines a gig worker as 'a person who performs work or participates in a work arrangement and earns from such activities outside of traditional employer-employee relationships.' There are 2 groups of Gig workers – **Platform workers** and **non-platform workers**.

Who is a Platform Worker?

- A platform worker implies a worker working for an organisation that provides specific services using an online platform directly to individuals or organisations.
- Platform workers include **Ola or Uber drivers, Swiggy or Zomato** delivery agents.

Who is a Non-platform worker?

- Those who work outside of these platforms are non-platform workers, including construction workers and non-technology-based temporary workers.

What are issues faced by Gig workers?

- Lack of job security, uncertain future, irregular wages. For example, in the current blinkit controversy, per delivery amount was slashed by almost 10 rupees. The cumulative loss for workers is huge.
- As the relationship is outside the scope of traditional, full-time employment gig workers lack basic rights such as minimum wages, overtime pay, medical leaves etc.
- Limited access to internet and digital technology can be a restrictive factor for workers willing to take up jobs in the gig and platform sector.

What are recent initiatives to regulate Gig economy?

- The Code on Wages, 2019** provides for **universal minimum wage** and **floor wage** across organised and unorganised sectors. It also includes Gig workers.
- The Code on Social Security, 2020** recognises gig workers as a new occupational category and provides them with life and disability cover, accidental insurance, health & maternity benefits old age protection and

other. It also proposed to establish a **Social Security Fund** and a **National Social Security Board** to ensure wellbeing of Gig workers.

- **E-Shram Portal** – It creates database on unorganized workers including Gig workers.

What are concerns?

- Out of the four new labour codes proposed, gig work finds reference only in the Code on Social Security. Thus, they cannot create legally recognised unions and access a national minimum wage that applies to all forms of employment.
- They are also excluded from the category of ‘unorganised workers’ or ‘wage workers’.
- They also remain excluded from accessing the **specialised redressal mechanism** against their employers and do not have the right to collective bargaining.

Way Forward:

- A petition demanding that gig workers or platform workers be declared as ‘unorganised workers’ is pending in the Supreme court.
- In 2021, the UK Supreme Court classified Uber drivers as ‘workers’ under the UK Employment Rights Act 1996 and Germany’s Temporary Employment Act provides for equal pay and equal treatment of gig workers.
- NITI Aayog has also recommended proper estimation of Gig workers in India to estimate size of Gig economy.

RBI – Report on Currency and Finance

News: Recently, The Reserve Bank of India (RBI) released a report on currency and finance for the financial year (FY) 2022-23.

Theme - 'Towards a Greener Cleaner India'.

Background:

- Report covers four major dimensions of climate change to assess future challenges to sustainable high growth in India.

Key Points:

- The Public sector banks (PSBs) are likely to be more vulnerable than private sector banks (PVBs) in India on the basis of Climate stress tests. Loss due to climate related risks.
- Annual investment of about **2.5 per cent of GDP by 2030** would be required to fill the infrastructure gap due to Climate change.
- The country will stand to lose anywhere around **3 to 10% of its GDP** annually by 2100 due to climate change.
- It was found that close to 34 million jobs will be impacted due to heat stress associated with productivity decline by 2030.
- RBI became part of **Network for Greening the Financial System** (NGFS) which aims to strengthen the global response to meeting Paris Agreement goals. It issued sovereign green bonds (SGBs) for green infrastructural investments and released a framework for mobilizing green deposits by regulated entities.

What policy options are at disposal to mitigate climate risks?

- Carbon taxes, Emission Trading, Address issues in Wind/Solar sector, Targeted R&D by Government, Shift towards Digital currency due to its low carbon footprint, Identify Green Assets and Activities.

Farm subsidies – WTO needs to relook

News: Finance minister, Smt. Nirmala Sitharaman recently urged the World Trade Organisation (WTO) to look at the issue of farm subsidies with an open mind.

What is the need to relook into subsidy norms?

- The viewpoints of the Global South and emerging markets have not been given equal weight as those of the developed nations in trade discussions.
- There is an issue with the reference price adopted under global trade norms - a WTO member country’s food subsidy bill should not breach the limit of 10% of the value of production based on the reference price of 1986-88. Subsidies for agriculture and poor farmers in developing countries were not counted at all and

were frozen by the WTO. Food security is comparatively stronger in developed nations than in developing countries because of the unbalanced nature of trade agreements.

- The challenges on food security posed by the Covid-19 pandemic and Russia-Ukraine conflict have once again emphasized to relook the subsidy norms as food and fertilizer security have become more important now.
- As part of permanent solution, India has asked for measures like **amendments in the formula** to calculate the food subsidy cap and **inclusion of programmes** implemented after 2013 under the ambit of 'Peace Clause'.

Peace Clause - Under the Peace Clause, WTO members agreed to **refrain from challenging any breach in prescribed ceiling by a developing nation** at the dispute settlement forum of the WTO. This clause will stay till a permanent solution is found to the food stockpiling issue.

What are subsidies under WTO?



- **Amber Box** - Amber box subsidies are those that **can distort international trade** by making a country's products cheaper in comparison to those of other countries. Example - Subsidies for inputs such as fertilisers, seeds, electricity, irrigation, and Minimum Support Price (MSP).
- **Blue Box** - It is the "amber box with conditions" — conditions, designed to reduce distortion. Any support that would normally be in the amber box is placed in the blue box if it **requires farmers to limit production**. These subsidies **aim to limit production by imposing production quotas** or requiring farmers to set aside part of their land. At present there are no limits on spending on blue box subsidies.
- **Green Box** - Green Box is domestic support measures that **don't cause trade distortion** or at most **cause minimal distortion**. The Green box subsidies are **government funded without any price support to crops**. They also include **environmental protection** and regional development programmes. "Green box" subsidies are therefore allowed without limits (except in certain circumstances).

US Fed Rate Hike – Impact on India

News: In the last week, The US Federal Reserve raised interest rates by a quarter percentage point to quell the inflationary pressures that have kept price rises well above its 2% target. The central bank also signaled a pause in further increases.

What is the need to resort to rate hike?

- Primary purpose is to tame inflation in the economy. Rate hike will make acquiring new loans costly thus money available for borrowing will be less which will eventually help cool down the economy.
- Less borrowing will perhaps lead to slowdown in the economic activity and growth. Business will reduce production, hire fewer people and reduce their borrowing activities.

Impact of US Fed Rate hike on Indian economy (General observation):

- It can also lead to a **depreciation of rupee** and consequent impact on India's trade balance and current account deficit.
- It can lead to a rise in interest rates in the US, which can attract capital flows from other countries. This can lead to a **reduction in foreign investment in India**, which will affect economic growth.
- Increase in **domestic borrowing costs** in India.
- Lesser demand for risky assets such as equities, which can lead to a **decline in stock prices** in India.
- Cost of servicing the external debt (primarily denominated in US dollars) in India will increase as the value of rupee may fall against the dollar.

What do experts say about immediate impact of Fed rate hikes in Indian economy?

- Experts don't expect immediate material impact on the economy as the RBI has paused rate hikes and globally price of crude oil have also weakened.
- Domestic markets are likely to remain resilient and if there is volatility, it would have a limited impact on the economy.
- FII's have already started investing in India.
- The current rate hike is being viewed as last one for 2023 and the Fed is expected to start cutting rates from the second half of 2023.
- If the Fed opts for a cut later in the year, capital inflows are expected to pick up and if the Fed starts cutting rates from July 2023, markets are expected to rise sharply.

Are there any options available for India to counter US Fed rate hikes?

- We must diversify our foreign exchange reserves to reduce its dependence on the U.S. dollar. For example, currency swap agreements, CBDC, Rupee-Ruble Agreements etc.
- Expand trade ties and network with other countries to boost its economic growth and nullify the impact of the Fed rate hikes.
- The RBI, could raise interest rates in response to the Fed hikes to attract foreign investors to invest in Indian markets, which would increase demand for Indian currency and help maintain its value.
- Reduce dependence on Crude oil – Shift to renewables, clean energy mechanisms etc
- Encourage domestic consumption through tax cuts, subsidies etc.

Agri-Exports and Imports scale new highs

News: Both agricultural exports from and imports into India have scaled new highs in the fiscal year that ended March 31, 2023.

Instructions – You need to have idea about India's top agri exports and imports. The data is important from Prelims perspective.

Background:

- Provisional data from the Department of Commerce shows total farm exports at \$53.15 billion and imports at \$35.69 billion during 2022-23, surpassing their previous year's records of \$50.24 billion and \$32.42 billion respectively.

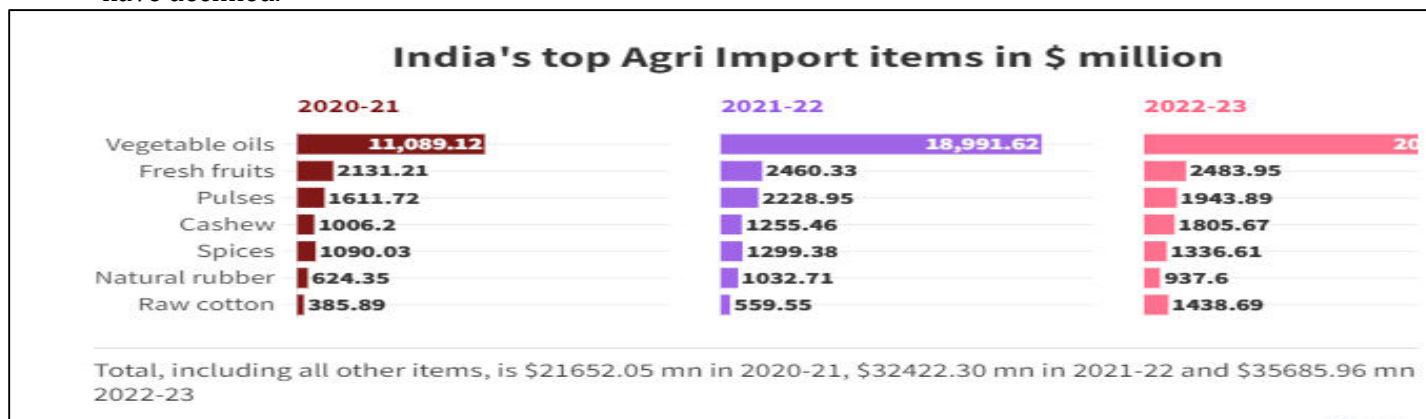
What has helped India's agricultural commodity be more competitive?

- Recovery of The UN Food and Agriculture Organization's Food Price Index (FPI)
- The FPI – a weighted average of world prices of a basket of food commodities over a base period value (2014-16=100) – recovered to 102.5 points by 2020-21, and further to 133 points in 2021-22 and 139.5 points in 2022-23.
- That has made India's agri-commodities more globally price competitive, exports also soared to \$41.90 billion, \$50.24 billion and \$53.15 billion during these three years.

What items have powered our agri-exports?

- Marine products, rice (driven more by Non-Basmati) and sugar
- Basmati exports are mainly to the Persian Gulf countries and, to some extent, the US and UK.

- Non-basmati shipments are more diversified, with the destinations spread across Asia (Bangladesh, China, Sri Lanka, Malaysia, Vietnam, UAE and Iraq) and Africa (from Senegal, Ivory Coast and Benin to Somalia and Madagascar). It's **non-basmati that has made India the biggest rice exporter**, ahead of Thailand.
- In sugar exports, the country has emerged as the world's No. 2 exporter after Brazil. Indian mills have built markets for both raw sugar (among refineries in Bangladesh, Indonesia, Malaysia, Saudi Arabia and Iraq) and Regular plantation whites (in African countries, Afghanistan, Sri Lanka and China).
- Spices exports have stagnated since 2020-21.
- The exports of raw cotton, guar-gum (a thickening agent used in extraction of shale oil and gas) and oil meals, have declined.



What is our import profile?

- Unlike exports, India's imports of farm produce are dominated by a handful of items.
- The most significant is **vegetable oils**, whose imports have more than doubled in value terms.
- Imports meet roughly 60% of India's vegetable oil requirements, 10% of pulses.
- Imports of spices, cashew and cotton – commodities where India has traditionally been a net exporter – have shown a rising trend.

CA, CS handling client money in PMLA ambit

News: The Union Finance Ministry has notified changes to the Prevention of Money Laundering Act (PMLA).

What has changed?

- The Finance Ministry has brought in practising CA's, CS's and CWA's carrying out financial transactions on behalf of their clients into the ambit of the Prevention of Money Laundering Act (PMLA). This is done for select activities done on behalf of clients.
- The notification covers a) buying and selling immovable property; b) managing client money, securities, and other assets; c) managing bank, savings and securities accounts; d) organising contributions for creating, operating, and managing companies, and creating and managing limited-liability partnerships or trusts; and e) buying or selling business entities.
- CAs, CSes, and CWAs have been designated reporting entities in the context of such transactions. They are required to complete the KYC protocols for all clients on whose behalf they conduct these specified transactions and maintain records of them.
- The notification clarifies the provision of regular services — such as certifying accounts or financial advice rendered for a fee — will not come within the purview of the Act.

Why was it necessary?

- It aims at curbing fraudulent practices by which accountants allegedly help their clients to launder money.
- It will help investigative agencies further in their probe against dubious transactions involving shell companies and money laundering.
- To fulfil the Financial Action Task Force (FATF) assessment, which is due in November (Last assessment was done in 2010)
- To make these professionals equally responsible for specified transactions made under the PMLA.

Concerns raised by these professionals:

- The PMLA Act is very stringent and compliance is very burdensome. While the conviction rate in PMLA is very low, the entire process is extremely difficult to go through.
- They argue that they are regulated by professional bodies set up under various Acts of Parliament.
- Lawyers and legal professionals have been kept outside the new provision.

RBI's Gold Reserves

News: The RBI's gold reserves touched 794.64 metric tonnes in fiscal 2023, an increase of nearly 5% over fiscal 2022.

Composition of India's Gold reserves:

- The 794.64 tonnes of gold reserves included gold deposits of 56.32 tonnes.
- 437.22 tonnes of gold is held overseas in safe custody with the Bank of England and the Bank of International Settlements (BIS).
- 301.10 tonnes of gold is held domestically.
- As on March 31 2023, India's total foreign exchange (forex) reserves stood at \$578.449 billion, and gold reserves were pegged at \$45.2 billion.

Why is Gold used as reserve in Central banks?

- Unlike fiat currencies, which can be subject to inflation or devaluation due to various economic factors, the value of gold tends to be relatively stable over time, which makes it an attractive asset for central banks to hold as a reserve.
- Gold is highly liquid, which means it can easily be converted into cash or used to settle international transactions.

Why is RBI hoarding the Gold?

- When the RBI has foreign currency (USD) in its reserves then it invests these dollars to purchase US Govt. bonds on which it earns interest. The real interest, however, on these bonds has turned negative due to the rise in inflation in the US. At the time of such inflation, the demand for gold has increased and RBI being its holder can earn a good return even in stressed economic situations.
- Gold is safe, secure and more liquid asset and it performs better during times of crisis, and as a long-term store of value.
- It serves as a hedge during geopolitical uncertainties – For example, the significance of Dollar in Global market is being challenged since Russia-Ukraine war. If RBI continues to hold dollars and it depreciates/weakens with respect to other currencies, then it's a loss for RBI. However, gold is able to retain its value much longer than other forms of currency.
- Gold has an international price which is transparent, and it can be traded anytime.

Which other banks are buying Gold?

- According to the World Gold Council (WGC), gold is being bought mainly by central banks of emerging market economies.
- During 2022, the central banks from the Middle East, including Egypt, Qatar, Iraq, the UAE, and Oman significantly boosted their gold reserves.
- Also, several central banks, including the Monetary Authority of Singapore (MAS), the People's Bank of China (PBoC) have been buying gold.
- The two key drivers behind the decision to hold gold are i) its performance during crisis times and ii) its role as a long-term store of value.

Smart Cities Mission

News: Government has extended deadline for Smart Cities Mission by 1 year. Earlier, all **100 Smart Cities** were supposed to be completed by June 2023.

What is Smart City Mission?

- It is a centrally sponsored scheme launched by Ministry of Housing and Urban Affairs.
- It refers to a city with smart physical, civic and economic infrastructure.
- Under the mission, 66 of the cities are small, with less than 1 million population and are implementing two-thirds of the projects, as per a ministry source.
- Over 80% of the projects in the big cities have been completed, while the completion rate for smaller cities stands at 66%.

What exactly do Smart Cities comprise?

The Mission intends to build smart cities that cater to overall requirements of citizens. For example,

- **Electricity** – Smart meters, automated streetlights, smart electricity grids, solar rooftops etc
- **Water and Sanitation** – Rainwater harvesting, storm water drainage, penalties for littering and wasting water
- Walking lanes, public transport, public cycle sharing etc with limited to no waiting time
- **Smart traffic signals** to prevent traffic congestion
- **Multimodal transport** – BRTS, metro, waterways, underpasses
- **Housing facilities** (100% housing to all), **healthcare facilities** (from PHC to multidisciplinary hospitals), **education facilities** and **economic facilities** (banks, warehouses, export parks)
- All 100 cities have also constructed **Integrated Command and Control Centres** to monitor all security, emergency and civic services. During the peak of the Covid-19 pandemic, these were converted into emergency response units by many of the cities.
- A component of **sister cities project** (2020) was also introduced in the mission. Those smart cities that are lagging behind in terms of implementation of goals are paired with cities that have performed well. For example, Ahmedabad was paired with Chandigarh. Best practices are shared.

Thus, smart cities intend to drive economic growth, improve the quality of life through smart solutions and focus on sustainable and inclusive development.

What is status of projects?

- The projects were supposed to be completed within five years, but in 2021 the Ministry changed the deadline for all cities to June 2023.
- As of March 2023, the 100 cities have issued work orders for 7,799 projects worth Rs 1.80 lakh crore.
- 50 out of the 100 cities have completed 75% of the projects and would be able to complete the remaining works by June. However, they would need more time to carry out the documentation, dissemination and institutionalisation of the best practices and innovations.

Conclusion

- Improving the quality of life, economic opportunities is important in urban areas but problems such as migration, water, sanitation, traffic congestion, pollution impeded the growth of urban areas.
- Smart cities mission and AMRUT mission coupled with other government initiatives address these issues which will help build resilient urban infrastructure in the future.

Government's new GST compliance measures

Background:

- In two significant measures to curb tax evasion and increase compliance under the Goods and Services Tax (GST) regime;
- The government has decided to **lower the threshold** for businesses to generate **e-invoice** for business-to-business (B2B) transactions, **from Rs 10 crore to Rs 5 crore**, and
- It has rolled out the **automated return scrutiny module** for GST returns in a backend application for central tax officers.

What is automated return scrutiny module?

- It will enable the **officers to scrutinise GST returns** of centre-administered taxpayers selected on the basis of data analytics and risks identified by the system.

- It will facilitate interaction of officers with tax payers through GSTN portal. In other word, it will help in tax evasion.

What is e-invoicing?

- e-Invoicing is a system where B2B (Business to Business) invoices and some other documents are electronically authenticated by the GSTN (Goods and Service Tax Network) for further use on the GST portal.

What does the e-invoicing envisage?

- The GST Council in its 37th meeting in September 2019 had approved the **standard of e-invoice** with the primary objective to enable interoperability across the entire GST ecosystem. It facilitates common standard for all e-invoices.
- With a uniform invoicing system, the tax authorities are able to pre-populate the return and reduce the reconciliation issues.
- The GST authorities have pushed for implementation of this e-invoicing system which is expected to help to curb the actions of tax evaders and reduce the number of frauds as the tax authorities will have access to data in real-time.
- E-invoicing was initially implemented for large companies with turnover of over Rs 500 crore, and within three years the threshold has now been lowered to Rs 5 crore.

Importance of Lowering e-invoice threshold:

- Expands compliance mandate
- More businesses registered so it will increase GST collections
- It will curb tax evasion, broaden GST base
- More data to tax authorities
- By requiring more businesses to adopt e-invoicing, the government aims to reduce mismatch errors and fraudulent activities associated with the generation of fake invoices.

Open network for Digital Commerce(ONDC)

News: The ONDC has been causing quite a stir in the food delivery ecosystem over the past week, so much so that analysts have highlighted it as one of the factors behind the recent slide in the share prices of the popular delivery app, Zomato.

What is ONDC?

- An Indian government-backed non-profit digital commerce initiative, ONDC offers an **open source network** for all to **exchange goods and services on the internet**, and is independent of any specific platform.


How does it work?

- ONDC aims to “democratise” e-commerce and make it more accessible.
- For example, someone wanting to buy a smartphone online will currently need to search on individual e-commerce platforms such as Amazon and Flipkart to find the best deal. However, with ONDC, the buyer can open any participating platform, say Amazon, and get seller options not only from Amazon but also other participating platforms such as Flipkart and other stores.
- Unlike e-commerce websites, it **does not have its own delivery ecosystem**, but has logistics service partners such as Dunzo, eKart, Grab, LoadShare, Shiprocket and Shadowfax. Sellers can choose to work with them for last-mile delivery to the end consumer.

Significance of ONDC:

tech

ONDC: the nuts and bolts



ONDC's core aim is to enable ecommerce for small sellers and businesses.

Parallels have been drawn with UPI, meaning it could do for ecommerce what UPI did for digital payments.

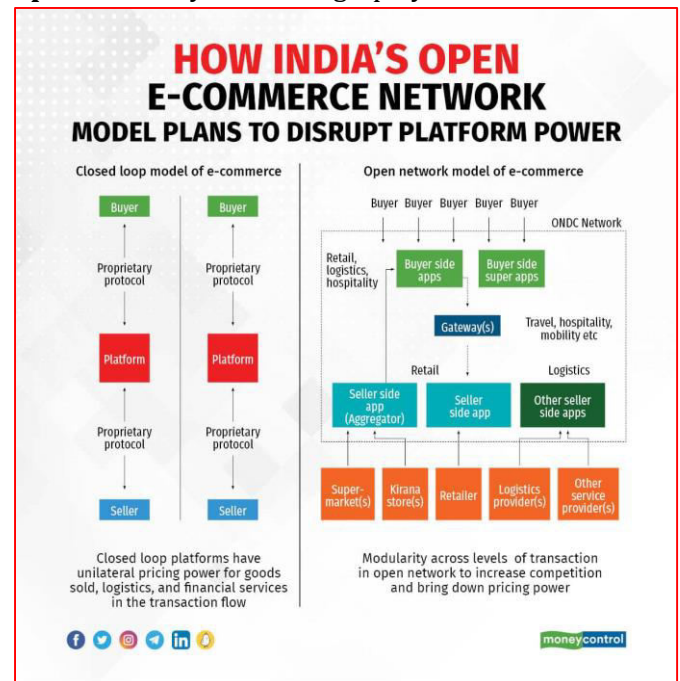
CUSTOMERS CAN ACCESS SELLERS ON ONDC THROUGH ANY APP THAT IS INTEGRATED WITH THE NETWORK.

Sellers will handle deliveries through tie-ups with logistics firm.

ONDC will also have embedded services like ledgers and a payment processor.

Source: ET Research, ONDC strategy paper

- It will **keep a check on dominance of e-commerce platforms** by a few large players. As is observed Flipkart, Amazon are accused of anti-competitive practices, discriminating among sellers and promoting only certain entities where such giants hold indirect stakes.
- It will provide a **level playing field** to both large and small merchants in the country.
- **Better discoverability of small merchants** (especially kirana stores). It will lower cost of doing business, better prices and profitability.
- Consumers will have options to buy from. E-commerce will be more **inclusive** and **accessible**. Consumers will have preference to choose from local businesses as well.
- It will uplift several sectors – E-commerce, logistics, operations, digitization of entire value chain.
- It will **increase competition in the sector**, as customers will be able to search across platforms and that would likely drive prices down.



Challenges:

- It lacks a proper mechanism to deal with customer grievances, something the established platforms in the food delivery sector offer.
- Ground level issues that ONDC shall have to face i.e. whether product delivered by the seller is genuine or fake, whether customer actually received it or not.
- Competing against the established businesses will be a challenge. In terms of service delivery, smooth returns policy, incentives, software experience etc.
- Operating costs for ONDC will only go up as they start scaling across different segments.

Expected Credit Loss

News: The Reserve Bank of India (RBI) is preparing for a major change in the banking system and will implement expected credit loss (ECL) on banks soon.

What is ECL?

- ECL is a method of accounting for **credit risk based on the loss likely to occur on a loan or portfolio of loans**. It is used to get an understanding of the potential future losses on financial assets and how those losses can be identified and addressed in the financial statements.
- Thus, through ECL, banks can estimate the forward-looking probability of default for each loan, and then by multiplying that probability by the likely loss given default, the bank gets the percentage loss that is expected to occur if the borrower defaults.
- The resulting value multiplied by the likely exposure at default is the expected loss for each loan, and the sum of these values is the expected loss for the entire portfolio.

Impact:

- After the implementation of the rules related to ECL, banks will have to inform the RBI of their estimated loan losses in advance.
- The system will help make Banks be more resilient in the long run.
- In such a situation, **loan provisioning of banks will increase** and **profit books may be affected**.

Green Energy Open Access Rules, 2022

News: Recently, Union Power & NRE Minister Shri R. K. Singh chaired a meeting with Industry and other stakeholders in New Delhi today on Green Energy Open Access Rules.

Background:

- The Minister stated that **Green Energy Open Access Rules, 2022** are a major step towards **India going green** and **cutting emissions by 45%** in line with India's updated NDC target for 2030. It will also help **bring down power cost** significantly.

What are Green Open Access rules?

- The Green Open Access Rules were notified in June 2022 to further accelerate India's renewable energy programmes. These rules were notified for promoting generation, purchase and consumption of green energy including through waste-to-energy plants.



Salient features:

- The Green Open Access is allowed to **any consumer** and **the limit** of Open Access Transaction has been reduced **from 1 MW to 100 kW for green energy**, to enable small consumers also to purchase renewable power through open access.
- Consumers are entitled to demand supply of Green Power from Discoms. Discoms would be obligated to procure and supply green power to eligible consumers.
- Approval for Green Open Access is to be granted in 15 days or else it will be deemed to have been granted.
- Commercial** and **Industrial consumers** are allowed to purchase green power on voluntarily basis.
- Provide certainty on open access charges to be levied on Green Energy Open Access Consumers which includes transmission charges, wheeling charges, cross subsidy surcharge, standby charges wherever applicable, banking charge and other fees and charges such as Load Despatch Centre fees and scheduling charges, deviation settlement charges as per the relevant regulations of the Commission.
- There shall be a **uniform Renewable Purchase Obligation (RPO)**, on all obligated entities in area of a distribution licensees. **Green Hydrogen/Green Ammonia** has also been included for fulfillment of its RPO.
- Consumers will be given **Green Certificates** if they consume green power and will also be facilitated.
- The Ministry of Power has already notified **Grid Controller of India Limited** as Central Nodal Agency who operates Green Open Access Registry (GOAR) portal (<https://greenopenaccess.in>) which is the single window portal to register and apply for the Green Energy Open Access.

PLI Scheme

News: The Cabinet, chaired by Prime Minister Narendra Modi, on Wednesday approved the **Production Linked Incentive Scheme 2.0 for IT Hardware** with a budgetary outlay of Rs 17,000 crore.

Background:

- Electronics manufacturing in India has witnessed consistent growth with a 17 per cent compound annual growth rate (CAGR) in the last 8 years to cross a major benchmark in production -- USD 105 billion (about Rs 9 lakh crore) -- this year.
- PLI Scheme 2.0 for IT hardware covers laptops, tablets, all-in-one PCs, servers and ultra-small form factor devices.

What is PLI Scheme?

- PLI scheme is an initiative that provides incentives to domestic industries to boost local production. When that happens, specifically tailored products emerge that satisfy a selected niche of target audience. Domestic businesses also help in cutting down import bills.
- Targeted industries - Mobile and allied Component Manufacturing, Electrical Component Manufacturing, and Medical Devices, Automobile and auto components, Electronics and IT hardware, Telecom, Pharmaceuticals, Solar modules, Metals and mining, Textiles and apparel, White goods, Drones, Advanced chemistry cell batteries other sectors as well.

How do the incentives work?

- They are calculated based on incremental sales. Range from 1% to 20% depending on the industry.
- In some sectors such as advanced chemistry cell batteries, textile products and the drone industry, the incentive is on the basis of sales, performance and local value addition done over the period of five years.

WHAT THE SCHEME SEEKS TO ACHIEVE

Make domestic mfg competitive & efficient

Create economies of scale

Make India part of global supply chain

Attract investment in core mfg & cutting edge tech

Competitive mfg would in turn lift exports

The economics of Climate Change in India

News: In its latest report of **currency and finance**, the **RBI** (India's central bank) has a chapter dedicated on explaining the **macroeconomic effects of climate change in India**.

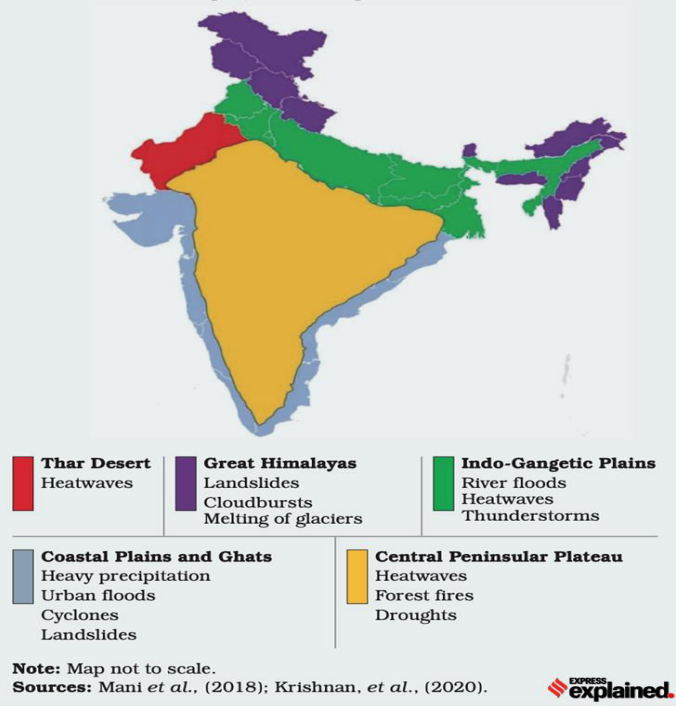
How has climate change impacted India?

- The most obvious signs of climate change are the **anomalies in temperature and precipitation** (rain, hail, snow etc.)
- As per the RBI report, the annual average temperature in India has been increasing gradually.
- The south west monsoon has also become unpredictable. The **annual average rainfall in India has gradually declined** while **intense wet spells as well as dry spells have increased** in India.
- India is relatively more exposed to floods and storms than droughts and heatwaves. Such incidences pose significant risks to **agricultural production and food price volatility**.

How vulnerable is India to climate change?

- India's diverse topography exposes it to varying temperature and precipitation patterns, which in turn makes the country susceptible to extreme weather events. These events have implications for the Indian economy.
- At present, major economic activity happens in the services sector as against the agriculture and allied sectors in India. This has significant implications for carbon emissions because services are globally considered to be emission-light with relatively lower energy intensity of output.
- Whereas, **metal industries, electricity and transports** are the **highest emission-intensive sectors**, together accounted for around 9 percent of India's total GVA in 2018-19. Therefore, **fossil fuels have a large share in India's primary energy consumption** and this **needs to change**.

Chart II.1: Risks Emanating from Climate Change across Geographical Regions in India



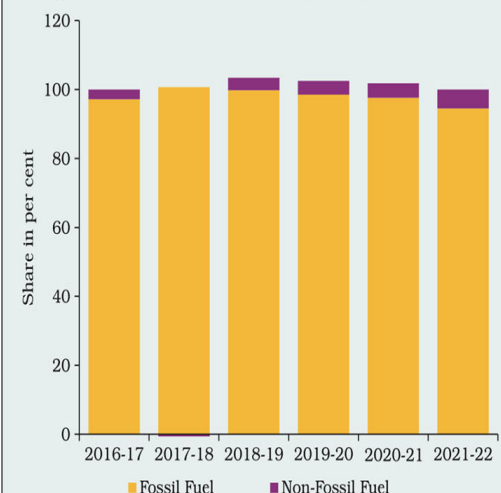
What is the macroeconomic impact of climate change on India?

- According to **Niti Aayog** in 2019, around 600 million of India's population are facing severe water stress, with 8 million children below 14 years in urban India at risk due to poor water supply.
- The **World Bank** in 2020 said that India could account for 34 million of the projected 80 million global job losses from **heat stress associated productivity decline** by 2030.
- The **IPCC Working Group** in 2022 stated that India is one of the **most vulnerable countries** globally in terms of the population that would be affected by the **sea level rise**. By the middle of the present century, around 35 million people in India could face annual coastal flooding, with 45-50 million at risk by the end of the century.
- The potential transition risks which will come from economy wide changes arising from transition towards low-carbon economy. If the shift towards becoming a **low-carbon economy is too rapid**, it could materially damage a country's **financial stability**.

Can policies provide some solutions?

- Policy actions will have a negative impact on India's GDP. Global scenarios of "current policies" and "nationally determined contributions (NDCs)" have the highest negative impact on output, whereas rapidly moving towards Net Zero by 2050 will hit GDP.
- Moving towards net zero by 2050 will spike inflation far more in the immediate future than continuing on current policies.
- Therefore, these trade-offs will become sharper as India tries to achieve the twin goals of achieving net zero emissions by 2070 and becoming an advanced economy by 2047.

Chart II.3: Share of Fossil Fuel and Non-Fossil Fuel based Energy Sources in India's Primary Energy Consumption



Note: Data may not add up to 100 due to rounding off.
Source: Energy Statistics 2023, Ministry of Statistics and Programme Implementation (MoSPI).

Explains

US Debt Ceiling Crisis

News: The US government may soon stare at defaulting on its borrowings if the Congress doesn't raise the nation's debt ceiling.

What is Debt Ceiling?

- The debt ceiling, or debt limit, is the **total amount the US government is allowed to borrow to finance its expenditure**, such as paying salaries and welfare allowances.
- Currently, this limit is at **\$31.4 trillion**. The Republicans, who have a majority in the House, are refusing to raise it unless the Democrat-run government agrees to their demands, which include a significant cut in spending.

What are the consequences of US defaulting on its borrowings?

- Experts say the dollar would weaken, the stock markets would collapse, and millions might lose their jobs.
- The US's credit rating would be downgraded, making future borrowing more expensive.

How does it impact the Indian Rupee?

- The rupee could slip further as there is more demand for the Dollar as the currency is considered safe haven which can withstand economic shocks and uncertainty.
- Our imports will become expensive as Dollar gains strength.
- Moreover, the US Fed will announce new interest rates. There has been 10 consecutive interest hikes in the past year.

Wage Distress

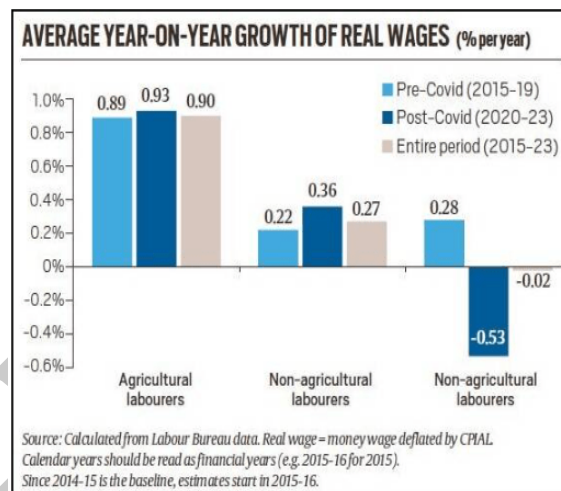
News: According to Labour Bureau data, in 2022-23, the growth rate of real wages was just 0.2% for male agricultural labourers, and it is negative for non-agricultural labourers and construction workers.

What are wage growth rate trends in the past decade?

- The real wages of male agricultural labourers, non-agricultural labourers and construction workers grew at less — much less — than 1% per year between 2014-15 and 2021-22.
- It is just 0.8% per year for agricultural labour, 0.2% for non-agricultural labour and slightly negative for construction workers (men only).

How do growth rate trends change if one alters the methodology?

- The “**unpack-repack method**” - If one calculates state-specific, month-specific year-on-year growth rates, and then aggregates them using unweighted averages over months and population-weighted averages over states, the results will change. In that case, the real wages will be rising fast between 2014-15 and 2018-19.
- **Calculating annual growth rates** - If one calculates under this method, then the real wages are much the same today as in 2014-15.



Which method should be preferred?

- Labour Bureau data clearly point to near-stagnation of informal-sector real wages in recent years.
- The wage data collected by the Centre for Labour Research and Action reveal a steady decline in real wages of brick-kiln workers in the last 10 years.

The problems of WB's EODB rankings

News: The article talks about how World Bank's Ease of Doing Business rankings might have actually hurt the economies rather than doing good.

Background:

- It was originally assumed that the ranking was based on many academic papers that studied these rankings and the economic performance of countries around the world.
- It was also assumed that the improvements in Doing Business had a positive impact on the GDP of a country. However, these rankings did not accurately reflect the reality in many nations and could be easily manipulated by governments.
- For example, India's rankings were based on data from just two cities — Mumbai and Delhi. Further, India ranks shot up among the top 50 in the World Bank's EoDB rankings in 2018. The jump was despite the fact that India's GDP growth was suffering a sharp slowdown, leading to record unemployment. These all issues raised concerns over WB's EoDB.

What are the other concerns?

- A research paper found that the improvements in the EoDB rankings had a negative impact on a nation's GDP. A negative impact on a nation's GDP was due to the fact that developing countries had more focus on the Doing Business score rather than implementing substantial reforms for their economy.
- Further, most of the earlier research looked at rankings instead of the country's scores on which these rankings were based. Also, the **ranks did not accurately capture the improvement in the economy** because ranks are relative and a country could rise or fall sharply despite not having improved as much, or at all.
- For example, New Zealand was ranked first for ease of doing business in the 2020 report with a score of 87.01. If New Zealand's score had fallen by 5, its rank would have dropped by 9 places.

- In contrast, Sri Lanka was ranked 99th with a score of 61.8. If Sri Lanka's score had fallen by 5, its rank would have dropped 26 places. Hence, there were many problems with WB's EoDB index. Due to which, it was suspended by the World Bank.

Insurance penetration in India

News: The Insurance Regulatory and Development Authority (IRDA) in India is working on an all-in-one policy plan to address the low insurance penetration in India.

What is IRDAI?

- The IRDAI was founded 199 with its HQ at Hyderabad is a statutory body (under the IRDA Act 1999) and is under the jurisdiction of Ministry of Finance and is tasked with regulating and licensing the insurance and re-insurance industries in India.
- Composition of authority - It is a ten-member team consisting of (a) a Chairman, (b) five whole-time members and (c) four part-time members. All are appointed by Central Government.

What is the all-in-one Policy plan?

- The plan looks to offer an affordable bundled insurance product that covers health, life, property, and accident risks.
- **Bima Sugam** - The portal will integrate insurers and distributors, providing customers with a one-stop shop for purchasing insurance policies and managing service requests and claim settlements. It will also be integrated with digitized birth and death registries
- **Bima Vistar** - It will be bundled risk cover product, which offers defined benefits for each risk and aims to provide faster claim payouts without the need for surveyors.
- **Bima Vaahaks** - The third component of the plan involves deploying a women-centric workforce called Bima Vaahaks (carriers) in each Gram Sabha (village council) to promote the benefits of insurance products.

What will be the impact of new plan?

- It will provide citizens with an affordable single policy that covers health, life, property and accident
- Settling claims within a short timeframe
- It will allow policyholders to easily access their policies and submit death certificates, enabling quick processing and transfer of funds.

What are other social security measures taken up or envisioned by Government/IRDAI?

- To achieve the goal of providing insurance coverage for all citizens by 2047, the IRDA plans to establish **State-level insurance committees** and involve **State governments** in formulating district-level insurance plans.
- **Pradhan Mantri Suraksha Bima Yojana** - It provides insurance against accidental death and disability at affordable rates.
- **Pradhan Mantri Jeevan Jyoti Bima Yojana** - It provides Life insurance at affordable rates.
- **Atal Pension Yojana** - Provides pension to unorganized workers in the society.

RBI's regulations on Green Deposits

News: The Reserve Bank of India(RBI) has come up with a regulatory framework for banks to accept green deposits from customers.

What are Green Deposits?

- Green deposits are more or less the same as regular deposits that banks accept from their customers. The only major difference is that banks promise to earmark the money that they receive as green deposits towards environment--friendly projects.
- For example, a bank may promise that green deposits will be used towards financing renewable energy projects, technology that help overcome climate change.
- The regulatory framework is aimed at preventing greenwashing, which refers to making misleading claims about the positive environmental impact of an activity.

What does RBI's regulatory framework on green deposits provide for?

- Banks will have to come up with a set of rules or policies approved by their respective Boards that need to be followed while investing in green deposits from customers. These rules need to be made public on the banks' websites.
- The banks will be required to disclose regular information about i) The amount of green deposits received, ii) Deposits allocated towards various green projects and iii) The impact of such investments on the environment.
- A third-party will be required to verify the claims made by banks regarding the projects in which the banks invest their green deposits.
- RBI has also come up with a list of sectors that are eligible to receive green deposits. It includes renewable energy, waste management, clean transportation, energy efficiency, and afforestation.

What impact is the framework likely to have?

- Depositors who care about the environment may get some satisfaction from investing their money in environmentally sustainable investment products. But there are challenges since the bank is only able to invest in a certain number of projects with green funds.
- When it comes to protecting the environment, green investing enthusiasts believe that putting money into green projects may be one of the best ways to help the environment. However, critics argue that green investment products are often just a way to make investors feel good about themselves and that these investments don't really do much good to the environment.

Credit card spend in forex to come under LRS

News: The Finance Ministry, in consultation with the RBI, has omitted Rule 7 of the Foreign Exchange Management (Current Account Transactions) Rules, 2000, thus effectively including forex spending through international credit cards under the LRS.

What changes?

- The amendment is expected to facilitate the monitoring of high-value overseas transactions but does not apply to payments for purchasing foreign goods/services from India.
- A TCS levy of 5% will be applicable on such transactions until 1st July 2023 (except for medical and education-linked sectors).
- After 1st July 2023, the TCS rate will increase to 20% for credit card spends outside India.
- Banks and financial institutions may experience an increased compliance burden due to these changes. Taxpayers can claim refunds on the TCS levy while filing tax returns, which could result in locked funds until refunds are initiated by the tax department.

What is Tax collected at source?

- TCS is the tax payable by a seller, which he collects from the buyer at the time of sale of certain goods or services.
- TCS is governed by Section 206C of the Income-tax Act, which specifies the goods or services on which TCS is applicable and the rates of TCS.
- Some of the goods or services on which TCS is applicable are liquor, timber, tendu leaves, scrap, minerals, motor vehicles, parking lot, toll plaza, mining and quarrying, foreign remittance under LRS, etc.

What is LRS?

- The Liberalised Remittance Scheme is an RBI measure that allows Indian residents to send up to USD250,000 per financial year (April to March) outside India. These funds can be used for any permissible current or capital account transaction, or a combination of both.
- The LRS is for people who are residents of India as defined by the Foreign Exchange Management Act (FEMA). It cannot be used by corporations, partnership firms, Hindu Undivided Family (HUF), trusts, etc.
- The LRS is also available to minors but with some conditions.

What are the permissible current account transactions under the LRS?

- Private visit (other than Nepal & Bhutan), Gift or donation (including rupee gift) to a Non-Resident Indian (NRI) / Person of Indian Origin (PIO), who is a close relative, Emigration, Overseas business trip, Medical treatment abroad etc

Which capital account transactions are permissible under LRS?

- Opening a foreign currency account abroad with a bank outside India, Purchase of foreign property, Investments in overseas shares, securities, mutual funds, etc

Can remittance be done only in US dollars? – No, you can make your remittance in any freely convertible foreign currency.

What is not permitted under LRS?

- You cannot use the LRS to send money for any prohibited activities such as margin trading, lottery, etc, to buy Foreign Currency Convertible Bonds issued by Indian Companies in the overseas secondary market and to trade in foreign exchange abroad.

Indian Organic Products Certification

News: Recently, European Union (EU) audit has found “many weaknesses” in the certification of Indian organic products exported to the EU.

Key Findings:

- The audit team found “**severe infringements**” against the **National Programme on Organic Production (NPOP)**. Farmers who are part of organic producer groups (PGs) don’t know a thing about organic farming.
- Farmers were unaware about PGs and their internal control system (ICS). They applied **unauthorized substances** and/or **chemical fertilizers**.
- The audit team found that the mandators were not necessarily certified as per the category for which they were supposed to bring their expertise (inspection/training). This could impede the effectiveness of the internal controls.

About Certification of Organic products in India:

- **Food Safety and Standards Authority of India (FSSAI)** (under the Ministry of Health and Family Welfare) regulates the manufacture, distribution, sale or import of Organic products through the Food Safety and Standards (Organic Foods) Regulations, 2017 (under FSSA 2006).
- **Participatory Guarantee System (PGS)** - It is implemented by the Ministry of Agriculture and Farmers Welfare. The PGS ensures that organic product production adheres to quality standards. Under this, the certification is carried out by local groups consisting of producers and consumers and is based on trust. This involves a documented logo or statement as proof of certification.
- **National Programme on Organic Production (NPOP)** - It is implemented by APEDA, under the Ministry of Commerce & Industries. It involves accreditation of Certification Bodies and sets standards for organic production. Its Standards have been recognized by the EU, Switzerland, and the US.
- **Other Programs for Organic Production** - a) **National Mission for Sustainable Agriculture** - It promotes sustainable agriculture, including organic production, b) **Paramparagat Krishi Vikas Yojna (PKVY)** – It promotes organic farming, c) **Mission Organic Value Chain Development for North East Region (MOVCD-NER)** - It supports the development of organic value chains in the North East region of India.

Science and Technology

Grappling with AI

News: The potential and consequences of generative artificial intelligence have drawn the attention of policymakers across jurisdictions, who have stepped up regulatory scrutiny of these tools. G7 has committed to 'risk-based' regulation.

What is AI?

- AI leverages **computers** and **machines** to mimic the problem-solving and decision making capability of Human-mind. It provides machines with the capability to i) Adapt, ii) Reason and iii) Provide solutions

What are concerns surrounding AI software and chatbots?

- Privacy issues as there are apprehensions that personal and sensitive information data can be leaked for targeted advertising, political influence.
- As AI can generate new content, there are chances that it can be used to potentially generate fake news or other malicious content. At the same time, it will be unknown who should be held responsible for the output.
- It has the potential to automate many processes, which could lead to job displacement for people who are skilled in those areas.
- AI can be trained on biased data, which can result in the algorithm making decisions that unfairly disadvantage certain groups. This can perpetuate societal inequalities and lead to discrimination.
- It infringes Intellectual property rights as several artists have claimed that their art works were unfairly recreated by AI.
- Countless ethical issues around equality, justice, human dignity are likely to arise.
- The cognitive ability of children is likely to be impacted as more will rely on quick solutions offered by Generative AI.

What is the Risk-Based approach of G7?

- G7's "risk-based" approach could involve **graded regulation**, with a **lesser compliance burden** on developers or users of AI tool deployed in areas such as the **word processing business** or **generating music, as compared** to the **regulatory supervision** on, say, a **tool aiding doctors** in medical diagnosis or one linked to a **face-reading device** that's matching people's identities.

What are steps taken by other nations?

Country	Steps taken to regulate AI
The European Union	The proposed AI Act segregating artificial intelligence by use-case scenarios based broadly on the degree of invasiveness and risk.
Italy	It became the first major Western country to ban ChatGPT out of concerns over privacy.
United Kingdom	A 'light-touch' approach that aims to foster, and not stifle, innovation in this nascent field.
United States	Blueprint for an AI Bill of Rights that proposed a nonbinding roadmap for the responsible use of AI. The Blueprint spelt out five core principles to govern the effective development of AI systems.
India	It is not considering any law to regulate the artificial intelligence sector.

Conclusion

- Elon Musk, Steve Wozniak, and over 15,000 others have called for a six-month pause in AI development, and for shared safety protocols to be implemented by labs and independent experts.
- Considering the rapid advance in AI and its potential to transform our lives (both positively & negatively) it becomes important to approach its deployment with caution and consideration for ethical and social implications.

Digital Twins

News: India will soon join the ranks of cities and countries such as Singapore, Yingtian in China, Dubai, Saudi Arabia and US states that have built Digital Twins to enhance their efficiency, coordination and governance.

What is a Digital Twin?

- A Digital Twin is a three-dimensional (3D) virtual representation of an object or system that delivers real-time insights into the performance, operation or profitability of a physical object—even a city. It is therefore essentially a virtual replica of a real city that can be used to improve its efficiency in several ways.
- For example, one can simulate the installation of mobile networks on specific rooftops and identify the obstructions within the specified parameters, thus saving time and costs.

Benefits:

- It offers a model of urban planning and construction for future sustainable development that effectively combines innovations in digital technology with urban operational mechanisms and provides a feasible path for urban upgrading.
- It also promotes safer, more efficient urban activities and helps to create more low-carbon, sustainable environments.

Challenges:

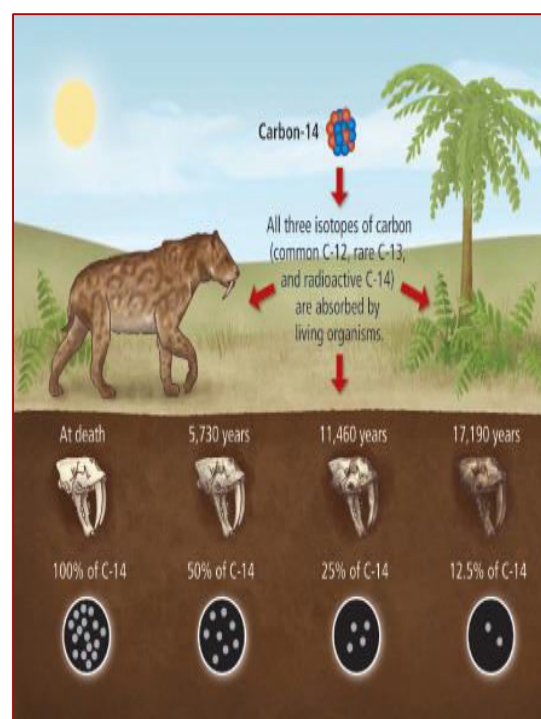
- Digital twins require a significant investment in hardware, software, and personnel, which can be a significant burden for many cities.
- Digital twins require a large amount of data to be collected and analyzed, which can be difficult to obtain in some cities.
- Digital twins are complex systems that require a high level of technical expertise to maintain and operate. This can be a barrier for cities that lack the necessary resources and personnel to manage digital twins.
- Digital twins can collect a large amount of sensitive data, which must be securely stored and managed. If not protected, it could be vulnerable to misuse or exploitation.

Carbon Dating

News: Recently, The Allahabad High Court ordered a “scientific survey”, including carbon dating, of a “Shivling” said to have been found at the Gyanvapi mosque complex in Varanasi.

What is Carbon Dating?

- Carbon dating is a widely-used method to establish the **age of organic materials**, things that were **once living**. Living things have carbon in them in various forms. The dating method is based on the fact that Carbon-14 (C-14), an isotope of carbon with an atomic mass of 14, is radioactive, and decays at a well-known rate. This is how it works:
- The most abundant isotope of carbon in the atmosphere is C-12. A very small amount of C-14 is also present. The ratio of C-12 to C-14 in the atmosphere is almost static, and is known.
- Plants get their carbon through photosynthesis; animals get it mainly through food. Because plants and animals get their carbon from the atmosphere, they too acquire C-12 and C-14 in roughly the same proportion as is available in the atmosphere.
- When they die, their interactions with the atmosphere stop. While C-12 is stable, the radioactive C-14 reduces to one half of itself in about 5,730 years — known as its ‘half-life’.
- The changing ratio of C-12 to C-14 in the remains of a plant or animal after it dies can be measured and can be used to deduce the approximate time when the organism died.



But what about non-living things, like the Shivling in Varanasi?

- Carbon dating cannot be applied in all circumstances. It cannot be used to determine the age of non-living things like rocks.
- For determining the age of inanimate things, instead of carbon, **decays of other radioactive elements** that might be present in the material become the basis for the dating method. These are known as **Radiometric Dating Methods**.

What are radiometric dating methods?

- Two commonly employed methods for dating rocks are potassium-argon dating and uranium-thorium-lead dating.
- For example, the radioactive isotope of potassium decays into argon, and their ratios can give a clue about the age of rocks.
- There are also methods to determine how long an object has remained exposed to sunlight. These apply different techniques, but are again based on radioactive decays and are particularly useful in studying buried objects or changes in topology.
- The most common of these is called cosmogenic nuclide dating, or CRN, and is regularly applied to study the age of ice cores in polar regions.
- However, in the current case as the structure cannot be uprooted or disrupted, as per orders of the Supreme Court, so methods like looking for trapped organic material beneath it might not be feasible.

Semi-Cryogenic engine

News: ISRO has successfully begun testing of its semi-cryogenic engine that will power future launch vehicles.

What is a semi-cryogenic engine?

- Semi-cryogenic engines are a type of rocket engine that use a **combination of liquid and gaseous propellants**. They are called “semi-cryogenic” because they operate at temperatures higher than cryogenic engines but still colder than traditional liquid rocket engines.
- The Semi Cryogenic Propulsion System Project envisages the design and development of a **2000 kN semi-cryogenic engine** and ‘**SC120 stage**’ that will enable the development of a heavy-lift capability for future Indian space transportation systems.

Why is ISRO focusing on Semi-Cryogenic engine?

- The semi-cryogenic engine is an advancement in rocket technology over the cryogenic engine, which ISRO currently uses for the Geosynchronous Satellite Launch Vehicle (GSLV) which can carry up to 4 tonnes of payload into higher earth orbit.
- For increased payload, a cryogenic engine would not be enough and hence the development of semi-cryogenic engines is a key stage in India’s space programme.
- A semi-cryogenic engine uses **refined kerosene** instead of liquid hydrogen. It uses liquid oxygen as an oxidiser.
- Kerosene is **much lighter** than liquid fuel and can be stored at a **normal temperature**. The Kerosene combined with liquid oxygen **provides more thrust** to the rocket. Compressed Natural Gas (CNG) can also be used as fuel.
- It also occupies **less space** which makes it possible to have **more propellant** in the fuel compartment or tank.
- It is **environment-friendly, cost-effective** and **more powerful** compared to a cryogenic engine.

Mitochondrial Donation Treatment (MDT)

News: A groundbreaking IVF procedure has been successfully performed in the United Kingdom, resulting in the birth of the first baby with genetic material from three persons, with the help of Mitochondrial donation treatment (MDT).

What are Mitochondria?

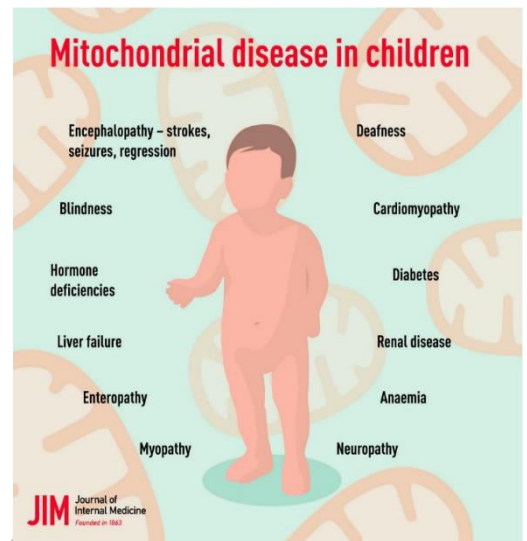
- They are the powerhouse of the cell and are responsible for producing energy. They have their own DNA, separate from the nuclear DNA that determines an individual's physical traits.

What is MDT?

- Mitochondrial donation treatment (MDT) is a medical procedure aimed at preventing inherited diseases caused by mutations in the mitochondrial DNA (mtDNA).
- The treatment involves replacing the faulty mitochondria in a woman's egg or embryo with healthy mitochondria from a donor.
- Inherited mutations in mtDNA can cause mitochondrial disease, which is incurable and can lead to severe health problems.

How does MDT work?

- MDT involves the use of in vitro fertilization (IVF) to create an embryo with genetic material from three people: the mother, the father, and the mitochondrial donor. The process can be done in two ways:
- Pronuclear transfer - It involves transferring the nucleus of the mother's fertilized egg or embryo into the cytoplasm of a donor egg or embryo with healthy mitochondria. The resulting embryo has nuclear DNA from the mother and father and healthy mtDNA from the donor.
- Maternal spindle transfer- It involves transferring the nucleus of the mother's egg into a donor egg with healthy mitochondria before fertilization. The resulting embryo has nuclear DNA from the mother and father and healthy mtDNA from the donor.



Is the procedure allowed in India?

- The MDT procedure is not allowed but the Indian Council of Medical Research (ICMR) has issued draft guidelines for MDT and is seeking public comments.
- It is legal in UK and US but under strict regulations.

What are ethical concerns surrounding the treatment?

- **Creation of genetically modified babies** is primary concern. The procedure involves altering the genetic material of an embryo, which raises ethical questions about the creation of designer babies and the potential for unintended consequences.
- MDT could lead to the **exploitation of vulnerable women** who donate their eggs. It is essential to ensure that MDT is regulated and used only for medical purposes.

Artificial Sweeteners

News: Recently, WHO released recommendations against the use of artificial sweeteners for weight control and prevention of lifestyle diseases.

What are artificial sweeteners?

- Artificial sweeteners are sugar substitutes that are used as alternatives to natural sugars. These sweeteners are **chemically synthesized** and provide a sweet taste without the high calorie content of regular sugar.
- They are commonly used in various food and beverage products, including diet sodas, sugar-free desserts, and low-calorie snacks.
- Examples - **saccharin, aspartame, acesulfame potassium (Ace-K), sucralose, neotame, and advantame.**
- Such sweeteners claim to offer benefits for weight management, diabetes control, tooth decay prevention etc

Key Findings:

- WHO advises against using artificial sweeteners as a means of achieving weight control or reducing the risk of non-communicable diseases. WHO said that in long term, eventually such sweeteners are responsible for weight gain.
- A potential link between artificial sweeteners and bladder cancer and preterm birth in pregnant women.
- Higher intake linked with increased risk of type-2 diabetes, cardiovascular disease etc.

What did the WHO recommend??

- Opt for higher intake of naturally occurring sugars from fruits.
- Diabetics are also advised to be cautious, as they are at a higher risk of cardiovascular diseases and cancer. Experts highlight the potential risk of **insulin resistance** and **type-2 diabetes** associated with artificial sweetener consumption.
- Avoid drinking of Diet colas as they use artificial sweeteners to achieve their zero-sugar claims!
- Avoid erythritol due to its potential health risks. (It's a type of carbohydrate called a sugar alcohol that people use as a sugar substitute)

Human Pangenome Map

News: Recently, a new study has been published in the Nature journal describing a Pangenome Reference Map, built using genomes from 47 anonymous individuals (19 men and 28 women), mainly from Africa but also from the Caribbean, Americas, East Asia, and Europe.

What is a Genome?

- The genome is the **blueprint of life**, a **collection of all the genes and regions between the genes** contained in our **23 pairs of chromosomes**.
- Our chromosomes are made up of DNA (Deoxyribonucleic Acid), which is a long string composed of four building blocks called nucleotides or bases (A, T, G, and C). These building blocks are arranged in different combinations and repeated millions of times to create 23 pairs of chromosomes.
- The genome provides valuable information about our genetic makeup and helps researchers explore various aspects of human biology and health.
- Genome sequencing is the method used to determine the precise order of the four letters and how they are arranged in chromosomes.
- Sequencing individual genomes helps us understand human diversity at the genetic level and how prone we are to certain diseases.
- To circumvent this, one can have a collective identity card, such as a single genome identity card for everyone living in a region.

What is a reference Genome?

- A reference genome or reference map is like a standard map that scientists use when they sequence and study new genomes.
- The first reference genome created in 2001 was a significant scientific achievement. It helped scientists discover disease-related genes, understand genetic aspects of diseases like cancer, and develop new diagnostic tests. However, it had limitations and wasn't perfect.
- Since then, the reference genome map has been refined and improved to have complete end-to-end sequences of all 23 human chromosomes. However, the finished reference genome map does not represent all of human diversity.
- This new study published in Nature changes this, describing the making of the pangenome map, the genetic diversity among the 47 individuals, and the computational methods developed to build the map and represent differences in those genomes.

What is a pangenome map?

- The pangenome is a graph of each chromosome, with nodes where sequences of all 47 individuals converge and internodes representing genetic variations.
- To create complete and contiguous chromosome maps, researchers used long-read DNA sequencing technologies, which produce strings of contiguous DNA strands of tens of thousands of nucleotides long. This helps assemble the sequences with minimum errors and read through repetitive regions of the chromosomes.

Why is pangenome map important?

- The human genome consists of 3.2 billion individual nucleotides, with a 0.4% difference between any two individuals.

- A complete and error-free pangenome map will help us understand these differences and explain human diversity better.
- It has added nearly 119 million new letters and aided the discovery of 150 new genes linked to autism.
- Future pangenome maps that include high quality genomes from Indians will shed light on disease prevalence, help discover new genes for rare diseases, design better diagnostic methods, and help discover novel drugs.

World Health Assembly

News: The 76th World Health Assembly (WHA) is being held in Geneva (Switzerland) with the theme: WHO at 75: Saving lives, driving health for all.

Background:

- The World Health Organization also released a report titled- "Health for All: Transforming economies to deliver what matters", recommending a roadmap to link health with sustainable growth.

About WHA:

- World Health assembly is the main decision-making body of WHO and comprises 194 Member States. Every year, delegates from all Member States come together (generally in May) to agree on the Organisation's priorities and policies.
- The assembly is held yearly at the HQ of WHO, i.e., Geneva, Switzerland.

Key Highlights:

- The Covid-19 pandemic was a preventable disaster resulting from a global failure to prioritize the well-being of humanity. Despite clear warnings, the importance of proactive measures to safeguard against pandemics was neglected causing significant crises worldwide.
- There remains a huge shortage of health workers globally and especially in low-income countries.
- It acknowledged the disastrous consequences Climate Change is already having on health. Climate change may cause 83 million excess deaths by the end of the century due to rising temperatures caused by Greenhouse Gas Emissions.
- Short-term austerity measures threaten health expenditure, undermining long-term benefits and stability in healthcare provision. Insufficient long-term investments lead to increased reliance on aid and Out-of-Pocket Payments, hindering Universal Health Coverage.
- At least 140 countries recognize health as a human right somewhere in their constitution but only four countries mention how to finance it. 52 of these countries do little in practicing health as a human right.

Key Recommendations:

- Treat health and wellbeing, health workers and health systems as a long-term investment, not a short-term cost.
- Use a range of metrics that track progress across core societal values, above and beyond the narrow, static measure of GDP.
- Redraw the international architecture of finance to fund health equitably and proactively, including an effective and inclusive crisis response.
- Ensure proper funding of WHO and governance.
- Design knowledge governance, including intellectual property regimes, for the common good to ensure global equitable access to vital health innovations.
- Recognize that Health for All is not just for health ministries but for all government agencies.
- Invest in the dynamic capabilities of the public sector, institutionalizing experimentation and learning, to lead effectively in delivering Health for All.

GSLV-F12 and NVS-01

News: Indian Space Research Organisation (ISRO) has launched its advanced navigation satellite GSLV-F12 and NVS-01 from Sriharikota.



About:

- NVS-01 is first of the India's second-generation NavIC satellites that accompany enhanced features.
- The NVS-01 carries navigation payloads **L1, L5 and S bands** and in comparison with the previous one, the second-generation satellite would also carry an **indigenously developed rubidium atomic clock**. It is for the first time that an indigenously developed rubidium atomic clock would be used in Monday's launch, ISRO said.
- According to the space agency, scientists earlier used imported rubidium atomic clocks to determine date and location. Now, the rubidium atomic clock developed by **Ahmedabad-based Space Applications Centre** will be on board. It is an important technology that only a handful of countries possess.
- ISRO developed the **Navigation with Indian Constellation (NavIC)** system to meet the **positioning, navigation and timing requirements** of the country, particularly with regard to **civil aviation and military requirements**. NavIC was earlier known as the Indian Regional Navigation Satellite System (IRNSS).
- The **L1 navigation band** is popular for providing position, navigation and timing services for civilian users and for interoperability with other GNSS (global navigation satellite system) signals.

Applications of NavIC:

- They include **terrestrial, aerial and maritime navigation, precision agriculture, location-based services** in mobile devices and marine fisheries, among many others.
- NavIC is designed with a **constellation of seven satellites** and a network of **ground stations** that operate 24x7. NavIC offers two services -- **Standard Position Service (SPS)** for civilian users and **Restricted Service** for strategic users.
- NavIC SPS signals are interoperable with the US global navigation satellite system signals, GPS, Glonass from Russia, Galileo (European Union) and BeiDou, China.

What is importance of having regional navigation system to India?

- Strategic independence as ISRO's NavIC will operate independently without relying on GPS of other nations.
- NavIC enables precise tracking and navigation for defence operations and military applications.
- It enables precise tracking of commercial vehicles, enhancing road safety and efficiency.
- It helps farmers in optimizing crop management, irrigation, and soil nutrient application.
- Real-time tracking of fishermen and it sends timely alerts in case of potential dangers at sea.
- It aids in scientific experiments, geological surveys, and geodetic network development.

- It will help in tracking and responding to natural disasters, such as cyclones and floods.

Key Features of NVS-01 to overcome earlier issues:

- The inclusion of the L1 frequency (besides L5 and S frequency) enhances compatibility with wearable devices and personal trackers. The inclusion of L1 frequency also increases interoperability with other satellite-based navigation systems.
- The second-generation satellites will also have a longer mission life of more than 12 years. The existing satellites have a mission life of 10 years.
- The heaviest in the constellation of NAVIC satellites (will be launched by a Geosynchronous Satellite Launch Vehicle (GSLV) rocket) - Previous satellites were much lighter and launched on PSLV. The higher weight allowance allows for more instruments and fuel to be loaded.

Advantages of NavIC:

- After it becomes fully operational, NavIC open signals are expected to provide **accuracy up to 5 meters**, surpassing GPS accuracy (20 meters).
- It provides prime example of ISRO's potential. It reduces our dependence on Foreign systems.
- India is the only country that has a regional satellite-based navigation system while there are four global satellite-based navigation systems — the American GPS, the Russian GLONASS, the European Galileo, and the Chinese Beidou.
- NavIC signals arrive in India at a 90-degree angle, making them easier to receive even in congested or obstructed areas (unlike GPS).

Supercomputing

News: According to the Ministry of Earth Sciences (MoES), India is set to dramatically scale up its super-computing prowess and install an 18-petaflop system over the course of this year.

What is Supercomputing?

- Supercomputing is measured in **floating-point operations per second (FLOPS)**. Petaflops are a measure of a computer's processing speed equal to a thousand trillion flops. And a 1-petaflop computer system can perform one quadrillion (10^{15}) flops. From a different perspective, supercomputers can be one million times more processing power than the fastest laptop.

Key Highlights:

- The most important details are that India's most powerful supercomputers, Pratyush and Mihir, with a combined capacity of 8 petaflops, are housed at the Indian Institute of Tropical Meteorology (IITM) and the National Centre for Medium Range Weather Forecasting (NCMRWF).
- These supercomputers were made operational in 2018 at an investment of 438 crore and will be housed at the IITM and NCMRWF.
- The Government of India has signed a deal with France to procure high-performance computers worth 4,500 crore by 2025.
- The new earth-sciences Ministry computers are likely to cost 900 crore and will improve resolution to 6*6 km, meaning four times as many pixels can be used to represent a given area.
- The fastest high-performance computing system in the world is currently the **Frontier-Cray system** at Oakridge National Laboratory, with a peak speed of 1 exa-flop.
- The top 10 other systems range from 400 petaflops to 60 petaflops.

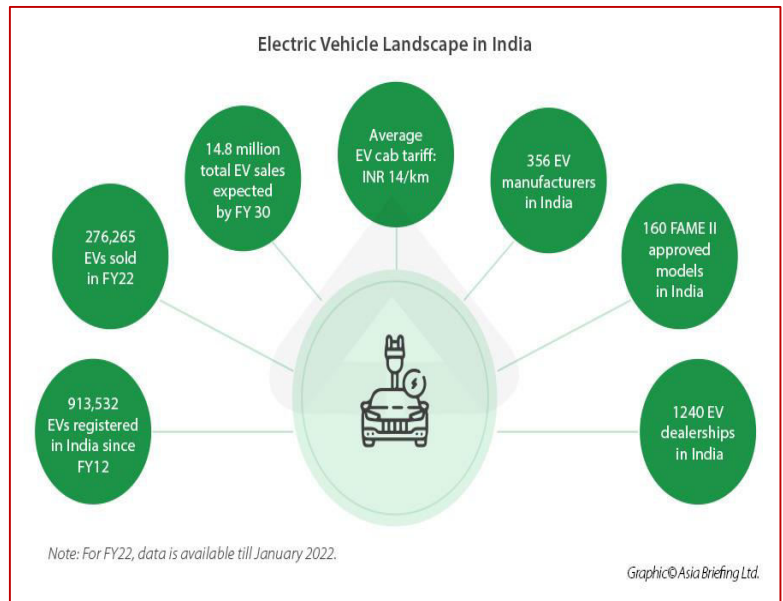
Multiplying Factor	Name (symbol)	Scientific Notation
1 000 000 000 000 000 000 000 000 000 000	quetta (Q)	10^{30}
1 000 000 000 000 000 000 000 000 000 000	ronna (R)	10^{27}
1 000 000 000 000 000 000 000 000 000	yotta (Y)	10^{24}
1 000 000 000 000 000 000 000 000	zetta (Z)	10^{21}
1 000 000 000 000 000 000 000 000	exa (E)	10^{18}
1 000 000 000 000 000 000 000 000	peta (P)	10^{15}
1 000 000 000 000 000 000 000	tera (T)	10^{12}
1 000 000 000 000 000 000	giga (G)	10^9
1 000 000 000 000 000	mega (M)	10^6
1 000 000 000 000	kilo (k)	10^3
100 000 000 000	hecto (h)	10^2
10 000 000 000	deca (da)	10^1
1		10^0

Electric cars pollute more than petrol, diesel and hybrid cars

News: World leaders have propagated that electric vehicles (EVs) are the cleanest and the future. However, a recent study conducted by the **Indian Institute of Technology (IIT) Kanpur** has revealed that this may not be entirely true.

Key Findings:

- The study reports that electric cars are not the most eco-friendly option when compared to hybrid electric vehicles and internal combustion vehicles.
- According to the study, it has been discovered that **electric cars produce 15-50 percent more Greenhouse Gases (GHGs) throughout their lifecycle**, including manufacturing, usage, and scrappage, when compared to hybrid and internal combustion vehicles.
- Furthermore, the study also reported that the cost of purchasing, insuring, and maintaining EVs is 15-60% higher when calculated per kilometer.
- The study concludes that **hybrid electric vehicles** are the most environmentally beneficial option.
- The study identifies one of the main reasons behind electric cars producing more GHGs as the current scenario in India, where **75 percent of electricity is generated from coal sources**, a major GHG producer. Electric cars rely on this source of energy for charging their batteries.



What does the study suggest?

- It suggests to reduce taxes on hybrid vehicles and put them on par with electric vehicles.

Why EV's are still important for India?

- EVs contribute to energy diversity by **reducing dependence on oil imports**.
- As the electricity grid can be powered by a **mix of energy sources**, including renewables like solar and wind, EVs offer the opportunity to shift transportation towards cleaner and more sustainable energy options.
- Electric vehicles have lower operating costs, as electricity is generally cheaper than gasoline or diesel. Moreover, EVs have fewer moving parts and require less maintenance, resulting in reduced servicing and repair expenses over time.
- Unlike fossil fuel engine vehicles, EVs produce **zero tailpipe emissions**. EVs help reduce carbon dioxide (CO2) and other pollutants that contribute to air pollution, smog, and global warming.
- Electric vehicles can help **decongesting cities** by promoting **shared mobility** and **compact design**.
- **Shared mobility** refers to the use of vehicles as a **service rather than as a personal asset**. This can reduce the number of vehicles on the road and the need for parking space.
- **Compact design** refers to the use of **smaller and lighter vehicles** that can fit more easily in urban spaces. This can also reduce congestion and emissions.
- Innovative and futuristic smart EVs for shorter intra-city distances, day- trips, and the like would not need a bigger battery. That means less time to recharge and lower cost.

Challenges:

- The **upfront cost** of purchasing an electric vehicle is relatively higher compared to conventional vehicles.
- In India, the **charging infrastructure** is still in the early stages of development and is concentrated in major cities.
- Although EV ranges have been improving, there is still a perception that **EVs may not offer sufficient range for long-distance travel**.

- The production of lithium-ion batteries, which are a key component of EVs, requires specific minerals and rare earth elements. India currently relies **heavily on imports for battery manufacturing**, leading to supply chain challenges.
- Fewer options available in EV segment as compared to conventional ones.
- Recharging batteries takes longer time compared to re-fueling petrol/diesel in vehicles.
- Question marks over the efficacy of battery life.

What are government initiatives for EV in India?

- The Faster Adoption and Manufacturing of Electric Vehicles (**FAME**)**scheme II**, which provides incentives for EV manufacturers and buyers.
- **Battery Swapping Policy** – This initiative for electric vehicles would unify the battery specifications used in EVs across India. The law will aid in the promotion of EVs in **time-sensitive service sectors** such as delivery and intercity transportation because exchanging a depleted battery for a fully charged one is a more feasible choice than on-the-spot recharging, which may take hours.
- **Reduction in custom duties** on Electric vehicles. For example, **Nickel ores** and **cobalt** form important alloys in battery manufacturing which are largely imported. The reduction in customs duties will assist local EV battery manufacturers in lowering production costs.
- **Special E-Mobility Zone** - The government intends to create electric car mobility zones. Only electric cars or equivalent vehicles will be authorised to operate in the administration-designated zones. Similar policies are standard in several European nations as well as China.
- The **Production Linked Incentive (PLI)** scheme, which provides incentives for the manufacturing of electric vehicles and components.
- **National Mission on Transformative Mobility and Storage** - The aim of the mission is to drive strategies for transformative mobility and Phased Manufacturing Programmes for electric vehicles, electric vehicle Components and Batteries.
- **Vehicle Scrappage Policy**
- India is among a handful of countries that support the **global EV30@30 campaign**, which aims for at least 30% new vehicle sales to be electric by 2030.
- The Ministry of Housing and Urban Affairs has also amended the **Model Building Bye-laws, 2016 (MBBL)** to mandate **setting aside 20% of the parking space for EV charging facilities in residential and commercial buildings**.
- **E-Amrit Portal** - e-AMRIT (**Accelerated e-Mobility Revolution for India's Transportation**) portal for creating awareness about electric mobility in India. The portal aims to serve as a '**one-stop site**' to provide all the information related to the adoption of electric vehicles in India. e-AMRIT is the result of a joint initiative between **NITI Aayog** and the **UK Government**.

Conclusion

- The Indian government has paved the way for initiatives for Electric Vehicles to promote sustainable transportation system through several measures. By 2030, all government cars must be electric. It also intends to phase out all commercial fleets and provide automobiles powered by fossil fuels in every city by 2030.

Food Fortification

News: According to a UN report, India's pilot studies on rice fortification showed a significant drop in the prevalence of anemia among schoolchildren.

What is Food Fortification?

- Fortification is the **addition of key vitamins** and **minerals** such as **iron, iodine, zinc, Vitamin A & D** to staple foods such as rice, milk and salt to improve their nutritional content. These nutrients may or may not have been originally present in the food before processing.

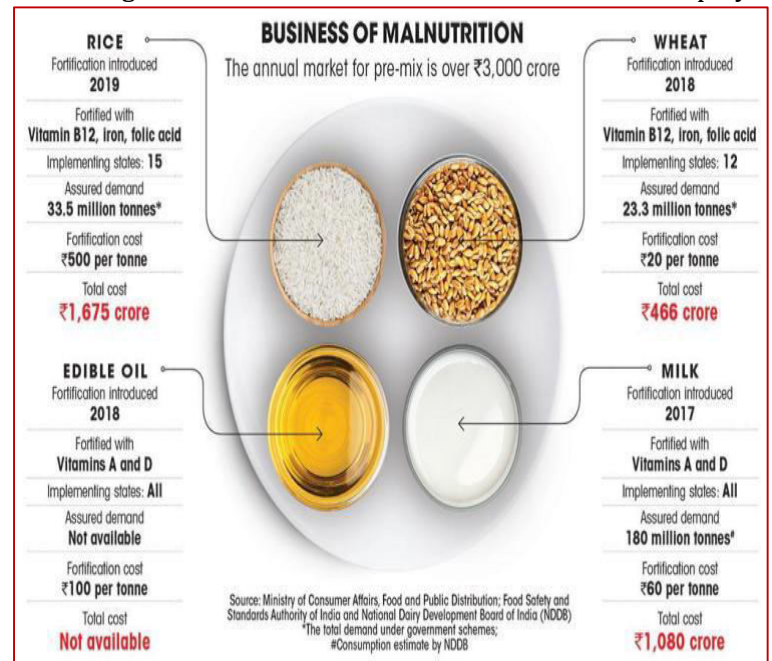
What is the need for Food Fortification in India?

- According to the **National Family Health Survey (NFHS-4)** - 58.4% of children (6-59 months) are anemic, 53.1% women in the reproductive age group are anemic and 35.7% of children under 5 are underweight.

- Fortification is necessary to address **deficiency of micronutrients**, also known as “**hidden hunger**”, a serious health risk.
- **Poverty issues** in India prevent poor people from having a nutritious diet and Food Fortification can play an important role here.

Advantages of Food Fortification:

- Food fortification has a **high benefit-to-cost ratio**. The Copenhagen Consensus estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy.
- Fortification does not require any changes in food habits and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people.
- It does not alter the characteristics of the food like the taste, aroma or the texture of the food.
- It can be implemented quickly as well as show results in improvement of health in a relatively short period of time.
- Since the nutrients are added to widely consumed staple foods, fortification is an excellent way to improve the health of a large section of the population, all at once.



Concerns with Food Fortification:

- The one-sided portrayal of fortification as a ‘cure-all’: Without any significant scientific perspective and evidence on fortification.
- Wrt anemia, haemoglobin synthesis doesn’t happen with just iron alone; many other elements are required in far larger quantities, especially good quality protein, vitamin B and C, folic acid, among others. Adding more iron will only succeed in increasing ferritin—an iron storage protein, but won’t lead to haemoglobin synthesis, or treatment of anaemia.
- It is perceived as a flawed approach to address menace of malnutrition in India. What India needs is a diversified dietary habits that includes proteins, enough calories intake etc.
- The researchers are worried that the push towards fortification is more to help the industry than the people and is an international market driven solution and without any scientific logic.
- The studies which FSSAI relies on to promote fortification are sponsored by private food companies.

Fortification in India:

- Currently government is promoting fortification in following 5 food items - Rice, salt, edible oil, milk and wheat.

Way Forward

- Instead of fortification, the **quality of diet** should be improved. Increasing the intake of foods from animal sources and fruits would be more helpful.

Dekha Kya...
Look for Fortified products with added micronutrients
+F ka Nishan, Fortified Khane ki Pehchan

+F khayein, Iron Shakti payein
For goodness of IRON
Switch to Double Fortified Salt Fortified Wheat Flour Fortified Rice (also with Folic acid & Vitamin B12)

www.fssc.fssai.gov.in | fortification@fssai.gov.in
fssai Food Fortification Resource Centre

Environment and Ecology

Eco-Sensitive Zones

News: Recently, The Supreme Court updated its previous judgment regarding Eco-Sensitive Zones (ESZ) around protected forests.

What are Eco-Sensitive Zones?

- The **National Wildlife Action Plan** (2002-2016) of the **MoEFCC** stipulated that **state governments** should declare land falling within 10 km of the boundaries of national parks and wildlife sanctuaries as eco-fragile zones or Eco-Sensitive Zones (ESZs) under the **Environmental (Protection) Act, 1986**.
- While the 10-km rule is implemented as a general principle, the extent of its application can vary.
- Areas beyond 10 km can also be notified by the Union government as ESZs, if they hold larger ecologically important "sensitive corridors".

Earlier Judgement

In June 2022, the SC ordered that ESZs of a minimum of one kilometer should be declared around protected forests, national parks, and wildlife sanctuaries across the country.

The court had said that ESZs would act as a "shock absorber" for the protected areas and prevent encroachment, illegal mining, construction, and other activities that could harm the environment and wildlife.

The court had also directed the Centre and the States to notify the ESZs within 6 months and file compliance reports.

Modified Judgement

After having heard the arguments of centre and state governments and analyzing the impact of its earlier order on development activities and livelihood of people, the court declared that The purpose of declaring ESZs is not to hamper the day-to-day activities of the citizens but to protect the environment and wildlife.

The court accepted that strict observation of June 2022 order would cause more harm than good.

The Centre and the States should notify ESZs as per their own proposals or as per recommendations of expert committees within 6 months.

However, the court said that mining within the national parks/wildlife sanctuaries and within an area of 1 km from their boundary shall not be permissible.

Who's tipping the scales

News: Recently, a report has been released by the International Panel of Experts on Sustainable Food Systems (IPES) titled "Who's tipping the scales". It highlights how corporate capture of global Food Governance is increasingly taking place in more visible ways and raising concerns over Bluewashing.

What is Bluewashing?

- Bluewashing is deceptive marketing used to make you believe a company is better and more ethical than it is. It is more or less like greenwashing but is focused more on social and economic responsibility rather than the environment.

Key Findings:

- The role of private corporations in food governance and decision-making has been normalized by public-private partnerships and multi-stakeholder roundtables while public governance initiatives have become heavily dependent on private funding.
- The UN Food Systems Summit, 2021 was described as a watershed moment in highlighting the importance of corporate influence in public health governance.
- Concerns have been raised that the increased involvement of corporations in food governance could lead to a weakening of the public good and impact the rights of people and communities.
- Corporations have influenced global food governance in visible and invisible ways. Other less visible ways in which corporate influence was seen in food systems governance was how the private sector enterprises

provided political and institutional donations, shaped trading & investment rules and research strategies, and other structural aspects of global food systems.

Challenges of increased corporate involvement in Global Food Governance:

- Prioritization of profitability over public goods, food security etc
- Unequal distribution of benefits from food system. For example, focus on large scale producers over small scale farmers.
- Excessive corporate involvement can retrieve everyday transactions data (digital wallets to automated food services), which they can combine with information harvested online to manipulate people's eating habits.
- May not be accountable to public, regulatory bodies.

Way Forward

- Create a robust conflict of interest and grievance policies and new mechanisms grounded in Human Rights, that allow people's organizations, social movements and other civil society actors to participate in food governance on their own terms.

Great Nicobar Island project

News: Recently, a group of 70 former civil servants on urged the National Commission for Scheduled Tribes to prevent the displacement of two Adivasi groups due to infrastructure project on the Great Nicobar Island.

What is the Great Nicobar island project?

- The Great Nicobar Island (GNI) Project is a mega project to be implemented at the southern end of the Andaman and Nicobar islands.
- It involves the construction of a Rs 35,000-crore trans-shipment port, an international airport, a power plant, a township and tourism infrastructure spread over more than 160 square kilometers of land.
- A report from NITI aayog mentions that the proposed port project will help India become a major player in cargo transshipment.
- The proposal for floated as early in 1970 and its importance for national security and consolidation of the Indian Ocean Region has been underlined several times.
- Increasing Chinese assertion in the Indian Ocean has added great urgency to this imperative in recent years.

Why is it being opposed?

- Due to its adverse impact on the rich biodiversity of the area and damage to the habitats of endangered species.
- The project area is part of **Coastal Regulation Zones-IA and IB**, and the Galathea bay which is a nesting ground for birds. Additionally, turtle nesting sites, dolphins and other species will be harmed by dredging.
- Concerns raised around loss of tree cover and mangroves on the island.
- According to some bureaucrats the project will harm the **Shompen**, a **particularly vulnerable tribal group** that could lose much of its traditional forest foraging grounds, and the **southern Great Nicobarese**, a Scheduled Tribe, who were already displaced after the 2004 tsunami.
- Also, recently, the NGT had also ordered closer look at some environmental issues raised.

The islands' sensitive ecology

The project may impact turtle and megapode nesting sites and affect coral reefs, experts warn

9,601

of animals (3,294 terrestrial and 6,307 marine) with 1,123 endemic species have been recorded till now from Andaman and Nicobar Islands by Zoological Survey of India

CORAL REEF

• Coral reef of A&N belongs to the IndoWest pacific fauna province as Andaman Islands is located in north-west of the central area of greatest marine biodiversity referred to as the **CORAL TRIANGLE**

At least 400 coral species may eventually be found in the islands as against the 283 species identified so far, according to MoEFCC

• All islands have high coral reef, mangrove, marine biodiversity
• Great Nicobar Island is home to several endemic species such as the Nicobar megapode as well as the Nicobar tree shrew

KEY NESTING SPOTS

Galathea and other beaches in Little Andaman Island are important nesting sites for leatherback turtles



HTC

Debt for Climate Swaps

News: This is a method of restructuring debt which has grown popular in low-middle income countries in the past decade.

About:

- It is a debt restructuring device between the creditor and a debtor by which the former forgoes a portion of the latter's foreign debt/provides its debt relief, in return for a commitment to invest in specific environmental mitigation and adaptation projects.
- For example, to decarbonise the economy, develop climate-resilient infrastructure, or protect biodiverse forests or reefs. The utilisation of these swaps now stretches to finance enormous climate mitigation and adaptation projects.

Need and advantages of such agreements:

- Low and middle income nations are most vulnerable to perils of climate change. For example, Caribbean Small island development states - The COVID-19 pandemic resulted in a 73% drop in international tourist arrivals in 2020. Such nations can stand to benefit from such agreements.
- While being most vulnerable to climate change they are least able to afford the investment to strengthen resilience due to their debt burden.
- Debt-for-climate swaps are attractive instruments due to their transparency.
- Debt-for-climate swaps support climate investment by committing a country to swing their spending from debt service to an agreed public investment.
- Developed countries can fulfill their commitments by supporting developing countries through these instruments.
- In 2017, Seychelles announced the successful conclusion of negotiations for a debt-for-adaptation swap under a tripartite model. The Nature Conservancy (TNC), a US-based environmental organisation, bought \$22 million of its debt in exchange for a promise to create 13 new marine protected areas.

Conclusion

- Swaps are mainly advantageous for small developing countries. However, the scaling up of the debt swap is still much lower than grants as creditors do not see their gain in this deal. Debt swaps can only be successful if the creditors are not rigid on returning the debt's whole value.

Carbon Border Adjustment Mechanism

News: The European Union (EU) is most likely to introduce a Carbon Border Adjustment Mechanism (CBAM) in October.

What is CBAM?

- Under CBAM, The EU from 2026 onwards shall impose **border taxes on imports of carbon-intensive goods** such as **steel, aluminum, cement, fertilizers and electricity** through the carbon border adjustment mechanism (CBAM).
- The aim is to help slash the EU's overall greenhouse gas emissions 55% below 1990 levels by 2030.
- It looks to 'incentivize' greener manufacturing around the world and to protect European industries from outside competitors who can manufacture products at a lower cost.
- The 27 EU member states have much stricter laws to control GHG emissions. It has an 'Emissions Trading System' that limits how much GHG individual industrial units can emit; those that fail to cap their emissions can buy 'allowances' from those who have made deeper cuts. This makes operating within the EU expensive for certain businesses.

Why does such mechanism worry India?

- Only in the past year, about a third of India's iron, steel and aluminium exports were shipped to EU members. Engineering products are the largest export growth driver in recent years. Thus, it will impact Indian exports to Europe.

- According to data from the commerce ministry, India's **third-largest trading partner**, the EU accounts for 11.1% of India's total global trade.
- The additional cost of CBAM certificates for goods imported by the EU may distort prices of the goods in downstream industries, affecting the competitiveness of sectors like automobiles, electrical goods, machinery and equipment.
- The tax would create challenges for companies with a large greenhouse gas footprint.
- The tax is seen as a protectionist measure.
- The EU is essentially bypassing the principle of '**Common But Differentiated Responsibilities**' and **Respective capabilities** (CBDR - RC) that should guide international climate action.

Petersberg Dialogue on Climate Change

News: Recently, The Petersberg Dialogue on Climate Change was hosted in Berlin, Germany by **Germany** and the **United Arab Emirates**.

About:

- Started by former German Chancellor Angela Merkel in 2010, it is an annual high-level political and international forum held before the United Nations Climate Change Conferences (COP).
- It works to prepare for successful negotiations at COP climate change conferences and the main goal is to strengthen trust in multilateral climate negotiations and between states.

Important takeaways from the recently concluded dialogue:

- Break our fossil fuel addiction and drive decarbonization in every sector.
- German Foreign Minister stressed the need to make sharp cuts in greenhouse gas emissions to limit global warming to 1.5°C.
- The developed countries are "on a good track" to deliver the USD 100 billion per year they had promised to mobilize by 2020 during COP15 in 2009. However, a recent estimate pegs climate finance needs at 1 trillion USD annually by 2030 for emerging markets alone, highlighting the urgent need for financial reparations.
- The need for an urgent global financial systems transformation was underlined so that crucial climate finance can be unlocked for the most climate vulnerable countries in the world.
- 2023 is the year for the Global Stocktake, which aims to assess whether current efforts will enable us to reach the objectives set out in the Paris Agreement.

Global Temperatures to Surge

News: According to the World Meteorological Organization (WMO) report, global temperatures are likely to surge to record levels in the next five years.

Key Findings:

- There is 66% chance that the annual average near-surface global temperature between 2023 and 2027, will be more than 1.5°C above pre-industrial levels for at least one year.
- Emissions from human activities and a likely El Niño weather pattern later this year will lead to such record level temperatures.
- Scientists use average temperature data from the period between **1850-1900** as a measure of how hot the world was before our modern reliance on coal, oil and gas.
- For years the scientists believed that if the world warmed by around 2 °C that would be the threshold of dangerous impacts. However, in 2018 they revised the estimate, showing that **going past 1.5 °C would be calamitous for the world**.
- Arctic warming is disproportionately high. Compared to the 1991-2020 average, the temperature anomaly is predicted to be more than three times as large as the global expected anomaly when considering the next five northern hemisphere extended winters.

- Predicted rain patterns for the May to September 2023-2027 average, compared to the 1991-2020 average, suggest increased rainfall in the Sahel, northern Europe, Alaska and northern Siberia, and reduced rainfall for this season over the Amazon and parts of Australia.

How will El-Nino change things?

- For the last three years, the world has been experiencing a La Niña event which has dampened climate warming to some extent.
- But the extra heat that El Niño will bring to the surface of the Pacific this year will likely push the global temperature to a new high next year. Owing to this there are 98% chances that record temperature set in 2016 (which was an El-Nino year) will be breached.
- Usually, El Niño increases global temperatures in the year after it develops, in this case, that means 2024.

Localization of SDG's

News: Recently, Bhopal(MP) became the first city in India to join the growing global movement on localization of Sustainable Development Goals (SDGs) following the release of its Voluntary Local Review (VLR).

Background:

- VLRs is a means for **driving** and **reporting local implementation of SDGs** at the sub-national and city levels.
- It is a **bottom-up** and **participatory approach** that involves multiple stakeholders, such as civil society, the private sector, academia and citizens.

What are SDGs?

- The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015.
- A **universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.**
- It is a set of **17 SDGs** which recognize that **action in one area will affect outcomes in others** and that development must balance social, economic, and environmental sustainability.
- The United Nations adopted the 2030 Agenda for Sustainable Development - It consists of 17 Goals and 169 targets as a plan of action for 'people', 'the planet', and 'prosperity'.
- Member-states submit a **Voluntary National Review (VNR)** to the UN's High Level Political Forum (HLPF)



What is India's progress on SDG's?

- India's **Ministry of Statistics and Program Implementation (MoSPI)** has published a **National Indicator Framework (NIF)** for the review and monitoring of the SDGs.
- According to a NITI Aayog report at least **23 States** and **Union Territories** have prepared a **vision document** based on SDGs.

What is the Bhopal plan?

- Bhopal's VLR - It is a joint collaboration between the Bhopal Municipal Corporation, UN-Habitat, and 23 local stakeholders.
- It has mapped 56 developmental projects to the SDGs across the three pillars, of 'people' (SDGs 1,3,4,5), 'planet' (SDGs 6,13,15) and 'prosperity' (SDGs 7,8,11).
- The objectives of building basic infrastructure and resilience emerge as a priority for the city from the number of projects mapped to the SDGs.

- Quantitative assessment of city-level indicators (SDG 11 Sustainable cities and communities) - It records Bhopal's stellar performance in solid waste management practices, public transportation, and open spaces per capita.
- The analysis points to areas where the city needs to work much harder in the coming years to close the distance from the goals provisioning of adequate shelter, high levels of air pollution, city planning capacity and even distribution and accessibility of open spaces.

Significance of Localizing SDG's

- It allows developing local solutions and facilitates peer learning.
- Government's at different levels shoulder different responsibilities. It promotes healthy competition at sub-national level.
- Goals and targets are interpreted within the local context.
- With nearly 65% of the Indian population living in rural areas, the role of rural local bodies has become important component of local self-governance. This is where localization of SDG plays its part.

Way Forward

- Localizing SDG's provides an opportunity for Indian cities to tell their stories in their own language and own people, using a framework of their choice to forefront their work at a global platform.
- VLR in true sense depicts the people's process.

Ganga Praharis initiative

News: Ganga Praharis are around 4000 volunteers who are part of the task force called "**Guardians of the Ganga.**"

About:

- Ganga Praharis are motivated and trained volunteers from among the local communities working for biodiversity conservation and cleanliness of the Ganga River with the ultimate objectives of restoring the Nirmal and Aviral Dhara.
- These volunteers have been constituted by the National Mission for Clean Ganga and the Wildlife Institute of India (NMCG-WII) under the Namami Gange programme.
- The purpose of the initiative is to establish a motivated cadre of "Ganga Prahari" to support the local level institutions, monitor the river, reporting instances of poaching.

Who is eligible to become a Ganga Prahari?

- Ganga Praharis have been identified through a series of site level consultative meetings and workshops held in villages located on the bank of the Ganga River and its select tributaries.
- The primary criterion for identification is their passion and zeal to serve the river and to maintain its integrity in terms of cleanliness and biodiversity value.
- These 'Praharis' have to be above 18 years of age on the date of joining the project and preferably from the riverside villages. Children below 18 years of age are enrolled under the Bal Ganga Praharis programme.

Disaster management and Security

Forest Fires in Uttarakhand

News: The Chir Pine Belt in Uttarakhand is prone to numerous Forest Fires.

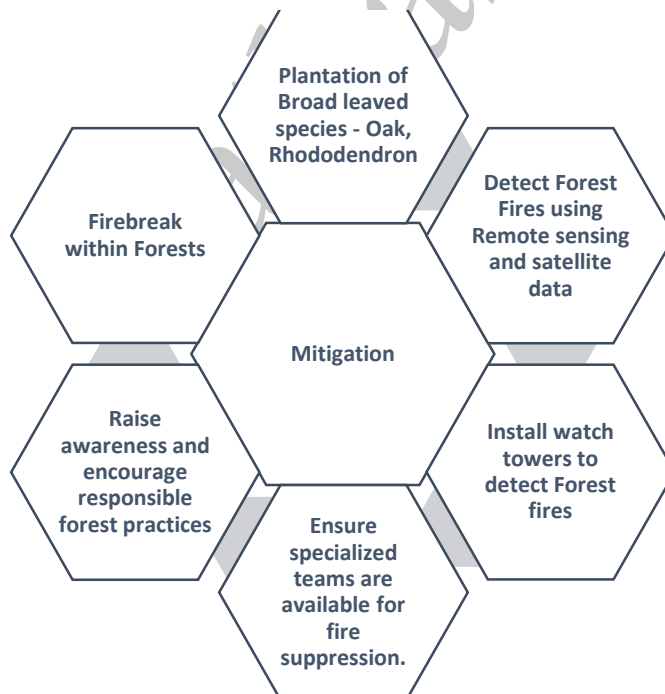
Background:

- Uttarakhand accounts for 1.6 per cent of India's total geographical area. But in terms of forest cover, the state accounts for 45 per cent, in contrast to national forest cover of just 21.67 per cent.
- The floral composition of the state — located in the sub-tropical latitudinal range — is majorly narrow-leaved species like **Pinus, Picea and Abies**.
- These species are rich in **organic polymers**, making them vulnerable to forest fires. When exposed to **low temperatures** and **humidity**, these organic residues (**plant-based litter**) can trigger fire outbreaks.

What factors contribute to Forest Fires in Chir Pine Belt?

- High Forest density as discussed above and Chir pine dominates the forest composition in the region. Pine trees are rich in organic polymers, making them vulnerable to forest fires.
- Pine needles and other plant-based litter create fuel for fires. Dry biomass increases the risk of fire outbreaks.
- Uttarakhand experiences low rainfall and high temperatures. The ample availability of dry biomass during the summer season increases fire risks. Also, Strong winds contribute to the rapid spread of fires across the forests.
- Timber smugglers also threaten the forest ecosystem by creating artificial fires to divert the attention of officials. Forest fire also induces the outward movement of wild animals, creating an opportunity for hunters and smugglers.
- Developmental activities such as improved road network in Uttarakhand has advanced and as the accessibility to forests has eased it has led to more human-induced fire hazards.

Steps to mitigate Forest Fires (in context of Uttarakhand):



Firebreak - A firebreak is a strip of bare land or vegetation established or created to retard fire. Firebreaks may be temporary or permanent and consist of fire-resistant vegetation, nonflammable materials, or bare ground.

General Studies - 4

Ethics, Integrity and Aptitude

Probity in Governance

What is Probity in Governance?

- Probity (**Satyanishtha** in Hindi) literally means a **complete** and **confirmed integrity**; having strong moral principles.
- Probity in Governance is defined as adherence to ethical and moral values like honesty, Integrity, rectitude, uprightness etc.

What purposes does Probity in Governance seeks to fulfil?

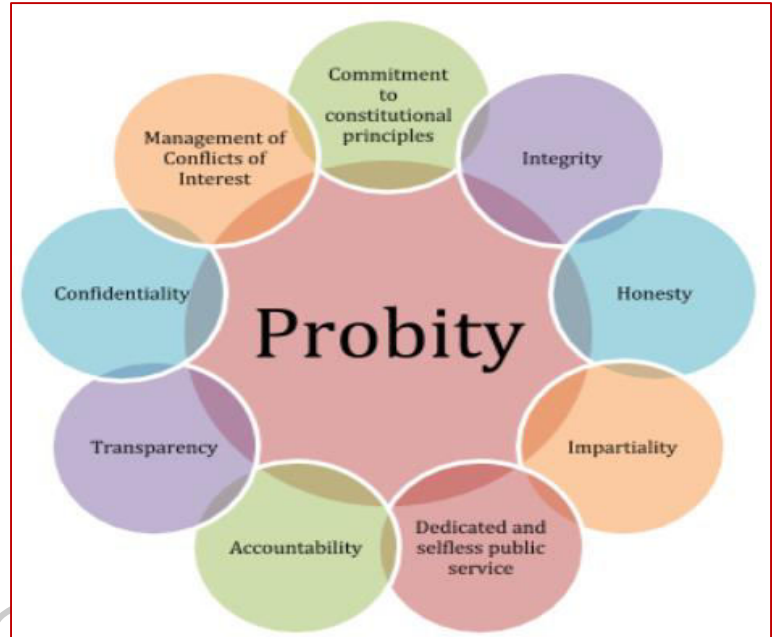
- It **preserves public confidence** in Government processes
- It maintains **integrity** in public services
- It ensures **accountability** in governance. It ensures **compliance** with processes
- It seeks to avoid the potential for misconduct, fraud and corruption

What are the measures to ensure Probity in Governance?

- A **dedicated unit** to oversee implementation of Code of conduct and code of ethics by government officials to be set up at both state and national level.
- Information must be made **accessible** to common man through websites or other mediums.
- An **independent anti-corruption agency**.
- **Mandatory social audit** for all government programs. For example, Meghalaya has passed a law for social audit of government programs.
- **Citizen advisory boards** to implement ideas of common public in improving governance.
- Mandatory **declaration of assets and liabilities** of government employees.
- **Grievance redressal mechanisms**
- **Institutional reforms** – Allow citizens to be part of public hearings, government contract committees, public watchdog groups, independent anti-corruption agencies.
- Last but most important, **Moral education** is must to ensure probity in governance. It is important to provide ethical training, teach moral values wherever possible.

Conclusion

- In addition to laws and policies, the government should also focus on brining behavioral change in government employees so that they can easily empathize with the problem of common mass so as to fulfil the democratic goal of “government by the people, for the people and to the people”.



Facts for Prelims

UNPFII

News: India's representative at the United Nations Permanent Forum on Indigenous Issues (UNPFII) faced criticism from Adivasi rights activists for stating that the concept of 'indigenous people' was not applicable in the Indian context.

About UNPFII:

- The UNPFII is the UN's central coordinating body for matters relating to the concerns and rights of the world's indigenous peoples.
- It deals with indigenous issues related to economic and social development, culture, the environment, education, health and human rights.
- Its primary function is to promote the integration and coordination of activities relating to Indigenous Peoples' issues within the UN system, and promote respect for and full application of the provisions of the UN Declaration on the Rights of Indigenous Peoples and follow up on its effectiveness.
- HQ - New York

What is UN Declaration on the Rights of Indigenous people?

- It recognizes the rights of Indigenous people, including their right to self-determination, and the government's position goes against this international declaration. (India has ratified it)
- Yearly on **9 August**, the International Day of the World's Indigenous Peoples is marked.

Gum Arabic

News: Trade and access to a crucial ingredient in fizzy drinks brought to a standstill as the conflict escalates in Sudan.

Background:

- Gum arabic is mostly grown in Sudan, with up to 70 per cent of the world's supply transported through small towns to the capital Khartoum, the scene of mass violence.
- For companies like Pepsi and Coke, they can't exist without having gum arabic in their formulations.

What is Gum Arabic?

- It is a natural gum derived from the hardened sap of two species of the **Acacia tree** - Senegalia Senegal and Vachellia seyal.
- The gum is harvested commercially from wild trees, mostly in **Sudan** and throughout the **Sahel region**.
- It is soluble in water, edible and used primarily in the **food industry** and **soft-drink** industry as a stabiliser.
- It is also used in printing, paints, glues, cosmetics, and viscosity control in inks and textile industries.



Common Reporting Standard

News: India is pushing to widen the scope of the Common Reporting Standard (CRS) at the G20 grouping to include Non-Financial Assets like real estate properties under the Automatic Exchange of Information (AEOI) among OECD (Organisation for Economic Cooperation and Development) countries.

What is Common Reporting Standard?

- The CRS was developed in response to the G20 request and approved by the OECD Council on 15th July 2014.
- It calls on jurisdictions to obtain information from their financial institutions and automatically exchange that information with other jurisdictions on an annual basis.
- It sets out the financial account information to be exchanged, the financial institutions required to report, the different types of accounts and taxpayers covered, as well as common due diligence procedures to be followed by financial institutions.
- Presently, the **OECD's** Automatic Exchange of Information (AEOI) framework provides for sharing of financial account details among signatory countries with an aim **to check tax evasion**.
- In August 2022, the OECD also approved the Crypto-Asset Reporting Framework (CARF)

which provides for the reporting of tax information on transactions in Crypto-Assets in a standardized manner, with a view to automatically exchanging such information.

Sustainable Aviation Fuel

News: Recently, the Indian Institute of Petroleum (IIP), a laboratory of the CSIR, has tied up with Boeing, Indigo, Spicejet and the three Tata Airlines to support the production of Sustainable Aviation Fuel (SAF).

About:

- SAF, also referred to as **bio-jet fuel**, is created using domestically developed methods using cooking oil and oil-rich seeds from plants.
- The CSIR-IIP has created fuel using different materials, such as non-edible and edible oils, as well as used cooking oil. They used various sources, including palm stearin, sapium oil, palm fatty acid distillates, algae oil, karanja, and jatropa.

Benefits of SAF:

- Reduced GHG emissions, better air quality, energy security, more jobs in renewable sector.
- Aviation ministry can meet its environment targets.

Article 142

An unfettered power

In calling for a joint trial of separate cases in the Babri Masjid issue, the Supreme Court used its extraordinary powers under Art. 142

Article 142: The Supreme Court may pass such decree or order as is necessary for doing complete justice in any cause or matter pending before it

- The recent highway liquor ban was imposed by the Supreme Court under Article 142

- In 2011, a bench of Justice A.K. Ganguly and Justice Deepak Verma had said on Article 142: "...no fetter is imposed on the court's jurisdiction except of course any express provision of the

law to the contrary"

Two sets: There were two sets of cases relating to the demolition of the disputed structure on December 6, 1992

- The first involved unnamed 'karsevaks', whose trial is taking place in a Lucknow court

- The second set of cases in a Rae Bareilly court relates to the VVIPs accused of "inflammatory speeches", in which the CBI is pressing for restoration of "conspiracy" charge against the accused



News: The Supreme Court of India has ruled that it can directly grant divorce to couples under Article 142 (1)

of the Constitution, which allows it to do "**complete justice**" in any cause or matter.

Background:

- The decision enables couples to bypass the time-consuming process of obtaining a decree of divorce through family courts, which have a large number of similar cases pending.

About Article 142:

- It provides **discretionary power** to the Supreme Court as it states that the SC in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing **complete justice** in any cause or matter pending before it.
- It has been invoked to protect the rights of different sections of the population and serves as a check on the government, acting as a system of checks and balances with the legislature. It provides complete justice to various deprived sections of society or protects the environment.

ASEAN-India maritime exercise

News: India recently sent two frontline warships to take part in the first-ever ASEAN-India maritime exercise (AIME-2023).

About:

- It is the first time India has been involved in exercises with the ASEAN though there have been exercises with ASEAN nations separately.
- Aim - To Enhance interoperability and exchange of best practices among participating navies.
- With AIME-2023, India becomes the 4th ASEAN dialogue partner, after Russia, China and the US, to hold the ASEAN+1 maritime exercise.
- The maiden exercise will be conducted off the **coast of Singapore** and will feature harbour and at-sea events off the coast of Singapore.
- Two major Indian Navy warships-- the **INS Delhi** and **INS Satpura**, a Shivalik-class, are part of the exercise.

Channapatna toys

News: Recently, Toy manufacturers in Channapatna, Karnataka, applauded the Government's decision to prohibit the import of toys from China.



About:

- They are form of **wooden toys and dolls** that are manufactured in the town of Channapatna in the Ramanagara district of **Karnataka**.
- Channapatna is also known as Gombegala Ooru (toy-town).
- They received the geographical indication (**GI tag in 2005**).
- Most of the toys are handmade, painted in organic colors (100% chemical free) and their shapes are mostly round and cubes with blunt edges, so they are completely safe for kids.

World Press Freedom Index

News: India's ranking in the recently released 2023 World Press Freedom Index has slipped to **161 out of 180 countries**.

About:

- It is an annual report published by the global media watchdog **Reporters Without Borders (RSF)**.
- Press freedom in India has gone from "problematic" to "very bad", with the country slipping 11 ranks since the 2022 report.

About RSF:

- It is an international NGO whose self-proclaimed aim is to defend and promote media freedom.
- HQ - Paris, France.
- It has consultative status with the United Nations.

Internal Complaints Committee

News: Government's MC Mary Kom-headed panel that looked into allegations of sexual harassment by some of the nation's top wrestlers against WFI Chief flagged the issue that there was no Internal Complaints

Committee (ICC), as mandated by law under the **2013 Prevention of Sexual Harassment (PoSH) Act**.

What is ICC?

- The ICC was designed to be the **first port of call** for any grievance under the PoSH Act, a key element needed to **create a safe workplace environment for women**.
- As per the law, it needs to have a **minimum of four members** – at least half of them women – of whom one shall be an external member, preferably from an NGO or an association that works for women's empowerment or a person familiar with issues related to sexual harassment, like a lawyer.
- In fact, a functional ICC is one of the key conditions set up by the Ministry of Sports to grant annual recognition to the federations.
- It was found that as many as 16 of the 30 national sports federations do not meet this mandatory compliance.

Nuerotoxins

News: Recently, 11 people died due to a gas leak in the Giaspura area of Ludhiana, Punjab. According to the air quality sensors used by NDRF, high levels of Hydrogen Sulphide gas, a kind of neurotoxin, have been detected.

What are neurotoxin?

- Neurotoxins are poisonous substances which can directly affect the nervous system. Neurotoxicity occurs when exposure to natural or man-made toxic substances alters the normal activity of the nervous system.
- These substances can eventually disrupt or even kill neurons or nerve cells, which are important for transmitting and processing signals in the brain and other parts of the nervous system.

What are neurotoxic gases?

- Methane, hydrogen sulphide, carbon monoxide and carbon dioxide are common neurotoxic gases.
- To remove gases such as hydrogen sulphide from wastewater, **chemical oxidation** is done, where oxidants such as **hydrogen peroxide** are added to the wastewater.

Innovative Finance Facility for Climate

News: The **Asian Development Bank (ADB)** recently announced the Innovative Finance Facility for Climate in Asia and the Pacific (IF-CAP) program to accelerate climate change financing in the region.

About:

- Launched by Asian Development Bank, it is the first-of-its-kind multi-donor financing partnership facility with the goal of scaling-up finance for accelerated action against climate change in Asia and the Pacific.
- Denmark, Japan, the Republic of Korea, Sweden, the United Kingdom, and the United States are its initial partners.

Benefits of IF-CAP:

- For every \$1 of guarantees, ADB will be able to accelerate up to \$5 in much needed climate finance.
- IF-CAP financing will help vulnerable countries in Asia and the Pacific meet their mitigation and adaptation goals.
- IF-CAP will support ADB's raised ambition for \$100 billion in climate finance from 2019-2030.

Which countries are eligible for IF-CAP financing?

- All ADB's developing member countries (DMCs) are eligible. Individual financing partners may exercise discretion for certain projects based on their policies and priorities.

International Leopard Day 2023

News: A new portal dedicated to leopards (*Panthera pardus*) was launched by the Cape Leopard Trust (CLT) on International Leopard Day (**May 3, 2023**) to promote and celebrate leopards worldwide.

Background:

- The launch of the website internationalleopardday.org follows the Global Leopard Conference held in March.

About:

- The leopard is the **smallest** of the Big Cats (Of genus *Panthera* namely the Tiger, Lion, Jaguar, Leopard, and Snow Leopard)
- It is a nocturnal animal and Melanism is a common occurrence in leopards, wherein the entire skin of the animal is black in colour, including its spots. A melanistic leopard is often called black panther or jaguar.
- Habitat – Sub-Saharan Africa, Central Asia, Indian sub-continent, South-east Asia.



- Population in India – Close to 13,000 with highest numbers seen in MP>Karnataka>Maharashtra (Status of Leopards in India, 2018)
- IUCN status – **Vulnerable**
- Indian Wildlife (Protection) Act, 1972 - Schedule-I.
- CITES – Appendix I

Krishi mapper

News: Recently, the Union Agriculture Minister of India launched Krishi Mapper app.

About:

- It is an integrated mobile application developed by the Indian government for the agriculture sector.
- It provides geospatial data and other relevant information to farmers, policymakers, researchers, and other stakeholders in the agriculture sector.
- It will help the users to access information on soil health, weather, crop health, crop suitability, land use, and other relevant data for informed decision-making.
- It is aimed at enhancing the productivity and profitability of Indian agriculture, promoting sustainable agricultural practices, and ensuring food security for the nation.

Business Ready Project

News: The **World Bank Group** has recently launched a new project called Business Ready, which aims to assess the business and investment climate in economies worldwide.

Background:

- It replaces the Doing Business project, which had been the World Bank Group's flagship program for assessing the ease of doing business for over two decades.

About:

- The objective of the Business Ready project is to make each country's economic environment ready for a dynamic private sector.
- It will be done by assessing and ranking the ease of doing business in each economy, identifying areas of improvement, and providing recommendations to policymakers and stakeholders.

Trivia - Indian-origin **Ajay Banga** has been selected as the **new World Bank President**. He will serve in this position for five years starting from June 2, succeeding David Malpass. The World Bank aims to tackle climate change more effectively under Banga's leadership.

Washington Declaration

News: The **President of South Korea and the US President** recently signed the Washington Declaration on the anniversary of 70 years of their bilateral relationship.

About:

- It was signed between the US and South Korea on the occasion of the 70th anniversary of U.S.-South Korea bilateral relations.
- The declaration outlines the cooperation towards **nuclear deterrence**.
- Its main purpose is to protect the Korean Peninsula from a nuclear attack.

National Programme for Prevention & Control of Non-Communicable Diseases(NP-NCD)

News: The Ministry of Health and Family Welfare has decided to rename the programme for non-communicable diseases.

About:

- National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) has now been renamed as the National Programme for Prevention & Control of Non-Communicable Diseases(NP-NCD) as there has been an addition of diseases to the programme.

- The programme focuses on strengthening infrastructure, human resource development, health promotion & awareness generation, screening, early diagnosis, management and referral to an appropriate level of healthcare facility for treatment of the Non-Communicable Diseases (NCDs), including Cancer.
- Under the programme, NCD Cells are being established at National, State and District levels for programme management, and NCD Clinics are being set up at District and CHC levels, to provide services for early diagnosis, treatment and follow-up for common NCDs. Provision has been made under the programme to provide free diagnostic facilities and drugs for patients attending the NCD clinics.
- The four major NCDs are cardiovascular diseases (CVDs), cancers, chronic respiratory diseases (CRDs) and diabetes.

Clearing Corporations

News: The European Securities and Markets Authority (ESMA), the European Union's financial markets regulator and supervisor, has derecognised six Indian central counterparties (CCPs) from April 30, 2023.

About:

- It is an organization associated with an exchange to handle the confirmation, settlement, and delivery of transactions in a prompt and efficient manner.
- Example - Clearing Corporation of India (CCIL), Indian Clearing Corporation Ltd (ICCL), NSE Clearing Ltd (NSCCL)

Why Indian CC derecognized?

- The decision to derecognize Indian CCPs came due to 'no cooperation arrangements' between ESMA and Indian regulators – the Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI) and the International Financial Services Centres Authority (IFSCA).
- As per the European Market Infrastructure Regulations (EMIR), a CCP in a third country can provide clearing services to European banks only if it is recognised by ESMA. With the withdrawal of recognition, these CCPs will no longer be able to provide services to clearing members and trading venues established in the EU.

Article 355

News: The Central Government recently promulgated Article 355 in Manipur to take charge of the security of the state.

Article 355

Duty of the Union to protect States against external aggression and Internal disturbance.

It shall be the duty of the Union to protect every State against external aggression and internal disturbance and to ensure that the Government of every State is carried on in accordance with the provisions of this Constitution.

About:

- It is a part of emergency provisions contained in Part 18 of the Constitution of India, from Article 352 to 360.
- It empowers the central government to take all necessary steps to protect a state against **internal disturbances** and **external aggression**.
- The provision is designed to ensure that the government can act swiftly and decisively in the event of any disturbance or threat to the peace and security of the country.

Financial Stability and Development Council

News: Finance Minister recently chaired the 27th meeting of the Financial Stability and Development Council (FSDC).

About:

- It is an apex-level forum constituted by the Government of India in December 2010.
- FSDC is not a statutory body. No funds are separately allocated to the council for undertaking its activities.
- Its main objective is to strengthen and institutionalize the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development.
- A sub-committee of FSDC has also been set up under the chairmanship of Governor RBI. It

discusses and decides on a range of issues relating to financial sector development and stability, including substantive issues relating to inter-regulatory coordination.

Key Functions – Monitoring macro-economic activities in economy, financial literacy and inclusion and addresses inter-regulatory coordination and financial sector development issues.

Composition:

- It is chaired by the **Union Finance Minister of India**.
- Its members include the heads of financial sector Regulators (RBI, SEBI, PFRDA, IRDA & FMC) Finance Secretary and/or Secretary, Department of Economic Affairs, Secretary, Department of Financial Services, and Chief Economic Adviser.
- The Council can invite experts to its meeting if required.

Gopal Krishna Gokhale

News: Recently PM Modi paid homage to Gopal Krishna Gokhale on his birth anniversary.

About:

- Gopal Krishna Gokhale was an Indian 'moderate' political leader who protested against the British administration in India for the freedom of our country.
- He founded the **Servants of India Society in 1905** to help Indians gain access to education, especially the poor and the oppressed. He also organized mobile libraries, night schools, and vocational training for the masses.
- He was a senior leader of the **Indian National Congress** and advocated for moderate and constitutional methods of agitation and reform.
- He was a member of the **Imperial Legislative Council** and raised many issues concerning the welfare of Indians, such as **education, sanitation, taxation, and civil rights**. He also opposed the partition of Bengal in 1905 and supported the Swadeshi movement
- He was a champion of social reform and opposed the ill-treatment of untouchables, women, and minorities. He supported the **Age of Consent Bill in 1891**, which sought to raise the minimum age of marriage for girls from 10 to 12 years. He also campaigned for the **abolition of child marriage, widow remarriage, and female education**.

- He also took up the cause of Indians living abroad during his visit to South Africa.
- He played a key role in bringing about the Morley-Minto Reforms, the beginning of constitutional reforms in India.
- He established the **Ranade Institute of economics** in 1908 and started an English weekly newspaper- **The Hitavada**.

World Thalassaemia Day

News: The Ministry of Health and Family Welfare (MoH&FW) launched the III phase of the Thalassaemia Bal Sewa Yojana (TBSY) to commemorate **World Thalassaemia Day (May 8)**.

About:

- Thalassaemia is an inherited (passed from parents to children through genes) blood disorder caused when the body doesn't make enough of a protein called haemoglobin, an important part of RBCs.
- Thalassaemia is a treatable disorder that can be well-managed with blood transfusions and chelation therapy.

Support in India:

- Thalassaemia was recognized as a benchmark disability under The Rights of Persons with Disabilities Act 2016.
- **Coal India Limited**, under the auspices of the MoH&FW, is implementing TBSY (since 2017) as part of its CSR initiative to support the treatment of children affected by Thalassaemia and Aplastic Anaemia.

Harit Sagar

News: Union Minister of Ports, Shipping & Waterways has launched 'Harit Sagar' the Green Port Guidelines.

About:

- Harit Sagar are guidelines released with the aim to achieve **Green Ports**.
- It seeks to achieve **Zero Carbon Emission Goal** and promote environmental-friendly practices across all ports.
- The guidelines lays emphasis on use of Clean / Green energy in Port operation, developing Port capabilities for storage, handling and bunkering of Greener Fuels viz. Green Hydrogen, Green Ammonia, Green Methanol / Ethanol etc.

- It provides a framework for major ports to draw a comprehensive action plan for achieving a quantified reduction in carbon emission over defined timelines.
- It aims to achieve Sustainable Developmental Goals (SDG) and minimising waste through reducing, reusing, repurposing, and Recycling to attain zero waste discharge from port operations.
- It also includes provisions for adopting the **International Green Reporting Initiative (GRI)** standard and covers parts of the **National Green Hydrogen Mission** related to ports, the creation of green hydrogen facilities, LNG bunkering, offshore wind energy, etc.

ZTF SLRN - 2020

News: In a first, scientists have witnessed a bloated star in our own galaxy swallowing a planet.

Background:

- The researchers used the Zwicky Transient Facility (ZTF) at Caltech's Palomar Observatory to spot the star rapidly become 100 times brighter, then figured out why this happened.

About:

- The Sun-like star, identified as ZTF SLRN-2020, gobbled up the entire hot gas-giant planet, nearly measuring in size that of Jupiter.
- The star is similar to our sun in size and composition and is located in our Milky Way galaxy about 12,000 light-years from Earth in the direction of the constellation Aquila.
- After running out of fuel in its core, the star began to grow in size, shrinking the gap with its neighbouring planet, eventually consuming it entirely.

Significance:

- Life cycles of stars have been well studied and understood. Older stars, eventually, ingest the nearby planets (like Mercury and Venus with respect to our Sun), too are scientifically known.
- Even Earth could face a similar fate five billion years from today. At the end of its life, the Sun will swell up to a size that will certainly be bigger than the present-day orbit of Earth. So nominally, the Earth would get engulfed when the Sun runs out of fuel in about 5 billion years.
- However, what had never been observed until now was the actual process of a dying star

consuming a planet. Now, this has finally happened.

ODF plus status

News: In a significant achievement, India's Ministry of Jal Shakti announced that **half of the nation's villages** have attained ODF Plus status under the Swachh Bharat Mission Gramin (SBM-G) Phase II.

What is ODF plus?

- An ODF Plus village not only maintains its Open Defecation Free (ODF) status but also implements either solid or liquid waste management systems.
- Among the top-performing states are Telangana, Karnataka, Tamil Nadu, and Uttar Pradesh, with Goa and Sikkim leading the way among smaller states.
- All Union Territories of Andaman & Nicobar Islands, Dadra Nagar Haveli & Daman Diu, and Lakshadweep boast 100% ODF Plus Model villages.



What was key focus areas under Phase II?

- Phase II focuses on sustaining ODF status, managing solid waste, plastic waste, and liquid waste, as well as promoting GOBARdhan, Information Education and Communication/Behavior Change Communication (IEC/BCC), and capacity building.
- Regarding plastic waste management, 831 plastic waste management units and 1,19,449 waste collection & segregation sheds have been established. **Cleaned and shredded plastic** is used in road construction or as fuel in cement factories.
- Over **1 lakh gram panchayats** have passed resolutions **banning Single Use Plastic**.

Fluhorse

News: A new Android malware named 'FluHorse' has been discovered that targets users in Eastern Asia with fake carrier apps that mimic legitimate versions.

What is Android malware?

- Android malware is malicious software designed to target Android smartphones and tablets.
- Malware can come in various forms, such as trojan horses, viruses, and spyware, and can be distributed through various channels, such as malicious apps, phishing emails, and websites.
- The malicious apps are designed to extract sensitive information, including user credentials and Two-Factor Authentication (2FA) codes.

State Robotics Framework

News: **Telangana** has become the first state in the country to launch a state robotics framework with a vision to create a sustainable robotics ecosystem.

About:

- The framework intends to leverage robotics technology in key domains, including agriculture, healthcare, industrial automation, and consumer robotics.
- Long term goal is to become a leader in robotics and promote a sustainable robotics industry in Telangana.

i-Drone initiative

News: The Indian Council of Medical Research (ICMR) has successfully conducted a trial run of delivery of blood bags by drones under its i-Drone initiative.

About:

- The trial run, has been undertaken for the first time in the country by the ICMR.
- The inaugural trial flight carried 10 units of whole blood samples from the GIMS and LHMC in visual line of sight.
- The project 'i-DRONE' (ICMR's Drone Response and Outreach for North East) assessed the feasibility of using drone to deliver vaccines and medical supply. This was carried out in difficult geographical terrains including land, island, foothills and across the hills.
- The i-DRONE was first used during the COVID-19 pandemic by the ICMR for distributing vaccines to unreachable areas.

Poshan bhi, Padhai bhi

News: The Minister for Women and Child Development introduced the government's flagship program 'Poshan Bhi, Padhai Bhi'.



About:

- It will focus on **Early Childhood Care and Education (ECCE)** at **anganwadis** across the country.
- The Ministry has allocated Rs 600 crore for the training of Anganwadi Workers (AWW) to effectively implement ECCE.
- The National Institute of Public Cooperation and Child Development (NIPCCD) will provide the training for anganwadi workers.
- The objective of the program is to transform anganwadi centers into not just nutrition hubs but also education-imparting centers.
- Education in the program will be prioritized in the mother tongue, aligning with the principles of the New Education Policy.
- Through the changes introduced by the "Poshan bhi, Padhai bhi" ECCE policy, every child would be provided with at least two hours of high-quality pre-school instruction daily.

SAKSHAM LMIS

News: Recently, The Ministry of Health and Family Welfare has launched the SAKSHAM Learning Management Information System (LMIS).

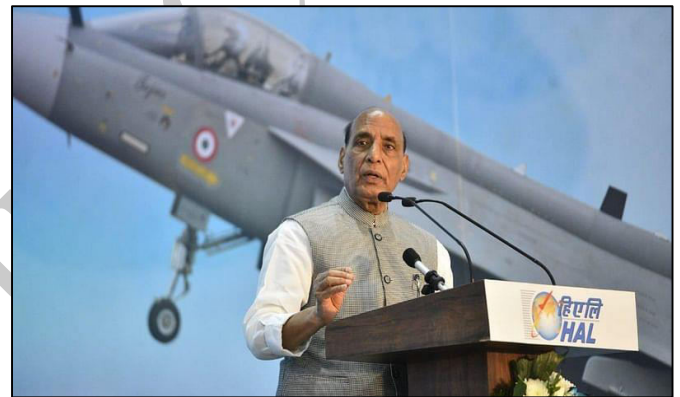
About:

- SAKSHAM stands for Stimulating Advanced Knowledge for Sustainable Health Management.

- It is developed by National Institute of Health & Family Welfare (NIHFW)
- It is a dedicated and unified platform for providing online training and medical education to all health professionals in the country.
- It ensures the inclusive capacity building of health professionals from primary health centres located in rural and remote areas up to tertiary care and corporate hospitals in metropolitan cities.

Positive Indigenization List

News: Recently, The Defence Ministry approved 4th Positive Indigenisation List for Defence Public Sector Undertakings (DPSU).



About:

- The positive indigenization list essentially lists items that the armed forces — Army, Navy, and Air Force — will procure **only from domestic manufacturers**.
- Procurement could be either from the private sector or Defense Public Sector Undertakings (DPSUs).
- The aim of the indigenisation list is to minimise imports by the defence public sector undertakings.
- The defence ministry has set specific timelines for import ban of the items, spanning the period from December 2023 to December 2028.
- This list is in continuation to the three similar PILs that were brought out in December 2021, March 2022 and August 2022.

Oil pipelines construction

News: According to recent report by Global Energy Monitor, India is among the top five countries developing oil pipelines.

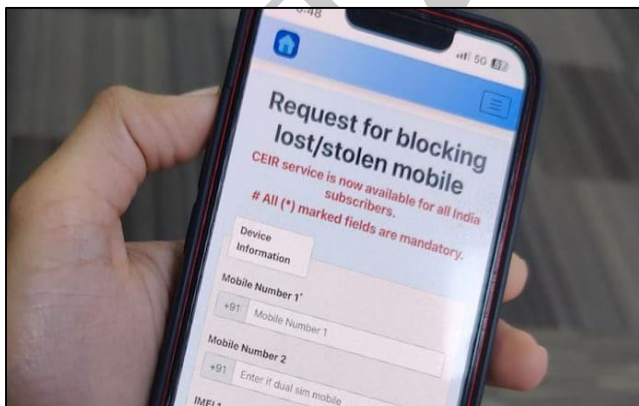
What is Global Energy monitor?

- It is a San Francisco-based non-governmental organization which catalogues fossil fuel and renewable energy projects worldwide.
- GEM shares information in support of clean energy and its data and reports on energy trends are widely cited by governments, media, and academic researchers.

Key Findings:

- India is constructing a 1,630 km long oil transmission pipeline, ranking second globally in the pipelines under construction category, and has proposed pipelines that are 1,194 km long, claiming the 10th spot.
- United States, India, Iraq, Iran, and Tanzania are leading countries in pipeline constructions.
- Paradip Numaligarh Crude Pipeline which is under construction and New Mundra–Panipat Oil Pipeline (proposed) will be among the longest oil pipelines in the world. (Identify the places on map)
- Several government initiatives to promote oil pipelines construction include Pradhan Mantri Urja Ganga Project, One Nation & One Gas Grid, City Gas Distribution Project.

CEIR System



News: Lost your phone? You need not worry anymore as The Centre is coming out with a new system that will allow the common man to block and track their lost mobile phones.

About:

- **Central Equipment Identity Register** is a tracking system to combat mobile phone theft and facilitate the blocking and tracking of lost or stolen mobile phones across the country.
- CEIR serves as a **central depository or database of International Mobile Equipment Identity (IMEI)** numbers, models, versions, and other details of mobile devices.
- **Centre for Department of Telematics (CDoT)** is implementing body and the system is ready for Pan-India deployment.

Key Features:

- It has an in-built mechanism to detect cloned mobile phones, access to International Mobile Equipment Identity (IMEI) number and associated mobile number, it prevents revenue loss to the government and it mandates disclosure of IMEI number prior to mobile device sale. It can block unauthorized mobile phones on telecom networks.

Why the Centre is allowing the common man to block and track their lost phones?

- The basic purpose of CEIR is to ease reporting of stolen and lost mobiles and block the use of mobiles all over the country. This will discourage the theft of mobile phones, enable the tracing of the stolen and lost mobiles to the police, detection of cloned or counterfeit mobiles, restrict the use of such cloned mobiles, as well as protect the interest of the consumers by making them aware of the information related to fake and cloned mobile phones.

Mpox

News: Recently, The WHO announced that Mpox, earlier called as monkeypox, no longer constitutes a global health emergency. Also, Covid-19 no longer represents global health emergency.

What is Mpox?

- Mpox is a **viral zoonotic disease** with symptoms similar to smallpox, but less severe.
- People with mpox often get a rash that may be located on hands, feet, chest, face, or mouth. The rash will go through several stages, including scabs, before healing.
- Other symptoms – Fever, Chills, Swollen lymph nodes, Exhaustion, Muscle aches and backache.

Greenwashing Techsprint

News: The Reserve Bank of India (RBI) has joined forces with the Global Financial Innovation Network (GFIN) to participate in the Greenwashing TechSprint.

About:

- GFIN's 1st ever Greenwashing TechSprint brings together 13 international regulators, (including RBI), along with firms and innovators to address the priority of Environmental, Social, and Governance (ESG) issues and mitigate the risks of greenwashing in financial services.
- The objective of TechSprint is to develop a tool that can help regulators and the market effectively tackle the deceptive practice of greenwashing.

What is Greenwashing?

- It is practice of making exaggerated, misleading, or unsubstantiated claims about the environmental benefits of a product, service, or investment opportunity. Greenwashing can mislead investors and consumers and harm the overall goal of promoting sustainable finance.

Meri LiFE app



News: The MoEFCC has launched a mobile application called "Meri LiFE" (My Life) to mobilize youth for climate change ahead of World Environment Day on 5th June.

About:

- The app will showcase the power of citizens, especially **young people** in saving the environment.
- The app will showcase that simple actions in daily lives can have a larger climate impact.

Samudra Shakti-23

News: The 4th edition of the India-Indonesia Bilateral exercise, Samudra Shakti-23, is scheduled from 14-19 May 2023.

About:

- Exercise 'Samudra Shakti' was conceived in 2018 as a bilateral Indian Navy-Indonesian Navy exercise in pursuance of India's Act East Policy.
- The exercise has matured in complexity over the last three editions and involves the conduct of complex maritime operations including **Military Interdiction Operations (MIO)**, Cross Deck Landings, Air Defence serials, Practice Weapon Firings, Replenishment Approaches and Tactical Manoeuvres.
- The 3rd edition of 'Samudra Shakti' was conducted off the approaches to Sunda Strait, Indonesia in September 2021.

Data Governance Quality Index

News: Recently, The Data Governance Quality Index (DGQI) was released by Niti Aayog.

What is DGQI?

- It is conducted by Development Monitoring and Evaluation Office (DMEO), NITI Aayog
- The DGQI survey aims to measure the maturity level of administrative data systems and their use in decision-making of various Ministries and Departments on the implementation of Central Sector Schemes (CS) and Centrally Sponsored Schemes (CSS).
- The DGQI assessment encompasses six pivotal themes, including Data Generation, Data Quality, Use of Technology, Data Analysis, Use and Dissemination, Data Security and HR Capacity, and Case Studies.

Key Findings:

- The Ministry of Ports, Shipping and Waterways has scored 4.7 out of 5 and excelled in data governance.
- The National Technology Centre for Ports, Waterways, and Coasts at IIT Madras has assisted the ministry to improve the management information system.

Baobab Trees

News: The Madhya Pradesh government has decided that the forest department cannot grant permission for the translocation of Baobab trees in Dhar, after the protest from Bhil tribes. It was stated that only State biodiversity board can do it.



About:

- They are **deciduous trees** found in mainland Africa, Madagascar, and Australia. They have barrel-like trunks and can live up to 2,000 years, and are known for their extraordinary longevity.
- It is Africa's "**Iconic Tree of Life**"

Key Features:

- The bark can be turned into rope and clothing, the seeds can be used to make cosmetic oils, the leaves are edible, the trunks can store water and the fruit is extraordinarily rich in nutrients and antioxidants. Women in Africa have turned to the baobab fruit as a natural source of health and beauty for centuries.
- Baobab is the **only fruit** in the world that **dries naturally on its branch**. Instead of dropping and spoiling, it stays on the branch and bakes in the sun for 6 months - transforming its green velvety coating into a hard coconut-like shell.

Aadhar-enabled Payment System

News: Scammers are reportedly using leaked biometric details (silicone thumbs), bypassing the need for OTPs, to siphon money from users' bank accounts.

About:

- Aadhaar-enabled Payment Services (AePS) is a bank-led model, which allows online financial transactions at Point-of-Sale (PoS) and Micro

ATMs through the business correspondent of any bank using Aadhaar authentication.

- The model removes the need for OTPs, bank account details, and other financial details.
- It allows fund transfers using only the bank name, Aadhaar number, and fingerprint captured during Aadhaar enrolment, according to the National Payments Corporation of India (NCPI).

Women empowerment - The Khasi way

News: Recently, The Khasi Hills Autonomous District Council (KHADC) ordered not to issue a Scheduled Tribe certificate to any Khasi person who adopts their father's surname.

About:

- The matrilineal system amongst Khasis refers to a social and kinship system where descent and inheritance are traced through the female line.
- In this system, family lineage, property, and clan membership are passed down from mother to daughter. Among Khasis, the youngest daughter (khatduh) of the family is entrusted the full share of the ancestral - or the clan's - property
- The three tribes of Meghalaya Khasis, Jaintias, and Garos practise a matrilineal system of inheritance.

Kiru Hydro Electric Power Project

News: The CBI recently searched some locations in connection with corruption involved in civil works of Kiru hydro-electric power project.

About:

- It is being developed over the **Chenab River** near the villages of Patharnakki and Kiru in **Kishtwar** district, **Jammu and Kashmir** (J&K).
- It is located between **Kirthai II** hydroelectric project to its upstream and **Kwar hydroelectric** project to its downstream.
- J&K, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Uttaranchal, Rajasthan, Union territories of Chandigarh & Delhi are the states/UT's to benefit from the project.
- It is a 624MW run-of-river project.

iDEX

News: Innovations for Defence Excellence (iDEX) recently reached a milestone with the signing of the 250th contract, the first one under the Mission DefSpace.

What is iDEX?

- It is the flagship initiative of the **Ministry of Defence (MoD)**.
- It aims to **achieve self-reliance and foster innovation and technology development in Defence and Aerospace** by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia.
- iDEX has partnered with leading incubators in the country to provide handholding, technical support and guidance to the winners of iDEX challenges.
- iDEX will be funded and managed by a 'Defence Innovation Organization (DIO)' which has been formed as a 'not for profit company as per Section 8 of the Companies Act 2013 by the two founder members, i.e. Defence Public Sector Undertakings (DPSUs) - HAL & BEL.
- iDEX will function as the executive arm of DIO, carrying out all the required activities, while DIO will provide high-level policy guidance to iDEX.
- Under iDEX, financial support is provided to Start-ups/MSMEs/individual innovators and Partner Incubators through DIO.

What is Mission DefSpace?

- Launched by the PM Modi during DefExpo in October 2022, the goal of Mission DefSpace is to make India Atmanirbhar in **defence technologies in the space domain**.

Note – iDEX is one of the several initiatives taken by Government for Indigenization of Defence sector in India.

Patriot air Defense system

News: Ukrainian forces recently utilized a Patriot air defense system to neutralize Russia's 'unstoppable' 'Kinzhall hypersonic missile.

About:

- The Patriot, which stands for **Phased Array Tracking Radar for Intercept on Target**, is a theater-wide surface-to-air missile defense system built by Raytheon Technologies Corp (RTX.N) and considered one of the most

advanced air defense systems in the **U.S. arsenal**.

- The system was first used in combat during the 1991 Gulf War, with batteries protecting Saudi Arabia, Kuwait and Israel, and later used during the U.S. invasion of Iraq in 2003.
- It is a mobile system that usually includes powerful radar, a control station, a power generator, launch stations and other support vehicles.

Riverine based Religious Tourism Circuit

News: A memorandum of understanding was signed for a 'Riverine Based Religious Tourism Circuit' to connect seven historic temples, building on religious tourism in Northeast India.

About:

- The primary objective of the MoU is to establish a modern ferry service, operating on a 'Hop-On Hop-Off' mode, to connect seven historically significant temples situated on the banks of the Brahmaputra.
- These sites include **Kamakhya, Pandunath, Ashwaktanta, Doul Govinda, Umananda, Chakreshwar, and Auniti Satra**.
- Funding will be shared between the Sagarmala Development Corporation Limited (SDCL), Inland Waterways Authority of India (IWAI), and Assam Tourism Development Corporation (ATDC).

Hysterectomy

News: The Ministry of Health has communicated with all relevant parties, urging them to collaborate in addressing the issue of unnecessary hysterectomies performed by specific medical institutions.

About:

- Hysterectomy is a surgical procedure to remove the uterus, and sometimes surrounding organs and tissues. There are 3 types of Hysterectomy:
- Total hysterectomy - The entire uterus, including the cervix, is removed. The ovaries and fallopian tubes may or may not be removed along with the uterus.
- Partial hysterectomy - This surgery involves removing the upper part of the uterus while leaving the cervix intact.

- Radical hysterectomy - It involves the removal of the uterus, cervix, the upper part of the vagina, and nearby tissues, such as lymph nodes.
- These procedures may be done through the vagina (with no incisions in the abdomen) or through an incision (cut) in the abdomen.
- The procedure is carried out under the Rashtriya Swasthya Bima Yojana as well as other government schemes related to healthcare.

Sanchar Saathi Portal

News: Ministry of Communications has launched the Sanchar Saathi portal, which aims to enhance the safety and security of mobile phone users in India.

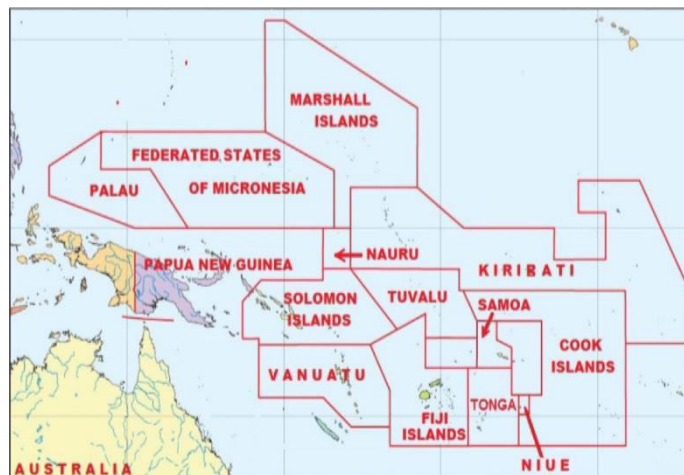


About:

- Developed by Department of Telecom, the portal aims to prevent frauds such as identity theft and banking fraud.
- Over 40 lakh fraudulent connections have been identified and 36 lakhs disconnected through the portal. Disconnected numbers have been shared with financial institutions and social media platforms for further action.
- The portal includes 3 reforms - CEIR for blocking stolen/lost mobiles, Know Your Mobile Connections for checking registered connections and ASTR (Artificial Intelligence and Facial Recognition powered Solution for Telecom SIM Subscriber Verification) for identifying fraudulent subscribers.

FIPIC Summit

News: The third forum for India-Pacific islands co-operation (FIPIC Summit), which was held today at



Port Moresby was jointly hosted with Papua New Guinea. PM Modi co-chaired the summit.

Background:

- All Head of state/head of government of the above countries met in Suva, Fiji in November 2014 for the first time where the annual summit was conceptualised.

About:

- Forum for India-Pacific Islands cooperation (FIPIC) is a multinational grouping for cooperation between India and 14 Pacific Islands nations.
- It comprises 14 island nations which are Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu.
- The initiative marks a serious effort to expand India's engagement in the Pacific region.
- A major part of India's engagement with these countries is through development assistance under South-South Cooperation, mainly in capacity building (training, scholarships, grant-in-aid and loan assistance) and community development projects.

STARS program

News: Recently, **Ministry of Education** and **World Bank** organised a one of its kind workshop on School-to-Work Transition under the STARS Program in Mumbai.

About:

- **Strengthening Teaching-Learning and Results for States (STARS)** Project was approved by the Cabinet in October 2020 and

to be implemented as a centrally sponsored scheme.

- It is being implemented in six States **Himachal Pradesh, Maharashtra, Odisha, Rajasthan, Madhya Pradesh and Kerala**. These states will be supported for various interventions for improving the quality of education.
- The overall focus and components of the STARS project are aligned with the objectives of National Education Policy (NEP) 2020 of Quality Based Learning Outcomes.
- The STARS project also aims to focus on initiatives of PM e-Vidya, Foundational Literacy and Numeracy Mission and National Curricular and Pedagogical Framework for Early Childhood Care and Education as part of the Atmanirbhar Bharat Abhiyan.

INDUS-X

News: India and the U.S. are exploring the possibility of co-producing jet engines, long-range artillery, and infantry vehicles with the upcoming launch of INDUS-X.

What is INDUS-X?

- It is a major upcoming initiative under the **Initiative on Critical and Emerging Technologies (iCET)**, with the aim to promote partnerships and collaboration between the defence innovation ecosystems of both countries.
- INDUS-X is focused on advancing high-tech cooperation and exploring opportunities for joint research, development, and production in the defence sector.

About iCET:

- It was announced in 2021 and is spearheaded by the National Security Councils of both countries, to expand the India-US partnership for critical and emerging technologies.

Key areas of cooperation will include R&D, Quantum computing, Defence innovations, Space, 6G, Semiconductors, etc.

Operation Dhvast

News: NIA's Operation Dhvast was a nationwide operation targeting terrorists, gangsters, and drug smugglers. It involved raids at 129 locations across multiple states, resulting in three arrests.

About:

- The operation aimed to dismantle the terror nexus involved in targeted killings, terror funding, extortion, and smuggling of drugs and weapons.

Greater Flamingo



News: Recently, a greater flamingo was rescued from Najafgarh wetland, bordering Haryana.

About:

- Greater flamingo (*Phoenicopterus roseus*) is the **state bird of Gujarat**.
- They are mainly found in **shallow waters** of lagoons, lakes, estuaries, and muddy beaches. Of the six species of flamingos in the world, two are found in India: the tallest of them, the greater flamingo and the smallest one, the lesser flamingo (*Phoeniconaias minor*).
- They are taller, with black-tipped light pinkish beaks, yellowish eyes and pinkish-white body colour.
- IUCN Status – **Least Concern**

Bima Sugam Portal

News: The Insurance Regulatory and Development Authority of India (IRDAI) is pushing to implement two high tech projects - **Health Claims Exchange** and **Bima Sugam**, to **deepen insurance penetration** and **simplify** the claim procedures.

About:

- IRDAI is setting up the **Health Exchange platform**, which will **digitize** and **simplify** the process of filing health insurance claims.
- It will reduce the cost per claim to the insurer and enable automatic fund transfer of the claim amount.
- The proposed exchange will help insurers to have a unified platform for claims and policyholders' medical history, reducing the number of insurance frauds.
- NHA has invited contributors and developers from the open community to test, contribute

and become a participant in the Health Claims Exchange ecosystem.

- **Bima Sugam** is a revolutionary step with ambitions of becoming the largest online market for insurance products and services.

Forum Shopping

News: "I will not permit forum shopping", said Chief Justice of India (CJI) DY Chandrachud last week to a litigant appearing before him recently.

What is Forum Shopping?

- Forum shopping refers to the **practice of litigants or lawyers deliberately selecting a particular judge or court** where they believe the **judgment will be more favourable to their case**. This practice involves choosing a court that is likely to provide the most favourable outcome, rather than following the standard legal process.

Issues:

- It circumvents the normal course of justice and can lead to an imbalance in the workload of courts.
- The Supreme Court has condemned the practice and said it has no sanction in law and must be discouraged.
- It gives unfair advantage to one party and involves manipulating legal system.

National e-Vidhan Application

News: The Ministry of Parliamentary Affairs is organizing a two-day National Workshop on the National e-Vidhan Application (NeVA) in New Delhi.

About:

- NeVA is a workflow system deployed on the NIC Cloud, **MeghRaj**, designed to facilitate **smooth proceedings of the Parliament or State Assembly House** and efficient handling of legislative business in a **paperless manner**.
- It aims to eliminate the need for physical notices or data collection requests and brings all legislatures onto a single platform, creating a centralized data repository.
- It is a device-neutral and member-centric application that provides members with comprehensive information, such as **contact details, rules of procedure, a list of business, notices, bills, questions and answers, committee reports** directly on their **handheld devices or tablets**.

- The north eastern state of **Nagaland** created history by becoming the **first State Assembly** in the entire country to implement the National e-Vidhan Application (NeVA) programme to become **completely paperless**.

AIRAWAT

News: In a significant achievement for India's technological prowess, the country's AI supercomputer 'AIRAWAT' has secured the **75th position** in the prestigious Top 500 Global Supercomputing List. The announcement was made during the 61st edition of the **International Supercomputing Conference (ISC 2023)** held in Germany.

About AIRAWAT:

- Proof of Concept (PoC) AI Research Analytics and Knowledge Dissemination Platform (AIRAWAT) of 200 AI Petaflops Mixed Precision peak compute capacity is currently funded by MeitY and implemented by C-DAC, Pune.
- The AIRAWAT PoC of 200 AI Petaflops integrated with PARAM Siddhi – AI of 210 AI Petaflops gives a total peak compute of 410 AI Petaflops Mixed Precision and sustained compute capacity of 8.5 Petaflops (Rmax) Double Precision.
- The deployment of AIRAWAT will **empower academia, research labs, the scientific community, industry, and startups** to develop **indigenous AI-enabled products and solutions**, particularly for addressing India-specific challenges. This AI infrastructure will enable to achieve the vision envisaged under National Program on AI (NPAI)

Malaiyaha Community

News: Recently, The Malaiyaha Tamil community in Sri Lanka has released a declaration calling for greater recognition, political rights, and improved living and working conditions.

About:

- The Malaiyaha Tamil community refers to a historically marginalized group in Sri Lanka who migrated from southern India around 200 years ago to work in British-run plantations.

- They mainly work in tea and rubber estates, contributing significantly to Sri Lanka's foreign exchange earnings. Their population is roughly around 10 lakhs (out of which around 1.5 lakh people work in tea and rubber estates)

e-Sevanam Portal

News: Kerala's state government recently declared that the state had fully implemented e-governance.

About:

- The e-governance programme has created a single-window portal, e-Sevanam, to deliver 900 services.
- The e-office system has been implemented in the Secretariat, district collectorates, commissionerates and directorates, and the e-district project is being extended to taluk-level offices.
- In panchayats, 250 services are now being delivered online.
- Achieving total e-governance, where an entire spectrum of government services are digitised, is seen as a major step forward in the State's journey towards 100% digital literacy.

Cheetah Project Steering Committee

News: After the death of three cheetah cubs, the Centre appointed a new steering committee to oversee the implementation of Project Cheetah.

About:

- It looks to monitor the progress of the cheetah reintroduction programme and advise the Madhya Pradesh Forest Department and the National Tiger Conservation Authority; b) To decide on opening up the cheetah habitat for eco-tourism and, c) Suggest regulations and ways to involve the local community in the project activities.
- The **11-member** Cheetah Project Steering Committee comprises national and international experts. Several of international experts have been involved in the cheetah translocation project from Namibia and South Africa.
- It will be led by **Rajesh Gopal**, secretary-general, Global Tiger Forum and closely associated with Project Tiger.
- The committee will be in force for **two years** and will convene **at least one meeting every**

month, besides conducting field visits to Kuno National Park.

Kheer Bhawani Mela

News: Union Home Minister Shah extended his wishes and congratulated Lieutenant Governor of Jammu and Kashmir, CAPFs, J&K Police and local administration on the successful completion of the Kheer Bhawani Mela.

About:

- Every year on the day of Jyeshtha Ashtami **Kashmiri Pandits** visits **Mata Ragneya Devi Temple** also known as Kheer Bhawani Temple to pay their obeisance.
- Kheer Bhawani is considered to be the deity of Kashmiri Pandits, who have a lot of recognition there. Over the years, the Kheer Bhawani Mela has become a symbol of communal harmony and brotherhood in Kashmir.
- Despite the challenges faced by the Kashmiri Pandit community, such as militant attacks, the Mela serves as a testament to their unwavering faith and determination to preserve their traditions.

Powassan Virus

News: Recently, a person in the US has died from the rare Powassan virus.

About:

- Powassan virus disease (POWV) is a rare but serious illness caused by the Powassan virus. It is often called a **ticking time bomb**. It is named after Powassan, Ontario where it was first discovered in 1958.
- It is spread to humans by the **bite of an infected deer tick, groundhog tick or squirrel tick**. Not all ticks carry these viruses and not all people bitten by a tick will get sick. A tick needs to be attached to a person for a certain length of time before it can cause disease.
- Symptoms - fever, headache, vomiting and weakness from one week to a month after being bitten. The other symptoms include Encephalitis (inflammation of the brain), Meningitis (inflammation of the membranes surrounding the brain and spinal cord).
- There is no specific vaccine or medication. People will be advised to take some preventive measures when they are outdoors.

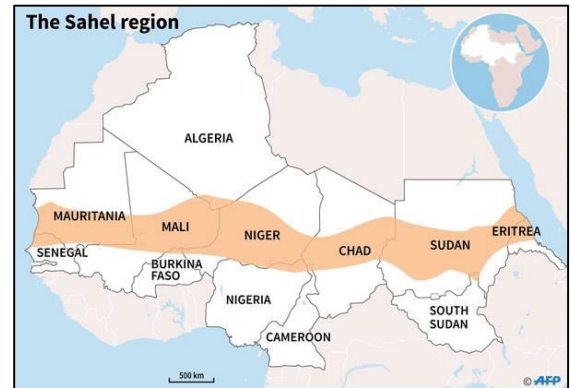
Places in News

SAHEL region

News: The region is in news due to war in Sudan and subsequent impact on supply of Gum Arabic.

About:

- The Sahel is the **ecoclimatic and biogeographic realm** of transition in Africa between the **Sahara to the north** and the **Sudanian savanna to the south**.
- Having a semi-arid climate, it stretches across the south-central latitudes of Northern Africa between the Atlantic Ocean and the Red Sea.
- The name is derived from the Arabic term for “coast, shore”; this is explained as being used in a figurative sense in reference to the southern edge of the vast Sahara.
- The Sahel part includes from west to east parts of northern Senegal, southern Mauritania, central Mali, northern Burkina Faso, the extreme south of Algeria, Niger, the extreme north of Nigeria, the extreme north of Cameroon and the Central African Republic, central Chad, central and southern Sudan, the extreme north of South Sudan, Eritrea and the extreme north of Ethiopia.



Tunganath Temple

News: The central government recently issued a notification declaring the ancient temple of Tunganath as a monument of national importance.

About:

- Located in **Rudraprayag District**, Uttarakhand it is the **highest Shiva temple** in the world nestled at an altitude of 3680 meters.
- It is one of the **Panch Kedars** and is believed to have belonged to an ancient era almost 1000 years old.
- It was built in the North Indian style of architecture and has a dozen shrines of other Gods surrounding the temple.

About Panch Kedars:

- Panch Kedar is a group of five sacred shrines of Lord Shiva located in the **Garhwal Himalayas, Uttarakhand**.
- The five temples are the Kedarnath Temple, the Tunganath Temple, the Rudranath Temple, the Madhyamaheshwar Temple or Madmaheshwar and the Kalpeshwar Temple.

Coco Islands

News: Amid recent reports of suspicious infrastructure upgrades at Myanmar's Coco Islands, a MQ-9 drone leased by the Indian Navy was seen reconnoitering the nearby areas of Andaman and Nicobar Islands.

About:

- The Coco Islands are a part of Yangon region of Myanmar. The islands are located 414 km south of Yangon. They are a group of 5 islands-



4 on Great Coco Reef and another solitary island of Little Coco Reef.

- It is geologically an extended division of the Arakan Mountains or Rakhine Mountains, submerges as a chain of islands in the Bay of Bengal for a long stretch and emerges again in the form of the Andaman and Nicobar Islands.
- They are part of the same topography as India's Andaman & Nicobar Islands.

Concerns for India:

- There are a huge number of Chinese military technology and men based on these islands. The presence of the Coco islands is a way for Chinese Blue Water Navy to become a reality. It is a part of China's plan to encircle India through Arabian Sea, Bay of Bengal and Indian Ocean.

Katepurna Wildlife Sanctuary

News: A total of 309 wildlife and birds were spotted at the recent Nature Experience Initiative (Animal Census) carried out at Katepurna Wildlife Sanctuary.

About:

- Located in Akola District of Maharashtra, the Sanctuary area is the catchment of Katepurna Reservoir, and it forms an aquatic habitat for many floral and faunal species.
- The sanctuary derives its name from the **Katepurna River**.
- Fauna – Famous for four-horned antelope and barking deer. Others include, black buck, leopard, wild boar, hyena.
- Vegetation – Southern tropical dry deciduous forests.

Gaza Strip

News: The recent air strikes by Israel in the Gaza strip have killed 13 Palestinians.

About:

- The Gaza Strip is a **Palestinian enclave on the eastern coast of the Mediterranean Sea**.
- It borders **Egypt on the southwest** for 11 kilometers (6.8 mi) and **Israel on the east and north** along a 51 km (32 mi) border.
- The Gaza Strip and the West Bank are claimed by the de jure sovereign State of Palestine.
- The territories of Gaza and the West Bank are separated from each other by Israeli territory.
- Both fell under the jurisdiction of the Palestinian Authority, but the Strip has, since the Battle of Gaza in June 2007, been governed by Hamas, a militant, Palestinian, fundamentalist Islamic organization, which came to power in the last-held elections in 2006. It has been placed under an Israeli and US-led international economic and political boycott from that time onwards.



Palak Wetland

News: A nature walk was organised along the Palak Lake, Aizawl, Mizoram.

About:

- Palak lake is the **largest lake** in Mizoram and most famous landmark of Mara Autonomous District Council. The local people call it Pala Tipa.

- Palak Dil or Pala Tipo (Mara language for "swallowing lake") is located near Phura village in Saiha district. Its geographical location falls under the **Indo-Burma biodiversity hotspot**, and is therefore rich in animal and plant species.
- The lake is a major component of the Palak Wildlife Sanctuary and it supports the major biodiversity of the sanctuary.

Rasht-Astara railway

News: Russian President Vladimir Putin and Iranian leader Ebrahim Raisi witnessed the signing of a deal to finance and build an Iranian railway line as part of the North-South Transport Corridor that involves more than a dozen countries.



About:

- The Rasht-Astara railway is seen as an important link in the corridor, intended to connect India, Iran, Russia, Azerbaijan and other countries by rail and sea. Russia said the project can rival the Suez Canal as a trade route.
- The unique North-South transport artery, of which the Rasht-Astara railway will become a part, will help to significantly diversify global traffic flows.
- The 162km railway along the Caspian Sea coast would help to connect Russian ports on the Baltic Sea with Iranian ports in the Indian Ocean and the Arabian Gulf.

Burachapori Wildlife Sanctuary

News: Assam govt to open traditional path of wild animals from Kaziranga to Orang National Park via Burachapori Sanctuary.

About:

- Bura Chapori Wildlife Sanctuary is geographically located on the south bank of the Brahmaputra.
- It is a part of the **Laokhowa-Burachapori** eco-system and comprises of a mosaic of wet alluvial grassland, riparian and semi-evergreen forests dotted by wetland and river systems.
- The sanctuary is home to the Great Indian one-horned rhinoceros, tiger, leopard, wild buffalo, hog deer, wild pig, and elephants.
- The bird's includes the highly endangered Bengal Florican, Black-necked Stork, Mallard, Open billed Stork, Teal, and Whistling Duck among others.

Bakhmut

News: Bakhmut, in Ukraine's Donetsk province, has been the scene of heavy battle between Russian and Ukrainian forces for more than nine months.

About:

- Bakhmut is a small mining town in Eastern Ukraine with a pre-war population of 70,000-80,000.
- It does not have any militarily important industry or strategic location, but is proximate to multiple important roads which may have strategic value to the Russian advance.
- Its significance is more symbolic than anything else, as it was a political choice to gain a victory after months of sending their army in an offensive.
- Moscow needs to capture Kramatorsk and Sloviansk to complete its "liberation" of Donetsk, and Bakhmut could help them advance in Chasiv Yar.



Papua New Guinea

News: The PM recently visited PNG island.

About:

- The Independent State of Papua New Guinea is a country in Oceania that comprises the eastern half of the island of New Guinea and its offshore islands in Melanesia (a region of the southwestern Pacific Ocean north of Australia).
- Its capital, located along its southeastern coast, is **Port Moresby**. The country is the world's third largest island country.
- It is bounded by the Pacific Ocean to the north, the Bismarck and Solomon seas to the east, the Coral Sea and Torres Strait to the south, and the Arafura Sea to the southwest.

About Bougainville Island:

- Bougainville is an **autonomous region** in Papua New Guinea. The largest island is Bougainville Island, while the region also includes Buka Island and a number of outlying islands and atolls.
- The leaders and people want independence for the Island but it is pending ratification by the PNG government.
- Important places within the region that you should know – **Panguna mine, Buka island, Arawa.**



Niti Pass

News: Sources in the defence and security establishment recently confirmed that the Chinese side has been realigning and building a new link road and helipads at Sarang, Poling Jindu, which is opposite to India's Niti Pass.

About:

- It is an international high mountain pass at an elevation of 5.086m located on the border of India and China.
- It connects **Uttarakhand and southern Tibet** and was an ancient trade route between India and Tibet.
- It has remained closed since the 1962 China Sino-Indian War.

About Niti Valley:

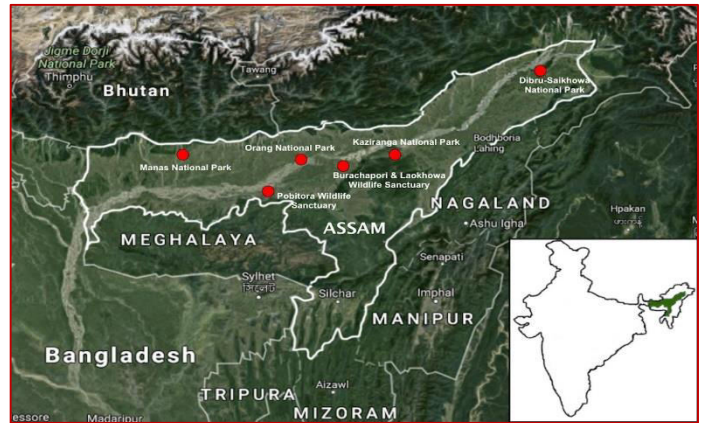
- It is a remote valley located in the northernmost region of Garhwal Himalayas in Chamoli district of Uttarakhand.
- The valley's major river is the Dhauliganga which flows south-southwest.
- The region falls within the Nanda Devi Biosphere Reserve.

Pobitora Wildlife Sanctuary

News: The Supreme Court has issued notices to the Ministry of Environment and Forests and the Assam government in response to a plea seeking the declaration of the area around Pobitora Wildlife Sanctuary in Assam as an eco-sensitive zone.

About:

- Pobitora Wildlife Sanctuary is known for holding the **highest density of Greater One Horned Rhinoceros** in the country.
- The Sanctuary consists of the **Rajamayong Reserve Forest** and **Pobitora Reserve Forest**. The Rajamayong hills harbor several species including Leopard, Capped Langur, Porcupine, Pangolin, etc.
- The Grasslands of Pobitora offer sightings of the Greater One Horned Rhinoceros, Wild Water Buffalo, Monitor Lizard, Wild Boar, etc. Also, over 375 species of birds are seen here making it a birder's paradise.
- Approximately 72% of the sanctuary is covered by wet savannah dominated by *Arundo donax* and *Saccharum*, while the rest consists of water bodies.
- It is also referred to as 'Mini Kaziranga'



Son Gharial WS

News: Recently, The National Green Tribunal has imposed a fine of Rs 15.96 crore on two private firms engaged in mining activities near River Son in Sonbhadra district of Uttar Pradesh.

Background:

- The Tribunal's order said that part of the River Son in Madhya Pradesh has been declared the Son Gharial Wildlife Sanctuary and "certain area has been further declared as 'ESZ' (eco-sensitive zone)

About:

- Son Gharial Sanctuary was established under Project Crocodile for Gharial conservation and population growth. An altogether length of 210 km encompassing lengths of 161 km of **Son river**, 23 km of **Banas river**, and 26 km of **Gopad River** was declared as a sanctuary in 1981.
- **Sandy habitats** (such as Sand banks, riverine islands etc) are major habitats for many endangered species like Gharial, Indian Soft Shell Turtle (*Chitra Indica*), Indian Skimmer (*Rynchops albicollis*) etc.
- **IUCN Status** (Gharial) - **Critically Endangered.**



Kosovo-Serbia conflict

News: Tensions between Serbia and Kosovo flared anew this weekend after Kosovo's police raided Serb-dominated areas in the region's north and seized local municipality buildings.



What is the issue?

- Kosovo is a **mainly ethnic Albanian** populated territory that was **formerly a province of Serbia**. It declared independence in 2008.
- Serbia has refused to recognize Kosovo's statehood and still considers it part of Serbia, even though it has no formal control there.
- Kosovo's independence has been recognized by about 100 countries, including the United States. Russia, China and five European Union nations have sided with Serbia.

What is important from Prelims perspective?

- **Countries bordering Kosovo** - Serbia, Montenegro, North Macedonia and Albania. (Kosovo is a land-locked nation)
- Capital of Kosovo - Pristina
- Most of central Kosovo is dominated by the vast plains and fields of **Metohija** and the **Kosovo field**.
- Other important cities of Kosovo - Prizren, Peja, Gjakova, Mitrovica, Gjilani and Ferizaj.
- **Countries bordering Serbia** - Serbia borders Bulgaria to the east, Romania to the north-east, Hungary to the north, Croatia and Bosnia-Herzegovina to the west, Montenegro to the south-west and Albania and Macedonia to the south. (As per Serbian Foreign ministry website)
- Important cities in Serbia - Belgrade, Novi Pazar, Novi Sad, Nis, Subotica.

